U.S. AIR FORCE

Final

Volume III

ENVIRONMENTAL IMPACT STATEMENT APPENDICES: VOLUME 3, C to H

Moody Air Force Base Comprehensive Airspace Initiative

APRIL 2023

US Air Force Air Combat Command

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APPENDIX C. NOISE ANALYSIS RESULTS

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C-1. Department of the Air Force Land Use Compatibility Guidelines

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The Department of the Air Force guidelines for land use compatibility in aircraft noise zones is shown in the table below and are extracted from Appendix A of Air Force Instruction (AFI) 32-7063 dated 15 July 2015. These land use compatibility guidelines have been included for reference purposes (**Table A-1**).

Table A-1. Land Use Compatibility Guidelines

SLUCM NO.	LAND USE NAME	DNL 65-69	DNL 70-74	DNL 75-79	DNL 80-84	DNL 85+
10	Residential					
11	Household units	N1	N1	N	N	N
11.11	Single units: detached	N1	N1	N	N	N
11.12	Single units: semidetached	N1	N1	N	N	N
11.13	Single units: attached row	N1	N1	N	N	N
11.21	Two units: side-by-side	N1	N1	N	N	N
11.22	Two units: one above the other	N1	N1	N	N	N
11.31	Apartments: walk-up	N1	N1	N	N	N
11.32	Apartment: elevator	N1	N1	N	N	N
12	Group quarters	N1	N1	N	N	N
13	Residential hotels	N1	N1	N	N	N
14	Mobile home parks or courts	N	N	N	N	N
15	Transient lodgings	N1	N1	N1	N	N
16	Other residential	N1	N1	N	N	N
20	Manufacturing					
21	Food and kindred products; manufacturing	Y	Y2	Y3	Y4	N
22	Textile mill products; manufacturing	Y	Y2	Y3	Y4	N
23	Apparel and other finished products; products made from fabrics, leather, and similar materials; manufacturing	Y	Y2	Y3	Y4	N
24	Lumber and wood products (except furniture); manufacturing	Y	Y2	Y3	Y4	N
25	Furniture and fixtures; manufacturing	Y	Y2	Y3	Y4	N
26	Paper and allied products; manufacturing	Y	Y2	Y3	Y4	N
27	Printing, publishing, and allied industries	Y	Y2	Y3	Y4	N
28	Chemicals and allied	Y	Y2	Y3	Y4	N
29	Petroleum refining and related industries	Y	Y2	Y3	Y4	N
30	Manufacturing (continued)					
31	Rubber and misc. plastic products; manufacturing	Y	Y2	Y3	Y4	N
32	Stone, clay and glass products; manufacturing	Y	Y2	Y3	Y4	N
33	Primary metal products; manufacturing	Y	Y2	Y3	Y4	N
34	Fabricated metal products; manufacturing	Y	Y2	Y3	Y4	N
35	Professional scientific, and controlling instruments; photographic and optical goods; watches and clocks	Y	25	30	N	N
39	Miscellaneous manufacturing	Y	Y2	Y3	Y4	N
40	Transportation, communication and utilities					
41	Railroad, rapid rail transit, and street railway transportation	Y	Y2	Y3	Y4	N
42	Motor vehicle transportation	Y	Y2	Y 3	Y4	N
43	Aircraft transportation	Y	Y2	Y3	Y4	N
44	Marine craft transportation	Y	Y2	Y3	Y4	N

45	Highway and street right-of-way	Y	Y	Y	Y	N
46	Automobile parking	Y	Y	Y	Y	N
47	Communication	Y	255	305	N	N
48	Utilities	Y	Y2	Y3	Y4	N
49	Other transportation, communication and utilities	Y	255	305	N	N
50	Trade					
51	Wholesale trade	Y	Y2	Y3	Y4	N
52	Retail trade – building materials, hardware and farm equipment	Y	25	30	Y4	N
53	Retail trade – including shopping centers, discount clubs, home improvement stores, electronics superstores, etc.	Y	25	30	N	N
54	Retail trade – food	Y	25	30	N	N
55	Retail trade – automotive, marine craft, aircraft and accessories	Y	25	30	N	N
56	Retail trade – apparel and accessories	Y	25	30	N	N
57	Retail trade – furniture, home,	Y	25	30	N	N
58	Retail trade – eating and drinking establishments	Y	25	30	N	N
59	Other retail trade	Y	25	30	N	N
60	Services					
61	Finance, insurance and real estate services	Y	25	30	N	N
62	Personal services	Y	25	30	N	N
62.4	Cemeteries	Y	Y2	Y3	Y4,11	Y6,11
63	Business services	Y	25	30	N	N
63.7	Warehousing and storage	Y	Y2	Y3	Y4	N
64	Repair services	Y	Y2	Y3	Y4	N
65	Professional services	Y	25	30	N	N
65.1	Hospitals, other medical facilities	25	30	N	N	N
65.16	Nursing homes	N1	N1	N	N	N
66	Contract construction services	Y	25	30	N	N
67	Government services	Y1	25	30	N	N
68	Educational services	25	30	N	N	N
68.1	Child care services, child development centers, and nurseries	25	30	N	N	N
69	Miscellaneous Services	Y	25	30	N	N
69.1	Religious activities (including places of worship)	Y	25	30	N	N
70	Cultural, entertainment and recreational					
71	Cultural activities	25	30	N	N	N
71.2	Nature exhibits	Y1	N	N	N	N
72	Public assembly	Y	N	N	N	N
72.1	Auditoriums, concert halls	25	30	N	N	N
72.11	Outdoor music shells, amphitheaters	N	N	N	N	N
72.2	Outdoor sports arenas, spectator sports	Y	Y	N	N	N
73	Amusements	Y	Y	N	N	N
74	Recreational activities	Y	25	30	N	N
75	Resorts and group camps	Y	25	N	N	N
76	Parks	Y	25	N	N	N
79	Other cultural, entertainment and recreation	Y	25	N	N	N
80	Resource production and extraction					
81	Agriculture (except live- stock)	Y8	Y9	Y10	Y10,11	Y10,11

81.5-81.7	Agriculture-Livestock farming including grazing and feedlots	Y8	Y9	N	N	N
82	Agriculture related activities	Y8	Y9	Y10	Y10,11	Y10,11
83	Forestry activities	Y8	Y9	Y10	Y10,11	Y10,11
84	Fishing activities	Y	Y	Y	Y	Y
85	Mining activities	Y	Y	Y	Y	Y
89	Other resource production or extraction	Y	Y	Y	Y	Y

KEY:

SLUCM – Standard Land Use Coding Manual, U.S. Department of Transportation
Y (Yes)– Land use and related structures compatible without restrictions.
N (No) – Land use and related structures are not compatible and should be prohibited.

Y^X – Yes with restrictions. The land use and related structures generally are compatible. However, see note(s) indicated by the superscript.

N^X – No with exceptions. The land use and related structures are generally incompatible. However, see note(s) indicated by the superscript.

25, 30, or 35 – The numbers refer to noise level reduction (NLR) levels. NLR (outdoor to indoor) is achieved through the incorporation of noise attenuation into the design and construction of a structure. Land use and related structures are generally compatible; however, measures to achieve NLR of 25, 30, or 35 must be incorporated into design and construction of structures. However, measures to achieve an overall noise reduction do not necessarily solve noise difficulties outside the structure and additional evaluation is warranted. Also, see notes indicated by superscripts where they appear with one of these numbers.
DNL – Day-Night Average Sound Level.
CNEL – Community Noise Equivalent Level (normally within a very small decibel difference of DNL)
Ldn – Mathematical symbol for DNL.

NOTES:

1. General
   a. Although local conditions regarding the need for housing may require residential use in these zones, residential use is discouraged in DNL 65-69 and strongly discouraged in DNL 70-74. The absence of viable alternative development options should be determined and an evaluation should be conducted locally prior to local approvals indicating that a demonstrated community need for the residential use would not be met if development were prohibited in these zones. Existing residential development is considered as pre-existing, non-conforming land uses.
   b. Where the community determines that these uses must be allowed, measures to achieve outdoor to indoor NLR of at least 25 decibels (dB) in DNL 65-69 and 30 dB in DNL 70-74 should be incorporated into building codes and be considered in individual approvals; for transient housing, an NLR of at least 35 dB should be incorporated in DNL 75-79.
   c. Normal permanent construction can be expected to provide an NLR of 20 dB, thus the reduction requirements are often stated as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation, upgraded sound transmission class ratings in windows and doors, and closed windows year round. Additional consideration should be given to modifying NLR levels based on peak noise levels or vibrations.
   d. NLR criteria will not eliminate outdoor noise problems. However, building location, site planning, design, and use of berms and barriers can help mitigate outdoor noise exposure particularly from ground level sources. Measures that reduce noise at a site should be used wherever practical in preference to measures that only protect interior spaces.
2. Measures to achieve NLR of 25 must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.
3. Measures to achieve NLR of 30 must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.
4. Measures to achieve NLR of 35 must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.

5. If project or proposed development is noise sensitive, use indicated NLR; if not, land use is compatible without NLR.
6. Buildings are not permitted.
7. Land use is compatible provided special sound reinforcement systems are installed.
8. Residential buildings require an NLR of 25
9. Residential buildings require an NLR of 30.
10. Residential buildings are not permitted.
11. Land use that involves outdoor activities is not recommended, but if the community allows such activities, hearing protection devices should be worn when noise sources are present. Long-term exposure (multiple hours per day over many years) to high noise levels can cause hearing loss in some unprotected individuals.

C-2. Air Operational Data

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                        MOA SPECIFICATIONS

MOA name CORSAIR NORTH LOW MOA - 1000
     Lat        Long
    (deg)       (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR NORTH LOW MOA - 2000
     Lat        Long
    (deg)       (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR NORTH LOW MOA - 4000
     Lat        Long
    (deg)       (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
```

```
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR NORTH MOA
     Lat       Long
    (deg)      (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name CORSAIR SOUTH LOW MOA - 1000
     Lat       Long
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR SOUTH LOW MOA - 2000
     Lat       Long
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR SOUTH LOW MOA - 4000
     Lat       Long
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR SOUTH MOA
     Lat       Long
```

```
   (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name GRAND BAY MOA AND R3008C
     Lat        Long
   (deg)      (deg)
  31.06694   -83.01666
  30.85027   -83.01666
  30.85027   -83.13333
  30.89194   -83.14999
  30.90861   -83.10000
  31.02527   -83.09999
  31.03361   -83.14999
  31.06694   -83.13333
  31.06694   -83.01666
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name HAWG NORTH MOA
     Lat        Long
   (deg)      (deg)
  31.38306   -83.16111
  30.95028   -83.14139
  30.95028   -82.64999
  31.21695   -82.64999
  31.31140   -82.74305
  31.38306   -83.16111
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name HAWG SOUTH MOA
     Lat        Long
   (deg)      (deg)
  30.95028   -83.14139
  30.60583   -83.12556
  30.58361   -82.64972
  30.95028   -82.64999
  30.95028   -83.14139
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name LATN
     Lat        Long
   (deg)      (deg)
  32.06279   -83.90001
  31.50029   -84.10001
  30.63362   -83.71666
  30.60583   -83.12556
```

```
  31.38306   -83.16111
  32.06279   -83.48334
  32.06279   -83.90001
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name MOODY 2 NORTH MOA
     Lat        Long
    (deg)       (deg)
  30.95028   -83.01666
  30.95028   -82.64999
  31.02667   -82.64999
  31.23362   -82.81666
  31.30028   -82.85000
  31.35028   -83.01666
  30.95028   -83.01666
Floor =     500 feet AGL     Ceiling =    8000 feet AGL

MOA name MOODY 2 NORTH MOA - 100
     Lat        Long
    (deg)       (deg)
  30.95028   -83.01666
  30.95028   -82.64999
  31.02667   -82.64999
  31.23362   -82.81666
  31.30028   -82.85000
  31.35028   -83.01666
  30.95028   -83.01666
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name MOODY 2 SOUTH MOA
     Lat        Long
    (deg)       (deg)
  30.95028   -83.01666
  30.60305   -83.01666
  30.58361   -82.64999
  30.95028   -82.64999
  30.95028   -83.01666
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name MUSTANG LOW MOA - 1000
     Lat        Long
    (deg)       (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL
```

```
MOA name MUSTANG LOW MOA - 2000
     Lat        Long
    (deg)       (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name MUSTANG LOW MOA - 4000
     Lat        Long
    (deg)       (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name MUSTANG MOA
     Lat        Long
    (deg)       (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name R3008AB
     Lat        Long
    (deg)       (deg)
  30.89194   -83.14999
  30.90861   -83.10000
  31.02527   -83.09999
  31.03361   -83.14999
  30.98694   -83.16669
  30.95997   -83.18475
  30.94738   -83.16674
  30.89194   -83.14999
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name R3008C
     Lat        Long
    (deg)       (deg)
  31.06694   -83.01666
```

```
  30.85027   -83.01666
  30.85027   -83.13333
  30.89194   -83.14999
  30.90861   -83.10000
  31.02527   -83.09999
  31.03361   -83.14999
  31.06694   -83.13333
  31.06694   -83.01666
Floor =     500 feet AGL     Ceiling =    8000 feet AGL

MOA name SABRE MOA
     Lat       Long
    (deg)      (deg)
  31.68751   -84.03334
  31.50029   -84.10001
  31.33334   -83.56390
  30.61666   -83.35555
  30.60583   -83.12556
  31.38306   -83.16111
  31.49445   -83.38334
  31.68751   -84.03334
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name THUD LOW MOA
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  32.08363   -83.73751
  32.06279   -83.90001
  31.68751   -84.03334
  31.56834   -83.63195
  32.07196   -83.59445
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name THUD MOA
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  32.08363   -83.73751
  32.06279   -83.90001
  31.68751   -84.03334
  31.56834   -83.63195
  32.07196   -83.59445
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name WARHAWK LOW MOA - 1000
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
```

```
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL

MOA name WARHAWK LOW MOA - 2000
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name WARHAWK LOW MOA - 4000
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name WARHAWK MOA
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL


                  SPECIFIC POINT SPECIFICATION
Number of Specific points = 11
 Latitude    Longitude       Name
  31.21328   -83.74600     CORSAIR N POI
  30.81517   -83.60754     CORSAIR S POI
  31.10161   -82.86792     MOODY2N POI
  30.76693   -82.84566     MOODY2S POI
  31.74683   -83.49074     MUSTANG POI
  30.95783   -83.16461     R3008A POI
  30.95604   -83.12070     R3008B POI
  30.94930   -83.05738     R3008C POI
  31.32796   -83.38621     SABRE POI
  31.85989   -83.76024     THUD POI
  31.58464   -83.20150     WARHAWK POI
```

```
                         MISSION DATA
Mission name = CORSAIR N  - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N  - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N  - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N - EXISTING - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N - EXISTING - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N - EXISTING - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0
```

```
Mission name = CORSAIR N - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S  - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S  - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S  - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S - EXISTING - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S - EXISTING - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S - EXISTING - A29_3
```

```
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
```

```
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =     93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =     97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =     80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = LATN - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =     86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = LATN - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =     93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0
```

```
Mission name = LATN - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = LATN - EXISTING - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0

Mission name = LATN - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0

Mission name = LATN - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0

Mission name = LATN - EXISTING - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
```

```
       100          1000        25.0
      1000          3000        70.0
      3000          5000         5.0


Mission name = LATN - EXISTING - H60_2
Aircraft code =FM6210101  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100          1000        25.0
      1000          3000        70.0
      3000          5000         5.0


Mission name = LATN - EXISTING - H60_3
Aircraft code =FM6210101  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100          1000        25.0
      1000          3000        70.0
      3000          5000         5.0


Mission name = MOODY 2N - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500          1000         5.0
      1000          3000         5.0
      3000          5000        30.0
      5000          8000        60.0


Mission name = MOODY 2N - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500          1000         5.0
      1000          3000         5.0
      3000          5000        30.0
      5000          8000        60.0


Mission name = MOODY 2N - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
```

Lower Alt (feet AGL)	Upper Alt (feet AGL)	Percent Utilization
500	1000	5.0
1000	3000	5.0
3000	5000	30.0
5000	8000	60.0

Mission name = MOODY 2N - EXISTING - A29
Aircraft code =FM0870100 Speed = 120 kias Power = 30.0

Altitude Distribution

Lower Alt (feet AGL)	Upper Alt (feet AGL)	Percent Utilization
500	1000	5.0
1000	3000	5.0
3000	5000	30.0
5000	8000	60.0

Mission name = MOODY 2N - EXISTING - A29_2
Aircraft code =FM0870101 Speed = 180 kias Power = 55.0

Altitude Distribution

Lower Alt (feet AGL)	Upper Alt (feet AGL)	Percent Utilization
500	1000	5.0
1000	3000	5.0
3000	5000	30.0
5000	8000	60.0

Mission name = MOODY 2N - EXISTING - A29_3
Aircraft code =FM0870102 Speed = 220 kias Power = 100.0

Altitude Distribution

Lower Alt (feet AGL)	Upper Alt (feet AGL)	Percent Utilization
500	1000	5.0
1000	3000	5.0
3000	5000	30.0
5000	8000	60.0

Mission name = MOODY 2N - EXISTING - C130
Aircraft code =FM0290400 Speed = 150 kias Power = 800.0

Altitude Distribution

Lower Alt (feet AGL)	Upper Alt (feet AGL)	Percent Utilization
500	1000	5.0
1000	3000	15.0
3000	5000	30.0
5000	8000	50.0

```
Mission name = MOODY 2N - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0

Mission name = MOODY 2N - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0

Mission name = MOODY 2N - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        10.0
      5000         8000        80.0

Mission name = MOODY 2N - EXISTING - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000        25.0
      1000         3000        70.0
      3000         5000         5.0

Mission name = MOODY 2N - EXISTING - H60_2
Aircraft code =FM6210102  Speed =  100 kias  Power =     0.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
```

```
       500          1000         25.0
      1000          3000         70.0
      3000          5000          5.0


Mission name = MOODY 2N - EXISTING - H60_3
Aircraft code =FM6210101  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500          1000         25.0
      1000          3000         70.0
      3000          5000          5.0


Mission name = MOODY 2S - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500          1000          5.0
      1000          3000          5.0
      3000          5000         30.0
      5000          8000         60.0


Mission name = MOODY 2S - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500          1000          5.0
      1000          3000          5.0
      3000          5000         30.0
      5000          8000         60.0


Mission name = MOODY 2S - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500          1000          5.0
      1000          3000          5.0
      3000          5000         30.0
      5000          8000         60.0


Mission name = MOODY 2S - EXISTING - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
```

```
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2S - EXISTING - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2S - EXISTING - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2S - EXISTING - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = MOODY 2S - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
```

```
      5000        8000        50.0


Mission name = MOODY 2S - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
      5000         8000         50.0


Mission name = MOODY 2S - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000          5.0
      3000         5000         10.0
      5000         8000         80.0


Mission name = MOODY 2S - EXISTING - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         25.0
      1000         3000         70.0
      3000         5000          5.0


Mission name = MOODY 2S - EXISTING - H60_2
Aircraft code =FM6210102  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         25.0
      1000         3000         70.0
      3000         5000          5.0


Mission name = MOODY 2S - EXISTING - H60_3
Aircraft code =FM6210101  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
```

```
       500         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MUSTANG  - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG  - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG  - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG  - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = R3008AB - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
```

```
        100        1000        5.0
       1000        3000        5.0
       3000        5000       30.0
       5000        8000       60.0


Mission name = R3008AB - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
        100        1000        5.0
       1000        3000        5.0
       3000        5000       30.0
       5000        8000       60.0


Mission name = R3008AB - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
        100        1000        5.0
       1000        3000        5.0
       3000        5000       30.0
       5000        8000       60.0


Mission name = R3008AB - EXISTING - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
        100        1000        5.0
       1000        3000        5.0
       3000        5000       30.0
       5000        8000       60.0


Mission name = R3008AB - EXISTING - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
        100        1000        5.0
       1000        3000        5.0
       3000        5000       30.0
       5000        8000       60.0
```

```
Mission name = R3008AB - EXISTING - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008AB - EXISTING - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = R3008AB - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = R3008AB - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = R3008AB - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
```

```
       1000         3000         5.0
       3000         5000        10.0
       5000         8000        80.0


Mission name = R3008AB - EXISTING - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
        100         1000        25.0
       1000         3000        70.0
       3000         5000         5.0


Mission name = R3008AB - EXISTING - H60_2
Aircraft code =FM6210102  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
        100         1000        25.0
       1000         3000        70.0
       3000         5000         5.0


Mission name = R3008AB - EXISTING - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
        100         1000        25.0
       1000         3000        70.0
       3000         5000         5.0


Mission name = R3008C - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
        500         1000         5.0
       1000         3000         5.0
       3000         5000        30.0
       5000         8000        60.0


Mission name = R3008C - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008C - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008C - EXISTING - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008C - EXISTING - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008C - EXISTING - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0
```

```
Mission name = R3008C - EXISTING - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500        1000          5.0
      1000        3000         15.0
      3000        5000         30.0
      5000        8000         50.0

Mission name = R3008C - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500        1000          5.0
      1000        3000         15.0
      3000        5000         30.0
      5000        8000         50.0

Mission name = R3008C - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500        1000          5.0
      1000        3000         15.0
      3000        5000         30.0
      5000        8000         50.0

Mission name = R3008C - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500        1000          5.0
      1000        3000          5.0
      3000        5000         10.0
      5000        8000         80.0

Mission name = R3008C - EXISTING - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
```

```
        500          1000         25.0
       1000          3000         70.0
       3000          5000          5.0


Mission name = R3008C - EXISTING - H60_2
Aircraft code =FM6210102  Speed =  110 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
        500          1000         25.0
       1000          3000         70.0
       3000          5000          5.0


Mission name = R3008C - EXISTING - H60_3
Aircraft code =FM6210101  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
        500          1000         25.0
       1000          3000         70.0
       3000          5000          5.0


Mission name = SABRE - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       8000         23000        100.0


Mission name = SABRE - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       8000         23000        100.0


Mission name = THUD - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       8000         23000        100.0


Mission name = THUD - EXISTING - A10_2
```

```
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = THUD - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = THUD - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = THUD - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = WARHAWK - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = WARHAWK - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = WARHAWK - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
```

```
           Lower Alt    Upper Alt     Percent
          (feet AGL)   (feet AGL)   Utilization
             8000         23000       100.0


       Mission name = WARHAWK - EXISTING - F18
       Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
                  Altitude Distribution
           Lower Alt    Upper Alt     Percent
          (feet AGL)   (feet AGL)   Utilization
             8000         23000       100.0


       Mission name = WARHAWK - EXISTING - F35
       Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
                  Altitude Distribution
           Lower Alt    Upper Alt     Percent
          (feet AGL)   (feet AGL)   Utilization
             8000         23000       100.0



                                 MOA OPERATION DATA
       MOA name = CORSAIR NORTH MOA
                                                                Daily
  Monthly               Yearly
          Mission                                           Day        Night        Day
  Night      Day          Night    Time On Range
          Name                                              OPS         OPS         OPS
   OPS       OPS          OPS       (minutes)
        CORSAIR N  - EXISTING - A10                        3.739       0.417      112.17
  12.50     1346.        150.        12.
        CORSAIR N  - EXISTING - A10_2                      3.739       0.417      112.17
  12.50     1346.        150.        42.
        CORSAIR N  - EXISTING - A10_3                      3.739       0.417      112.17
  12.50     1346.        150.         6.
        CORSAIR N - EXISTING - A29                         0.467       0.025       14.00
   0.75      168.          9.         8.
        CORSAIR N - EXISTING - A29_2                       0.467       0.025       14.00
   0.75      168.          9.        50.
        CORSAIR N - EXISTING - A29_3                       0.467       0.025       14.00
   0.75      168.          9.        25.
        CORSAIR N - EXISTING - F18                         0.619       0.033       18.58
   1.00      223.         12.        33.


       MOA name = CORSAIR SOUTH MOA
                                                                Daily
  Monthly               Yearly
```

```
        Mission                                               Day        Night        Day
Night       Day        Night    Time On Range
         Name                                                 OPS         OPS         OPS
 OPS        OPS         OPS       (minutes)
      CORSAIR S  - EXISTING - A10                            2.242       0.250       67.25
 7.50       807.        90.         12.
      CORSAIR S  - EXISTING - A10_2                          2.242       0.250       67.25
 7.50       807.        90.         42.
      CORSAIR S  - EXISTING - A10_3                          2.242       0.250       67.25
 7.50       807.        90.          6.
      CORSAIR S - EXISTING - A29                             1.389       0.072       41.67
 2.17       500.        26.          8.
      CORSAIR S - EXISTING - A29_2                           1.389       0.072       41.67
 2.17       500.        26.         47.
      CORSAIR S - EXISTING - A29_3                           1.389       0.072       41.67
 2.17       500.        26.         24.
      CORSAIR S - EXISTING - F18                             0.864       0.044       25.92
 1.33       311.        16.         30.


     MOA name = HAWG NORTH MOA
                                                                   Daily
Monthly               Yearly
        Mission                                               Day        Night        Day
Night       Day        Night    Time On Range
         Name                                                 OPS         OPS         OPS
 OPS        OPS         OPS       (minutes)
      HAWG N - EXISTING - A10                                7.850       0.872      235.50
26.17      2826.       314.         10.
      HAWG N - EXISTING - A10_2                              7.850       0.872      235.50
26.17      2826.       314.         35.
      HAWG N - EXISTING - A10_3                              7.850       0.872      235.50
26.17      2826.       314.          5.
      HAWG N - EXISTING - F18                                0.194       0.011        5.83
 0.33        70.         4.        116.


     MOA name = HAWG SOUTH MOA
                                                                   Daily
Monthly               Yearly
        Mission                                               Day        Night        Day
Night       Day        Night    Time On Range
         Name                                                 OPS         OPS         OPS
 OPS        OPS         OPS       (minutes)
      HAWG S - EXISTING - A10                                7.850       0.872      235.50
26.17      2826.       314.         10.
      HAWG S - EXISTING - A10_2                              7.850       0.872      235.50
26.17      2826.       314.         35.
      HAWG S - EXISTING - A10_3                              7.850       0.872      235.50
26.17      2826.       314.          5.
```

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
HAWG 5 - EXISTING - F18	0.194	0.011	5.83	0.33	70.	4.	116.

MOA name = LATN

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
LATN - EXISTING - A10	7.850	0.872	235.50	26.17	2826.	314.	2.
LATN - EXISTING - A10_2	7.850	0.872	235.50	26.17	2826.	314.	8.
LATN - EXISTING - A10_3	7.850	0.872	235.50	26.17	2826.	314.	1.
LATN - EXISTING - C130	1.419	1.336	42.58	40.08	511.	481.	3.
LATN - EXISTING - C130_2	1.419	1.336	42.58	40.08	511.	481.	24.
LATN - EXISTING - C130_3	1.419	1.336	42.58	40.08	511.	481.	3.
LATN - EXISTING - H60	2.961	0.786	88.83	23.58	1066.	283.	2.
LATN - EXISTING - H60_2	2.961	0.786	88.83	23.58	1066.	283.	25.
LATN - EXISTING - H60_3	2.961	0.786	88.83	23.58	1066.	283.	4.

MOA name = MOODY 2 NORTH MOA

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
MOODY 2N - EXISTING - A10	7.850	0.872	235.50	26.17	2826.	314.	4.
MOODY 2N - EXISTING - A10_2	7.850	0.872	235.50	26.17	2826.	314.	14.
MOODY 2N - EXISTING - A10_3	7.850	0.872	235.50	26.17	2826.	314.	2.
MOODY 2N - EXISTING - A29	1.850	0.097	55.50	2.92	666.	35.	16.
MOODY 2N - EXISTING - A29_2	1.850	0.097	55.50	2.92	666.	35.	52.
MOODY 2N - EXISTING - A29_3	1.850	0.097	55.50	2.92	666.	35.	18.

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
MOODY 2N - EXISTING - C130	0.378	0.356	11.33	10.67	136.	128.	3.
MOODY 2N - EXISTING - C130_2	0.378	0.356	11.33	10.67	136.	128.	24.
MOODY 2N - EXISTING - C130_3	0.378	0.356	11.33	10.67	136.	128.	3.
MOODY 2N - EXISTING - F18	1.400	0.075	42.00	2.25	504.	27.	43.
MOODY 2N - EXISTING - H60	1.972	0.525	59.17	15.75	710.	189.	8.
MOODY 2N - EXISTING - H60_2	1.972	0.525	59.17	15.75	710.	189.	124.
MOODY 2N - EXISTING - H60_3	1.972	0.525	59.17	15.75	710.	189.	18.

MOA name = MOODY 2 SOUTH MOA

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
MOODY 2S - EXISTING - A10	7.850	0.872	235.50	26.17	2826.	314.	4.
MOODY 2S - EXISTING - A10_2	7.850	0.872	235.50	26.17	2826.	314.	14.
MOODY 2S - EXISTING - A10_3	7.850	0.872	235.50	26.17	2826.	314.	2.
MOODY 2S - EXISTING - A29	1.911	0.100	57.33	3.00	688.	36.	16.
MOODY 2S - EXISTING - A29_2	1.911	0.100	57.33	3.00	688.	36.	52.
MOODY 2S - EXISTING - A29_3	1.911	0.100	57.33	3.00	688.	36.	18.
MOODY 2S - EXISTING - C130	0.378	0.356	11.33	10.67	136.	128.	3.
MOODY 2S - EXISTING - C130_2	0.378	0.356	11.33	10.67	136.	128.	24.
MOODY 2S - EXISTING - C130_3	0.378	0.356	11.33	10.67	136.	128.	3.
MOODY 2S - EXISTING - F18	1.369	0.072	41.08	2.17	493.	26.	43.
MOODY 2S - EXISTING - H60	1.972	0.525	59.17	15.75	710.	189.	8.
MOODY 2S - EXISTING - H60_2	1.972	0.525	59.17	15.75	710.	189.	124.
MOODY 2S - EXISTING - H60_3	1.972	0.525	59.17	15.75	710.	189.	18.

MOA name = MUSTANG MOA

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
MUSTANG - EXISTING - A10	3.450	0.383	103.50	11.50	1242.	138.	12.
MUSTANG - EXISTING - A10_2	3.450	0.383	103.50	11.50	1242.	138.	42.
MUSTANG - EXISTING - A10_3	3.450	0.383	103.50	11.50	1242.	138.	6.
MUSTANG - EXISTING - F35	0.758	0.039	22.75	1.17	273.	14.	38.
MUSTANG - EXISTING - F18	1.239	0.064	37.17	1.92	446.	23.	30.

MOA name = R3008AB

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
R3008AB - EXISTING - A10	7.850	0.872	235.50	26.17	2826.	314.	10.
R3008AB - EXISTING - A10_2	7.850	0.872	235.50	26.17	2826.	314.	34.
R3008AB - EXISTING - A10_3	7.850	0.872	235.50	26.17	2826.	314.	5.
R3008AB - EXISTING - A29	2.761	0.144	82.83	4.33	994.	52.	3.
R3008AB - EXISTING - A29_2	2.761	0.144	82.83	4.33	994.	52.	15.
R3008AB - EXISTING - A29_3	2.761	0.144	82.83	4.33	994.	52.	7.
R3008AB - EXISTING - C130	0.378	0.356	11.33	10.67	136.	128.	12.
R3008AB - EXISTING - C130_2	0.378	0.356	11.33	10.67	136.	128.	96.
R3008AB - EXISTING - C130_3	0.378	0.356	11.33	10.67	136.	128.	12.
R3008AB - EXISTING - F35	0.031	0.003	0.92	0.08	11.	1.	32.
R3008AB - EXISTING - H60	1.972	0.525	59.17	15.75	710.	189.	6.
R3008AB - EXISTING - H60_2	1.972	0.525	59.17				

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
				15.75	710.	189.	99.
R3008AB - EXISTING - H60_3	1.972	0.525	59.17	15.75	710.	189.	15.

MOA name = R3008C

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
R3008C - EXISTING - A10	7.850	0.872	235.50	26.17	2826.	314.	2.
R3008C - EXISTING - A10_2	7.850	0.872	235.50	26.17	2826.	314.	8.
R3008C - EXISTING - A10_3	7.850	0.872	235.50	26.17	2826.	314.	1.
R3008C - EXISTING - A29	2.761	0.144	82.83	4.33	994.	52.	1.
R3008C - EXISTING - A29_2	2.761	0.144	82.83	4.33	994.	52.	4.
R3008C - EXISTING - A29_3	2.761	0.144	82.83	4.33	994.	52.	2.
R3008C - EXISTING - C130	0.378	0.356	11.33	10.67	136.	128.	3.
R3008C - EXISTING - C130_2	0.378	0.356	11.33	10.67	136.	128.	24.
R3008C - EXISTING - C130_3	0.378	0.356	11.33	10.67	136.	128.	3.
R3008C - EXISTING - F35	0.031	0.003	0.92	0.08	11.	1.	8.
R3008C - EXISTING - H60	1.972	0.525	59.17	15.75	710.	189.	2.
R3008C - EXISTING - H60_2	1.972	0.525	59.17	15.75	710.	189.	25.
R3008C - EXISTING - H60_3	1.972	0.525	59.17	15.75	710.	189.	4.

MOA name = SABRE MOA

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
SABRE - EXISTING - F18	0.864	0.044	25.92	1.33	311.	16.	32.
SABRE - EXISTING - F35	0.047	0.003	1.42				

```
 0.08        17.          1.         40.

     MOA name = THUD MOA
                                                                Daily
Monthly                 Yearly
        Mission                                             Day        Night        Day
Night       Day         Night    Time On Range
         Name                                               OPS         OPS         OPS
 OPS        OPS          OPS       (minutes)
      THUD - EXISTING - A10                                3.450       0.383      103.50
11.50      1242.        138.         12.
      THUD - EXISTING - A10_2                              3.450       0.383      103.50
11.50      1242.        138.         42.
      THUD - EXISTING - A10_3                              3.450       0.383      103.50
11.50      1242.        138.          6.
      THUD - EXISTING - F18                                1.042       0.056       31.25
 1.67       375.         20.         30.
      THUD - EXISTING - F35                                0.778       0.042       23.33
 1.25       280.         15.         38.

     MOA name = WARHAWK MOA
                                                                Daily
Monthly                 Yearly
        Mission                                             Day        Night        Day
Night       Day         Night    Time On Range
         Name                                               OPS         OPS         OPS
 OPS        OPS          OPS       (minutes)
      WARHAWK - EXISTING - A10                             3.450       0.383      103.50
11.50      1242.        138.         12.
      WARHAWK - EXISTING - A10_2                           3.450       0.383      103.50
11.50      1242.        138.         42.
      WARHAWK - EXISTING - A10_3                           3.450       0.383      103.50
11.50      1242.        138.          6.
      WARHAWK - EXISTING - F18                             1.336       0.069       40.08
 2.08       481.         25.         30.
      WARHAWK - EXISTING - F35                             0.753       0.039       22.58
 1.17       271.         14.         38.


     **********************************************************
         Warning:  Grid points spaced greater than 1000 feet
         apart may not provide the necessary grid resolution,
         in some cases, to compute noise contours with
         high accuracy.  For low-altitude track operations,
         the recommended grid spacing is less than 1000 feet.
     **********************************************************
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***** MOA RANGE NOISEMAP *****
RESULTS

The noise metric is Ldnmr.

MOA RESULTS

MOA Name	MOA Area (sq statute miles)	Uniform Distributed Sound Level (dB)	Number of Daily Events Above SEL of 65.0 dB
CORSAIR NORTH LOW MOA - 1000	755.3	No operations on this MOA!	
CORSAIR NORTH LOW MOA - 2000	755.3	No operations on this MOA!	
CORSAIR NORTH LOW MOA - 4000	755.3	No operations on this MOA!	
CORSAIR NORTH MOA	755.3	35.0	0.0
CORSAIR SOUTH LOW MOA - 1000	591.9	No operations on this MOA!	
CORSAIR SOUTH LOW MOA - 2000	591.9	No operations on this MOA!	
CORSAIR SOUTH LOW MOA - 4000	591.9	No operations on this MOA!	
CORSAIR SOUTH MOA	591.9	35.0	0.0
GRAND BAY MOA AND R3008C	89.2	No operations on this MOA!	
HAWG NORTH MOA	779.1	35.0	0.0
HAWG SOUTH MOA	704.3	35.0	0.0
LATN	4200.0	35.0	0.0
MOODY 2 NORTH MOA	420.7	44.1	0.0
MOODY 2 NORTH MOA - 100	420.7	No operations on this MOA!	
MOODY 2 SOUTH MOA	536.4	43.1	0.0
MUSTANG LOW MOA - 1000	470.3	No operations on this MOA!	
MUSTANG LOW MOA - 2000	470.3	No operations on this MOA!	
MUSTANG LOW MOA - 4000	470.3	No operations on this MOA!	
MUSTANG MOA	470.3	39.1	0.0
R3008AB	34.1	59.7	0.0
R3008C	89.2	47.7	0.0

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     SABRE MOA                                  1599.8        35.0           0.0
     THUD LOW MOA                                658.3      No operations on this
MOA!
     THUD MOA                                    658.3        37.8           0.5
     WARHAWK LOW MOA - 1000                      682.0      No operations on this
MOA!
     WARHAWK LOW MOA - 2000                      682.0      No operations on this
MOA!
     WARHAWK LOW MOA - 4000                      682.0      No operations on this
MOA!
     WARHAWK MOA                                 682.0        37.4           0.4
```

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                    ***** MOA RANGE NOISEMAP *****
                               RESULTS


                          SPECIFIC POINT RESULTS

    Specific Point:  CORSAIR N POI
    Top 20 contributors to this level:


                Sound Level
    <                Airspace              >  Mission
       Aircraft     (dB)       HA(%)
    LATN                                      LATN - EXISTING - A10_2
       A-10A      < 35.0
    LATN                                      LATN - EXISTING - C130_2
       C-130J     < 35.0
    CORSAIR NORTH MOA                         CORSAIR N  - EXISTING - A10_2
       A-10A      < 35.0
    LATN                                      LATN - EXISTING - H60_2
       UH60A      < 35.0
    LATN                                      LATN - EXISTING - A10_3
       A-10A      < 35.0
    CORSAIR NORTH MOA                         CORSAIR N  - EXISTING - A10_3
       A-10A      < 35.0
    LATN                                      LATN - EXISTING - C130_3
       C-130J     < 35.0
    LATN                                      LATN - EXISTING - H60_3
       UH60A      < 35.0
    LATN                                      LATN - EXISTING - C130
       C-130J     < 35.0
    LATN                                      LATN - EXISTING - A10
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   A-10A      < 35.0
CORSAIR NORTH MOA                             CORSAIR N - EXISTING - A29_3
   T-6        < 35.0
CORSAIR NORTH MOA                             CORSAIR N - EXISTING - F18
   F-18A/C    < 35.0
LATN                                          LATN - EXISTING - H60
   UH60A      < 35.0
CORSAIR NORTH MOA                             CORSAIR N - EXISTING - A29_2
   T-6        < 35.0
CORSAIR NORTH MOA                             CORSAIR N  - EXISTING - A10
   A-10A      < 35.0
CORSAIR NORTH MOA                             CORSAIR N - EXISTING - A29
   T-6        < 35.0
R3008AB                                       R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                       R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                       R3008AB - EXISTING - A10_3
   A-10A      < 35.0
R3008AB                                       R3008AB - EXISTING - H60_2
   UH60A      < 35.0


Total Level ........   < 35.0


    Specific Point:  CORSAIR S POI
    Top 20 contributors to this level:


             Sound Level
<                 Airspace                  >  Mission
   Aircraft     (dB)      HA(%)
LATN                                          LATN - EXISTING - A10_2
   A-10A      < 35.0
LATN                                          LATN - EXISTING - C130_2
   C-130J     < 35.0
LATN                                          LATN - EXISTING - H60_2
   UH60A      < 35.0
CORSAIR SOUTH MOA                             CORSAIR S  - EXISTING - A10_2
   A-10A      < 35.0
LATN                                          LATN - EXISTING - A10_3
   A-10A      < 35.0
CORSAIR SOUTH MOA                             CORSAIR S - EXISTING - A29_3
   T-6        < 35.0
LATN                                          LATN - EXISTING - C130_3
   C-130J     < 35.0
CORSAIR SOUTH MOA                             CORSAIR S  - EXISTING - A10_3
   A-10A      < 35.0
```

```
LATN                                          LATN - EXISTING - H60_3
   UH60A       < 35.0
LATN                                          LATN - EXISTING - C130
   C-130J      < 35.0
LATN                                          LATN - EXISTING - A10
   A-10A       < 35.0
CORSAIR SOUTH MOA                             CORSAIR S - EXISTING - F18
   F-18A/C     < 35.0
CORSAIR SOUTH MOA                             CORSAIR S - EXISTING - A29_2
   T-6         < 35.0
LATN                                          LATN - EXISTING - H60
   UH60A       < 35.0
CORSAIR SOUTH MOA                             CORSAIR S  - EXISTING - A10
   A-10A       < 35.0
CORSAIR SOUTH MOA                             CORSAIR S - EXISTING - A29
   T-6         < 35.0
R3008AB                                       R3008AB - EXISTING - A10_2
   A-10A       < 35.0
R3008AB                                       R3008AB - EXISTING - F35
   F-35A       < 35.0
R3008AB                                       R3008AB - EXISTING - A10_3
   A-10A       < 35.0
R3008AB                                       R3008AB - EXISTING - H60_2
   UH60A       < 35.0


Total Level ........   < 35.0


    Specific Point:  MOODY2N PO1
    Top 20 contributors to this level:


             Sound Level
<                 Airspace                 >  Mission
   Aircraft     (dB)       HA(%)
MOODY 2 NORTH MOA                             MOODY 2N - EXISTING - A10_2
   A-10A        40.2        0.4
MOODY 2 NORTH MOA                             MOODY 2N - EXISTING - H60_2
   UH60A        38.3        0.3
MOODY 2 NORTH MOA                             MOODY 2N - EXISTING - A10_3
   A-10A       < 35.0
MOODY 2 NORTH MOA                             MOODY 2N - EXISTING - F18
   F-18A/C     < 35.0
MOODY 2 NORTH MOA                             MOODY 2N - EXISTING - H60_3
   UH60A       < 35.0
MOODY 2 NORTH MOA                             MOODY 2N - EXISTING - A29_3
   T-6         < 35.0
MOODY 2 NORTH MOA                             MOODY 2N - EXISTING - C130_2
```

```
   C-130J      < 35.0
HAWG NORTH MOA                              HAWG N - EXISTING - A10_2
   A-10A       < 35.0
MOODY 2 NORTH MOA                           MOODY 2N - EXISTING - A10
   A-10A       < 35.0
MOODY 2 NORTH MOA                           MOODY 2N - EXISTING - C130_3
   C-130J      < 35.0
MOODY 2 NORTH MOA                           MOODY 2N - EXISTING - A29_2
   T-6         < 35.0
MOODY 2 NORTH MOA                           MOODY 2N - EXISTING - H60
   UH60A       < 35.0
HAWG NORTH MOA                              HAWG N - EXISTING - A10_3
   A-10A       < 35.0
MOODY 2 NORTH MOA                           MOODY 2N - EXISTING - C130
   C-130J      < 35.0
HAWG NORTH MOA                              HAWG N - EXISTING - F18
   F-18A/C     < 35.0
MOODY 2 NORTH MOA                           MOODY 2N - EXISTING - A29
   T-6         < 35.0
HAWG NORTH MOA                              HAWG N - EXISTING - A10
   A-10A       < 35.0
R3008AB                                     R3008AB - EXISTING - A10_2
   A-10A       < 35.0
R3008AB                                     R3008AB - EXISTING - F35
   F-35A       < 35.0
R3008AB                                     R3008AB - EXISTING - A10_3
   A-10A       < 35.0


Total Level ........     44.3       0.7


Specific Point:  MOODY2S POI
Top 20 contributors to this level:


             Sound Level
<                 Airspace                > Mission
   Aircraft     (dB)       HA(%)
MOODY 2 SOUTH MOA                           MOODY 2S - EXISTING - A10_2
   A-10A        39.1        0.4
MOODY 2 SOUTH MOA                           MOODY 2S - EXISTING - H60_2
   UH60A        37.2        0.3
MOODY 2 SOUTH MOA                           MOODY 2S - EXISTING - A10_3
   A-10A       < 35.0
MOODY 2 SOUTH MOA                           MOODY 2S - EXISTING - F18
   F-18A/C     < 35.0
MOODY 2 SOUTH MOA                           MOODY 2S - EXISTING - H60_3
   UH60A       < 35.0
```

```
MOODY 2 SOUTH MOA                               MOODY 2S - EXISTING - A29_3
   T-6         < 35.0
MOODY 2 SOUTH MOA                               MOODY 2S - EXISTING - C130_2
   C-130J      < 35.0
HAWG SOUTH MOA                                  HAWG S - EXISTING - A10_2
   A-10A       < 35.0
MOODY 2 SOUTH MOA                               MOODY 2S - EXISTING - A10
   A-10A       < 35.0
HAWG SOUTH MOA                                  HAWG S - EXISTING - A10_3
   A-10A       < 35.0
MOODY 2 SOUTH MOA                               MOODY 2S - EXISTING - A29_2
   T-6         < 35.0
MOODY 2 SOUTH MOA                               MOODY 2S - EXISTING - C130_3
   C-130J      < 35.0
MOODY 2 SOUTH MOA                               MOODY 2S - EXISTING - H60
   UH60A       < 35.0
MOODY 2 SOUTH MOA                               MOODY 2S - EXISTING - C130
   C-130J      < 35.0
HAWG SOUTH MOA                                  HAWG S - EXISTING - F18
   F-18A/C     < 35.0
MOODY 2 SOUTH MOA                               MOODY 2S - EXISTING - A29
   T-6         < 35.0
HAWG SOUTH MOA                                  HAWG S - EXISTING - A10
   A-10A       < 35.0
R3008AB                                         R3008AB - EXISTING - A10_2
   A-10A       < 35.0
R3008AB                                         R3008AB - EXISTING - F35
   F-35A       < 35.0
R3008AB                                         R3008AB - EXISTING - A10_3
   A-10A       < 35.0


Total Level ........     43.3        0.6


    Specific Point:  MUSTANG POI
    Top 20 contributors to this level:


             Sound Level
    <             Airspace                 >  Mission
       Aircraft     (dB)       HA(%)
    MUSTANG MOA                               MUSTANG  - EXISTING - F35
       F-35A        38.6        0.3
    LATN                                      LATN - EXISTING - A10_2
       A-10A      < 35.0
    MUSTANG MOA                               MUSTANG  - EXISTING - A10_2
       A-10A      < 35.0
    LATN                                      LATN - EXISTING - C130_2
```

```
      C-130J      < 35.0
   LATN                                        LATN - EXISTING - H60_2
      UH60A       < 35.0
   LATN                                        LATN - EXISTING - A10_3
      A-10A       < 35.0
   MUSTANG MOA                                 MUSTANG  - EXISTING - A10_3
      A-10A       < 35.0
   LATN                                        LATN - EXISTING - C130_3
      C-130J      < 35.0
   MUSTANG MOA                                 MUSTANG - EXISTING - F18
      F-18A/C     < 35.0
   LATN                                        LATN - EXISTING - H60_3
      UH60A       < 35.0
   LATN                                        LATN - EXISTING - C130
      C-130J      < 35.0
   LATN                                        LATN - EXISTING - A10
      A-10A       < 35.0
   LATN                                        LATN - EXISTING - H60
      UH60A       < 35.0
   MUSTANG MOA                                 MUSTANG  - EXISTING - A10
      A-10A       < 35.0
   R3008AB                                     R3008AB - EXISTING - A10_2
      A-10A       < 35.0
   R3008AB                                     R3008AB - EXISTING - F35
      F-35A       < 35.0
   R3008AB                                     R3008AB - EXISTING - A10_3
      A-10A       < 35.0
   R3008AB                                     R3008AB - EXISTING - H60_2
      UH60A       < 35.0
   R3008AB                                     R3008AB - EXISTING - C130_2
      C-130J      < 35.0
   R3008C                                      R3008C - EXISTING - A10_2
      A-10A       < 35.0

Total Level ........     40.1        0.4


   Specific Point:  R3008A POI
   Top 20 contributors to this level:


              Sound Level
   <              Airspace                   >  Mission
      Aircraft     (dB)       HA(%)
   R3008AB                                     R3008AB - EXISTING - A10_2
      A-10A        56.2        3.9
   R3008AB                                     R3008AB - EXISTING - F35
      F-35A        49.5        1.5
```

```
R3008AB                                       R3008AB - EXISTING - A10_3
   A-10A        49.2        1.5
R3008AB                                       R3008AB - EXISTING - H60_2
   UH60A        47.9        1.2
R3008AB                                       R3008AB - EXISTING - C130_2
   C-130J       45.7        0.9
R3008AB                                       R3008AB - EXISTING - A10
   A-10A        42.7        0.6
R3008AB                                       R3008AB - EXISTING - H60_3
   UH60A        39.6        0.4
R3008AB                                       R3008AB - EXISTING - A29_3
   T-6          38.5        0.3
R3008AB                                       R3008AB - EXISTING - C130_3
   C-130J       38.3        0.3
R3008AB                                       R3008AB - EXISTING - C130
   C-130J       36.1        0.2
R3008AB                                       R3008AB - EXISTING - H60
   UH60A      < 35.0
LATN                                          LATN - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                       R3008AB - EXISTING - A29_2
   T-6        < 35.0
LATN                                          LATN - EXISTING - C130_2
   C-130J     < 35.0
LATN                                          LATN - EXISTING - H60_2
   UH60A      < 35.0
LATN                                          LATN - EXISTING - A10_3
   A-10A      < 35.0
SABRE MOA                                     SABRE - EXISTING - F35
   F-35A      < 35.0
LATN                                          LATN - EXISTING - C130_3
   C-130J     < 35.0
LATN                                          LATN - EXISTING - H60_3
   UH60A      < 35.0
LATN                                          LATN - EXISTING - C130
   C-130J     < 35.0


Total Level ........     58.7        5.4


    Specific Point:  R3008B POI
    Top 20 contributors to this level:


                 Sound Level
    <                 Airspace                 >  Mission
       Aircraft      (dB)       HA(%)
    R3008AB                                       R3008AB - EXISTING - A10_2
```

```
   A-10A        57.1        4.4
R3008AB                                        R3008AB - EXISTING - F35
   F-35A        50.5        1.8
R3008AB                                        R3008AB - EXISTING - A10_3
   A-10A        50.3        1.7
R3008AB                                        R3008AB - EXISTING - H60_2
   UH60A        49.1        1.5
R3008AB                                        R3008AB - EXISTING - C130_2
   C-130J       47.3        1.1
R3008AB                                        R3008AB - EXISTING - A10
   A-10A        43.4        0.7
R3008AB                                        R3008AB - EXISTING - H60_3
   UH60A        40.8        0.5
R3008AB                                        R3008AB - EXISTING - A29_3
   T-6          40.0        0.4
R3008AB                                        R3008AB - EXISTING - C130_3
   C-130J       39.9        0.4
R3008AB                                        R3008AB - EXISTING - C130
   C-130J       37.7        0.3
R3008AB                                        R3008AB - EXISTING - H60
   UH60A      < 35.0
R3008AB                                        R3008AB - EXISTING - A29_2
   T-6        < 35.0
HAWG SOUTH MOA                                 HAWG S - EXISTING - A10_2
   A-10A      < 35.0
HAWG NORTH MOA                                 HAWG N - EXISTING - A10_2
   A-10A      < 35.0
HAWG SOUTH MOA                                 HAWG S - EXISTING - A10_3
   A-10A      < 35.0
HAWG NORTH MOA                                 HAWG N - EXISTING - A10_3
   A-10A      < 35.0
R3008AB                                        R3008AB - EXISTING - A29
   T-6        < 35.0
HAWG SOUTH MOA                                 HAWG S - EXISTING - F18
   F-18A/C    < 35.0
HAWG NORTH MOA                                 HAWG N - EXISTING - F18
   F-18A/C    < 35.0
HAWG SOUTH MOA                                 HAWG S - EXISTING - A10
   A-10A      < 35.0

Total Level ........     59.7        6.2


    Specific Point:  R3008C POI
    Top 20 contributors to this level:

                 Sound Level
```

```
<                 Airspace               >  Mission
   Aircraft     (dB)       HA(%)
R3008C                                      R3008C - EXISTING - A10_2
   A-10A        44.6        0.8
R3008C                                      R3008C - EXISTING - F35
   F-35A        38.5        0.3
R3008C                                      R3008C - EXISTING - A10_3
   A-10A        38.3        0.3
R3008C                                      R3008C - EXISTING - H60_2
   UH60A        37.9        0.3
R3008C                                      R3008C - EXISTING - C130_2
   C-130J       37.1        0.3
R3008C                                      R3008C - EXISTING - H60_3
   UH60A      < 35.0
R3008C                                      R3008C - EXISTING - A10
   A-10A      < 35.0
R3008C                                      R3008C - EXISTING - C130_3
   C-130J     < 35.0
R3008C                                      R3008C - EXISTING - A29_3
   T-6        < 35.0
R3008C                                      R3008C - EXISTING - C130
   C-130J     < 35.0
HAWG SOUTH MOA                              HAWG S - EXISTING - A10_2
   A-10A      < 35.0
R3008C                                      R3008C - EXISTING - H60
   UH60A      < 35.0
HAWG SOUTH MOA                              HAWG S - EXISTING - A10_3
   A-10A      < 35.0
R3008C                                      R3008C - EXISTING - A29_2
   T-6        < 35.0
HAWG SOUTH MOA                              HAWG S - EXISTING - F18
   F-18A/C    < 35.0
R3008C                                      R3008C - EXISTING - A29
   T-6        < 35.0
HAWG SOUTH MOA                              HAWG S - EXISTING - A10
   A-10A      < 35.0
R3008AB                                     R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                     R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                     R3008AB - EXISTING - A10_3
   A-10A      < 35.0

Total Level ........     47.7        1.2


   Specific Point:  SABRE POI
   Top 20 contributors to this level:
```

```
              Sound Level
<                  Airspace                  >  Mission
   Aircraft     (dB)       HA(%)
LATN                                            LATN - EXISTING - A10_2
   A-10A      < 35.0
LATN                                            LATN - EXISTING - C130_2
   C-130J     < 35.0
LATN                                            LATN - EXISTING - H60_2
   UH60A      < 35.0
LATN                                            LATN - EXISTING - A10_3
   A-10A      < 35.0
SABRE MOA                                       SABRE - EXISTING - F35
   F-35A      < 35.0
LATN                                            LATN - EXISTING - C130_3
   C-130J     < 35.0
LATN                                            LATN - EXISTING - H60_3
   UH60A      < 35.0
LATN                                            LATN - EXISTING - C130
   C-130J     < 35.0
LATN                                            LATN - EXISTING - A10
   A-10A      < 35.0
SABRE MOA                                       SABRE - EXISTING - F18
   F-18A/C    < 35.0
LATN                                            LATN - EXISTING - H60
   UH60A      < 35.0
R3008AB                                         R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                         R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                         R3008AB - EXISTING - A10_3
   A-10A      < 35.0
R3008AB                                         R3008AB - EXISTING - H60_2
   UH60A      < 35.0
R3008AB                                         R3008AB - EXISTING - C130_2
   C-130J     < 35.0
R3008C                                          R3008C - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                         R3008AB - EXISTING - A10
   A-10A      < 35.0
R3008AB                                         R3008AB - EXISTING - H60_3
   UH60A      < 35.0
R3008AB                                         R3008AB - EXISTING - A29_3
   T-6        < 35.0

Total Level ........   < 35.0
```

```
Specific Point:  THUD POI
Top 20 contributors to this level:


              Sound Level
<                  Airspace                    >  Mission
   Aircraft     (dB)       HA(%)
THUD MOA                                          THUD - EXISTING - F35
   F-35A        37.4        0.3
LATN                                              LATN - EXISTING - A10_2
   A-10A      < 35.0
THUD MOA                                          THUD - EXISTING - A10_2
   A-10A      < 35.0
LATN                                              LATN - EXISTING - C130_2
   C-130J     < 35.0
LATN                                              LATN - EXISTING - H60_2
   UH60A      < 35.0
LATN                                              LATN - EXISTING - A10_3
   A-10A      < 35.0
THUD MOA                                          THUD - EXISTING - A10_3
   A-10A      < 35.0
LATN                                              LATN - EXISTING - C130_3
   C-130J     < 35.0
LATN                                              LATN - EXISTING - H60_3
   UH60A      < 35.0
LATN                                              LATN - EXISTING - C130
   C-130J     < 35.0
LATN                                              LATN - EXISTING - A10
   A-10A      < 35.0
THUD MOA                                          THUD - EXISTING - F18
   F-18A/C    < 35.0
LATN                                              LATN - EXISTING - H60
   UH60A      < 35.0
THUD MOA                                          THUD - EXISTING - A10
   A-10A      < 35.0
R3008AB                                           R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                           R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                           R3008AB - EXISTING - A10_3
   A-10A      < 35.0
R3008AB                                           R3008AB - EXISTING - H60_2
   UH60A      < 35.0
R3008AB                                           R3008AB - EXISTING - C130_2
   C-130J     < 35.0
R3008C                                            R3008C - EXISTING - A10_2
   A-10A      < 35.0
```

```
Total Level ........     39.2       0.4


    Specific Point:  WARHAWK POI
    Top 20 contributors to this level:


                 Sound Level
    <                 Airspace                  >  Mission
       Aircraft     (dB)       HA(%)
    WARHAWK MOA                                    WARHAWK - EXISTING - F35
       F-35A        37.0        0.3
    WARHAWK MOA                                    WARHAWK - EXISTING - A10_2
       A-10A       < 35.0
    WARHAWK MOA                                    WARHAWK - EXISTING - A10_3
       A-10A       < 35.0
    WARHAWK MOA                                    WARHAWK - EXISTING - F18
       F-18A/C     < 35.0
    WARHAWK MOA                                    WARHAWK - EXISTING - A10
       A-10A       < 35.0
    R3008AB                                        R3008AB - EXISTING - A10_2
       A-10A       < 35.0
    R3008AB                                        R3008AB - EXISTING - F35
       F-35A       < 35.0
    R3008AB                                        R3008AB - EXISTING - A10_3
       A-10A       < 35.0
    R3008AB                                        R3008AB - EXISTING - H60_2
       UH60A       < 35.0
    R3008AB                                        R3008AB - EXISTING - C130_2
       C-130J      < 35.0
    R3008C                                         R3008C - EXISTING - A10_2
       A-10A       < 35.0
    R3008AB                                        R3008AB - EXISTING - A10
       A-10A       < 35.0
    R3008AB                                        R3008AB - EXISTING - H60_3
       UH60A       < 35.0
    R3008AB                                        R3008AB - EXISTING - A29_3
       T-6         < 35.0
    MOODY 2 NORTH MOA                              MOODY 2N - EXISTING - A10_2
       A-10A       < 35.0
    R3008AB                                        R3008AB - EXISTING - C130_3
       C-130J      < 35.0
    MOODY 2 SOUTH MOA                              MOODY 2S - EXISTING - A10_2
       A-10A       < 35.0
    MUSTANG MOA                                    MUSTANG  - EXISTING - F35
       F-35A       < 35.0
    R3008C                                         R3008C - EXISTING - F35
       F-35A       < 35.0
    R3008C                                         R3008C - EXISTING - A10_3
```

```
        A-10A      < 35.0


Total Level ........     37.4        0.3



     &lt;Run Log&gt;
     Date:                  7/24/2020
     Start Time:           11:38:55
     Stop Time:            11:49: 4
     Total Running Time:   10 minutes and   9 seconds.
```

```
***** MOA RANGE NOISEMAP *****
        Version  3.0
  Release Date      2/7/2013

          CASE INFORMATION
Case Name:Moody AFB SUA - Alternative 1 - 1000 ft Floor Scenario

Site Name:Moody SUA Complex


          SETUP PARAMETERS
Number of MOAs and Ranges = 28     Number of tracks = 0
Lower Left  Corner of Grid in feet (X Y pair) =  -300000.,  -325000.
Upper Right Corner of Grid in feet (X Y pair) =   300000.,   325000.
Grid spacing =     2500. feet      Number of events above an SEL  of 65.0 dB
Temperature =  59 F      Humidity =  70     Flying days per month = 30


          MOA SPECIFICATIONS

MOA name CORSAIR NORTH LOW MOA - 1000
     Lat       Long
    (deg)      (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR NORTH LOW MOA - 2000
     Lat       Long
    (deg)      (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR NORTH LOW MOA - 4000
     Lat       Long
    (deg)      (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
```

```
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR NORTH MOA
     Lat       Long
    (deg)      (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name CORSAIR SOUTH LOW MOA - 1000
     Lat       Long
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR SOUTH LOW MOA - 2000
     Lat       Long
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR SOUTH LOW MOA - 4000
     Lat       Long
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR SOUTH MOA
     Lat       Long
```

```
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name GRAND BAY MOA AND R3008C
     Lat        Long
    (deg)      (deg)
  31.06694   -83.01666
  30.85027   -83.01666
  30.85027   -83.13333
  30.89194   -83.14999
  30.90861   -83.10000
  31.02527   -83.09999
  31.03361   -83.14999
  31.06694   -83.13333
  31.06694   -83.01666
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name HAWG NORTH MOA
     Lat        Long
    (deg)      (deg)
  31.38306   -83.16111
  30.95028   -83.14139
  30.95028   -82.64999
  31.21695   -82.64999
  31.31140   -82.74305
  31.38306   -83.16111
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name HAWG SOUTH MOA
     Lat        Long
    (deg)      (deg)
  30.95028   -83.14139
  30.60583   -83.12556
  30.58361   -82.64972
  30.95028   -82.64999
  30.95028   -83.14139
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name LATN
     Lat        Long
    (deg)      (deg)
  32.06279   -83.90001
  31.50029   -84.10001
  30.63362   -83.71666
  30.60583   -83.12556
```

```
  31.38306   -83.16111
  32.06279   -83.48334
  32.06279   -83.90001
Floor =      100 feet AGL     Ceiling =    8000 feet AGL

MOA name MOODY 2 NORTH MOA
     Lat        Long
    (deg)       (deg)
  30.95028   -83.01666
  30.95028   -82.64999
  31.02667   -82.64999
  31.23362   -82.81666
  31.30028   -82.85000
  31.35028   -83.01666
  30.95028   -83.01666
Floor =      500 feet AGL     Ceiling =    8000 feet AGL

MOA name MOODY 2 NORTH MOA - 100
     Lat        Long
    (deg)       (deg)
  30.95028   -83.01666
  30.95028   -82.64999
  31.02667   -82.64999
  31.23362   -82.81666
  31.30028   -82.85000
  31.35028   -83.01666
  30.95028   -83.01666
Floor =      100 feet AGL     Ceiling =    8000 feet AGL

MOA name MOODY 2 SOUTH MOA
     Lat        Long
    (deg)       (deg)
  30.95028   -83.01666
  30.60305   -83.01666
  30.58361   -82.64999
  30.95028   -82.64999
  30.95028   -83.01666
Floor =      100 feet AGL     Ceiling =    8000 feet AGL

MOA name MUSTANG LOW MOA - 1000
     Lat        Long
    (deg)       (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =     1000 feet AGL     Ceiling =    8000 feet AGL
```

```
MOA name MUSTANG LOW MOA - 2000
     Lat        Long
    (deg)       (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name MUSTANG LOW MOA - 4000
     Lat        Long
    (deg)       (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name MUSTANG MOA
     Lat        Long
    (deg)       (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name R3008AB
     Lat        Long
    (deg)       (deg)
  30.89194   -83.14999
  30.90861   -83.10000
  31.02527   -83.09999
  31.03361   -83.14999
  30.98694   -83.16669
  30.95997   -83.18475
  30.94738   -83.16674
  30.89194   -83.14999
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name R3008C
     Lat        Long
    (deg)       (deg)
  31.06694   -83.01666
```

```
  30.85027   -83.01666
  30.85027   -83.13333
  30.89194   -83.14999
  30.90861   -83.10000
  31.02527   -83.09999
  31.03361   -83.14999
  31.06694   -83.13333
  31.06694   -83.01666
Floor =      500 feet AGL     Ceiling =    8000 feet AGL

MOA name SABRE MOA
     Lat       Long
    (deg)      (deg)
  31.68751   -84.03334
  31.50029   -84.10001
  31.33334   -83.56390
  30.61666   -83.35555
  30.60583   -83.12556
  31.38306   -83.16111
  31.49445   -83.38334
  31.68751   -84.03334
Floor =     8000 feet AGL     Ceiling =   18000 feet AGL

MOA name THUD LOW MOA
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  32.08363   -83.73751
  32.06279   -83.90001
  31.68751   -84.03334
  31.56834   -83.63195
  32.07196   -83.59445
Floor =     4000 feet AGL     Ceiling =    8000 feet AGL

MOA name THUD MOA
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  32.08363   -83.73751
  32.06279   -83.90001
  31.68751   -84.03334
  31.56834   -83.63195
  32.07196   -83.59445
Floor =     8000 feet AGL     Ceiling =   18000 feet AGL

MOA name WARHAWK LOW MOA - 1000
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
```

```
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL

MOA name WARHAWK LOW MOA - 2000
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name WARHAWK LOW MOA - 4000
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name WARHAWK MOA
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL


                  SPECIFIC POINT SPECIFICATION
Number of Specific points = 11
 Latitude    Longitude       Name
  31.21328   -83.74600     CORSAIR N POI
  30.81517   -83.60754     CORSAIR S POI
  31.10161   -82.86792     MOODY2N POI
  30.76693   -82.84566     MOODY2S POI
  31.74683   -83.49074     MUSTANG POI
  30.95783   -83.16461     R3008A POI
  30.95604   -83.12070     R3008B POI
  30.94930   -83.05738     R3008C POI
  31.32796   -83.38621     SABRE POI
  31.85989   -83.76024     THUD POI
  31.58464   -83.20150     WARHAWK POI
```

```
                          MISSION DATA
Mission name = CORSAIR N  - ALTERNATIVE 1- A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N  - ALTERNATIVE 1- A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N  - ALTERNATIVE 1- A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N - ALTERNATIVE 1- A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N - ALTERNATIVE 1- A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N - ALTERNATIVE 1- A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0
```

```
Mission name = CORSAIR N - ALTERNATIVE 1- F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N LOW  - ALTERNATIVE 1- A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = CORSAIR N LOW  - ALTERNATIVE 1- A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = CORSAIR N LOW  - ALTERNATIVE 1- A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = CORSAIR N LOW - ALTERNATIVE 1 - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = CORSAIR N LOW - ALTERNATIVE 1 - C130_2
```

```
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = CORSAIR N LOW - ALTERNATIVE 1 - C130_3
Aircraft code =FM0290402  Speed =  350 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = CORSAIR N LOW - ALTERNATIVE 1 - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        95.0
      3000         5000         5.0


Mission name = CORSAIR N LOW - ALTERNATIVE 1 - H60_2
Aircraft code =FM6210101  Speed =  110 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        95.0
      3000         5000         5.0


Mission name = CORSAIR N LOW - ALTERNATIVE 1 - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        95.0
      3000         5000         5.0


Mission name = CORSAIR N LOW - ALTERNATIVE 1- A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
      1000         3000         10.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = CORSAIR N LOW - ALTERNATIVE 1- A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000         10.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = CORSAIR N LOW - ALTERNATIVE 1- A29_3
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000         10.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = CORSAIR N LOW - ALTERNATIVE 1- F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000         10.0
      3000         5000         10.0
      5000         8000         80.0


Mission name = CORSAIR S   - ALTERNATIVE 1- A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0


Mission name = CORSAIR S   - ALTERNATIVE 1- A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0
```

```
Mission name = CORSAIR S  - ALTERNATIVE 1- A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S - ALTERNATIVE 1- A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S - ALTERNATIVE 1- A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S - ALTERNATIVE 1- A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S - ALTERNATIVE 1- F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S LOW  - ALTERNATIVE 1- A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0
```

```
Mission name = CORSAIR S LOW  - ALTERNATIVE 1- A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = CORSAIR S LOW  - ALTERNATIVE 1- A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = CORSAIR S LOW - ALTERNATIVE 1 - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = CORSAIR S LOW - ALTERNATIVE 1 - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = CORSAIR S LOW - ALTERNATIVE 1 - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5
```

```
Mission name = CORSAIR S LOW - ALTERNATIVE 1 - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        95.0
      3000         5000         5.0

Mission name = CORSAIR S LOW - ALTERNATIVE 1 - H60_2
Aircraft code =FM6210101  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        95.0
      3000         5000         5.0

Mission name = CORSAIR S LOW - ALTERNATIVE 1 - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        95.0
      3000         5000         5.0

Mission name = CORSAIR S LOW - ALTERNATIVE 1- A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = CORSAIR S LOW - ALTERNATIVE 1- A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = CORSAIR S LOW - ALTERNATIVE 1- A29_3
```

```
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = CORSAIR S LOW - ALTERNATIVE 1- F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        10.0
      5000         8000        80.0


Mission name = HAWG N - ALTERNATIVE 1 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - ALTERNATIVE 1 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - ALTERNATIVE 1 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - ALTERNATIVE 1 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0
```

```
Mission name = HAWG S - ALTERNATIVE 1 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - ALTERNATIVE 1 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - ALTERNATIVE 1 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - ALTERNATIVE 1 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = LATN - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = LATN - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
```

```
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = LATN - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = LATN - EXISTING - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = LATN - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = LATN - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = LATN - EXISTING - H60
```

```
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = LATN - EXISTING - H60_2
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = LATN - EXISTING - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MOODY 2N - ALTERNATIVE 1 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2N - ALTERNATIVE 1 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0
```

```
Mission name = MOODY 2N - ALTERNATIVE 1 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2N - ALTERNATIVE 1 - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2N - ALTERNATIVE 1 - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2N - ALTERNATIVE 1 - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2N - ALTERNATIVE 1 - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
```

```
       100          1000          5.0
      1000          3000         15.0
      3000          5000         30.0
      5000          8000         50.0


Mission name = MOODY 2N - ALTERNATIVE 1 - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100          1000          5.0
      1000          3000         15.0
      3000          5000         30.0
      5000          8000         50.0


Mission name = MOODY 2N - ALTERNATIVE 1 - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100          1000          5.0
      1000          3000         15.0
      3000          5000         30.0
      5000          8000         50.0


Mission name = MOODY 2N - ALTERNATIVE 1 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100          1000          5.0
      1000          3000          5.0
      3000          5000         10.0
      5000          8000         80.0


Mission name = MOODY 2N - ALTERNATIVE 1 - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100          1000         25.0
      1000          3000         70.0
      3000          5000          5.0


Mission name = MOODY 2N - ALTERNATIVE 1 - H60_2
```

```
Aircraft code =FM6210101  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MOODY 2N - ALTERNATIVE 1 - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MOODY 2S - ALTERNATIVE 1 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2S - ALTERNATIVE 1 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2S - ALTERNATIVE 1 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0
```

```
Mission name = MOODY 2S - ALTERNATIVE 1 - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = MOODY 2S - ALTERNATIVE 1 - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = MOODY 2S - ALTERNATIVE 1 - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = MOODY 2S - ALTERNATIVE 1 - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0

Mission name = MOODY 2S - ALTERNATIVE 1 - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
      5000         8000         50.0


Mission name = MOODY 2S - ALTERNATIVE 1 - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
      5000         8000         50.0


Mission name = MOODY 2S - ALTERNATIVE 1 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000          5.0
      3000         5000         10.0
      5000         8000         80.0


Mission name = MOODY 2S - ALTERNATIVE 1 - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         25.0
      1000         3000         70.0
      3000         5000          5.0


Mission name = MOODY 2S - ALTERNATIVE 1 - H60_2
Aircraft code =FM6210101  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         25.0
      1000         3000         70.0
      3000         5000          5.0


Mission name = MOODY 2S - ALTERNATIVE 1 - H60_3
```

```
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MUSTANG  - ALTERNATIVE 1 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG  - ALTERNATIVE 1 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG  - ALTERNATIVE 1 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG  - ALTERNATIVE 1 - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG - ALTERNATIVE 1 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG LOW MOA - ALTERNATIVE 1 - C130
```

```
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = MUSTANG LOW MOA - ALTERNATIVE 1 - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = MUSTANG LOW MOA - ALTERNATIVE 1 - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = MUSTANG LOW MOA - ALTERNATIVE 1 - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        95.0
      3000         5000         5.0


Mission name = MUSTANG LOW MOA - ALTERNATIVE 1 - H60_2
Aircraft code =FM6210101  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        95.0
      3000         5000         5.0


Mission name = MUSTANG LOW MOA - ALTERNATIVE 1 - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
```

```
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        95.0
      3000         5000         5.0


Mission name = MUSTANG LOW MOA - ALTERNATIVE 1- A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MUSTANG LOW MOA - ALTERNATIVE 1- A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MUSTANG LOW MOA - ALTERNATIVE 1- A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MUSTANG LOW MOA - ALTERNATIVE 1- A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MUSTANG LOW MOA - ALTERNATIVE 1- A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MUSTANG LOW MOA - ALTERNATIVE 1- A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MUSTANG LOW MOA - ALTERNATIVE 1- F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        10.0
      5000         8000        80.0


Mission name = R3008AB - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008AB - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008AB - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
```

```
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = R3008AB - EXISTING - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = R3008AB - EXISTING - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = R3008AB - EXISTING - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = R3008AB - EXISTING - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
```

```
      5000         8000        50.0


Mission name = R3008AB - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = R3008AB - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = R3008AB - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        10.0
      5000         8000        80.0


Mission name = R3008AB - EXISTING - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = R3008AB - EXISTING - H60_2
Aircraft code =FM6210101  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = R3008AB - EXISTING - H60_3
Aircraft code =FM6210101  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = R3008C - ALTERNATIVE 1 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008C - ALTERNATIVE 1 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008C - ALTERNATIVE 1 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008C - ALTERNATIVE 1 - A29
```

```
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)  (feet AGL)   Utilization
       100        1000         5.0
      1000        3000         5.0
      3000        5000        30.0
      5000        8000        60.0


Mission name = R3008C - ALTERNATIVE 1 - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)  (feet AGL)   Utilization
       100        1000         5.0
      1000        3000         5.0
      3000        5000        30.0
      5000        8000        60.0


Mission name = R3008C - ALTERNATIVE 1 - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)  (feet AGL)   Utilization
       100        1000         5.0
      1000        3000         5.0
      3000        5000        30.0
      5000        8000        60.0


Mission name = R3008C - ALTERNATIVE 1 - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)  (feet AGL)   Utilization
       100        1000         5.0
      1000        3000        15.0
      3000        5000        30.0
      5000        8000        50.0


Mission name = R3008C - ALTERNATIVE 1 - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)  (feet AGL)   Utilization
       100        1000         5.0
      1000        3000        15.0
```

```
      3000          5000        30.0
      5000          8000        50.0


Mission name = R3008C - ALTERNATIVE 1 - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt     Upper Alt     Percent
   (feet AGL)    (feet AGL)   Utilization
       100          1000         5.0
      1000          3000        15.0
      3000          5000        30.0
      5000          8000        50.0


Mission name = R3008C - ALTERNATIVE 1 - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt     Upper Alt     Percent
   (feet AGL)    (feet AGL)   Utilization
       100          1000         5.0
      1000          3000         5.0
      3000          5000        10.0
      5000          8000        80.0


Mission name = R3008C - ALTERNATIVE 1 - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt     Upper Alt     Percent
   (feet AGL)    (feet AGL)   Utilization
       100          1000        25.0
      1000          3000        70.0
      3000          5000         5.0


Mission name = R3008C - ALTERNATIVE 1 - H60_2
Aircraft code =FM6210101  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt     Upper Alt     Percent
   (feet AGL)    (feet AGL)   Utilization
       100          1000        25.0
      1000          3000        70.0
      3000          5000         5.0


Mission name = R3008C - ALTERNATIVE 1 - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt     Upper Alt     Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = SABRE - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = SABRE - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = THUD - ALTERNATIVE 1 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      4000        23000       100.0


Mission name = THUD - ALTERNATIVE 1 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      4000        23000       100.0


Mission name = THUD - ALTERNATIVE 1 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      4000        23000       100.0


Mission name = THUD - ALTERNATIVE 1 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
      4000        23000        100.0


Mission name = THUD - ALTERNATIVE 1 - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      4000        23000        100.0


Mission name = WARHAWK - ALTERNATIVE 1 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0


Mission name = WARHAWK - ALTERNATIVE 1 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0


Mission name = WARHAWK - ALTERNATIVE 1 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0


Mission name = WARHAWK - ALTERNATIVE 1 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0


Mission name = WARHAWK - ALTERNATIVE 1 - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0
```

```
Mission name = WARHAWK LOW MOA - ALTERNATIVE 1 - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = WARHAWK LOW MOA - ALTERNATIVE 1 - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = WARHAWK LOW MOA - ALTERNATIVE 1 - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = WARHAWK LOW MOA - ALTERNATIVE 1 - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        95.0
      3000         5000         5.0


Mission name = WARHAWK LOW MOA - ALTERNATIVE 1 - H60_2
Aircraft code =FM6210101  Speed =  110 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        95.0
      3000         5000         5.0
```

```
Mission name = WARHAWK LOW MOA - ALTERNATIVE 1 - H60_3
Aircraft code =FM6210102  Speed =  120 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        95.0
      3000         5000         5.0


Mission name = WARHAWK LOW MOA - ALTERNATIVE 1- A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = WARHAWK LOW MOA - ALTERNATIVE 1- A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = WARHAWK LOW MOA - ALTERNATIVE 1- A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = WARHAWK LOW MOA - ALTERNATIVE 1- A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = WARHAWK LOW MOA - ALTERNATIVE 1- A29_2
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```
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = WARHAWK LOW MOA - ALTERNATIVE 1- A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = WARHAWK LOW MOA - ALTERNATIVE 1- F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      1000         3000        10.0
      3000         5000        10.0
      5000         8000        80.0



                        MOA OPERATION DATA
     MOA name = CORSAIR NORTH LOW MOA - 1000
                                                       Daily
Monthly              Yearly
        Mission                                    Day        Night       Day
Night        Day       Night    Time On Range
        Name                                       OPS        OPS         OPS
 OPS         OPS        OPS       (minutes)
      CORSAIR N LOW  - ALTERNATIVE 1- A10         2.089      0.233      62.67
 7.00        752.        84.          4.
      CORSAIR N LOW  - ALTERNATIVE 1- A10_2       2.089      0.233      62.67
 7.00        752.        84.         14.
      CORSAIR N LOW  - ALTERNATIVE 1- A10_3       2.089      0.233      62.67
 7.00        752.        84.          2.
      CORSAIR N LOW - ALTERNATIVE 1 - C130        0.031      0.028       0.92
 0.83         11.        10.          3.
      CORSAIR N LOW - ALTERNATIVE 1 - C130_2      0.031      0.028       0.92
 0.83         11.        10.         24.
      CORSAIR N LOW - ALTERNATIVE 1 - C130_3      0.031      0.028       0.92
```

```
 0.83        11.        10.         3.
      CORSAIR N LOW - ALTERNATIVE 1 - H60           0.131      0.036       3.92
 1.08        47.        13.         8.
      CORSAIR N LOW - ALTERNATIVE 1 - H60_2         0.131      0.036       3.92
 1.08        47.        13.       128.
      CORSAIR N LOW - ALTERNATIVE 1 - H60_3         0.131      0.036       3.92
 1.08        47.        13.        15.
      CORSAIR N LOW - ALTERNATIVE 1- A29            1.503      0.078      45.08
 2.33       541.        28.        15.
      CORSAIR N LOW - ALTERNATIVE 1- A29_2          1.503      0.078      45.08
 2.33       541.        28.        47.
      CORSAIR N LOW - ALTERNATIVE 1- A29_3          1.503      0.078      45.08
 2.33       541.        28.        15.
      CORSAIR N LOW - ALTERNATIVE 1- F18            0.369      0.019      11.08
 0.58       133.         7.        33.


     MOA name = CORSAIR NORTH MOA
                                                            Daily
Monthly              Yearly
        Mission                                         Day        Night       Day
Night       Day        Night    Time On Range
         Name                                           OPS        OPS         OPS
 OPS        OPS         OPS       (minutes)
      CORSAIR N  - ALTERNATIVE 1- A10               5.825      0.647     174.75
19.42      2097.       233.        12.
      CORSAIR N  - ALTERNATIVE 1- A10_2             5.825      0.647     174.75
19.42      2097.       233.        42.
      CORSAIR N  - ALTERNATIVE 1- A10_3             5.825      0.647     174.75
19.42      2097.       233.         6.
      CORSAIR N - ALTERNATIVE 1- A29                0.467      0.025      14.00
 0.75       168.         9.         8.
      CORSAIR N - ALTERNATIVE 1- A29_2              0.467      0.025      14.00
 0.75       168.         9.        50.
      CORSAIR N - ALTERNATIVE 1- A29_3              0.467      0.025      14.00
 0.75       168.         9.        25.
      CORSAIR N - ALTERNATIVE 1- F18                0.672      0.036      20.17
 1.08       242.        13.        33.


     MOA name = CORSAIR SOUTH LOW MOA - 1000
                                                            Daily
Monthly              Yearly
        Mission                                         Day        Night       Day
Night       Day        Night    Time On Range
         Name                                           OPS        OPS         OPS
 OPS        OPS         OPS       (minutes)
      CORSAIR S LOW  - ALTERNATIVE 1- A10           2.089      0.233      62.67
 7.00       752.        84.         4.
      CORSAIR S LOW  - ALTERNATIVE 1- A10_2         2.089      0.233      62.67
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```
  7.00       752.        84.        14.
        CORSAIR S LOW  - ALTERNATIVE 1- A10_3          2.089       0.233       62.67
  7.00       752.        84.         2.
        CORSAIR S LOW - ALTERNATIVE 1 - C130           0.031       0.028        0.92
  0.83        11.        10.         3.
        CORSAIR S LOW - ALTERNATIVE 1 - C130_2         0.031       0.028        0.92
  0.83        11.        10.        24.
        CORSAIR S LOW - ALTERNATIVE 1 - C130_3         0.031       0.028        0.92
  0.83        11.        10.         3.
        CORSAIR S LOW - ALTERNATIVE 1 - H60            0.131       0.036        3.92
  1.08        47.        13.         8.
        CORSAIR S LOW - ALTERNATIVE 1 - H60_2          0.131       0.036        3.92
  1.08        47.        13.       128.
        CORSAIR S LOW - ALTERNATIVE 1 - H60_3          0.131       0.036        3.92
  1.08        47.        13.        15.
        CORSAIR S LOW - ALTERNATIVE 1- A29             0.750       0.039       22.50
  1.17       270.        14.        15.
        CORSAIR S LOW - ALTERNATIVE 1- A29_2           0.750       0.039       22.50
  1.17       270.        14.        47.
        CORSAIR S LOW - ALTERNATIVE 1- A29_3           0.750       0.039       22.50
  1.17       270.        14.        15.
        CORSAIR S LOW - ALTERNATIVE 1- F18             0.369       0.019       11.08
  0.58       133.         7.        33.


     MOA name = CORSAIR SOUTH MOA
                                                               Daily
 Monthly              Yearly
        Mission                                         Day        Night        Day
 Night      Day        Night    Time On Range
         Name                                           OPS         OPS         OPS
  OPS       OPS         OPS       (minutes)
        CORSAIR S  - ALTERNATIVE 1- A10                4.331       0.481      129.92
 14.42      1559.       173.        12.
        CORSAIR S  - ALTERNATIVE 1- A10_2              4.331       0.481      129.92
 14.42      1559.       173.        42.
        CORSAIR S  - ALTERNATIVE 1- A10_3              4.331       0.481      129.92
 14.42      1559.       173.         6.
        CORSAIR S - ALTERNATIVE 1- A29                 1.389       0.072       41.67
  2.17       500.        26.         8.
        CORSAIR S - ALTERNATIVE 1- A29_2               1.389       0.072       41.67
  2.17       500.        26.        47.
        CORSAIR S - ALTERNATIVE 1- A29_3               1.389       0.072       41.67
  2.17       500.        26.        24.
        CORSAIR S - ALTERNATIVE 1- F18                 0.917       0.067       27.50
  2.00       330.        24.        30.


     MOA name = GRAND BAY MOA AND R3008C
                                                               Daily
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Monthly              Yearly
        Mission                                               Day        Night        Day
Night       Day        Night    Time On Range
         Name                                                 OPS         OPS         OPS
 OPS        OPS        OPS       (minutes)
      R3008C - ALTERNATIVE 1 - A10                           7.850       0.872      235.50
26.17      2826.       314.          4.
      R3008C - ALTERNATIVE 1 - A10_2                         7.850       0.872      235.50
26.17      2826.       314.         14.
      R3008C - ALTERNATIVE 1 - A10_3                         7.850       0.872      235.50
26.17      2826.       314.          1.
      R3008C - ALTERNATIVE 1 - A29                           2.761       0.144       82.83
 4.33       994.        52.          1.
      R3008C - ALTERNATIVE 1 - A29_2                         2.761       0.144       82.83
 4.33       994.        52.          6.
      R3008C - ALTERNATIVE 1 - A29_3                         2.761       0.144       82.83
 4.33       994.        52.          2.
      R3008C - ALTERNATIVE 1 - C130                          0.378       0.356       11.33
10.67       136.       128.          3.
      R3008C - ALTERNATIVE 1 - C130_2                        0.378       0.356       11.33
10.67       136.       128.         24.
      R3008C - ALTERNATIVE 1 - C130_3                        0.378       0.356       11.33
10.67       136.       128.          3.
      R3008C - ALTERNATIVE 1 - F35                           0.031       0.003        0.92
 0.08        11.         1.          8.
      R3008C - ALTERNATIVE 1 - H60                           1.972       0.525       59.17
15.75       710.       189.          6.
      R3008C - ALTERNATIVE 1 - H60_2                         1.972       0.525       59.17
15.75       710.       189.         30.
      R3008C - ALTERNATIVE 1 - H60_3                         1.972       0.525       59.17
15.75       710.       189.          4.


     MOA name = HAWG NORTH MOA
                                                                     Daily
Monthly              Yearly
        Mission                                               Day        Night        Day
Night       Day        Night    Time On Range
         Name                                                 OPS         OPS         OPS
 OPS        OPS        OPS       (minutes)
      HAWG N - ALTERNATIVE 1 - A10                           4.708       0.522      141.25
15.67      1695.       188.         10.
      HAWG N - ALTERNATIVE 1 - A10_2                         4.708       0.522      141.25
15.67      1695.       188.         35.
      HAWG N - ALTERNATIVE 1 - A10_3                         4.708       0.522      141.25
15.67      1695.       188.          5.
      HAWG N - ALTERNATIVE 1 - F18                           0.117       0.006        3.50
 0.17        42.         2.        116.
```

MOA name = HAWG SOUTH MOA

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
HAWG S - ALTERNATIVE 1 - A10	4.708	0.522	141.25	15.67	1695.	188.	10.
HAWG S - ALTERNATIVE 1 - A10_2	4.708	0.522	141.25	15.67	1695.	188.	35.
HAWG S - ALTERNATIVE 1 - A10_3	4.708	0.522	141.25	15.67	1695.	188.	5.
HAWG S - ALTERNATIVE 1 - F18	0.117	0.006	3.50	0.17	42.	2.	116.

MOA name = LATN

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
LATN - EXISTING - A10	7.850	0.872	235.50	26.17	2826.	314.	2.
LATN - EXISTING - A10_2	7.850	0.872	235.50	26.17	2826.	314.	8.
LATN - EXISTING - A10_3	7.850	0.872	235.50	26.17	2826.	314.	1.
LATN - EXISTING - C130	1.419	1.336	42.58	40.08	511.	481.	3.
LATN - EXISTING - C130_2	1.419	1.336	42.58	40.08	511.	481.	24.
LATN - EXISTING - C130_3	1.419	1.336	42.58	40.08	511.	481.	3.
LATN - EXISTING - H60	2.961	0.786	88.83	23.58	1066.	283.	2.
LATN - EXISTING - H60_2	2.961	0.786	88.83	23.58	1066.	283.	25.
LATN - EXISTING - H60_3	2.961	0.786	88.83	23.58	1066.	283.	4.

MOA name = MOODY 2 NORTH MOA - 100

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night	Yearly Day	Yearly Night	Time On Range

```
  OPS         OPS         OPS       (minutes)
       MOODY 2N - ALTERNATIVE 1 - A10                4.708      0.522     141.25
15.67      1695.        188.          4.
       MOODY 2N - ALTERNATIVE 1 - A10_2              4.708      0.522     141.25
15.67      1695.        188.         14.
       MOODY 2N - ALTERNATIVE 1 - A10_3              4.708      0.522     141.25
15.67      1695.        188.          2.
       MOODY 2N - ALTERNATIVE 1 - A29                1.108      0.050      33.25
 1.50       399.         18.         15.
       MOODY 2N - ALTERNATIVE 1 - A29_2              1.108      0.050      33.25
 1.50       399.         18.         47.
       MOODY 2N - ALTERNATIVE 1 - A29_3              1.108      0.050      33.25
 1.50       399.         18.         77.
       MOODY 2N - ALTERNATIVE 1 - C130               0.333      0.314      10.00
 9.42       120.        113.          3.
       MOODY 2N - ALTERNATIVE 1 - C130_2             0.333      0.314      10.00
 9.42       120.        113.         24.
       MOODY 2N - ALTERNATIVE 1 - C130_3             0.333      0.314      10.00
 9.42       120.        113.          3.
       MOODY 2N - ALTERNATIVE 1 - F18                0.831      0.044      24.92
 1.33       299.         16.         43.
       MOODY 2N - ALTERNATIVE 1 - H60                1.775      0.472      53.25
14.17       639.        170.          8.
       MOODY 2N - ALTERNATIVE 1 - H60_2              1.775      0.472      53.25
14.17       639.        170.        128.
       MOODY 2N - ALTERNATIVE 1 - H60_3              1.775      0.472      53.25
14.17       639.        170.         15.


     MOA name = MOODY 2 SOUTH MOA
                                                          Daily
Monthly                 Yearly
        Mission                                        Day        Night        Day
Night       Day         Night     Time On Range
         Name                                          OPS         OPS         OPS
  OPS         OPS         OPS       (minutes)
       MOODY 2S - ALTERNATIVE 1 - A10                4.708      0.522     141.25
15.67      1695.        188.          4.
       MOODY 2S - ALTERNATIVE 1 - A10_2              4.708      0.522     141.25
15.67      1695.        188.         14.
       MOODY 2S - ALTERNATIVE 1 - A10_3              4.708      0.522     141.25
15.67      1695.        188.          2.
       MOODY 2S - ALTERNATIVE 1 - A29                0.942      0.050      28.25
 1.50       339.         18.         15.
       MOODY 2S - ALTERNATIVE 1 - A29_2              0.942      0.050      28.25
 1.50       339.         18.         47.
       MOODY 2S - ALTERNATIVE 1 - A29_3              0.942      0.050      28.25
 1.50       339.         18.         77.
       MOODY 2S - ALTERNATIVE 1 - C130               0.333      0.314      10.00
 9.42       120.        113.          3.
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       MOODY 2S - ALTERNATIVE 1 - C130_2            0.333      0.314      10.00
  9.42       120.       113.        24.
       MOODY 2S - ALTERNATIVE 1 - C130_3            0.333      0.314      10.00
  9.42       120.       113.         3.
       MOODY 2S - ALTERNATIVE 1 - F18               0.831      0.044      24.92
  1.33       299.        16.        43.
       MOODY 2S - ALTERNATIVE 1 - H60               1.775      0.472      53.25
 14.17       639.       170.         8.
       MOODY 2S - ALTERNATIVE 1 - H60_2             1.775      0.472      53.25
 14.17       639.       170.       128.
       MOODY 2S - ALTERNATIVE 1 - H60_3             1.775      0.472      53.25
 14.17       639.       170.        15.


      MOA name = MUSTANG LOW MOA - 1000
                                                       Daily
Monthly              Yearly
        Mission                                      Day       Night       Day
Night       Day       Night    Time On Range
         Name                                        OPS        OPS        OPS
 OPS        OPS        OPS       (minutes)
       MUSTANG LOW MOA - ALTERNATIVE 1 - C130       0.031      0.028       0.92
  0.83        11.        10.         3.
       MUSTANG LOW MOA - ALTERNATIVE 1 - C130_2     0.031      0.028       0.92
  0.83        11.        10.        24.
       MUSTANG LOW MOA - ALTERNATIVE 1 - C130_3     0.031      0.028       0.92
  0.83        11.        10.         3.
       MUSTANG LOW MOA - ALTERNATIVE 1 - H60        0.131      0.036       3.92
  1.08        47.        13.         8.
       MUSTANG LOW MOA - ALTERNATIVE 1 - H60_2      0.131      0.036       3.92
  1.08        47.        13.       128.
       MUSTANG LOW MOA - ALTERNATIVE 1 - H60_3      0.131      0.036       3.92
  1.08        47.        13.        15.
       MUSTANG LOW MOA - ALTERNATIVE 1- A10         2.089      0.233      62.67
  7.00       752.        84.         4.
       MUSTANG LOW MOA - ALTERNATIVE 1- A10_2       2.089      0.233      62.67
  7.00       752.        84.        14.
       MUSTANG LOW MOA - ALTERNATIVE 1- A10_3       2.089      0.233      62.67
  7.00       752.        84.         2.
       MUSTANG LOW MOA - ALTERNATIVE 1- A29         0.150      0.008       4.50
  0.25        54.         3.        15.
       MUSTANG LOW MOA - ALTERNATIVE 1- A29_2       0.150      0.008       4.50
  0.25        54.         3.        47.
       MUSTANG LOW MOA - ALTERNATIVE 1- A29_3       0.150      0.008       4.50
  0.25        54.         3.        15.
       MUSTANG LOW MOA - ALTERNATIVE 1- F18         0.369      0.019      11.08
  0.58       133.         7.        33.


      MOA name = MUSTANG MOA
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Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
MUSTANG - ALTERNATIVE 1 - A10	5.539	0.617	166.17	18.50	1994.	222.	12.
MUSTANG - ALTERNATIVE 1 - A10_2	5.539	0.617	166.17	18.50	1994.	222.	42.
MUSTANG - ALTERNATIVE 1 - A10_3	5.539	0.617	166.17	18.50	1994.	222.	6.
MUSTANG - ALTERNATIVE 1 - F35	0.758	0.039	22.75	1.17	273.	14.	38.
MUSTANG - ALTERNATIVE 1 - F18	1.289	0.067	38.67	2.00	464.	24.	30.

MOA name = R3008AB

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
R3008AB - EXISTING - A10	7.850	0.872	235.50	26.17	2826.	314.	10.
R3008AB - EXISTING - A10_2	7.850	0.872	235.50	26.17	2826.	314.	34.
R3008AB - EXISTING - A10_3	7.850	0.872	235.50	26.17	2826.	314.	5.
R3008AB - EXISTING - A29	2.761	0.144	82.83	4.33	994.	52.	3.
R3008AB - EXISTING - A29_2	2.761	0.144	82.83	4.33	994.	52.	15.
R3008AB - EXISTING - A29_3	2.761	0.144	82.83	4.33	994.	52.	7.
R3008AB - EXISTING - C130	0.378	0.356	11.33	10.67	136.	128.	12.
R3008AB - EXISTING - C130_2	0.378	0.356	11.33	10.67	136.	128.	96.
R3008AB - EXISTING - C130_3	0.378	0.356	11.33	10.67	136.	128.	12.
R3008AB - EXISTING - F35	0.031	0.003	0.92	0.08	11.	1.	32.
R3008AB - EXISTING - H60	1.972	0.525	59.17	15.75	710.	189.	6.
R3008AB - EXISTING - H60_2	1.972	0.525	59.17	15.75	710.	189.	99.
R3008AB - EXISTING - H60_3	1.972	0.525	59.17				

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15.75       710.       189.        15.

     MOA name = SABRE MOA
                                                                     Daily
Monthly               Yearly
        Mission                                                  Day        Night       Day
Night        Day        Night    Time On Range
         Name                                                    OPS         OPS        OPS
 OPS         OPS         OPS       (minutes)
      SABRE - EXISTING - F18                                    0.864       0.044      25.92
 1.33       311.        16.        32.
      SABRE - EXISTING - F35                                    0.047       0.003       1.42
 0.08        17.         1.        40.

     MOA name = THUD LOW MOA
                                                                     Daily
Monthly               Yearly
        Mission                                                  Day        Night       Day
Night        Day        Night    Time On Range
         Name                                                    OPS         OPS        OPS
 OPS         OPS         OPS       (minutes)
      THUD - ALTERNATIVE 1 - A10                                3.450       0.383     103.50
11.50       1242.       138.        12.
      THUD - ALTERNATIVE 1 - A10_2                              3.450       0.383     103.50
11.50       1242.       138.        42.
      THUD - ALTERNATIVE 1 - A10_3                              3.450       0.383     103.50
11.50       1242.       138.         6.
      THUD - ALTERNATIVE 1 - F18                                1.042       0.056      31.25
 1.67        375.        20.        30.
      THUD - ALTERNATIVE 1 - F35                                0.778       0.042      23.33
 1.25        280.        15.        38.

     MOA name = WARHAWK LOW MOA - 1000
                                                                     Daily
Monthly               Yearly
        Mission                                                  Day        Night       Day
Night        Day        Night    Time On Range
         Name                                                    OPS         OPS        OPS
 OPS         OPS         OPS       (minutes)
      WARHAWK LOW MOA - ALTERNATIVE 1 - C130                    0.031       0.028       0.92
 0.83        11.         10.         3.
      WARHAWK LOW MOA - ALTERNATIVE 1 - C130_2                  0.031       0.028       0.92
 0.83        11.         10.        24.
      WARHAWK LOW MOA - ALTERNATIVE 1 - C130_3                  0.031       0.028       0.92
 0.83        11.         10.         3.
      WARHAWK LOW MOA - ALTERNATIVE 1 - H60                     0.131       0.036       3.92
 1.08        47.         13.         8.
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     WARHAWK LOW MOA - ALTERNATIVE 1 - H60_2       0.131      0.036       3.92
 1.08       47.        13.        25.
     WARHAWK LOW MOA - ALTERNATIVE 1 - H60_3       0.131      0.036       3.92
 1.08       47.        13.        15.
     WARHAWK LOW MOA - ALTERNATIVE 1- A10          2.089      0.233      62.67
 7.00      752.        84.         4.
     WARHAWK LOW MOA - ALTERNATIVE 1- A10_2        2.089      0.233      62.67
 7.00      752.        84.        14.
     WARHAWK LOW MOA - ALTERNATIVE 1- A10_3        2.089      0.233      62.67
 7.00      752.        84.         2.
     WARHAWK LOW MOA - ALTERNATIVE 1- A29          0.100      0.006       3.00
 0.17       36.         2.        15.
     WARHAWK LOW MOA - ALTERNATIVE 1- A29_2        0.100      0.006       3.00
 0.17       36.         2.        47.
     WARHAWK LOW MOA - ALTERNATIVE 1- A29_3        0.100      0.006       3.00
 0.17       36.         2.        15.
     WARHAWK LOW MOA - ALTERNATIVE 1- F18          0.369      0.019      11.08
 0.58      133.         7.        33.


    MOA name = WARHAWK MOA
                                                        Daily
Monthly               Yearly
        Mission                                      Day       Night        Day
Night       Day       Night    Time On Range
         Name                                        OPS        OPS         OPS
 OPS        OPS        OPS       (minutes)
     WARHAWK - ALTERNATIVE 1 - A10                 5.539      0.617     166.17
18.50      1994.       222.        12.
     WARHAWK - ALTERNATIVE 1 - A10_2               5.539      0.617     166.17
18.50      1994.       222.        42.
     WARHAWK - ALTERNATIVE 1 - A10_3               5.539      0.617     166.17
18.50      1994.       222.         6.
     WARHAWK - ALTERNATIVE 1 - F18                 1.389      0.072      41.67
 2.17       500.        26.        30.
     WARHAWK - ALTERNATIVE 1 - F35                 0.753      0.039      22.58
 1.17       271.        14.        38.


    ***********************************************************
        Warning:  Grid points spaced greater than 1000 feet
        apart may not provide the necessary grid resolution,
        in some cases, to compute noise contours with
        high accuracy.  For low-altitude track operations,
        the recommended grid spacing is less than 1000 feet.
    ***********************************************************
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***** MOA RANGE NOISEMAP *****
RESULTS

The noise metric is Ldnmr.

MOA RESULTS

MOA Name	MOA Area (sq statute miles)	Uniform Distributed Sound Level (dB)	Number of Daily Events Above SEL of 65.0 dB
CORSAIR NORTH LOW MOA - 1000	755.3	35.0	0.0
CORSAIR NORTH LOW MOA - 2000	755.3	No operations on this MOA!	
CORSAIR NORTH LOW MOA - 4000	755.3	No operations on this MOA!	
CORSAIR NORTH MOA	755.3	35.0	0.0
CORSAIR SOUTH LOW MOA - 1000	591.9	35.0	0.0
CORSAIR SOUTH LOW MOA - 2000	591.9	No operations on this MOA!	
CORSAIR SOUTH LOW MOA - 4000	591.9	No operations on this MOA!	
CORSAIR SOUTH MOA	591.9	35.0	0.0
GRAND BAY MOA AND R3008C	89.2	51.0	0.0
HAWG NORTH MOA	779.1	35.0	0.0
HAWG SOUTH MOA	704.3	35.0	0.0
LATN	4200.0	35.0	0.0
MOODY 2 NORTH MOA	420.7	No operations on this MOA!	
MOODY 2 NORTH MOA - 100	420.7	44.6	0.0
MOODY 2 SOUTH MOA	536.4	42.0	0.0
MUSTANG LOW MOA - 1000	470.3	35.0	0.0
MUSTANG LOW MOA - 2000	470.3	No operations on this MOA!	
MUSTANG LOW MOA - 4000	470.3	No operations on this MOA!	
MUSTANG MOA	470.3	39.3	0.0
R3008AB	34.1	59.7	0.0
R3008C	89.2	No operations on this MOA!	
SABRE MOA	1599.8	35.0	0.0
THUD LOW MOA	658.3	40.7	0.2
THUD MOA	658.3	No operations on this MOA!	
WARHAWK LOW MOA - 1000	682.0	35.0	0.0

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     WARHAWK LOW MOA - 2000                          682.0      No operations on this
MOA!
     WARHAWK LOW MOA - 4000                          682.0      No operations on this
MOA!
     WARHAWK MOA                                     682.0        37.6            0.4
```

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                              ***** MOA RANGE NOISEMAP *****
                                         RESULTS


                                  SPECIFIC POINT RESULTS

    Specific Point:  CORSAIR N POI
    Top 20 contributors to this level:


                 Sound Level
    <                 Airspace                  >  Mission
       Aircraft     (dB)       HA(%)
    LATN                                           LATN - EXISTING - A10_2
       A-10A      < 35.0
    CORSAIR NORTH LOW MOA - 1000                   CORSAIR N LOW  - ALTERNATIVE 1-
A10_2     A-10A      < 35.0
    CORSAIR NORTH MOA                              CORSAIR N  - ALTERNATIVE 1- A10_2
       A-10A      < 35.0
    LATN                                           LATN - EXISTING - C130_2
       C-130J     < 35.0
    LATN                                           LATN - EXISTING - H60_2
       UH60A      < 35.0
    CORSAIR NORTH LOW MOA - 1000                   CORSAIR N LOW  - ALTERNATIVE 1-
A10_3     A-10A      < 35.0
    LATN                                           LATN - EXISTING - A10_3
       A-10A      < 35.0
    CORSAIR NORTH LOW MOA - 1000                   CORSAIR N LOW - ALTERNATIVE 1 -
H60_2     UH60A      < 35.0
    CORSAIR NORTH MOA                              CORSAIR N  - ALTERNATIVE 1- A10_3
       A-10A      < 35.0
    CORSAIR NORTH LOW MOA - 1000                   CORSAIR N LOW - ALTERNATIVE 1- F18
       F-18A/C    < 35.0
    LATN                                           LATN - EXISTING - C130_3
       C-130J     < 35.0
    CORSAIR NORTH LOW MOA - 1000                   CORSAIR N LOW - ALTERNATIVE 1-
A29_2      T-6        < 35.0
    LATN                                           LATN - EXISTING - H60_3
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      UH60A       < 35.0
   LATN                                          LATN - EXISTING - C130
      C-130J      < 35.0
   LATN                                          LATN - EXISTING - A10
      A-10A       < 35.0
   CORSAIR NORTH LOW MOA - 1000                  CORSAIR N LOW - ALTERNATIVE 1 -
C130_2    C-130J      < 35.0
   CORSAIR NORTH MOA                             CORSAIR N - ALTERNATIVE 1- A29_3
      T-6         < 35.0
   CORSAIR NORTH LOW MOA - 1000                  CORSAIR N LOW - ALTERNATIVE 1 -
H60_3     UH60A       < 35.0
   CORSAIR NORTH LOW MOA - 1000                  CORSAIR N LOW  - ALTERNATIVE 1-
A10       A-10A       < 35.0
   CORSAIR NORTH MOA                             CORSAIR N - ALTERNATIVE 1- F18
      F-18A/C     < 35.0


Total Level ........     36.7       0.3


   Specific Point:  CORSAIR S POI
   Top 20 contributors to this level:


                Sound Level
   <                 Airspace                 >  Mission
      Aircraft      (dB)      HA(%)
   CORSAIR SOUTH LOW MOA - 1000                  CORSAIR S LOW  - ALTERNATIVE 1-
A10_2     A-10A       < 35.0
   LATN                                          LATN - EXISTING - A10_2
      A-10A       < 35.0
   CORSAIR SOUTH MOA                             CORSAIR S  - ALTERNATIVE 1- A10_2
      A-10A       < 35.0
   LATN                                          LATN - EXISTING - C130_2
      C-130J      < 35.0
   LATN                                          LATN - EXISTING - H60_2
      UH60A       < 35.0
   CORSAIR SOUTH LOW MOA - 1000                  CORSAIR S LOW  - ALTERNATIVE 1-
A10_3     A-10A       < 35.0
   CORSAIR SOUTH LOW MOA - 1000                  CORSAIR S LOW - ALTERNATIVE 1-
A29_3      T-6         < 35.0
   CORSAIR SOUTH LOW MOA - 1000                  CORSAIR S LOW - ALTERNATIVE 1 -
H60_2     UH60A       < 35.0
   LATN                                          LATN - EXISTING - A10_3
      A-10A       < 35.0
   CORSAIR SOUTH LOW MOA - 1000                  CORSAIR S LOW - ALTERNATIVE 1- F18
      F-18A/C     < 35.0
   CORSAIR SOUTH MOA                             CORSAIR S  - ALTERNATIVE 1- A10_3
      A-10A       < 35.0
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    CORSAIR SOUTH MOA                            CORSAIR S - ALTERNATIVE 1- A29_3
       T-6          < 35.0
    LATN                                         LATN - EXISTING - C130_3
       C-130J       < 35.0
    LATN                                         LATN - EXISTING - H60_3
       UH60A        < 35.0
    CORSAIR SOUTH LOW MOA - 1000                 CORSAIR S LOW - ALTERNATIVE 1 -
C130_2    C-130J       < 35.0
    LATN                                         LATN - EXISTING - C130
       C-130J       < 35.0
    LATN                                         LATN - EXISTING - A10
       A-10A        < 35.0
    CORSAIR SOUTH LOW MOA - 1000                 CORSAIR S LOW - ALTERNATIVE 1-
A29_2      T-6          < 35.0
    CORSAIR SOUTH LOW MOA - 1000                 CORSAIR S LOW - ALTERNATIVE 1 -
H60_3     UH60A        < 35.0
    CORSAIR SOUTH MOA                            CORSAIR S - ALTERNATIVE 1- F18
       F-18A/C      < 35.0


Total Level ........     37.4       0.3


    Specific Point:  MOODY2N POI
    Top 20 contributors to this level:


                 Sound Level
    <                Airspace                  >  Mission
       Aircraft     (dB)       HA(%)
    MOODY 2 NORTH MOA - 100                      MOODY 2N - ALTERNATIVE 1 - A10_2
       A-10A        40.2        0.4
    MOODY 2 NORTH MOA - 100                      MOODY 2N - ALTERNATIVE 1 - H60_2
       UH60A        38.9        0.4
    MOODY 2 NORTH MOA - 100                      MOODY 2N - ALTERNATIVE 1 - A29_3
       T-6          35.7        0.2
    MOODY 2 NORTH MOA - 100                      MOODY 2N - ALTERNATIVE 1 - A10_3
       A-10A        < 35.0
    MOODY 2 NORTH MOA - 100                      MOODY 2N - ALTERNATIVE 1 - H60_3
       UH60A        < 35.0
    MOODY 2 NORTH MOA - 100                      MOODY 2N - ALTERNATIVE 1 - C130_2
       C-130J       < 35.0
    MOODY 2 NORTH MOA - 100                      MOODY 2N - ALTERNATIVE 1 - F18
       F-18A/C      < 35.0
    MOODY 2 NORTH MOA - 100                      MOODY 2N - ALTERNATIVE 1 - A10
       A-10A        < 35.0
    HAWG NORTH MOA                               HAWG N - ALTERNATIVE 1 - A10_2
       A-10A        < 35.0
    MOODY 2 NORTH MOA - 100                      MOODY 2N - ALTERNATIVE 1 - C130_3
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   C-130J      < 35.0
MOODY 2 NORTH MOA - 100                        MOODY 2N - ALTERNATIVE 1 - H60
   UH60A       < 35.0
MOODY 2 NORTH MOA - 100                        MOODY 2N - ALTERNATIVE 1 - C130
   C-130J      < 35.0
MOODY 2 NORTH MOA - 100                        MOODY 2N - ALTERNATIVE 1 - A29_2
   T-6         < 35.0
HAWG NORTH MOA                                 HAWG N - ALTERNATIVE 1 - A10_3
   A-10A       < 35.0
HAWG NORTH MOA                                 HAWG N - ALTERNATIVE 1 - F18
   F-18A/C     < 35.0
MOODY 2 NORTH MOA - 100                        MOODY 2N - ALTERNATIVE 1 - A29
   T-6         < 35.0
HAWG NORTH MOA                                 HAWG N - ALTERNATIVE 1 - A10
   A-10A       < 35.0
R3008AB                                        R3008AB - EXISTING - A10_2
   A-10A       < 35.0
R3008AB                                        R3008AB - EXISTING - F35
   F-35A       < 35.0
R3008AB                                        R3008AB - EXISTING - A10_3
   A-10A       < 35.0


Total Level ........     44.6       0.8


    Specific Point:  MOODY2S POI
    Top 20 contributors to this level:


                Sound Level
    <                Airspace                > Mission
       Aircraft     (dB)      HA(%)
    MOODY 2 SOUTH MOA                          MOODY 2S - ALTERNATIVE 1 - A10_2
       A-10A        36.9       0.3
    MOODY 2 SOUTH MOA                          MOODY 2S - ALTERNATIVE 1 - H60_2
       UH60A        36.9       0.3
    MOODY 2 SOUTH MOA                          MOODY 2S - ALTERNATIVE 1 - A29_3
       T-6         < 35.0
    MOODY 2 SOUTH MOA                          MOODY 2S - ALTERNATIVE 1 - A10_3
       A-10A       < 35.0
    MOODY 2 SOUTH MOA                          MOODY 2S - ALTERNATIVE 1 - C130_2
       C-130J      < 35.0
    MOODY 2 SOUTH MOA                          MOODY 2S - ALTERNATIVE 1 - H60_3
       UH60A       < 35.0
    MOODY 2 SOUTH MOA                          MOODY 2S - ALTERNATIVE 1 - F18
       F-18A/C     < 35.0
    HAWG SOUTH MOA                             HAWG S - ALTERNATIVE 1 - A10_2
       A-10A       < 35.0
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    MOODY 2 SOUTH MOA                             MOODY 2S - ALTERNATIVE 1 - A10
       A-10A      < 35.0
    MOODY 2 SOUTH MOA                             MOODY 2S - ALTERNATIVE 1 - C130_3
       C-130J     < 35.0
    MOODY 2 SOUTH MOA                             MOODY 2S - ALTERNATIVE 1 - H60
       UH60A      < 35.0
    HAWG SOUTH MOA                                HAWG S - ALTERNATIVE 1 - A10_3
       A-10A      < 35.0
    MOODY 2 SOUTH MOA                             MOODY 2S - ALTERNATIVE 1 - C130
       C-130J     < 35.0
    MOODY 2 SOUTH MOA                             MOODY 2S - ALTERNATIVE 1 - A29_2
       T-6        < 35.0
    HAWG SOUTH MOA                                HAWG S - ALTERNATIVE 1 - F18
       F-18A/C    < 35.0
    MOODY 2 SOUTH MOA                             MOODY 2S - ALTERNATIVE 1 - A29
       T-6        < 35.0
    HAWG SOUTH MOA                                HAWG S - ALTERNATIVE 1 - A10
       A-10A      < 35.0
    R3008AB                                       R3008AB - EXISTING - A10_2
       A-10A      < 35.0
    R3008AB                                       R3008AB - EXISTING - F35
       F-35A      < 35.0
    R3008AB                                       R3008AB - EXISTING - A10_3
       A-10A      < 35.0


Total Level ........     42.2        0.6


    Specific Point:  MUSTANG PO1
    Top 20 contributors to this level:


                Sound Level
    <                Airspace                   > Mission
       Aircraft     (dB)       HA(%)
    MUSTANG MOA                                   MUSTANG  - ALTERNATIVE 1 - F35
       F-35A        38.6        0.3
    MUSTANG LOW MOA - 1000                        MUSTANG LOW MOA - ALTERNATIVE 1-
A10_2    A-10A      < 35.0
    LATN                                          LATN - EXISTING - A10_2
       A-10A      < 35.0
    MUSTANG MOA                                   MUSTANG  - ALTERNATIVE 1 - A10_2
       A-10A      < 35.0
    LATN                                          LATN - EXISTING - C130_2
       C-130J     < 35.0
    MUSTANG LOW MOA - 1000                        MUSTANG LOW MOA - ALTERNATIVE 1-
A10_3    A-10A      < 35.0
    LATN                                          LATN - EXISTING - H60_2
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      UH60A      < 35.0
   MUSTANG LOW MOA - 1000                     MUSTANG LOW MOA - ALTERNATIVE 1 -
H60_2   UH60A      < 35.0
   LATN                                       LATN - EXISTING - A10_3
      A-10A      < 35.0
   MUSTANG MOA                                MUSTANG  - ALTERNATIVE 1 - A10_3
      A-10A      < 35.0
   MUSTANG LOW MOA - 1000                     MUSTANG LOW MOA - ALTERNATIVE 1-
F18      F-18A/C    < 35.0
   LATN                                       LATN - EXISTING - C130_3
      C-130J     < 35.0
   MUSTANG LOW MOA - 1000                     MUSTANG LOW MOA - ALTERNATIVE 1-
A29_3    T-6        < 35.0
   MUSTANG LOW MOA - 1000                     MUSTANG LOW MOA - ALTERNATIVE 1 -
C130_2  C-130J     < 35.0
   MUSTANG MOA                                MUSTANG - ALTERNATIVE 1 - F18
      F-18A/C    < 35.0
   LATN                                       LATN - EXISTING - H60_3
      UH60A      < 35.0
   MUSTANG LOW MOA - 1000                     MUSTANG LOW MOA - ALTERNATIVE 1 -
H60_3   UH60A      < 35.0
   LATN                                       LATN - EXISTING - C130
      C-130J     < 35.0
   LATN                                       LATN - EXISTING - A10
      A-10A      < 35.0
   MUSTANG LOW MOA - 1000                     MUSTANG LOW MOA - ALTERNATIVE 1-
A10      A-10A      < 35.0


Total Level ........     41.2        0.5


   Specific Point:  R3008A POI
   Top 20 contributors to this level:


             Sound Level
   <              Airspace                  >  Mission
      Aircraft    (dB)       HA(%)
   R3008AB                                     R3008AB - EXISTING - A10_2
      A-10A       56.2        3.9
   R3008AB                                     R3008AB - EXISTING - F35
      F-35A       49.5        1.5
   R3008AB                                     R3008AB - EXISTING - A10_3
      A-10A       49.2        1.5
   R3008AB                                     R3008AB - EXISTING - H60_2
      UH60A       47.9        1.2
   R3008AB                                     R3008AB - EXISTING - C130_2
      C-130J      45.7        0.9
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    R3008AB                                            R3008AB - EXISTING - A10
       A-10A        42.7        0.6
    R3008AB                                            R3008AB - EXISTING - H60_3
       UH60A        39.6        0.4
    R3008AB                                            R3008AB - EXISTING - A29_3
       T-6          38.5        0.3
    R3008AB                                            R3008AB - EXISTING - C130_3
       C-130J       38.3        0.3
    R3008AB                                            R3008AB - EXISTING - C130
       C-130J       36.1        0.2
    R3008AB                                            R3008AB - EXISTING - H60
       UH60A      < 35.0
    LATN                                               LATN - EXISTING - A10_2
       A-10A      < 35.0
    R3008AB                                            R3008AB - EXISTING - A29_2
       T-6        < 35.0
    LATN                                               LATN - EXISTING - C130_2
       C-130J     < 35.0
    LATN                                               LATN - EXISTING - H60_2
       UH60A      < 35.0
    LATN                                               LATN - EXISTING - A10_3
       A-10A      < 35.0
    SABRE MOA                                          SABRE - EXISTING - F35
       F-35A      < 35.0
    LATN                                               LATN - EXISTING - C130_3
       C-130J     < 35.0
    LATN                                               LATN - EXISTING - H60_3
       UH60A      < 35.0
    LATN                                               LATN - EXISTING - C130
       C-130J     < 35.0

Total Level ........     58.7        5.4


    Specific Point:  R3008B POI
    Top 20 contributors to this level:


                 Sound Level
    <                 Airspace                       >  Mission
       Aircraft     (dB)        HA(%)
    R3008AB                                            R3008AB - EXISTING - A10_2
       A-10A        57.1        4.4
    R3008AB                                            R3008AB - EXISTING - F35
       F-35A        50.5        1.8
    R3008AB                                            R3008AB - EXISTING - A10_3
       A-10A        50.3        1.7
    R3008AB                                            R3008AB - EXISTING - H60_2
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```
   UH60A        49.1        1.5
R3008AB                                         R3008AB - EXISTING - C130_2
   C-130J       47.3        1.1
R3008AB                                         R3008AB - EXISTING - A10
   A-10A        43.4        0.7
R3008AB                                         R3008AB - EXISTING - H60_3
   UH60A        40.8        0.5
R3008AB                                         R3008AB - EXISTING - A29_3
   T-6          40.0        0.4
R3008AB                                         R3008AB - EXISTING - C130_3
   C-130J       39.9        0.4
R3008AB                                         R3008AB - EXISTING - C130
   C-130J       37.7        0.3
R3008AB                                         R3008AB - EXISTING - H60
   UH60A      < 35.0
R3008AB                                         R3008AB - EXISTING - A29_2
   T-6        < 35.0
HAWG SOUTH MOA                                  HAWG S - ALTERNATIVE 1 - A10_2
   A-10A      < 35.0
HAWG NORTH MOA                                  HAWG N - ALTERNATIVE 1 - A10_2
   A-10A      < 35.0
R3008AB                                         R3008AB - EXISTING - A29
   T-6        < 35.0
HAWG SOUTH MOA                                  HAWG S - ALTERNATIVE 1 - A10_3
   A-10A      < 35.0
HAWG NORTH MOA                                  HAWG N - ALTERNATIVE 1 - A10_3
   A-10A      < 35.0
HAWG SOUTH MOA                                  HAWG S - ALTERNATIVE 1 - F18
   F-18A/C    < 35.0
HAWG NORTH MOA                                  HAWG N - ALTERNATIVE 1 - F18
   F-18A/C    < 35.0
HAWG SOUTH MOA                                  HAWG S - ALTERNATIVE 1 - A10
   A-10A      < 35.0

Total Level ........     59.7        6.2


Specific Point:  R3008C POI
Top 20 contributors to this level:


             Sound Level
<                 Airspace                    > Mission
   Aircraft     (dB)      HA(%)
GRAND BAY MOA AND R3008C                        R3008C - ALTERNATIVE 1 - A10_2
   A-10A        49.0        1.5
GRAND BAY MOA AND R3008C                        R3008C - ALTERNATIVE 1 - F35
   F-35A        40.2        0.4
```

```
GRAND BAY MOA AND R3008C                         R3008C - ALTERNATIVE 1 - A10_3
   A-10A        40.0        0.4
GRAND BAY MOA AND R3008C                         R3008C - ALTERNATIVE 1 - H60_2
   UH60A        39.7        0.4
GRAND BAY MOA AND R3008C                         R3008C - ALTERNATIVE 1 - C130_2
   C-130J       37.9        0.3
GRAND BAY MOA AND R3008C                         R3008C - ALTERNATIVE 1 - A10
   A-10A        35.3        0.2
GRAND BAY MOA AND R3008C                         R3008C - ALTERNATIVE 1 - H60_3
   UH60A      < 35.0
GRAND BAY MOA AND R3008C                         R3008C - ALTERNATIVE 1 - C130_3
   C-130J     < 35.0
GRAND BAY MOA AND R3008C                         R3008C - ALTERNATIVE 1 - A29_3
   T-6        < 35.0
GRAND BAY MOA AND R3008C                         R3008C - ALTERNATIVE 1 - H60
   UH60A      < 35.0
GRAND BAY MOA AND R3008C                         R3008C - ALTERNATIVE 1 - C130
   C-130J     < 35.0
HAWG SOUTH MOA                                   HAWG S - ALTERNATIVE 1 - A10_2
   A-10A      < 35.0
GRAND BAY MOA AND R3008C                         R3008C - ALTERNATIVE 1 - A29_2
   T-6        < 35.0
HAWG SOUTH MOA                                   HAWG S - ALTERNATIVE 1 - A10_3
   A-10A      < 35.0
HAWG SOUTH MOA                                   HAWG S - ALTERNATIVE 1 - F18
   F-18A/C    < 35.0
GRAND BAY MOA AND R3008C                         R3008C - ALTERNATIVE 1 - A29
   T-6        < 35.0
HAWG SOUTH MOA                                   HAWG S - ALTERNATIVE 1 - A10
   A-10A      < 35.0
R3008AB                                          R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                          R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                          R3008AB - EXISTING - A10_3
   A-10A      < 35.0


Total Level ........      51.0        1.9


    Specific Point:  SABRE POI
    Top 20 contributors to this level:


                 Sound Level
    <                 Airspace                    >  Mission
       Aircraft     (dB)       HA(%)
    LATN                                             LATN - EXISTING - A10_2
```

```
   A-10A      < 35.0
LATN                                             LATN - EXISTING - C130_2
   C-130J     < 35.0
LATN                                             LATN - EXISTING - H60_2
   UH60A      < 35.0
LATN                                             LATN - EXISTING - A10_3
   A-10A      < 35.0
SABRE MOA                                        SABRE - EXISTING - F35
   F-35A      < 35.0
LATN                                             LATN - EXISTING - C130_3
   C-130J     < 35.0
LATN                                             LATN - EXISTING - H60_3
   UH60A      < 35.0
LATN                                             LATN - EXISTING - C130
   C-130J     < 35.0
LATN                                             LATN - EXISTING - A10
   A-10A      < 35.0
SABRE MOA                                        SABRE - EXISTING - F18
   F-18A/C    < 35.0
LATN                                             LATN - EXISTING - H60
   UH60A      < 35.0
R3008AB                                          R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                          R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                          R3008AB - EXISTING - A10_3
   A-10A      < 35.0
R3008AB                                          R3008AB - EXISTING - H60_2
   UH60A      < 35.0
GRAND BAY MOA AND R3008C                         R3008C - ALTERNATIVE 1 - A10_2
   A-10A      < 35.0
R3008AB                                          R3008AB - EXISTING - C130_2
   C-130J     < 35.0
R3008AB                                          R3008AB - EXISTING - A10
   A-10A      < 35.0
R3008AB                                          R3008AB - EXISTING - H60_3
   UH60A      < 35.0
THUD LOW MOA                                     THUD - ALTERNATIVE 1 - F35
   F-35A      < 35.0


Total Level ........   < 35.0


    Specific Point:  THUD POI
    Top 20 contributors to this level:

                Sound Level
```

```
<                 Airspace               >  Mission
   Aircraft     (dB)      HA(%)
THUD LOW MOA                                THUD - ALTERNATIVE 1 - F35
   F-35A        40.4        0.4
LATN                                        LATN - EXISTING - A10_2
   A-10A      < 35.0
THUD LOW MOA                                THUD - ALTERNATIVE 1 - A10_2
   A-10A      < 35.0
LATN                                        LATN - EXISTING - C130_2
   C-130J     < 35.0
LATN                                        LATN - EXISTING - H60_2
   UH60A      < 35.0
LATN                                        LATN - EXISTING - A10_3
   A-10A      < 35.0
THUD LOW MOA                                THUD - ALTERNATIVE 1 - A10_3
   A-10A      < 35.0
LATN                                        LATN - EXISTING - C130_3
   C-130J     < 35.0
THUD LOW MOA                                THUD - ALTERNATIVE 1 - F18
   F-18A/C    < 35.0
LATN                                        LATN - EXISTING - H60_3
   UH60A      < 35.0
LATN                                        LATN - EXISTING - C130
   C-130J     < 35.0
LATN                                        LATN - EXISTING - A10
   A-10A      < 35.0
THUD LOW MOA                                THUD - ALTERNATIVE 1 - A10
   A-10A      < 35.0
LATN                                        LATN - EXISTING - H60
   UH60A      < 35.0
R3008AB                                     R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                     R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                     R3008AB - EXISTING - A10_3
   A-10A      < 35.0
R3008AB                                     R3008AB - EXISTING - H60_2
   UH60A      < 35.0
GRAND BAY MOA AND R3008C                    R3008C - ALTERNATIVE 1 - A10_2
   A-10A      < 35.0
R3008AB                                     R3008AB - EXISTING - C130_2
   C-130J     < 35.0


Total Level ........     41.4       0.5


    Specific Point:  WARHAWK POI
    Top 20 contributors to this level:
```

```
                 Sound Level
     <                Airspace                  >  Mission
        Aircraft     (dB)       HA(%)
     WARHAWK MOA                                   WARHAWK - ALTERNATIVE 1 - F35
        F-35A        37.0        0.3
     WARHAWK LOW MOA - 1000                        WARHAWK LOW MOA - ALTERNATIVE 1-
A10_2     A-10A      < 35.0
     WARHAWK MOA                                   WARHAWK - ALTERNATIVE 1 - A10_2
        A-10A      < 35.0
     WARHAWK LOW MOA - 1000                        WARHAWK LOW MOA - ALTERNATIVE 1-
A10_3     A-10A      < 35.0
     WARHAWK MOA                                   WARHAWK - ALTERNATIVE 1 - A10_3
        A-10A      < 35.0
     WARHAWK LOW MOA - 1000                        WARHAWK LOW MOA - ALTERNATIVE 1-
F18       F-18A/C    < 35.0
     WARHAWK MOA                                   WARHAWK - ALTERNATIVE 1 - F18
        F-18A/C    < 35.0
     WARHAWK LOW MOA - 1000                        WARHAWK LOW MOA - ALTERNATIVE 1 -
C130_2  C-130J      < 35.0
     WARHAWK LOW MOA - 1000                        WARHAWK LOW MOA - ALTERNATIVE 1 -
H60_2   UH60A       < 35.0
     WARHAWK LOW MOA - 1000                        WARHAWK LOW MOA - ALTERNATIVE 1 -
H60_3   UH60A       < 35.0
     WARHAWK LOW MOA - 1000                        WARHAWK LOW MOA - ALTERNATIVE 1-
A29_3     T-6        < 35.0
     WARHAWK LOW MOA - 1000                        WARHAWK LOW MOA - ALTERNATIVE 1-
A10       A-10A      < 35.0
     WARHAWK LOW MOA - 1000                        WARHAWK LOW MOA - ALTERNATIVE 1 -
C130_3  C-130J      < 35.0
     WARHAWK LOW MOA - 1000                        WARHAWK LOW MOA - ALTERNATIVE 1 -
H60     UH60A       < 35.0
     WARHAWK LOW MOA - 1000                        WARHAWK LOW MOA - ALTERNATIVE 1-
A29_2     T-6        < 35.0
     WARHAWK MOA                                   WARHAWK - ALTERNATIVE 1 - A10
        A-10A      < 35.0
     WARHAWK LOW MOA - 1000                        WARHAWK LOW MOA - ALTERNATIVE 1 -
C130    C-130J      < 35.0
     WARHAWK LOW MOA - 1000                        WARHAWK LOW MOA - ALTERNATIVE 1-
A29       T-6        < 35.0
     R3008AB                                       R3008AB - EXISTING - A10_2
        A-10A      < 35.0
     R3008AB                                       R3008AB - EXISTING - F35
        F-35A      < 35.0


Total Level ........     38.7        0.3
```

```
<Run Log>
Date:                    7/24/2020
Start Time:             10:53: 4
Stop Time:              11: 9:18
Total Running Time:     16 minutes and  15 seconds.
```

```
                ***** MOA RANGE NOISEMAP *****
                         Version  3.0
                 Release Date      2/7/2013

                       CASE INFORMATION
Case Name:Moody AFB SUA - Alternative 2 - 2000 ft Floor Scenario

Site Name:Moody SUA Complex


                       SETUP PARAMETERS
Number of MOAs and Ranges = 28     Number of tracks = 0
Lower Left  Corner of Grid in feet (X Y pair) =  -300000.,  -325000.
Upper Right Corner of Grid in feet (X Y pair) =   300000.,   325000.
Grid spacing =     2500. feet      Number of events above an SEL  of 65.0 dB
Temperature =  59 F      Humidity =  70     Flying days per month = 30


                      MOA SPECIFICATIONS

MOA name CORSAIR NORTH LOW MOA - 1000
     Lat       Long
    (deg)      (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR NORTH LOW MOA - 2000
     Lat       Long
    (deg)      (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR NORTH LOW MOA - 4000
     Lat       Long
    (deg)      (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
```

```
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR NORTH MOA
     Lat       Long
    (deg)      (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name CORSAIR SOUTH LOW MOA - 1000
     Lat       Long
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR SOUTH LOW MOA - 2000
     Lat       Long
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR SOUTH LOW MOA - 4000
     Lat       Long
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR SOUTH MOA
     Lat       Long
```

```
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name GRAND BAY MOA AND R3008C
     Lat        Long
    (deg)      (deg)
  31.06694   -83.01666
  30.85027   -83.01666
  30.85027   -83.13333
  30.89194   -83.14999
  30.90861   -83.10000
  31.02527   -83.09999
  31.03361   -83.14999
  31.06694   -83.13333
  31.06694   -83.01666
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name HAWG NORTH MOA
     Lat        Long
    (deg)      (deg)
  31.38306   -83.16111
  30.95028   -83.14139
  30.95028   -82.64999
  31.21695   -82.64999
  31.31140   -82.74305
  31.38306   -83.16111
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name HAWG SOUTH MOA
     Lat        Long
    (deg)      (deg)
  30.95028   -83.14139
  30.60583   -83.12556
  30.58361   -82.64972
  30.95028   -82.64999
  30.95028   -83.14139
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name LATN
     Lat        Long
    (deg)      (deg)
  32.06279   -83.90001
  31.50029   -84.10001
  30.63362   -83.71666
  30.60583   -83.12556
```

```
  31.38306   -83.16111
  32.06279   -83.48334
  32.06279   -83.90001
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name MOODY 2 NORTH MOA
     Lat       Long
    (deg)      (deg)
  30.95028   -83.01666
  30.95028   -82.64999
  31.02667   -82.64999
  31.23362   -82.81666
  31.30028   -82.85000
  31.35028   -83.01666
  30.95028   -83.01666
Floor =     500 feet AGL     Ceiling =    8000 feet AGL

MOA name MOODY 2 NORTH MOA - 100
     Lat       Long
    (deg)      (deg)
  30.95028   -83.01666
  30.95028   -82.64999
  31.02667   -82.64999
  31.23362   -82.81666
  31.30028   -82.85000
  31.35028   -83.01666
  30.95028   -83.01666
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name MOODY 2 SOUTH MOA
     Lat       Long
    (deg)      (deg)
  30.95028   -83.01666
  30.60305   -83.01666
  30.58361   -82.64999
  30.95028   -82.64999
  30.95028   -83.01666
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name MUSTANG LOW MOA - 1000
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL
```

```
MOA name MUSTANG LOW MOA - 2000
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name MUSTANG LOW MOA - 4000
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name MUSTANG MOA
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name R3008AB
     Lat       Long
    (deg)      (deg)
  30.89194   -83.14999
  30.90861   -83.10000
  31.02527   -83.09999
  31.03361   -83.14999
  30.98694   -83.16669
  30.95997   -83.18475
  30.94738   -83.16674
  30.89194   -83.14999
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name R3008C
     Lat       Long
    (deg)      (deg)
  31.06694   -83.01666
```

```
  30.85027   -83.01666
  30.85027   -83.13333
  30.89194   -83.14999
  30.90861   -83.10000
  31.02527   -83.09999
  31.03361   -83.14999
  31.06694   -83.13333
  31.06694   -83.01666
Floor =     500 feet AGL     Ceiling =    8000 feet AGL

MOA name SABRE MOA
     Lat       Long
    (deg)      (deg)
  31.68751   -84.03334
  31.50029   -84.10001
  31.33334   -83.56390
  30.61666   -83.35555
  30.60583   -83.12556
  31.38306   -83.16111
  31.49445   -83.38334
  31.68751   -84.03334
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name THUD LOW MOA
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  32.08363   -83.73751
  32.06279   -83.90001
  31.68751   -84.03334
  31.56834   -83.63195
  32.07196   -83.59445
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name THUD MOA
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  32.08363   -83.73751
  32.06279   -83.90001
  31.68751   -84.03334
  31.56834   -83.63195
  32.07196   -83.59445
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name WARHAWK LOW MOA - 1000
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
```

```
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL

MOA name WARHAWK LOW MOA - 2000
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name WARHAWK LOW MOA - 4000
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name WARHAWK MOA
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL


                  SPECIFIC POINT SPECIFICATION
Number of Specific points = 11
 Latitude    Longitude       Name
  31.21328   -83.74600     CORSAIR N POI
  30.81517   -83.60754     CORSAIR S POI
  31.10161   -82.86792     MOODY2N POI
  30.76693   -82.84566     MOODY2S POI
  31.74683   -83.49074     MUSTANG POI
  30.95783   -83.16461     R3008A POI
  30.95604   -83.12070     R3008B POI
  30.94930   -83.05738     R3008C POI
  31.32796   -83.38621     SABRE POI
  31.85989   -83.76024     THUD POI
  31.58464   -83.20150     WARHAWK POI
```

```
                          MISSION DATA
Mission name = CORSAIR N  - ALTERNATIVE 2- A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N  - ALTERNATIVE 2- A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N  - ALTERNATIVE 2- A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N - ALTERNATIVE 2- A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N - ALTERNATIVE 2- A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N - ALTERNATIVE 2- A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0
```

```
Mission name = CORSAIR N - ALTERNATIVE 2- F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N LOW  - ALTERNATIVE 2- A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = CORSAIR N LOW  - ALTERNATIVE 2- A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = CORSAIR N LOW  - ALTERNATIVE 2- A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = CORSAIR N LOW - ALTERNATIVE 2 - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = CORSAIR N LOW - ALTERNATIVE 2 - C130_2
```

```
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = CORSAIR N LOW - ALTERNATIVE 2 - C130_3
Aircraft code =FM0290402  Speed =  350 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = CORSAIR N LOW - ALTERNATIVE 2 - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        95.0
      3000         7999         5.0


Mission name = CORSAIR N LOW - ALTERNATIVE 2 - H60_2
Aircraft code =FM6210101  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        95.0
      3000         7999         5.0


Mission name = CORSAIR N LOW - ALTERNATIVE 2 - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        95.0
      3000         7999         5.0


Mission name = CORSAIR N LOW - ALTERNATIVE 2- A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = CORSAIR N LOW - ALTERNATIVE 2- A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = CORSAIR N LOW - ALTERNATIVE 2- A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = CORSAIR N LOW - ALTERNATIVE 2- F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        10.0
      5000         8000        80.0


Mission name = CORSAIR S   - ALTERNATIVE 2- A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S   - ALTERNATIVE 2- A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0
```

```
Mission name = CORSAIR S  - ALTERNATIVE 2- A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S - ALTERNATIVE 2- A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S - ALTERNATIVE 2- A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S - ALTERNATIVE 2- A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S - ALTERNATIVE 2- F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S LOW  - ALTERNATIVE 2- A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0
```

```
Mission name = CORSAIR S LOW  - ALTERNATIVE 2- A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = CORSAIR S LOW  - ALTERNATIVE 2- A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = CORSAIR S LOW - ALTERNATIVE 2 - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5

Mission name = CORSAIR S LOW - ALTERNATIVE 2 - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5

Mission name = CORSAIR S LOW - ALTERNATIVE 2 - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5
```

```
Mission name = CORSAIR S LOW - ALTERNATIVE 2 - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        95.0
      3000         8000         5.0

Mission name = CORSAIR S LOW - ALTERNATIVE 2 - H60_2
Aircraft code =FM6210101  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        95.0
      3000         8000         5.0

Mission name = CORSAIR S LOW - ALTERNATIVE 2 - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        95.0
      3000         8000         5.0

Mission name = CORSAIR S LOW - ALTERNATIVE 2- A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = CORSAIR S LOW - ALTERNATIVE 2- A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = CORSAIR S LOW - ALTERNATIVE 2- A29_3
```

```
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = CORSAIR S LOW - ALTERNATIVE 2- F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        10.0
      5000         8000        80.0


Mission name = HAWG N - ALTERNATIVE 2 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - ALTERNATIVE 2 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - ALTERNATIVE 2 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - ALTERNATIVE 2 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0
```

```
Mission name = HAWG S - ALTERNATIVE 2 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - ALTERNATIVE 2 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - ALTERNATIVE 2 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - ALTERNATIVE 2 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = LATN - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = LATN - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
```

```
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = LATN - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = LATN - EXISTING - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = LATN - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = LATN - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = LATN - EXISTING - H60
```

```
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = LATN - EXISTING - H60_2
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = LATN - EXISTING - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MOODY 2N - ALTERNATIVE 2 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2N - ALTERNATIVE 2 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0
```

```
Mission name = MOODY 2N - ALTERNATIVE 2 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = MOODY 2N - ALTERNATIVE 2 - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = MOODY 2N - ALTERNATIVE 2 - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = MOODY 2N - ALTERNATIVE 2 - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = MOODY 2N - ALTERNATIVE 2 - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
```

```
       100         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
      5000         8000         50.0


Mission name = MOODY 2N - ALTERNATIVE 2 - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
      5000         8000         50.0


Mission name = MOODY 2N - ALTERNATIVE 2 - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
      5000         8000         50.0


Mission name = MOODY 2N - ALTERNATIVE 2 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         10.0
      5000         8000         80.0


Mission name = MOODY 2N - ALTERNATIVE 2 - H60
Aircraft code =FM6210102  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         25.0
      1000         3000         70.0
      3000         5000          5.0


Mission name = MOODY 2N - ALTERNATIVE 2 - H60_2
```

```
Aircraft code =FM6210101  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MOODY 2N - ALTERNATIVE 2 - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MOODY 2S - ALTERNATIVE 2 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2S - ALTERNATIVE 2 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2S - ALTERNATIVE 2 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0
```

```
Mission name = MOODY 2S - ALTERNATIVE 2 - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = MOODY 2S - ALTERNATIVE 2 - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = MOODY 2S - ALTERNATIVE 2 - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0

Mission name = MOODY 2S - ALTERNATIVE 2 - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0

Mission name = MOODY 2S - ALTERNATIVE 2 - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = MOODY 2S - ALTERNATIVE 2 - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = MOODY 2S - ALTERNATIVE 2 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        10.0
      5000         8000        80.0


Mission name = MOODY 2S - ALTERNATIVE 2 - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MOODY 2S - ALTERNATIVE 2 - H60_2
Aircraft code =FM6210101  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MOODY 2S - ALTERNATIVE 2 - H60_3
```

```
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MUSTANG  - ALTERNATIVE 2 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG  - ALTERNATIVE 2 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG  - ALTERNATIVE 2 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG  - ALTERNATIVE 2 - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG - ALTERNATIVE 2 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG LOW - ALTERNATIVE 2 - C130
```

```
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        18.2
      2999         5000        27.3
      5000         8000        54.5


Mission name = MUSTANG LOW - ALTERNATIVE 2 - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        18.2
      2999         5000        27.3
      5000         8000        54.5


Mission name = MUSTANG LOW - ALTERNATIVE 2 - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        18.2
      2999         5000        27.3
      5000         8000        54.5


Mission name = MUSTANG LOW - ALTERNATIVE 2 - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        95.0
      3000         5000         5.0


Mission name = MUSTANG LOW - ALTERNATIVE 2 - H60_2
Aircraft code =FM6210101  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        95.0
      3000         5000         5.0


Mission name = MUSTANG LOW - ALTERNATIVE 2 - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
```

```
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        95.0
      3000         5000         5.0


Mission name = MUSTANG LOW - ALTERNATIVE 2- A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MUSTANG LOW - ALTERNATIVE 2- A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MUSTANG LOW - ALTERNATIVE 2- A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MUSTANG LOW - ALTERNATIVE 2- A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MUSTANG LOW - ALTERNATIVE 2- A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
      2000         3000         10.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = MUSTANG LOW - ALTERNATIVE 2- A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000         10.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = MUSTANG LOW - ALTERNATIVE 2- F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000         10.0
      3000         5000         10.0
      5000         8000         80.0


Mission name = R3008AB - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = R3008AB - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = R3008AB - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
```

```
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = R3008AB - EXISTING - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = R3008AB - EXISTING - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = R3008AB - EXISTING - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = R3008AB - EXISTING - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
```

```
      5000         8000        50.0


Mission name = R3008AB - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = R3008AB - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = R3008AB - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        10.0
      5000         8000        80.0


Mission name = R3008AB - EXISTING - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = R3008AB - EXISTING - H60_2
Aircraft code =FM6210101  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
       100         1000         25.0
      1000         3000         70.0
      3000         5000          5.0


Mission name = R3008AB - EXISTING - H60_3
Aircraft code =FM6210101  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         25.0
      1000         3000         70.0
      3000         5000          5.0


Mission name = R3008C - ALTERNATIVE 2 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = R3008C - ALTERNATIVE 2 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = R3008C - ALTERNATIVE 2 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = R3008C - ALTERNATIVE 2 - A29
```

```
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008C - ALTERNATIVE 2 - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008C - ALTERNATIVE 2 - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008C - ALTERNATIVE 2 - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = R3008C - ALTERNATIVE 2 - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000        15.0
```

```
      3000          5000          30.0
      5000          8000          50.0


Mission name = R3008C - ALTERNATIVE 2 - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt     Upper Alt      Percent
   (feet AGL)    (feet AGL)    Utilization
       100          1000           5.0
      1000          3000          15.0
      3000          5000          30.0
      5000          8000          50.0


Mission name = R3008C - ALTERNATIVE 2 - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt     Upper Alt      Percent
   (feet AGL)    (feet AGL)    Utilization
       100          1000           5.0
      1000          3000           5.0
      3000          5000          10.0
      5000          8000          80.0


Mission name = R3008C - ALTERNATIVE 2 - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt     Upper Alt      Percent
   (feet AGL)    (feet AGL)    Utilization
       100          1000          25.0
      1000          3000          70.0
      3000          8000           5.0


Mission name = R3008C - ALTERNATIVE 2 - H60_2
Aircraft code =FM6210101  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt     Upper Alt      Percent
   (feet AGL)    (feet AGL)    Utilization
       100          1000          25.0
      1000          3000          70.0
      3000          8000           5.0


Mission name = R3008C - ALTERNATIVE 2 - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt     Upper Alt      Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
       100         1000         25.0
      1000         3000         70.0
      3000         8000          5.0


Mission name = SABRE - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0


Mission name = SABRE - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0


Mission name = THUD - ALTERNATIVE 2 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      4000        23000        100.0


Mission name = THUD - ALTERNATIVE 2 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      4000        23000        100.0


Mission name = THUD - ALTERNATIVE 2 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      4000        23000        100.0


Mission name = THUD - ALTERNATIVE 2 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
      4000        23000       100.0


Mission name = THUD - ALTERNATIVE 2 - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      4000        23000       100.0


Mission name = WARHAWK - ALTERNATIVE 2 - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = WARHAWK - ALTERNATIVE 2 - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = WARHAWK - ALTERNATIVE 2 - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = WARHAWK - ALTERNATIVE 2 - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = WARHAWK - ALTERNATIVE 2 - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0
```

```
Mission name = WARHAWK LOW - ALTERNATIVE 2 - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = WARHAWK LOW - ALTERNATIVE 2 - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = WARHAWK LOW - ALTERNATIVE 2 - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        18.2
      3000         5000        27.3
      5000         8000        54.5


Mission name = WARHAWK LOW - ALTERNATIVE 2 - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        95.0
      3000         5000         5.0


Mission name = WARHAWK LOW - ALTERNATIVE 2 - H60_2
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        95.0
      3000         5000         5.0
```

```
Mission name = WARHAWK LOW - ALTERNATIVE 2 - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        95.0
      3000         5000         5.0


Mission name = WARHAWK LOW - ALTERNATIVE 2- A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = WARHAWK LOW - ALTERNATIVE 2- A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = WARHAWK LOW - ALTERNATIVE 2- A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = WARHAWK LOW - ALTERNATIVE 2- A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = WARHAWK LOW - ALTERNATIVE 2- A29_2
```

```
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = WARHAWK LOW - ALTERNATIVE 2- A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = WARHAWK LOW - ALTERNATIVE 2- F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      2000         3000        10.0
      3000         5000        10.0
      5000         8000        80.0



                       MOA OPERATION DATA
     MOA name = CORSAIR NORTH LOW MOA - 2000
                                                     Daily
Monthly              Yearly
        Mission                                   Day        Night       Day
Night       Day       Night    Time On Range
        Name                                      OPS        OPS         OPS
 OPS        OPS        OPS       (minutes)
      CORSAIR N LOW  - ALTERNATIVE 2- A10       1.044      0.117      31.33
 3.50       376.       42.         4.
      CORSAIR N LOW  - ALTERNATIVE 2- A10_2     1.044      0.117      31.33
 3.50       376.       42.        14.
      CORSAIR N LOW  - ALTERNATIVE 2- A10_3     1.044      0.117      31.33
 3.50       376.       42.         2.
      CORSAIR N LOW - ALTERNATIVE 2 - C130      0.025      0.025       0.75
 0.75         9.         9.        3.
      CORSAIR N LOW - ALTERNATIVE 2 - C130_2    0.025      0.025       0.75
 0.75         9.         9.       24.
      CORSAIR N LOW - ALTERNATIVE 2 - C130_3    0.025      0.025       0.75
```

```
 0.75        9.        9.        3.
      CORSAIR N LOW - ALTERNATIVE 2 - H60            0.053      0.014        1.58
 0.42       19.        5.       15.
      CORSAIR N LOW - ALTERNATIVE 2 - H60_2          0.053      0.014        1.58
 0.42       19.        5.      128.
      CORSAIR N LOW - ALTERNATIVE 2 - H60_3          0.053      0.014        1.58
 0.42       19.        5.       15.
      CORSAIR N LOW - ALTERNATIVE 2- A29             1.250      0.067       37.50
 2.00      450.       24.       15.
      CORSAIR N LOW - ALTERNATIVE 2- A29_2           1.250      0.067       37.50
 2.00      450.       24.       47.
      CORSAIR N LOW - ALTERNATIVE 2- A29_3           1.250      0.067       37.50
 2.00      450.       24.       15.
      CORSAIR N LOW - ALTERNATIVE 2- F18             0.183      0.008        5.50
 0.25       66.        3.       33.


     MOA name = CORSAIR NORTH MOA
                                                          Daily
Monthly               Yearly
        Mission                                      Day        Night        Day
Night       Day       Night    Time On Range
         Name                                        OPS        OPS          OPS
 OPS        OPS        OPS       (minutes)
      CORSAIR N  - ALTERNATIVE 2- A10                4.781      0.531      143.42
15.92     1721.      191.       12.
      CORSAIR N  - ALTERNATIVE 2- A10_2              4.781      0.531      143.42
15.92     1721.      191.       60.
      CORSAIR N  - ALTERNATIVE 2- A10_3              4.781      0.531      143.42
15.92     1721.      191.        6.
      CORSAIR N - ALTERNATIVE 2- A29                 0.467      0.025       14.00
 0.75      168.        9.        8.
      CORSAIR N - ALTERNATIVE 2- A29_2               0.467      0.025       14.00
 0.75      168.        9.       50.
      CORSAIR N - ALTERNATIVE 2- A29_3               0.467      0.025       14.00
 0.75      168.        9.       25.
      CORSAIR N - ALTERNATIVE 2- F18                 0.644      0.033       19.33
 1.00      232.       12.       33.


     MOA name = CORSAIR SOUTH LOW MOA - 2000
                                                          Daily
Monthly               Yearly
        Mission                                      Day        Night        Day
Night       Day       Night    Time On Range
         Name                                        OPS        OPS          OPS
 OPS        OPS        OPS       (minutes)
      CORSAIR S LOW  - ALTERNATIVE 2- A10            1.044      0.117       31.33
 3.50      376.       42.        4.
      CORSAIR S LOW  - ALTERNATIVE 2- A10_2          1.044      0.117       31.33
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3.50       376.        42.        14.
     CORSAIR S LOW  - ALTERNATIVE 2- A10_3          1.044      0.117      31.33
3.50       376.        42.         2.
     CORSAIR S LOW - ALTERNATIVE 2 - C130           0.025      0.025       0.75
0.75         9.         9.         3.
     CORSAIR S LOW - ALTERNATIVE 2 - C130_2         0.025      0.025       0.75
0.75         9.         9.        24.
     CORSAIR S LOW - ALTERNATIVE 2 - C130_3         0.025      0.025       0.75
0.75         9.         9.         3.
     CORSAIR S LOW - ALTERNATIVE 2 - H60            0.053      0.014       1.58
0.42        19.         5.        15.
     CORSAIR S LOW - ALTERNATIVE 2 - H60_2          0.053      0.014       1.58
0.42        19.         5.       128.
     CORSAIR S LOW - ALTERNATIVE 2 - H60_3          0.053      0.014       1.58
0.42        19.         5.        15.
     CORSAIR S LOW - ALTERNATIVE 2- A29             0.150      0.008       4.50
0.25        54.         3.        15.
     CORSAIR S LOW - ALTERNATIVE 2- A29_2           0.150      0.008       4.50
0.25        54.         3.        47.
     CORSAIR S LOW - ALTERNATIVE 2- A29_3           0.150      0.008       4.50
0.25        54.         3.        15.
     CORSAIR S LOW - ALTERNATIVE 2- F18             0.183      0.008       5.50
0.25        66.         3.        33.


     MOA name = CORSAIR SOUTH MOA
                                                         Daily
Monthly                Yearly
        Mission                                     Day        Night        Day
Night        Day        Night    Time On Range
          Name                                      OPS         OPS         OPS
 OPS         OPS         OPS       (minutes)
     CORSAIR S  - ALTERNATIVE 2- A10                3.286      0.364      98.58
10.92      1183.       131.       12.
     CORSAIR S  - ALTERNATIVE 2- A10_2              3.286      0.364      98.58
10.92      1183.       131.       42.
     CORSAIR S  - ALTERNATIVE 2- A10_3              3.286      0.364      98.58
10.92      1183.       131.        6.
     CORSAIR S - ALTERNATIVE 2- A29                 1.389      0.072      41.67
 2.17       500.        26.        8.
     CORSAIR S - ALTERNATIVE 2- A29_2               1.389      0.072      41.67
 2.17       500.        26.       50.
     CORSAIR S - ALTERNATIVE 2- A29_3               1.389      0.072      41.67
 2.17       500.        26.       24.
     CORSAIR S - ALTERNATIVE 2- F18                 0.889      0.047      26.67
 1.42       320.        17.       30.


     MOA name = GRAND BAY MOA AND R3008C
                                                         Daily
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Monthly              Yearly
        Mission                                          Day        Night        Day
Night        Day        Night    Time On Range
         Name                                            OPS         OPS         OPS
 OPS         OPS         OPS       (minutes)
      R3008C - ALTERNATIVE 2 - A10                      7.850       0.872      235.50
26.17       2826.       314.          12.
      R3008C - ALTERNATIVE 2 - A10_2                    7.850       0.872      235.50
26.17       2826.       314.           8.
      R3008C - ALTERNATIVE 2 - A10_3                    7.850       0.872      235.50
26.17       2826.       314.           1.
      R3008C - ALTERNATIVE 2 - A29                      2.761       0.144       82.83
 4.33        994.        52.           1.
      R3008C - ALTERNATIVE 2 - A29_2                    2.761       0.144       82.83
 4.33        994.        52.           4.
      R3008C - ALTERNATIVE 2 - A29_3                    2.761       0.144       82.83
 4.33        994.        52.           2.
      R3008C - ALTERNATIVE 2 - C130                     0.378       0.356       11.33
10.67        136.       128.          24.
      R3008C - ALTERNATIVE 2 - C130_2                   0.378       0.356       11.33
10.67        136.       128.          24.
      R3008C - ALTERNATIVE 2 - C130_3                   0.378       0.356       11.33
10.67        136.       128.           3.
      R3008C - ALTERNATIVE 2 - F35                      0.031       0.003        0.92
 0.08         11.         1.           8.
      R3008C - ALTERNATIVE 2 - H60                      1.972       0.525       59.17
15.75        710.       189.           2.
      R3008C - ALTERNATIVE 2 - H60_2                    1.972       0.525       59.17
15.75        710.       189.          25.
      R3008C - ALTERNATIVE 2 - H60_3                    1.972       0.525       59.17
15.75        710.       189.           4.


     MOA name = HAWG NORTH MOA
                                                             Daily
Monthly              Yearly
        Mission                                          Day        Night        Day
Night        Day        Night    Time On Range
         Name                                            OPS         OPS         OPS
 OPS         OPS         OPS       (minutes)
      HAWG N - ALTERNATIVE 2 - A10                      6.278       0.697      188.33
20.92       2260.       251.          10.
      HAWG N - ALTERNATIVE 2 - A10_2                    6.278       0.697      188.33
20.92       2260.       251.          35.
      HAWG N - ALTERNATIVE 2 - A10_3                    6.278       0.697      188.33
20.92       2260.       251.           5.
      HAWG N - ALTERNATIVE 2 - F18                      0.156       0.008        4.67
 0.25         56.         3.         116.
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     MOA name = HAWG SOUTH MOA
                                                                 Daily
Monthly                 Yearly
        Mission                                              Day        Night        Day
Night       Day         Night    Time On Range
         Name                                                OPS         OPS         OPS
 OPS        OPS         OPS       (minutes)
      HAWG S - ALTERNATIVE 2 - A10                          6.278       0.697      188.33
20.92      2260.       251.        10.
      HAWG S - ALTERNATIVE 2 - A10_2                        6.278       0.697      188.33
20.92      2260.       251.        35.
      HAWG S - ALTERNATIVE 2 - A10_3                        6.278       0.697      188.33
20.92      2260.       251.         5.
      HAWG S - ALTERNATIVE 2 - F18                          0.156       0.008        4.67
 0.25        56.         3.       116.


     MOA name = LATN
                                                                 Daily
Monthly                 Yearly
        Mission                                              Day        Night        Day
Night       Day         Night    Time On Range
         Name                                                OPS         OPS         OPS
 OPS        OPS         OPS       (minutes)
      LATN - EXISTING - A10                                 7.850       0.872      235.50
26.17      2826.       314.         2.
      LATN - EXISTING - A10_2                               7.850       0.872      235.50
26.17      2826.       314.         8.
      LATN - EXISTING - A10_3                               7.850       0.872      235.50
26.17      2826.       314.         1.
      LATN - EXISTING - C130                                1.419       1.336       42.58
40.08       511.       481.         3.
      LATN - EXISTING - C130_2                              1.419       1.336       42.58
40.08       511.       481.        24.
      LATN - EXISTING - C130_3                              1.419       1.336       42.58
40.08       511.       481.         3.
      LATN - EXISTING - H60                                 2.961       0.786       88.83
23.58      1066.       283.         2.
      LATN - EXISTING - H60_2                               2.961       0.786       88.83
23.58      1066.       283.        25.
      LATN - EXISTING - H60_3                               2.961       0.786       88.83
23.58      1066.       283.         4.


     MOA name = MOODY 2 NORTH MOA - 100
                                                                 Daily
Monthly                 Yearly
        Mission                                              Day        Night        Day
Night       Day         Night    Time On Range
         Name                                                OPS         OPS         OPS
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 OPS          OPS          OPS        (minutes)
      MOODY 2N - ALTERNATIVE 2 - A10                6.278       0.697      188.33
20.92       2260.        251.           4.
      MOODY 2N - ALTERNATIVE 2 - A10_2              6.278       0.697      188.33
20.92       2260.        251.          14.
      MOODY 2N - ALTERNATIVE 2 - A10_3              6.278       0.697      188.33
20.92       2260.        251.           2.
      MOODY 2N - ALTERNATIVE 2 - A29                1.317       0.069       39.50
 2.08        474.         25.          15.
      MOODY 2N - ALTERNATIVE 2 - A29_2              1.317       0.069       39.50
 2.08        474.         25.          47.
      MOODY 2N - ALTERNATIVE 2 - A29_3              1.317       0.069       39.50
 2.08        474.         25.          15.
      MOODY 2N - ALTERNATIVE 2 - C130               0.342       0.319       10.25
 9.58        123.        115.           3.
      MOODY 2N - ALTERNATIVE 2 - C130_2             0.342       0.319       10.25
 9.58        123.        115.          24.
      MOODY 2N - ALTERNATIVE 2 - C130_3             0.342       0.319       10.25
 9.58        123.        115.           3.
      MOODY 2N - ALTERNATIVE 2 - F18                1.108       0.058       33.25
 1.75        399.         21.          43.
      MOODY 2N - ALTERNATIVE 2 - H60                1.894       0.503       56.83
15.08        682.        181.          15.
      MOODY 2N - ALTERNATIVE 2 - H60_2              1.894       0.503       56.83
15.08        682.        181.         128.
      MOODY 2N - ALTERNATIVE 2 - H60_3              1.894       0.503       56.83
15.08        682.        181.          15.


    MOA name = MOODY 2 SOUTH MOA
                                                        Daily
Monthly                 Yearly
        Mission                                      Day        Night        Day
Night       Day         Night    Time On Range
         Name                                        OPS         OPS         OPS
 OPS          OPS          OPS        (minutes)
      MOODY 2S - ALTERNATIVE 2 - A10                6.278       0.697      188.33
20.92       2260.        251.           4.
      MOODY 2S - ALTERNATIVE 2 - A10_2              6.278       0.697      188.33
20.92       2260.        251.          14.
      MOODY 2S - ALTERNATIVE 2 - A10_3              6.278       0.697      188.33
20.92       2260.        251.           2.
      MOODY 2S - ALTERNATIVE 2 - A29                1.317       0.069       39.50
 2.08        474.         25.          15.
      MOODY 2S - ALTERNATIVE 2 - A29_2              1.317       0.069       39.50
 2.08        474.         25.          47.
      MOODY 2S - ALTERNATIVE 2 - A29_3              1.317       0.069       39.50
 2.08        474.         25.          15.
      MOODY 2S - ALTERNATIVE 2 - C130               0.342       0.319       10.25
 9.58        123.        115.           3.
```

MOODY 2S - ALTERNATIVE 2 - C130_2	0.342	0.319	10.25	9.58	123.	115.	24.
MOODY 2S - ALTERNATIVE 2 - C130_3	0.342	0.319	10.25	9.58	123.	115.	3.
MOODY 2S - ALTERNATIVE 2 - F18	1.108	0.058	33.25	1.75	399.	21.	43.
MOODY 2S - ALTERNATIVE 2 - H60	2.039	0.358	61.17	10.75	734.	129.	15.
MOODY 2S - ALTERNATIVE 2 - H60_2	2.039	0.358	61.17	10.75	734.	129.	128.
MOODY 2S - ALTERNATIVE 2 - H60_3	2.039	0.358	61.17	10.75	734.	129.	15.

MOA name = MUSTANG LOW MOA - 2000

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
MUSTANG LOW - ALTERNATIVE 2 - C130	0.025	0.025	0.75	0.75	9.	9.	3.
MUSTANG LOW - ALTERNATIVE 2 - C130_2	0.025	0.025	0.75	0.75	9.	9.	24.
MUSTANG LOW - ALTERNATIVE 2 - C130_3	0.025	0.025	0.75	0.75	9.	9.	3.
MUSTANG LOW - ALTERNATIVE 2 - H60	0.053	0.014	1.58	0.42	19.	5.	15.
MUSTANG LOW - ALTERNATIVE 2 - H60_2	0.053	0.014	1.58	0.42	19.	5.	128.
MUSTANG LOW - ALTERNATIVE 2 - H60_3	0.053	0.014	1.58	0.42	19.	5.	15.
MUSTANG LOW - ALTERNATIVE 2- A10	1.044	0.117	31.33	3.50	376.	42.	4.
MUSTANG LOW - ALTERNATIVE 2- A10_2	1.044	0.117	31.33	3.50	376.	42.	14.
MUSTANG LOW - ALTERNATIVE 2- A10_3	1.044	0.117	31.33	3.50	376.	42.	2.
MUSTANG LOW - ALTERNATIVE 2- A29	0.050	0.003	1.50	0.08	18.	1.	15.
MUSTANG LOW - ALTERNATIVE 2- A29_2	0.050	0.003	1.50	0.08	18.	1.	47.
MUSTANG LOW - ALTERNATIVE 2- A29_3	0.050	0.003	1.50	0.08	18.	1.	15.
MUSTANG LOW - ALTERNATIVE 2- F18	0.183	0.008	5.50	0.25	66.	3.	33.

MOA name = MUSTANG MOA

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                                                              Daily
Monthly                Yearly
        Mission                                            Day        Night       Day
Night         Day        Night    Time On Range
         Name                                              OPS         OPS        OPS
 OPS          OPS         OPS       (minutes)
      MUSTANG  - ALTERNATIVE 2 - A10                      4.494       0.500     134.83
15.00       1618.        180.        12.
      MUSTANG  - ALTERNATIVE 2 - A10_2                    4.494       0.500     134.83
15.00       1618.        180.        42.
      MUSTANG  - ALTERNATIVE 2 - A10_3                    4.494       0.500     134.83
15.00       1618.        180.         6.
      MUSTANG  - ALTERNATIVE 2 - F35                      0.758       0.039      22.75
 1.17        273.         14.        38.
      MUSTANG - ALTERNATIVE 2 - F18                       1.264       0.067      37.92
 2.00        455.         24.        30.


     MOA name = R3008AB
                                                              Daily
Monthly                Yearly
        Mission                                            Day        Night       Day
Night         Day        Night    Time On Range
         Name                                              OPS         OPS        OPS
 OPS          OPS         OPS       (minutes)
      R3008AB - EXISTING - A10                            7.850       0.872     235.50
26.17       2826.        314.        10.
      R3008AB - EXISTING - A10_2                          7.850       0.872     235.50
26.17       2826.        314.        34.
      R3008AB - EXISTING - A10_3                          7.850       0.872     235.50
26.17       2826.        314.         5.
      R3008AB - EXISTING - A29                            2.761       0.144      82.83
 4.33        994.         52.         3.
      R3008AB - EXISTING - A29_2                          2.761       0.144      82.83
 4.33        994.         52.        15.
      R3008AB - EXISTING - A29_3                          2.761       0.144      82.83
 4.33        994.         52.         7.
      R3008AB - EXISTING - C130                           0.378       0.356      11.33
10.67        136.        128.        12.
      R3008AB - EXISTING - C130_2                         0.378       0.356      11.33
10.67        136.        128.        96.
      R3008AB - EXISTING - C130_3                         0.378       0.356      11.33
10.67        136.        128.        12.
      R3008AB - EXISTING - F35                            0.031       0.003       0.92
 0.08         11.          1.        32.
      R3008AB - EXISTING - H60                            1.972       0.525      59.17
15.75        710.        189.         6.
      R3008AB - EXISTING - H60_2                          1.972       0.525      59.17
15.75        710.        189.        99.
      R3008AB - EXISTING - H60_3                          1.972       0.525      59.17
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Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
15.75	710.	189.	15.

MOA name = SABRE MOA

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
SABRE - EXISTING - F18	0.864	0.044	25.92	1.33	311.	16.	32.
SABRE - EXISTING - F35	0.047	0.003	1.42	0.08	17.	1.	40.

MOA name = THUD LOW MOA

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
THUD - ALTERNATIVE 2 - A10	3.450	0.383	103.50	11.50	1242.	138.	12.
THUD - ALTERNATIVE 2 - A10_2	3.450	0.383	103.50	11.50	1242.	138.	42.
THUD - ALTERNATIVE 2 - A10_3	3.450	0.383	103.50	11.50	1242.	138.	6.
THUD - ALTERNATIVE 2 - F18	1.042	0.056	31.25	1.67	375.	20.	30.
THUD - ALTERNATIVE 2 - F35	0.778	0.042	23.33	1.25	280.	15.	38.

MOA name = WARHAWK LOW MOA - 2000

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
WARHAWK LOW - ALTERNATIVE 2 - C130	0.025	0.025	0.75	0.75	9.	9.	3.
WARHAWK LOW - ALTERNATIVE 2 - C130_2	0.025	0.025	0.75	0.75	9.	9.	24.
WARHAWK LOW - ALTERNATIVE 2 - C130_3	0.025	0.025	0.75	0.75	9.	9.	3.
WARHAWK LOW - ALTERNATIVE 2 - H60	0.053	0.014	1.58	0.42	19.	5.	15.

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      WARHAWK LOW - ALTERNATIVE 2 - H60_2           0.053      0.014       1.58
 0.42        19.         5.       128.
      WARHAWK LOW - ALTERNATIVE 2 - H60_3           0.053      0.014       1.58
 0.42        19.         5.        15.
      WARHAWK LOW - ALTERNATIVE 2- A10              1.044      0.117      31.33
 3.50       376.        42.        12.
      WARHAWK LOW - ALTERNATIVE 2- A10_2            1.044      0.117      31.33
 3.50       376.        42.        42.
      WARHAWK LOW - ALTERNATIVE 2- A10_3            1.044      0.117      31.33
 3.50       376.        42.         6.
      WARHAWK LOW - ALTERNATIVE 2- A29              0.050      0.003       1.50
 0.08        18.         1.        15.
      WARHAWK LOW - ALTERNATIVE 2- A29_2            0.050      0.003       1.50
 0.08        18.         1.        47.
      WARHAWK LOW - ALTERNATIVE 2- A29_3            0.050      0.003       1.50
 0.08        18.         1.        15.
      WARHAWK LOW - ALTERNATIVE 2- F18              0.183      0.008       5.50
 0.25        66.         3.        33.


     MOA name = WARHAWK MOA
                                                              Daily
Monthly               Yearly
        Mission                                         Day        Night        Day
Night       Day       Night    Time On Range
         Name                                           OPS         OPS         OPS
 OPS        OPS        OPS       (minutes)
      WARHAWK - ALTERNATIVE 2 - A10                 4.494      0.500     134.83
15.00      1618.       180.        12.
      WARHAWK - ALTERNATIVE 2 - A10_2               4.494      0.500     134.83
15.00      1618.       180.        60.
      WARHAWK - ALTERNATIVE 2 - A10_3               4.494      0.500     134.83
15.00      1618.       180.         6.
      WARHAWK - ALTERNATIVE 2 - F18                 1.361      0.072      40.83
 2.17       490.        26.        30.
      WARHAWK - ALTERNATIVE 2 - F35                 0.753      0.039      22.58
 1.17       271.        14.        38.


     **********************************************************
         Warning:  Grid points spaced greater than 1000 feet
         apart may not provide the necessary grid resolution,
         in some cases, to compute noise contours with
         high accuracy.  For low-altitude track operations,
         the recommended grid spacing is less than 1000 feet.
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***** MOA RANGE NOISEMAP *****
RESULTS

The noise metric is Ldnmr.

MOA RESULTS

MOA Name	MOA Area (sq statute miles)	Uniform Distributed Sound Level (dB)	Number of Daily Events Above SEL of 65.0 dB
CORSAIR NORTH LOW MOA - 1000	755.3	No operations on this MOA!	
CORSAIR NORTH LOW MOA - 2000	755.3	35.0	0.0
CORSAIR NORTH LOW MOA - 4000	755.3	No operations on this MOA!	
CORSAIR NORTH MOA	755.3	35.0	0.0
CORSAIR SOUTH LOW MOA - 1000	591.9	No operations on this MOA!	
CORSAIR SOUTH LOW MOA - 2000	591.9	35.0	0.0
CORSAIR SOUTH LOW MOA - 4000	591.9	No operations on this MOA!	
CORSAIR SOUTH MOA	591.9	35.0	0.0
GRAND BAY MOA AND R3008C	89.2	50.1	0.0
HAWG NORTH MOA	779.1	35.0	0.0
HAWG SOUTH MOA	704.3	35.0	0.0
LATN	4200.0	35.0	0.0
MOODY 2 NORTH MOA	420.7	No operations on this MOA!	
MOODY 2 NORTH MOA - 100	420.7	45.1	0.0
MOODY 2 SOUTH MOA	536.4	42.0	0.0
MUSTANG LOW MOA - 1000	470.3	No operations on this MOA!	
MUSTANG LOW MOA - 2000	470.3	35.0	0.0
MUSTANG LOW MOA - 4000	470.3	No operations on this MOA!	
MUSTANG MOA	470.3	39.2	0.0
R3008AB	34.1	59.7	0.0
R3008C	89.2	No operations on this MOA!	
SABRE MOA	1599.8	35.0	0.0
THUD LOW MOA	658.3	40.7	0.2
THUD MOA	658.3	No operations on this MOA!	
WARHAWK LOW MOA - 1000	682.0	No operations on this	

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MOA!
     WARHAWK LOW MOA - 2000                          682.0        35.0            0.0
     WARHAWK LOW MOA - 4000                          682.0      No operations on this
MOA!
     WARHAWK MOA                                     682.0        37.7            0.4



                      ***** MOA RANGE NOISEMAP *****
                                RESULTS



                              SPECIFIC POINT RESULTS

    Specific Point:  CORSAIR N POI
    Top 20 contributors to this level:


                 Sound Level
    <                 Airspace                <  Mission
       Aircraft     (dB)        HA(%)
    LATN                                        LATN - EXISTING - A10_2
       A-10A      < 35.0
    CORSAIR NORTH MOA                           CORSAIR N  - ALTERNATIVE 2- A10_2
       A-10A      < 35.0
    LATN                                        LATN - EXISTING - C130_2
       C-130J     < 35.0
    CORSAIR NORTH LOW MOA - 2000                CORSAIR N LOW  - ALTERNATIVE 2-
A10_2     A-10A      < 35.0
    LATN                                        LATN - EXISTING - H60_2
       UH60A      < 35.0
    CORSAIR NORTH LOW MOA - 2000                CORSAIR N LOW - ALTERNATIVE 2-
A29_3      T-6        < 35.0
    LATN                                        LATN - EXISTING - A10_3
       A-10A      < 35.0
    CORSAIR NORTH MOA                           CORSAIR N  - ALTERNATIVE 2- A10_3
       A-10A      < 35.0
    CORSAIR NORTH LOW MOA - 2000                CORSAIR N LOW  - ALTERNATIVE 2-
A10_3     A-10A      < 35.0
    LATN                                        LATN - EXISTING - C130_3
       C-130J     < 35.0
    CORSAIR NORTH LOW MOA - 2000                CORSAIR N LOW - ALTERNATIVE 2 -
H60_2     UH60A      < 35.0
    CORSAIR NORTH LOW MOA - 2000                CORSAIR N LOW - ALTERNATIVE 2-
A29_2      T-6        < 35.0
    LATN                                        LATN - EXISTING - H60_3
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      UH60A       < 35.0
   CORSAIR NORTH LOW MOA - 2000              CORSAIR N LOW - ALTERNATIVE 2- F18
      F-18A/C     < 35.0
   LATN                                      LATN - EXISTING - C130
      C-130J      < 35.0
   LATN                                      LATN - EXISTING - A10
      A-10A       < 35.0
   CORSAIR NORTH MOA                         CORSAIR N - ALTERNATIVE 2- A29_3
      T-6         < 35.0
   CORSAIR NORTH LOW MOA - 2000              CORSAIR N LOW - ALTERNATIVE 2 -
C130_2    C-130J      < 35.0
   CORSAIR NORTH MOA                         CORSAIR N - ALTERNATIVE 2- F18
      F-18A/C     < 35.0
   CORSAIR NORTH LOW MOA - 2000              CORSAIR N LOW - ALTERNATIVE 2 -
H60_3     UH60A       < 35.0


Total Level ........      36.2        0.2


   Specific Point:  CORSAIR S POI
   Top 20 contributors to this level:


               Sound Level
   <                Airspace                 >  Mission
      Aircraft      (dB)        HA(%)
   LATN                                      LATN - EXISTING - A10_2
      A-10A       < 35.0
   CORSAIR SOUTH LOW MOA - 2000              CORSAIR S LOW  - ALTERNATIVE 2-
A10_2     A-10A       < 35.0
   CORSAIR SOUTH MOA                         CORSAIR S  - ALTERNATIVE 2- A10_2
      A-10A       < 35.0
   LATN                                      LATN - EXISTING - C130_2
      C-130J      < 35.0
   LATN                                      LATN - EXISTING - H60_2
      UH60A       < 35.0
   LATN                                      LATN - EXISTING - A10_3
      A-10A       < 35.0
   CORSAIR SOUTH LOW MOA - 2000              CORSAIR S LOW  - ALTERNATIVE 2-
A10_3     A-10A       < 35.0
   CORSAIR SOUTH MOA                         CORSAIR S - ALTERNATIVE 2- A29_3
      T-6         < 35.0
   CORSAIR SOUTH MOA                         CORSAIR S  - ALTERNATIVE 2- A10_3
      A-10A       < 35.0
   LATN                                      LATN - EXISTING - C130_3
      C-130J      < 35.0
   CORSAIR SOUTH LOW MOA - 2000              CORSAIR S LOW - ALTERNATIVE 2 -
H60_2     UH60A       < 35.0
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    CORSAIR SOUTH LOW MOA - 2000                CORSAIR S LOW - ALTERNATIVE 2- F18
       F-18A/C     < 35.0
    CORSAIR SOUTH LOW MOA - 2000                CORSAIR S LOW - ALTERNATIVE 2-
A29_3      T-6        < 35.0
    LATN                                        LATN - EXISTING - H60_3
       UH60A       < 35.0
    LATN                                        LATN - EXISTING - C130
       C-130J      < 35.0
    LATN                                        LATN - EXISTING - A10
       A-10A       < 35.0
    CORSAIR SOUTH LOW MOA - 2000                CORSAIR S LOW - ALTERNATIVE 2 -
C130_2    C-130J      < 35.0
    CORSAIR SOUTH MOA                           CORSAIR S - ALTERNATIVE 2- F18
       F-18A/C     < 35.0
    CORSAIR SOUTH MOA                           CORSAIR S - ALTERNATIVE 2- A29_2
       T-6         < 35.0
    CORSAIR SOUTH LOW MOA - 2000                CORSAIR S LOW - ALTERNATIVE 2 -
H60_3     UH60A       < 35.0


Total Level ........     35.8       0.2


    Specific Point:  MOODY2N POI
    Top 20 contributors to this level:


                 Sound Level
    <                Airspace                 >  Mission
       Aircraft     (dB)       HA(%)
    MOODY 2 NORTH MOA - 100                     MOODY 2N - ALTERNATIVE 2 - A10_2
       A-10A        41.4        0.5
    MOODY 2 NORTH MOA - 100                     MOODY 2N - ALTERNATIVE 2 - H60_2
       UH60A        39.1        0.4
    MOODY 2 NORTH MOA - 100                     MOODY 2N - ALTERNATIVE 2 - A10_3
       A-10A       < 35.0
    MOODY 2 NORTH MOA - 100                     MOODY 2N - ALTERNATIVE 2 - F18
       F-18A/C     < 35.0
    MOODY 2 NORTH MOA - 100                     MOODY 2N - ALTERNATIVE 2 - H60
       UH60A       < 35.0
    MOODY 2 NORTH MOA - 100                     MOODY 2N - ALTERNATIVE 2 - H60_3
       UH60A       < 35.0
    MOODY 2 NORTH MOA - 100                     MOODY 2N - ALTERNATIVE 2 - C130_2
       C-130J      < 35.0
    MOODY 2 NORTH MOA - 100                     MOODY 2N - ALTERNATIVE 2 - A29_3
       T-6         < 35.0
    MOODY 2 NORTH MOA - 100                     MOODY 2N - ALTERNATIVE 2 - A10
       A-10A       < 35.0
    HAWG NORTH MOA                              HAWG N - ALTERNATIVE 2 - A10_2
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   A-10A      < 35.0
MOODY 2 NORTH MOA - 100                          MOODY 2N - ALTERNATIVE 2 - C130_3
   C-130J     < 35.0
MOODY 2 NORTH MOA - 100                          MOODY 2N - ALTERNATIVE 2 - A29_2
   T-6        < 35.0
MOODY 2 NORTH MOA - 100                          MOODY 2N - ALTERNATIVE 2 - C130
   C-130J     < 35.0
HAWG NORTH MOA                                   HAWG N - ALTERNATIVE 2 - A10_3
   A-10A      < 35.0
HAWG NORTH MOA                                   HAWG N - ALTERNATIVE 2 - F18
   F-18A/C    < 35.0
MOODY 2 NORTH MOA - 100                          MOODY 2N - ALTERNATIVE 2 - A29
   T-6        < 35.0
HAWG NORTH MOA                                   HAWG N - ALTERNATIVE 2 - A10
   A-10A      < 35.0
R3008AB                                          R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                          R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                          R3008AB - EXISTING - A10_3
   A-10A      < 35.0


Total Level ........     45.2       0.9


    Specific Point:  MOODY2S POI
    Top 20 contributors to this level:


                Sound Level
<                    Airspace                 >  Mission
   Aircraft     (dB)       HA(%)
MOODY 2 SOUTH MOA                                MOODY 2S - ALTERNATIVE 2 - A10_2
   A-10A        38.1        0.3
MOODY 2 SOUTH MOA                                MOODY 2S - ALTERNATIVE 2 - H60_2
   UH60A        36.2        0.2
MOODY 2 SOUTH MOA                                MOODY 2S - ALTERNATIVE 2 - A10_3
   A-10A      < 35.0
MOODY 2 SOUTH MOA                                MOODY 2S - ALTERNATIVE 2 - F18
   F-18A/C    < 35.0
MOODY 2 SOUTH MOA                                MOODY 2S - ALTERNATIVE 2 - C130_2
   C-130J     < 35.0
MOODY 2 SOUTH MOA                                MOODY 2S - ALTERNATIVE 2 - H60_3
   UH60A      < 35.0
MOODY 2 SOUTH MOA                                MOODY 2S - ALTERNATIVE 2 - A29_3
   T-6        < 35.0
HAWG SOUTH MOA                                   HAWG S - ALTERNATIVE 2 - A10_2
   A-10A      < 35.0
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MOODY 2 SOUTH MOA                              MOODY 2S - ALTERNATIVE 2 - A10
   A-10A       < 35.0
MOODY 2 SOUTH MOA                              MOODY 2S - ALTERNATIVE 2 - H60
   UH60A       < 35.0
MOODY 2 SOUTH MOA                              MOODY 2S - ALTERNATIVE 2 - C130_3
   C-130J      < 35.0
HAWG SOUTH MOA                                 HAWG S - ALTERNATIVE 2 - A10_3
   A-10A       < 35.0
MOODY 2 SOUTH MOA                              MOODY 2S - ALTERNATIVE 2 - A29_2
   T-6         < 35.0
MOODY 2 SOUTH MOA                              MOODY 2S - ALTERNATIVE 2 - C130
   C-130J      < 35.0
HAWG SOUTH MOA                                 HAWG S - ALTERNATIVE 2 - F18
   F-18A/C     < 35.0
MOODY 2 SOUTH MOA                              MOODY 2S - ALTERNATIVE 2 - A29
   T-6         < 35.0
HAWG SOUTH MOA                                 HAWG S - ALTERNATIVE 2 - A10
   A-10A       < 35.0
R3008AB                                        R3008AB - EXISTING - A10_2
   A-10A       < 35.0
R3008AB                                        R3008AB - EXISTING - F35
   F-35A       < 35.0
R3008AB                                        R3008AB - EXISTING - A10_3
   A-10A       < 35.0


Total Level ........     42.2        0.6


    Specific Point:  MUSTANG PO1
    Top 20 contributors to this level:


                 Sound Level
    <                 Airspace                 > Mission
       Aircraft     (dB)       HA(%)
    MUSTANG MOA                                  MUSTANG  - ALTERNATIVE 2 - F35
       F-35A        38.6        0.3
    LATN                                         LATN - EXISTING - A10_2
       A-10A       < 35.0
    MUSTANG MOA                                  MUSTANG  - ALTERNATIVE 2 - A10_2
       A-10A       < 35.0
    MUSTANG LOW MOA - 2000                       MUSTANG LOW - ALTERNATIVE 2- A10_2
       A-10A       < 35.0
    LATN                                         LATN - EXISTING - C130_2
       C-130J      < 35.0
    LATN                                         LATN - EXISTING - H60_2
       UH60A       < 35.0
    LATN                                         LATN - EXISTING - A10_3
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       A-10A      < 35.0
    MUSTANG MOA                               MUSTANG  - ALTERNATIVE 2 - A10_3
       A-10A      < 35.0
    MUSTANG LOW MOA - 2000                    MUSTANG LOW - ALTERNATIVE 2- A10_3
       A-10A      < 35.0
    MUSTANG LOW MOA - 2000                    MUSTANG LOW - ALTERNATIVE 2 -
H60_2       UH60A      < 35.0
    MUSTANG LOW MOA - 2000                    MUSTANG LOW - ALTERNATIVE 2- F18
       F-18A/C    < 35.0
    LATN                                      LATN - EXISTING - C130_3
       C-130J     < 35.0
    MUSTANG MOA                               MUSTANG - ALTERNATIVE 2 - F18
       F-18A/C    < 35.0
    LATN                                      LATN - EXISTING - H60_3
       UH60A      < 35.0
    LATN                                      LATN - EXISTING - C130
       C-130J     < 35.0
    MUSTANG LOW MOA - 2000                    MUSTANG LOW - ALTERNATIVE 2 -
C130_2      C-130J     < 35.0
    LATN                                      LATN - EXISTING - A10
       A-10A      < 35.0
    MUSTANG LOW MOA - 2000                    MUSTANG LOW - ALTERNATIVE 2- A29_3
       T-6        < 35.0
    MUSTANG LOW MOA - 2000                    MUSTANG LOW - ALTERNATIVE 2 -
H60_3       UH60A      < 35.0
    MUSTANG LOW MOA - 2000                    MUSTANG LOW - ALTERNATIVE 2- A10
       A-10A      < 35.0


Total Level ........     40.6       0.4


    Specific Point:  R3008A POI
    Top 20 contributors to this level:


                Sound Level
    <                Airspace                >  Mission
       Aircraft     (dB)       HA(%)
    R3008AB                                   R3008AB - EXISTING - A10_2
       A-10A        56.2        3.9
    R3008AB                                   R3008AB - EXISTING - F35
       F-35A        49.5        1.5
    R3008AB                                   R3008AB - EXISTING - A10_3
       A-10A        49.2        1.5
    R3008AB                                   R3008AB - EXISTING - H60_2
       UH60A        47.9        1.2
    R3008AB                                   R3008AB - EXISTING - C130_2
       C-130J       45.7        0.9
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R3008AB                                        R3008AB - EXISTING - A10
   A-10A        42.7         0.6
R3008AB                                        R3008AB - EXISTING - H60_3
   UH60A        39.6         0.4
R3008AB                                        R3008AB - EXISTING - A29_3
   T-6          38.5         0.3
R3008AB                                        R3008AB - EXISTING - C130_3
   C-130J       38.3         0.3
R3008AB                                        R3008AB - EXISTING - C130
   C-130J       36.1         0.2
R3008AB                                        R3008AB - EXISTING - H60
   UH60A      < 35.0
LATN                                           LATN - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                        R3008AB - EXISTING - A29_2
   T-6        < 35.0
LATN                                           LATN - EXISTING - C130_2
   C-130J     < 35.0
LATN                                           LATN - EXISTING - H60_2
   UH60A      < 35.0
LATN                                           LATN - EXISTING - A10_3
   A-10A      < 35.0
SABRE MOA                                      SABRE - EXISTING - F35
   F-35A      < 35.0
LATN                                           LATN - EXISTING - C130_3
   C-130J     < 35.0
LATN                                           LATN - EXISTING - H60_3
   UH60A      < 35.0
LATN                                           LATN - EXISTING - C130
   C-130J     < 35.0


Total Level ........      58.7        5.4


Specific Point:  R3008B POI
Top 20 contributors to this level:


             Sound Level
<                 Airspace                  >  Mission
   Aircraft     (dB)        HA(%)
R3008AB                                        R3008AB - EXISTING - A10_2
   A-10A        57.1         4.4
R3008AB                                        R3008AB - EXISTING - F35
   F-35A        50.5         1.8
R3008AB                                        R3008AB - EXISTING - A10_3
   A-10A        50.3         1.7
R3008AB                                        R3008AB - EXISTING - H60_2
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   UH60A        49.1        1.5
R3008AB                                        R3008AB - EXISTING - C130_2
   C-130J       47.3        1.1
R3008AB                                        R3008AB - EXISTING - A10
   A-10A        43.4        0.7
R3008AB                                        R3008AB - EXISTING - H60_3
   UH60A        40.8        0.5
R3008AB                                        R3008AB - EXISTING - A29_3
   T-6          40.0        0.4
R3008AB                                        R3008AB - EXISTING - C130_3
   C-130J       39.9        0.4
R3008AB                                        R3008AB - EXISTING - C130
   C-130J       37.7        0.3
R3008AB                                        R3008AB - EXISTING - H60
   UH60A      < 35.0
R3008AB                                        R3008AB - EXISTING - A29_2
   T-6        < 35.0
HAWG SOUTH MOA                                 HAWG S - ALTERNATIVE 2 - A10_2
   A-10A      < 35.0
HAWG NORTH MOA                                 HAWG N - ALTERNATIVE 2 - A10_2
   A-10A      < 35.0
HAWG SOUTH MOA                                 HAWG S - ALTERNATIVE 2 - A10_3
   A-10A      < 35.0
HAWG NORTH MOA                                 HAWG N - ALTERNATIVE 2 - A10_3
   A-10A      < 35.0
R3008AB                                        R3008AB - EXISTING - A29
   T-6        < 35.0
HAWG SOUTH MOA                                 HAWG S - ALTERNATIVE 2 - F18
   F-18A/C    < 35.0
HAWG NORTH MOA                                 HAWG N - ALTERNATIVE 2 - F18
   F-18A/C    < 35.0
HAWG SOUTH MOA                                 HAWG S - ALTERNATIVE 2 - A10
   A-10A      < 35.0


Total Level ........     59.7        6.2


    Specific Point:  R3008C POI
    Top 20 contributors to this level:


              Sound Level
<                  Airspace                   >  Mission
   Aircraft     (dB)       HA(%)
GRAND BAY MOA AND R3008C                       R3008C - ALTERNATIVE 2 - A10_2
   A-10A        46.8        1.1
GRAND BAY MOA AND R3008C                       R3008C - ALTERNATIVE 2 - F35
   F-35A        40.2        0.4
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    GRAND BAY MOA AND R3008C                          R3008C - ALTERNATIVE 2 - A10
       A-10A         40.1        0.4
    GRAND BAY MOA AND R3008C                          R3008C - ALTERNATIVE 2 - A10_3
       A-10A         40.0        0.4
    GRAND BAY MOA AND R3008C                          R3008C - ALTERNATIVE 2 - H60_2
       UH60A         38.8        0.3
    GRAND BAY MOA AND R3008C                          R3008C - ALTERNATIVE 2 - C130_2
       C-130J        37.9        0.3
    GRAND BAY MOA AND R3008C                          R3008C - ALTERNATIVE 2 - C130
       C-130J        37.4        0.3
    GRAND BAY MOA AND R3008C                          R3008C - ALTERNATIVE 2 - H60_3
       UH60A       < 35.0
    GRAND BAY MOA AND R3008C                          R3008C - ALTERNATIVE 2 - C130_3
       C-130J      < 35.0
    GRAND BAY MOA AND R3008C                          R3008C - ALTERNATIVE 2 - A29_3
       T-6         < 35.0
    HAWG SOUTH MOA                                    HAWG S - ALTERNATIVE 2 - A10_2
       A-10A       < 35.0
    GRAND BAY MOA AND R3008C                          R3008C - ALTERNATIVE 2 - H60
       UH60A       < 35.0
    GRAND BAY MOA AND R3008C                          R3008C - ALTERNATIVE 2 - A29_2
       T-6         < 35.0
    HAWG SOUTH MOA                                    HAWG S - ALTERNATIVE 2 - A10_3
       A-10A       < 35.0
    HAWG SOUTH MOA                                    HAWG S - ALTERNATIVE 2 - F18
       F-18A/C     < 35.0
    GRAND BAY MOA AND R3008C                          R3008C - ALTERNATIVE 2 - A29
       T-6         < 35.0
    HAWG SOUTH MOA                                    HAWG S - ALTERNATIVE 2 - A10
       A-10A       < 35.0
    R3008AB                                           R3008AB - EXISTING - A10_2
       A-10A       < 35.0
    R3008AB                                           R3008AB - EXISTING - F35
       F-35A       < 35.0
    R3008AB                                           R3008AB - EXISTING - A10_3
       A-10A       < 35.0


Total Level ........     50.1        1.7


    Specific Point:  SABRE POI
    Top 20 contributors to this level:


                 Sound Level
    <                Airspace                      >  Mission
       Aircraft     (dB)       HA(%)
    LATN                                              LATN - EXISTING - A10_2
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   A-10A      < 35.0
LATN                                              LATN - EXISTING - C130_2
   C-130J     < 35.0
LATN                                              LATN - EXISTING - H60_2
   UH60A      < 35.0
LATN                                              LATN - EXISTING - A10_3
   A-10A      < 35.0
SABRE MOA                                         SABRE - EXISTING - F35
   F-35A      < 35.0
LATN                                              LATN - EXISTING - C130_3
   C-130J     < 35.0
LATN                                              LATN - EXISTING - H60_3
   UH60A      < 35.0
LATN                                              LATN - EXISTING - C130
   C-130J     < 35.0
LATN                                              LATN - EXISTING - A10
   A-10A      < 35.0
SABRE MOA                                         SABRE - EXISTING - F18
   F-18A/C    < 35.0
LATN                                              LATN - EXISTING - H60
   UH60A      < 35.0
R3008AB                                           R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                           R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                           R3008AB - EXISTING - A10_3
   A-10A      < 35.0
R3008AB                                           R3008AB - EXISTING - H60_2
   UH60A      < 35.0
R3008AB                                           R3008AB - EXISTING - C130_2
   C-130J     < 35.0
GRAND BAY MOA AND R3008C                          R3008C - ALTERNATIVE 2 - A10_2
   A-10A      < 35.0
R3008AB                                           R3008AB - EXISTING - A10
   A-10A      < 35.0
MOODY 2 NORTH MOA - 100                           MOODY 2N - ALTERNATIVE 2 - A10_2
   A-10A      < 35.0
R3008AB                                           R3008AB - EXISTING - H60_3
   UH60A      < 35.0

Total Level ........   < 35.0


    Specific Point:  THUD POI
    Top 20 contributors to this level:

                Sound Level
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<               Airspace              >  Mission
   Aircraft     (dB)      HA(%)
THUD LOW MOA                             THUD - ALTERNATIVE 2 - F35
   F-35A        40.4       0.4
LATN                                     LATN - EXISTING - A10_2
   A-10A      < 35.0
THUD LOW MOA                             THUD - ALTERNATIVE 2 - A10_2
   A-10A      < 35.0
LATN                                     LATN - EXISTING - C130_2
   C-130J     < 35.0
LATN                                     LATN - EXISTING - H60_2
   UH60A      < 35.0
LATN                                     LATN - EXISTING - A10_3
   A-10A      < 35.0
THUD LOW MOA                             THUD - ALTERNATIVE 2 - A10_3
   A-10A      < 35.0
LATN                                     LATN - EXISTING - C130_3
   C-130J     < 35.0
THUD LOW MOA                             THUD - ALTERNATIVE 2 - F18
   F-18A/C    < 35.0
LATN                                     LATN - EXISTING - H60_3
   UH60A      < 35.0
LATN                                     LATN - EXISTING - C130
   C-130J     < 35.0
LATN                                     LATN - EXISTING - A10
   A-10A      < 35.0
THUD LOW MOA                             THUD - ALTERNATIVE 2 - A10
   A-10A      < 35.0
LATN                                     LATN - EXISTING - H60
   UH60A      < 35.0
R3008AB                                  R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                  R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                  R3008AB - EXISTING - A10_3
   A-10A      < 35.0
R3008AB                                  R3008AB - EXISTING - H60_2
   UH60A      < 35.0
R3008AB                                  R3008AB - EXISTING - C130_2
   C-130J     < 35.0
GRAND BAY MOA AND R3008C                 R3008C - ALTERNATIVE 2 - A10_2
   A-10A      < 35.0

Total Level ........     41.4      0.5


Specific Point:  WARHAWK POI
Top 20 contributors to this level:
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               Sound Level
    <                Airspace                       >  Mission
       Aircraft     (dB)       HA(%)
    WARHAWK MOA                                        WARHAWK - ALTERNATIVE 2 - F35
       F-35A         37.0        0.3
    WARHAWK LOW MOA - 2000                             WARHAWK LOW - ALTERNATIVE 2- A10_2
       A-10A       < 35.0
    WARHAWK MOA                                        WARHAWK - ALTERNATIVE 2 - A10_2
       A-10A       < 35.0
    WARHAWK LOW MOA - 2000                             WARHAWK LOW - ALTERNATIVE 2- A10_3
       A-10A       < 35.0
    WARHAWK MOA                                        WARHAWK - ALTERNATIVE 2 - A10_3
       A-10A       < 35.0
    WARHAWK LOW MOA - 2000                             WARHAWK LOW - ALTERNATIVE 2- F18
       F-18A/C     < 35.0
    WARHAWK MOA                                        WARHAWK - ALTERNATIVE 2 - F18
       F-18A/C     < 35.0
    WARHAWK LOW MOA - 2000                             WARHAWK LOW - ALTERNATIVE 2 -
C130_2      C-130J      < 35.0
    WARHAWK LOW MOA - 2000                             WARHAWK LOW - ALTERNATIVE 2- A10
       A-10A       < 35.0
    WARHAWK LOW MOA - 2000                             WARHAWK LOW - ALTERNATIVE 2 -
H60_2       UH60A       < 35.0
    WARHAWK LOW MOA - 2000                             WARHAWK LOW - ALTERNATIVE 2- A29_3
       T-6         < 35.0
    WARHAWK LOW MOA - 2000                             WARHAWK LOW - ALTERNATIVE 2 -
H60_3       UH60A       < 35.0
    WARHAWK LOW MOA - 2000                             WARHAWK LOW - ALTERNATIVE 2 -
C130_3      C-130J      < 35.0
    WARHAWK MOA                                        WARHAWK - ALTERNATIVE 2 - A10
       A-10A       < 35.0
    WARHAWK LOW MOA - 2000                             WARHAWK LOW - ALTERNATIVE 2 - C130
       C-130J      < 35.0
    WARHAWK LOW MOA - 2000                             WARHAWK LOW - ALTERNATIVE 2 - H60
       UH60A       < 35.0
    WARHAWK LOW MOA - 2000                             WARHAWK LOW - ALTERNATIVE 2- A29_2
       T-6         < 35.0
    WARHAWK LOW MOA - 2000                             WARHAWK LOW - ALTERNATIVE 2- A29
       T-6         < 35.0
    R3008AB                                            R3008AB - EXISTING - A10_2
       A-10A       < 35.0
    R3008AB                                            R3008AB - EXISTING - F35
       F-35A       < 35.0


Total Level ........     38.8        0.3
```

```
<Run Log>
Date:                    7/24/2020
Start Time:             11: 9:20
Stop Time:              11:24:31
Total Running Time:     15 minutes and  12 seconds.
```

```
                  ***** MOA RANGE NOISEMAP *****
                          Version  3.0
                   Release Date      2/7/2013

                         CASE INFORMATION
Case Name:Moody AFB SUA - Existing Scenario

Site Name:Moody SUA Complex


                         SETUP PARAMETERS
Number of MOAs and Ranges = 28     Number of tracks = 0
Lower Left  Corner of Grid in feet (X Y pair) =  -300000.,  -325000.
Upper Right Corner of Grid in feet (X Y pair) =   300000.,   325000.
Grid spacing =     2500. feet      Number of events above an SEL  of 65.0 dB
Temperature =  59 F      Humidity =  70     Flying days per month = 30


                        MOA SPECIFICATIONS

MOA name CORSAIR NORTH LOW MOA - 1000
     Lat       Long
    (deg)      (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR NORTH LOW MOA - 2000
     Lat       Long
    (deg)      (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR NORTH LOW MOA - 4000
     Lat       Long
    (deg)      (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
```

```
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR NORTH MOA
     Lat       Long
    (deg)      (deg)
  31.50029   -84.10001
  31.37945   -84.03334
  31.30028   -84.01945
  31.00000   -83.88306
  31.00000   -83.46695
  31.33334   -83.56390
  31.50029   -84.10001
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name CORSAIR SOUTH LOW MOA - 1000
     Lat       Long
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR SOUTH LOW MOA - 2000
     Lat       Long
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR SOUTH LOW MOA - 4000
     Lat       Long
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name CORSAIR SOUTH MOA
     Lat       Long
```

```
    (deg)      (deg)
  31.00000   -83.88306
  31.00000   -83.46695
  30.61666   -83.35555
  30.63362   -83.71666
  31.00000   -83.88306
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name GRAND BAY MOA AND R3008C
     Lat        Long
    (deg)      (deg)
  31.06694   -83.01666
  30.85027   -83.01666
  30.85027   -83.13333
  30.89194   -83.14999
  30.90861   -83.10000
  31.02527   -83.09999
  31.03361   -83.14999
  31.06694   -83.13333
  31.06694   -83.01666
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name HAWG NORTH MOA
     Lat        Long
    (deg)      (deg)
  31.38306   -83.16111
  30.95028   -83.14139
  30.95028   -82.64999
  31.21695   -82.64999
  31.31140   -82.74305
  31.38306   -83.16111
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name HAWG SOUTH MOA
     Lat        Long
    (deg)      (deg)
  30.95028   -83.14139
  30.60583   -83.12556
  30.58361   -82.64972
  30.95028   -82.64999
  30.95028   -83.14139
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name LATN
     Lat        Long
    (deg)      (deg)
  32.06279   -83.90001
  31.50029   -84.10001
  30.63362   -83.71666
  30.60583   -83.12556
```

```
  31.38306   -83.16111
  32.06279   -83.48334
  32.06279   -83.90001
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name MOODY 2 NORTH MOA
     Lat        Long
    (deg)      (deg)
  30.95028   -83.01666
  30.95028   -82.64999
  31.02667   -82.64999
  31.23362   -82.81666
  31.30028   -82.85000
  31.35028   -83.01666
  30.95028   -83.01666
Floor =     500 feet AGL     Ceiling =    8000 feet AGL

MOA name MOODY 2 NORTH MOA - 100
     Lat        Long
    (deg)      (deg)
  30.95028   -83.01666
  30.95028   -82.64999
  31.02667   -82.64999
  31.23362   -82.81666
  31.30028   -82.85000
  31.35028   -83.01666
  30.95028   -83.01666
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name MOODY 2 SOUTH MOA
     Lat        Long
    (deg)      (deg)
  30.95028   -83.01666
  30.60305   -83.01666
  30.58361   -82.64999
  30.95028   -82.64999
  30.95028   -83.01666
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name MUSTANG LOW MOA - 1000
     Lat        Long
    (deg)      (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL
```

```
MOA name MUSTANG LOW MOA - 2000
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name MUSTANG LOW MOA - 4000
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name MUSTANG MOA
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  31.56834   -83.63195
  31.49445   -83.38334
  31.97196   -83.39389
  32.06279   -83.48334
  32.07196   -83.59445
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name R3008AB
     Lat       Long
    (deg)      (deg)
  30.89194   -83.14999
  30.90861   -83.10000
  31.02527   -83.09999
  31.03361   -83.14999
  30.98694   -83.16669
  30.95997   -83.18475
  30.94738   -83.16674
  30.89194   -83.14999
Floor =     100 feet AGL     Ceiling =    8000 feet AGL

MOA name R3008C
     Lat       Long
    (deg)      (deg)
  31.06694   -83.01666
```

```
  30.85027   -83.01666
  30.85027   -83.13333
  30.89194   -83.14999
  30.90861   -83.10000
  31.02527   -83.09999
  31.03361   -83.14999
  31.06694   -83.13333
  31.06694   -83.01666
Floor =     500 feet AGL     Ceiling =    8000 feet AGL

MOA name SABRE MOA
     Lat       Long
    (deg)      (deg)
  31.68751   -84.03334
  31.50029   -84.10001
  31.33334   -83.56390
  30.61666   -83.35555
  30.60583   -83.12556
  31.38306   -83.16111
  31.49445   -83.38334
  31.68751   -84.03334
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name THUD LOW MOA
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  32.08363   -83.73751
  32.06279   -83.90001
  31.68751   -84.03334
  31.56834   -83.63195
  32.07196   -83.59445
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name THUD MOA
     Lat       Long
    (deg)      (deg)
  32.07196   -83.59445
  32.08363   -83.73751
  32.06279   -83.90001
  31.68751   -84.03334
  31.56834   -83.63195
  32.07196   -83.59445
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL

MOA name WARHAWK LOW MOA - 1000
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
```

```
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    1000 feet AGL     Ceiling =    8000 feet AGL

MOA name WARHAWK LOW MOA - 2000
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    2000 feet AGL     Ceiling =    8000 feet AGL

MOA name WARHAWK LOW MOA - 4000
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    4000 feet AGL     Ceiling =    8000 feet AGL

MOA name WARHAWK MOA
     Lat       Long
    (deg)      (deg)
  31.97196   -83.39389
  31.49445   -83.38334
  31.38306   -83.16111
  31.31140   -82.74305
  31.97196   -83.39389
Floor =    8000 feet AGL     Ceiling =   18000 feet AGL


                  SPECIFIC POINT SPECIFICATION
Number of Specific points = 11
 Latitude    Longitude       Name
  31.21328   -83.74600     CORSAIR N POI
  30.81517   -83.60754     CORSAIR S POI
  31.10161   -82.86792     MOODY2N POI
  30.76693   -82.84566     MOODY2S POI
  31.74683   -83.49074     MUSTANG POI
  30.95783   -83.16461     R3008A POI
  30.95604   -83.12070     R3008B POI
  30.94930   -83.05738     R3008C POI
  31.32796   -83.38621     SABRE POI
  31.85989   -83.76024     THUD POI
  31.58464   -83.20150     WARHAWK POI
```

```
                          MISSION DATA
Mission name = CORSAIR N  - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N  - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N  - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N - EXISTING - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N - EXISTING - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR N - EXISTING - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0
```

```
Mission name = CORSAIR N - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0


Mission name = CORSAIR S  - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0


Mission name = CORSAIR S  - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0


Mission name = CORSAIR S  - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0


Mission name = CORSAIR S - EXISTING - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0


Mission name = CORSAIR S - EXISTING - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000        100.0


Mission name = CORSAIR S - EXISTING - A29_3
```

```
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = CORSAIR S - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG N - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
```

```
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = HAWG S - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = LATN - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = LATN - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0
```

```
Mission name = LATN - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = LATN - EXISTING - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = LATN - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = LATN - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = LATN - EXISTING - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
```

```
      100         1000        25.0
     1000         3000        70.0
     3000         5000         5.0


Mission name = LATN - EXISTING - H60_2
Aircraft code =FM6210101  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      100         1000        25.0
     1000         3000        70.0
     3000         5000         5.0


Mission name = LATN - EXISTING - H60_3
Aircraft code =FM6210101  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      100         1000        25.0
     1000         3000        70.0
     3000         5000         5.0


Mission name = MOODY 2N - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      500         1000         5.0
     1000         3000         5.0
     3000         5000        30.0
     5000         8000        60.0


Mission name = MOODY 2N - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      500         1000         5.0
     1000         3000         5.0
     3000         5000        30.0
     5000         8000        60.0


Mission name = MOODY 2N - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
```

```
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = MOODY 2N - EXISTING - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = MOODY 2N - EXISTING - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = MOODY 2N - EXISTING - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = MOODY 2N - EXISTING - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
      5000         8000         50.0
```

```
Mission name = MOODY 2N - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = MOODY 2N - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = MOODY 2N - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        10.0
      5000         8000        80.0


Mission name = MOODY 2N - EXISTING - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MOODY 2N - EXISTING - H60_2
Aircraft code =FM6210102  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
```

```
       500         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MOODY 2N - EXISTING - H60_3
Aircraft code =FM6210101  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MOODY 2S - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2S - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2S - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = MOODY 2S - EXISTING - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
```

```
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = MOODY 2S - EXISTING - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = MOODY 2S - EXISTING - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000          5.0
      3000         5000         30.0
      5000         8000         60.0


Mission name = MOODY 2S - EXISTING - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
      5000         8000         50.0


Mission name = MOODY 2S - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
```

```
      5000         8000        50.0


Mission name = MOODY 2S - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = MOODY 2S - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000         5.0
      3000         5000        10.0
      5000         8000        80.0


Mission name = MOODY 2S - EXISTING - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MOODY 2S - EXISTING - H60_2
Aircraft code =FM6210102  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000        25.0
      1000         3000        70.0
      3000         5000         5.0


Mission name = MOODY 2S - EXISTING - H60_3
Aircraft code =FM6210101  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
```

```
      500          1000         25.0
     1000          3000         70.0
     3000          5000          5.0


Mission name = MUSTANG  - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG  - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG  - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG  - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = MUSTANG - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = R3008AB - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
```

```
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008AB - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008AB - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008AB - EXISTING - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008AB - EXISTING - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0
```

```
Mission name = R3008AB - EXISTING - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
      1000         3000         5.0
      3000         5000        30.0
      5000         8000        60.0


Mission name = R3008AB - EXISTING - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = R3008AB - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = R3008AB - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000         5.0
      1000         3000        15.0
      3000         5000        30.0
      5000         8000        50.0


Mission name = R3008AB - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
          Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100         1000         5.0
```

```
      1000          3000          5.0
      3000          5000         10.0
      5000          8000         80.0


Mission name = R3008AB - EXISTING - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100          1000         25.0
      1000          3000         70.0
      3000          5000          5.0


Mission name = R3008AB - EXISTING - H60_2
Aircraft code =FM6210102  Speed =  100 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100          1000         25.0
      1000          3000         70.0
      3000          5000          5.0


Mission name = R3008AB - EXISTING - H60_3
Aircraft code =FM6210102  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       100          1000         25.0
      1000          3000         70.0
      3000          5000          5.0


Mission name = R3008C - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500          1000          5.0
      1000          3000          5.0
      3000          5000         30.0
      5000          8000         60.0


Mission name = R3008C - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
```

```
   (feet AGL)   (feet AGL)   Utilization
       500          1000         5.0
      1000          3000         5.0
      3000          5000        30.0
      5000          8000        60.0


Mission name = R3008C - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500          1000         5.0
      1000          3000         5.0
      3000          5000        30.0
      5000          8000        60.0


Mission name = R3008C - EXISTING - A29
Aircraft code =FM0870100  Speed =  120 kias  Power =    30.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500          1000         5.0
      1000          3000         5.0
      3000          5000        30.0
      5000          8000        60.0


Mission name = R3008C - EXISTING - A29_2
Aircraft code =FM0870101  Speed =  180 kias  Power =    55.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500          1000         5.0
      1000          3000         5.0
      3000          5000        30.0
      5000          8000        60.0


Mission name = R3008C - EXISTING - A29_3
Aircraft code =FM0870102  Speed =  220 kias  Power =   100.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500          1000         5.0
      1000          3000         5.0
      3000          5000        30.0
      5000          8000        60.0
```

```
Mission name = R3008C - EXISTING - C130
Aircraft code =FM0290400  Speed =  150 kias  Power =   800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
      5000         8000         50.0


Mission name = R3008C - EXISTING - C130_2
Aircraft code =FM0290401  Speed =  220 kias  Power =  1800.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
      5000         8000         50.0


Mission name = R3008C - EXISTING - C130_3
Aircraft code =FM0290402  Speed =  250 kias  Power =  4700.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000         15.0
      3000         5000         30.0
      5000         8000         50.0


Mission name = R3008C - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500         1000          5.0
      1000         3000          5.0
      3000         5000         10.0
      5000         8000         80.0


Mission name = R3008C - EXISTING - H60
Aircraft code =FM6210100  Speed =   70 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
```

```
       500          1000        25.0
      1000          3000        70.0
      3000          5000         5.0


Mission name = R3008C - EXISTING - H60_2
Aircraft code =FM6210102  Speed =  110 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500          1000        25.0
      1000          3000        70.0
      3000          5000         5.0


Mission name = R3008C - EXISTING - H60_3
Aircraft code =FM6210101  Speed =  130 kias  Power =     0.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
       500          1000        25.0
      1000          3000        70.0
      3000          5000         5.0


Mission name = SABRE - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000         23000       100.0


Mission name = SABRE - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000         23000       100.0


Mission name = THUD - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000         23000       100.0


Mission name = THUD - EXISTING - A10_2
```

```
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = THUD - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = THUD - EXISTING - F18
Aircraft code =FM0450100  Speed =  350 kias  Power =    80.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = THUD - EXISTING - F35
Aircraft code =FM0890200  Speed =  350 kias  Power =    75.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = WARHAWK - EXISTING - A10
Aircraft code =FM0090100  Speed =  180 kias  Power =    86.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = WARHAWK - EXISTING - A10_2
Aircraft code =FM0090101  Speed =  250 kias  Power =    93.0
           Altitude Distribution
    Lower Alt    Upper Alt     Percent
   (feet AGL)   (feet AGL)   Utilization
      8000        23000       100.0


Mission name = WARHAWK - EXISTING - A10_3
Aircraft code =FM0090102  Speed =  350 kias  Power =    97.0
           Altitude Distribution
```

```
        Lower Alt    Upper Alt     Percent
       (feet AGL)   (feet AGL)   Utilization
          8000        23000        100.0


   Mission name = WARHAWK - EXISTING - F18
   Aircraft code =FM0450100  Speed =  350 kias  Power =     80.0
              Altitude Distribution
        Lower Alt    Upper Alt     Percent
       (feet AGL)   (feet AGL)   Utilization
          8000        23000        100.0


   Mission name = WARHAWK - EXISTING - F35
   Aircraft code =FM0890200  Speed =  350 kias  Power =     75.0
              Altitude Distribution
        Lower Alt    Upper Alt     Percent
       (feet AGL)   (feet AGL)   Utilization
          8000        23000        100.0



                          MOA OPERATION DATA
   MOA name = CORSAIR NORTH MOA
                                                                  Daily
Monthly               Yearly
        Mission                                              Day       Night       Day
Night       Day        Night    Time On Range
         Name                                                OPS        OPS        OPS
 OPS        OPS         OPS       (minutes)
      CORSAIR N  - EXISTING - A10                          3.739      0.417     112.17
12.50      1346.       150.         12.
      CORSAIR N  - EXISTING - A10_2                        3.739      0.417     112.17
12.50      1346.       150.         42.
      CORSAIR N  - EXISTING - A10_3                        3.739      0.417     112.17
12.50      1346.       150.          6.
      CORSAIR N - EXISTING - A29                           0.467      0.025      14.00
 0.75       168.         9.          8.
      CORSAIR N - EXISTING - A29_2                         0.467      0.025      14.00
 0.75       168.         9.         50.
      CORSAIR N - EXISTING - A29_3                         0.467      0.025      14.00
 0.75       168.         9.         25.
      CORSAIR N - EXISTING - F18                           0.619      0.033      18.58
 1.00       223.        12.         33.


   MOA name = CORSAIR SOUTH MOA
                                                                  Daily
Monthly               Yearly
```

```
         Mission                                                Day        Night        Day
Night        Day         Night    Time On Range
          Name                                                  OPS         OPS         OPS
 OPS         OPS         OPS       (minutes)
       CORSAIR S  - EXISTING - A10                            2.242       0.250       67.25
 7.50        807.         90.          12.
       CORSAIR S  - EXISTING - A10_2                          2.242       0.250       67.25
 7.50        807.         90.          42.
       CORSAIR S  - EXISTING - A10_3                          2.242       0.250       67.25
 7.50        807.         90.           6.
       CORSAIR S - EXISTING - A29                             1.389       0.072       41.67
 2.17        500.         26.           8.
       CORSAIR S - EXISTING - A29_2                           1.389       0.072       41.67
 2.17        500.         26.          47.
       CORSAIR S - EXISTING - A29_3                           1.389       0.072       41.67
 2.17        500.         26.          24.
       CORSAIR S - EXISTING - F18                             0.864       0.044       25.92
 1.33        311.         16.          30.


     MOA name = HAWG NORTH MOA
                                                                   Daily
Monthly                 Yearly
         Mission                                                Day        Night        Day
Night        Day         Night    Time On Range
          Name                                                  OPS         OPS         OPS
 OPS         OPS         OPS       (minutes)
       HAWG N - EXISTING - A10                                7.850       0.872      235.50
26.17       2826.        314.          10.
       HAWG N - EXISTING - A10_2                              7.850       0.872      235.50
26.17       2826.        314.          35.
       HAWG N - EXISTING - A10_3                              7.850       0.872      235.50
26.17       2826.        314.           5.
       HAWG N - EXISTING - F18                                0.194       0.011        5.83
 0.33         70.          4.         116.


     MOA name = HAWG SOUTH MOA
                                                                   Daily
Monthly                 Yearly
         Mission                                                Day        Night        Day
Night        Day         Night    Time On Range
          Name                                                  OPS         OPS         OPS
 OPS         OPS         OPS       (minutes)
       HAWG S - EXISTING - A10                                7.850       0.872      235.50
26.17       2826.        314.          10.
       HAWG S - EXISTING - A10_2                              7.850       0.872      235.50
26.17       2826.        314.          35.
       HAWG S - EXISTING - A10_3                              7.850       0.872      235.50
26.17       2826.        314.           5.
```

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
HAWG 5 - EXISTING - F18	0.194	0.011	5.83	0.33	70.	4.	116.

MOA name = LATN

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
LATN - EXISTING - A10	7.850	0.872	235.50	26.17	2826.	314.	2.
LATN - EXISTING - A10_2	7.850	0.872	235.50	26.17	2826.	314.	8.
LATN - EXISTING - A10_3	7.850	0.872	235.50	26.17	2826.	314.	1.
LATN - EXISTING - C130	1.419	1.336	42.58	40.08	511.	481.	3.
LATN - EXISTING - C130_2	1.419	1.336	42.58	40.08	511.	481.	24.
LATN - EXISTING - C130_3	1.419	1.336	42.58	40.08	511.	481.	3.
LATN - EXISTING - H60	2.961	0.786	88.83	23.58	1066.	283.	2.
LATN - EXISTING - H60_2	2.961	0.786	88.83	23.58	1066.	283.	25.
LATN - EXISTING - H60_3	2.961	0.786	88.83	23.58	1066.	283.	4.

MOA name = MOODY 2 NORTH MOA

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
MOODY 2N - EXISTING - A10	7.850	0.872	235.50	26.17	2826.	314.	4.
MOODY 2N - EXISTING - A10_2	7.850	0.872	235.50	26.17	2826.	314.	14.
MOODY 2N - EXISTING - A10_3	7.850	0.872	235.50	26.17	2826.	314.	2.
MOODY 2N - EXISTING - A29	1.850	0.097	55.50	2.92	666.	35.	16.
MOODY 2N - EXISTING - A29_2	1.850	0.097	55.50	2.92	666.	35.	52.
MOODY 2N - EXISTING - A29_3	1.850	0.097	55.50	2.92	666.	35.	18.

```
      MOODY 2N - EXISTING - C130                    0.378      0.356      11.33
10.67       136.       128.         3.
      MOODY 2N - EXISTING - C130_2                  0.378      0.356      11.33
10.67       136.       128.        24.
      MOODY 2N - EXISTING - C130_3                  0.378      0.356      11.33
10.67       136.       128.         3.
      MOODY 2N - EXISTING - F18                     1.400      0.075      42.00
 2.25       504.        27.        43.
      MOODY 2N - EXISTING - H60                     1.972      0.525      59.17
15.75       710.       189.         8.
      MOODY 2N - EXISTING - H60_2                   1.972      0.525      59.17
15.75       710.       189.       124.
      MOODY 2N - EXISTING - H60_3                   1.972      0.525      59.17
15.75       710.       189.        18.


     MOA name = MOODY 2 SOUTH MOA
                                                         Daily
Monthly              Yearly
        Mission                                    Day       Night        Day
Night       Day        Night    Time On Range
         Name                                      OPS        OPS         OPS
 OPS        OPS        OPS       (minutes)
      MOODY 2S - EXISTING - A10                     7.850      0.872     235.50
26.17      2826.       314.         4.
      MOODY 2S - EXISTING - A10_2                   7.850      0.872     235.50
26.17      2826.       314.        14.
      MOODY 2S - EXISTING - A10_3                   7.850      0.872     235.50
26.17      2826.       314.         2.
      MOODY 2S - EXISTING - A29                     1.911      0.100      57.33
 3.00       688.        36.        16.
      MOODY 2S - EXISTING - A29_2                   1.911      0.100      57.33
 3.00       688.        36.        52.
      MOODY 2S - EXISTING - A29_3                   1.911      0.100      57.33
 3.00       688.        36.        18.
      MOODY 2S - EXISTING - C130                    0.378      0.356      11.33
10.67       136.       128.         3.
      MOODY 2S - EXISTING - C130_2                  0.378      0.356      11.33
10.67       136.       128.        24.
      MOODY 2S - EXISTING - C130_3                  0.378      0.356      11.33
10.67       136.       128.         3.
      MOODY 2S - EXISTING - F18                     1.369      0.072      41.08
 2.17       493.        26.        43.
      MOODY 2S - EXISTING - H60                     1.972      0.525      59.17
15.75       710.       189.         8.
      MOODY 2S - EXISTING - H60_2                   1.972      0.525      59.17
15.75       710.       189.       124.
      MOODY 2S - EXISTING - H60_3                   1.972      0.525      59.17
15.75       710.       189.        18.
```

MOA name = MUSTANG MOA

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
MUSTANG - EXISTING - A10	3.450	0.383	103.50	11.50	1242.	138.	12.
MUSTANG - EXISTING - A10_2	3.450	0.383	103.50	11.50	1242.	138.	42.
MUSTANG - EXISTING - A10_3	3.450	0.383	103.50	11.50	1242.	138.	6.
MUSTANG - EXISTING - F35	0.758	0.039	22.75	1.17	273.	14.	38.
MUSTANG - EXISTING - F18	1.239	0.064	37.17	1.92	446.	23.	30.

MOA name = R3008AB

Mission Name	Daily Day OPS	Daily Night OPS	Monthly Day OPS	Monthly Night OPS	Yearly Day OPS	Yearly Night OPS	Time On Range (minutes)
R3008AB - EXISTING - A10	7.850	0.872	235.50	26.17	2826.	314.	10.
R3008AB - EXISTING - A10_2	7.850	0.872	235.50	26.17	2826.	314.	34.
R3008AB - EXISTING - A10_3	7.850	0.872	235.50	26.17	2826.	314.	5.
R3008AB - EXISTING - A29	2.761	0.144	82.83	4.33	994.	52.	3.
R3008AB - EXISTING - A29_2	2.761	0.144	82.83	4.33	994.	52.	15.
R3008AB - EXISTING - A29_3	2.761	0.144	82.83	4.33	994.	52.	7.
R3008AB - EXISTING - C130	0.378	0.356	11.33	10.67	136.	128.	12.
R3008AB - EXISTING - C130_2	0.378	0.356	11.33	10.67	136.	128.	96.
R3008AB - EXISTING - C130_3	0.378	0.356	11.33	10.67	136.	128.	12.
R3008AB - EXISTING - F35	0.031	0.003	0.92	0.08	11.	1.	32.
R3008AB - EXISTING - H60	1.972	0.525	59.17	15.75	710.	189.	6.
R3008AB - EXISTING - H60_2	1.972	0.525	59.17				

```
15.75       710.       189.        99.
      R3008AB - EXISTING - H60_3                          1.972      0.525      59.17
15.75       710.       189.        15.


     MOA name = R3008C
                                                              Daily
Monthly                Yearly
        Mission                                           Day        Night      Day
Night       Day        Night    Time On Range
         Name                                             OPS        OPS        OPS
 OPS        OPS        OPS       (minutes)
      R3008C - EXISTING - A10                             7.850      0.872     235.50
26.17      2826.       314.         2.
      R3008C - EXISTING - A10_2                           7.850      0.872     235.50
26.17      2826.       314.         8.
      R3008C - EXISTING - A10_3                           7.850      0.872     235.50
26.17      2826.       314.         1.
      R3008C - EXISTING - A29                             2.761      0.144      82.83
 4.33       994.        52.         1.
      R3008C - EXISTING - A29_2                           2.761      0.144      82.83
 4.33       994.        52.         4.
      R3008C - EXISTING - A29_3                           2.761      0.144      82.83
 4.33       994.        52.         2.
      R3008C - EXISTING - C130                            0.378      0.356      11.33
10.67       136.       128.         3.
      R3008C - EXISTING - C130_2                          0.378      0.356      11.33
10.67       136.       128.        24.
      R3008C - EXISTING - C130_3                          0.378      0.356      11.33
10.67       136.       128.         3.
      R3008C - EXISTING - F35                             0.031      0.003       0.92
 0.08        11.         1.         8.
      R3008C - EXISTING - H60                             1.972      0.525      59.17
15.75       710.       189.         2.
      R3008C - EXISTING - H60_2                           1.972      0.525      59.17
15.75       710.       189.        25.
      R3008C - EXISTING - H60_3                           1.972      0.525      59.17
15.75       710.       189.         4.


     MOA name = SABRE MOA
                                                              Daily
Monthly                Yearly
        Mission                                           Day        Night      Day
Night       Day        Night    Time On Range
         Name                                             OPS        OPS        OPS
 OPS        OPS        OPS       (minutes)
      SABRE - EXISTING - F18                              0.864      0.044      25.92
 1.33       311.        16.        32.
      SABRE - EXISTING - F35                              0.047      0.003       1.42
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 0.08       17.        1.        40.


     MOA name = THUD MOA
                                                        Daily
Monthly              Yearly
        Mission                                      Day       Night      Day
Night      Day       Night    Time On Range
         Name                                        OPS        OPS       OPS
 OPS       OPS        OPS      (minutes)
      THUD - EXISTING - A10                         3.450      0.383    103.50
11.50     1242.      138.        12.
      THUD - EXISTING - A10_2                       3.450      0.383    103.50
11.50     1242.      138.        42.
      THUD - EXISTING - A10_3                       3.450      0.383    103.50
11.50     1242.      138.         6.
      THUD - EXISTING - F18                         1.042      0.056     31.25
 1.67      375.       20.        30.
      THUD - EXISTING - F35                         0.778      0.042     23.33
 1.25      280.       15.        38.


     MOA name = WARHAWK MOA
                                                        Daily
Monthly              Yearly
        Mission                                      Day       Night      Day
Night      Day       Night    Time On Range
         Name                                        OPS        OPS       OPS
 OPS       OPS        OPS      (minutes)
      WARHAWK - EXISTING - A10                      3.450      0.383    103.50
11.50     1242.      138.        12.
      WARHAWK - EXISTING - A10_2                    3.450      0.383    103.50
11.50     1242.      138.        42.
      WARHAWK - EXISTING - A10_3                    3.450      0.383    103.50
11.50     1242.      138.         6.
      WARHAWK - EXISTING - F18                      1.336      0.069     40.08
 2.08      481.       25.        30.
      WARHAWK - EXISTING - F35                      0.753      0.039     22.58
 1.17      271.       14.        38.


     **********************************************************
         Warning:  Grid points spaced greater than 1000 feet
         apart may not provide the necessary grid resolution,
         in some cases, to compute noise contours with
         high accuracy.  For low-altitude track operations,
         the recommended grid spacing is less than 1000 feet.
     **********************************************************
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***** MOA RANGE NOISEMAP *****
RESULTS

The noise metric is Ldnmr.

MOA RESULTS

MOA Name	MOA Area (sq statute miles)	Uniform Distributed Sound Level (dB)	Number of Daily Events Above SEL of 65.0 dB
CORSAIR NORTH LOW MOA - 1000	755.3	No operations on this MOA!	
CORSAIR NORTH LOW MOA - 2000	755.3	No operations on this MOA!	
CORSAIR NORTH LOW MOA - 4000	755.3	No operations on this MOA!	
CORSAIR NORTH MOA	755.3	35.0	0.0
CORSAIR SOUTH LOW MOA - 1000	591.9	No operations on this MOA!	
CORSAIR SOUTH LOW MOA - 2000	591.9	No operations on this MOA!	
CORSAIR SOUTH LOW MOA - 4000	591.9	No operations on this MOA!	
CORSAIR SOUTH MOA	591.9	35.0	0.0
GRAND BAY MOA AND R3008C	89.2	No operations on this MOA!	
HAWG NORTH MOA	779.1	35.0	0.0
HAWG SOUTH MOA	704.3	35.0	0.0
LATN	4200.0	35.0	0.0
MOODY 2 NORTH MOA	420.7	44.1	0.0
MOODY 2 NORTH MOA - 100	420.7	No operations on this MOA!	
MOODY 2 SOUTH MOA	536.4	43.1	0.0
MUSTANG LOW MOA - 1000	470.3	No operations on this MOA!	
MUSTANG LOW MOA - 2000	470.3	No operations on this MOA!	
MUSTANG LOW MOA - 4000	470.3	No operations on this MOA!	
MUSTANG MOA	470.3	39.1	0.0
R3008AB	34.1	59.7	0.0
R3008C	89.2	47.7	0.0

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     SABRE MOA                                    1599.8         35.0            0.0
     THUD LOW MOA                                  658.3      No operations on this
MOA!
     THUD MOA                                      658.3         37.8            0.5
     WARHAWK LOW MOA - 1000                        682.0      No operations on this
MOA!
     WARHAWK LOW MOA - 2000                        682.0      No operations on this
MOA!
     WARHAWK LOW MOA - 4000                        682.0      No operations on this
MOA!
     WARHAWK MOA                                   682.0         37.4            0.4



                      ***** MOA RANGE NOISEMAP *****
                                RESULTS


                           SPECIFIC POINT RESULTS

     Specific Point:  CORSAIR N POI
     Top 20 contributors to this level:


                  Sound Level
     <                 Airspace                 >  Mission
        Aircraft     (dB)       HA(%)
     LATN                                          LATN - EXISTING - A10_2
        A-10A      < 35.0
     LATN                                          LATN - EXISTING - C130_2
        C-130J     < 35.0
     CORSAIR NORTH MOA                             CORSAIR N  - EXISTING - A10_2
        A-10A      < 35.0
     LATN                                          LATN - EXISTING - H60_2
        UH60A      < 35.0
     LATN                                          LATN - EXISTING - A10_3
        A-10A      < 35.0
     CORSAIR NORTH MOA                             CORSAIR N  - EXISTING - A10_3
        A-10A      < 35.0
     LATN                                          LATN - EXISTING - C130_3
        C-130J     < 35.0
     LATN                                          LATN - EXISTING - H60_3
        UH60A      < 35.0
     LATN                                          LATN - EXISTING - C130
        C-130J     < 35.0
     LATN                                          LATN - EXISTING - A10
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   A-10A      < 35.0
CORSAIR NORTH MOA                           CORSAIR N - EXISTING - A29_3
   T-6        < 35.0
CORSAIR NORTH MOA                           CORSAIR N - EXISTING - F18
   F-18A/C    < 35.0
LATN                                        LATN - EXISTING - H60
   UH60A      < 35.0
CORSAIR NORTH MOA                           CORSAIR N - EXISTING - A29_2
   T-6        < 35.0
CORSAIR NORTH MOA                           CORSAIR N  - EXISTING - A10
   A-10A      < 35.0
CORSAIR NORTH MOA                           CORSAIR N - EXISTING - A29
   T-6        < 35.0
R3008AB                                     R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                     R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                     R3008AB - EXISTING - A10_3
   A-10A      < 35.0
R3008AB                                     R3008AB - EXISTING - H60_2
   UH60A      < 35.0


Total Level ........   < 35.0


Specific Point:  CORSAIR S POI
Top 20 contributors to this level:


             Sound Level
<                 Airspace                > Mission
   Aircraft     (dB)      HA(%)
LATN                                        LATN - EXISTING - A10_2
   A-10A      < 35.0
LATN                                        LATN - EXISTING - C130_2
   C-130J     < 35.0
LATN                                        LATN - EXISTING - H60_2
   UH60A      < 35.0
CORSAIR SOUTH MOA                           CORSAIR S  - EXISTING - A10_2
   A-10A      < 35.0
LATN                                        LATN - EXISTING - A10_3
   A-10A      < 35.0
CORSAIR SOUTH MOA                           CORSAIR S - EXISTING - A29_3
   T-6        < 35.0
LATN                                        LATN - EXISTING - C130_3
   C-130J     < 35.0
CORSAIR SOUTH MOA                           CORSAIR S  - EXISTING - A10_3
   A-10A      < 35.0
```

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LATN                                            LATN - EXISTING - H60_3
   UH60A      < 35.0
LATN                                            LATN - EXISTING - C130
   C-130J     < 35.0
LATN                                            LATN - EXISTING - A10
   A-10A      < 35.0
CORSAIR SOUTH MOA                               CORSAIR S - EXISTING - F18
   F-18A/C    < 35.0
CORSAIR SOUTH MOA                               CORSAIR S - EXISTING - A29_2
   T-6        < 35.0
LATN                                            LATN - EXISTING - H60
   UH60A      < 35.0
CORSAIR SOUTH MOA                               CORSAIR S  - EXISTING - A10
   A-10A      < 35.0
CORSAIR SOUTH MOA                               CORSAIR S - EXISTING - A29
   T-6        < 35.0
R3008AB                                         R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                         R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                         R3008AB - EXISTING - A10_3
   A-10A      < 35.0
R3008AB                                         R3008AB - EXISTING - H60_2
   UH60A      < 35.0


Total Level ........   < 35.0


Specific Point:  MOODY2N PO1
Top 20 contributors to this level:


             Sound Level
<                 Airspace                     >  Mission
   Aircraft     (dB)       HA(%)
MOODY 2 NORTH MOA                               MOODY 2N - EXISTING - A10_2
   A-10A        40.2        0.4
MOODY 2 NORTH MOA                               MOODY 2N - EXISTING - H60_2
   UH60A        38.3        0.3
MOODY 2 NORTH MOA                               MOODY 2N - EXISTING - A10_3
   A-10A      < 35.0
MOODY 2 NORTH MOA                               MOODY 2N - EXISTING - F18
   F-18A/C    < 35.0
MOODY 2 NORTH MOA                               MOODY 2N - EXISTING - H60_3
   UH60A      < 35.0
MOODY 2 NORTH MOA                               MOODY 2N - EXISTING - A29_3
   T-6        < 35.0
MOODY 2 NORTH MOA                               MOODY 2N - EXISTING - C130_2
```

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   C-130J      < 35.0
HAWG NORTH MOA                                   HAWG N - EXISTING - A10_2
   A-10A       < 35.0
MOODY 2 NORTH MOA                                MOODY 2N - EXISTING - A10
   A-10A       < 35.0
MOODY 2 NORTH MOA                                MOODY 2N - EXISTING - C130_3
   C-130J      < 35.0
MOODY 2 NORTH MOA                                MOODY 2N - EXISTING - A29_2
   T-6         < 35.0
MOODY 2 NORTH MOA                                MOODY 2N - EXISTING - H60
   UH60A       < 35.0
HAWG NORTH MOA                                   HAWG N - EXISTING - A10_3
   A-10A       < 35.0
MOODY 2 NORTH MOA                                MOODY 2N - EXISTING - C130
   C-130J      < 35.0
HAWG NORTH MOA                                   HAWG N - EXISTING - F18
   F-18A/C     < 35.0
MOODY 2 NORTH MOA                                MOODY 2N - EXISTING - A29
   T-6         < 35.0
HAWG NORTH MOA                                   HAWG N - EXISTING - A10
   A-10A       < 35.0
R3008AB                                          R3008AB - EXISTING - A10_2
   A-10A       < 35.0
R3008AB                                          R3008AB - EXISTING - F35
   F-35A       < 35.0
R3008AB                                          R3008AB - EXISTING - A10_3
   A-10A       < 35.0


Total Level ........     44.3        0.7


    Specific Point:  MOODY2S POI
    Top 20 contributors to this level:


             Sound Level
<                 Airspace                  >  Mission
   Aircraft     (dB)        HA(%)
MOODY 2 SOUTH MOA                                MOODY 2S - EXISTING - A10_2
   A-10A        39.1         0.4
MOODY 2 SOUTH MOA                                MOODY 2S - EXISTING - H60_2
   UH60A        37.2         0.3
MOODY 2 SOUTH MOA                                MOODY 2S - EXISTING - A10_3
   A-10A       < 35.0
MOODY 2 SOUTH MOA                                MOODY 2S - EXISTING - F18
   F-18A/C     < 35.0
MOODY 2 SOUTH MOA                                MOODY 2S - EXISTING - H60_3
   UH60A       < 35.0
```

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MOODY 2 SOUTH MOA                            MOODY 2S - EXISTING - A29_3
   T-6        < 35.0
MOODY 2 SOUTH MOA                            MOODY 2S - EXISTING - C130_2
   C-130J     < 35.0
HAWG SOUTH MOA                               HAWG S - EXISTING - A10_2
   A-10A      < 35.0
MOODY 2 SOUTH MOA                            MOODY 2S - EXISTING - A10
   A-10A      < 35.0
HAWG SOUTH MOA                               HAWG S - EXISTING - A10_3
   A-10A      < 35.0
MOODY 2 SOUTH MOA                            MOODY 2S - EXISTING - A29_2
   T-6        < 35.0
MOODY 2 SOUTH MOA                            MOODY 2S - EXISTING - C130_3
   C-130J     < 35.0
MOODY 2 SOUTH MOA                            MOODY 2S - EXISTING - H60
   UH60A      < 35.0
MOODY 2 SOUTH MOA                            MOODY 2S - EXISTING - C130
   C-130J     < 35.0
HAWG SOUTH MOA                               HAWG S - EXISTING - F18
   F-18A/C    < 35.0
MOODY 2 SOUTH MOA                            MOODY 2S - EXISTING - A29
   T-6        < 35.0
HAWG SOUTH MOA                               HAWG S - EXISTING - A10
   A-10A      < 35.0
R3008AB                                      R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                      R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                      R3008AB - EXISTING - A10_3
   A-10A      < 35.0

Total Level ........     43.3       0.6


Specific Point:  MUSTANG POI
Top 20 contributors to this level:


             Sound Level
<                 Airspace                  >  Mission
   Aircraft     (dB)        HA(%)
MUSTANG MOA                                    MUSTANG  - EXISTING - F35
   F-35A        38.6        0.3
LATN                                           LATN - EXISTING - A10_2
   A-10A      < 35.0
MUSTANG MOA                                    MUSTANG  - EXISTING - A10_2
   A-10A      < 35.0
LATN                                           LATN - EXISTING - C130_2
```

C-130J	< 35.0		
LATN			LATN - EXISTING - H60_2
UH60A	< 35.0		
LATN			LATN - EXISTING - A10_3
A-10A	< 35.0		
MUSTANG MOA			MUSTANG - EXISTING - A10_3
A-10A	< 35.0		
LATN			LATN - EXISTING - C130_3
C-130J	< 35.0		
MUSTANG MOA			MUSTANG - EXISTING - F18
F-18A/C	< 35.0		
LATN			LATN - EXISTING - H60_3
UH60A	< 35.0		
LATN			LATN - EXISTING - C130
C-130J	< 35.0		
LATN			LATN - EXISTING - A10
A-10A	< 35.0		
LATN			LATN - EXISTING - H60
UH60A	< 35.0		
MUSTANG MOA			MUSTANG - EXISTING - A10
A-10A	< 35.0		
R3008AB			R3008AB - EXISTING - A10_2
A-10A	< 35.0		
R3008AB			R3008AB - EXISTING - F35
F-35A	< 35.0		
R3008AB			R3008AB - EXISTING - A10_3
A-10A	< 35.0		
R3008AB			R3008AB - EXISTING - H60_2
UH60A	< 35.0		
R3008AB			R3008AB - EXISTING - C130_2
C-130J	< 35.0		
R3008C			R3008C - EXISTING - A10_2
A-10A	< 35.0		

Total Level 40.1 0.4

Specific Point: R3008A POI
Top 20 contributors to this level:

Sound Level < Airspace > Aircraft	(dB)	HA(%)	Mission
R3008AB			R3008AB - EXISTING - A10_2
A-10A	56.2	3.9	
R3008AB			R3008AB - EXISTING - F35
F-35A	49.5	1.5	

```
R3008AB                                          R3008AB - EXISTING - A10_3
   A-10A        49.2        1.5
R3008AB                                          R3008AB - EXISTING - H60_2
   UH60A        47.9        1.2
R3008AB                                          R3008AB - EXISTING - C130_2
   C-130J       45.7        0.9
R3008AB                                          R3008AB - EXISTING - A10
   A-10A        42.7        0.6
R3008AB                                          R3008AB - EXISTING - H60_3
   UH60A        39.6        0.4
R3008AB                                          R3008AB - EXISTING - A29_3
   T-6          38.5        0.3
R3008AB                                          R3008AB - EXISTING - C130_3
   C-130J       38.3        0.3
R3008AB                                          R3008AB - EXISTING - C130
   C-130J       36.1        0.2
R3008AB                                          R3008AB - EXISTING - H60
   UH60A      < 35.0
LATN                                             LATN - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                          R3008AB - EXISTING - A29_2
   T-6        < 35.0
LATN                                             LATN - EXISTING - C130_2
   C-130J     < 35.0
LATN                                             LATN - EXISTING - H60_2
   UH60A      < 35.0
LATN                                             LATN - EXISTING - A10_3
   A-10A      < 35.0
SABRE MOA                                        SABRE - EXISTING - F35
   F-35A      < 35.0
LATN                                             LATN - EXISTING - C130_3
   C-130J     < 35.0
LATN                                             LATN - EXISTING - H60_3
   UH60A      < 35.0
LATN                                             LATN - EXISTING - C130
   C-130J     < 35.0


Total Level ........     58.7        5.4


    Specific Point:  R3008B POI
    Top 20 contributors to this level:


                 Sound Level
    <                 Airspace                >  Mission
       Aircraft     (dB)       HA(%)
    R3008AB                                      R3008AB - EXISTING - A10_2
```

```
   A-10A        57.1        4.4
R3008AB                                   R3008AB - EXISTING - F35
   F-35A        50.5        1.8
R3008AB                                   R3008AB - EXISTING - A10_3
   A-10A        50.3        1.7
R3008AB                                   R3008AB - EXISTING - H60_2
   UH60A        49.1        1.5
R3008AB                                   R3008AB - EXISTING - C130_2
   C-130J       47.3        1.1
R3008AB                                   R3008AB - EXISTING - A10
   A-10A        43.4        0.7
R3008AB                                   R3008AB - EXISTING - H60_3
   UH60A        40.8        0.5
R3008AB                                   R3008AB - EXISTING - A29_3
   T-6          40.0        0.4
R3008AB                                   R3008AB - EXISTING - C130_3
   C-130J       39.9        0.4
R3008AB                                   R3008AB - EXISTING - C130
   C-130J       37.7        0.3
R3008AB                                   R3008AB - EXISTING - H60
   UH60A      < 35.0
R3008AB                                   R3008AB - EXISTING - A29_2
   T-6        < 35.0
HAWG SOUTH MOA                            HAWG S - EXISTING - A10_2
   A-10A      < 35.0
HAWG NORTH MOA                            HAWG N - EXISTING - A10_2
   A-10A      < 35.0
HAWG SOUTH MOA                            HAWG S - EXISTING - A10_3
   A-10A      < 35.0
HAWG NORTH MOA                            HAWG N - EXISTING - A10_3
   A-10A      < 35.0
R3008AB                                   R3008AB - EXISTING - A29
   T-6        < 35.0
HAWG SOUTH MOA                            HAWG S - EXISTING - F18
   F-18A/C    < 35.0
HAWG NORTH MOA                            HAWG N - EXISTING - F18
   F-18A/C    < 35.0
HAWG SOUTH MOA                            HAWG S - EXISTING - A10
   A-10A      < 35.0


Total Level ........     59.7        6.2


    Specific Point:  R3008C POI
    Top 20 contributors to this level:


                  Sound Level
```

```
<                  Airspace                  >  Mission
   Aircraft     (dB)        HA(%)
R3008C                                          R3008C - EXISTING - A10_2
   A-10A        44.6         0.8
R3008C                                          R3008C - EXISTING - F35
   F-35A        38.5         0.3
R3008C                                          R3008C - EXISTING - A10_3
   A-10A        38.3         0.3
R3008C                                          R3008C - EXISTING - H60_2
   UH60A        37.9         0.3
R3008C                                          R3008C - EXISTING - C130_2
   C-130J       37.1         0.3
R3008C                                          R3008C - EXISTING - H60_3
   UH60A      < 35.0
R3008C                                          R3008C - EXISTING - A10
   A-10A      < 35.0
R3008C                                          R3008C - EXISTING - C130_3
   C-130J     < 35.0
R3008C                                          R3008C - EXISTING - A29_3
   T-6        < 35.0
R3008C                                          R3008C - EXISTING - C130
   C-130J     < 35.0
HAWG SOUTH MOA                                  HAWG S - EXISTING - A10_2
   A-10A      < 35.0
R3008C                                          R3008C - EXISTING - H60
   UH60A      < 35.0
HAWG SOUTH MOA                                  HAWG S - EXISTING - A10_3
   A-10A      < 35.0
R3008C                                          R3008C - EXISTING - A29_2
   T-6        < 35.0
HAWG SOUTH MOA                                  HAWG S - EXISTING - F18
   F-18A/C    < 35.0
R3008C                                          R3008C - EXISTING - A29
   T-6        < 35.0
HAWG SOUTH MOA                                  HAWG S - EXISTING - A10
   A-10A      < 35.0
R3008AB                                         R3008AB - EXISTING - A10_2
   A-10A      < 35.0
R3008AB                                         R3008AB - EXISTING - F35
   F-35A      < 35.0
R3008AB                                         R3008AB - EXISTING - A10_3
   A-10A      < 35.0

Total Level ........     47.7        1.2


    Specific Point:  SABRE POI
    Top 20 contributors to this level:
```

```
                Sound Level
<                    Airspace                    >  Mission
   Aircraft      (dB)       HA(%)
LATN                                                LATN - EXISTING - A10_2
   A-10A       < 35.0
LATN                                                LATN - EXISTING - C130_2
   C-130J      < 35.0
LATN                                                LATN - EXISTING - H60_2
   UH60A       < 35.0
LATN                                                LATN - EXISTING - A10_3
   A-10A       < 35.0
SABRE MOA                                           SABRE - EXISTING - F35
   F-35A       < 35.0
LATN                                                LATN - EXISTING - C130_3
   C-130J      < 35.0
LATN                                                LATN - EXISTING - H60_3
   UH60A       < 35.0
LATN                                                LATN - EXISTING - C130
   C-130J      < 35.0
LATN                                                LATN - EXISTING - A10
   A-10A       < 35.0
SABRE MOA                                           SABRE - EXISTING - F18
   F-18A/C     < 35.0
LATN                                                LATN - EXISTING - H60
   UH60A       < 35.0
R3008AB                                             R3008AB - EXISTING - A10_2
   A-10A       < 35.0
R3008AB                                             R3008AB - EXISTING - F35
   F-35A       < 35.0
R3008AB                                             R3008AB - EXISTING - A10_3
   A-10A       < 35.0
R3008AB                                             R3008AB - EXISTING - H60_2
   UH60A       < 35.0
R3008AB                                             R3008AB - EXISTING - C130_2
   C-130J      < 35.0
R3008C                                              R3008C - EXISTING - A10_2
   A-10A       < 35.0
R3008AB                                             R3008AB - EXISTING - A10
   A-10A       < 35.0
R3008AB                                             R3008AB - EXISTING - H60_3
   UH60A       < 35.0
R3008AB                                             R3008AB - EXISTING - A29_3
   T-6         < 35.0

Total Level ........   < 35.0
```

Specific Point: THUD POI
Top 20 contributors to this level:

< Aircraft	Sound Level Airspace (dB)	HA(%)	> Mission
THUD MOA			THUD - EXISTING - F35
F-35A	37.4	0.3	
LATN			LATN - EXISTING - A10_2
A-10A	< 35.0		
THUD MOA			THUD - EXISTING - A10_2
A-10A	< 35.0		
LATN			LATN - EXISTING - C130_2
C-130J	< 35.0		
LATN			LATN - EXISTING - H60_2
UH60A	< 35.0		
LATN			LATN - EXISTING - A10_3
A-10A	< 35.0		
THUD MOA			THUD - EXISTING - A10_3
A-10A	< 35.0		
LATN			LATN - EXISTING - C130_3
C-130J	< 35.0		
LATN			LATN - EXISTING - H60_3
UH60A	< 35.0		
LATN			LATN - EXISTING - C130
C-130J	< 35.0		
LATN			LATN - EXISTING - A10
A-10A	< 35.0		
THUD MOA			THUD - EXISTING - F18
F-18A/C	< 35.0		
LATN			LATN - EXISTING - H60
UH60A	< 35.0		
THUD MOA			THUD - EXISTING - A10
A-10A	< 35.0		
R3008AB			R3008AB - EXISTING - A10_2
A-10A	< 35.0		
R3008AB			R3008AB - EXISTING - F35
F-35A	< 35.0		
R3008AB			R3008AB - EXISTING - A10_3
A-10A	< 35.0		
R3008AB			R3008AB - EXISTING - H60_2
UH60A	< 35.0		
R3008AB			R3008AB - EXISTING - C130_2
C-130J	< 35.0		
R3008C			R3008C - EXISTING - A10_2
A-10A	< 35.0		

```
Total Level ........     39.2       0.4


    Specific Point:  WARHAWK POI
    Top 20 contributors to this level:


                 Sound Level
    <                 Airspace                 >  Mission
       Aircraft      (dB)       HA(%)
    WARHAWK MOA                                   WARHAWK - EXISTING - F35
       F-35A         37.0       0.3
    WARHAWK MOA                                   WARHAWK - EXISTING - A10_2
       A-10A       < 35.0
    WARHAWK MOA                                   WARHAWK - EXISTING - A10_3
       A-10A       < 35.0
    WARHAWK MOA                                   WARHAWK - EXISTING - F18
       F-18A/C     < 35.0
    WARHAWK MOA                                   WARHAWK - EXISTING - A10
       A-10A       < 35.0
    R3008AB                                       R3008AB - EXISTING - A10_2
       A-10A       < 35.0
    R3008AB                                       R3008AB - EXISTING - F35
       F-35A       < 35.0
    R3008AB                                       R3008AB - EXISTING - A10_3
       A-10A       < 35.0
    R3008AB                                       R3008AB - EXISTING - H60_2
       UH60A       < 35.0
    R3008AB                                       R3008AB - EXISTING - C130_2
       C-130J      < 35.0
    R3008C                                        R3008C - EXISTING - A10_2
       A-10A       < 35.0
    R3008AB                                       R3008AB - EXISTING - A10
       A-10A       < 35.0
    R3008AB                                       R3008AB - EXISTING - H60_3
       UH60A       < 35.0
    R3008AB                                       R3008AB - EXISTING - A29_3
       T-6         < 35.0
    MOODY 2 NORTH MOA                             MOODY 2N - EXISTING - A10_2
       A-10A       < 35.0
    R3008AB                                       R3008AB - EXISTING - C130_3
       C-130J      < 35.0
    MOODY 2 SOUTH MOA                             MOODY 2S - EXISTING - A10_2
       A-10A       < 35.0
    MUSTANG MOA                                   MUSTANG  - EXISTING - F35
       F-35A       < 35.0
    R3008C                                        R3008C - EXISTING - F35
       F-35A       < 35.0
    R3008C                                        R3008C - EXISTING - A10_3
```

```
        A-10A      < 35.0

Total Level ........     37.4        0.3


      <Run Log>
      Date:                   7/24/2020
      Start Time:            11:38:55
      Stop Time:             11:49: 4
      Total Running Time:    10 minutes and   9 seconds.
```

APPENDIX D. AIR QUALITY ANALYSIS RESULTS

FORMAT PAGE

D-1. Detail Air Conformity Applicability Model Report

FORMAT PAGE

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF AIR ANALYSIS (ROAA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Instruction 32-7040, Air Quality Compliance And Resource Management; the Environmental Impact Analysis Process (EIAP, 32 Code of Federal Regulations [CFR] 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:
Base: MOODY AFB
State: Georgia
County(s): Lanier; Lowndes
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Airspace Optimization Moody AFB - Existing

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2021

e. Action Description:

The emissions contained herein include the total emissions redistributed by the proposed action from Moody 2N/S into the newly proposed low-altitude airspace.

f. Point of Contact:
Name: TLL
Title: X
Organization: Moody
Email: X
Phone Number: X

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the General Conformity Rule are:

_____ applicable
__X__ not applicable

Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions.

"Air Quality Indicators" were used to provide an indication of the significance of potential impacts to air quality. These air quality indicators are US Environmental Protection Agency (USEPA) General Conformity Rule (GCR) thresholds (*de minimis* levels) that are applied out of context to their intended use. Therefore, these indicators do not trigger a regulatory requirement; however, they provide a warning that the action is potentially significant. It is important to note that these indicators only provide a clue to the potential impacts to air quality.

Given the GCR *de minimis* threshold values are the maximum net change an action can acceptably emit in non-attainment and maintenance areas, these threshold values would also conservatively indicate an actions emissions within an attainment would also be acceptable. An air quality indicator value of 100 tons/year is used based on the GCR *de minimis* threshold for the least severe non-attainment classification for all criteria pollutants (see 40 CFR

93.153). Therefore, the worst-case year emissions were compared against the GCR indicator and are summarized below.

Analysis Summary:

2021

Pollutant	Action Emissions (ton/yr)	AIR QUALITY INDICATOR	
		Threshold (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	12.896	100	No
NOx	87.929	100	No
CO	48.938	100	No
SOx	8.747	100	No
PM 10	14.728	100	No
PM 2.5	11.458	100	No
Pb	0.000	25	No
NH3	0.000	100	No
CO2e	26686.2		

2022 – Steady State

Pollutant	Action Emissions (ton/yr)	AIR QUALITY INDICATOR	
		Threshold (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	12.896	100	No
NOx	87.929	100	No
CO	48.938	100	No
SOx	8.747	100	No
PM 10	14.728	100	No
PM 2.5	11.458	100	No
Pb	0.000	25	No
NH3	0.000	100	No
CO2e	26686.2		

None of estimated emissions associated with this action are above the GCR indicators, indicating no significant impact to air quality; therefore, no further air assessment is needed.

Tim Lavallee

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

General Information

- Action Location
Base: MOODY AFB
State: Georgia
County(s): Lanier; Lowndes
Regulatory Area(s): NOT IN A REGULATORY AREA

- Action Title: Airspace Optimization Moody AFB - Existing

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2021

- Action Purpose and Need:
Addition of low-altitude airspace at Moody AFB.

- Action Description:
The emissions contained herein include the total emissions redistributed by the proposed action from Moody 2N/S into the newly proposed low-altitude airspace.

- Point of Contact
Name: TLL
Title: X
Organization: Moody
Email: X
Phone Number: X

- Activity List:

Activity Type		Activity Title
2.	Aircraft	A-10
3.	Aircraft	A-29
4.	Aircraft	C-130J
5.	Aircraft	HH-60
6.	Aircraft	F-18

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Aircraft

2.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lanier
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: A-10

- Activity Description:
Airspace Operations

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	9.219789
SO_x	0.962146
NO_x	5.611147
CO	33.310751
PM 10	5.518420

Pollutant	Emissions Per Year (TONs)
PM 2.5	3.579876
Pb	0.000000
NH_3	0.000000
CO_2e	2935.5

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)
VOC	9.219789
SO_x	0.962146
NO_x	5.611147
CO	33.310751
PM 10	5.518420

Pollutant	Emissions Per Year (TONs)
PM 2.5	3.579876
Pb	0.000000
NH_3	0.000000
CO_2e	2935.5

2.2 Aircraft & Engines

2.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: A-10C
Engine Model: TF34-GE-100
Primary Function: Combat
Aircraft has After burn: No
Number of Engines: 2

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

2.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	390.00	39.45	1.06	2.10	106.70	8.13	3.60	3234
Approach	920.00	2.19	1.06	5.70	16.30	6.21	2.12	3234
Intermediate	460.00	23.35	1.06	2.60	78.00	8.93	6.95	3234
Military	2710.00	0.12	1.06	10.70	2.20	2.66	1.68	3234

After Burn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3234

2.3 Flight Operations

2.3.1 Flight Operations Assumptions

- Flight Operations

Number of Aircraft:	1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft:	1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft:	0
Number of Annual Trim Test(s) per Aircraft:	12

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)

Taxi/Idle Out [Idle] (mins):	0
Takeoff [Military] (mins):	6907
Takeoff [After Burn] (mins):	0
Climb Out [Intermediate] (mins):	48348
Approach [Approach] (mins):	13814
Taxi/Idle In [Idle] (mins):	0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used)

- Trim Test

Idle (mins):	12
Approach (mins):	27
Intermediate (mins):	9
Military (mins):	12
AfterBurn (mins):	0

2.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year
$AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000$

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year
$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)

$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL}$ = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

2.4 Auxiliary Power Unit (APU)

2.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: No

- Auxiliary Power Unit (APU)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer

2.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e

2.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
$APU_{POL} = APU * OH * LTO * EF_{POL} / 2000$

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

3. Aircraft

3.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lanier
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: A-29

- Activity Description:
Airspace Operations

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.040009
SO_x	0.061351
NO_x	0.350403
CO	0.566721
PM 10	0.217479

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.040618
Pb	0.000000
NH_3	0.000000
CO_2e	187.2

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)
VOC	0.040009
SO_x	0.061351
NO_x	0.350403
CO	0.566721
PM 10	0.217479

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.040618
Pb	0.000000
NH_3	0.000000
CO_2e	187.2

3.2 Aircraft & Engines

3.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: T-6A
Engine Model: PT6A-68
Primary Function: Trainer
Aircraft has After burn: No
Number of Engines: 1

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

3.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	156.00	7.89	1.06	1.77	117.85	3.95	2.16	3234
Approach	328.00	3.29	1.06	5.03	33.69	4.15	1.23	3234
Intermediate	449.00	0.71	1.06	4.73	10.91	3.34	0.70	3234
Military	612.00	0.20	1.06	8.18	3.88	4.30	0.61	3234
After Burn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3234

3.3 Flight Operations

3.3.1 Flight Operations Assumptions

- Flight Operations
Number of Aircraft: 1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft: 1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft: 0
Number of Annual Trim Test(s) per Aircraft: 0

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)
Taxi/Idle Out [Idle] (mins): 0
Takeoff [Military] (mins): 4289
Takeoff [After Burn] (mins): 0
Climb Out [Intermediate] (mins): 8578
Approach [Approach] (mins): 1430
Taxi/Idle In [Idle] (mins): 0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test

Idle (mins):	0
Approach (mins):	0
Intermediate (mins):	0
Military (mins):	0
AfterBurn (mins):	0

3.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year
$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)

$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL}$ = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
AE_{TRIM} = $AEPS_{IDLE}$ + $AEPS_{APPROACH}$ + $AEPS_{INTERMEDIATE}$ + $AEPS_{MILITARY}$ + $AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

3.4 Auxiliary Power Unit (APU)

3.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: Yes

- Auxiliary Power Unit (APU) (default)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer

3.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e

3.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
APU_{POL} = APU * OH * LTO * EF_{POL} / 2000

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

4. Aircraft

4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lanier
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: C-130J

- Activity Description:
Airspace Operations

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	3.520666
SO_x	2.561166
NO_x	21.499181
CO	8.842812
PM 10	1.302005

Pollutant	Emissions Per Year (TONs)
PM 2.5	1.171764
Pb	0.000000
NH_3	0.000000
CO_2e	7814.0

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)
VOC	3.520666
SO_x	2.561166
NO_x	21.499181
CO	8.842812
PM 10	1.302005

Pollutant	Emissions Per Year (TONs)
PM 2.5	1.171764
Pb	0.000000
NH_3	0.000000
CO_2e	7814.0

4.2 Aircraft & Engines

4.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: C-130J
Engine Model: T56-A-15
Primary Function: Transport - Bomber
Aircraft has After burn: No
Number of Engines: 4

- Aircraft & Engine Surrogate

Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

4.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	794.00	24.15	1.06	3.90	32.00	0.83	0.75	3234
Approach	1185.00	14.26	1.06	4.40	22.20	0.97	0.87	3234
Intermediate	1825.00	0.58	1.06	9.20	2.40	0.51	0.46	3234
Military	2302.00	0.46	1.06	9.30	2.10	0.50	0.45	3234
After Burn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3234

4.3 Flight Operations

4.3.1 Flight Operations Assumptions

- Flight Operations
Number of Aircraft: 1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft: 1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft: 1
Number of Annual Trim Test(s) per Aircraft: 0

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)
Taxi/Idle Out [Idle] (mins): 0
Takeoff [Military] (mins): 2004
Takeoff [After Burn] (mins): 0
Climb Out [Intermediate] (mins): 16029
Approach [Approach] (mins): 2004
Taxi/Idle In [Idle] (mins): 0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test
Idle (mins): 0
Approach (mins): 0
Intermediate (mins): 0
Military (mins): 0
AfterBurn (mins): 0

4.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds

EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year
$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year
$AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000$

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL} = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000$

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)

$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

4.4 Auxiliary Power Unit (APU)

4.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: No

- Auxiliary Power Unit (APU)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer
1	1	No	GTCP 85L	

4.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
GTCP 85L	272.6	0.493	0.289	1.216	3.759	0.131	0.037	910.8

4.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
$APU_{POL} = APU * OH * LTO * EF_{POL} / 2000$

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

5. Aircraft

5.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lanier
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: HH-60

- Activity Description:
Airspace Operations

- Activity Start Date
Start Month: 1

Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.081521
SO_x	4.652866
NO_x	52.285619
CO	5.478101
PM 10	6.935405

Pollutant	Emissions Per Year (TONs)
PM 2.5	6.233085
Pb	0.000000
NH_3	0.000000
CO_2e	14195.6

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)
VOC	0.081521
SO_x	4.652866
NO_x	52.285619
CO	5.478101
PM 10	6.935405

Pollutant	Emissions Per Year (TONs)
PM 2.5	6.233085
Pb	0.000000
NH_3	0.000000
CO_2e	14195.6

5.2 Aircraft & Engines

5.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: MV-22A
Engine Model: T406-AD-400
Primary Function: Transport - Bomber
Aircraft has After burn: No
Number of Engines: 2

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

5.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	362.00	0.10	1.06	4.15	8.35	1.58	1.42	3234
Approach	663.00	0.02	1.06	6.05	3.47	1.58	1.42	3234
Intermediate	948.00	0.02	1.06	7.87	1.82	1.58	1.42	3234
Military	2507.00	0.01	1.06	18.03	0.29	1.58	1.42	3234
After Burn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3234

5.3 Flight Operations

5.3.1 Flight Operations Assumptions

- Flight Operations

Number of Aircraft:	1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft:	1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft:	0
Number of Annual Trim Test(s) per Aircraft:	0

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)

Taxi/Idle Out [Idle] (mins):	0
Takeoff [Military] (mins):	42290
Takeoff [After Burn] (mins):	0
Climb Out [Intermediate] (mins):	158586
Approach [Approach] (mins):	10572
Taxi/Idle In [Idle] (mins):	0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test

Idle (mins):	0
Approach (mins):	0
Intermediate (mins):	0
Military (mins):	0
AfterBurn (mins):	0

5.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year

AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year

$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year

AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL} = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000$

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

5.4 Auxiliary Power Unit (APU)

5.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: No

- Auxiliary Power Unit (APU)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer

5.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e

5.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
$APU_{POL} = APU * OH * LTO * EF_{POL} / 2000$

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

6. Aircraft

6.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lowndes
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: F-18

- Activity Description:

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)	Pollutant	Emissions Per Year (TONs)
VOC	0.033634	PM 2.5	0.432442
SO_x	0.509320	Pb	0.000000
NO_x	8.182756	NH_3	0.000000
CO	0.739956	CO_2e	1553.9
PM 10	0.754370		

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)	Pollutant	Emissions Per Year (TONs)
VOC	0.033634	PM 2.5	0.432442
SO_x	0.509320	Pb	0.000000
NO_x	8.182756	NH_3	0.000000

CO	0.739956	CO_2e	1553.9
PM 10	0.754370		

6.2 Aircraft & Engines

6.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: TF/A-18A
Engine Model: F404-GE-400
Primary Function: Combat
Aircraft has After burn: Yes
Number of Engines: 2

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

6.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	685.00	3.39	1.06	1.70	110.18	4.47	3.10	3234
Approach	3111.00	0.04	1.06	7.86	2.02	1.46	0.87	3234
Intermediate	6464.00	0.07	1.06	17.03	1.54	1.57	0.90	3234
Military	7739.00	0.02	1.06	25.83	1.48	1.61	0.89	3234
After Burn	15851.00	1.85	1.06	5.43	50.31	3.57	3.21	3234

6.3 Flight Operations

6.3.1 Flight Operations Assumptions

- Flight Operations
Number of Aircraft: 1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft: 1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft: 0
Number of Annual Trim Test(s) per Aircraft: 0

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)
Taxi/Idle Out [Idle] (mins): 0
Takeoff [Military] (mins): 0
Takeoff [After Burn] (mins): 0
Climb Out [Intermediate] (mins): 4460
Approach [Approach] (mins): 0
Taxi/Idle In [Idle] (mins): 0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test

Idle (mins):	0
Approach (mins):	0
Intermediate (mins):	0
Military (mins):	0
AfterBurn (mins):	0

6.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year
$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL}$ = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

6.4 Auxiliary Power Unit (APU)

6.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: Yes

- Auxiliary Power Unit (APU) (default)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer

6.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e

6.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
$APU_{POL} = APU * OH * LTO * EF_{POL} / 2000$

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

AIR CONFORMITY APPLICABILITY MODEL REPORT
RECORD OF AIR ANALYSIS (ROAA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Instruction 32-7040, Air Quality Compliance And Resource Management; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:
Base: MOODY AFB
State: Georgia
County(s): Lanier; Lowndes
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Airspace Optimization Moody AFB – Alternative 1

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2021

e. Action Description:

The emissions contained herein include the total emissions redistributed by the proposed action from Moody 2N/S into the newly proposed low-altitude airspace.

f. Point of Contact:
Name: TLL
Title: X
Organization: Moody
Email: X
Phone Number: X

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the General Conformity Rule are:

_____ applicable
__X__ not applicable

Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions.

"Air Quality Indicators" were used to provide an indication of the significance of potential impacts to air quality. These air quality indicators are USEPA General Conformity Rule (GCR) thresholds (*de minimis* levels) that are applied out of context to their intended use. Therefore, these indicators do not trigger a regulatory requirement; however, they provide a warning that the action is potentially significant. It is important to note that these indicators only provide a clue to the potential impacts to air quality.

Given the GCR *de minimis* threshold values are the maximum net change an action can acceptably emit in non-attainment and maintenance areas, these threshold values would also conservatively indicate an actions emissions within an attainment would also be acceptable. An air quality indicator value of 100 tons/year is used based on the GCR *de minimis* threshold for the least severe non-attainment classification for all criteria pollutants (see 40 CFR 93.153). Therefore, the worst-case year emissions were compared against the GCR indicator and are summarized below.

Analysis Summary:

2021

Pollutant	Action Emissions (ton/yr)	AIR QUALITY INDICATOR	
		Threshold (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	13.148	100	No
NOx	89.729	100	No
CO	50.055	100	No
SOx	8.916	100	No
PM 10	15.077	100	No
PM 2.5	11.687	100	No
Pb	0.000	25	No
NH3	0.000	100	No
CO2e	27202.9		

2022 - (Steady State)

Pollutant	Action Emissions (ton/yr)	AIR QUALITY INDICATOR	
		Threshold (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	13.148	100	No
NOx	89.729	100	No
CO	50.055	100	No
SOx	8.916	100	No
PM 10	15.077	100	No
PM 2.5	11.687	100	No
Pb	0.000	25	No
NH3	0.000	100	No
CO2e	27202.9		

None of estimated emissions associated with this action are above the GCR indicators, indicating no significant impact to air quality; therefore, no further air assessment is needed.

Tim Lavallee DATE

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location
Base: MOODY AFB
State: Georgia
County(s): Lanier; Lowndes
Regulatory Area(s): NOT IN A REGULATORY AREA

- Action Title: Airspace Optimization Moody AFB – Alternative 1

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2021

- Action Purpose and Need:
Addition of low-altitude airspace at Moody AFB.

- Action Description:
The emissions contained herein include the total emissions redistributed by the proposed action from Moody 2N/S into the newly proposed low-altitude airspace.

- Point of Contact
Name: TLL
Title: X
Organization: Moody
Email: X
Phone Number: X

- Activity List:

Activity Type		Activity Title
2.	Aircraft	A-10
3.	Aircraft	A-29
4.	Aircraft	C-130J
5.	Aircraft	HH-60
6.	Aircraft	F-18

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Aircraft

2.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lanier

Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: A-10

- Activity Description:
Airspace Operations

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	9.439535
SO_x	0.984908
NO_x	5.743444
CO	34.104252
PM 10	5.649368

Pollutant	Emissions Per Year (TONs)
PM 2.5	3.665094
Pb	0.000000
NH_3	0.000000
CO_2e	3004.9

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)
VOC	9.439535
SO_x	0.984908
NO_x	5.743444
CO	34.104252
PM 10	5.649368

Pollutant	Emissions Per Year (TONs)
PM 2.5	3.665094
Pb	0.000000
NH_3	0.000000
CO_2e	3004.9

2.2 Aircraft & Engines

2.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: A-10C
Engine Model: TF34-GE-100
Primary Function: Combat
Aircraft has After burn: No
Number of Engines: 2

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

2.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	390.00	39.45	1.06	2.10	106.70	8.13	3.60	3234
Approach	920.00	2.19	1.06	5.70	16.30	6.21	2.12	3234

Intermediate	460.00	23.35	1.06	2.60	78.00	8.93	6.95	3234
Military	2710.00	0.12	1.06	10.70	2.20	2.66	1.68	3234
After Burn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3234

2.3 Flight Operations

2.3.1 Flight Operations Assumptions

- Flight Operations
Number of Aircraft: 1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft: 1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft: 0
Number of Annual Trim Test(s) per Aircraft: 12

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)
Taxi/Idle Out [Idle] (mins): 0
Takeoff [Military] (mins): 7073
Takeoff [After Burn] (mins): 0
Climb Out [Intermediate] (mins): 49509
Approach [Approach] (mins): 14145
Taxi/Idle In [Idle] (mins): 0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test
Idle (mins): 12
Approach (mins): 27
Intermediate (mins): 9
Military (mins): 12
AfterBurn (mins): 0

2.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year
$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)

AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year
$AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000$

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL} = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000$

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

2.4 Auxiliary Power Unit (APU)

2.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: No

- Auxiliary Power Unit (APU)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer

2.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e

2.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
$APU_{POL} = APU * OH * LTO * EF_{POL} / 2000$

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

3. Aircraft

3.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lanier
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: A-29

- Activity Description:
Airspace Operations

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.045074
SO_x	0.069118
NO_x	0.394765

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.045760
Pb	0.000000
NH_3	0.000000

CO	0.638466	CO_2e	210.9
PM 10	0.245012		

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)	Pollutant	Emissions Per Year (TONs)
VOC	0.045074	PM 2.5	0.045760
SO_x	0.069118	Pb	0.000000
NO_x	0.394765	NH_3	0.000000
CO	0.638466	CO_2e	210.9
PM 10	0.245012		

3.2 Aircraft & Engines

3.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: T-6A
Engine Model: PT6A-68
Primary Function: Trainer
Aircraft has After burn: No
Number of Engines: 1

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

3.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	156.00	7.89	1.06	1.77	117.85	3.95	2.16	3234
Approach	328.00	3.29	1.06	5.03	33.69	4.15	1.23	3234
Intermediate	449.00	0.71	1.06	4.73	10.91	3.34	0.70	3234
Military	612.00	0.20	1.06	8.18	3.88	4.30	0.61	3234
After Burn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3234

3.3 Flight Operations

3.3.1 Flight Operations Assumptions

- Flight Operations
Number of Aircraft: 1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft: 1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft: 0
Number of Annual Trim Test(s) per Aircraft: 0

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)
Taxi/Idle Out [Idle] (mins): 0
Takeoff [Military] (mins): 4832
Takeoff [After Burn] (mins): 0
Climb Out [Intermediate] (mins): 9664

Approach [Approach] (mins): 1611
Taxi/Idle In [Idle] (mins): 0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test
Idle (mins): 0
Approach (mins): 0
Intermediate (mins): 0
Military (mins): 0
AfterBurn (mins): 0

3.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year
$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL}$ = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

3.4 Auxiliary Power Unit (APU)

3.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: Yes

- Auxiliary Power Unit (APU) (default)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer

3.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e

3.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
APU_{POL} = APU * OH * LTO * EF_{POL} / 2000

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs

EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

4. Aircraft

4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lanier
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: C-130J

- Activity Description:
Airspace Operations

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	3.542098
SO_x	2.577149
NO_x	21.633532
CO	8.897217
PM 10	1.310112

Pollutant	Emissions Per Year (TONs)
PM 2.5	1.179061
Pb	0.000000
NH_3	0.000000
CO_2e	7862.7

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)
VOC	3.542098
SO_x	2.577149
NO_x	21.633532
CO	8.897217
PM 10	1.310112

Pollutant	Emissions Per Year (TONs)
PM 2.5	1.179061
Pb	0.000000
NH_3	0.000000
CO_2e	7862.7

4.2 Aircraft & Engines

4.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: C-130J
Engine Model: T56-A-15
Primary Function: Transport - Bomber
Aircraft has After burn: No
Number of Engines: 4

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

4.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	794.00	24.15	1.06	3.90	32.00	0.83	0.75	3234
Approach	1185.00	14.26	1.06	4.40	22.20	0.97	0.87	3234
Intermediate	1825.00	0.58	1.06	9.20	2.40	0.51	0.46	3234
Military	2302.00	0.46	1.06	9.30	2.10	0.50	0.45	3234
After Burn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3234

4.3 Flight Operations

4.3.1 Flight Operations Assumptions

- Flight Operations
Number of Aircraft: 1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft: 1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft: 1
Number of Annual Trim Test(s) per Aircraft: 0

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)
Taxi/Idle Out [Idle] (mins): 0
Takeoff [Military] (mins): 2016
Takeoff [After Burn] (mins): 0
Climb Out [Intermediate] (mins): 16130
Approach [Approach] (mins): 2016
Taxi/Idle In [Idle] (mins): 0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test
Idle (mins): 0
Approach (mins): 0
Intermediate (mins): 0
Military (mins): 0
AfterBurn (mins): 0

4.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours

FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year
$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year
$AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000$

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL} = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000$

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

4.4 Auxiliary Power Unit (APU)

4.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: No

- Auxiliary Power Unit (APU)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer
1	1	No	GTCP 85L	

4.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
GTCP 85L	272.6	0.493	0.289	1.216	3.759	0.131	0.037	910.8

4.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
$APU_{POL} = APU * OH * LTO * EF_{POL} / 2000$

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

5. Aircraft

5.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lanier
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: HH-60

- Activity Description:
Airspace Operations

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)	Pollutant	Emissions Per Year (TONs)
VOC	0.082728	PM 2.5	6.307579
SO_x	4.708474	Pb	0.000000
NO_x	52.694217	NH_3	0.000000
CO	5.577444	CO_2e	14365.3
PM 10	7.018292		

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)	Pollutant	Emissions Per Year (TONs)
VOC	0.082728	PM 2.5	6.307579
SO_x	4.708474	Pb	0.000000
NO_x	52.694217	NH_3	0.000000
CO	5.577444	CO_2e	14365.3
PM 10	7.018292		

5.2 Aircraft & Engines

5.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: MV-22A
Engine Model: T406-AD-400
Primary Function: Transport - Bomber
Aircraft has After burn: No
Number of Engines: 2

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

5.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	362.00	0.10	1.06	4.15	8.35	1.58	1.42	3234
Approach	663.00	0.02	1.06	6.05	3.47	1.58	1.42	3234
Intermediate	948.00	0.02	1.06	7.87	1.82	1.58	1.42	3234
Military	2507.00	0.01	1.06	18.03	0.29	1.58	1.42	3234
After Burn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3234

5.3 Flight Operations

5.3.1 Flight Operations Assumptions

- Flight Operations

Number of Aircraft:	1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft:	1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft:	0
Number of Annual Trim Test(s) per Aircraft:	0

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)

Taxi/Idle Out [Idle] (mins):	0
Takeoff [Military] (mins):	42290
Takeoff [After Burn] (mins):	0
Climb Out [Intermediate] (mins):	161758
Approach [Approach] (mins):	10784
Taxi/Idle In [Idle] (mins):	0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test

Idle (mins):	0
Approach (mins):	0
Intermediate (mins):	0
Military (mins):	0
AfterBurn (mins):	0

5.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year

AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year

$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year

AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL} = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000$

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

5.4 Auxiliary Power Unit (APU)

5.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: No

- Auxiliary Power Unit (APU)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer

5.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e

5.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
$APU_{POL} = APU * OH * LTO * EF_{POL} / 2000$

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

6. Aircraft

6.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lowndes
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: F-18

- Activity Description:

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.038076
SO_x	0.576582
NO_x	9.263394
CO	0.837676
PM 10	0.853995

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.489551
Pb	0.000000
NH_3	0.000000
CO_2e	1759.1

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)
VOC	0.038076
SO_x	0.576582

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.489551
Pb	0.000000

NO_x	9.263394		NH_3	0.000000
CO	0.837676		CO_2e	1759.1
PM 10	0.853995			

6.2 Aircraft & Engines

6.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: TF/A-18A
Engine Model: F404-GE-400
Primary Function: Combat
Aircraft has After burn: Yes
Number of Engines: 2

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

6.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	685.00	3.39	1.06	1.70	110.18	4.47	3.10	3234
Approach	3111.00	0.04	1.06	7.86	2.02	1.46	0.87	3234
Intermediate	6464.00	0.07	1.06	17.03	1.54	1.57	0.90	3234
Military	7739.00	0.02	1.06	25.83	1.48	1.61	0.89	3234
After Burn	15851.00	1.85	1.06	5.43	50.31	3.57	3.21	3234

6.3 Flight Operations

6.3.1 Flight Operations Assumptions

- Flight Operations
Number of Aircraft: 1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft: 1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft: 0
Number of Annual Trim Test(s) per Aircraft: 0

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)
Taxi/Idle Out [Idle] (mins): 0
Takeoff [Military] (mins): 0
Takeoff [After Burn] (mins): 0
Climb Out [Intermediate] (mins): 5049
Approach [Approach] (mins): 0
Taxi/Idle In [Idle] (mins): 0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test

Idle (mins):	0
Approach (mins):	0
Intermediate (mins):	0
Military (mins):	0
AfterBurn (mins):	0

6.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year
$AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000$

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year
$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year
$AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000$

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL} = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000$

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

6.4 Auxiliary Power Unit (APU)

6.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: Yes

- Auxiliary Power Unit (APU) (default)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer

6.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e

6.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
$APU_{POL} = APU * OH * LTO * EF_{POL} / 2000$

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF AIR ANALYSIS (ROAA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Instruction 32-7040, Air Quality Compliance And Resource Management; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:
Base: MOODY AFB
State: Georgia
County(s): Lanier; Lowndes
Regulatory Area(s): NOT IN A REGULATORY AREA

b. Action Title: Airspace Optimization Moody AFB – Alternative 2

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2021

e. Action Description:

The emissions contained herein include the total emissions redistributed by the proposed action from Moody 2N/S into the newly proposed low-altitude airspace.

f. Point of Contact:
Name: TLL
Title: X
Organization: Moody
Email: X
Phone Number: X

2. Air Impact Analysis: Based on the attainment status at the action location, the requirements of the General Conformity Rule are:

_____ applicable
__X__ not applicable

Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions.

"Air Quality Indicators" were used to provide an indication of the significance of potential impacts to air quality. These air quality indicators are USEPA General Conformity Rule (GCR) thresholds (*de minimis* levels) that are applied out of context to their intended use. Therefore, these indicators do not trigger a regulatory requirement; however, they provide a warning that the action is potentially significant. It is important to note that these indicators only provide a clue to the potential impacts to air quality.

Given the GCR *de minimis* threshold values are the maximum net change an action can acceptably emit in non-attainment and maintenance areas, these threshold values would also conservatively indicate an actions emissions within an attainment would also be acceptable. An air quality indicator value of 100 tons/year is used based on the GCR *de minimis* threshold for the least severe non-attainment classification for all criteria pollutants (see 40 CFR 93.153). Therefore, the worst-case year emissions were compared against the GCR indicator and are summarized below.

Analysis Summary:

2021

Pollutant	Action Emissions (ton/yr)	AIR QUALITY INDICATOR	
		Threshold (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	13.031	100	No
NOx	89.099	100	No
CO	49.534	100	No
SOx	8.849	100	No
PM 10	14.927	100	No
PM 2.5	11.589	100	No
Pb	0.000	25	No
NH3	0.000	100	No
CO2e	26996.9		

2022 – Steady State

Pollutant	Action Emissions (ton/yr)	AIR QUALITY INDICATOR	
		Threshold (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	13.031	100	No
NOx	89.099	100	No
CO	49.534	100	No
SOx	8.849	100	No
PM 10	14.927	100	No
PM 2.5	11.589	100	No
Pb	0.000	25	No
NH3	0.000	100	No
CO2e	26996.9		

None of estimated emissions associated with this action are above the GCR indicators, indicating no significant impact to air quality; therefore, no further air assessment is needed.

TLL, X DATE

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location
Base: MOODY AFB
State: Georgia
County(s): Lanier; Lowndes
Regulatory Area(s): NOT IN A REGULATORY AREA

- Action Title: Airspace Optimization Moody AFB – Alternative 2

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2021

- Action Purpose and Need:
Addition of low-altitude airspace at Moody AFB.

- Action Description:
The emissions contained herein include the total emissions redistributed by the proposed action from Moody 2N/S into the newly proposed low-altitude airspace.

- Point of Contact
Name: TLL
Title: X
Organization: Moody
Email: X
Phone Number: X

- Activity List:

Activity Type		Activity Title
2.	Aircraft	A-10
3.	Aircraft	A-29
4.	Aircraft	C-130J
5.	Aircraft	HH-60
6.	Aircraft	F-18

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Aircraft

2.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

County: Lanier
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: A-10

- Activity Description:
Airspace Operations

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)	Pollutant	Emissions Per Year (TONs)
VOC	9.329768	PM 2.5	3.622528
SO_x	0.973539	Pb	0.000000
NO_x	5.677349	NH_3	0.000000
CO	33.707925	CO_2e	2970.2
PM 10	5.583976		

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)	Pollutant	Emissions Per Year (TONs)
VOC	9.329768	PM 2.5	3.622528
SO_x	0.973539	Pb	0.000000
NO_x	5.677349	NH_3	0.000000
CO	33.707925	CO_2e	2970.2
PM 10	5.583976		

2.2 Aircraft & Engines

2.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: A-10C
Engine Model: TF34-GE-100
Primary Function: Combat
Aircraft has After burn: No
Number of Engines: 2

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

2.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	390.00	39.45	1.06	2.10	106.70	8.13	3.60	3234

Approach	920.00	2.19	1.06	5.70	16.30	6.21	2.12	3234
Intermediate	460.00	23.35	1.06	2.60	78.00	8.93	6.95	3234
Military	2710.00	0.12	1.06	10.70	2.20	2.66	1.68	3234
After Burn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3234

2.3 Flight Operations

2.3.1 Flight Operations Assumptions

- Flight Operations
Number of Aircraft: 1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft: 1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft: 0
Number of Annual Trim Test(s) per Aircraft: 12

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)
Taxi/Idle Out [Idle] (mins): 0
Takeoff [Military] (mins): 6990
Takeoff [After Burn] (mins): 0
Climb Out [Intermediate] (mins): 48929
Approach [Approach] (mins): 13980
Taxi/Idle In [Idle] (mins): 0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test
Idle (mins): 12
Approach (mins): 27
Intermediate (mins): 9
Military (mins): 12
AfterBurn (mins): 0

2.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year
$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)

AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year
$AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000$

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL} = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000$

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

2.4 Auxiliary Power Unit (APU)

2.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: No

- Auxiliary Power Unit (APU)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer

2.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e

2.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
$APU_{POL} = APU * OH * LTO * EF_{POL} / 2000$

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

3. Aircraft

3.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lanier
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: A-29

- Activity Description:
Airspace Operations

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.044202
SO_x	0.067734

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.044840
Pb	0.000000

NO_x	0.384708	NH_3	0.000000
CO	0.627450	CO_2e	206.7
PM 10	0.239426		

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)	Pollutant	Emissions Per Year (TONs)
VOC	0.044202	PM 2.5	0.044840
SO_x	0.067734	Pb	0.000000
NO_x	0.384708	NH_3	0.000000
CO	0.627450	CO_2e	206.7
PM 10	0.239426		

3.2 Aircraft & Engines

3.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: T-6A
Engine Model: PT6A-68
Primary Function: Trainer
Aircraft has After burn: No
Number of Engines: 1

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

3.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	156.00	7.89	1.06	1.77	117.85	3.95	2.16	3234
Approach	328.00	3.29	1.06	5.03	33.69	4.15	1.23	3234
Intermediate	449.00	0.71	1.06	4.73	10.91	3.34	0.70	3234
Military	612.00	0.20	1.06	8.18	3.88	4.30	0.61	3234
After Burn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3234

3.3 Flight Operations

3.3.1 Flight Operations Assumptions

- Flight Operations
Number of Aircraft: 1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft: 1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft: 0
Number of Annual Trim Test(s) per Aircraft: 0

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)
Taxi/Idle Out [Idle] (mins): 0
Takeoff [Military] (mins): 4615
Takeoff [After Burn] (mins): 0

Climb Out [Intermediate] (mins):	9664
Approach [Approach] (mins):	1538
Taxi/Idle In [Idle] (mins):	0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test

Idle (mins):	0
Approach (mins):	0
Intermediate (mins):	0
Military (mins):	0
AfterBurn (mins):	0

3.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year

AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year

$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year

AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year

$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL}$ = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

3.4 Auxiliary Power Unit (APU)

3.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: Yes

- Auxiliary Power Unit (APU) (default)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer

3.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e

3.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
APU_{POL} = APU * OH * LTO * EF_{POL} / 2000

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)

LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

4. Aircraft

4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lanier
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: C-130J

- Activity Description:
Airspace Operations

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	3.538514
SO_x	2.574464
NO_x	21.610954
CO	8.888101
PM 10	1.308751

Pollutant	Emissions Per Year (TONs)
PM 2.5	1.177835
Pb	0.000000
NH_3	0.000000
CO_2e	7854.6

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)
VOC	3.538514
SO_x	2.574464
NO_x	21.610954
CO	8.888101
PM 10	1.308751

Pollutant	Emissions Per Year (TONs)
PM 2.5	1.177835
Pb	0.000000
NH_3	0.000000
CO_2e	7854.6

4.2 Aircraft & Engines

4.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: C-130J
Engine Model: T56-A-15
Primary Function: Transport - Bomber
Aircraft has After burn: No

Number of Engines: 4

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

4.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	794.00	24.15	1.06	3.90	32.00	0.83	0.75	3234
Approach	1185.00	14.26	1.06	4.40	22.20	0.97	0.87	3234
Intermediate	1825.00	0.58	1.06	9.20	2.40	0.51	0.46	3234
Military	2302.00	0.46	1.06	9.30	2.10	0.50	0.45	3234
After Burn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3234

4.3 Flight Operations

4.3.1 Flight Operations Assumptions

- Flight Operations
Number of Aircraft: 1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft: 1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft: 1
Number of Annual Trim Test(s) per Aircraft: 0

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)
Taxi/Idle Out [Idle] (mins): 0
Takeoff [Military] (mins): 2014
Takeoff [After Burn] (mins): 0
Climb Out [Intermediate] (mins): 16113
Approach [Approach] (mins): 2014
Taxi/Idle In [Idle] (mins): 0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test
Idle (mins): 0
Approach (mins): 0
Intermediate (mins): 0
Military (mins): 0
AfterBurn (mins): 0

4.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)

60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year
$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year
$AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000$

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL} = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000$

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

4.4 Auxiliary Power Unit (APU)

4.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: No

- Auxiliary Power Unit (APU)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer
1	1	No	GTCP 85L	

4.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
GTCP 85L	272.6	0.493	0.289	1.216	3.759	0.131	0.037	910.8

4.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
$APU_{POL} = APU * OH * LTO * EF_{POL} / 2000$

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

5. Aircraft

5.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lanier
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: HH-60

- Activity Description:
Airspace Operations

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.082173
SO_x	4.690085
NO_x	52.703730
CO	5.521948
PM 10	6.990882

Pollutant	Emissions Per Year (TONs)
PM 2.5	6.282944
Pb	0.000000
NH_3	0.000000
CO_2e	14309.2

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)
VOC	0.082173
SO_x	4.690085
NO_x	52.703730
CO	5.521948
PM 10	6.990882

Pollutant	Emissions Per Year (TONs)
PM 2.5	6.282944
Pb	0.000000
NH_3	0.000000
CO_2e	14309.2

5.2 Aircraft & Engines

5.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: MV-22A
Engine Model: T406-AD-400
Primary Function: Transport - Bomber
Aircraft has After burn: No
Number of Engines: 2

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

5.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	362.00	0.10	1.06	4.15	8.35	1.58	1.42	3234
Approach	663.00	0.02	1.06	6.05	3.47	1.58	1.42	3234
Intermediate	948.00	0.02	1.06	7.87	1.82	1.58	1.42	3234
Military	2507.00	0.01	1.06	18.03	0.29	1.58	1.42	3234
After Burn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3234

5.3 Flight Operations

5.3.1 Flight Operations Assumptions

- Flight Operations

Number of Aircraft:	1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft:	1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft:	0
Number of Annual Trim Test(s) per Aircraft:	0

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)

Taxi/Idle Out [Idle] (mins):	0
Takeoff [Military] (mins):	42628
Takeoff [After Burn] (mins):	0
Climb Out [Intermediate] (mins):	159855
Approach [Approach] (mins):	10657
Taxi/Idle In [Idle] (mins):	0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test

Idle (mins):	0
Approach (mins):	0
Intermediate (mins):	0
Military (mins):	0
AfterBurn (mins):	0

5.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year
$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year

AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year
$AEPS_{POL}$ = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

5.4 Auxiliary Power Unit (APU)

5.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: No

- Auxiliary Power Unit (APU)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer

5.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e

5.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
$APU_{POL} = APU * OH * LTO * EF_{POL} / 2000$

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

6. Aircraft

6.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location
County: Lowndes
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: F-18

- Activity Description:

- Activity Start Date
Start Month: 1
Start Year: 2021

- Activity End Date
Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.035851
SO_x	0.542894
NO_x	8.722157
CO	0.788733
PM 10	0.804098

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.460948
Pb	0.000000
NH_3	0.000000
CO_2e	1656.3

- Activity Emissions [Flight Operations (includes Trim Test & APU) part]:

Pollutant	Emissions Per Year (TONs)
VOC	0.035851

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.460948

SO_x	0.542894		Pb	0.000000
NO_x	8.722157		NH_3	0.000000
CO	0.788733		CO_2e	1656.3
PM 10	0.804098			

6.2 Aircraft & Engines

6.2.1 Aircraft & Engines Assumptions

- Aircraft & Engine
Aircraft Designation: TF/A-18A
Engine Model: F404-GE-400
Primary Function: Combat
Aircraft has After burn: Yes
Number of Engines: 2

- Aircraft & Engine Surrogate
Is Aircraft & Engine a Surrogate? No
Original Aircraft Name:
Original Engine Name:

6.2.2 Aircraft & Engines Emission Factor(s)

- Aircraft & Engine Emissions Factors (lb/1000lb fuel)

	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e
Idle	685.00	3.39	1.06	1.70	110.18	4.47	3.10	3234
Approach	3111.00	0.04	1.06	7.86	2.02	1.46	0.87	3234
Intermediate	6464.00	0.07	1.06	17.03	1.54	1.57	0.90	3234
Military	7739.00	0.02	1.06	25.83	1.48	1.61	0.89	3234
After Burn	15851.00	1.85	1.06	5.43	50.31	3.57	3.21	3234

6.3 Flight Operations

6.3.1 Flight Operations Assumptions

- Flight Operations
Number of Aircraft: 1
Number of Annual LTOs (Landing and Take-off) cycles for all Aircraft: 1
Number of Annual TGOs (Touch-and-Go) cycles for all Aircraft: 0
Number of Annual Trim Test(s) per Aircraft: 0

- Default Settings Used: No

- Flight Operations TIMs (Time In Mode)
Taxi/Idle Out [Idle] (mins): 0
Takeoff [Military] (mins): 0
Takeoff [After Burn] (mins): 0
Climb Out [Intermediate] (mins): 4754
Approach [Approach] (mins): 0
Taxi/Idle In [Idle] (mins): 0

Per the Air Emissions Guide for Air Force Mobile Sources, the defaults values for military aircraft equipped with after burner for takeoff is 50% military power and 50% afterburner. (Exception made for F-35 where KARNES 3.2 flight profile was used.)

- Trim Test

Idle (mins):	0
Approach (mins):	0
Intermediate (mins):	0
Military (mins):	0
AfterBurn (mins):	0

6.3.2 Flight Operations Formula(s)

- Aircraft Emissions per Mode for LTOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * LTO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
LTO: Number of Landing and Take-off Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for LTOs per Year
$AE_{LTO} = AEM_{IDLE\_IN} + AEM_{IDLE\_OUT} + AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{LTO}: Aircraft Emissions (TONs)
AEM_{IDLE_IN}: Aircraft Emissions for Idle-In Mode (TONs)
AEM_{IDLE_OUT}: Aircraft Emissions for Idle-Out Mode (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for TGOs per Year
AEM_{POL} = (TIM / 60) * (FC / 1000) * EF * NE * TGO / 2000

AEM_{POL}: Aircraft Emissions per Pollutant & Mode (TONs)
TIM: Time in Mode (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
TGO: Number of Touch-and-Go Cycles (for all aircraft)
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for TGOs per Year
$AE_{TGO} = AEM_{APPROACH} + AEM_{CLIMBOUT} + AEM_{TAKEOFF}$

AE_{TGO}: Aircraft Emissions (TONs)
$AEM_{APPROACH}$: Aircraft Emissions for Approach Mode (TONs)
$AEM_{CLIMBOUT}$: Aircraft Emissions for Climb-Out Mode (TONs)
$AEM_{TAKEOFF}$: Aircraft Emissions for Take-Off Mode (TONs)

- Aircraft Emissions per Mode for Trim per Year

$AEPS_{POL}$ = (TD / 60) * (FC / 1000) * EF * NE * NA * NTT / 2000

$AEPS_{POL}$: Aircraft Emissions per Pollutant & Power Setting (TONs)
TD: Test Duration (min)
60: Conversion Factor minutes to hours
FC: Fuel Flow Rate (lb/hr)
1000: Conversion Factor pounds to 1000pounds
EF: Emission Factor (lb/1000lb fuel)
NE: Number of Engines
NA: Number of Aircraft
NTT: Number of Trim Test
2000: Conversion Factor pounds to TONs

- Aircraft Emissions for Trim per Year
$AE_{TRIM} = AEPS_{IDLE} + AEPS_{APPROACH} + AEPS_{INTERMEDIATE} + AEPS_{MILITARY} + AEPS_{AFTERBURN}$

AE_{TRIM}: Aircraft Emissions (TONs)
$AEPS_{IDLE}$: Aircraft Emissions for Idle Power Setting (TONs)
$AEPS_{APPROACH}$: Aircraft Emissions for Approach Power Setting (TONs)
$AEPS_{INTERMEDIATE}$: Aircraft Emissions for Intermediate Power Setting (TONs)
$AEPS_{MILITARY}$: Aircraft Emissions for Military Power Setting (TONs)
$AEPS_{AFTERBURN}$: Aircraft Emissions for After Burner Power Setting (TONs)

6.4 Auxiliary Power Unit (APU)

6.4.1 Auxiliary Power Unit (APU) Assumptions

- Default Settings Used: Yes

- Auxiliary Power Unit (APU) (default)

Number of APU per Aircraft	Operation Hours for Each LTO	Exempt Source?	Designation	Manufacturer

6.4.2 Auxiliary Power Unit (APU) Emission Factor(s)

- Auxiliary Power Unit (APU) Emission Factor (lb/hr)

Designation	Fuel Flow	VOC	SO_x	NO_x	CO	PM 10	PM 2.5	CO_2e

6.4.3 Auxiliary Power Unit (APU) Formula(s)

- Auxiliary Power Unit (APU) Emissions per Year
APU_{POL} = APU * OH * LTO * EF_{POL} / 2000

APU_{POL}: Auxiliary Power Unit (APU) Emissions per Pollutant (TONs)
APU: Number of Auxiliary Power Units
OH: Operation Hours for Each LTO (hour)
LTO: Number of LTOs
EF_{POL}: Emission Factor for Pollutant (lb/hr)
2000: Conversion Factor pounds to tons

FORMAT PAGE

APPENDIX E. US FISH AND WILDLIFE SERVICE CONSULTATION CORRESPONDENCE

FORMAT PAGE

E-1. US Fish and Wildlife Service Information and Planning and Consultation Reports

FORMAT PAGE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Georgia Ecological Services Field Office
355 East Hancock Avenue
Room 320
Athens, GA 30601
Phone: (706) 613-9493 Fax: (706) 613-6059

In Reply Refer To: January 14, 2020
Consultation Code: 04EG1000-2020-SLI-0885
Event Code: 04EG1000-2020-E-01633
Project Name: Moody Air Force Base Comprehensive Airspace Initiative

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

This list identifies threatened, endangered, proposed and candidate species, as well as critical habitat, that may be affected by your proposed project. This list may change before your project is completed. Under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation.

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*). Projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html).

Wind energy projects should follow the wind energy guidelines http://www.fws.gov/windenergy/ for minimizing impacts to migratory birds and bats.

Guidance for minimizing impactsof communcation towers on migratory birds can be found under the "Bird Hazards" tab at: www.fws.gov/migratorybirds.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Georgia Ecological Services Field Office
355 East Hancock Avenue
Room 320
Athens, GA 30601
(706) 613-9493

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following offices, and expect that the species and critical habitats in each document reflect only those that fall in the office's jurisdiction:

North Florida Ecological Services Field Office
7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256-7517
(904) 731-3336

Panama City Ecological Services Field Office
1601 Balboa Avenue
Panama City, FL 32405-3792
(850) 769-0552

Project Summary

Consultation Code: 04EG1000-2020-SLI-0885

Event Code: 04EG1000-2020-E-01633

Project Name: Moody Air Force Base Comprehensive Airspace Initiative

Project Type: MILITARY OPERATIONS / MANEUVERS

Project Description: The project is located in southern Georgia and northern Florida and includes portions of the Moody Airspace Complex managed by Moody Air Force Base (AFB), Georgia. The Proposed Action is to configure new low-altitude Military Operations Areas (MOAs) immediately underneath and within the lateral confines of the existing Corsair North, Corsair South, Mustang, Thud, and Warhawk MOAs and Restricted Area R-3008C, and to lower the floor of Moody 2 North MOA in the Moody Airspace Complex.

The number of flights or sorties using the Moody Airspace Complex varies from year to year depending on aircraft assignments, missions, and deployments. The Proposed Action or alternatives do not propose changes in aircraft or increases in the number of flights or sorties from the normal year-to-year variation. No changes in airfield operations at the Moody AFB airfield would occur. Further, the Proposed Action would not provide additional training operations at low altitudes. However, optimizing the airspace would result in the redistribution of aircraft operations from existing low-altitude SUAs (i.e., Moody 2 North MOA, Moody 2 South 32 MOA, and R-3008A, R-3008B, and R-3008C) to new low-altitude MOAs.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/31.697499999631937N83.57663209958707W

Counties: Jefferson, FL | Madison, FL | Atkinson, GA | Ben Hill, GA | Berrien, GA | Brooks, GA | Clinch, GA | Coffee, GA | Colquitt, GA | Cook, GA | Crisp, GA | Dooly, GA | Dougherty, GA | Irwin, GA | Lanier, GA | Lee, GA | Lowndes, GA | Mitchell, GA | Sumter, GA | Thomas, GA | Tift, GA | Turner, GA | Wilcox, GA | Worth, GA

Endangered Species Act Species

There is a total of 18 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Red-cockaded Woodpecker *Picoides borealis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered
Wood Stork *Mycteria americana* Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477	Threatened

Reptiles

NAME	STATUS
Eastern Indigo Snake *Drymarchon corais couperi* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened
Gopher Tortoise *Gopherus polyphemus* Population: eastern No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6994	Candidate

Amphibians

NAME	STATUS
Frosted Flatwoods Salamander *Ambystoma cingulatum* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4981	Threatened
Reticulated Flatwoods Salamander *Ambystoma bishopi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8939	Endangered

Clams

NAME	STATUS
Fat Threeridge (mussel) *Amblema neislerii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2374	Endangered
Gulf Moccasinshell *Medionidus penicillatus* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7663	Endangered
Oval Pigtoe *Pleurobema pyriforme* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4132	Endangered
Purple Bankclimber (mussel) *Elliptoideus sloatianus* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7660	Threatened
Shinyrayed Pocketbook *Lampsilis subangulata* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6517	Endangered
Suwannee Moccasinshell *Medionidus walkeri* There is **proposed** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/523	Threatened

Flowering Plants

NAME	STATUS
American Chaffseed *Schwalbea americana* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1286	Endangered
Canby's Dropwort *Oxypolis canbyi* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7738	Endangered
Cooley's Meadowrue *Thalictrum cooleyi* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3281	Endangered
Harperella *Ptilimnium nodosum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3739	Endangered
Pondberry *Lindera melissifolia* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1279	Endangered
Relict Trillium *Trillium reliquum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8489	Endangered

Critical habitats

There are 5 critical habitats wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Gulf Moccasinshell *Medionidus penicillatus* https://ecos.fws.gov/ecp/species/7663#crithab	Final
Oval Pigtoe *Pleurobema pyriforme* https://ecos.fws.gov/ecp/species/4132#crithab	Final
Purple Bankclimber (mussel) *Elliptoideus sloatianus* https://ecos.fws.gov/ecp/species/7660#crithab	Final
Shinyrayed Pocketbook *Lampsilis subangulata* https://ecos.fws.gov/ecp/species/6517#crithab	Final
Suwannee Moccasinshell *Medionidus walkeri* https://ecos.fws.gov/ecp/species/533#crithab	Proposed

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Florida Ecological Services Field Office
7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256-7517
Phone: (904) 731-3336 Fax: (904) 731-3045

In Reply Refer To: January 14, 2020
Consultation Code: 04EF1000-2020-SLI-0299
Event Code: 04EF1000-2020-E-00485
Project Name: Moody Air Force Base Comprehensive Airspace Initiative

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- Migratory Birds

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

North Florida Ecological Services Field Office
7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256-7517
(904) 731-3336

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following offices, and expect that the species and critical habitats in each document reflect only those that fall in the office's jurisdiction:

Georgia Ecological Services Field Office
355 East Hancock Avenue
Room 320
Athens, GA 30601
(706) 613-9493

Panama City Ecological Services Field Office
1601 Balboa Avenue
Panama City, FL 32405-3792
(850) 769-0552

Project Summary

Consultation Code: 04EF1000-2020-SLI-0299

Event Code: 04EF1000-2020-E-00485

Project Name: Moody Air Force Base Comprehensive Airspace Initiative

Project Type: MILITARY OPERATIONS / MANEUVERS

Project Description: The project is located in southern Georgia and northern Florida and includes portions of the Moody Airspace Complex managed by Moody Air Force Base (AFB), Georgia. The Proposed Action is to configure new low-altitude Military Operations Areas (MOAs) immediately underneath and within the lateral confines of the existing Corsair North, Corsair South, Mustang, Thud, and Warhawk MOAs and Restricted Area R-3008C, and to lower the floor of Moody 2 North MOA in the Moody Airspace Complex.

The number of flights or sorties using the Moody Airspace Complex varies from year to year depending on aircraft assignments, missions, and deployments. The Proposed Action or alternatives do not propose changes in aircraft or increases in the number of flights or sorties from the normal year-to-year variation. No changes in airfield operations at the Moody AFB airfield would occur. Further, the Proposed Action would not provide additional training operations at low altitudes. However, optimizing the airspace would result in the redistribution of aircraft operations from existing low-altitude SUAs (i.e., Moody 2 North MOA, Moody 2 South 32 MOA, and R-3008A, R-3008B, and R-3008C) to new low-altitude MOAs.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/31.697499999631937N83.57663209958707W

Counties: Jefferson, FL | Madison, FL | Atkinson, GA | Ben Hill, GA | Berrien, GA | Brooks, GA | Clinch, GA | Coffee, GA | Colquitt, GA | Cook, GA | Crisp, GA | Dooly, GA | Dougherty, GA | Irwin, GA | Lanier, GA | Lee, GA | Lowndes, GA | Mitchell, GA | Sumter, GA | Thomas, GA | Tift, GA | Turner, GA | Wilcox, GA | Worth, GA

Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Proposed Threatened
Wood Stork *Mycteria americana* Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477	Threatened

Reptiles

NAME	STATUS
Eastern Indigo Snake *Drymarchon corais couperi* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened
Gopher Tortoise *Gopherus polyphemus* Population: eastern No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6994	Candidate

Fishes

NAME	STATUS
Atlantic Sturgeon (gulf Subspecies) *Acipenser oxyrinchus (=oxyrhynchus) desotoi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/651	Threatened

Clams

NAME	STATUS
Suwannee Moccasinshell *Medionidus walkeri* There is **proposed** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/533	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel *Falco sparverius paulus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 1 to Aug 31
Bachman's Sparrow *Aimophila aestivalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6177	Breeds May 1 to Sep 30

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Common Ground-dove *Columbina passerina exigua* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 1 to Dec 31
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Swallow-tailed Kite *Elanoides forficatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

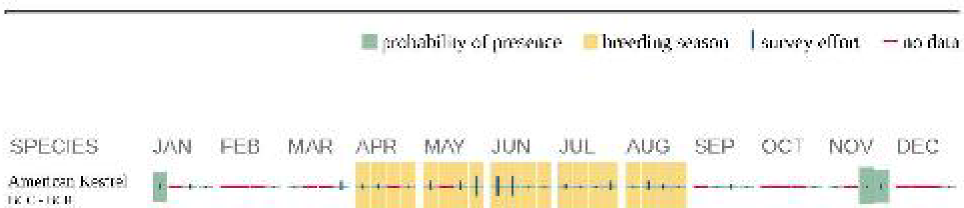
1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Panama City Ecological Services Field Office
1601 Balboa Avenue
Panama City, FL 32405-3792
Phone: (850) 769-0552 Fax: (850) 763-2177
http://www.fws.gov/panamacity/specieslist.html
http://www.fws.gov/panamacity/pcdata.html

In Reply Refer To: January 14, 2020
Consultation Code: 04EF3000-2020-SLI-0121
Event Code: 04EF3000-2020-E-00177
Project Name: Moody Air Force Base Comprehensive Airspace Initiative

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. All correspondence should be submitted to panamacityregs@fws.gov.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Panama City Ecological Services Field Office
1601 Balboa Avenue
Panama City, FL 32405-3792
(850) 769-0552

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following offices, and expect that the species and critical habitats in each document reflect only those that fall in the office's jurisdiction:

Georgia Ecological Services Field Office
355 East Hancock Avenue
Room 320
Athens, GA 30601
(706) 613-9493

North Florida Ecological Services Field Office
7915 Baymeadows Way, Suite 200
Jacksonville, FL 32256-7517
(904) 731-3336

Project Summary

Consultation Code: 04EF3000-2020-SLI-0121

Event Code: 04EF3000-2020-E-00177

Project Name: Moody Air Force Base Comprehensive Airspace Initiative

Project Type: MILITARY OPERATIONS / MANEUVERS

Project Description: The project is located in southern Georgia and northern Florida and includes portions of the Moody Airspace Complex managed by Moody Air Force Base (AFB), Georgia. The Proposed Action is to configure new low-altitude Military Operations Areas (MOAs) immediately underneath and within the lateral confines of the existing Corsair North, Corsair South, Mustang, Thud, and Warhawk MOAs and Restricted Area R-3008C, and to lower the floor of Moody 2 North MOA in the Moody Airspace Complex.

The number of flights or sorties using the Moody Airspace Complex varies from year to year depending on aircraft assignments, missions, and deployments. The Proposed Action or alternatives do not propose changes in aircraft or increases in the number of flights or sorties from the normal year-to-year variation. No changes in airfield operations at the Moody AFB airfield would occur. Further, the Proposed Action would not provide additional training operations at low altitudes. However, optimizing the airspace would result in the redistribution of aircraft operations from existing low-altitude SUAs (i.e., Moody 2 North MOA, Moody 2 South 32 MOA, and R-3008A, R-3008B, and R-3008C) to new low-altitude MOAs.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/31.697499999631937N83.57663209958707W

Counties: Jefferson, FL | Madison, FL | Atkinson, GA | Ben Hill, GA | Berrien, GA | Brooks, GA | Clinch, GA | Coffee, GA | Colquitt, GA | Cook, GA | Crisp, GA | Dooly, GA | Dougherty, GA | Irwin, GA | Lanier, GA | Lee, GA | Lowndes, GA | Mitchell, GA | Sumter, GA | Thomas, GA | Tift, GA | Turner, GA | Wilcox, GA | Worth, GA

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Wood Stork *Mycteria americana* Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8477	Threatened

Reptiles

NAME	STATUS
Eastern Indigo Snake *Drymarchon corais couperi* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/646	Threatened
Gopher Tortoise *Gopherus polyphemus* Population: eastern No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6994	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

E-2. US Fish and Wildlife Service Endangered Species Act Consultation Correspondence

FORMAT PAGE

Section 7 Consultation Letter, USFWS, North Florida Ecological Services Field Office

DEPARTMENT OF THE AIR FORCE
23D CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

Mr. Gregory Lee
23 CES/CEIE
3485 Georgia Street
Moody AFB GA 31699

01 JUN 2020

Ms. Annie Dziergowski
North Florida Ecological Services Field Office
7915 Baymeadows Way, Suite 200
Jacksonville FL 32256-7517

Dear Ms. Dziergowski:

The United States Air Force (Air Force) requests informal Section 7 consultation under the Endangered Species Act (ESA) for the proposed Moody Air Force Base (AFB) Comprehensive Airspace Initiative (Consultation Code 04EF1000-2020-SLI-0299). Moody AFB has prepared an Environmental Impact Statement (EIS) to assess the potential environmental impacts associated with proposed additions and modifications to the Moody Airspace Complex (Figure 1), which overlies all or portions of 28 counties in south Georgia and north Florida. A total of 21 federally listed threatened or endangered species have the potential to occur in this area. The proposal will have no effect on fifteen of the listed plants, fish, or invertebrates. Further, the proposal will have no effect on five species that are not likely to be present. However, as explained below, the Air Force has determined that the proposed activity has the potential to cause a startle effect on nesting wood storks (*Mycteria americana*), and wood storks could be harmed by the ingestion of chaff cartridge components, even though the likelihood of this occurring is low. Therefore, the Air Force has determined that the proposal may affect, but is not likely to adversely affect, the wood stork and will have no effect on the other 20 species. We request your concurrence with these determinations.

The EIS was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations implementing NEPA, and the Air Force NEPA regulations. The Moody Airspace Complex consists primarily of mid- to higher-altitude special use airspace (SUA; 8,000 feet above mean sea level [MSL] up to 18,000 feet) with limited low-altitude SUA (less than 8,000 feet MSL). Aircrews of A-10C, A-29, HH-60G, and HC-130J aircraft assigned to Moody Air Force AFB, Georgia, have severely constrained access to existing low-altitude SUAs wherein they can conduct required training operations at low altitude to gain operational proficiency and meet their low-altitude close air support (CAS), personnel recovery (PR), and combat search and rescue (CSAR) mission objectives for combat readiness. As part of the proposed undertaking, the Comprehensive Airspace Initiative at Moody AFB would provide additional low-altitude Air Force-controlled SUA supporting the low-altitude training missions (CSAR, PR, CAS) for aircrews stationed at Moody AFB, which are currently limited to the Moody Airspace Complex's few existing, congested low-altitude SUAs.

Global Power for America

The Air Force has preliminarily identified three action alternatives to expand low-altitude training airspace at Moody AFB. All three alternatives would create new low-altitude Military Operations Areas (MOAs) beneath and within the lateral confines of existing MOAs and Restricted Areas of the Moody Airspace Complex (Figure 2). The three action alternatives are:

- Create new low-altitude MOAs with a floor of 1,000 feet above ground level (AGL) (Alternative 1);
- Create new low-altitude MOAs with a floor of 2,000 feet AGL (Alternative 2); and
- Create new low-altitude MOAs with a floor of 4,000 feet AGL (Alternative 3).

While the alternatives are independent of each other, the decision maker may choose to implement one alternative, a combination of low-altitude MOAs from among the three alternatives, or none of the alternatives based on the analysis provided in the EIS. Training within the low-altitude MOAs would include the use of chaff and flares, with flare use being limited to altitudes above 2,000 feet AGL. Urban CAS, helicopter landing zones, drop zones, and the use of training ordnance at the Grand Bay Range would continue unchanged under all three alternatives. There would be neither a change in the number of sorties at Moody AFB airfield nor would there be any change in the number of aircraft operations in the Moody Airspace Complex under any of the three alternatives. Further, no ground-disturbing activities are associated with any of the three alternatives.

Threatened, Endangered, and Candidate Species and Designated Critical Habitat

A review of the US Fish and Wildlife Service (USFWS) Information for Planning and Conservation System, Georgia Rare Element Natural Data Portal, Florida Fish and Wildlife Conservation Commission's list of threatened and endangered species, and the Moody AFB Integrated Natural Resources Management Plan identified 21 federally listed species that could occur within and below the proposed low-altitude MOAs (Table 1). However, as the proposal is to create and modify MOAs within the Moody Airspace Complex, which would redistribute military aircraft training operations, effects on listed species would be limited to aircraft movement, noise, and the use of defensive countermeasures (i.e., chaff and flares). Therefore, the proposal will have no effect on the 15 listed plants, fish, or invertebrates that will not be exposed to these activities. In addition, the proposal will have no effect on five species that are not likely to be present and may affect but is unlikely to affect one species. The potential for each listed species to be affected by the proposal is summarized in Table 1.

Table 1. Federally Protected Species with the Potential to Occur in the Proposed Low-Altitude Military Operations Areas

Common Name	Scientific Name	Legal Status	Potential to be Affected
	Birds		
Eastern black rail	*Laterallus jamaicensis* spp. *jamaicensis*	Proposed Threatened	Yes
Red-cockaded woodpecker	*Picoides borealis*	Endangered	Yes
Wood stork	*Mycteria americana*	Threatened	Yes

3

Common Name	Scientific Name	Legal Status	Potential to be Affected
Amphibians			
Frosted flatwoods salamander	*Ambystoma cingulatum*	Threatened	Yes
Reticulated flatwoods salamander	*Ambystoma bishop*	Endangered	No
Reptiles			
American alligator	*Alligator mississippiensis*	Threatened (S/A)	Yes
Eastern indigo snake	*Drymarchon couperi*	Threatened	Yes
Gopher tortoise	*Gopherus polyphemus*	Candidate	Yes
Clams			
Fat threeridge (mussel)	*Amblema neislerii*	Endangered	No
Gulf moccasinshell	*Medionidus penicillatus*	Endangered	No
Oval pigtoe	*Pleurobema pyriforme*	Endangered	No
Purple bankclimber (mussel)	*Elliptoideus sloatianus*	Threatened	No
Shinyrayed pocketbook	*Lampsilis subangulata*	Endangered	No
Suwannee moccasinshell	*Medionidus walkeri*	Threatened	No
Fish			
Gulf Sturgeon	*Acipenser oxyrinchus desotoi*	Threatened	No
Plants			
American chaffseed	*Schwalbea americana*	Endangered	No
Canby's dropwort	*Oxypolis canbyi*	Endangered	No
Cooley's meadowrue	*Thalictrum cooleyi*	Endangered	No
Harperella	*Ptilimnium nodosum*	Endangered	No
Pondberry	*Lindera melissifolia*	Endangered	No
Relict trillium	*Trillium reliquum*	Endangered	No

Source: USFWS 2019
S/A –similarity of appearance

Designated critical habitat for four of the clam species overlaps with the proposed low-altitude MOAs: Gulf moccasinshell (*Medionidus penicillatus*), oval pigtoe (*Pleurobema pyriforme*), purple bankclimber (*Elliptoideus sloatianus*), and shinyrayed pocketbook (*Lampsilis subangulata*). There is proposed critical habitat for the Suwannee moccasinshell (*Medionidus walkeri*).

Under the Proposed Action, there would be no ground-disturbing activities, and all potential impacts on biological resources would be associated with aircraft operations and the use of defensive countermeasures in the proposed low-altitude MOAs. Further, there would be no risk of wildland fires because flare use is limited to altitudes above 2,000 feet AGL and the use of flares is suspended when conditions are conducive to wildfires. Because there would be no on-ground or ground-disturbing activities, there would be no effect on federally listed clams, including the fat threeridge (*Amblema neislerii*), Gulf moccasinshell, oval pigtoe, purple bankclimber, shinyrayed pocketbook, and Suwannee moccasinshell; on fishes, including the Gulf sturgeon (*Acipenser oxyrinchus desotoi*); and on plants, including American chaffseed (*Schwalbea americana*), Canby's dropwort (*Oxypolis canbyi*), Cooley's meadowrue (*Thalictrum cooleyi*), harperella (*Ptilimnium nodosum*), pondberry (*Lindera melissifolia*), and relict trillium (*Trillium reliquum*). Therefore, these species are not discussed further.

Eastern Black Rail. The eastern black rail (*Laterallus jamaicensis* spp. *jamaicensis*) is federally listed as proposed threatened. It is a small, secretive marsh bird that is broadly distributed. It lives in fresh and saltwater marshes in portions of the United States, Central America, and South America. Eastern black rail habitat can range in salinity from salt to brackish to fresh water. Eastern black rails are primarily found in coastal wetlands; however, there is no suitable habitat for the eastern black rail in wetlands beneath the proposed low-altitude MOAs. Further, no observations or detections of the species occurred during surveys at Moody AFB or on the Grand Bay Range in 2018 (Watts et al. 2018).

Red-Cockaded Woodpecker. The red-cockaded woodpecker is federally listed as endangered and could potentially occur in low numbers within mature pine forest habitat with sparse understory vegetation beneath the proposed low MOAs. However, there is very little mature pine forest habitat beneath the proposed low MOAs, and most pine forest is managed for timber and is harvested before it can reach a size and age class suitable to support the red-cockaded woodpecker. The documented populations of red-cockaded woodpeckers closest to the proposed low-altitude MOAs are in the Okefenokee National Wildlife Refuge.

Wood Stork. The wood stork is a federally threatened wading bird that occurs in the southeastern United States and across the Caribbean and into South America. Wood storks are mostly white with a head and neck lacking feathers. They nest colonially in rookeries. Wood storks forage for fish, frogs, crabs, and crustaceans in shallow water. Wood storks are known to occur throughout southern Georgia, including in the Carolina bay habitats proximate to Moody AFB. A total of nine wood stork rookeries are known to occur beneath the proposed Corsair North Low and Corsair South Low MOAs. No other wood stork rookeries have been recorded beneath the other proposed low-altitude MOAs.

Frosted Flatwoods Salamander. The frosted flatwoods salamander (*Ambystoma cingulatum*) is a federally threatened amphibian with a grey or black body with white spots. Its distribution is limited to longleaf and slash pine flatwoods with sandy soils. Its diet primarily consists of earthworms and spiders. Since 1990, only four sites in Georgia have had documented occurrences of the flatwoods salamander. There is limited suitable habitat beneath the proposed low-altitude MOAs for the frosted flatwoods salamander, but it is assumed to be present in mature flatwoods.

Reticulated Flatwoods Salamander. The reticulated flatwoods salamander (*Ambystoma bishopi*) is a federally endangered amphibian that is similar in appearance to the frosted flatwoods salamander, but there are more distinct white spots on the reticulated flatwoods salamander. Its distribution is also limited to longleaf and slash pine flatwoods with sandy soils west of the Apalachicola River – Flint River systems, and it primarily feeds on earthworms and spiders. As reticulated flatwoods salamander distribution does not overlap with the proposed low-altitude MOAs it is assumed to be absent from the project area.

American Alligator. The American alligator (*Alligator mississippiensis*) is federally listed as threatened due to its similarity in appearance to the American crocodile (*Crocodylus acutus*). The American alligator was officially removed from the list of endangered species in 1987. This classification of the alligator in the ESA allows the USFWS to regulate the harvest and legal trade in the animals, their skins, and products made from them, as part of efforts to prevent the illegal take and trafficking of endangered "look alike" reptiles. Beyond harvest and legal trade regulations, there are no other regulatory requirements for this species under the ESA, and alligators are not recognized as an endangered or threatened species and are not typically considered in Section 7 ESA consultations with the USFWS for installation activities (Moody AFB 2018). The American alligator is a common reptile found throughout south Georgia and north Florida and is known to occur beneath all of the proposed low-altitude MOAs.

Eastern Indigo Snake. The eastern indigo snake (*Drymarchon corais couperi*) is a federally threatened reptile and a nonvenomous snake. It can grow to a length of approximately 8 feet. The snake primarily feeds on small mammals, birds, amphibians, and reptiles, as well as the eggs of amphibians and reptiles. Indigo snakes typically deposit their eggs in gopher tortoise (*Gopherus polyphemus*) burrows and are associated in distribution with gopher tortoises. They occur in pine flatwoods, hardwood forests, and areas around cypress (*Taxodium distichum*) swamps. Eastern indigo snakes are known to occur on the Grand Bay Range at Moody AFB and are expected to occur in suitable habitats beneath all of the proposed low-altitude MOAs.

Gopher Tortoise. The gopher tortoise is federally listed as a candidate species in southern Georgia and northern Florida and is the only species of tortoise that occurs east of the Mississippi River. The gopher tortoise is typically between 9 and 11 inches long with a tan, brown, or gray shell at maturity. Gopher tortoises spend the majority of their time in burrows that average 6.5 feet in depth. They feed on low-growing plants proximate to their burrows and occur in well-drained, sandy soils suitable for digging burrows. Gopher tortoises are known to occur on the Moody AFB Main Base and Grand Bay Range and are expected to occur in suitable habitats beneath all of the proposed low-altitude MOAs.

Determination of the Effects of the Proposed Action

The gopher tortoise and indigo snake are primarily associated with gopher tortoise burrows and occur in forested habitats. They would not be exposed to aircraft movement and operations or increased sound levels; therefore the Air Force has determined that aircraft operations in the proposed low-altitude MOAs associated with the Moody AFB comprehensive airspace initiative would have no effect on the gopher tortoise or indigo snake. The frosted flatwoods salamander would also occur in forested habitats primarily associated with aquatic environments. It would not be exposed to aircraft movement or increased sound levels from training operations in the proposed low-altitude MOAs; therefore, the Air Force has determined that the Moody AFB comprehensive airspace initiative would have no effect on the frosted flatwoods salamander. Further, the reticulated flatwoods salamander's distribution does not geographically overlap with the proposed low-altitude MOAs; therefore the Air Force has determined that the Moody AFB comprehensive airspace initiative would have no effect on the reticulated flatwoods salamander. Based on the absence of the eastern black rail and the red-cockaded woodpecker in the proposed low-altitude MOAs where the action is proposed, and the lack of suitable habitat in the action area to support these two species, the Air Force has determined that the Moody AFB comprehensive airspace initiative would have no effect on the eastern black rail and red-cockaded woodpecker.

Under all three alternatives, noise associated with aircraft operations in the proposed low-altitude MOAs would not change substantially. Under Alternative 1, where aircraft would operate at the lowest altitudes of the three alternatives evaluated, sound levels would increase from between 0.0 to 1.2 A-weighted decibels (dBA) day-night sound level (DNL) as a result of aircraft operations in the Corsair North Low, Corsair South Low, Grand Bay, Moody 2 North, Mustang Low, and Warhawk Low MOAs and would increase 2.4 dBA DNL in the Thud Low MOA. Although there is an increase in sound levels in these proposed low-altitude MOAs, the noise levels would not exceed 46.2 dBA DNL in any of the proposed low-altitude MOAs, which is well below the threshold for noise impacts on wildlife (Manci et al. 1988). No supersonic flights are proposed, and no impacts from sonic booms would occur. Therefore, noise from low-altitude aircraft operations as a result of the Moody AFB Comprehensive Airspace Initiative would not impact listed wildlife.

Effects on listed species could occur from flight operations at lower altitudes in the proposed low-altitude MOAs. These aircraft operations could affect listed species due to aircraft movement, bird/wildlife aircraft strikes, and use of defensive countermeasures at very low altitudes. For listed bird species, given the large area where training would occur, and that most low-altitude training would occur during daytime hours, the likelihood for listed birds to encounter aircraft during training operations is low. However, aircraft movement at altitudes at or below 1,000 feet over wood stork rookeries in the proposed Corsair North, Corsair South, Mustang, and Warhawk MOAs could have the potential to cause a startle effect in nesting wood storks. To minimize startle affects from aircraft movement and to reduce the risk of bird aircraft strike hazards, Moody AFB implements a 500-foot AGL exclusion zone over all known active wood stork rookeries as well as bald eagle nests. These exclusion zones would be updated annually and provided to all pilots operating at low altitudes in the Moody Airspace Complex. With the implementation of exclusion zones as well as adherence to the requirements of the Moody AFB bird/animal aircraft strike hazard management plan during all training operations, aircraft movement at low altitudes may affect but is not likely to adversely affect wood storks.

There is the potential for components of chaff and flares that remain after use to make their way to the water surface of wetlands and shallow aquatic environments where they could be ingested by wood storks. Chaff cartridges, chaff canisters, chaff components, and chaff and flare end caps and pistons would be released into the environment, where they would persist for long periods. Some species of waterbirds and seabirds are known to ingest plastic when it is mistaken for prey (Auman et al. 1997, Yamashita et al. 2011, Provencher et al. 2014). The ingestion of plastic such as chaff and flare compression pads or pistons by birds such as wood storks could cause gastrointestinal obstructions or hormonal changes leading to reproductive issues (Provencher et al. 2014). Unless consumed plastic pieces are regurgitated, the chaff and flare compression pads or pistons could cause digestive tract blockages and eventual starvation and be lethal to birds that forage in aquatic habitats such as wood storks; however, based on the available information, it is not possible to accurately estimate actual ingestion rates or responses of individual bird species (Moser and Lee 1992); for example, it is possible that wood storks do not mistake these plastic components for prey and mistakenly consume them. Given that there would be no change in the quantity of chaff and flare used in the Moody Airspace Complex and the small number of chaff and flares that would be used over the large expanses of the proposed Corsair South Low, Mustang Low, and Warhawk Low MOAs through the redistribution of training operations, it is highly unlikely that wood storks would ever encounter chaff and flare components in aquatic environments of Carolina bays where they forage. Therefore, the use of chaff and flares in the proposed low-altitude MOAs as a result of training may affect but is not likely to adversely affect the wood stork as a result of Alternative 1.

Please note that we are also consulting with the Panama City and Georgia Ecological Services Field Offices. Therefore, I am requesting your participation in the review and comment process for those resources within your office's area of responsibility. Further, I am requesting written concurrence with our *no effect* determination on the federally listed birds: eastern black rail and red-cockaded woodpecker; reptiles: gopher tortoise and eastern indigo snake; amphibians: frosted flatwoods salamander and reticulated flatwoods salamander; clams: fat threeridge, Gulf moccasinshell, oval pigtoe, purple bankclimber, shinyrayed pocketbook, and Suwannee moccasinshell; the Gulf sturgeon; plants: American chaffseed, Canby's dropwort, Cooley's meadowrue, harperella, pondberry, and relict trillium; and our *may affect but not likely to adversely affect* determination on the federally listed wood stork. Please provide concurrence or any comments or additional information concerning the Proposed Action and alternatives within 30 days of the date of this letter to me at 23 CES/CEIE, 3485 Georgia Street, Moody AFB, Georgia 31699 or by email to gregory.lee.5@us.af.mil. Thank you in advance for your assistance in this effort.

Sincerely

Gregg W. Lee

GREGORY W. LEE
Environment Element Chief

Attachments
1. Figure 1. Moody Airspace Complex
2. Figure 2. Proposed Low-Altitude Military Operations Areas and Ecoregions beneath the Moody Airspace Complex

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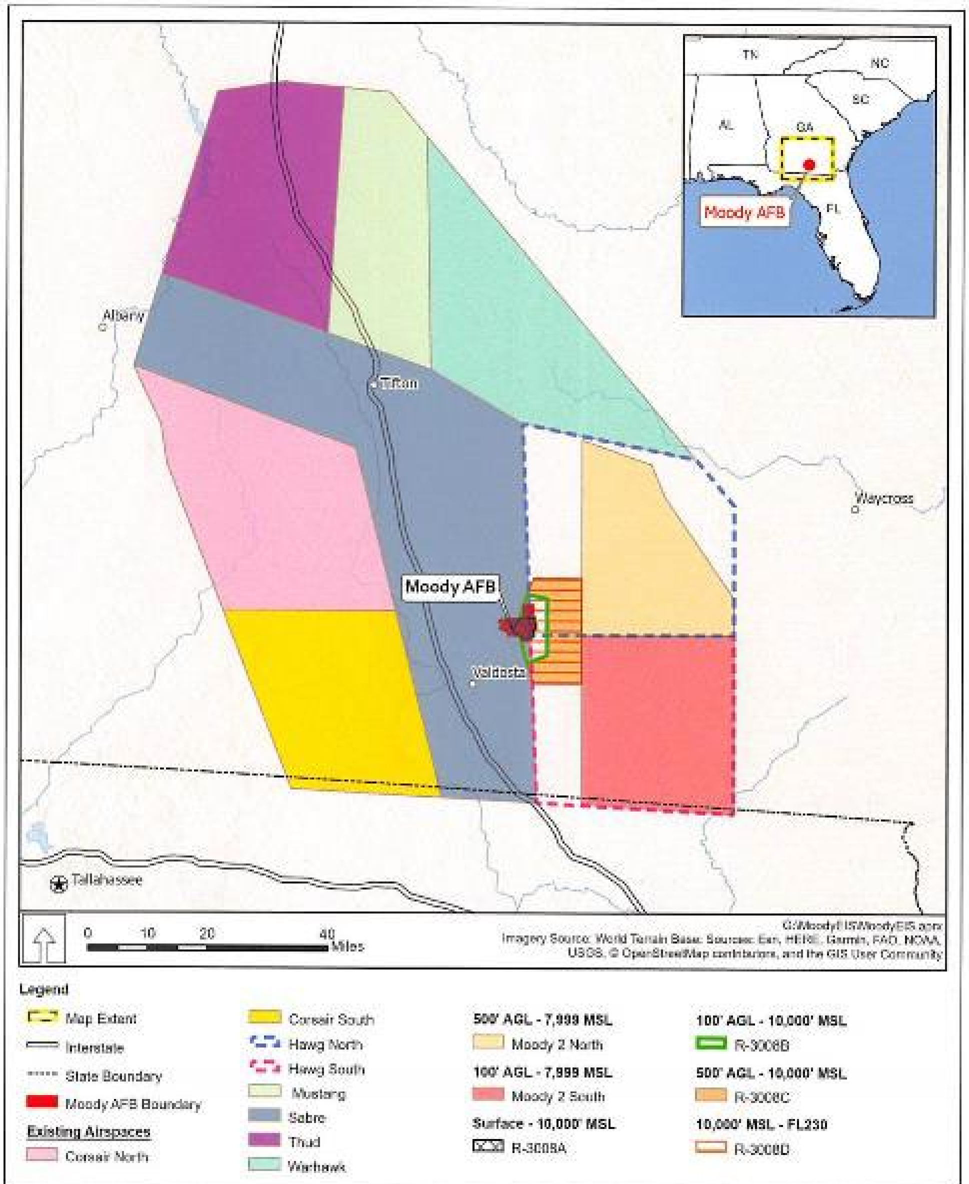

Figure 1. Moody Airspace Complex

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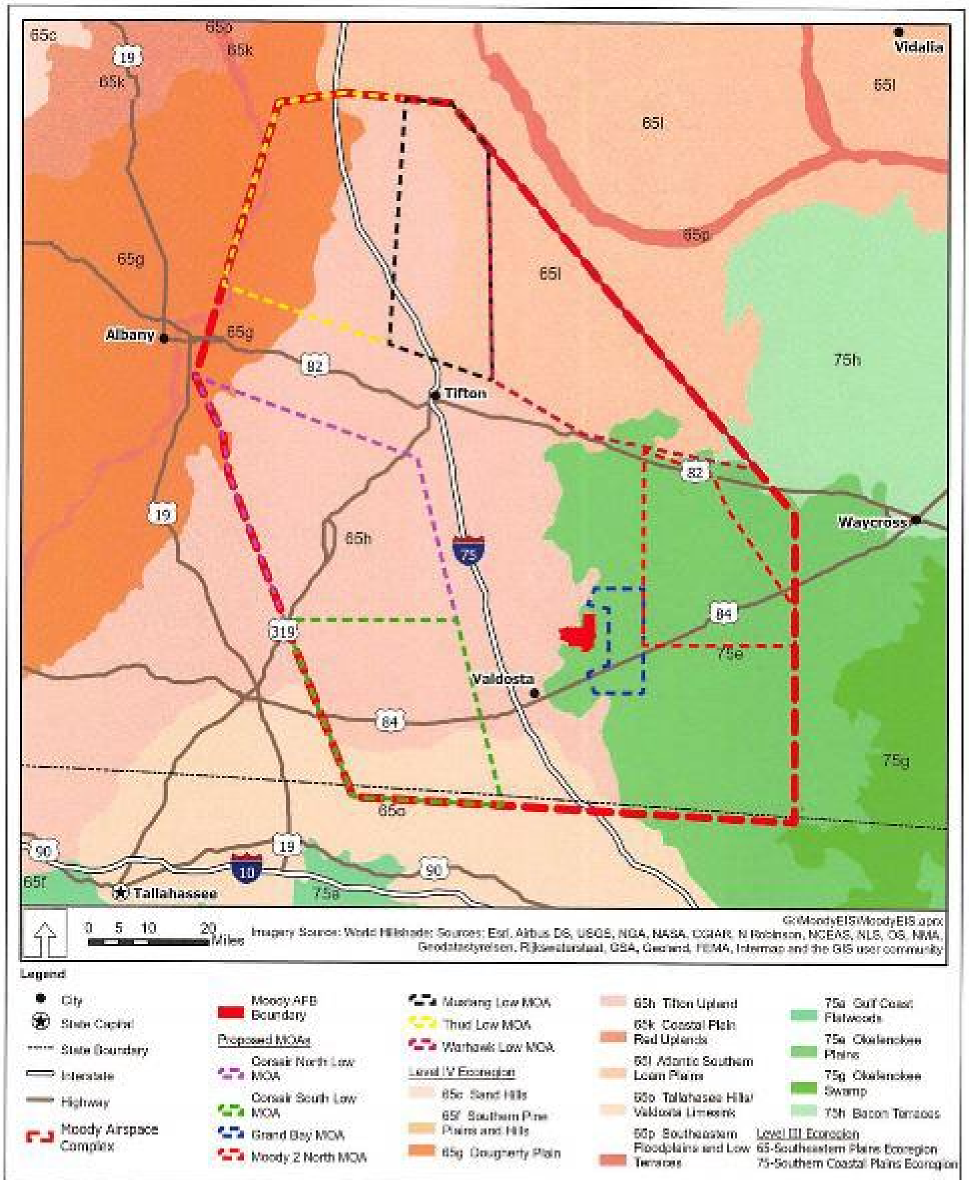

Figure 2. Proposed Low-Altitude Military Operations Areas and Ecoregions beneath the Moody Airspace Complex

Section 7 Consultation Letter, USFWS, Georgia Ecological Services Field Office

DEPARTMENT OF THE AIR FORCE
23D CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

Mr. Gregory Lee
23 CES/CEIE
3485 Georgia Street
Moody AFB GA 31699

01 JUN 2020

Ms. Gail Martinez
US Fish and Wildlife Service
Georgia Ecological Services Field Office
4980 Wildlife Drive NE
Townsend GA 31331

Dear Ms. Martinez:

The United States Air Force (Air Force) requests informal Section 7 consultation under the Endangered Species Act (ESA) for the proposed Moody Air Force Base (AFB) Comprehensive Airspace Initiative (Consultation Code 04EF1000-2020-SLI-0299). Moody AFB has prepared an Environmental Impact Statement (EIS) to assess the potential environmental impacts associated with proposed additions and modifications to the Moody Airspace Complex (Figure 1), which overlies all or portions of 28 counties in south Georgia and north Florida. A total of 21 federally listed threatened or endangered species have the potential to occur in this area. The proposal will have no effect on fifteen of the listed plants, fish, or invertebrates. Further, the proposal will have no effect on five species that are not likely to be present. However, as explained below, the Air Force has determined that the proposed activity has the potential to cause a startle effect on nesting wood storks (*Mycteria americana*), and wood storks could be harmed by the ingestion of chaff cartridge components, even though the likelihood of this occurring is low. Therefore, the Air Force has determined that the proposal may affect, but is not likely to adversely affect, the wood stork and will have no effect on the other 20 species. We request your concurrence with these determinations.

The EIS was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations implementing NEPA, and the Air Force NEPA regulations. The Moody Airspace Complex consists primarily of mid- to higher-altitude special use airspace (SUA; 8,000 feet above mean sea level [MSL] up to 18,000 feet) with limited low-altitude SUA (less than 8,000 feet MSL). Aircrews of A-10C, A-29, HH-60G, and HC-130J aircraft assigned to Moody Air Force AFB, Georgia, have severely constrained access to existing low-altitude SUAs wherein they can conduct required training operations at low altitude to gain operational proficiency and meet their low-altitude close air support (CAS), personnel recovery (PR), and combat search and rescue (CSAR) mission objectives for combat readiness. As part of the proposed undertaking, the Comprehensive Airspace Initiative at Moody AFB would provide additional low-altitude Air Force-controlled SUA supporting the low-

Global Power for America

altitude training missions (CSAR, PR, CAS) for aircrews stationed at Moody AFB, which are currently limited to the Moody Airspace Complex's few existing, congested low-altitude SUAs.

The Air Force has preliminarily identified three action alternatives to expand low-altitude training airspace at Moody AFB. All three alternatives would create new low-altitude Military Operations Areas (MOAs) beneath and within the lateral confines of existing MOAs and Restricted Areas of the Moody Airspace Complex (Figure 2). The three action alternatives are:

- Create new low-altitude MOAs with a floor of 1,000 feet above ground level (AGL) (Alternative 1);
- Create new low-altitude MOAs with a floor of 2,000 feet AGL (Alternative 2); and
- Create new low-altitude MOAs with a floor of 4,000 feet AGL (Alternative 3).

While the alternatives are independent of each other, the decision maker may choose to implement one alternative, a combination of low-altitude MOAs from among the three alternatives, or none of the alternatives based on the analysis provided in the EIS. Training within the low-altitude MOAs would include the use of chaff and flares, with flare use being limited to altitudes above 2,000 feet AGL. Urban CAS, helicopter landing zones, drop zones, and the use of training ordnance at the Grand Bay Range would continue unchanged under all three alternatives. There would be neither a change in the number of sorties at Moody AFB airfield nor would there be any change in the number of aircraft operations in the Moody Airspace Complex under any of the three alternatives. Further, no ground-disturbing activities are associated with any of the three alternatives.

Threatened, Endangered, and Candidate Species and Designated Critical Habitat

A review of the US Fish and Wildlife Service (USFWS) Information for Planning and Conservation System, Georgia Rare Element Natural Data Portal, Florida Fish and Wildlife Conservation Commission's list of threatened and endangered species, and the Moody AFB Integrated Natural Resources Management Plan identified 21 federally listed species that could occur within and below the proposed low-altitude MOAs (Table 1). However, as the proposal is to create and modify MOAs within the Moody Airspace Complex, which would redistribute military aircraft training operations, effects on listed species would be limited to aircraft movement, noise, and the use of defensive countermeasures (i.e., chaff and flares). Therefore, the proposal will have no effect on the 15 listed plants, fish, or invertebrates that will not be exposed to these activities. In addition, the proposal will have no effect on five species that are not likely to be present and may affect but is unlikely to affect one species. The potential for each listed species to be affected by the proposal is summarized in Table 1.

Table 1. Federally Protected Species with the Potential to Occur in the Proposed Low-Altitude Military Operations Areas

Common Name	Scientific Name	Legal Status	Potential to be Affected
Birds			
Eastern black rail	*Laterallus jamaicensis* spp. *jamaicensis*	Proposed Threatened	Yes

Common Name	Scientific Name	Legal Status	Potential to be Affected
Red-cockaded woodpecker	*Picoides borealis*	Endangered	Yes
Wood stork	*Mycteria americana*	Threatened	Yes
Amphibians			
Frosted flatwoods salamander	*Ambystoma cingulatum*	Threatened	Yes
Reticulated flatwoods salamander	*Ambystoma bishop*	Endangered	No
Reptiles			
American alligator	*Alligator mississippiensis*	Threatened (S/A)	Yes
Eastern indigo snake	*Drymarchon couperi*	Threatened	Yes
Gopher tortoise	*Gopherus polyphemus*	Candidate	Yes
Clams			
Fat threeridge (mussel)	*Amblema neislerii*	Endangered	No
Gulf moccasinshell	*Medionidus penicillatus*	Endangered	No
Oval pigtoe	*Pleurobema pyriforme*	Endangered	No
Purple bankclimber (mussel)	*Elliptoideus sloatianus*	Threatened	No
Shinyrayed pocketbook	*Lampsilis subangulata*	Endangered	No
Suwannee moccasinshell	*Medionidus walkeri*	Threatened	No
Fish			
Gulf Sturgeon	*Acipenser oxyrinchus desotoi*	Threatened	No
Plants			
American chaffseed	*Schwalbea americana*	Endangered	No
Canby's dropwort	*Oxypolis canbyi*	Endangered	No
Cooley's meadowrue	*Thalictrum cooleyi*	Endangered	No
Harperella	*Ptilimnium nodosum*	Endangered	No
Pondberry	*Lindera melissifolia*	Endangered	No
Relict trillium	*Trillium reliquum*	Endangered	No

Source: USFWS 2019
S/A –similarity of appearance

Designated critical habitat for four of the clam species overlaps with the proposed low-altitude MOAs: Gulf moccasinshell (*Medionidus penicillatus*), oval pigtoe (*Pleurobema pyriforme*), purple bankclimber (*Elliptoideus sloatianus*), and shinyrayed pocketbook (*Lampsilis subangulata*). There is proposed critical habitat for the Suwannee moccasinshell (*Medionidus walkeri*).

Under the Proposed Action, there would be no ground-disturbing activities, and all potential impacts on biological resources would be associated with aircraft operations and the use of defensive countermeasures in the proposed low-altitude MOAs. Further, there would be no risk

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of wildland fires because flare use is limited to altitudes above 2,000 feet AGL and the use of flares is suspended when conditions are conducive to wildfires. Because there would be no on-ground or ground-disturbing activities, there would be no effect on federally listed clams, including the fat threeridge (*Amblema neislerii*), Gulf moccasinshell, oval pigtoe, purple bankclimber, shinyrayed pocketbook, and Suwannee moccasinshell; on fishes, including the Gulf sturgeon (*Acipenser oxyrinchus desotoi*); and on plants, including American chaffseed (*Schwalbea americana*), Canby's dropwort (*Oxypolis canbyi*), Cooley's meadowrue (*Thalictrum cooleyi*), harperella (*Ptilimnium nodosum*), pondberry (*Lindera melissifolia*), and relict trillium (*Trillium reliquum*). Therefore, these species are not discussed further.

Eastern Black Rail. The eastern black rail (*Laterallus jamaicensis* spp. *jamaicensis*) is federally listed as proposed threatened. It is a small, secretive marsh bird that is broadly distributed. It lives in fresh and saltwater marshes in portions of the United States, Central America, and South America. Eastern black rail habitat can range in salinity from salt to brackish to fresh water. Eastern black rails are primarily found in coastal wetlands; however, there is no suitable habitat for the eastern black rail in wetlands beneath the proposed low-altitude MOAs. Further, no observations or detections of the species occurred during surveys at Moody AFB or on the Grand Bay Range in 2018 (Watts et al. 2018).

Red-Cockaded Woodpecker. The red-cockaded woodpecker is federally listed as endangered and could potentially occur in low numbers within mature pine forest habitat with sparse understory vegetation beneath the proposed low MOAs. However, there is very little mature pine forest habitat beneath the proposed low MOAs, and most pine forest is managed for timber and is harvested before it can reach a size and age class suitable to support the red-cockaded woodpecker. The documented populations of red-cockaded woodpeckers closest to the proposed low-altitude MOAs are in the Okefenokee National Wildlife Refuge.

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Frosted Flatwoods Salamander. The frosted flatwoods salamander (*Ambystoma cingulatum*) is a federally threatened amphibian with a grey or black body with white spots. Its distribution is limited to longleaf and slash pine flatwoods with sandy soils. Its diet primarily consists of earthworms and spiders. Since 1990, only four sites in Georgia have had documented occurrences of the flatwoods salamander. There is limited suitable habitat beneath the proposed low-altitude MOAs for the frosted flatwoods salamander, but it is assumed to be present in mature flatwoods.

Reticulated Flatwoods Salamander. The reticulated flatwoods salamander (*Ambystoma bishopi*) is a federally endangered amphibian that is similar in appearance to the frosted flatwoods salamander, but there are more distinct white spots on the reticulated flatwoods salamander. Its distribution is also limited to longleaf and slash pine flatwoods with sandy soils west of the Apalachicola River – Flint River systems, and it primarily feeds on earthworms and spiders. As reticulated flatwoods salamander distribution does not overlap with the proposed low-altitude MOAs it is assumed to be absent from the project area.

American Alligator. The American alligator (*Alligator mississippiensis*) is federally listed as threatened due to its similarity in appearance to the American crocodile (*Crocodylus acutus*). The American alligator was officially removed from the list of endangered species in 1987. This classification of the alligator in the ESA allows the USFWS to regulate the harvest and legal trade in the animals, their skins, and products made from them, as part of efforts to prevent the illegal take and trafficking of endangered "look alike" reptiles. Beyond harvest and legal trade regulations, there are no other regulatory requirements for this species under the ESA, and alligators are not recognized as an endangered or threatened species and are not typically considered in Section 7 ESA consultations with the USFWS for installation activities (Moody AFB 2018). The American alligator is a common reptile found throughout south Georgia and north Florida and is known to occur beneath all of the proposed low-altitude MOAs.

Eastern Indigo Snake. The eastern indigo snake (*Drymarchon corais couperi*) is a federally threatened reptile and a nonvenomous snake. It can grow to a length of approximately 8 feet. The snake primarily feeds on small mammals, birds, amphibians, and reptiles, as well as the eggs of amphibians and reptiles. Indigo snakes typically deposit their eggs in gopher tortoise (*Gopherus polyphemus*) burrows and are associated in distribution with gopher tortoises. They occur in pine flatwoods, hardwood forests, and areas around cypress (*Taxodium distichum*) swamps. Eastern indigo snakes are known to occur on the Grand Bay Range at Moody AFB and are expected to occur in suitable habitats beneath all of the proposed low-altitude MOAs.

Gopher Tortoise. The gopher tortoise is federally listed as a candidate species in southern Georgia and northern Florida and is the only species of tortoise that occurs east of the Mississippi River. The gopher tortoise is typically between 9 and 11 inches long with a tan, brown, or gray shell at maturity. Gopher tortoises spend the majority of their time in burrows that average 6.5 feet in depth. They feed on low-growing plants proximate to their burrows and occur in well-drained, sandy soils suitable for digging burrows. Gopher tortoises are known to occur on the Moody AFB Main Base and Grand Bay Range and are expected to occur in suitable habitats beneath all of the proposed low-altitude MOAs.

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The gopher tortoise and indigo snake are primarily associated with gopher tortoise burrows and occur in forested habitats. They would not be exposed to aircraft movement and operations or increased sound levels; therefore the Air Force has determined that aircraft operations in the proposed low-altitude MOAs associated with the Moody AFB comprehensive airspace initiative would have no effect on the gopher tortoise or indigo snake. The frosted flatwoods salamander would also occur in forested habitats primarily associated with aquatic environments. It would not be exposed to aircraft movement or increased sound levels from training operations in the proposed low-altitude MOAs; therefore, the Air Force has determined that the Moody AFB comprehensive airspace initiative would have no effect on the frosted flatwoods salamander. Further, the reticulated flatwoods salamander's distribution does not geographically overlap with the proposed low-altitude MOAs; therefore the Air Force has determined that the Moody AFB comprehensive airspace initiative would have no effect on the reticulated flatwoods salamander. Based on the absence of the eastern black rail and the red-cockaded woodpecker in the proposed low-altitude MOAs where the action is proposed, and the lack of suitable habitat in the action area to support these two species, the Air Force has determined that the Moody AFB comprehensive airspace initiative would have no effect on the eastern black rail and red-cockaded woodpecker.

Under all three alternatives, noise associated with aircraft operations in the proposed low-altitude MOAs would not change substantially. Under Alternative 1, where aircraft would operate at the lowest altitudes of the three alternatives evaluated, sound levels would increase from between 0.0 to 1.2 A-weighted decibels (dBA) day-night sound level (DNL) as a result of aircraft operations in the Corsair North Low, Corsair South Low, Grand Bay, Moody 2 North, Mustang Low, and Warhawk Low MOAs and would increase 2.4 dBA DNL in the Thud Low MOA. Although there is an increase in sound levels in these proposed low-altitude MOAs, the noise levels would not exceed 46.2 dBA DNL in any of the proposed low-altitude MOAs, which is well below the threshold for noise impacts on wildlife (Manci et al. 1988). No supersonic flights are proposed, and no impacts from sonic booms would occur. Therefore, noise from low-altitude aircraft operations as a result of the Moody AFB Comprehensive Airspace Initiative would not impact listed wildlife.

Effects on listed species could occur from flight operations at lower altitudes in the proposed low-altitude MOAs. These aircraft operations could affect listed species due to aircraft movement, bird/wildlife aircraft strikes, and use of defensive countermeasures at very low altitudes. For listed bird species, given the large area where training would occur, and that most low-altitude training would occur during daytime hours, the likelihood for listed birds to encounter aircraft during training operations is low. However, aircraft movement at altitudes at or below 1,000 feet over wood stork rookeries in the proposed Corsair North, Corsair South, Mustang, and Warhawk MOAs could have the potential to cause a startle effect in nesting wood storks. To minimize startle affects from aircraft movement and to reduce the risk of bird aircraft strike hazards, Moody AFB implements a 500-foot AGL exclusion zone over all known active wood stork rookeries as well as bald eagle nests. These exclusion zones would be updated annually and provided to all pilots operating at low altitudes in the Moody Airspace Complex. With the implementation of exclusion zones as well as adherence to the requirements of the Moody AFB bird/animal aircraft strike hazard management plan during all training operations, aircraft movement at low altitudes may affect but is not likely to adversely affect wood storks.

There is the potential for components of chaff and flares that remain after use to make their way to the water surface of wetlands and shallow aquatic environments where they could be ingested by wood storks. Chaff cartridges, chaff canisters, chaff components, and chaff and flare end caps and pistons would be released into the environment, where they would persist for long periods. Some species of waterbirds and seabirds are known to ingest plastic when it is mistaken for prey (Auman et al. 1997, Yamashita et al. 2011, Provencher et al. 2014). The ingestion of plastic such as chaff and flare compression pads or pistons by birds such as wood storks could cause gastrointestinal obstructions or hormonal changes leading to reproductive issues (Provencher et al. 2014). Unless consumed plastic pieces are regurgitated, the chaff and flare compression pads or pistons could cause digestive tract blockages and eventual starvation and be lethal to birds that forage in aquatic habitats such as wood storks; however, based on the available information, it is not possible to accurately estimate actual ingestion rates or responses of individual bird species (Moser and Lee 1992); for example, it is possible that wood storks do not mistake these plastic components for prey and mistakenly consume them. Given that there would be no change in the quantity of chaff and flare used in the Moody Airspace Complex and the small number of chaff and flares that would be used over the large expanses of the proposed Corsair South Low, Mustang Low, and Warhawk Low MOAs through the redistribution of training operations, it is highly unlikely that wood storks would ever encounter chaff and flare components in aquatic environments of Carolina bays where they forage. Therefore, the use of chaff and flares in the proposed low-altitude MOAs as a result of training may affect but is not likely to adversely affect the wood stork as a result of Alternative 1.

Please note that we are also consulting with the Panama City and North Florida Ecological Services Field Offices. Therefore, I am requesting your participation in the review and comment process for those resources within your office's area of responsibility. Further, I am requesting written concurrence with our *no effect* determination on the federally listed birds: eastern black rail and red-cockaded woodpecker; reptiles: gopher tortoise and eastern indigo snake; amphibians: frosted flatwoods salamander and reticulated flatwoods salamander; clams: fat threeridge, Gulf moccasinshell, oval pigtoe, purple bankclimber, shinyrayed pocketbook, and Suwannee moccasinshell; the Gulf sturgeon; plants: American chaffseed, Canby's dropwort, Cooley's meadowrue, harperella, pondberry, and relict trillium; and our *may affect but not likely to adversely affect* determination on the federally listed wood stork. Please provide concurrence or any comments or additional information concerning the Proposed Action and alternatives within 30 days of the date of this letter to me at 23 CES/CEIE, 3485 Georgia Street, Moody AFB, Georgia 31699 or by email to gregory.lee.5@us.af.mil. Thank you in advance for your assistance in this effort.

Sincerely

Gregory W. Lee

GREGORY W. LEE
Environment Element Chief

Attachments
1. Figure 1. Moody Airspace Complex
2. Figure 2. Proposed Low-Altitude Military Operations Areas and Ecoregions beneath the Moody Airspace Complex

References

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Letter from Moody AFB to the US Fish and Wildlife Service requesting concurrence under Section 7 of the Endangered Species Act (continued)

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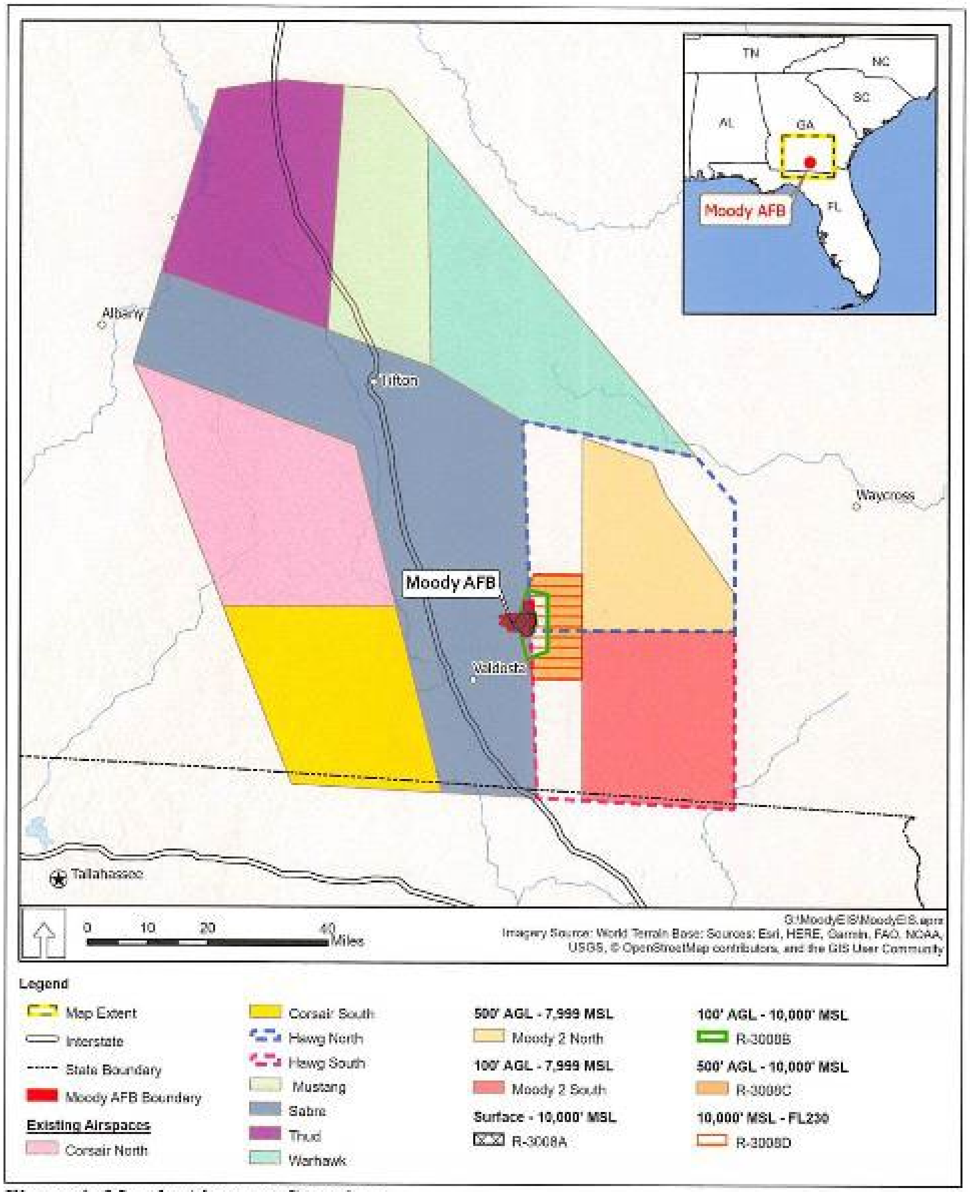

Figure 1. Moody Airspace Complex

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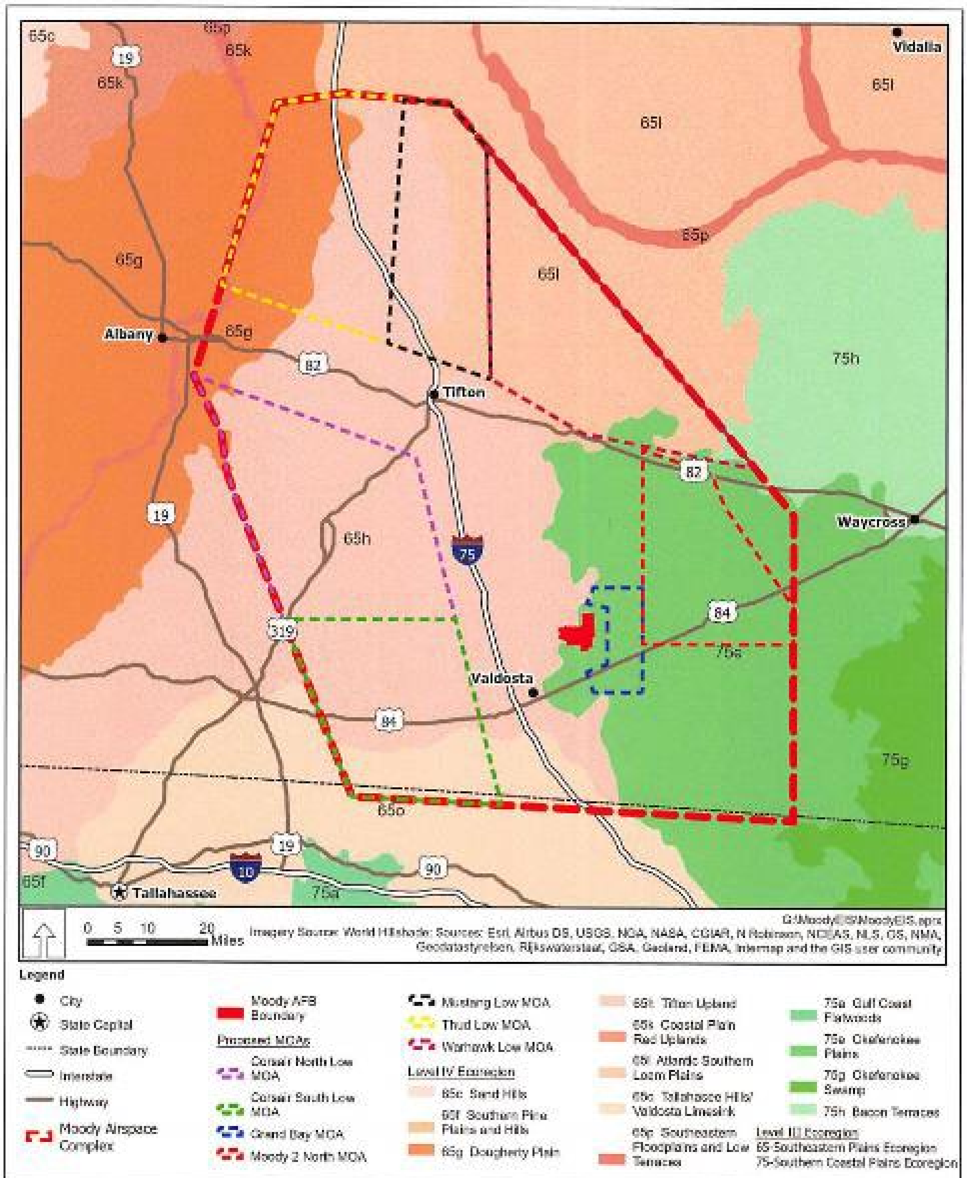

Figure 2. Proposed Low-Altitude Military Operations Areas and Ecoregions beneath the Moody Airspace Complex

Section 7 Consultation Letter, USFWS, Panama City Ecological Services Field Office

DEPARTMENT OF THE AIR FORCE
23D CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

01 JUN 2020

Mr. Gregory Lee
23 CES/CEIE
3485 Georgia Street
Moody AFB GA 31699

Ms. Lisa Yarbrough
Panama City Ecological Services Field Office
1601 Balboa Avenue
Panama City, FL 32405-3792

Dear Ms. Yarbrough:

The United States Air Force (Air Force) requests informal Section 7 consultation under the Endangered Species Act (ESA) for the proposed Moody Air Force Base (AFB) Comprehensive Airspace Initiative (Consultation Code 04EF1000-2020-SLI-0299). Moody AFB has prepared an Environmental Impact Statement (EIS) to assess the potential environmental impacts associated with proposed additions and modifications to the Moody Airspace Complex (Figure 1), which overlies all or portions of 28 counties in south Georgia and north Florida. A total of 21 federally listed threatened or endangered species have the potential to occur in this area. The proposal will have no effect on fifteen of the listed plants, fish, or invertebrates. Further, the proposal will have no effect on five species that are not likely to be present. However, as explained below, the Air Force has determined that the proposed activity has the potential to cause a startle effect on nesting wood storks (*Mycteria americana*), and wood storks could be harmed by the ingestion of chaff cartridge components, even though the likelihood of this occurring is low. Therefore, the Air Force has determined that the proposal may affect, but is not likely to adversely affect, the wood stork and will have no effect on the other 20 species. We request your concurrence with these determinations.

The EIS was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations implementing NEPA, and the Air Force NEPA regulations. The Moody Airspace Complex consists primarily of mid- to higher-altitude special use airspace (SUA; 8,000 feet above mean sea level [MSL] up to 18,000 feet) with limited low-altitude SUA (less than 8,000 feet MSL). Aircrews of A-10C, A-29, HH-60G, and HC-130J aircraft assigned to Moody Air Force AFB, Georgia, have severely constrained access to existing low-altitude SUAs wherein they can conduct required training operations at low altitude to gain operational proficiency and meet their low-altitude close air support (CAS), personnel recovery (PR), and combat search and rescue (CSAR) mission objectives for combat readiness. As part of the proposed undertaking, the Comprehensive Airspace Initiative at Moody AFB would provide additional low-altitude Air Force-controlled SUA supporting the low-altitude training missions (CSAR, PR, CAS) for aircrews stationed at Moody AFB, which are currently limited to the Moody Airspace Complex's few existing, congested low-altitude SUAs.

Global Power for America

The Air Force has preliminarily identified three action alternatives to expand low-altitude training airspace at Moody AFB. All three alternatives would create new low-altitude Military Operations Areas (MOAs) beneath and within the lateral confines of existing MOAs and Restricted Areas of the Moody Airspace Complex (Figure 2). The three action alternatives are:

- Create new low-altitude MOAs with a floor of 1,000 feet above ground level (AGL) (Alternative 1);
- Create new low-altitude MOAs with a floor of 2,000 feet AGL (Alternative 2); and
- Create new low-altitude MOAs with a floor of 4,000 feet AGL (Alternative 3).

While the alternatives are independent of each other, the decision maker may choose to implement one alternative, a combination of low-altitude MOAs from among the three alternatives, or none of the alternatives based on the analysis provided in the EIS. Training within the low-altitude MOAs would include the use of chaff and flares, with flare use being limited to altitudes above 2,000 feet AGL. Urban CAS, helicopter landing zones, drop zones, and the use of training ordnance at the Grand Bay Range would continue unchanged under all three alternatives. There would be neither a change in the number of sorties at Moody AFB airfield nor would there be any change in the number of aircraft operations in the Moody Airspace Complex under any of the three alternatives. Further, no ground-disturbing activities are associated with any of the three alternatives.

Threatened, Endangered, and Candidate Species and Designated Critical Habitat

A review of the US Fish and Wildlife Service (USFWS) Information for Planning and Conservation System, Georgia Rare Element Natural Data Portal, Florida Fish and Wildlife Conservation Commission's list of threatened and endangered species, and the Moody AFB Integrated Natural Resources Management Plan identified 21 federally listed species that could occur within and below the proposed low-altitude MOAs (Table 1). However, as the proposal is to create and modify MOAs within the Moody Airspace Complex, which would redistribute military aircraft training operations, effects on listed species would be limited to aircraft movement, noise, and the use of defensive countermeasures (i.e., chaff and flares). Therefore, the proposal will have no effect on the 15 listed plants, fish, or invertebrates that will not be exposed to these activities. In addition, the proposal will have no effect on five species that are not likely to be present and may affect but is unlikely to affect one species. The potential for each listed species to be affected by the proposal is summarized in Table 1.

Table 1. Federally Protected Species with the Potential to Occur in the Proposed Low-Altitude Military Operations Areas

Common Name	Scientific Name	Legal Status	Potential to be Affected
Birds			
Eastern black rail	*Laterallus jamaicensis* spp. *jamaicensis*	Proposed Threatened	Yes
Red-cockaded woodpecker	*Picoides borealis*	Endangered	Yes
Wood stork	*Mycteria americana*	Threatened	Yes

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Common Name	Scientific Name	Legal Status	Potential to be Affected
Amphibians			
Frosted flatwoods salamander	*Ambystoma cingulatum*	Threatened	Yes
Reticulated flatwoods salamander	*Ambystoma bishop*	Endangered	No
Reptiles			
American alligator	*Alligator mississippiensis*	Threatened (S/A)	Yes
Eastern indigo snake	*Drymarchon couperi*	Threatened	Yes
Gopher tortoise	*Gopherus polyphemus*	Candidate	Yes
Clams			
Fat threeridge (mussel)	*Amblema neislerii*	Endangered	No
Gulf moccasinshell	*Medionidus penicillatus*	Endangered	No
Oval pigtoe	*Pleurobema pyriforme*	Endangered	No
Purple bankclimber (mussel)	*Elliptoideus sloatianus*	Threatened	No
Shinyrayed pocketbook	*Lampsilis subangulata*	Endangered	No
Suwannee moccasinshell	*Medionidus walkeri*	Threatened	No
Fish			
Gulf Sturgeon	*Acipenser oxyrinchus desotoi*	Threatened	No
Plants			
American chaffseed	*Schwalbea americana*	Endangered	No
Canby's dropwort	*Oxypolis canbyi*	Endangered	No
Cooley's meadowrue	*Thalictrum cooleyi*	Endangered	No
Harperella	*Ptilimnium nodosum*	Endangered	No
Pondberry	*Lindera melissifolia*	Endangered	No
Relict trillium	*Trillium reliquum*	Endangered	No

Source: USFWS 2019
S/A –similarity of appearance

Designated critical habitat for four of the clam species overlaps with the proposed low-altitude MOAs: Gulf moccasinshell (*Medionidus penicillatus*), oval pigtoe (*Pleurobema pyriforme*), purple bankclimber (*Elliptoideus sloatianus*), and shinyrayed pocketbook (*Lampsilis subangulata*). There is proposed critical habitat for the Suwannee moccasinshell (*Medionidus walkeri*).

Under the Proposed Action, there would be no ground-disturbing activities, and all potential impacts on biological resources would be associated with aircraft operations and the use of defensive countermeasures in the proposed low-altitude MOAs. Further, there would be no risk of wildland fires because flare use is limited to altitudes above 2,000 feet AGL and the use of flares is suspended when conditions are conducive to wildfires. Because there would be no on-ground or ground-disturbing activities, there would be no effect on federally listed clams, including the fat threeridge (*Amblema neislerii*), Gulf moccasinshell, oval pigtoe, purple bankclimber, shinyrayed pocketbook, and Suwannee moccasinshell; on fishes, including the Gulf sturgeon (*Acipenser oxyrinchus desotoi*); and on plants, including American chaffseed (*Schwalbea americana*), Canby's dropwort (*Oxypolis canbyi*), Cooley's meadowrue (*Thalictrum cooleyi*), harperella (*Ptilimnium nodosum*), pondberry (*Lindera melissifolia*), and relict trillium (*Trillium reliquum*). Therefore, these species are not discussed further.

Eastern Black Rail. The eastern black rail (*Laterallus jamaicensis* spp. *jamaicensis*) is federally listed as proposed threatened. It is a small, secretive marsh bird that is broadly distributed. It lives in fresh and saltwater marshes in portions of the United States, Central America, and South America. Eastern black rail habitat can range in salinity from salt to brackish to fresh water. Eastern black rails are primarily found in coastal wetlands; however, there is no suitable habitat for the eastern black rail in wetlands beneath the proposed low-altitude MOAs. Further, no observations or detections of the species occurred during surveys at Moody AFB or on the Grand Bay Range in 2018 (Watts et al. 2018).

Red-Cockaded Woodpecker. The red-cockaded woodpecker is federally listed as endangered and could potentially occur in low numbers within mature pine forest habitat with sparse understory vegetation beneath the proposed low MOAs. However, there is very little mature pine forest habitat beneath the proposed low MOAs, and most pine forest is managed for timber and is harvested before it can reach a size and age class suitable to support the red-cockaded woodpecker. The documented populations of red-cockaded woodpeckers closest to the proposed low-altitude MOAs are in the Okefenokee National Wildlife Refuge.

Wood Stork. The wood stork is a federally threatened wading bird that occurs in the southeastern United States and across the Caribbean and into South America. Wood storks are mostly white with a head and neck lacking feathers. They nest colonially in rookeries. Wood storks forage for fish, frogs, crabs, and crustaceans in shallow water. Wood storks are known to occur throughout southern Georgia, including in the Carolina bay habitats proximate to Moody AFB. A total of nine wood stork rookeries are known to occur beneath the proposed Corsair North Low and Corsair South Low MOAs. No other wood stork rookeries have been recorded beneath the other proposed low-altitude MOAs.

Frosted Flatwoods Salamander. The frosted flatwoods salamander (*Ambystoma cingulatum*) is a federally threatened amphibian with a grey or black body with white spots. Its distribution is limited to longleaf and slash pine flatwoods with sandy soils. Its diet primarily consists of earthworms and spiders. Since 1990, only four sites in Georgia have had documented occurrences of the flatwoods salamander. There is limited suitable habitat beneath the proposed low-altitude MOAs for the frosted flatwoods salamander, but it is assumed to be present in mature flatwoods.

Reticulated Flatwoods Salamander. The reticulated flatwoods salamander (*Ambystoma bishopi*) is a federally endangered amphibian that is similar in appearance to the frosted flatwoods salamander, but there are more distinct white spots on the reticulated flatwoods salamander. Its distribution is also limited to longleaf and slash pine flatwoods with sandy soils west of the Apalachicola River – Flint River systems, and it primarily feeds on earthworms and spiders. As reticulated flatwoods salamander distribution does not overlap with the proposed low-altitude MOAs it is assumed to be absent from the project area.

American Alligator. The American alligator (*Alligator mississippiensis*) is federally listed as threatened due to its similarity in appearance to the American crocodile (*Crocodylus acutus*). The American alligator was officially removed from the list of endangered species in 1987. This classification of the alligator in the ESA allows the USFWS to regulate the harvest and legal trade in the animals, their skins, and products made from them, as part of efforts to prevent the illegal take and trafficking of endangered "look alike" reptiles. Beyond harvest and legal trade regulations, there are no other regulatory requirements for this species under the ESA, and alligators are not recognized as an endangered or threatened species and are not typically considered in Section 7 ESA consultations with the USFWS for installation activities (Moody AFB 2018). The American alligator is a common reptile found throughout south Georgia and north Florida and is known to occur beneath all of the proposed low-altitude MOAs.

Eastern Indigo Snake. The eastern indigo snake (*Drymarchon corais couperi*) is a federally threatened reptile and a nonvenomous snake. It can grow to a length of approximately 8 feet. The snake primarily feeds on small mammals, birds, amphibians, and reptiles, as well as the eggs of amphibians and reptiles. Indigo snakes typically deposit their eggs in gopher tortoise (*Gopherus polyphemus*) burrows and are associated in distribution with gopher tortoises. They occur in pine flatwoods, hardwood forests, and areas around cypress (*Taxodium distichum*) swamps. Eastern indigo snakes are known to occur on the Grand Bay Range at Moody AFB and are expected to occur in suitable habitats beneath all of the proposed low-altitude MOAs.

Gopher Tortoise. The gopher tortoise is federally listed as a candidate species in southern Georgia and northern Florida and is the only species of tortoise that occurs east of the Mississippi River. The gopher tortoise is typically between 9 and 11 inches long with a tan, brown, or gray shell at maturity. Gopher tortoises spend the majority of their time in burrows that average 6.5 feet in depth. They feed on low-growing plants proximate to their burrows and occur in well-drained, sandy soils suitable for digging burrows. Gopher tortoises are known to occur on the Moody AFB Main Base and Grand Bay Range and are expected to occur in suitable habitats beneath all of the proposed low-altitude MOAs.

Determination of the Effects of the Proposed Action

The gopher tortoise and indigo snake are primarily associated with gopher tortoise burrows and occur in forested habitats. They would not be exposed to aircraft movement and operations or increased sound levels; therefore the Air Force has determined that aircraft operations in the proposed low-altitude MOAs associated with the Moody AFB comprehensive airspace initiative would have no effect on the gopher tortoise or indigo snake. The frosted flatwoods salamander would also occur in forested habitats primarily associated with aquatic environments. It would not be exposed to aircraft movement or increased sound levels from training operations in the proposed low-altitude MOAs; therefore, the Air Force has determined that the Moody AFB comprehensive airspace initiative would have no effect on the frosted flatwoods salamander. Further, the reticulated flatwoods salamander's distribution does not geographically overlap with the proposed low-altitude MOAs; therefore the Air Force has determined that the Moody AFB comprehensive airspace initiative would have no effect on the reticulated flatwoods salamander. Based on the absence of the eastern black rail and the red-cockaded woodpecker in the proposed low-altitude MOAs where the action is proposed, and the lack of suitable habitat in the action area to support these two species, the Air Force has determined that the Moody AFB comprehensive airspace initiative would have no effect on the eastern black rail and red-cockaded woodpecker.

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Please note that we are also consulting with the North Florida and Georgia Ecological Services Field Offices. Therefore, I am requesting your participation in the review and comment process for those resources within your office's area of responsibility. Further, I am requesting written concurrence with our *no effect* determination on the federally listed birds: eastern black rail and red-cockaded woodpecker; reptiles: gopher tortoise and eastern indigo snake; amphibians: frosted flatwoods salamander and reticulated flatwoods salamander; clams: fat threeridge, Gulf moccasinshell, oval pigtoe, purple bankclimber, shinyrayed pocketbook, and Suwannee moccasinshell; the Gulf sturgeon; plants: American chaffseed, Canby's dropwort, Cooley's meadowrue, harperella, pondberry, and relict trillium; and our *may affect but not likely to adversely affect* determination on the federally listed wood stork. Please provide concurrence or any comments or additional information concerning the Proposed Action and alternatives within 30 days of the date of this letter to me at 23 CES/CEIE, 3485 Georgia Street, Moody AFB, Georgia 31699 or by email to gregory.lee.5@us.af.mil. Thank you in advance for your assistance in this effort.

Sincerely

Gregory W. Lee

GREGORY W. LEE
Environment Element Chief

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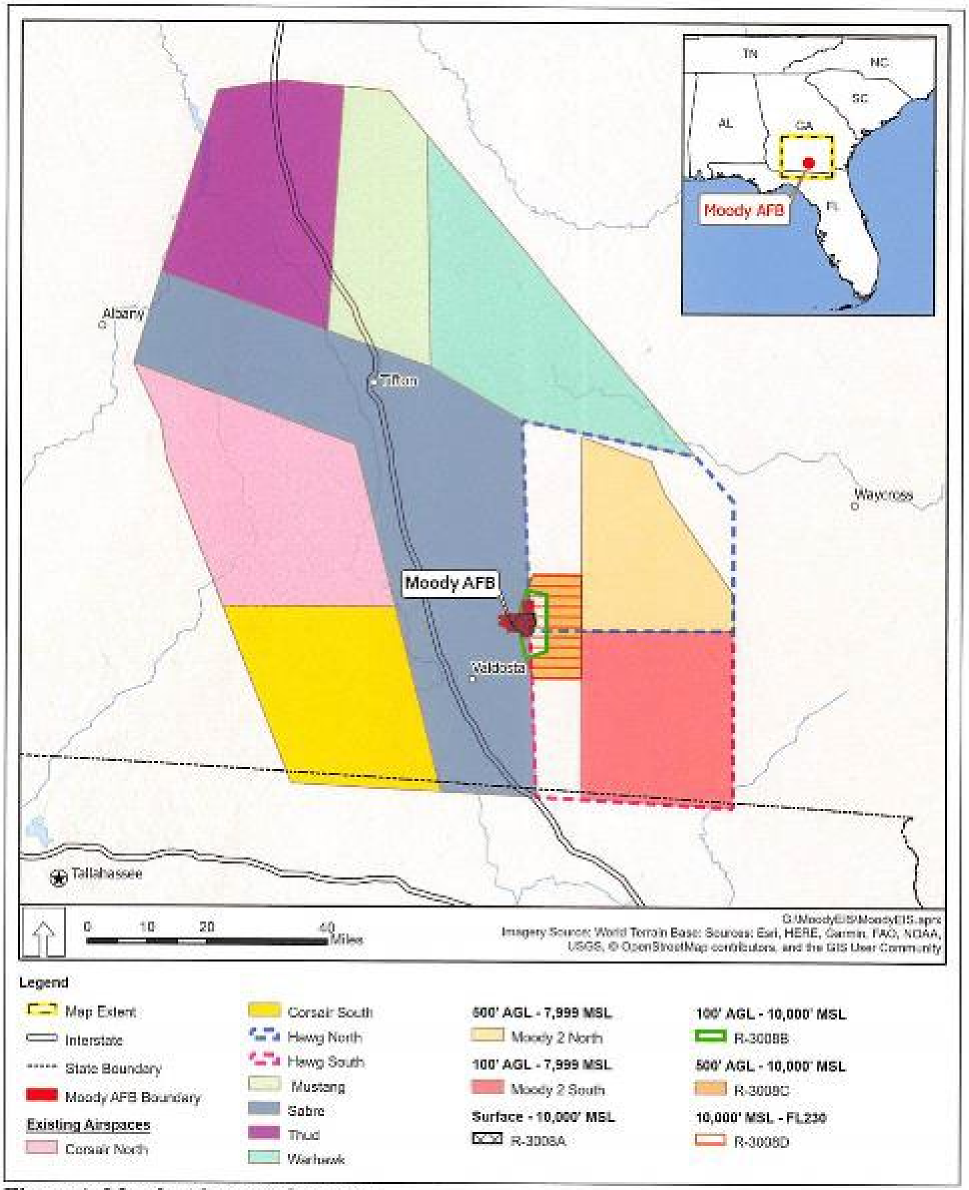

Figure 1. Moody Airspace Complex

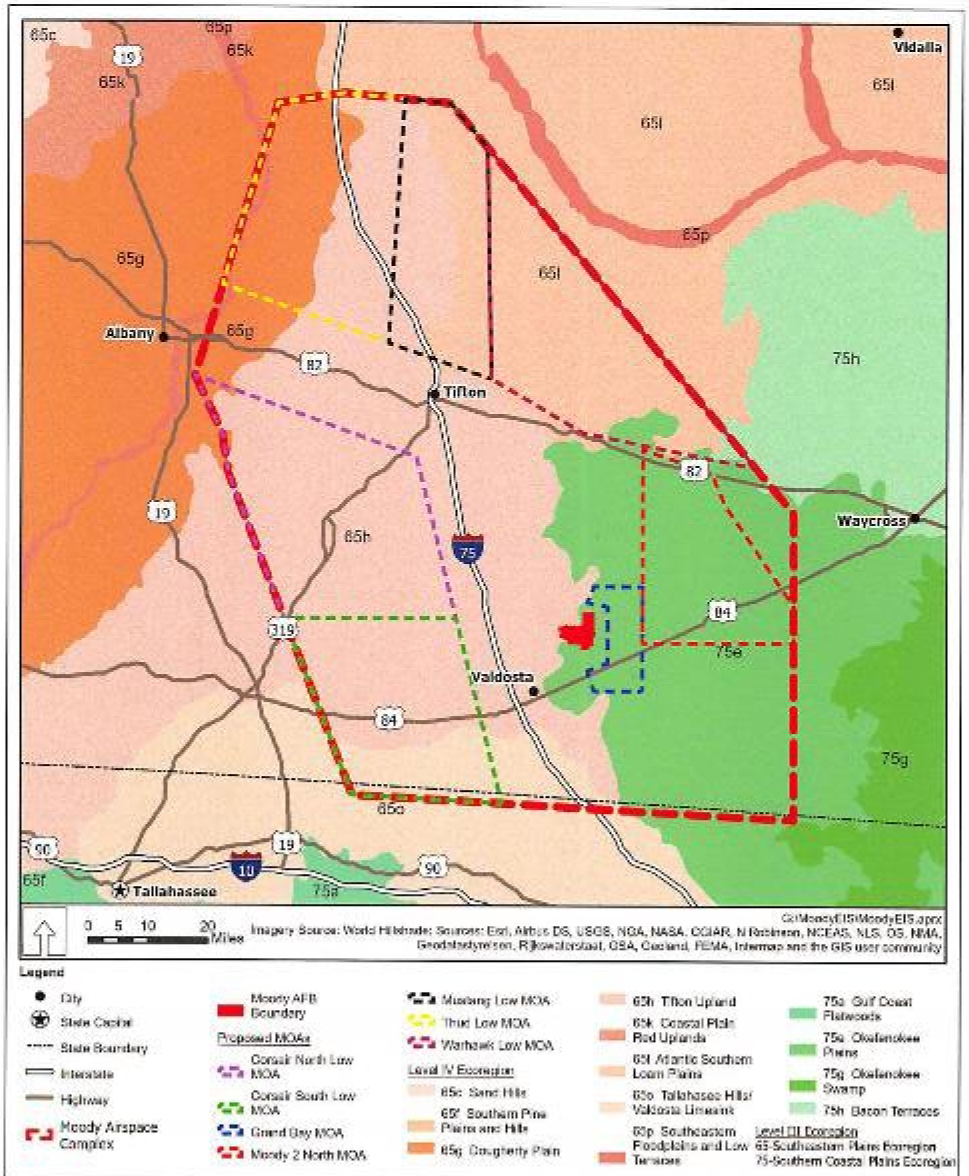

Figure 2. Proposed Low-Altitude Military Operations Areas and Ecoregions beneath the Moody Airspace Complex

USFWS Endangered Species Act Section 7 Concurrence Letter

DEPARTMENT OF THE AIR FORCE
23D CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

Mr. Gregory Lee

01 JUN 2020

U. S. Fish and Wildlife Service
RG Stephens, Jr. Federal Building
355 E. Hancock Ave., Rm 320, Box 7
Athens, GA 30601 ; 706-613-9493

FWS Log No. 2020-2503

Based on information provided, we concur with your determination that the project is not likely to adversely affect federally-listed species. No further ESA Section 7 action is required, unless the project changes, a new species is listed, or new data indicate impacts to listed species may occur.

Donald W. Imm

Donald W. Imm, Ph.D., Field Supervisor **Date** June 11, 2020

The United States Air Force (Air Force) requests informal Section 7 consultation under the Endangered Species Act (ESA) for the proposed Moody Air Force Base (AFB) Comprehensive Airspace Initiative (Consultation Code 04EF1000-2020-SLI-0299). Moody AFB has prepared an Environmental Impact Statement (EIS) to assess the potential environmental impacts associated with proposed additions and modifications to the Moody Airspace Complex (Figure 1), which overlies all or portions of 28 counties in south Georgia and north Florida. A total of 21 federally listed threatened or endangered species have the potential to occur in this area. The proposal will have no effect on fifteen of the listed plants, fish, or invertebrates. Further, the proposal will have no effect on five species that are not likely to be present. However, as explained below, the Air Force has determined that the proposed activity has the potential to cause a startle effect on nesting wood storks (*Mycteria americana*), and wood storks could be harmed by the ingestion of chaff cartridge components, even though the likelihood of this occurring is low. Therefore, the Air Force has determined that the proposal may affect, but is not likely to adversely affect, the wood stork and will have no effect on the other 20 species. We request your concurrence with these determinations.

The EIS was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations implementing NEPA, and the Air Force NEPA regulations. The Moody Airspace Complex consists primarily of mid- to higher-altitude special use airspace (SUA; 8,000 feet above mean sea level [MSL] up to 18,000 feet) with limited low-altitude SUA (less than 8,000 feet MSL). Aircrews of A-10C, A-29, HH-60G, and HC-130J aircraft assigned to Moody Air Force AFB, Georgia, have severely constrained access to existing low-altitude SUAs wherein they can conduct required training operations at low altitude to gain operational proficiency and meet their low-altitude close air support (CAS), personnel recovery (PR), and combat search and rescue (CSAR) mission objectives for combat readiness. As part of the proposed undertaking, the Comprehensive Airspace Initiative at Moody AFB would provide additional low-altitude Air Force-controlled SUA supporting the low-altitude training missions (CSAR, PR, CAS) for aircrews stationed at Moody AFB, which are currently limited to the Moody Airspace Complex's few existing, congested low-altitude SUAs.

Global Power for America

Endangered Species Act Section 7 Conference Letter to Georgia Ecological Services Field Office

DEPARTMENT OF THE AIR FORCE
23D CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

Mr. Gregory Lee
23 CES/CEIE
3485 Georgia Street
Moody AFB GA 31699

7 February 2023

Mr. Peter Maholland, Field Supervisor
US Fish and Wildlife Service
Georgia Ecological Services Field Office
RG Stephens, Jr. Federal Building
355 East Hancock Avenue, Room 320
Athens, Georgia 30601

Dear Mr. Maholland:

The Department of the Air Force (DAF) has prepared an Environmental Impact Statement to assess the potential environmental impacts associated with proposed additions and modifications to the Moody Air Force Base (AFB) Airspace Complex (Figure 1), which overlies all or portions of 28 counties in south Georgia and north Florida. The DAF initiated informal Section 7 consultation under the Endangered Species Act (ESA) on 1 June 2020 (Consultation Code 04EF1000-2020-SLI-0299). The DAF determined that the airspace modification proposal may affect, but is not likely to adversely affect, the federally threatened wood stork (*Mycteria americana*) and would have no effect on the other 20 listed species with the potential to occur in the Moody Airspace Complex. We received concurrence on these determinations from your office on 11 June 2020 (FWS Log No. 2020-2503). Since that time, the United States (US) Fish and Wildlife Service (USFWS) has determined that the tricolored bat (*Perimyotis subflavus*) and monarch butterfly (*Danaus plexippus*) warrant listing under the ESA. As such, the DAF is conferencing with the USFWS on the effects of aircraft operations at the Moody AFB airfield, aircraft training operations, and the airspace modification proposal on these two species. The DAF has determined that the ongoing operations and airspace modification proposal may affect, and is likely to adversely affect, the tricolored bat and monarch butterfly. We request your concurrence with these determinations.

The Moody Airspace Complex consists primarily of mid- to higher-altitude special use airspace (SUA; 8,000 feet above mean sea level [MSL] up to 18,000 feet) with limited low-altitude SUA (less than 8,000 feet MSL). Aircrews of A-10C, A-29, HH-60G, and HC-130J aircraft assigned to Moody AFB, Georgia, have severely constrained access to existing low-altitude SUAs wherein they can conduct required training operations at low altitude to gain operational proficiency and meet their low-altitude close air support (CAS), personnel recovery (PR), and combat search and rescue (CSAR) mission objectives for combat readiness. As part of the proposed undertaking, the Comprehensive Airspace Initiative at Moody AFB would provide additional low-altitude Air Force-controlled SUA supporting the low-altitude training missions

Global Power for America

(CSAR, PR, CAS) for aircrews stationed at Moody AFB, which are currently limited to the Moody Airspace Complex's few existing, congested low-altitude SUAs.

The Air Force has preliminarily identified four action alternatives to expand low-altitude training airspace at Moody AFB (Figures 2 and 3). All four alternatives would create new low-altitude Military Operations Areas (MOAs) beneath and within the lateral confines of existing MOAs and Restricted Areas of the Moody Airspace Complex. The four action alternatives are:

- Create new low-altitude MOAs with a floor of 1,000 feet above ground level (AGL) (Alternative 1);
- Create new low-altitude MOAs with a floor of 1,000 feet AGL with modified lateral boundaries (Modified Alternative 1);
- Create new low-altitude MOAs with a floor of 2,000 feet AGL (Alternative 2); and
- Create new low-altitude MOAs with a floor of 4,000 feet AGL (Alternative 3).

Modified Alternative 1 is the DAF's Preferred Alternative (Figure 3). Modified Alternative 1 would create the Corsair North Low, Corsair South Low, Mustang Low, and Warhawk Low MOAs with a floor of 1,000 feet AGL and a ceiling up to, but not including, 8,000 feet MSL beneath the existing Corsair North, Corsair South, Mustang Low, and Warhawk Low MOAs, respectively. The Warhawk Low and Mustang Low MOAs would always be activated concurrently during training operations. This alternative would also create the Grand Bay MOA with a floor of 100 feet AGL, and a ceiling up to but not including 500 feet AGL beneath and within the lateral confines of the existing Restricted Area R 3008C, and would lower the floor of Moody 2 North MOA from 500 feet AGL to 100 feet AGL. Training within the low-altitude MOAs would include the use of chaff and flares, with flare use being limited to altitudes above 2,000 feet AGL. Urban CAS, helicopter landing zones, drop zones, and the use of training ordnance at the Grand Bay Range would continue unchanged under all four alternatives. There would be no change in the number of sorties at Moody AFB airfield, nor would there be any change in the number of aircraft operations in the Moody Airspace Complex under any of the four alternatives. Instead, some low-altitude training operations in the Moody Airspace Complex would be redistributed from existing low-altitude SUAs to the proposed low-altitude MOAs. Further, no ground-disturbing or vegetation removal activities are associated with any of the four alternatives. All potential impacts on biological resources would be associated with redistributed aircraft operations and the use of defensive countermeasures in the proposed low-altitude MOAs. Further, there would be no risk of wildland fires because flare use is limited to altitudes above 2,000 feet AGL, and the use of flares is suspended when conditions are conducive to wildfires.

Tricolored Bat (*Perimyotis subflavus*)

The tricolored bat is wide ranging across the eastern and central US as well as areas of southern Canada. In winter this species roosts in mines and caves across its range, although in the southern US, where caves are sparse, it will roost in road-associated culverts (USFWS 2022a). This species is a common resident of Georgia and has been detected on Moody AFB (Lowndes County) as well as several counties proximate to Moody AFB and within the Moody Airspace Complex, including Clinch, Cook, and Tift counties (Ferrall 2019). Further, two tricolored bats were detected during bat surveys conducted in 2001 on Moody AFB (Moody AFB 2001), and four tricolored bat strikes by aircraft were recorded by the Moody AFB Safety Office in 2022 at Moody AFB and within the Moody Airspace Complex.

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On 13 September 2022, the USFWS announced a proposal to list the tricolored bat as endangered under the ESA. This species faces extinction due to white-nose syndrome, a deadly disease that affects cave-dwelling bats (USFWS 2022a).

The tricolored bat is one of the smallest bats known to occur in the US. During the spring, summer, and fall they can be found roosting in live and dead leaf clusters of deciduous trees. In the southern US they are known to roost in Spanish moss (*Tillandsia usneoides*) and *Usnea trichodea* lichen (USFWS 2022a). They have also been observed using human-made structures such as barns, concrete bunkers, and bridges. Tricolored bats prefer open forests with large trees and woodland edges (Ferrall 2019).

Tricolored bats are rarely found in large groups. Males and females will hibernate together but are typically found roosting individually. Reproductive females have been known to form groups upwards of 50 individuals during spring, summer, and fall (Ferrall 2019). Tricolored bats are insectivores, emerging in the early evening to forage. They prefer to forage at, or above, treetop level, but they may forage closer to ground level later in the evening. They forage most commonly over waterways and at forest edges (USFWS 2022a).

Monarch Butterfly (*Danaus plexippus*)

Monarch butterflies are native to North and South America and can be found across a wide range of habitats. This species is found in Georgia and likely occurs on a regular basis on Moody AFB and within the Moody Airspace Complex.

Currently, the monarch butterfly is a candidate for listing under the ESA (USFWS 2022b). It currently has no protection within the state of Georgia (Meyers 2020). Monarch populations at overwintering sites have consistently declined for more than 20 years, and changes in breeding, migratory, and overwinter habitats from habitat conversion, urban development, and use of herbicides and insecticides are threats to monarch populations (USFWS 2022b).

Monarch butterflies undergo complete metamorphosis going through the four stages of egg, larva, pupa, and adult. They rely on healthy and abundant milkweed (*Asclepias* spp.) plants for egg laying and as a food source for their larvae and caterpillars (USFWS 2022b). Adults are generalists and will forage on a wide range of blooming plants. Nectar from blooming plants is an important food source for adults throughout the breeding season, migration, and overwintering. Most monarch butterflies are migratory, but some populations, known as resident, breed year-round and do not migrate. Resident populations of monarch butterflies have been documented in southern Florida and other parts of the Gulf Coast. However, monarch butterflies that likely occur within the Moody Airspace Complex follow a multigenerational eastern migratory pathway and overwinter in central Mexico (Meyers 2020).

Determination of the Effects of the Proposed Action

Under all four alternatives, noise associated with aircraft operations in the proposed low-altitude MOAs would not change substantially. Under Alternative 1 and Modified Alternative 1, where aircraft would operate at the lowest altitudes of the four alternatives evaluated, sound levels would increase from between 0.0 and 3.3 A-weighted decibels (dBA) Day-Night Average Sound Level (DNL) in the proposed low-altitude MOAs. Although there is an increase in sound levels in these proposed low-altitude MOAs, the noise levels would not exceed 51.0 dBA DNL in any of the proposed low-altitude MOAs. A DNL of 51.0 dBA is below the threshold for noise impacts on wildlife (Manci et al. 1988). No supersonic flights are proposed, and no impacts from sonic booms would occur. Therefore, noise from low-altitude aircraft operations as a result of the Moody AFB Comprehensive Airspace Initiative would not impact the tricolored bat or monarch butterfly.

Effects on the tricolored bat and monarch butterfly could occur from flight operations at lower altitudes in the proposed low-altitude MOAs. These aircraft operations could affect the tricolored bat and monarch butterfly due to aircraft movement, bird/wildlife aircraft strikes, and use of defensive countermeasures at very low altitudes.

For the tricolored bat, given the large area where training would occur, and that there would be no change in the number of low-altitude operations or the timing of aircraft operations in the Moody Airspace Complex, and that most low-altitude training would occur during daytime hours and the tricolored bat is crepuscular/nocturnal, the likelihood for the tricolored bat to encounter aircraft more frequently than under existing conditions during training operations is very low.

For the monarch butterfly, soaring flight during annual migration patterns occurs during favorable wind conditions, and soaring altitudes can exceed 1,000 feet AGL (Gibo and Pallett 1979, Schmidt-Koenig 1985). Annual migration patterns for the eastern monarch population include south Georgia and north Florida in the Moody Airspace Complex. Aircraft operations at altitudes at or below 1,000 feet in the proposed low-altitude MOAs could strike migrating monarchs during soaring flight. However, there would be no increase in low-altitude aircraft operations under the preferred alternative, as a portion of the current low-altitude aircraft operations would be redistributed from existing low-altitude MOAs to proposed low-altitude MOAs. Therefore, there would be only a slight increase in the likelihood of aircraft strikes to migrating monarchs in the Moody Airspace Complex as the existing low-altitude aircraft operations would occur over a broader geographic area within the monarch's migratory pathway.

Moody AFB implements a bird/animal aircraft strike hazard management plan to minimize and quantify strike hazards. With the continued adherence to the requirements of the Moody AFB bird/animal aircraft strike hazard management plan during all training operations in the proposed low-altitude MOAs, aircraft movement at low altitudes in the proposed low-altitude MOAs may affect, but is not likely to adversely affect, the tricolored bat and monarch butterfly.

There is the potential for components of chaff and flares that remain after use to make their way to the water surface of wetlands and shallow aquatic environments. However, tricolored bats are insectivorous and feed on insects aerially and monarch butterflies feed on nectar; therefore, there would be no risk of ingestion of plastic such as chaff and flare compression pads or pistons by tricolored bats or monarch butterflies. Therefore, the use of chaff and flares in the proposed low-altitude MOAs as a result of training would have no effect on these species.

I am requesting written concurrence with our *may affect and is likely to adversely affect* determination from Moody AFB aircraft operations on the proposed endangered tricolored bat and candidate monarch butterfly. Please provide concurrence on the ESA Section 7 conference or any comments or additional information concerning the Proposed Action and alternatives within 30 days of the date of this letter to me at 23 CES/CEIE, 3485 Georgia Street, Moody

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AFB, Georgia 31699 or by email to gregory.lee.5@us.af.mil. Thank you in advance for your assistance in this effort.

Sincerely

LEE.GREGORY.W.1229925659 Digitally signed by LEE.GREGORY.W.1229925659 Date: 2023.02.07 14:20:53 -05'00'

GREGORY W. LEE
Installation Management Flight Chief

Attachments
1. Figure 1. Moody Airspace Complex
2. Figure 2. Proposed Alternatives 1, 2, and 3 for Low-Altitude Military Operations Areas in the Moody Airspace Complex
3. Figure 3. Proposed Modified Alternative 1 (Preferred Alternative) for Low-Altitude Military Operations Areas in the Moody Airspace Complex

References

Ferrall, E. 2019. Species Profile for *Perimyotis subflavus*. Georgia Biodiversity Portal, Wildlife Resources Division, Wildlife Conservation Section, Social Circle. <https://georgiabiodiversity.org/natels/profile?es_id=17822>. June.

Gibo, D.L., and M.J. Pallett. 1979. *Soaring Flight of Monarch Butterflies Danaus plexippus (Lepidoptera: Danaidae), during the Late Summer Migration in Southern Ontario*. Canadian Journal of Zoology. 57:1393-1401.

Manci, K.M., D.N. Gladwin, R. Villella, and M.G. Cavendish. 1988. *Effects of Aircraft Noise and Sonic Booms on Domestic Animals and Wildlife: A Literature Synthesis*. US Fish and Wildlife Service National Ecology Research Center, Fort Collins, Colorado. NERC-88/29. 88pp.

Meyers, S. 2020. Species Profile for *Danaus plexippus*. Georgia Biodiversity Portal, Wildlife Resources Division, Wildlife Conservation Section, Social Circle. <https://georgiabiodiversity.org/natels/profile?es_id=16347>. December.

Moody Air Force Base (AFB). 2001. *Survey for Bats on Moody Air Force Base, Lowndes and Lanier Counties, Georgia*. Prepared for Environmental Resources Section, US Army Engineer District, Kansas City. Prepared by BHE Environmental Inc. February.

Schmidt-Koenig, K. 1985. "Migration Strategies of Monarch Butterflies *(Danaus plexippus (L.); Danaidae; Lepidoptera)*." In: M.A. Rankin (Ed.). *Migration: Mechanisms and Adaptive Significance*. University of Texas Contributions to Marine Science 27 (Supplement), pp 786-798.

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United States Fish and Wildlife Service (USFWS). 2022b. Monarch. <https://fws.gov/species/monarch-danaus-plexippus>. Accessed November 2022.

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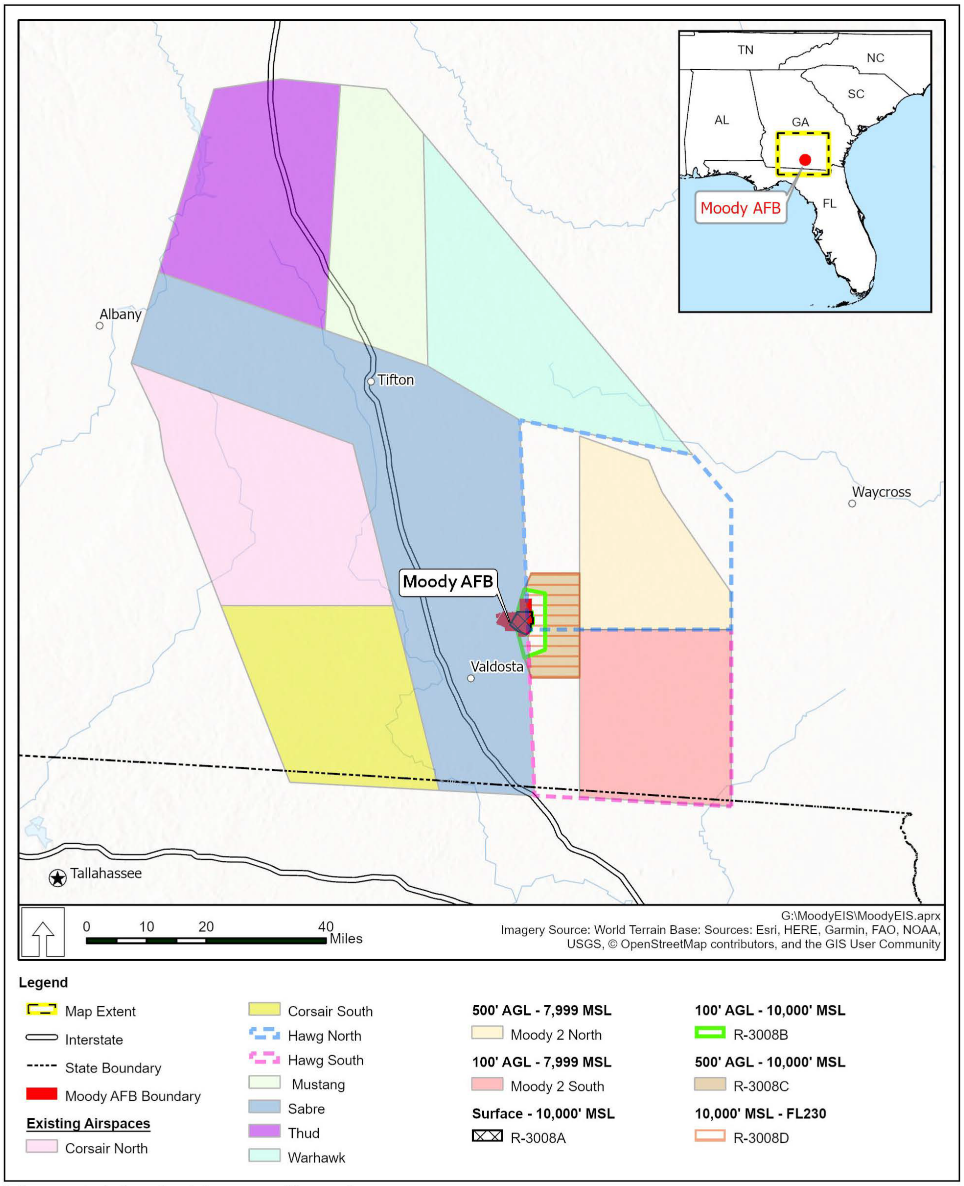

Figure 1. Moody Airspace Complex

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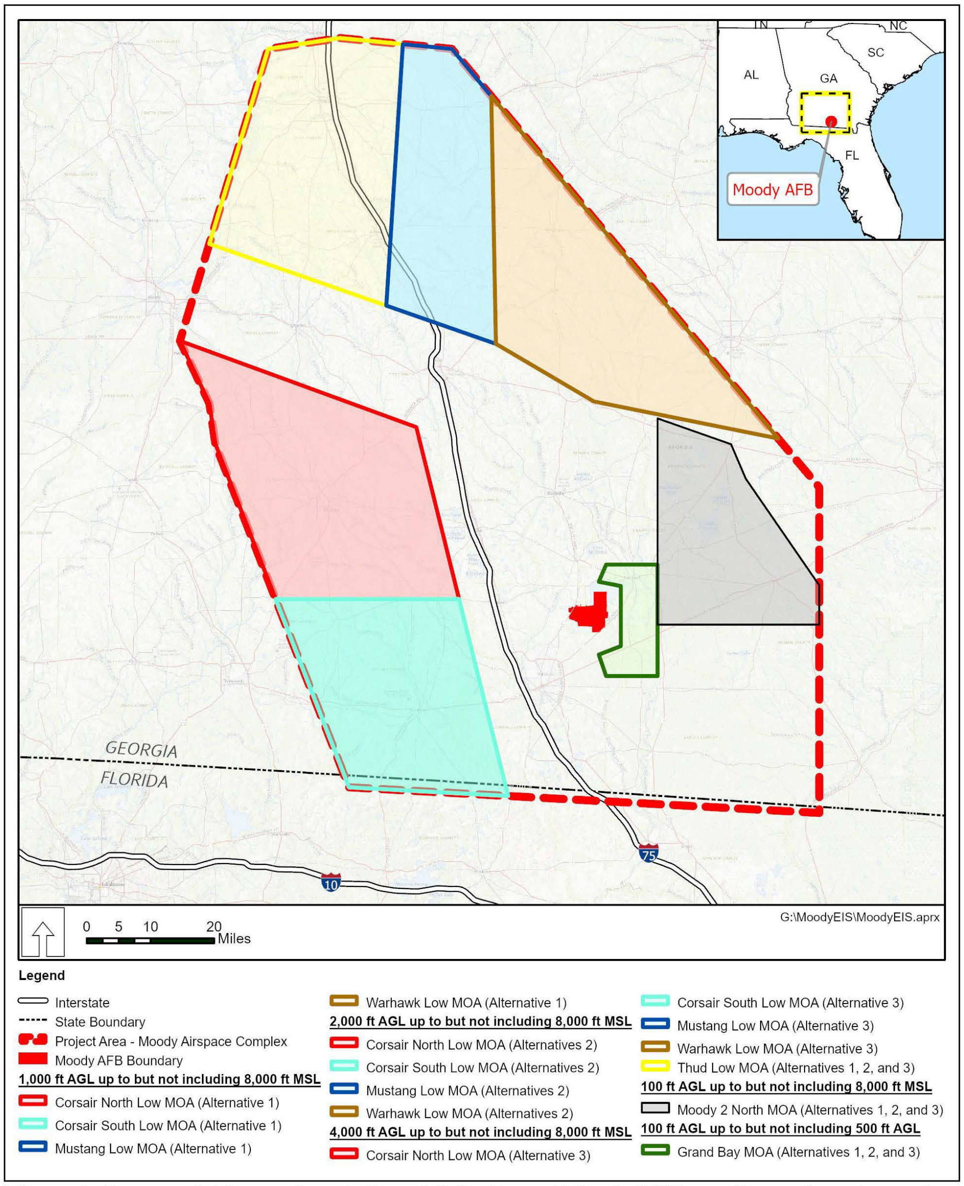

Figure 2. Proposed Alternatives 1, 2, and 3 for Low-Altitude Military Operations Areas in the Moody Airspace Complex

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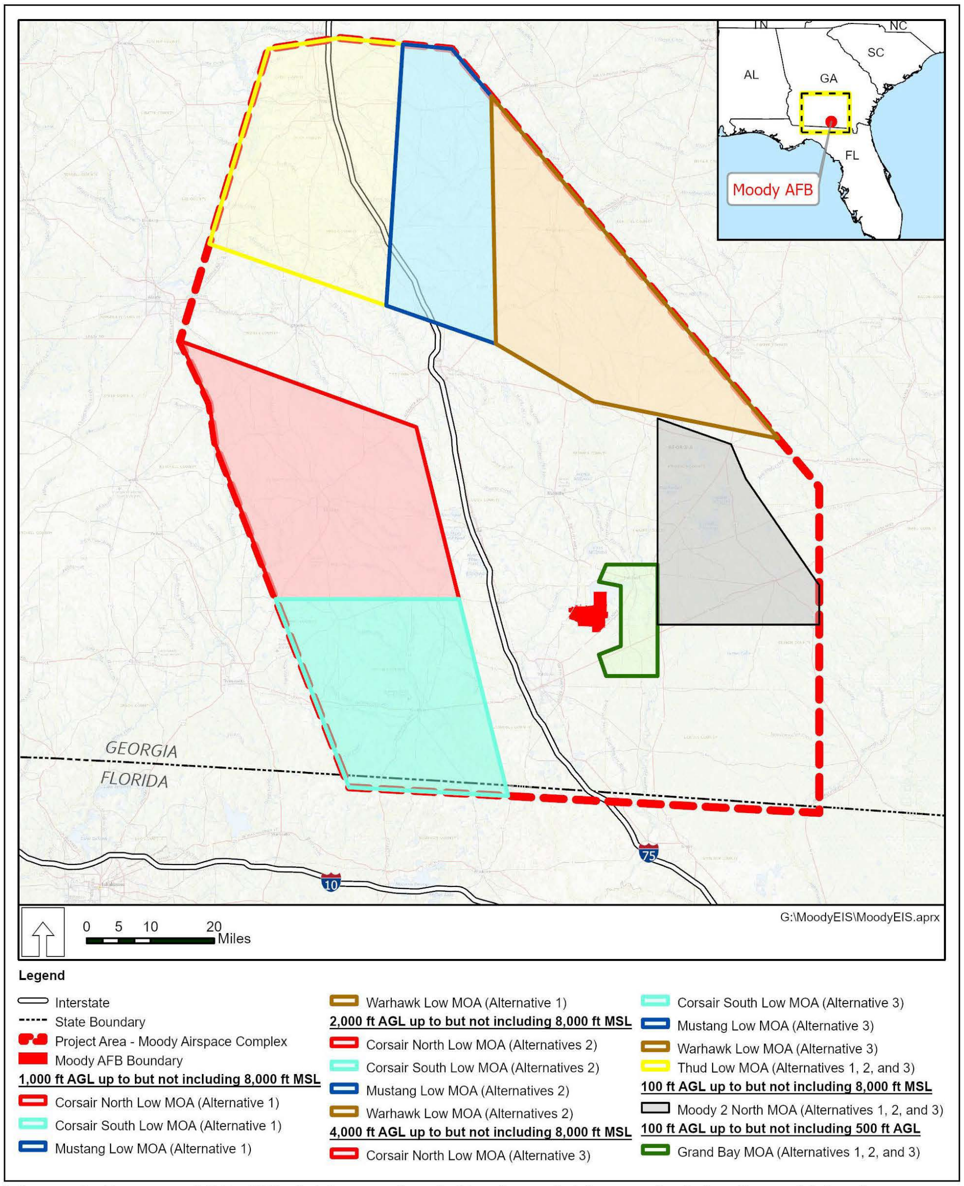

Figure 3. Proposed Modified Alternative 1 (Preferred Alternative) for Low-Altitude Military Operations Areas in the Moody Airspace Complex

USFWS Endangered Species Act Section 7 Conference Letter Response

United States Department of the Interior

Fish and Wildlife Service
RG Stephens, Jr. Federal Building
355 East Hancock Avenue, Room 320
Athens, Georgia 30601

West Georgia Sub Office
P.O. Box 52560
Ft. Benning, Georgia 31995-2560

Coastal Sub Office
4980 Wildlife Drive
Townsend, Georgia 31331

February 24, 2023

Gregory W. Lee, Flight Chief
Installation Management
Moody Air Force Base, GA

Re: FWS Log No. 2023-0048844

Dear Mr. Lee:

The U.S. Fish and Wildlife Service (Service) has received your February 22, 2023, letter concerning to an environmental impact statement prepared by the Department of the Air Force to assess the potential environmental impacts associated with proposed additions and modifications to the Moody Air Force Airspace Complex. The Department of the Air Force (DAF) initiated informal Section 7 consultation under the Endangered Species Act (ESA) on 1 June 2020. The DAF determined that the airspace modification proposal may affect, but is not likely to adversely affect, the federally threatened wood stork (*Mycteria americana*) and would have no effect on the other 20 listed species with the potential to occur in the Moody Airspace Complex. We received concurrence on these determinations from your office on 11 June 2020. Since that time, the Service has determined that the tricolored bat (*Perimyotis subflavus*) and monarch butterfly (*Danaus plexippus*) warrant listing under the Endangered Species Act. The tricolored bat is being proposed as endangered with listing scheduled for mid-September of 2023. The monarch butterfly is an official candidate for listing with no official date for listing currently. As such, the DAF is conferencing with the USFWS on the effects of aircraft operations at the Moody AFB airfield, aircraft training operations, and the airspace modification proposal on these two species. We submit the following comments on this project under provisions of the Endangered Species Act of 1973 as amended (16 U.S.C. 1531 *et seq.*).

This tricolored bat is a common resident of Georgia and has been detected on Moody Air Force Base (AFB) (Lowndes County) as well as several counties proximate to Moody AFB and within the Moody Airspace Complex, including Clinch, Cook, and Tift counties. Further, two tricolored bats were detected during bat surveys conducted in 2001 on Moody AFB, and four tricolored bat strikes by aircraft were recorded by the Moody AFB Safety Office in 2022 at Moody AFB and within the Moody Airspace Complex. Monarch butterflies are native to North and South America and can be found across a wide range of habitats. This species is found in Georgia and likely occurs on a regular basis on Moody AFB and within the Moody Airspace Complex. Most monarch butterflies are migratory, but some populations, known as resident, breed year-round and do not migrate. Resident populations of monarch butterflies have been documented in southern Florida and other parts of the Gulf Coast. However, monarch butterflies that likely occur within the Moody Airspace Complex follow a multigenerational eastern migratory pathway and overwinter in central Mexico (Meyers 2020). Effects on the tricolored bat and

February 24, 2023

monarch butterfly could occur from flight operations at lower altitudes in the proposed low-altitude Military Operation Areas (MOAs). These aircraft operations could impact the tricolored bat and monarch butterfly due to aircraft movement, bird/wildlife aircraft strikes, and use of defensive countermeasures at very low altitudes. Moody AFB implements a bird/animal aircraft strike hazard management plan to minimize and quantify strike hazards. With the continued adherence to the requirements of the Moody AFB bird/animal aircraft strike hazard management plan during all training operations in the proposed low-altitude MOAs, aircraft movement at low altitudes in the proposed low-altitude MOAs is not likely to jeopardize the tricolored bat and monarch butterfly. Noise and the potential for components of chaff and flares that remain after use to make their way to the water surface of wetlands and shallow aquatic environments from low-altitude aircraft operations as a result of the Moody AFB Comprehensive Airspace Initiative would not impact the tricolored bat or monarch butterfly.

Species proposed for listing are not afforded protection under the Act; however, as soon as a listing becomes effective (typically 30 days after publication of the final rule in the Federal Register), the prohibitions against jeopardizing its continued existence and "take" will apply. Therefore, if your future or existing project has the potential to adversely affect tricolored bats or the monarch butterfly after the potential new listing goes into effect, we recommend that the effects of the project on these species and their habitat be analyzed to determine whether authorization under ESA section 7 is necessary. Projects with an existing section 7 biological opinion may require re-initiation of consultation to provide uninterrupted authorization for covered activities. Based on the information provided, we concur with your determination of "not likely to jeopardize" the continued existence of the tricolored bat and monarch butterfly. We understand you plan to re-consult with the Service once these species have been officially listed under the Act. In view of this, we believe that the requirements of section 7 of the Act have been satisfied at this time. However, obligations under section 7 of the ESA must be reconsidered if (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner which was not considered in this assessment, or (3) a new species is listed or critical habitat is determined that may be affected by the identified action.

Thank you for the opportunity to provide comments on the proposed project. If you require additional assistance, please contact Sandy Abbott at our West Georgia Sub Office at [redacted] or at [redacted].

Sincerely,
JOHN DORESKY
Digitally signed by JOHN DORESKY
Date: 2023.02.24 13:36:40 -05'00'
(*for)* Peter Maholland
Field Supervisor

Meyers, S. 2020. Species Profile for *Danaus plexippus*. Georgia Biodiversity Portal, Wildlife Resources Division, Wildlife Conservation Section, Social Circle. <https://georgiabiodiversity.org/natels/profile?es_id=16347>. December.

APPENDIX F. NHPA CONSULTATION CORRESPONDENCE

FORMAT PAGE

F-1. Tribal Coordination Letters

FORMAT PAGE

F-1.1. Moody AFB EIS Scoping Tribal Contact List

FORMAT PAGE

Title	Point of Contact
Alabama-Coushatta Tribe of Texas	
Principal Chief	Mr. Herbert Johnson
Tribal Historic Preservation Officer (THPO)	Mr. Bryant Sylestine
Alabama-Quassarte Tribal Town	
Town King	Mr. Tarpie Yargee
THPO	Ms. Samantha Robison
Caddo Nation	
Chairwoman	Ms. Brenda Shemayme Edwards
Acting THPO	Ms. Tamara Francis-Fourkiller
Choctaw Nation of Oklahoma	
Chief	Mr. Gary Batton
THPO	Mr. Ian Thompson
Coushatta Tribe of Louisiana	
Chairman	Mr. Lovelin Poncho
Chairman	Mr. David Sickey
THPO	Ms. Linda Langley
Kialegee Tribal Town	
Chief	Mr. Jeremiah Hobia
Cultural Preservation Officer	Mr. David Cook
Mississippi Band of Choctaw Indians	
Chief	Ms. Phyliss Anderson
THPO	Not Applicable
Muscogee (Creek) Nation	
Principal Chief	Mr. James Floyd
THPO	Ms. Raelynn Butler
Historic Preservation Officer	Mr. David Butler
Muscogee Nation of Florida	
Chairwoman	Ms. Ann Denson Tucker
THPO	Not Applicable
Poarch Band of Creeks	
Tribal Chairman	Ms. Stephanie Bryan

Title	Point of Contact
THPO	Ms. Carolyn White
Seminole Nation of Oklahoma	
Principal Chief	Mr. Leonard Harjo
THPO	Mr. Theodore Isham
Seminole Tribe of Florida	
Chairman	Mr. Marcellus W. Osceola, Jr.
THPO	Dr. Paul Blackhouse or Mr. Bradley Mueller
The Cherokee Nation	
Principal Chief	Mr. Bill John Baker
THPO	Ms. Shiela Bird
Thlopthlocco Tribal Town	
Town King (Mekko)	Mr. Ryan Morrow
THPO	Mr. Terry Clouthier
United Keetoowah Band of Cherokee Indians	
Chief	Mr. George Wickliffe
THPO	Ms. Eric Oosahwee-Voss

F-1.2. Example Tribal Letter

FORMAT PAGE

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 23D WING (ACC)
MOODY AIR FORCE BASE, GEORGIA

23 WG/CC

23 Flying Tiger Way
Bldg 105 Suite 1
Moody AFB, GA 31699

Chief Jeremiah Hobia
Kialegee Tribal Town
PO Box 332
Wetumka, OK 74883

Dear Chief Hobia:

The US Air Force (Air Force) is preparing an Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act (NEPA) to assess the potential environmental consequences associated with modifying existing and creating new special use airspace (SUA) in the Moody Airspace Complex. Per Section 306108 of the National Historic Preservation Act (NHPA) of 1966, as amended, and Title 36 Code of Federal Regulations Part 800, *Protection of Historic Properties,* the Air Force is engaging early with tribal governments as it formulates the undertaking.

Located above 28 counties in south Georgia and north Florida, the Moody Airspace Complex (Figure 1) consists primarily of mid- to higher-altitude SUA (8,000 feet above mean sea level [MSL] up to 18,000 feet) with limited low-altitude SUA (less than 8,000 feet MSL). A-10C, A-29, HH-60G, and HC-130J aircrews assigned to Moody Air Force Base (AFB), Georgia, have severely constrained access to existing low-altitude SUAs wherein they can conduct required training operations at low altitude to gain operational proficiency and meet their low-altitude close air support (CAS), personnel recovery (PR), and combat search and rescue (CSAR) mission objectives for combat readiness. As part of the proposed undertaking, the Comprehensive Airspace Initiative at Moody AFB would provide additional low-altitude Air Force-controlled SUA supporting the low-altitude training missions (CSAR, PR, CAS) for aircrews stationed at Moody AFB, which are currently limited to the Moody Airspace Complex's few existing, congested low-altitude SUAs. The Area of Potential Effect (APE) for this undertaking is therefore defined as the lateral boundaries of the proposed new SUAs within the Moody Airspace Complex (Figure 2).

The Air Force has preliminarily identified three action alternatives to expand low-altitude training airspace at Moody AFB. All three alternatives would create new low-altitude Military Operations Areas (MOAs) beneath and within the lateral confines of existing MOAs and Restricted Areas of the Moody Airspace Complex. The three action alternatives are:

- Create new low MOAs with a floor of 1,000 feet above ground level (AGL) (Alternative 1);
- Create new low MOAs with a floor of 2,000 feet AGL (Alternative 2); and
- Create new low MOAs with a floor of 4,000 feet AGL (Alternative 3).

A No Action Alternative will also be analyzed in the EIS, whereby aircrews at Moody AFB would continue to utilize the existing SUA as it is currently configured. Under the No Action Alternative, the current airspace constraints would continue and would not provide for realistic training within SUAs associated with Moody AFB. However, the No Action Alternative is required to be evaluated as a baseline under NEPA and its implementing regulations.

While the alternatives are independent of each other, the decision maker may choose to implement one alternative, a combination of low-altitude MOAs from among the three alternatives, or none of the alternatives based on the analysis provided in the EIS. Training within the low MOAs would include the use of chaff and flares, with flare use being limited to altitudes above 2,000 feet AGL. Urban CAS, helicopter landing zones, drop zones, and the use of training ordnance at the Grand Bay Range would continue unchanged under all three alternatives. There would be neither a change in the number of sorties at Moody AFB airfield nor would there be any change in the number of aircraft operations in the Moody Airspace Complex under any of the three alternatives. Further, no ground-disturbing activities are associated with any of the three alternatives. Additional information can be found on the project website at www.moodyafbairspaceeis.com.

The Air Force invites you to attend the public scoping meeting listed below. The public scoping meeting will be held in an open house format providing additional information about the Proposed Action and inviting comments on the Air Force's proposal.

Tifton Campus Conference Center

December 5, 2019
5:00 p.m. to 8:00 p.m. (local time)
University of Georgia-Tifton

15 R D C Road
Tifton, Georgia 31794

The NHPA requires that federal agencies consult with tribes when an agency action might affect historic properties of religious and cultural significance to the tribes. In order to help us fulfill that obligation, I ask for your assistance in identifying any such properties under the Moody Airspace Complex within the project's APE that are of significance to the «Tribe». Historic properties include archeological sites, burial grounds, sacred landscapes or features, ceremonial areas, traditional cultural properties and landscapes, plant and animal communities, and buildings and structures with significant tribal association. Moody AFB does not know of any historic properties of religious and cultural significance to the «Tribe» within the APE. Nevertheless, we ask for your assistance identifying any historic properties of which we may be unaware, particularly those which may be affected by the proposed undertaking described above.

Please indicate below whether you will be provided information or would like to consult on this undertaking. Your choice applies only to providing information and consultations under the NHPA. It will not affect the handling or disposition of human remains, funerary objects, sacred objects, or objects of cultural patrimony under the Native American Graves Protection and Repatriation Act. In the event such items are discovered, we will contact you regarding their handling and disposition.

If you have any questions, please contact Mr. Busker at (229) 257-2396 or via email to lorence.busker@us.af.mil. Thank you in advance for your assistance in this effort.

Sincerely

BENJAMIN D. CONDE, Colonel, USAF
Installation Tribal Liaison Officer (ITLO)

Attachments
1. Figure 1 – Moody Airspace Complex
2. Figure 2 – Area of Potential Effects

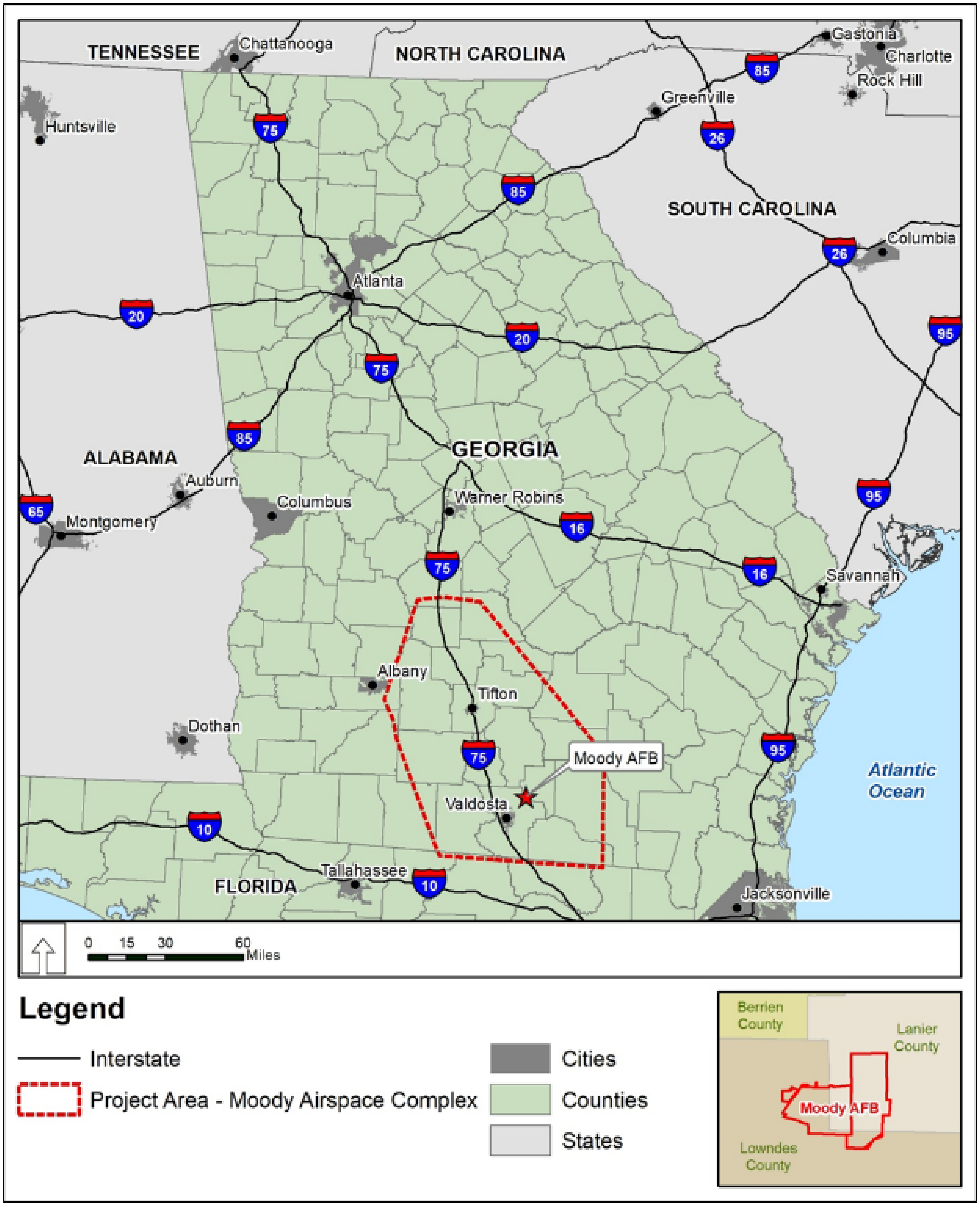

Figure 1. Moody Airspace Complex

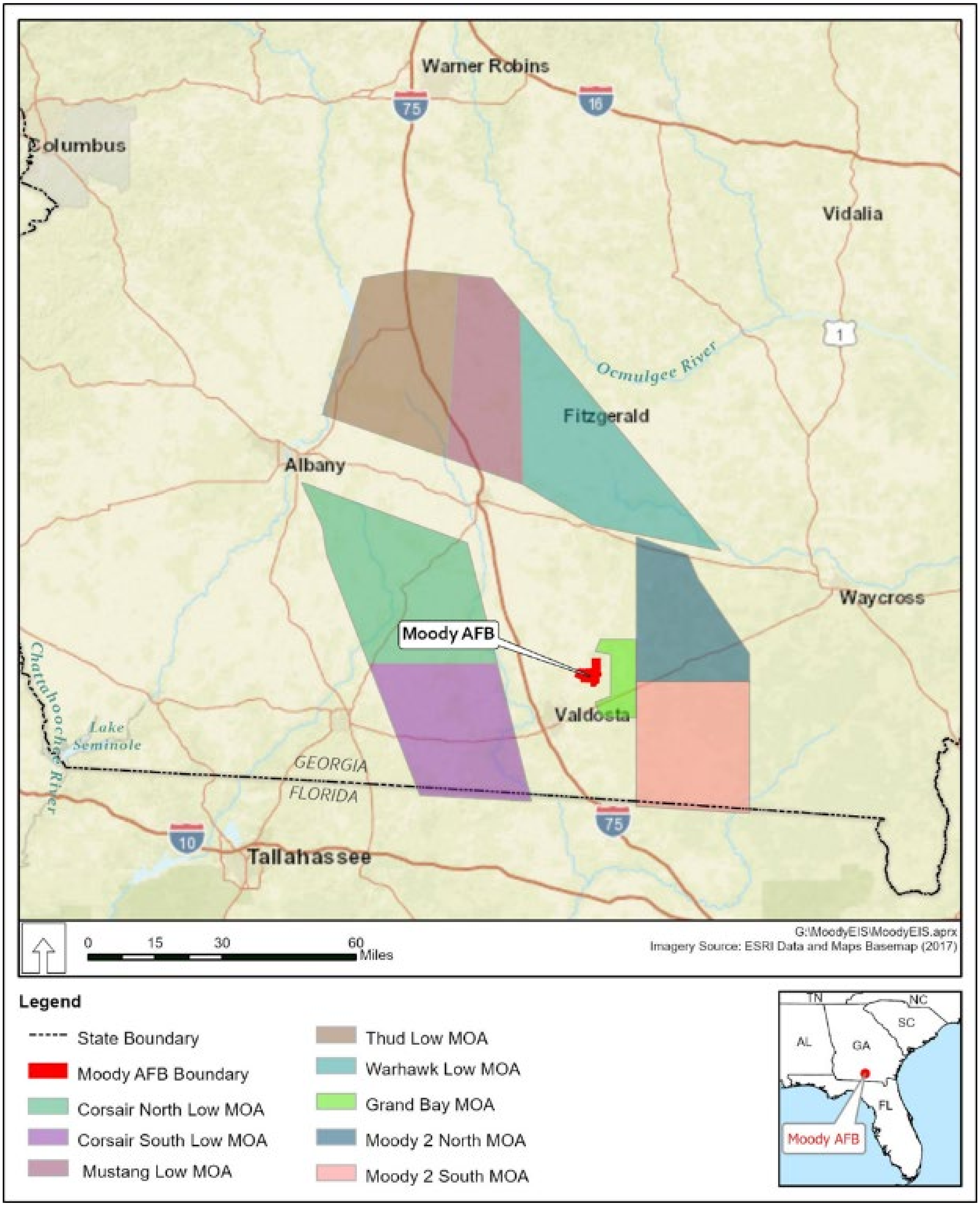

Figure 1. Area of Potential Effects

F-2. Tribal Coordination Responses

FORMAT PAGE

Cherokee Nation, Tribal Historic Preservation Officer

From: Elizabeth Toombs
Sent: Friday, December 6, 2019 3:50 PM
To: BUSKER, LORENCE T GS-12 USAF ACC 23 CES/CEIEA
Subject: [Non-DoD Source] Moody Air Force Base

Dear Lorence Busker:

The Cherokee Nation recently received a review request about creating new special use airspace in the Moody Airspace Complex. When you have the opportunity, could you provide the Georgia counties that fall within the proposed Area of Potential Effects (APE)? This information will help this Office map the proposed project with our database.

Also, as a housekeeping note, our current Principal Chief is Chuck Hoskin, Jr.

Thank you for your time, details, and understanding. Please let me know if there are any questions or concerns.

Wado,

Elizabeth Toombs, Tribal Historic Preservation Officer
Cherokee Nation
Tribal Historic Preservation Office
PO Box 948 Tahlequah, OK 74465-0948

From: BUSKER, LORENCE T GS-12 USAF ACC 23 CES/CEIEA
Sent: Tuesday, December 10, 2019 1:13 PM
To: Elizabeth Toombs
Cc: SWICK, NOLAN T GS-13 USAF AFMC AFCEC/CZN; LEE, GREGORY W GS-13 USAF ACC 23 CES/CEIE; Eric Webb
Subject: RE: Moody Air Force Base

Dear Elizabeth Toombs,

Thank you for the interest in the Moody air space project. Please find attached a brochure as well as a figure which shows the lateral extent of the proposed air space over Georgia and parts of Florida. The brochure briefly explains the proposed action. It should be noted that the lateral extent is unchanged from what is currently approved. The proposal would create new air space, usable for military training, below the existing airspace. Please feel free to call or write with any further questions. I would appreciate any written comments you have so that they can be addressed in the Environmental Impact Statement which will be prepared for this project.

I appreciate your clarification on who currently holds the Principal Chief position. I will correct our records and address future correspondence to the correct person. On that same topic, is Sheila Bird the current Tribal Historic Preservation Officer or are you now the one who that correspondence should be addressed to? We try to keep our records up to date but do not always succeed.

Thank you

Choctaw Nation of Oklahoma, Historic Preservation Department, Compliance Review Officer

From: Madison D. Currie
Sent: Wednesday, December 18, 2019 4:26 PM
To: BUSKER, LORENCE T GS-12 USAF ACC 23 CES/CEIEA
Cc: Lindsey Bilyeu
Subject: [Non-DoD Source] Moody Airspace Complex Section 106

Halito Mr. Busker,

The Choctaw Nation of Oklahoma thanks you for the correspondence regarding the above referenced project. Georgia and these parts of Florida are outside our area of historic interest. The Choctaw Nation Historic Preservation Department respectfully defers to the other Tribes that have been contacted.

If you have any questions, please contact me.

Yakoke,

Maddie Danielle Currie
Compliance Review Officer
Historic Preservation Department
Choctaw Nation of Oklahoma
P.O. Box 1210
Durant, OK 74702
580-924-8280 ext. 2727

Choctaw Nation
Faith•Family•Culture

Seminole Tribe of Florida, Tribal Historic Preservation Office

From: Bradley Mueller
Sent: Monday, December 23, 2019 1:37 PM
To: BUSKER, LORENCE T GS-12 USAF ACC 23 CES/CEIEA <lorence.busker@us.af.mil>
Subject: [Non-DoD Source] New Special Use Airspace (SUA) in the Moody Airspace Complex, NHPA Section 106 Consultation

SEMINOLE TRIBE OF FLORIDA
TRIBAL HISTORIC PRESERVATION OFFICE
AH-TAH-THI-KI MUSEUM

TRIBAL HISTORIC PRESERVATION OFFICE
SEMINOLE TRIBE OF FLORIDA
AH-TAH-THI-KI MUSEUM
30290 JOSIE BILLIE HIGHWAY
PMB 1004
CLEWISTON, FL 33440
THPO PHONE: (863) 983-6549
MUSEUM PHONE: (863) 902-1113
FAX: (863) 902-1117
THPO WEBSITE: WWW.STOFTHPO.COM
MUSEUM WEBSITE: WWW.AHTAHTHIKI.COM

December 23, 2019

Colonel Benjamin D. Conde, USAF

Installation Tribal Liaison Officer

23 Flying Tiger Way

Bldg 105, Suite 1

Moody Air Force Base, Georgia 31699

Subject: New Special Use Airspace (SUA) in the Moody Airspace Complex, NHPA Section 106 Consultation, Georgia

THPO Compliance Project Tracking Number: 0032030

Dear Colonel Conde,

Thank you for contacting the Seminole Tribe of Florida – Tribal Historic Preservation Office (STOF-THPO), Compliance Section regarding the New Special Use Airspace (SUA) in the Moody Airspace Complex project. The proposed undertaking does fall within the STOF Area of Interest. We have reviewed the documents you provided and are not currently aware of any historic properties of religious or cultural significance to the STOF within the boundaries of the Area of Potential Effect (APE) that might be impacted by any of the undertaking alternatives you specified. We respectfully suggest, however, that you consider possible auditory impacts to historic properties that may extend beyond the boundaries of your current APE if you have not already done so. The Tribe appreciates your reaching out to it on a government-to-government basis pursuant to Section 106 of the National Historic Preservation Act and other applicable federal responsibilities. Please feel free to contact us with any questions or concerns.

Respectfully,

Bradley M. Mueller

Bradley M. Mueller, MA, Compliance Specialist

STOF-THPO, Compliance Review Section

30290 Josie Billie Hwy, PMB 1004

Clewiston, FL 33440

F-3. State Historic Preservation Office Section 106 Consultation Letters

FORMAT PAGE

Section 106 Consultation Request Letter with the Georgia SHPO

DEPARTMENT OF THE AIR FORCE
23D CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

John L. Eunice, III
Deputy Base Civil Engineer
23d Civil Engineer Squadron
3485 Georgia Street
Moody AFB, GA 31699-1707

01 JUN 2020

Dr. David Crass, Division Director
Deputy State Historic Preservation Officer
DNR Historic Preservation Division
Jewett Center for Historic Preservation
2610 GA Highway 155, SW
Stockbridge GA 30281-5236

Dear Dr. Crass:

The United States Air Force (Air Force) is proposing to modify existing and create new special use airspace (SUA) in the Moody Airspace Complex. The Air Force has prepared an Environmental Impact Statement (EIS) under the National Environmental Policy Act to evaluate potential environmental impacts associated with the Comprehensive Airspace Initiative for Moody Air Force Base (AFB). In accordance with Section 106 of the National Historic Preservation Act (NHPA; 54 United States Code 306108) and its implementing regulations at 36 Code of Federal Regulations (CFR) Part 800, the Air Force, Moody AFB, is initiating consultation with you regarding an undertaking that has the potential to affect historic properties.

Located above 28 counties in south Georgia and north Florida, the Moody Airspace Complex (Figure 1) consists primarily of mid- to higher-altitude SUA (8,000 feet above mean sea level [MSL] up to 18,000 feet) with limited low-altitude SUA (less than 8,000 feet MSL). Aircrews of A-10C, A-29, HH-60G, and HC-130J aircrafts assigned to Moody Air Force AFB, Georgia, have severely constrained access to existing low-altitude SUAs wherein they can conduct required training operations at low altitude to gain operational proficiency and meet their low-altitude close air support (CAS), personnel recovery (PR), and combat search and rescue (CSAR) mission objectives for combat readiness. As part of the proposed undertaking, the Comprehensive Airspace Initiative at Moody AFB would provide additional low-altitude Air Force-controlled SUA supporting the low-altitude training missions (CSAR, PR, CAS) for aircrews stationed at Moody AFB, which are currently limited to the Moody Airspace Complex's few existing, congested low-altitude SUAs.

The Air Force has preliminarily identified three action alternatives to expand low-altitude training airspace at Moody AFB. All three alternatives would create new low-altitude Military

Global Power for America

Operations Areas (MOAs) beneath and within the lateral confines of existing MOAs and Restricted Areas of the Moody Airspace Complex. The three action alternatives are:

- Create new low-altitude MOAs with a floor of 1,000 feet above ground level (AGL) (Alternative 1);
- Create new low-altitude MOAs with a floor of 2,000 feet AGL (Alternative 2); and
- Create new low-altitude MOAs with a floor of 4,000 feet AGL (Alternative 3).

While the alternatives are independent of each other, the decision maker may choose to implement one alternative, a combination of low-altitude MOAs from among the three alternatives, or none of the alternatives based on the analysis provided in the EIS. Training within the low-altitude MOAs would include the use of chaff and flares, with flare use being limited to altitudes above 2,000 feet AGL. Urban CAS, helicopter landing zones, drop zones, and the use of training ordnance at the Grand Bay Range would continue unchanged under all three alternatives. There would be neither a change in the number of sorties at Moody AFB airfield nor would there be any change in the number of aircraft operations in the Moody Airspace Complex under any of the three alternatives. Further, no ground-disturbing activities are associated with any of the three alternatives.

On 10 December 2019, project consultants had a preliminary conference call with Georgia Historic Preservation Division staff members Jennifer Dixon (Program Manager, Environmental Review and Preservation Planning) and Jennifer Bedell (Archaeology Program Manager and Tribal Liaison) to discuss the cultural resources identification effort for the project, including the delineation of the project area of potential effects (APE). Given the geographical scope of the Proposed Action and the variance of potential effects within the MOAs, it was determined that rather than providing an inventory of all historic and archaeological resources located beneath the entirety of the MOAs, the APE could be refined to focus on areas in which the potential for visual, noise, and vibration impacts from the Proposed Action would be more probable. Upon examining the Proposed Action and alternatives, an APE was delineated for the cultural resources investigation that was refined from the overall study area (Figure 2). The APE for cultural resources is limited to the Grand Bay and Moody 2 North MOAs, which overlie four counties (Atkinson, Clinch, Lanier, and Lowndes) in Georgia, the location of the lowest proposed aircraft operations, and associated noise and visual impacts.

The attached *Cultural Resources Sensitive Receptors Report, Moody Air Force Base Comprehensive Airspace Initiative: Phase I Cultural Resources Investigation* (January 2020) contains additional information about the APE delineation, the National Register of Historic Places (NRHP) eligibility evaluations, and assessment of effects. A total of 106 previously recorded archaeological sites, 336 previously recorded aboveground resources, and four NRHP-listed properties are located within the refined APE. Rather than conducting intensive survey and evaluation over large geographical extents, those unevaluated resources in the portions of Atkinson, Clinch, Lanier, and Lowndes counties that are located beneath the proposed Grand Bay and Moody 2 North MOAs are considered eligible for listing in the NRHP for the purpose of assessing potential effects from this undertaking under Section 106 of the NHPA. Under the Proposed Action, the frequency of aircraft operations would be reduced within the APE, and noise levels are anticipated to remain comparable to existing conditions under the Proposed Action. The potential visual, noise, and vibration impacts in the APE would be negligible to minimal and would not alter any characteristics of historic properties in a manner that would diminish a property's historic integrity.

Moody AFB is consulting with the Muscogee (Creek) Nation, Coushatta Tribe of Louisiana, Alabama-Quassarte Tribal Town, Coushatta Tribe of Louisiana, Mississippi Band of Choctaw Indians, Choctaw Nation of Oklahoma, Poarch Band of Creek Indians, Thlopthlocco Tribal Town, Seminole Nation of Oklahoma, Kialegee Tribal Town, Muscogee Nation of Florida, Seminole Tribe of Florida, Caddo Nation, United Keetoowah Band of Cherokee Indians, Alabama Coushatta Tribe of Texas, and the Cherokee Nation regarding the Proposed Action and the identification and evaluation of historic properties of traditional or religious significance. If any historic properties are identified in the APE during this tribal consultation, Moody AFB will notify your office and continue consultation at that time.

Pursuant to 36 CFR 800.4(d), the Air Force has determined that no historic properties will be affected by the Comprehensive Airspace Initiative for Moody AFB. We request your comment and/or concurrence on the finding of *No Historic Properties Affected.* If we do not receive your comments and/or concurrence within the required 30 days, we will assume concurrence and proceed with the undertaking as described.

Please contact Mr. Lorence Busker, 23d Civil Engineer Squadron at (229) 257-2396 or via email to lorence.busker@us.af.mil if you have any questions.

Sincerely,

JOHN L. EUNICE, III, GS-14, DAF
Deputy Base Civil Engineer

Attachments
1. Figure 1 – Moody Airspace Complex
2. Figure 2 – Area of Potential Effects

4

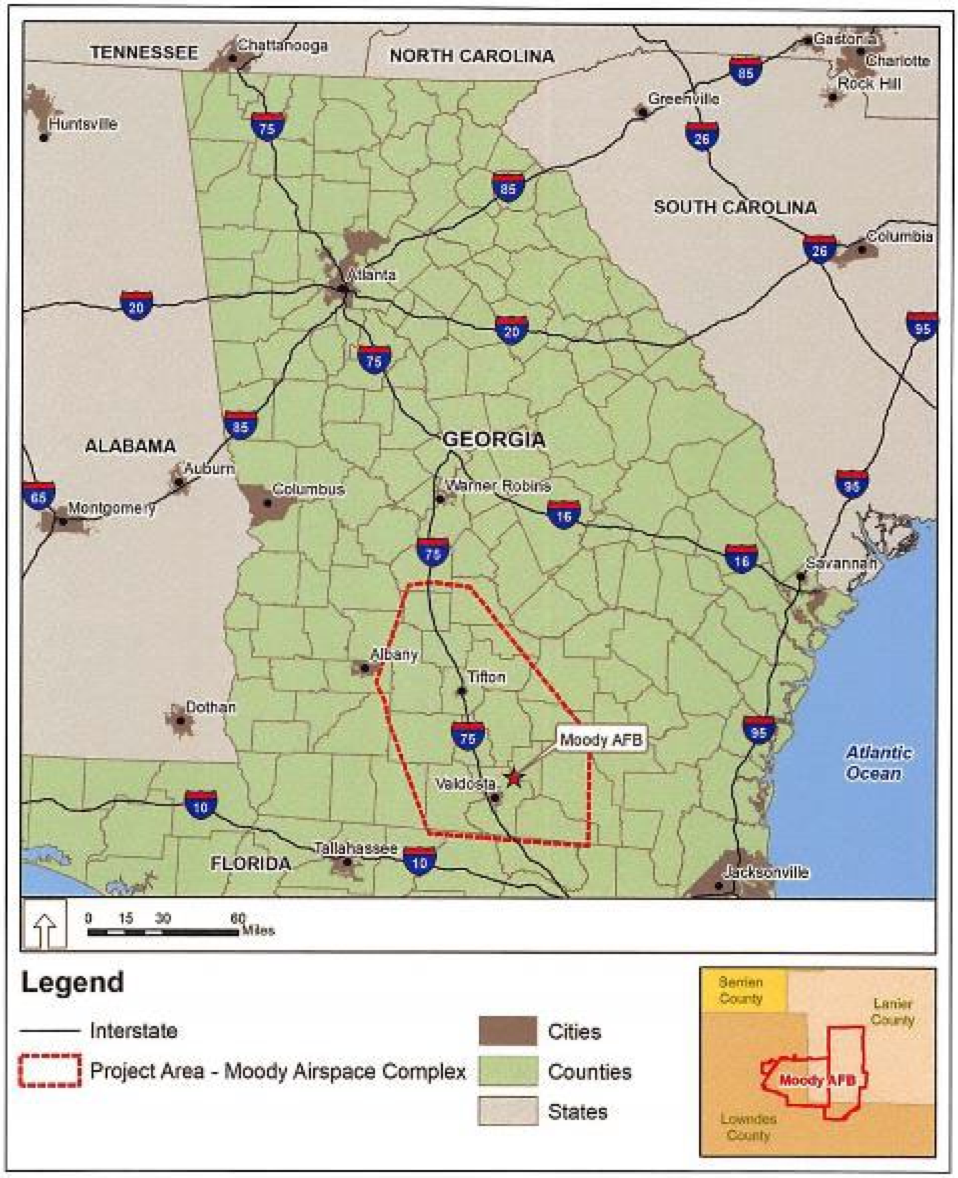

Figure 1. Moody Airspace Complex

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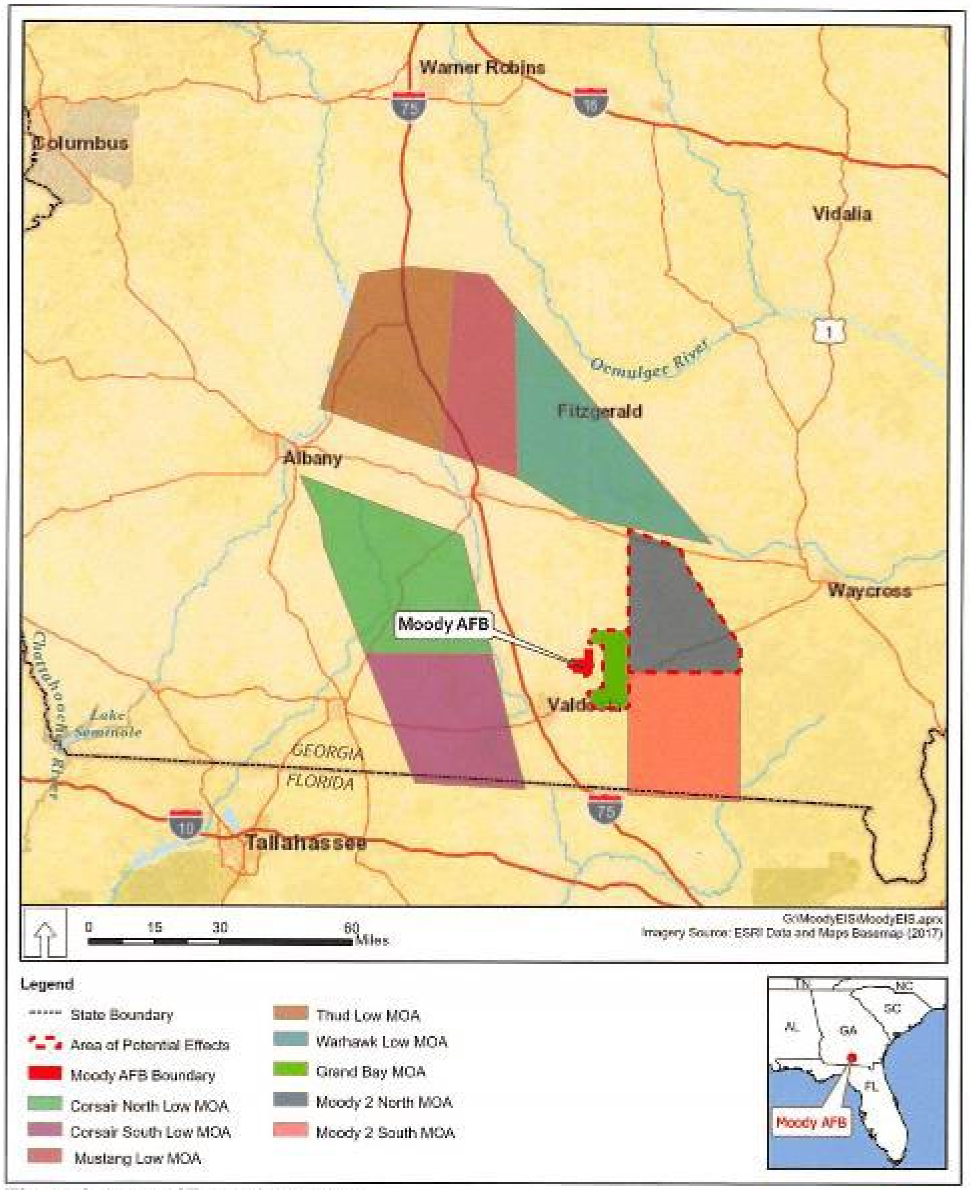

Figure 2. Area of Potential Effects

Georgia SHPO Section 106 Consultation Concurrence Letter

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
HISTORIC PRESERVATION DIVISION

MARK WILLIAMS
COMMISSIONER

DR. DAVID CRASS
DIVISION DIRECTOR

July 22, 2020

John L. Eunice, III
Deputy Base Civil Engineer
23D Civil Engineer Squadron
3485 Georgia Street
Moody Air Force Base, Georgia 31699-1707
Attn: Lorence Busker

RE: Moody AFB: Special Use Airspace Modification/Creation
Lanier County, et. al., Georgia
HP-191121-002

Dear Mr. Eunice:

The Historic Preservation Division (HPD) has reviewed the information submitted concerning the above referenced project. Our comments are offered to assist the U.S. Department of the Air Force and Moody Air Force Base (AFB) in complying with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

The subject project consists of reducing the low-altitude Military Operations Areas (MOAs) beneath seven (7) existing Moody AFB Special Use Airspaces (SUAs) over 22 counties in Georgia, including lowering five (5) to 1,000 to 4,000 feet (ft.) above ground level (AGL) and lowering two (2) to 100 ft. AGL. It is HPD's understanding that existing Operational Constraints, such as avoiding direct overflight under 500 ft. AGL of occupied off-base residential structures and similar, will remain in place. Based on the information provided, HPD concurs that there are multiple National Register of Historic Places (NRHP)-eligible, listed, and unknown properties within the proposed project area. However, it is HPD's opinion that the subject project, as proposed, will have **no adverse effect** to historic properties within the project area, as defined in 36 CFR Part 800.5(d)(1), due to the minor incremental overall impact in some areas with the potential to effect resources, relative to the slight increase of individual distinct overflights in the same areas.

This letter evidences consultation with our office for compliance with Section 106 of the NHPA. It is important to remember that any changes to this project as it is currently proposed may require additional consultation. HPD encourages federal agencies to discuss such changes with our office to ensure that potential effects to historic resources are adequately considered in project planning.

Please refer to project number **HP-191121-002** in any future correspondence regarding this project. If we may be of further assistance, please contact me at (770) 389-7851 or Jennifer.dixon@dnr.ga.gov.

Sincerely,

Jennifer Dixon, MHP, LEED Green Associate
Program Manager
Environmental Review & Preservation Planning

JEWETT CENTER FOR HISTORIC PRESERVATION
2610 GA HWY 155, SW | STOCKBRIDGE, GA 30281
770.389.7844 | FAX 770.389.7878 | WWW.GEORGIASHPO.ORG

Florida SHPO Section 106 Consultation Concurrence Letter

FLORIDA DEPARTMENT *of* STATE

RON DESANTIS
Governor

LAUREL M. LEE
Secretary of State

Mr. John L. Eunice, III
Deputy Base Civil Engineer
23d Civil Engineer Squadron
3485 Georgia Street
Moody AFB GA 31699-1707

October 26, 2020

RE: DHR Project File No.: 2020-6511
Environmental Impact Statement – Moody Air Force Base Comprehensive Airspace Initiative
Cultural Resources Sensitive Receptors Report
Moody Air Force Base (Georgia)
Jefferson, Madison, Hamilton and Columbia Counties, Florida

Dear Mr. Eunice:

The Florida State Historic Preservation Officer reviewed the referenced project in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended, and its implementing regulations in *36 CFR Part 800: Protection of Historic Properties*.

Based on the information provided, this office concurs with your finding that *No Historic Properties Affected* by this undertaking.

This office would like to compliment you and your office on the thoroughness and quality of the submittal. If you have any questions, please contact Scott Edwards, Historic Preservationist, by electronic mail *scott.edwards@dos.myflorida.com*, or at 850.245.6333 or 800.847.7278.

Sincerely,

For

Timothy A. Parsons, Ph.D.
Director, Division of Historical Resources
and State Historic Preservation Officer

Division of Historical Resources
R.A. Gray Building • 500 South Bronough Street• Tallahassee, Florida 32399
850.245.6300 • 850.245.6436 (Fax) • FLHeritage.com

FORMAT PAGE

F-4. Tribal Consultation Letters

FORMAT PAGE

F-4.1. Example Tribal Consultation Letter

FORMAT PAGE

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 23D WING (ACC)
MOODY AIR FORCE BASE, GEORGIA

23 WG/CC
23 Flying Tiger Way
Bldg 105 Suite 1
Moody AFB, GA 31699

05 JUN 2020

Principal Chief Chuck Hoskin, Jr.
The Cherokee Nation
PO Box 948
Tahlequah OK 74465

Dear Principal Chief Hoskin:

Moody Air Force Base (AFB) is proposing to modify existing and create new special use airspace (SUA) in the Moody Airspace Complex. To take into account various environmental concerns, the Air Force is engaging early with the appropriate resource and regulatory agencies as it formulates the undertaking. The Air Force is also preparing an Environmental Impact Statement (EIS) under the National Environmental Policy Act to evaluate potential environmental impacts associated with the Comprehensive Airspace Initiative for Moody AFB. In accordance with Section 106 of the National Historic Preservation Act (NHPA; 54 United States Code § 306108) and its implementing regulations at 36 Code of Federal Regulations (CFR) Part 800, the Air Force, Moody AFB is initiating government-to-government consultation with you regarding an undertaking that has the potential to affect historic properties.

Located above 28 counties in south Georgia and north Florida, the Moody Airspace Complex (Figure 1) consists primarily of mid- to higher-altitude SUA (8,000 feet above mean sea level [MSL] up to 18,000 feet) with limited low-altitude SUA (less than 8,000 feet MSL). Aircrews of A-10C, A-29, HH-60G, and HC-130J aircraft assigned to Moody AFB, Georgia, have severely constrained access to existing low-altitude SUAs wherein they can conduct required training operations at low altitude to gain operational proficiency and meet their low-altitude close air support (CAS), personnel recovery (PR), and combat search and rescue (CSAR) mission objectives for combat readiness. As part of the proposed undertaking, the Comprehensive Airspace Initiative at Moody AFB would provide additional low-altitude Air Force-controlled SUA supporting the low-altitude training missions (CSAR, PR, CAS) for aircrews stationed at Moody AFB, which are currently limited to the Moody Airspace Complex's few existing, congested low-altitude SUAs.

The Air Force has preliminarily identified three action alternatives to expand low-altitude training airspace at Moody AFB. All three alternatives would create new low-altitude Military Operations Areas (MOAs) beneath and within the lateral confines of existing MOAs and Restricted Areas of the Moody Airspace Complex. The three action alternatives are:

- Create new low-altitude MOAs with a floor of 1,000 feet above ground level (AGL) (Alternative 1);
- Create new low-altitude MOAs with a floor of 2,000 feet AGL (Alternative 2); and
- Create new low-altitude MOAs with a floor of 4,000 feet AGL (Alternative 3).

While the alternatives are independent of each other, the decision maker may choose to implement one alternative, a combination of low-altitude MOAs from among the three alternatives, or none of the alternatives based on the analysis provided in the EIS. Training within the low-altitude MOAs would include the use of chaff and flares, with flare use being limited to altitudes above 2,000 feet AGL. Urban CAS, helicopter landing zones, drop zones, and the use of training ordnance at the Grand Bay Range would continue unchanged under all three alternatives. There would be neither a change in the number of sorties at Moody AFB airfield nor would there be any change in the number of aircraft operations in the Moody Airspace Complex under any of the three alternatives. Further, no ground-disturbing activities are associated with any of the three alternatives.

A scoping letter was sent to you in November 2019 requesting your assistance in identifying any properties of religious and cultural significance to your tribe within the project's area of potential effects (APE). Thank you for your email on 6 December 2019 in response to the scoping letter. On 10 December 2019, project consultants had a preliminary conference call with Georgia Historic Preservation Division (HPD) staff members Jennifer Dixon (Program Manager, Environmental Review and Preservation Planning) and Jennifer Bedell (Archaeology Program Manager and Tribal Liaison) to discuss the cultural resources identification effort for the project, including the delineation of the APE for the cultural resources investigation. Given the geographical scope of the Proposed Action and the variance of potential effects within the MOAs, it was determined that rather than providing an inventory of all historic and archaeological resources located beneath the entirety of the MOAs, the APE could be refined to focus on areas in which the potential for visual, noise, and vibration impacts from the Proposed Action would be more probable. Upon examining the Proposed Action and alternatives, an APE was delineated for the cultural resources investigation that was refined from the overall study area (Figure 2). In response to your tribe's inquiry, the APE for cultural resources is limited to the Grand Bay and Moody 2 North MOAs, which overlie four counties (Atkinson, Clinch, Lanier, and Lowndes) in Georgia, the location of the lowest proposed aircraft operations, and associated noise and visual impacts.

The delineation of the refined APE for the cultural resources investigation, summary of historic properties identified in the APE, and assessment of effects is summarized in a *Cultural Resources Sensitive Receptors Report,* which is available upon request. A total of 106 previously recorded archaeological sites, 336 previously recorded aboveground resources, and four National Register of Historic Places (NRHP)-listed properties are located within the refined APE. Rather than conducting intensive survey and evaluation over large geographical extents, those unevaluated resources in the portions of Atkinson, Clinch, Lanier, and Lowndes counties that are located beneath the proposed Grand Bay and Moody 2 North MOAs are considered eligible for listing in the NRHP for the purpose of assessing potential effects from this undertaking under Section 106 of the NHPA. Under the Proposed Action, the frequency of aircraft operations would be reduced within the refined APE, and noise levels are anticipated to remain comparable to existing conditions under the Proposed Action. The potential visual, noise, and vibration impacts in the APE would be negligible to minimal and would not alter any characteristics of historic properties in a manner that would diminish a property's historic integrity.

Pursuant to 36 CFR 800.4(d), the Air Force's understanding is that the Proposed Action would not result in impacts on historic properties or properties of religious and cultural significance. As part of consultation with your tribe, we invite your tribe to identify any properties of cultural and religious significance within the APE. We request your comments within 30 days of receipt of this letter; however, if you need additional time to evaluate the Proposed Action, the Air Force will consider all matters submitted. Please contact Mr. Lorence Busker, 23d Civil Engineer Squadron at (229) 257-2396 or via email to lorence.busker@us.af.mil if you have any questions.

Sincerely,

DANIEL P. WALLS, Colonel, USAF
Commander

Attachments
1. Figure 1 – Moody Airspace Complex
2. Figure 2 – Area of Potential Effects

cc: Ms. Elizabeth Toombs, Special Projects Officer

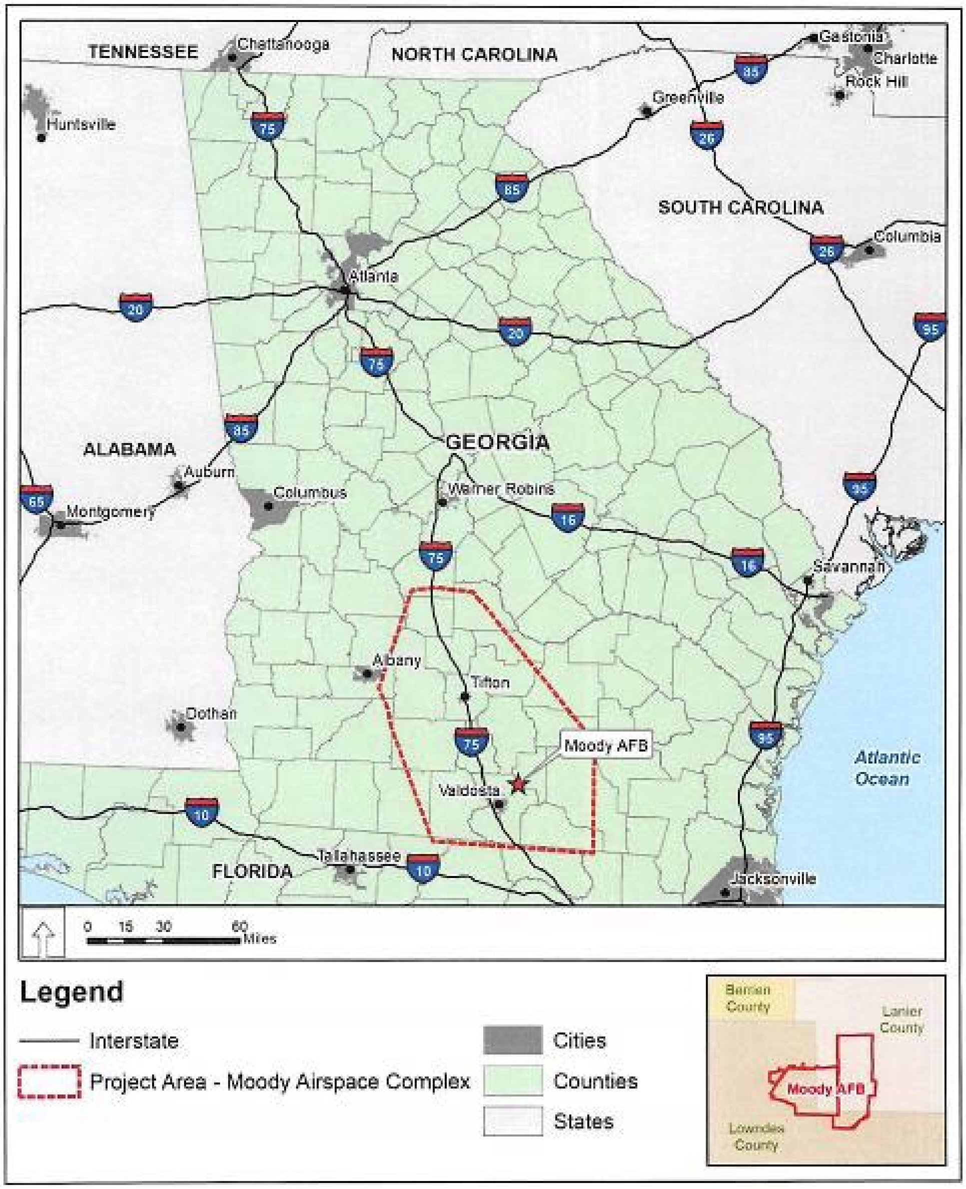

Figure 1. Moody Airspace Complex

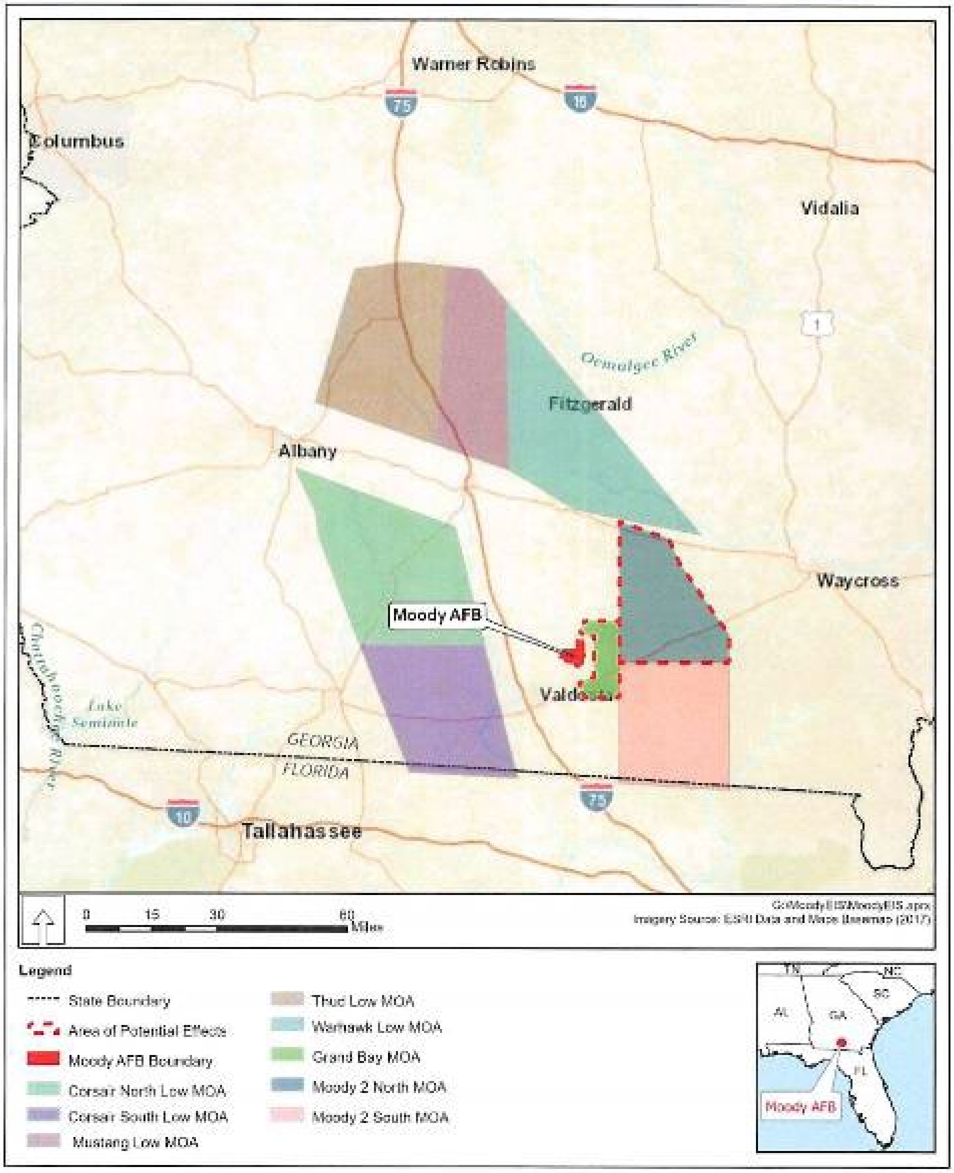

Figure 2. Area of Potential Effects

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F-5. Tribal Consultation Responses

FORMAT PAGE

Seminole Tribe of Florida, Tribal Historic Preservation Office

From: BUSKER, LORENCE T GS-12 USAF ACC 23 CES/CEIEA
Sent: Wednesday, July 15, 2020 9:10 AM
To: Eric Webb; SWICK, NOLAN T GS-13 USAF AFMC AFCEC/CZN
Cc: LEE, GREGORY W GS-13 USAF ACC 23 CES/CEIE
Subject: FW: Moody Air Force Base, Moody Airspace Complex, Special Use Airspace

From: Bradley Mueller
Sent: Wednesday, July 15, 2020 10:05 AM
To: BUSKER, LORENCE T GS-12 USAF ACC 23 CES/CEIEA
Subject: [Non-DoD Source] Moody Air Force Base, Moody Airspace Complex, Special Use Airspace

SEMINOLE TRIBE OF FLORIDA
TRIBAL HISTORIC PRESERVATION OFFICE

TRIBAL HISTORIC PRESERVATION OFFICE
SEMINOLE TRIBE OF FLORIDA
30290 JOSIE BILLIE HIGHWAY
PMB 1004
CLEWISTON, FL 33440
THPO PHONE: (863) 983-6549
FAX: (863) 902-1117
THPO WEBSITE: WWW.STOFTHPO.COM

Due to the Coronavirus I am telecommuting until further notice.
Please contact via emails since I do not have access to office phone messages.

July 15, 2020

Mr. Lorence Busker
23rd Civil Engineer Squadron
Moody Air Force Base, Georgia
Phone:
Email:

Subject: Moody Air Force Base, Moody Airspace Complex, Special Use Airspace
THPO Compliance Tracking Number: N/A

Dear Mr. Busker,

Thank you for contacting the Seminole Tribe of Florida – Tribal Historic Preservation Office (STOF-THPO) Compliance Section regarding the *Moody Air Force Base, Moody Airspace Complex, Special Use Airspace Project*. The proposed undertaking lies outside of the current STOF Area of Interest, consequently we must decline your offer to consult. Stay safe and please feel free to contact us with any questions or concerns.

Respectfully,

Bradley M. Mueller

1

Bradley M. Mueller, MA, Compliance Specialist
STOF-THPO, Compliance Review Section
30290 Josie Billie Hwy, PMB 1004
Clewiston, FL 33440

Office
Fax:
Email:
Web: www.stofthpo.com

Cherokee Nation, Tribal Historic Preservation Office

From: Elizabeth Toombs
Sent: Monday, July 13, 2020 10:00 AM
To: BUSKER, LORENCE T GS-12 USAF ACC 23 CES/CEIEA
Subject: [Non-DoD Source] FW: Moody Air Force Base

Mr. Busker:

This Office recently received notification about three action alternatives to expand low-altitude training airspace at Moody Air Force Base. In addition to the counties outlined in our December 10, 2019 email, Lanier County also is located outside the Cherokee Nation's Area of Interest. Thus, this Office respectfully defers to federally recognized Tribes that have an interest in this landbase at this time.

Thank you for the opportunity to comment upon this proposed undertaking. Please contact me if there are any questions or concerns.

Wado,

Elizabeth Toombs, Tribal Historic Preservation Officer

Cherokee Nation

Tribal Historic Preservation Office

PO Box 948

Tahlequah, OK 74465-0948

918.453.5389

From: Elizabeth Toombs
Sent: Tuesday, December 10, 2019 1:08 PM
To: 'BUSKER, LORENCE T GS-12 USAF ACC 23 CES/CEIEA'
Subject: RE: Moody Air Force Base

Dear Lorence Busker:

Many thanks for the additional details. The Moody Air Force Base proposed air space project is located within the following Georgia counties: Atkinson, Ben Hill, Berrien, Brooks, Clinch, Colquitt, Cook, Crisp, Echols, Irwin, Lowndes, Tift, Turner, Wilcox, and Worth. These aforementioned counties and Florida are outside the Cherokee Nation's Area of Interest. Thus, this Office respectfully defers to federally recognized Tribes that have an interest in this landbase.

Yes, please update the THPO contact with my information below this note.

Thank you for the opportunity to comment upon this proposed undertaking. Please contact me if there are any questions or concerns.

Wado,

Elizabeth Toombs, Tribal Historic Preservation Officer

Cherokee Nation

Tribal Historic Preservation Office

PO Box 948

Tahlequah, OK 74465-0948

918.453.5389

From: BUSKER, LORENCE T GS-12 USAF ACC 23 CES/CEIEA
Sent: Tuesday, December 10, 2019 12:13 PM
To: Elizabeth Toombs
Cc: SWICK, NOLAN T GS-13 USAF AFMC AFCEC/CZN; LEE, GREGORY W GS-13 USAF ACC 23 CES/CEIE; Eric Webb

Subject: <EXTERNAL> RE: Moody Air Force Base

Dear Elizabeth Toombs,

Thank you for the interest in the Moody air space project. Please find attached a brochure as well as a figure which shows the lateral extent of the proposed air space over Georgia and parts of Florida. The brochure briefly explains the proposed action. It should be noted that the lateral extent is unchanged from what is currently approved. The proposal would create new air space, usable for military training, below the existing airspace. Please feel free to call or write with any further questions. I would appreciate any written comments you have so that they can be addressed in the Environmental Impact Statement which will be prepared for this project.

I appreciate your clarification on who currently holds the Principal Chief position. I will correct our records and address future correspondence to the correct person. On that same topic, is Sheila Bird the current Tribal Historic Preservation Officer or are you now the one who that correspondence should be addressed to? We try to keep our records up to date but do not always succeed.

Thank you,

From: Elizabeth Toombs
Sent: Friday, December 6, 2019 3:50 PM
To: BUSKER, LORENCE T GS-12 USAF ACC 23 CES/CEIEA
Subject: [Non-DoD Source] Moody Air Force Base

Dear Lorence Busker:

The Cherokee Nation recently received a review request about creating new special use airspace in the Moody Airspace Complex. When you have the opportunity, could you provide the Georgia counties that fall within the proposed Area of Potential Effects (APE)? This information will help this Office map the proposed project with our database.

Also, as a housekeeping note, our current Principal Chief is Chuck Hoskin, Jr.

Thank you for your time, details, and understanding. Please let me know if there are any questions or concerns.

Wado,

Elizabeth Toombs, Tribal Historic Preservation Officer

Cherokee Nation

Tribal Historic Preservation Office

PO Box 948

Tahlequah, OK 74465-0948

918.453.5389

APPENDIX G. AIRSPACE OBSTRUCTIONS ANALYSIS

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MOODY AIRSPACE INITIATIVE AIRSPACE OBSTRUCTIONS ANALYSIS

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LIST OF ACRONYMS AND ABBREVIATIONS

AGL	above ground level
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
MOA	Military Operations Area
MOCA	minimum obstruction clearance
nm	nautical mile

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G.1 INTRODUCTION

The Federal Aviation Administration (FAA) is responsible for administering air traffic regulations on the flight of aircraft, including regulations on safe altitudes for the following:

- Navigating, protecting, and identifying aircraft
- Protecting individuals and property on the ground
- Using the navigable airspace efficiently
- Preventing collisions between aircraft, between aircraft and land or water vehicles, and between aircraft and airborne objects

By protecting individuals and property on the ground, the FAA analyzes the proposed construction or alteration of a facility that could affect navigable airspace. This is completed through an Obstruction Evaluation/Airport Airspace Analysis Process. Under this process, a proponent for a project must file FAA Form 74601, *Notice of Proposed Construction or Alteration*, for any of a number of project types as describe in the Federal Aviation Regulations (FAR) Part 77.13, including as per FAR §77.13(a)(1), any structure with a height more than 200 feet above ground level (AGL).

After a project proponent submits FAA Form 74601 for review, the FAA conducts an initial aeronautical study to determine whether the proposed structure exceeds obstruction standards under the provision of the FAR Part 77.23. A proposed object is an obstruction to air navigation if any of the following standards are exceeded:

- A height more than 500 feet AGL at the object site (§ 77.23(a)(1))
- A height AGL or above the airport elevation, whichever is greater, exceeding 200 feet within 3 nautical miles (nm) of the airport, and that height increases at a rate of 100 feet per nm up to 500 feet within 6 miles (§ 77.23(a)(2))
- A height that increases a minimum instrument flight altitude within a terminal area. This standard references instrument procedure criteria such as the Standard for Terminal Instrument Procedures (§ 77.23(a)(3))
- A height that increases a minimum obstruction clearance (MOCA) under en route criteria (§77.23(a)(4))
- The surface of a takeoff and landing area of an airport or any imaginary surface defined in later sections for civil airports, for military airports, and for heliports (§ 77.23(a)(5))

Therefore, all objects are reviewed by the FAA to determine if they pose an obstruction to air navigation.

G.2. OBSTRUCTIONS ANALYSIS

Existing Conditions: A total of 22 structures underlying the complex are considered obstructions to air navigation. Of those structures, 16 towers exceed the 100-foot AGL floor of the Moody 2 South Military Operations Areas (MOA), 3 towers exceed the 500-foot AGL floor of the Moody 2 North MOA, and 3 towers exceed the 500-foot AGL floor of Restricted Area 3008C.

Environmental Consequences: Because the Moody Airspace Initiative proposes to chart new low-altitude MOAs beneath existing MOAs and lower the floor of Moody 2 North MOA from 500 feet to 100 feet, an analysis to determine the presence of underlying structures that could intrude into the low-altitude and be considered obstructions to air navigation was warranted and conducted. Based upon a review of all structures underlying the Moody Airspace Complex, it was determined that towers would be the tallest structures that could intrude into the proposed low-altitude MOAs. The Federal Communications Commission maintains a database containing the location and structural information (i.e., dimensions) for each tower licensed in the United States. That database was queried to determine if any of these structures would exceed the low-altitude floors of any of the proposed or reconfigured MOAs. The following summarizes the impacts anticipated under each of the action alternatives addressed in the EIS.

Under Alternative 1, which is the implementation alternative for the Proposed Action with the lowest altitude floors for the proposed low-altitude MOAs, no towers exceed the proposed 1,000-foot AGL floor of the Corsair South Low, Mustang Low, and Warhawk Low MOAs or the 4,000-foot AGL floor of the Thud Low MOA (**Figure G-1**). A total of 24 towers would be overlain by the proposed low-altitude MOAs in the Moody Airspace Complex under Alternative 1. Tower intrusions into the proposed low-altitude MOAs are listed in **Table G-1** and shown in **Figure G-1** and are briefly explained as follows:

- One 1,000-foot height tower would meet and be considered an intrusion into the new 1,000-foot AGL floor of the Corsair North Low MOA. This tower is marked with a navigation beacon in accordance with existing regulations.
- Four structures would intrude into the new 100-foot AGL floor Grand Bay MOA. All of these towers are marked with navigation beacons in accordance with existing regulations.
- Nineteen structures would intrude into the new 100-foot AGL floor of the Moody 2 North MOAs. Sixteen of these towers are marked with navigation beacons per existing regulations for structures with heights at or greater than 200 feet. The remaining three, with heights less than 200 feet, are not required to have navigational beacons under the existing regulations.

Under Alternatives 2 and 3, only the 23 structures identified under the proposed Grand Bay MOA and lowered altitude floor of the Moody 2 North MOA would intrude into those low-altitude MOAs.

Table G-1. Airspace Obstructions beneath the Moody Airspace Complex

Proposed MOA *	Registration Number	Height (AGL)	Lighting Type	Latitude	Longitude
Corsair North Low	1255221	1,000	Red beacon	31.33138889	-83.86194444
Grand Bay	1220524	255	Red beacon	30.89552778	-83.10047222
Grand Bay	1018688	364	Red beacon	31.05677778	-83.09313889
Grand Bay	1013661	415	White and red beacons	31.05719444	-83.091
Grand Bay	1040753	485	Red beacon	31.063	-83.07247222
Moody 2 North	1262758	260	Red beacon	30.96191667	-82.93805556
Moody 2 North	1310987	255	Red beacon	30.96408333	-82.66172222
Moody 2 North	1223285	310	Red beacon	30.977	-82.90147222
Moody 2 North	1216840	309	Red beacon	30.99930556	-82.86625
Moody 2 North	1031773	417	Red beacon	31.01305556	-82.75444444
Moody 2 North	1018695	188	Red beacon	31.03230556	-82.79569444
Moody 2 North	1200533	312	Red beacon	31.03444444	-82.86388889
Moody 2 North	1205278	190	None	31.03686111	-82.74569444
Moody 2 North	1218369	199	Red beacon	31.04013889	-82.73852778
Moody 2 North	1040979	457	Red beacon	31.04208333	-82.72294444
Moody 2 North	1286614	100	None	31.04722222	-82.76222222
Moody 2 North	1268629	290	Red beacon	31.07458333	-83.00775
Moody 2 North	1023931	227	Red beacon	31.09802778	-82.8195
Moody 2 North	1026321	240	Red beacon	31.09805556	-82.81972222
Moody 2 North	1263144	290	Red beacon	31.14777778	-83.00302778
Moody 2 North	1262094	257	Red beacon	31.20041667	-82.88047222
Moody 2 North	1013477	300	Red beacon	31.29436111	-82.86319444
Moody 2 North	1308873	164	None	31.30847222	-82.90386111
Moody 2 North	1018687	310	Red beacon	31.32052778	-82.97108333

AGL – above ground level; **MOA** – Military Operations Area

*The Grand Bay MOA and Moody 2 North MOA would have a floor of 100 feet AGL under all three implementation alternatives. The Corsair North Low MOA would have a floor of 1,000 feet AGL only under Alternative 1. Under Alternatives 2 and 3, the Corsair North Low MOA would have a floor of 2,000 feet AGL and 4,000 feet AGL, respectively.

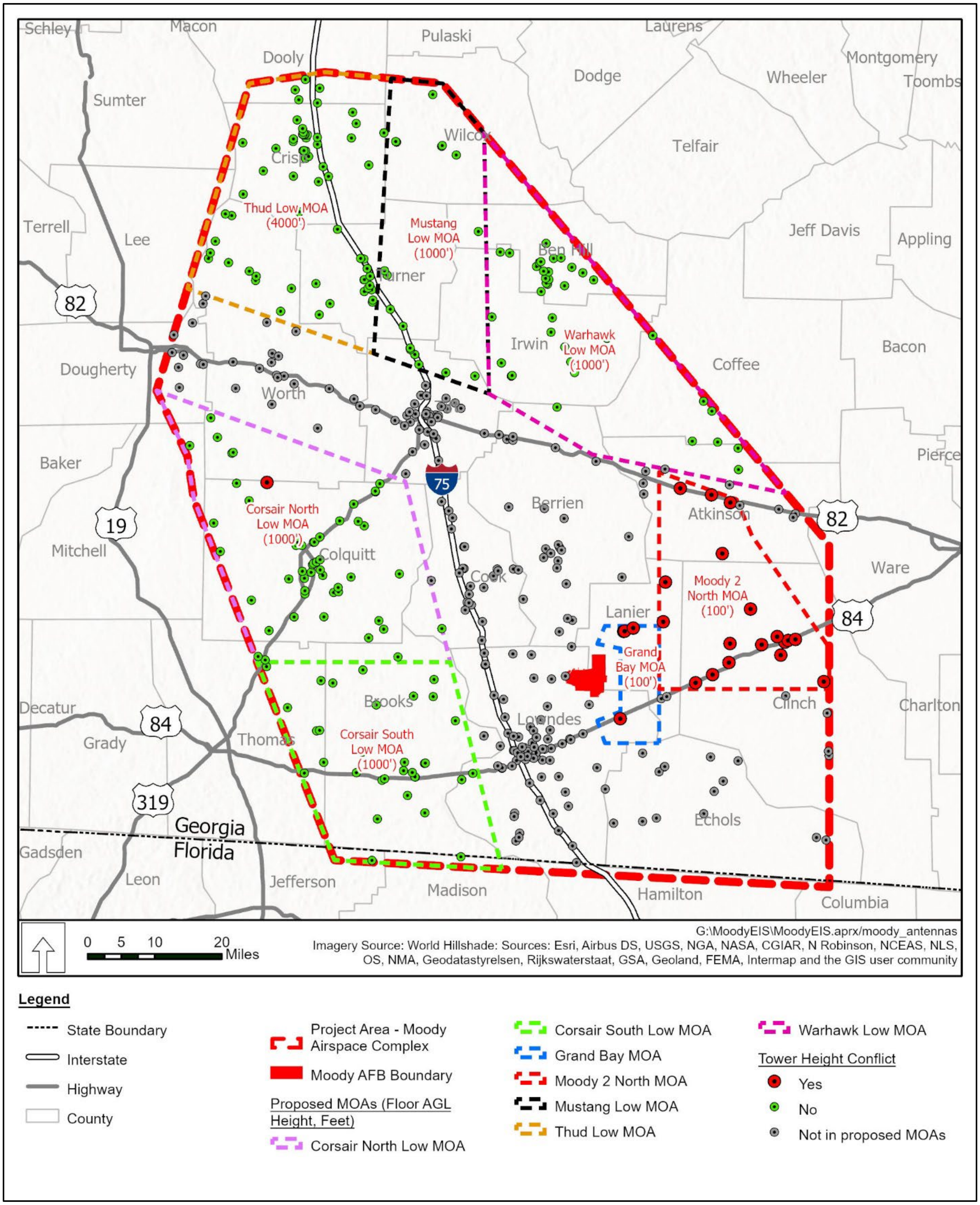


Figure G-1. Towers underlying the Moody Airspace Complex

APPENDIX H. AERONAUTICAL PROPOSAL

FORMAT PAGE

U.S. Department of Transportation
Federal Aviation Administration

Eastern Service Center

1701 Columbia Avenue
College Park, Georgia 30337

PROPOSAL TO ESTABLISH CORSAIR NORTH/SOUTH LOW, WARHAWK LOW, MUSTANG LOW, GRAND BAY, AND MODIFY MOODY 2 NORTH MILITARY OPERATIONS AREAS
AIRSPACE STUDY 21-ASO-003-NR
MOODY AFB, GA

TO ALL CONCERNED:

The Federal Aviation Administration (FAA) is considering a request by the United States Air Force to create Military Operations Areas (MOAs) in the vicinity of Moody AFB, GA. The proposed action would create new low-altitude MOAs beneath the existing Corsair North, Corsair South, Warhawk MOAs, and Restricted Area R-3008C and lower the floor of Moody 2 North MOA in the Moody Airspace Complex. The purpose of the new low-altitude MOAs is to provide adequate training floors for operations, including close air support (CAS), personnel recovery (PR), and combat search and rescue (CSAR) at the installation. Prior to reaching a final decision, the FAA is providing an opportunity for the public to comment on any aeronautical impacts that would result from approving this MOA request.

At Moody AFB, the 23 FG, 476 FG, 820 BDG, 81st Fighter Squadron, and 347th Rescue Group all require low-altitude airspace to support their training missions. A total of 67 percent of training operations for Moody AFB units occur in low-altitude airspace (less than 8,000 feet MSL), and for some units, between 85 and 90 percent of their mission training requirements are conducted at altitudes too low to be accommodated by the majority of SUAs in the Moody Airspace Complex. This severely limits these units' abilities to meet their proficiency requirements. Consequently, the various units operating at Moody AFB either compete for the opportunity to train in the limited Moody Airspace Complex low-altitude MOAs and Restricted Areas or attempt to schedule other low-altitude SUA complexes in the southeast region.

The current Moody Airspace Complex consists primarily of mid-to higher-altitude MOAs, and the A-10C, A-29, HH-60W, and HC-130J aircrews assigned to Moody AFB have severely constrained access to existing low-altitude MOAs and Restricted Areas wherein they can conduct required training operations at low altitude to gain operational proficiency and meet their mission objectives for combat readiness. The proposed low-altitude MOAs would enable optimized training in the Moody Airspace Complex and remove constraints on CAS and CSAR training so that aircrews would be current, qualified, and proficient at operating at various altitudes for these operations.

The Proposed Action would not require changes in the types or numbers of aircraft based at the installation, appreciable increases in the number of flights or sorties, alterations in types of airfield operations, or additions of training operations. However, the airspace would result in the redistribution of aircraft operations from existing low-altitude SUAs (i.e., Moody 2 North MOA, Moody 2 South MOA, and R-3008A, R-3008B, and R-3008C) to the new low-altitude MOAs. It is not anticipated that any increases in overall operations would occur as a result of this redistribution; instead, the proposed action would shift the timing of training operations to more daytime hours and spread out the training requirements at low altitudes over a greater area of airspace instead of being concentrated entirely in Moody 2 North and Moody 2 South MOAs and the Restricted Areas R-3008A, R-3008B, and R-3008C.

The specifics of the proposed airspace follow:

Corsair South Low MOA, GA [ESTABLISH]

Boundaries: Beginning at lat. 31°00'00" N., long. 83°52'59" W.;
to lat. 31°00'00" N., long. 83°28'01" W.;
to lat. 30°37'00" N., long. 83°21'20" W.;
to lat. 30°38'01" N., long. 83°43'00" W.;
to the point of beginning. Excluding the airspace 1500' AGL and below within a 3 NM radius of Thomasville Regional Airport (TVI) and Quitman Brooks County Airport (4J5).

Altitudes: 1,000 feet AGL up to but not including 8,000 feet MSL.

Times of use: 0800-0100, Monday–Thursday; 0800-2200 Friday; closed Saturday, Sunday, holidays, other times by NOTAM 6 hours in advance.

Controlling Agency: FAA, Jacksonville ARTCC

Using Agency: U.S. Air Force, 23d Wing, Moody AFB, GA.

Corsair North Low MOA, GA [ESTABLISH]

Boundaries: Beginning at lat. 31°12'02" N., long. 83°58'26" W.;
to lat. 31°21'45" N., long. 83°45'00" W.;
to lat. 31°23'15" N., long. 83°44'14" W.;
to lat. 31°20'00" N., long. 83°33'50" W.;
to lat. 31°00'00" N., long. 83°28'01" W.;
to lat. 31°00'00" N., long. 83°52'59" W.;
to the point of beginning. Excluding the airspace 1500' AGL and below within a 3 NM radius of Spence Airport (MUL), Cook County Airport (15J), and Moultrie Regional Airport (MGR).

Altitudes: 1,000 feet AGL up to but not including 8,000 feet MSL.

Times of use: 0800-0100, Monday – Thursday; 0800-2200 Friday; closed Saturday, Sunday, holidays, other times by NOTAM 6 hours in advance.

Controlling Agency: FAA, Jacksonville ARTCC

Using Agency: U.S. Air Force, 23d Wing, Moody AFB, GA.

<u>Mustang Low MOA, GA [ESTABLISH]</u>

Boundaries:	Beginning	at lat. 31°35'30" N., long. 83°37'49" W.; to lat. 31°35'30" N., long. 83°23'08" W.; to lat. 31°29'40" N., long. 83°23'00" W.; to lat. 31°34'06" N., long. 83°37'55" W.; to the point of beginning.
Altitudes:		1,000 feet AGL up to but not including 8,000 feet MSL.
Times of use:		0800-0100, Monday – Thursday; 0800-2200 Friday; closed Saturday, Sunday, holidays, other times by NOTAM 6 hours in advance.
Controlling Agency:		FAA, Jacksonville ARTCC
Using Agency:		U.S. Air Force, 23d Wing, Moody AFB, GA.

<u>Warhawk Low MOA, GA [ESTABLISH]</u>

Boundaries:	Beginning	at lat. 31°35'30" N., long. 83°23'08" W.; to lat. 31°35'30" N., long. 83°01'03" W.; to lat. 31°18'41" N., long. 83°44'35" W.; to lat. 31°22'59" N., long. 83°09'40" W.; to lat. 31°29'40" N., long. 83°23'00" W.; to the point of beginning. Excluding the airspace 1500' AGL and below within 3 NM radius of Douglas Municipal Airport (DQH).
Altitudes:		1,000 feet AGL up to but not including 8,000 feet MSL.
Times of use:		0800-0100, Monday–Thursday; 0800-2200 Friday; closed Saturday, Sunday, holidays, other times by NOTAM 6 hours in advance.
Controlling Agency:		FAA, Jacksonville ARTCC
Using Agency:		U.S. Air Force, 23d Wing, Moody AFB, GA.

<u>Grand Bay MOA, GA [ESTABLISH]</u>

Boundaries:	Beginning	at lat. 31°04'01" N., long. 83°01'00" W.; to lat. 30°51'01" N., long. 83°01'00" W.; to lat. 30°51'01" N., long. 83°08'00" W.; to lat. 30°53'31" N., long. 83°09'00" W.; to lat. 30°54'31" N., long. 83°06'00" W.; to lat. 31°01'31" N., long. 83°06'00" W.; to lat. 31°02'01" N., long. 83°09'00" W.; to lat. 31°04'01" N., long. 83°08'00" W.; to the point of beginning. Excluding the airspace 1500' AGL and below within 1 NM radius of N31°02'31.00" W83°04'15.00".
Altitudes:		100 feet AGL up to but not including 500 feet AGL.
Times of use:		0800-0100, Monday–Thursday; 0800-2200 Friday; closed Saturday, Sunday, holidays, other times by NOTAM 6 hours in advance.
Controlling Agency:		Moody AFB Radar Approach Control

Using Agency: U.S. Air Force, 23d Wing, Moody AFB, GA.

<u>**Moody 2 North MOA, GA [MODIFY]**</u>

Boundaries:	Beginning	at lat. 31°18'01" N., long. 82°51'00" W.;
		to lat. 31°14'01" N., long. 82°49'00" W.;
		to lat. 31°01'36" N., long. 82°39'00" W.;
		to lat. 30°57'01" N., long. 82°39'00" W.;
		to lat. 30°57'01" N., long. 83°01'00" W.;
		to lat. 31°21'01" N., long. 83°01'00" W.;
		to the point of beginning. Excluding the airspace 1500' AGL and below within 3 NM radius of Homerville Airport (HOE).
Altitudes:		100 feet AGL up to but not including 8,000 feet MSL.
Times of use:		0800-0100, Monday–Thursday; 0800-2200 Friday; closed Saturday, Sunday, holidays, other times by NOTAM 6 hours in advance.
Controlling Agency:		FAA, Jacksonville ARTCC
Using Agency:		U.S. Air Force, 23d Wing, Moody AFB, GA.

<u>Graphic Description</u> (See attachment)
Comments or recommendations regarding the effect that this proposal may have on the aeronautical activity should be submitted to 9-ESA-OSG-Public-Notice@faa.gov or via postal mail to:

FAA Eastern Service Center
Operations Support Group (AJV-E23)
Military Liaison Officer
1701 Columbia Avenue
College Park, GA 30337

All communications received prior to January 9, 2023, will be considered before final action is taken on this proposal.

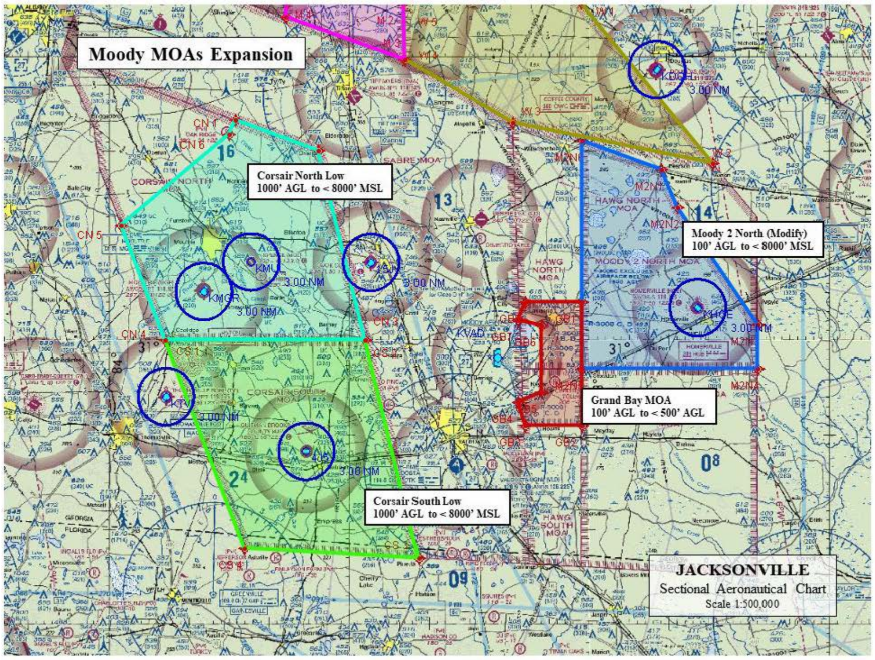
Issued in College Park, Georgia, on November 9, 2022.

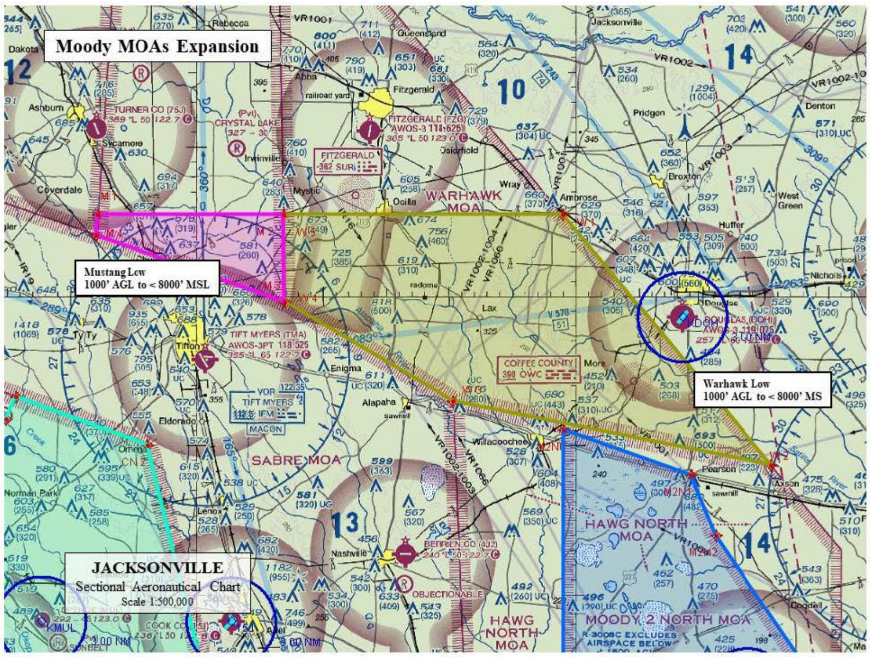
MATTHEW N CATHCART Digitally signed by MATTHEW N CATHCART Date: 2022.11.09 07:47:01 -05'00'

Matthew N. Cathcart
Manager, Operations Support Group
Eastern Service Center, Air Traffic Organization

4

Attachments




Moody MOAs Expansion
Mustang Low
1000' AGL to < 8000' MSL
Warhawk Low
1000' AGL to < 8000' MS
WARHAWK MOA
SABRE MOA
HAWG NORTH MOA
MOODY 2 NORTH MOA
JACKSONVILLE
Sectional Aeronautical Chart
Scale 1:500,000