

APPENDIX H

MILITARY AIRCRAFT MODELING ASSUMPTIONS

The latest version of AEDT (Version 3g) does not contain flight profile information for the F-35 or AV-8B; therefore, the noise exposure from itinerant F-35 and AV-8B operations was computed using the Department of Defense's (DoD) NOISEMAP (NMAP) software, Version 7.370. Fighter jet traffic at ILM is limited to itinerant operations as required by U.S. DoD training mission and operational need. Typically, fighter jets that utilize ILM do so to refuel when traveling to and from offshore training military operations areas (MOAs) and nearby military installations, including MCAS Beaufort and MCAS Cherry Point. Flight tracks and profiles for the NOISEMAP modeling at ILM are based on information contained in the document *Continuing Environmental Review Statement (CERS) for F-35 basing at Marine Corps Air Station Cherry Point, North Carolina*, and additional data provided by the United States Marine Corps (USMC) liaison and ILM's military refueling fixed-base operator. The noise grid output of the NMAP model was combined with the AEDT output in AEDT to generate the average annual daily DNL contours.

MILITARY FLEET MIX

Table H1 depicts the military fighter aircraft fleet mix modeled in NMAP for the existing and future conditions. The fleet mix reflects changes anticipated at ILM based on phase-out of AV8B and F-18 aircraft to be replaced by the F-35, along with forecasted growth as described in Chapter Two - Forecasts.

TABLE H1 NMAP Operational Fleet Mix			
Aircraft Type ¹	AEDT Designator ²	2023 Operations ³	2028 Operations ³
<i>Itinerant Operations</i>			
Military, Turbojet	AV8B	191	0
Military, Turbojet	F-18	191	0
Military, Turbojet	F-35	381	781
Total		763	781

RUNWAY USE

Runway use is generally influenced by the prevailing wind direction, as aircraft normally land and take off into the wind. **Table H2** summarizes runway use percentages based on communication with airport and ATCT staff, as well as a review of ADS-B data. Runway 6-24 is used notably more than Runway 17-35. The assumptions in **Table H2** were used for the existing and future conditions.

TABLE H2 | ILM Runway Use Percentages

ARRIVALS			
Runway 6	Runway 24	Runway 17	Runway 35
29.16%	39.57%	15.31%	15.95%
DEPARTURES			
Runway 6	Runway 24	Runway 17	Runway 35
31.27%	38.85%	13.60%	16.28%

Sources: 1200.aero ADS-B data; Coffman Associates analysis

FLIGHT TRACKS

The radar flight track data obtained from 1200.aero used to create civilian flight tracks includes some military activity for larger cargo aircraft; however, most fighter aircraft completing refueling operations at ILM operate with ADS-B off and are not broadcasting location information. Records requests were placed with the Federal Aviation Administration (FAA) and various Department of Defense (DoD) agencies under the Freedom of Information Act (FOIA) to obtain alternative location information for fighter jet operations; however, no additional data for military operations has been provided by either agency.

Diagrams of the NOISEMAP flight tracks utilized for this study are depicted on **Exhibit H1**. The depicted flight tracks are based on information contained in the document *Continuing Environmental Review Statement (CERS) for F-35 basing at Marine Corps Air Station Cherry Point, North Carolina*, and additional data provided by the United States Marine Corps (USMC) liaison. Half of all arrival operations for the F-18 and F-35 aircraft were modeled as overhead approaches with the other half modeled as straight-in approaches.

REQUESTS FOR PRIMARY RADAR FLIGHT TRACK DATA

FAA Coordination

ILM began coordination with the FAA on August 28, 2024, to request primary radar flight track data to supplement information received from the Planning Advisory Committee regarding military operations at ILM. ILM coordinated with the FAA to determine whether obtaining additional Performance Data Analysis and Reporting System (PDARS) data from the FAA air traffic control system database through the formal FOIA process would be helpful in modeling military flight track locations in NOISEMAP. On October 9, 2024, the FAA confirmed that its Quality Control Group office would be processing the informal data request. On January 9, 2025, the FAA determined that the data would not be able to be obtained informally due to the amount of coordination with the Department of Defense and involvement from several FAA lines of business that would be required to fulfill the request.

FOIA Requests

ILM placed a formal FOIA request with the FAA on February 17, 2025. On February 18, 2025, the FAA FOIA Specialist assigned to the project confirmed that the request would need to be sent to the Department of Defense, as the information requested would not be available through the FAA Operations Support Group office. A second FOIA request was submitted to the Defense Contract Management Agency (DCMA) on March 17, 2025. The DCMA stated the agency did not have cognizance over the request and that the request should be coordinated with the FAA FOIA office.

On April 14, 2025, additional FOIA requests were submitted to the following DoD agencies:

- United States Marine Corps Headquarters (HQMC) FOIA Team
- National Geospatial-Intelligence Agency (NGA)
- Defense Information Systems Agency (DISA)
- Defense Logistics Agency (DLA)
- Defense Technical Information Center (DTIC)

Responses were received from the HQMC FOIA Team, DISA, and DTIC, which resulted in all cases being closed. A final FOIA request was placed with the Department of Justice (DOJ) on May 15, 2025, which also did not result in the requested information being provided.





























































