

## CHAPTER 7.

### AIRSPACE

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#### 7.1 INTRODUCTION

This chapter contains a description of the potential environmental consequences on airspace associated with implementation of the alternatives within the region of influence (ROI). For a description of the affected environment for all resources, refer to respective chapters of Volume 2, (Marine Corps Relocation – Guam). The locations described in that volume include the ROI for the Army Air and Missile Defense Task Force (AMDTF) component of the proposed action, and the chapters are presented in the same order as the resource areas contained in this Volume.

#### 7.2 ENVIRONMENTAL CONSEQUENCES

##### 7.2.1 Approach to Analysis

###### 7.2.1.1 Methodology

As the airspace impacts would be islandwide in nature with no difference in effects among the various alternatives, the summary of impacts presented below covers all of the alternatives except the no-action alternative, which is treated separately in Section 7.2.3. Impacts on airspace use were assessed by evaluating the potential effects of the proposed training activities on the principal attributes of airspace use. Listed below are the impact categories and how they were assessed for this project:

- Impacts on controlled and uncontrolled airspace were assessed by determining if the project would reduce the amount of navigable airspace by creating new or expanding existing special use airspace (SUA) or by introducing temporary flight restrictions or presenting an obstruction to air navigation.
- Impacts on SUA were assessed by determining the project's requirement either for new SUA or for modifying existing SUA.
- Impacts on enroute airways were assessed by determining if the project would lead to a change in a regular flight course or altitude or instrument procedures.
- Impacts on airports and airfields were assessed by determining if the project would restrict access to or affect the use of airports/airfields available for public use or if it would affect airfield/airport arrival and departure traffic flows.

Factors used to assess impacts on air traffic include consideration of an alternative's potential to result in an increase in the number of flights such that they could not be accommodated within established operational procedures and flight patterns, a requirement for airspace modification, or an increase in air traffic that might increase collision potential between military and nonparticipating civilian operations.

###### 7.2.1.2 Determination of Significance

Based in part on Federal Aviation Administration (FAA) Order 1050.1E, Change 1, Environmental Impacts: Policies and Procedures and FAA Order 7400.2E, Procedures for Handling Airspace Matters, an action is considered to have a potential significant airspace impact if it would result in any of the following:

- Reduction in the amount of navigable airspace that would have adverse aeronautical impacts to non-participating users that could not be mitigated.

- Creation of an obstruction to air navigation.
- Assignment of new SUA (including Controlled Firing Areas, Restricted Areas, Warning Areas, and/or Military Operations Areas) or require the modification of existing SUA that would have adverse aeronautical impacts that could not be mitigated.
- Change to an existing or planned Instrument Flight Rule (IFR), minimum flight altitude, a published or special instrument procedure, or an IFR departure procedure or require a visual flight rule operation to change from a regular flight course or altitude.
- Reduction in public health and safety due to a change in aviation safety risk.
- Restricted access to or effects on the use of airports and airfields available for public use.
- Change to commercial or private airfield or airport arrival and departure traffic flows.

#### 7.2.1.3 Issues Identified During Public Scoping Process

As part of the analysis, concerns related to Airspace that were mentioned by the public, including regulatory stakeholders, during the public scoping meetings were addressed. These concerns include potential impacts to commercial aircraft using Guam International Airport (GIA).

#### 7.2.2 Proposed Action

This description of environmental consequences addresses all components of the proposed actions for the Army AMDTF. This includes the headquarters/housing component and the munitions storage component, each of which has three alternatives. The weapons emplacement component has four alternatives. Detailed information on the weapons emplacements is contained in a Classified Appendix (Appendix L).

The SUA includes all components of the proposed action, and would be the same for all the alternatives. The SUA would consist of a proposed restricted area to accommodate hazards associated with Terminal High Altitude Area Defense (THAAD) radar operations. The proposed SUA (Restricted Area R-7205) would be located along and off the northwest coast of Guam. The THAAD radar radio frequency hazard area for military aircraft with electro-explosive devices would exist from the radar out to 3.4 miles (mi) (5.5 kilometers [km]) from the radar, 65 degrees to the left and right of the main radar bore site and 90 degrees straight up. A THAAD radar radio frequency hazard area for civilian aircraft would exist from the radar out to 1.5 mi (2.4 km) from the radar, 65 degrees to the left and right of the main radar bore site and 90 degrees straight up. A personnel hazard would exist for 328 feet (ft) (100 meters [m]) on level ground in front of the radar and for elevations 5 degrees above the radar elevation out to 2.2 mi (3.6 km). For distances from the radar between 328 ft (100 m) and 2.2 mi (3.6 km), if the difference in elevation between the radar and the terrain (or a tower or building in an urban environment) divided by the distance from the radar is greater than 0.0875, then an uncontrolled personnel hazard would exist. Planned preventive maintenance would require a minimum continuous period of operation for 45 minutes daily Monday through Friday. Training and certification periods would be processed to the FAA for approval to utilize the pre-approved R-7205 airspace. There would be no restrictions to off-base ground activities (e.g. use of public roadways) during these preventive maintenance operations.

The proposed restricted area would not impact GIA. The proposed Restricted Area-THAAD would be from the Surface up to Flight Level 22,000 ft mean sea level (MSL) (FL220) (4.2 mi [6.7 km]) and would be activated from 0800-2200L (i.e., from 8:00 a.m. until 10:00 p.m. local time), Monday – Friday; 7:00-6:00, Saturday and Sunday; other times by Notice to Airmen (NOTAM.).

Under the proposed action there would be no change to enroute airways or IFR procedures. There would also be no restrictions on access to and no effect on the use of civilian airports or airfields available for

public use. Class D airspace (a form of controlled airspace at airports) surrounding Andersen Air Force Base (AFB) would fall partially within the existing Class D airspace surrounding Andersen AFB. Current Class D airspace would be re-designed to exclude the proposed SUA. This would not cause any direct adverse impacts on general aviation air traffic flying out of GIA. Operations would continue to be subject to air traffic control clearances and instructions. Hazardous air training activities are communicated to commercial airlines and general aviation by NOTAMs, published by the FAA.

There would be no additional impacts on the FAA’s capabilities, no expected decrease in aviation safety, and no adverse effect on commercial or general aviation activities. No significant impacts are anticipated. Arrival and departures for Andersen AFB would be impacted, but changes and coordination of proposed SUA use with Andersen AFB Arrival and Departure Control would limit impacts. Therefore, impacts to airspace would be less than significant.

**7.2.3 No-Action Alternative**

Under the no-action alternative, no SUA or restricted airspace associated with the Army AMDTF would occur. Therefore, no airspace impacts would result from the no-action alternative.

**7.2.4 Summary of Impacts**

Tables 7.2-1 summarize the potential impacts of the proposed action to airspace islandwide. A text summary is provided below.

**Table 7.2-1. Summary of Army AMDTF Impacts**

<i>All Alternatives</i>
<b>Construction</b>
NI
<ul style="list-style-type: none"> <li>No impacts to airspace from construction.</li> </ul>
<b>Operation</b>
LSI
<ul style="list-style-type: none"> <li>No change to enroute airways or IFR procedures.</li> <li>No restrictions on access to and no effect on the use of civilian airports or airfields available for public use.</li> <li>No direct adverse impacts on general aviation air traffic flying out of GIA.</li> <li>No additional impacts on the FAA’s capabilities, no expected decrease in aviation safety, and no adverse effect on commercial or general aviation activities.</li> <li>Impact on air traffic to and from Andersen AFB would be limited with coordination.</li> </ul>

*Legend:* NI = No impact; LSI = Less than significant impact

None of the weapons emplacement alternatives would have significant impacts on airspace. Alternatives 1, 2, 3, and 4, would establish SUA for THAAD training. A new SUA would be necessary to accommodate THAAD training. Current Class D airspace would be re-designed to exclude the proposed SUA, but this would not require any changes to existing arrival and departures from GIA. There are no existing enroute low-altitude airways that might be potentially affected. No IFR procedures would need to change. Well-established and understood aviation procedures and rules governing flight operations in both controlled and uncontrolled navigable airspace and SUA make future adverse impacts on public health and safety extremely unlikely. Aircrews for military participants and non-participating aircraft would be responsible for using “see and avoid” techniques to evade hazards. Through use of existing aviation rules and procedures, the impact of this airspace action on air traffic control and airspace users is anticipated to be less than significant.

### **7.2.5 Summary of Proposed Mitigation Measures**

The proposed action would result in less than significant impacts to airspace. Therefore no mitigation measures are proposed.