

4.4 AIRSPACE

4.4.1 Impact Methodology

Impacts on airspace are assessed by evaluating the potential effects of both project construction and operations activities on the principal attributes of airspace, namely controlled and uncontrolled or navigable airspace, special use airspace, military training routes, en route airways and jet routes, and airports/airfields. Impacts on controlled and uncontrolled airspace are assessed by determining if the project would reduce the amount of navigable airspace by creating new or expanding existing special use airspace by introducing temporary flight restrictions or by constituting an obstruction to air navigation. Impacts on special use airspace are assessed by determining the project's requirement for modifications to existing special use airspace. Impacts on military training routes are assessed by determining if the project would require a change to an existing or planned military training route. Impacts on en route airways are 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 are assessed by determining if the project restricts access to or affects the use of airports or airfields available for public use, or if it affects airfield or airport arrival and departure traffic flows.

4.4.2 Factors Considered for Impact Analysis

Factors considered in determining whether an alternative would have a significant impact on airspace, based in part on FAA Order 7400.2E, Procedures for Handling Airspace Matters (FAA 2001), include the extent or degree to which its implementation would result in the following:

- Reduce the amount of navigable airspace;
- Lead to the assignment of new special use airspace (including prohibited areas, restricted areas, warning areas, and military operations areas) or require the modification of special use airspace;
- Change an existing or planned military training route or slow route;
- Change an existing or planned instrument flight rules (IFR) minimum flight altitude, a published or special instrument procedure, or an IFR departure procedure, or require a visual flight rules operation change from a regular flight course or altitude;
- Restrict access to or affect the use of airports or airfields available for public use, or if it would affect commercial or private airfield or airport arrival and departure traffic flows; or
- Create an obstruction to air navigation.

In addition to these factors, public concerns expressed during the scoping process were also considered in the impact analysis. These concerns included aircraft traffic impacts, the numbers and types of aircraft used, altitudes flown, preferred flight patterns, risks to the community from the use of helicopters, and air and aviation safety. These comments are addressed in Chapter 2, the following airspace sections, or the noise sections.

4.4.3 Summary of Impacts

Table 4-3 summarizes airspace impacts for the project areas based on the factors considered in determining whether an alternative would have a significant impact.

Table 4-3
Summary of Potential Airspace Use Impacts

Impact Issues	SBMR			DMR			KTA			PTA			Project-wide Impacts		
	PA	RLA	NA	PA	RLA	NA	PA	RLA	NA	PA	RLA	NA	PA	RLA	NA
Reduction in navigable airspace	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
New or modified special use airspace	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Change to a military training route	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Change in en route airways or IFR procedure	○	○	○	○	○	○	○	○	○	⊗	⊗	○	⊗	⊗	○
Restrict access to airport/airfield	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Obstruct air navigation	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Aviation Safety	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

This table summarizes project-wide impacts. For installation-specific impacts see Chapters 5 – 8.

In cases when there would be both beneficial and adverse impacts, both are shown on this table. Mitigation measures would only apply to adverse impacts.

LEGEND:

- | | |
|--|--------------------------------|
| ⊗ = Significant | N/A = Not applicable |
| ⊗ = Significant but mitigable to less than significant | PA = Proposed Action |
| ⊙ = Less than significant | RLA = Reduced Land Acquisition |
| ○ = No impact | NA = No Action |
| + = Beneficial impact | |

Proposed Action (Preferred Alternative)

Significant Impacts

There would be no significant and unmitigable impacts to airspace under the Proposed Action.

Less Than Significant Impacts

Change in En Route Airways or IFR Procedures. There would be no direct impacts on airspace at any of the SBCT installations except for one less than significant impact at PTA due to the potential for effects on current instrument approach procedures. This would occur because the proposed new reoriented runway at BAAF would change the heading (the compass direction in which the aircraft points) of aircraft approaching the airfield, shift the initial approach fix location, and change the missed approach point and track. This change in heading, AIF location, and missed approach point, can interfere with the instrument approach pattern of other airports or airfields in the vicinity. However, prior notice and consultation with the FAA and the subsequent review process would ensure that any impacts on airspace use would not be significant.

The runway change would also shift and reorient the runway's clear zone and accident potential zones that extend beyond each end of the runway. This would not have any direct impact on airspace use, but, because the clear zones must be cleared, graded, and free of objects, there is the potential for indirect impacts on land use or biological and cultural resources.

The potential for indirect impacts on land use, biological and cultural resources, and the noise environment from the changes resulting from the proposed extension and reorientation of the runway at BAAF, as well as the increase in number of C-17 and C-130 aircraft operations, are addressed in Sections 8.2, 8.6, 8.10, and 8.11.

No adverse impacts on public health and safety are anticipated from the small increase in Army training flights as a result of SBCT training. The strict procedures and rules in place governing flight operations in controlled and uncontrolled navigable airspace and special use airspace, coupled with the Army's exemplary aviation safety record in Hawai'i make future adverse impacts on public health and safety extremely unlikely.

Reduced Land Acquisition Alternative

Airspace impacts would be the same under Reduced Land Acquisition as those under the Proposed Action.

No Action Alternative

The current baseline of existing conditions would continue under No Action. There would be no direct impacts on airspace at any of the locations because none of the factors considered in determining impacts apply. The potential for indirect impacts on land use, the noise environment, and biological and cultural resources from ongoing, continuing airspace use related to Legacy Force training is addressed in Sections 4.2, 4.6, 4.10, and 4.11, respectively.