



SCIENTIFIC ADVISORY BOARD

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS OF THE AIR FORCE
WASHINGTON DC

July 8, 2014

MEMORANDUM FOR SAF/PAO

Subject: Security Review Request

1. The attached material, described below, is forwarded for security and policy review in accordance with AFI 35-101:

- a. TITLE: USAF Scientific Advisory Board (SAB) Defense of USAF Forward Bases (DFB) Study Abstract
- b. AUTHOR/ORGANIZATION: Dr. Glenn E. Mitzel, DFB Study Chair, AF Scientific Advisory Board
- c. PRESENTATION TO: Unlimited Public Release
- d. DATE: July 30, 2014
- e. LOCATION: N/A
- f. PUBLICATION IN: N/A
- g. SUBMITTAL DEADLINE: N/A
- h. REQUEST REPLY BY: July 28, 2014

2. The Air Force Scientific Advisory Board (AF/SB) has no objection to public release of this document upon approval from SAF/PA.

3. This document represents a combined abstract of the DFB Study Terms of Reference (previously approved for release) and the overall recommendations of the SAB DFB Study that was recently completed. Our point of contact for this request is Mr. Matthew Gorski, AF/SB, 240-612-5507, Matthew.g.Gorski.ctr@mail.mil.

//Signed//

DARREN M. EDMONDS, Lt Col, USAF
Acting Executive Director
USAF Scientific Advisory Board

Attachment: SAB DFB Study Abstract

DRAFT: Pending FACA Approval

**USAF Scientific Advisory Board Study
Defense of USAF Forward Bases**

Study Abstract

During the period Jan 2014 until Jun 2014, the Air Force Scientific Advisory Board undertook a study of ways to defend forward airbases with emphasis on those in the Pacific area of operations. The study placed particular emphasis on potential adversaries' desire to prevent or degrade US air operations from those forward located bases. The Pacific presents unique challenges due to the vast distances and predominance of ocean in the theater.

The study team, consisting of experts in a variety of fields, bolstered by operational Air Force personnel and Air Force Research Laboratory advisors, received inputs from a variety of Air Force and DoD organizations. In addition, industry, academia, and government advisors provided data and ideas on the study topic.

Five major issues were addressed by the study team:

1. Protecting base infrastructure including runways, communications, command & control systems, utilities, and facilities.
2. Mitigating threats from small units like special operations forces which might attack from air, land, or sea.
3. Protecting against cruise and ballistic missile threats. These threats range from sophisticated Intermediate Range Ballistic Missiles to inaccurate long-range rockets, and from maneuverable high-speed cruise missiles employing countermeasures to simple airborne improvised explosive devices.
4. Recovering from damage incurred to facilities, equipment, and personnel during an adversary attack. Particular emphasis was placed on being able to maintain sortie generation capability despite attacks on the airfield.
5. Protecting aircraft and personnel via hardening, dispersal, redundancy, camouflage, concealment, and deception.

Study results range from research recommendations to revisions of doctrine, tactics, and procedures. Emphasis is placed on science and technology efforts which have the potential to affordably ameliorate issues identified in each of the above five areas.

Study results will be presented to the sponsors, the Chief of Staff of the Air Force and the Secretary of the Air Force, in July 2014. The study report is expected to be published in May 2015.