FINAL

FOCUSED ENVIRONMENTAL ASSESSMENT FOR PROPOSED TEMPORARY RELOCATION OF THE 173d FIGHTER WING TO GOWEN FIELD AIR NATIONAL GUARD BASE

OREGON AIR NATIONAL GUARD
KLAMATH FALLS, OREGON

NATIONAL GUARD BUREAU
ASSET MANAGEMENT DIVISION

MARCH 2009

ACRONYMS

°F	degrees Fahrenheit
124 FG	124th Jet Fighter Group
124 WG	124th Wing
173 FW	173d Fighter Wing
189 AS	189th Airlift Squadron
190 FS	190th Fighter Squadron
270 ATCS	270th Air Traffic Control Squadron
ADF	Air Defense Fighter
AEI	Air Emissions Inventory
AGE	Aerospace ground equipment
ANGB	Air National Guard Base
AQCR	Air Quality Control Region
ASD	average sortie duration
ASE	Aerospace Support Equipment
BLM	Bureau of Land Management
BOI	Boise Municipal Airport
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
dB	decibels
dBA	A-weighted
DDF	Deployed Debrief Facilities
DNL	Day-Night Average Sound Level
DoD	Department of Defense
DOI	Department of the Interior
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FICON	Federal Interagency Committee on Noise
FONSI	Finding of No Significant Impact
FTU	Formal Training Unit
HUD	U.S. Department of Housing and Urban Development
IDANG	Idaho Air National Guard
IDF&G	Idaho Department of Fish and Game
IDL	Idaho Department of Lands
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
INM	Integrated Noise Model
LA	low approach
LTO	landings and takeoff
MOA	Military Operations Area
mph	miles per hour
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NGB	National Guard Bureau
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
O_3	ozone
ORANG	Oregon Air National Guard
PAA	Primary Authorized Aircraft
Pb	lead
PM	particulate matter
PM_{10}	particulate matter equal to or less than ten microns in diameter
$PM_{2.5}$	particulate matter equal to or less than 2.5 microns in diameter
POV	Privately Owned Vehicle
R-	Restricted Airspace-
SIP	State Implementation Plan
SO_2	sulfur dioxide
T&G	touch and go
USAF	U.S. Air Force
USC	U.S. Code
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
UTA	unit training assembly
VOC	volatile organic compounds
WRCC	Western Regional Climate Center

EXECUTIVE SUMMARY

The Oregon Air National Guard (ORANG)—in conjunction with the Federal Aviation Administration (FAA)—has recently approved a comprehensive airfield improvement program at Kingsley Field in Klamath Falls, Oregon. In order to continue training and operational activities during this planned runway construction project, the ORANG has proposed to temporarily relocate the 173d Fighter Wing (173 FW) currently operating at Kingsley Field to the Idaho Air National Guard's (IDANG's) Gowen Field Air National Guard Base (ANGB), located on the south side of the Boise Municipal Airport (BOI) in the City of Boise, Idaho. This temporary deployment of the 173 FW would include the relocation of 240 personnel and 23 F-15 aircraft and associated equipment for an 6 months—from 2 May 2009 to 2 November 2009. While deployed to Gowen ANGB, the 173 FW would utilize a currently unoccupied hangar and associated facilities. Operationally, implementation of the Proposed Action would include a total of 1,800 sorties flown by the 173 FW during this 6-month period; these training sorties would depart BOI and a majority of flight operations would be conducted in special use airspaces in the region.

The purpose of the Proposed Action is to facilitate continued mission execution by the 173 FW, its primary objective being the training of air-to-air combat pilots and flight surgeons and serving the Nation in times of peace and war. During major airfield improvement and construction activities at Kingsley Field, the 173 FW will not have access to its primary runway and associated airfield facilities and would not be able to conduct necessary training activities. By temporarily relocating to Gowen Field ANGB, the 173 FW would have access to adequate runway and airfield facilities necessary to complete its training mission.

This Environmental Assessment (EA) evaluates potential environmental and human resource impacts associated with the proposed temporary relocation of the 173 FW. The EA presents a summary of existing conditions and analyses of potential impacts on and in the vicinity of the IDANG installation at BOI. For this particular action, due primarily to the temporary and short-term nature of the deployment (i.e., 6 months) and because most environmental resources at and in the vicinity of Gowen Field ANGB were recently addressed in an EA completed in December 2007, resource descriptions and analyses focus on air quality, noise, and land use.

The findings of this EA indicate that implementation of the Proposed Action would not result in any significant impacts on the natural or human environment, either individually or collectively.

FOCUSED ENVIRONMENTAL ASSESSMENT
FOR PROPOSED TEMPORARY RELOCATION
OF THE
173d FIGHTER WING

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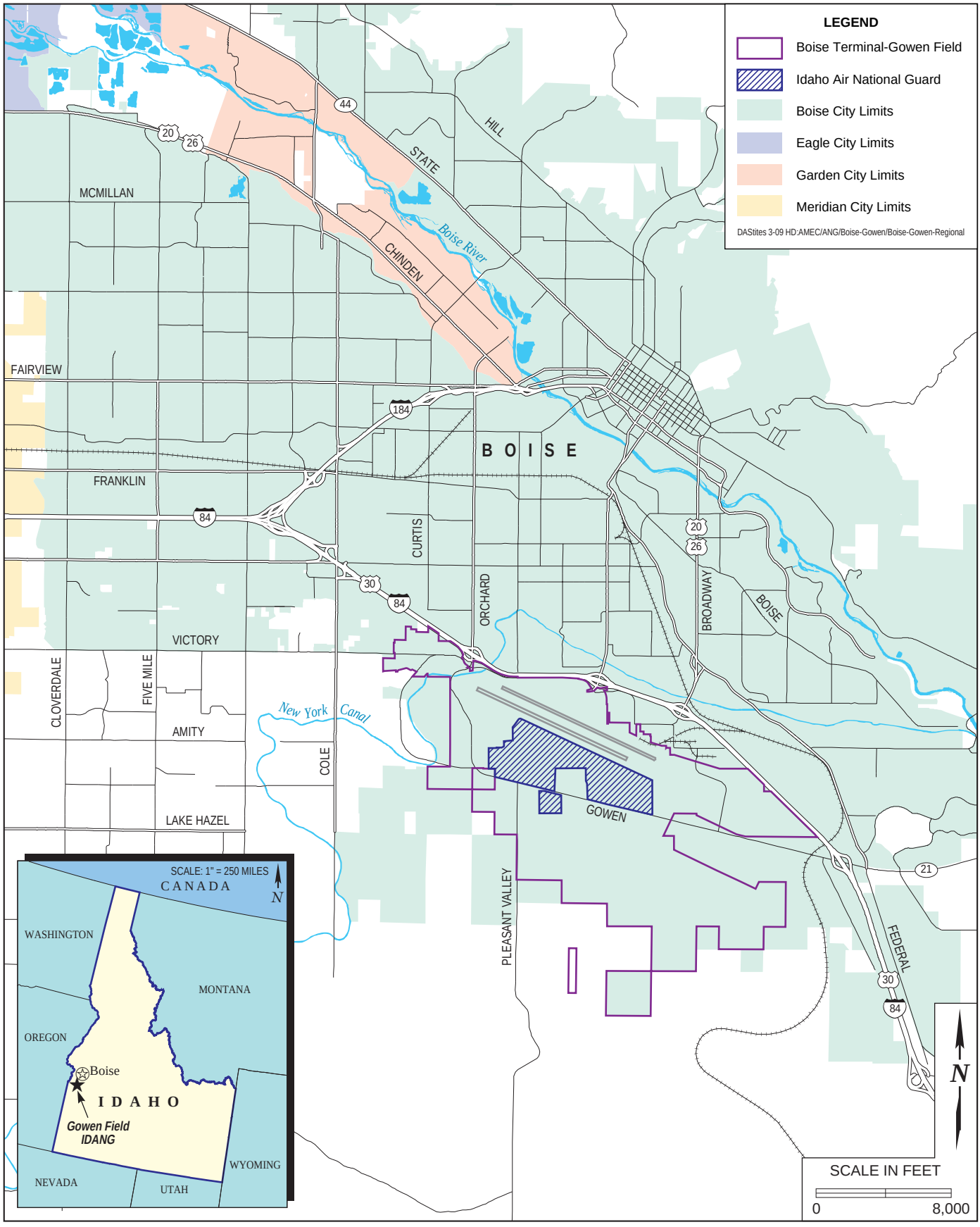
INTRODUCTION

1.1 INTRODUCTION

The Oregon Air National Guard (ORANG)—in conjunction with the Federal Aviation Administration (FAA)—has recently approved a comprehensive airfield improvement program at Kingsley Field in Klamath Falls, Oregon. In order to continue training and operational activities during this planned runway construction project, the ORANG has proposed to temporarily relocate the 173d Fighter Wing (173 FW) currently operating at Kingsley Field to the Idaho Air National Guard's (IDANG's) Gowen Field Air National Guard Base (ANGB), located on the south side of the Boise Municipal Airport (BOI) in the City of Boise, Idaho (Figure 1-1). This temporary deployment of the 173 FW would include the relocation of 240 personnel and 23 F-15 aircraft and associated equipment for 6 months—from 2 May 2009 to 2 November 2009. While deployed to Gowen ANGB, the 173 FW would utilize a currently unoccupied hangar and associated facilities recently vacated by the 124th Wing (124 WG) of the IDANG. This hangar space and associated maintenance and administrative facilities previously supported the 124 WG's C-130 aircraft mission, which is scheduled to stand down on 1 April 2009 in accordance with 2005 Base Realignment and Closure (BRAC) Commission Recommendations (National Guard Bureau [NGB] 2007). Operationally, implementation of the Proposed Action would include a total of 1,800 sorties flown by the 173 FW during this 6-month period; these training sorties would depart BOI and a majority of flight operations would be conducted in special use airspaces in the region.

1.2 PURPOSE AND NEED

The *purpose* of the Proposed Action is to facilitate continued mission execution by the 173 FW, its primary objective being the training of air-to-air combat pilots and flight surgeons and serving the nation in times of peace and war. In addition, the 173 FW also conducts a unique mission to train and qualify out-of-state and international flying units as an Air Defense Fighter (ADF) training unit.



EA

Regional Location Map
Boise Terminal-Gowen Field and the IDANG

FIGURE 1-1

No warranty is made by the State/Territory/National Guard Bureau as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. This map is a "living document," in that it is intended to change as new data become available and are incorporated into the Enterprise GIS database.

During major airfield improvement and construction activities at Kingsley Field, the 173 FW will not have access to its primary runway and associated airfield facilities and would not be able to conduct necessary training activities.

The *need* for the temporary relocation of the 173 FW's 23 F-15 aircraft is driven by the planned comprehensive airfield improvement and construction program scheduled to take place at Kingsley Field and anticipated to require 6 months for completion, from May to November 2009. By temporarily relocating to Gowen Field ANGB, the 173 FW would have access to adequate runway and airfield facilities necessary to complete its training mission.

1.3 LOCATION AND HISTORY

1.3.1 173 FW – Oregon ANG

Location

The 173 FW is currently located in the western portion of Kingsley Field in southern Klamath Falls, Klamath County, Oregon. The airport comprises approximately 1,200 acres, owned and operated by the City of Klamath Falls.

History

The airfield at present-day Kingsley Field was established as Klamath Falls Municipal Airport in 1928. In 1942, the U.S. Navy selected Klamath Falls Airport as a site for a Naval Air Station. After World War II the air station was closed following less than 1 year of operation. A portion of the facility was returned to the City of Klamath Falls for use as a municipal airport, and the remainder was turned over to the U.S. Department of the Interior (DOI). In 1954, the DOI property was transferred to the U.S. Air Force (USAF) to establish an all-weather fighter interceptor complex.

In 1979, USAF realignment removed active USAF units from Kingsley Field and in 1981, the 142nd Fighter Interceptor Group of the ORANG assumed alert detachment responsibility for air defense alert from the USAF. In 1986, unit training assembly (UTA) weekends began. The fighter training squadron was

renamed 173rd Fighter Wing in 1996. Over the years, the unit has been assigned several different types of aircraft, and the latest conversion to the F-15 aircraft occurred in 1998.

1.3.2 124 WG – Idaho ANG

Location

The 124 WG of the IDANG is located at the Gowen Field ANGB on the south side of BOI, and is situated in the southern portion of the City of Boise, Ada County, Idaho (see Figure 1-1). The IDANG property comprises an approximately 576-acre military installation that covers the southern half of BOI, which operates as a joint civilian/military facility. The land on which the IDANG installation is located is owned by the City of Boise and, despite recent BRAC-related actions, remains secured for military use through a lease agreement with the City and the Federal government. IDANG has historically used facilities in the northern and southeastern areas of the installation and IDANG retains overall responsibility for management of the installation. The remaining facilities are subleased by the USAF to other Department of Defense (DoD) tenants.

History

In 1940, the City of Boise had its new Boise Air Terminal certified as a property important to national defense so that it could be selected as an Army Air Corps base site (NGB 2000). The airfield was leased to the War Department in 1941 for use as an Army Air Corps base. Initially, the base mission was to train crews in the operation of medium-range bomber and reconnaissance aircraft for the Second Air Force. In 1942, the mission changed to heavy bombardment groups and the base began training B-17 "Flying Fortress" pilots (Hart 1991). Gowen Field became a Combat Crew Training School in 1943 and served in that capacity for the remainder of World War II (NGB 2000). The base converted from B-17s to B-24s in 1943 (Hart 1991).

In 1946, the Idaho National Guard headquarters were transferred to Gowen Field. The newly formed 190th Fighter Squadron (190 FS) was officially assigned

to the base; and units of the Army National Guard were transferred there (NGB 2000). The first 190 FS aircraft were F-51 propeller aircraft (NGB 2000). The 190 FS was called to active duty in 1951 for the Korean War, after which the 190 FS was assigned to the Western Defense Command and charged with aiding in the air defense of the northwestern U.S. In support of this new mission, the 190 FS began flying the F-86A Sabrejet in 1953 (NGB 2000). In 1956, the 124th Jet Fighter Group (124 FG) was activated at Gowen Field and took the re-designated 190 FS as one of its component units. When the 190 FS became the flying unit of the 124 FG, the number of authorized personnel nearly doubled and the squadron began flying the F-89 jet interceptors, capable of extremely long-range missions (NGB 2000). By 1964, Gowen Field was home to the F-102 Delta Daggers, which were on constant alert from 1964 through 1975 as part of the Vietnam and Cold War efforts.

A new mission of aerial reconnaissance brought the RF-4C Phantom to the base in 1975, and the group was re-designated as the 124th Tactical Reconnaissance Group. In 1991, the first F-4G aircraft arrived at Gowen Field, and the 124th operated the only F-4G school in the USAF. The mission of the 124 WG involved F-4 fighter aircraft until the mid-1990s. As F-4 fighter aircraft were being phased out of the U.S. military, the aircraft based at Gowen Field were replaced with A-10 Thunderbolt close air support and C-130 Hercules transport aircraft (Global Security 2002). In 1996, the unit increased its facilities and operations capacity to accommodate 17 A-10s and six C-130s (IDANG 2003).

Just prior to implementation of BRAC Commission Recommendations, the 124 WG maintained an inventory of 15 A-10 Primary Authorized Aircraft (PAA) and four C-130 PAA. In 2008, the 124 WG underwent a mission conversion required by those recommendations. In addition to several construction and demolition projects, the 124 WG increased the number of A-10 PAA aircraft to 18 and will decrease its C-130 PAA to zero by 1 April 2009.

1.4 CURRENT MISSION AND OPERATIONS

1.4.1 173 FW - Oregon ANG

As ADF training unit, the mission of the 173 FW is to train air-to-air combat pilots, train flight surgeons (Top Knife), and to serve Oregon and the Nation in times of peace and war. The unit is allotted 21 F-15 PAA, with a programmed 5,600 flight hours; the average sortie duration of 1.3 hours results in approximately 4,308 annual arrivals and departures. In addition, the 173 FW is also allotted two additional F-15 aircraft, resulting in a Total Aircraft Inventory of 23 F-15s. Remote training sorties are currently conducted in adjacent special use and restricted airspace areas, including Goose Military Operations Area (MOA), Juniper and Hart North and South MOAs, Dolphin MOA, and Warning Area 93.

There are a total of 810 personnel assigned to the ORANG at Kingsley Field. The base employs approximately 459 full-time personnel. Drill weekend training is conducted once a month and results in a surge to 810 personnel. This number includes 225 Active Guard members, 234 military technicians, 2 Federal civilian employees, and 351 drill-status-only personnel. The 270th Air Traffic Control Squadron (270 ATCS), with a total staff of 89 personnel, is a tenant organization of the 173 FW.

1.4.2 124 WG - Idaho ANG

The mission of the 124 WG is to provide highly trained personnel and mission-ready equipment for service to the Nation; protecting life and property and preserving peace, order, and public safety. The 124 WG currently has an authorized manpower of approximately 1,550 personnel and supports two flying units, the 190 FS and the 189th Airlift Squadron (189 AS). The 190 FS mission is to mobilize and deploy in accordance with the USAF. Maintaining and operating an inventory of 18 A-10 Thunderbolt II , they perform air interdiction, close air support, joint maritime operations, joint air attack team, combat search and rescue, and airborne forward air control. The 189 AS operates combat-ready C-130 aircraft and performs airlift and airdrop missions in support of U.S. and allied forces worldwide. They employ both visual and station-keeping

equipment procedures to conduct all-weather, day and night multi-ship formation operations. Members of the 189 AS fly realistic combat training sorties and aircrew proficiency sorties daily. The main support operations performed at the 124 WG include aircraft fueling, aircraft deicing, aircraft maintenance, Aerospace Support Equipment (ASE) maintenance, ground vehicle maintenance, fueling of ground vehicles, and facilities maintenance. These operations involve activities such as corrosion control, non-destructive inspection, fuel cell maintenance, engine maintenance, hydraulics, and wheel and tire maintenance.

1.5 SUMMARY OF ENVIRONMENTAL STUDY REQUIREMENTS

The Environmental Impact Analysis Process (EIAP) is the process by which Federal agencies facilitate compliance with environmental regulations. The primary legislation affecting these agencies' decision-making process is the National Environmental Policy Act (NEPA) of 1969. For this particular action, due primarily to the temporary and short-term nature of the deployment (i.e., 6 months) and because most environmental resources at and in the vicinity of Gowen Field ANGB were addressed in an Environmental Assessment (EA) completed in December 2007, the focus of this EA will be limited to only those resources for which it is anticipated there is a potential for an adverse impact. These resource areas include air quality, noise, and land use. NEPA and other facets of the EIAP are described below.

1.5.1 National Environmental Policy Act

NEPA requires that Federal agencies consider potential environmental consequences of proposed actions. The law's intent is to protect, restore, or enhance the environment through well-informed Federal decisions. The Council on Environmental Quality (CEQ) was established under NEPA for the purpose of implementing and overseeing Federal policies as they relate to this process. In 1978, the CEQ issued *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (40 Code of Federal Regulations [CFR] §1500-1508 [CEQ 1978]). These regulations specify that an EA be prepared to:

- briefly provide sufficient analysis and evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI);

- aid in an agency's compliance with NEPA when no EIS is necessary; and
- facilitate preparation of an EIS when one is necessary.

Further, to comply with other relevant environmental requirements (e.g., the Safe Drinking Water Act, Endangered Species Act [ESA], and National Historic Preservation Act [NHPA]) in addition to NEPA, and to assess potential environmental impacts, the EIAP and decision-making process for the proposed action involves a thorough examination of all environmental issues pertinent to the action proposed for the 173 FW.

To comply with NEPA and other pertinent environmental requirements, and to assess impacts on the environment, the decision-making process includes a study of environmental issues related to the proposed temporary relocation of the 173 FW.

1.5.2 Clean Air Act and Conformity Requirements

The Clean Air Act (CAA) (42 U.S. Code [USC] §§ 7401–7671, as amended) provided the authority for the U.S. Environmental Protection Agency (USEPA) to establish nationwide air quality standards to protect public health and welfare. Federal standards, known as the National Ambient Air Quality Standards (NAAQS), were developed for six criteria pollutants: ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter, and lead (Pb). The Act also requires that each state prepare a State Implementation Plan (SIP) for maintaining and improving air quality and eliminating violations of the NAAQS. Under the CAA Amendments of 1990, Federal agencies are required to determine whether their undertakings are in conformance with the applicable SIP and demonstrate that their actions will not cause or contribute to a new violation of the NAAQS; increase the frequency or severity of any existing violation; or delay timely attainment of any standard, emission reduction, or milestone contained in the SIP. The USEPA has set forth regulations 40 CFR 51, Subpart W, that require the proponent of a proposed action to perform an analysis to determine if its implementation would conform with the SIP.

1.5.3 Interagency and Intergovernmental Coordination for Environmental Planning

Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) is a federally mandated process for informing and coordinating with other governmental agencies regarding proposed actions. As detailed in 40 CFR § 1501.4(b), CEQ regulations require intergovernmental notifications prior to making any detailed statement of environmental impacts. Through the IICEP process, the ANG notifies relevant Federal, state, and local agencies and allows them sufficient time to make known their environmental concerns specific to a proposed action. Comments and concerns submitted by these agencies during the IICEP process are subsequently incorporated into the analysis of potential environmental impacts conducted as part of the EA. For this particular action, due primarily to the temporary and short-term nature of the deployment (i.e., 6 months) and because most environmental resources at and in the vicinity of BOI were recently addressed in an EA completed in December 2007, a focused Final EA and Draft FONSI will be submitted through the IICEP process for intergovernmental review and comment on the Proposed Action.

1.6 RELATED ENVIRONMENTAL DOCUMENTS

A number of environmental documents have been prepared and approved that are relevant to the Proposed Action. The completed documents contain information used in the preparation of this EA. A partial listing of these documents follows:

- *Final Environmental Assessment for the Implementation of Base Realignment and Closure Final Recommendations for the Mission Change and Construction Activities of the 124th Wing at Boise Air terminal (Gowen Field), Boise, Idaho* (December 2007);
- *Final Cultural Landscape Evaluation of Gowen Field (124 FG), Idaho* (2000);
- *Boise Airport 14 CFR Part 150 Study, Noise Exposure Maps and Noise Compatibility Program Update* (2004); and
- *Airport Master Plan Final Report for Boise Airport, Boise, Idaho* (February 2001);

SECTION 2
DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

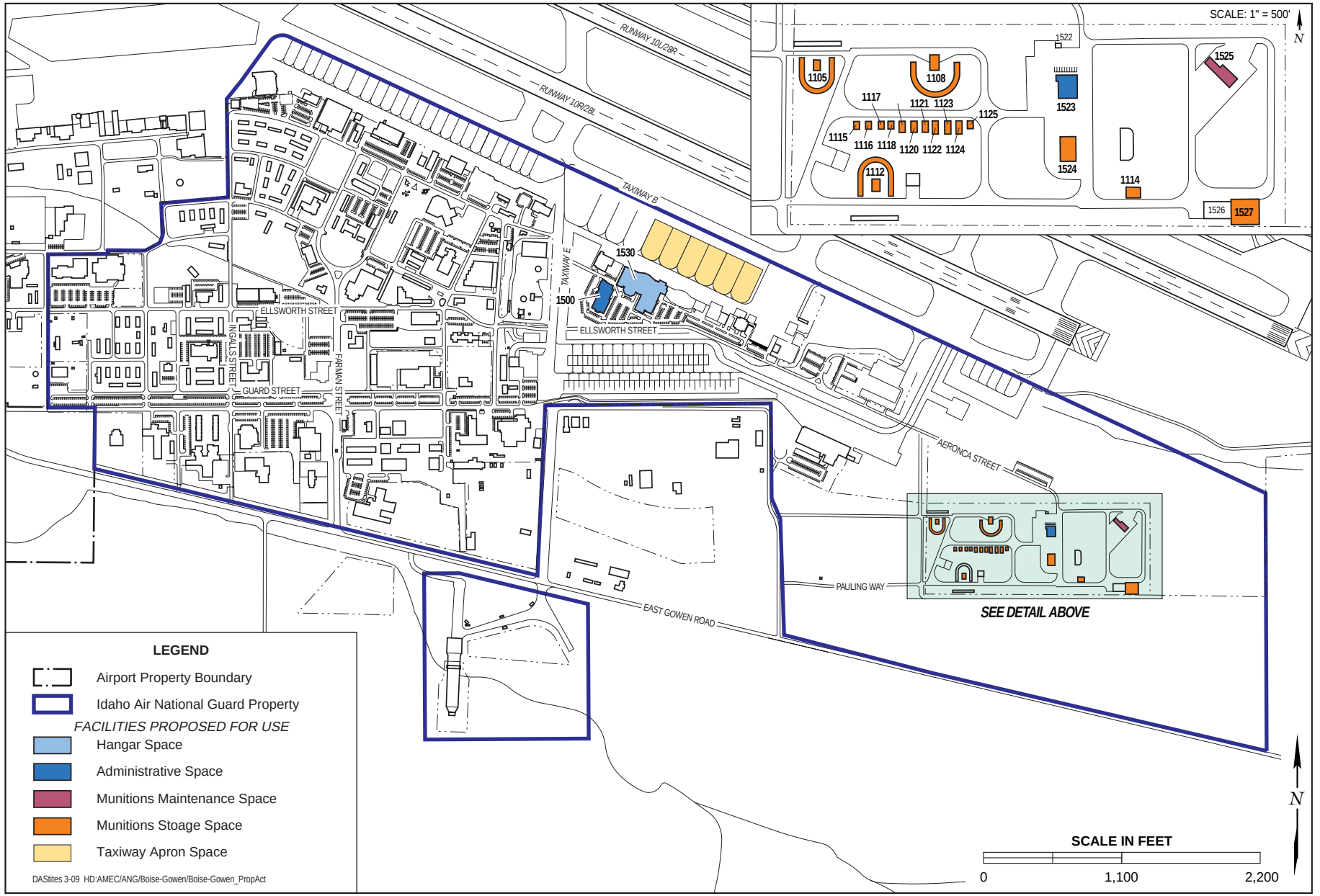
2.1 INTRODUCTION

The Oregon Air National Guard (ORANG)—in conjunction with the Federal Aviation Administration (FAA)—has recently approved a comprehensive airfield improvement program at Kingsley Field in Klamath Falls, Oregon. In order to continue training and operational activities during this planned runway construction project, the ORANG has proposed to temporarily relocate the F-15 Formal Training Unit (FTU) of 173d Fighter Wing (173 FW) currently operating at Kingsley Field to the Idaho Air National Guard's (IDANG's) Gowen Field Air National Guard Base (ANGB), located on the south side of the Boise Municipal Airport (BOI) in the City of Boise, Idaho.

2.2 PROPOSED ACTION

The Proposed Action would include the relocation of approximately 240 personnel, 23 F-15 aircraft, and associated equipment for 6 months—from 2 May 2009 to 2 November 2009. Between direct and indirect spending, it is anticipated that this temporary deployment would generate approximately $8.8 million in economic activity for Boise's regional economy. While deployed to Gowen ANGB, the 173 FW would be granted access to and use of existing facilities operated by the 124th Wing (124 WG) (Figure 2-1). These facilities would include:

- Building 1530 – to be utilized for hangar and aircraft maintenance space;
- Buildings 1500 and 1523 – to be shared with the 124 WG for use as administrative space, also includes trailer maintenance space;
- Building 1525 – to be shared with the 124 WG for munitions maintenance and inspection operations;
- Buildings 1105, 1108, 1112, 1114-1125, 1524, and 1527 – to be used for munitions storage;
- Apron space – to provide parking for up to 24 aircraft arranged in two rows in front of Building 1530 occupying parking spots 33 through 39;



EA

Facilities Proposed for Use by ORANG at IDANG Gowen Field

FIGURE 2-1

- Hush-house – to be shared with the 124 WG for all high power engine checks; and
- Aerospace ground equipment (AGE) storage – to be shared with the 124 WG.

The available hangar space (Building 1530) and associated maintenance and administrative facilities previously supported the 124 WG's C-130 aircraft mission, which it no longer operates after implementing 2005 Base Realignment and Closure (BRAC) Commission recommendations on 1 April 2009 (National Guard Bureau [NGB] 2007). In addition to use of existing facilities at Gowen Field ANGB, the 173 FW would transport two (2) mobile aircraft arresting systems, one (1) airfield sweeper, approximately 100 pieces of AGE, two (2) Deployed Debrief Facilities (DDF's), and various general support equipment and vehicles. It is anticipated that this equipment would require approximately 50 truck loads for transportation. The ORANG does not propose construction of any new facilities or demolition to support this action.

Operationally, implementation of the Proposed Action would include a total of 1,800 sorties flown by the 173 FW during this 6-month period; these training sorties would depart BOI and a majority of flight operations would be conducted in special use airspaces in the region including Restricted Airspace- (R-) 3203 and R-3202. The 173 FW would fly approximately 14 sorties per day with an average sortie duration (ASD) of 1.3 hours. During the temporary deployment period, it is anticipated that the 190th Fighter Squadron of the 124 WG would maintain existing A-10 operations of approximately 12 sorties per day. In addition, it is anticipated that the 189 AS would stand down on April 1 2009 and would cease to conduct C-130 flying operations which would help to offset the operational effect of the 173 FW's short-term increase in aircraft operations at and in the vicinity of Gowen Field ANGB and local airspace areas.

2.3 ALTERNATIVES

A review of regional ANG installations and airfields capable of providing an appropriate alternative site location for the Proposed Action was conducted; however, no regional alternative sites, including Mountain Home Air Force Base, were identified that could provide adequate and vacant airfield facility space for

the 173 FW in addition to appropriate nearby special use and restricted airspace areas during the timeframe required for the Proposed Action. Therefore, only the No-Action Alternative will be carried forward for analysis in this Environmental Assessment.

If the No-Action Alternative were selected, the 173 FW would not temporarily relocate the F-15 FTU to Gowen Field ANGB. As a result, the F-15 FTU would be unable to conduct any flight training activities due to the comprehensive airfield improvement project scheduled for implementation at Kinsgley Field and the unit would be unable to meet its mission requirements. However, because Council on Environmental Quality regulations stipulate that the No-Action Alternative be analyzed to assess any environmental consequences that may occur if the Proposed Action is not implemented, the No–Action Alternative will be carried forward for analysis in the EA.

SECTION 3
AFFECTED ENVIRONMENT

This section describes relevant existing environmental conditions for resources potentially affected by the proposed action and identified alternatives. In compliance with guidelines established by the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations, Air Force Instruction (AFI) 32-7061, and Title 32, Code of Federal Regulations (CFR) Part 989 (32 CFR 989), *Environmental Impact Analysis Process*, the description of the affected environment focuses on only those aspects potentially subject to impacts.

In the case of the Proposed Action for the 173d Fighter Wing (173 FW), the affected environment description is limited primarily to the Idaho Air National Guard's (IDANG's) Gowen Field Air National Guard Base (ANGB), located on the south side of the Boise Municipal Airport (BOI) in the City of Boise, Idaho. For this particular action, due primarily to the temporary and short-term nature of the deployment (i.e., aircraft would be relocated to Gowen Field ANGB for only 6 months) and because most environmental resources at and in the vicinity of the base were recently addressed in an EA completed in December 2007, resource descriptions focus on the following areas: air quality, noise, and land use. Other resources typically analyzed in a comprehensive environmental assessment (EA)—including geological resources, water resources, biological resources, transportation and circulation, visual resources, cultural resources, socioeconomics, environmental justice, hazardous materials and wastes, safety, and airspace management—would not be affected by the Proposed Action and were excluded from further discussion to keep the analysis relevant and concise. For a description of these resource areas, refer to the Final Environmental Assessment for Implementation of Base Realignment and Closure Final Recommendation for the 124th Wing (IDANG 2007).

3.1 AIR QUALITY

This section describes air quality considerations and conditions in the area around BOI. The discussion addresses air quality standards and describes current air quality conditions in the region.

3.1.1 Definition of Resource

Air quality is affected by stationary sources (e.g., industrial development) and mobile sources (e.g., motor vehicles). Air quality at a given location is a function of several factors including the quantity and type of pollutants emitted locally and regionally, and the dispersion rates of pollutants in the region. Primary factors affecting pollutant dispersion are wind speed and direction, atmospheric stability, temperature, the presence or absence of inversions, and topography.

3.1.1.1 Criteria Pollutants

Air quality in a given location is determined by the concentration of various pollutants in the atmosphere. National Ambient Air Quality Standards (NAAQS) are established by the U.S. Environmental Protection Agency (USEPA) for criteria pollutants, including: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter equal to or less than ten microns in diameter (PM_{10}) and 2.5 microns in diameter ($PM_{2.5}$), and lead (Pb). NAAQS represent maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect public health and welfare.

Ozone (O_3). The majority of ground-level (or terrestrial) O_3 is formed as a result of complex photochemical reactions in the atmosphere involving volatile organic compounds (VOC), nitrogen oxides (NO_x), and oxygen. O_3 is a highly reactive gas that damages lung tissue, reduces lung function, and sensitizes the lung to other irritants. Although *stratospheric* O_3 shields the earth from damaging ultraviolet radiation, terrestrial O_3 is a highly damaging air pollutant and is the primary source of smog.

Carbon Monoxide (CO). CO is a colorless, odorless, poisonous gas produced by incomplete burning of carbon in fuel. The health threat from CO is most serious for those who suffer from cardiovascular disease, particularly those with angina and peripheral vascular disease.

Nitrogen Dioxide (NO_2). NO_2 is a highly reactive gas that can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Repeated exposure to high concentrations of NO2 may cause acute respiratory

disease in children. Because NO_2 is an important precursor in the formation of O_3 or smog, control of NO_2 emissions is an important component of overall pollution reduction strategies. The two primary sources of NO_2 in the U.S. are fuel combustion and transportation.

Sulfur Dioxide (SO_2). SO_2 is emitted primarily from stationary source coal and oil combustion, steel mills, refineries, pulp and paper mills, and from nonferrous smelters. High concentrations of SO_2 may aggravate existing respiratory and cardiovascular disease; asthmatics and those with emphysema or bronchitis are the most sensitive to SO_2 exposure. SO_2 also contributes to acid rain, which can lead to the acidification of lakes and streams and damage trees.

Particulate Matter (PM_{10} and $PM_{2.5}$). Particulate matter (PM) is a mixture of tiny particles that vary greatly in shape, size, and chemical composition, and can be comprised of metals, soot, soil, and dust. Particulate matter less than ten microns (PM_{10}) includes larger, coarse particles, whereas Particulate matter less than 2.5 microns ($PM_{2.5}$) includes smaller, fine particles. Sources of coarse particles include crushing or grinding operations, and dust from paved or unpaved roads. Sources of fine particles include all types of combustion activities (e.g., motor vehicles, power plants, wood burning) and certain industrial processes. Exposure to PM_{10} and $PM_{2.5}$ levels exceeding current standards can result in increased lung- and heart-related illness. The USEPA has concluded that finer particles are more likely to contribute to health problems than those greater than 10 microns in diameter. Both PM_{10} and $PM_{2.5}$ are monitored and regulated.

Airborne Lead (Pb). Airborne lead can be inhaled directly or ingested indirectly by consuming lead-contaminated food, water, or non-food materials such as dust or soil; fetuses, infants, and children are most sensitive to Pb exposure. Pb has been identified as a factor in high blood pressure and heart disease. Exposure to Pb has declined dramatically in the last 10 years as a result of the reduction of Pb in gasoline and paint, and the elimination of Pb from soldered cans.

3.1.1.2 Clean Air Act Amendments

The Clean Air Act Amendments (CAAA) of 1990 place most of the responsibility to achieve compliance with NAAQS on individual states. To this end, USEPA

requires each state to prepare a State Implementation Plan (SIP). A SIP is a compilation of goals, strategies, schedules, and enforcement actions that will lead the state into compliance with all NAAQS. Areas not in compliance with a standard can be declared *nonattainment* areas by USEPA or the appropriate state or local agency. In order to reach attainment, NAAQS may not be exceeded more than once per year. A *nonattainment* area can reach *attainment* when NAAQS have been met for a period of ten consecutive years. During this time period, the area is in *transitional attainment*, also termed *maintenance*.

3.1.2 Existing Conditions

3.1.2.1 Climate

Average temperatures in the City of Boise generally range from the lower 30s (degrees Fahrenheit [°F]) in the winter months to mid 70s (°F) in the summer months. Temperatures vary greatly between seasons. The average maximum temperature in the month of January is 36.9°F, while the average maximum in July is 90.6°F. Diurnal temperature variations are greatest in the summer, with a 32°F difference between the average high and low temperature in July. There is only a 14°F difference in temperature between the months of December and January (Western Regional Climate Center [WRCC] 2007a).

Average annual precipitation for Boise is 11.76 inches[1]. More precipitation falls in the winter months, with a peak monthly average of 1.46 inches in January. Summers are rather dry, with the lowest monthly average precipitation of 0.27 inch occurring in July. Snow is not uncommon from late fall through early spring. The average annual snowfall in Boise is 19.5 inches, with a peak monthly average of 6.3 inches in January (WRCC 2007a).

The Boise area is a fairly breezy location. For each month of the year, the average wind speed is at least 7.0 miles per hour (mph) and the annual average wind speed is 8.0 mph. Spring tends to bring stronger winds, although the windiest months, March and April, exhibit an average speed of only 8.9 mph. The prevailing wind direction is from the southeast in the fall and winter and from the northwest in the spring and summer. However, local topography and the

[1] Includes depth of melted snowfall.

passage of storm fronts can greatly influence wind speed and direction on a short-term basis (WRCC 2007b, 2007c).

3.1.2.2 Local Air Quality

BOI is located in northern Ada County. All of Ada County, according to 40 CFR 81.87, is designated as part of the Metropolitan Boise Intrastate Air Quality Control Region (AQCR) 64. A review of federally published attainment status reports for northern Ada County, which encompasses the project site and is within AQCR 64, indicated that northern Ada County was designated as an area of concern for O_3 and PM_{10}. Northern Ada County was designated a *maintenance* area for CO on December 27, 2002 and was designated as a *maintenance* area for PM_{10} on November 26, 2003. Northern Ada County is an *attainment* area, or meets national standards, for all other criteria pollutants (USEPA 2008a). The most recent measurements show that Ada County as a whole meets all national standards for criteria pollutants (Figure 3-1). Table 3-1 summarizes the 2002 emissions totals for AQCR 64.

Table 3-1. Annual Emissions for AQCR 64 in Calendar Year 2002

Location	Annual Emissions (tons)					
	VOC	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$
Ada County	24,784	94,021	20,465	1,343	27,176	6,087
Canyon County	13,910	36,498	7,169	535	32,181	4,797
Total	**68,694**	**130,519**	**27,634**	**1,878**	**59,357**	**10,884**

Source: USEPA 2002.

3.1.2.3 Emissions at the 124 WG Installation

Air emissions that result from activity associated with the 124 WG of the IDANG originate from both stationary and mobile sources. Stationary sources include boilers, internal combustion engines, aircraft engine test cells, fuel storage and transfer, and operational sources such as chemical usage, painting, aircraft deicing, woodworking activities, and degreasing (IDANG 2004). Mobile sources include vehicles on the ground, aircraft operations, and aircraft engine testing while the engines are attached to the aircraft. Table 3-2 summarizes projected annual emissions associated with operation of the 124 WG after the stand down

Pollutant	Averaging Time	Federal Standards [a]		
		Primary [b]	Secondary [c]	Method
Ozone (O_3)	1 Hour	0.12 ppm (235 μg/m^3)	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.075 ppm (147 μg/m^3)[d]		
Respirable Particulate Matter (PM_{10})	24 Hour	150 μg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	50 μg/m^3		
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	35 μg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	15 μg/m^3		
Carbon Monoxide (CO)	8 Hour	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	35 ppm (40 mg/m^3)		
Nitrogen Dioxide (NO_2)	Annual Average	0.053 ppm (100 μg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
Sulfur Dioxide (SO_2)	Annual Average	0.030 ppm (80 μg/m^3)	—	Spectrophotometry (Pararosaniline Method)
	24 Hour	0.14 ppm (365 μg/m^3)	—	
	3 Hour	—	0.5 ppm (1300 μg/m^3)	
Lead	Calendar Quarter	1.5 μg/m$_3$	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	0.15 μg/m$_3$	1.5 μg/m$_3$	

a Not to be exceeded more than once a year except for annual standards, ozone, and $PM_{2.5}$ standards..

b National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the U.S. EPA.

c National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within "a reasonable time" after the implementation plan is approved by the U.S. EPA.

d New federal 8-hour ozone standard was promulgated by USEPA on May 27, 2008. The 3-year average of the fourth-highest daily maximum 8-hour average ozone concentration must not exceed 0.075 ppm.

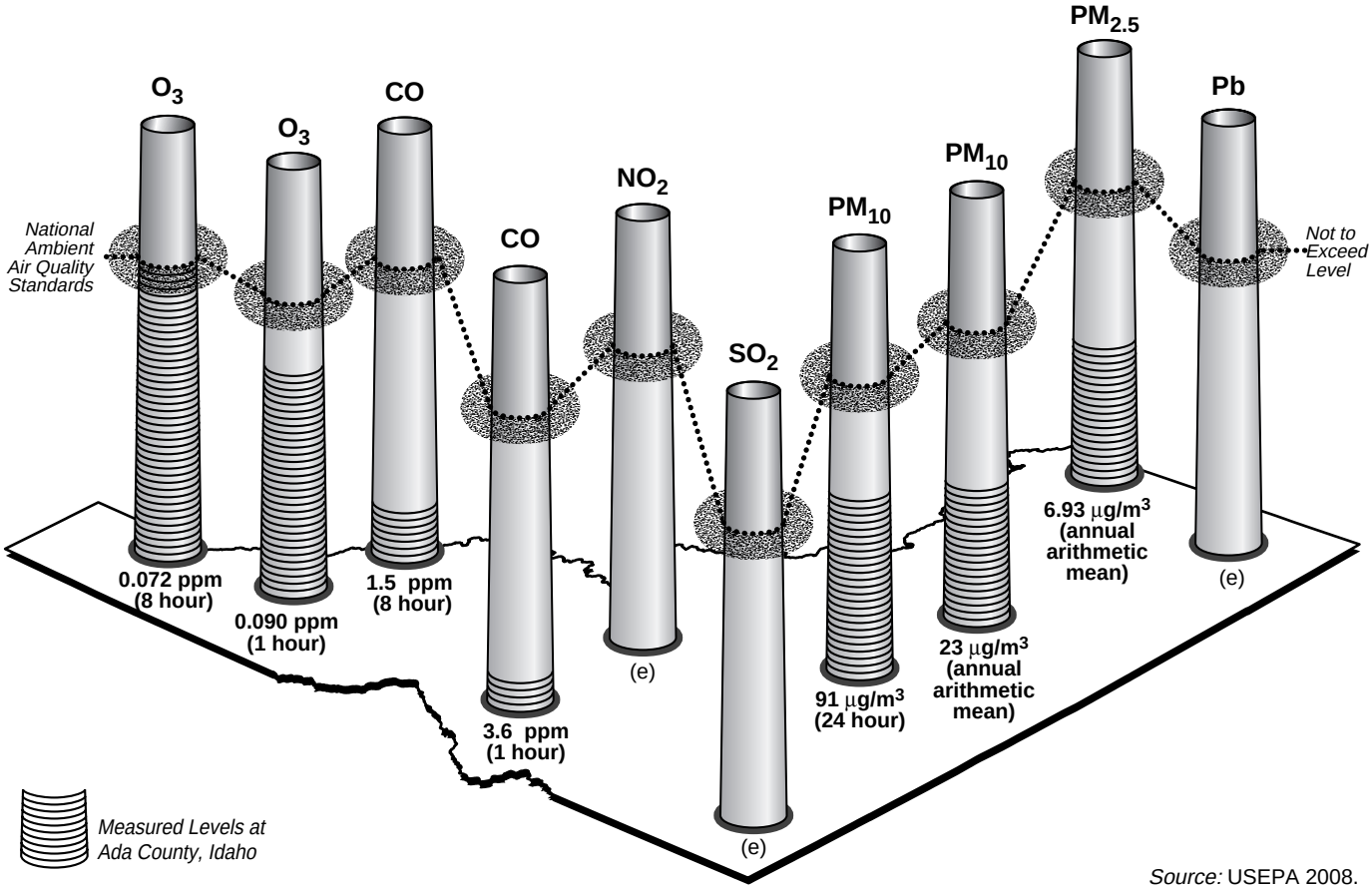
e Not monitored in Ada County Monitoring Stations.

ppm – parts per million by volume (micromoles of pollutant per mole of gas)

μg/m^3 – micrograms per cubic meter

mg/m^3 – milligrams per cubic meter

(ppm*molecular weight)/0.0224 = μg/m^3



Source: USEPA 2008.

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National Ambient Air Quality Standards and Measured Emission Levels (2008) Ada County, Idaho

FIGURE 3-1

Table 3-2. Baseline Emissions for 124 WG of the IDANG (as of 1 April 2009*)

	ANNUAL EMISSIONS (TONS PER YEAR)					
	VOC	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$
Stationary (Permitted) Sources	2.89	2.65	3.74	0.07	0.50	0.50
Mobile Sources	26.23	174.37	42.22	3.53	9.55	9.50
Total	**29.12**	**177.02**	**45.96**	**3.6**	**10.05**	**10.00**

*These emissions are based on projected conditions as provided in the Final Environmental Assessment for Implementation of Base Realignment and Closure Final Recommendation for the 124th Wing and do not included emissions associated with C-130 operations (IDANG 2007).
Source: IDANG 2007.

of C-130 aircraft on 1 April 1 2009, an implementation of Base Realignment and Closure (BRAC) final recommendations. Mobile source emissions calculated include those associated with maintaining and operating the remaining PAA of 18 A-10 aircraft as well as aircraft engine testing operations associated with the unit remaining after implementation of BRAC recommendations (IDANG 2007).

3.2 NOISE

3.2.1 Definition of Resource

Noise is defined as unwanted sound or, more specifically, as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise annoying (Federal Interagency Committee on Noise [FICON] 1992). Human response to noise can vary according to the type and characteristics of the noise source, the distance between the noise source and the receptor, the sensitivity of the receptor, and the time of day.

Due to the wide range in sound levels, sound is expressed in decibels (dB), a unit of measure based on a logarithmic scale; in other words, a 10-dB increase in noise level corresponds to a 100-percent increase (doubling) in perceived loudness. As a general rule, a 3-dB change is necessary for noise increases to be noticeable to humans (Bies and Hansen 1988). Sound measurement is further refined by using an A-weighted decibel scale that emphasizes the range of sound frequencies that is most audible to the human ear (i.e., between 1,000 and 8,000 cycles per second). Unless otherwise noted, all dB measurements presented in the following noise analysis are A-weighted (dBA).

Day-Night Average Sound Level (DNL) is a noise metric that averages A-weighted sound levels over a 24-hour period, with an additional 10-dB penalty added to noise events occurring between 10:00 PM and 7:00 AM. This penalty is intended to compensate for generally lower background noise levels at night and the additional annoyance of nighttime noise events. DNL is the preferred noise metric of the U.S. Department of Housing and Urban Development (HUD), the U.S. Department of Transportation (USDOT), Federal Aviation Administration (FAA), USEPA, Veterans' Administration, and Department of Defense (DoD).

Table 3-3 identifies noise levels associated with some common indoor and outdoor activities and settings. Table 3-3 also indicates the subjective human judgments of noise levels, specifically the perception of noise levels doubling or being halved.

For reference purposes, a baseline noise level of 70 dB is described as moderately loud. As can be seen in the table illustrating the logarithmic dB scale, humans perceive an increase of 10 dB as a doubling of loudness, while an increase of 30 dB corresponds with an eight-fold increase in perceived loudness.

Noise in the Airfield Environment

Aircraft Operations. Analyses of aircraft noise exposure and compatible land use around DoD facilities are normally accomplished using a group of computer-based programs, collectively called NOISEMAP (U.S. Air Force [USAF] 1992). NOISEMAP, through its BASEOPS program, allows entry of runway coordinates, airfield information, flight tracks, flight profiles (e.g., engine thrust settings, altitudes, and speeds) along each flight track for each aircraft, numbers of flight operations, run-up coordinates, run-up profiles, and run-up operations. Since BOI is a civilian airport facility, the FAA's Integrated Noise Model (INM) 7.0 was used to analyze civilian, military-based, and transient-military aircraft operations. The model's output comprises a regularly spaced "grid" file containing DNL values. The NMPLOT program uses the grid file to plot contours of equal DNL which can than be overlaid onto maps to depict current noise exposure levels in the BOI airfield environment.

Table 3-3. Sound Levels of Typical Noise Sources and Noise Environments

dB(A)	Overall level	Community Noise Levels (Outdoor)	Home and Industry Noise Levels (Indoor)	Subjective Loudness (Relative to 70 dB)
120	Uncomfortably loud	Military jet aircraft take-off from aircraft carrier with afterburner at 50 ft . . . . . 130 dB	Oxygen torch . . . . . 121 dB	32 times as loud
110		Turbo-fan aircraft at takeoff power at 200 ft . . . . . 118 dB	Riveting machine . . . . . 110 dB Rock band . . . . . 108-114 dB	16 times as loud
100	Very loud	Boeing 707 or DC-8 aircraft at one nautical mile (6080 ft) before landing . . . . . 106 dB Jet flyover at 1000 ft . . . . . 103 dB Bell J-2A helicopter at 100 ft . . . . . 100 dB		8 times as loud
90		Boeing 737 or DC-9 aircraft at one nautical mile (6080 ft) before landing . . . . . 97 dB Power mower . . . . . 96 dB Motorcycle at 25 ft . . . . . 90 dB	Newspaper press . . . . . 97 dB	4 times as loud
80		Car wash at 20 ft . . . . . 89 dB Propeller plane flyover at 1000 ft . . . . . 88 dB Diesel truck 40 mph at 50 ft . 84 dB Diesel train 45 mph at 100 ft 83 dB	Food blender. . . . . 88 dB Milling machine . . . . . 85 dB Garbage disposal . . . . . 80 dB	2 times as loud
70	Moderately loud	High urban ambient sound . . 80 dB Passenger car 65 mph at 25 ft 77 dB Freeway at 50 ft from pavement edge 10 a.m. . . . . 76 dB	Living room music . . . . . 76 dB Radio or TV-audio, vacuum cleaner . . . . . 70 dB	70 dB(A)
60		Air conditioning unit at 100 ft . . . . . 60 dB	Cash register at 10 ft 65-70 dB Electric typewriter at 10 ft . . . . . 64 dB Dishwasher (Rinse) at 10 ft . . . . . 60 dB Conversation . . . . . 60 dB	1/2 as loud
50	Quiet	Large transformers at 100 ft . 50 dB		1/4 as loud
40		Bird calls . . . . . 44 dB Lowest limit of urban ambient sound . . . . . 40 dB		
dB Scale Interrupted				
10	Just audible			
0	Threshold of Hearing			

Source: M.C. Branch, et al. 1970. Outdoor Noise and the Metropolitan Environment, Los Angles, California: Department of City Planning, City of Los Angeles.

In airport noise analyses, noise contours are used to help determine compatibility of aircraft operations with local land use activities. Noise levels from flight operations typically exceeding ambient background noise occur beneath main approach and departure corridors, near local air traffic patterns around the airfield, and in areas immediately adjacent to parking ramps and aircraft staging areas. As aircraft take off and gain altitude, their contribution to the noise environment diminishes.

Other Airfield Noise. Although noise resulting from aircraft flight operations represents the greatest contribution to the overall noise environment near the airfield, other noise sources (e.g., highway traffic) may also influence total ambient noise levels. Other activities that may generate substantial amounts of noise at an airport include engine preflight run-ups and aircraft maintenance activities, industrial operations, and construction activities. Although aircraft maintenance actions and industrial operations may generate large amounts of noise, they are typically confined to the airfield and associated industrial areas. Construction activities, on the other hand, may occur anywhere on the site and can result in disturbance to on-site personnel and off-site noise-sensitive receptors (e.g., housing areas and schools).

3.2.2 Existing Conditions

3.2.2.1 Regional Setting

The noise environment of communities surrounding BOI is characteristic of a suburban medium-density environment, settings that typically experience noise associated with vehicles on local highways or light industrial activities. These communities experience the following typical ranges of outdoor DNL noise levels: *Normal Suburban Residential*, 53 to 57 DNL and *Urban Residential*, 58-62 (FICON 1992). Areas adjacent to BOI support a mix of residential, commercial and light industrial land use. These land uses typically generate noise levels of low magnitude and aircraft activity is the dominant noise producer in the vicinity of BOI. Some additional noise can result from day-to-day activities associated with operations, maintenance, and industrial functions at BOI and other commercial activities around the airport. These noise sources include the operation of ground-support equipment and other transportation-related noise

associated with vehicular traffic. However, this noise is generally localized in industrial areas on or near the airfield. Noise resulting from aircraft operations remains the dominant noise source in the airfield region.

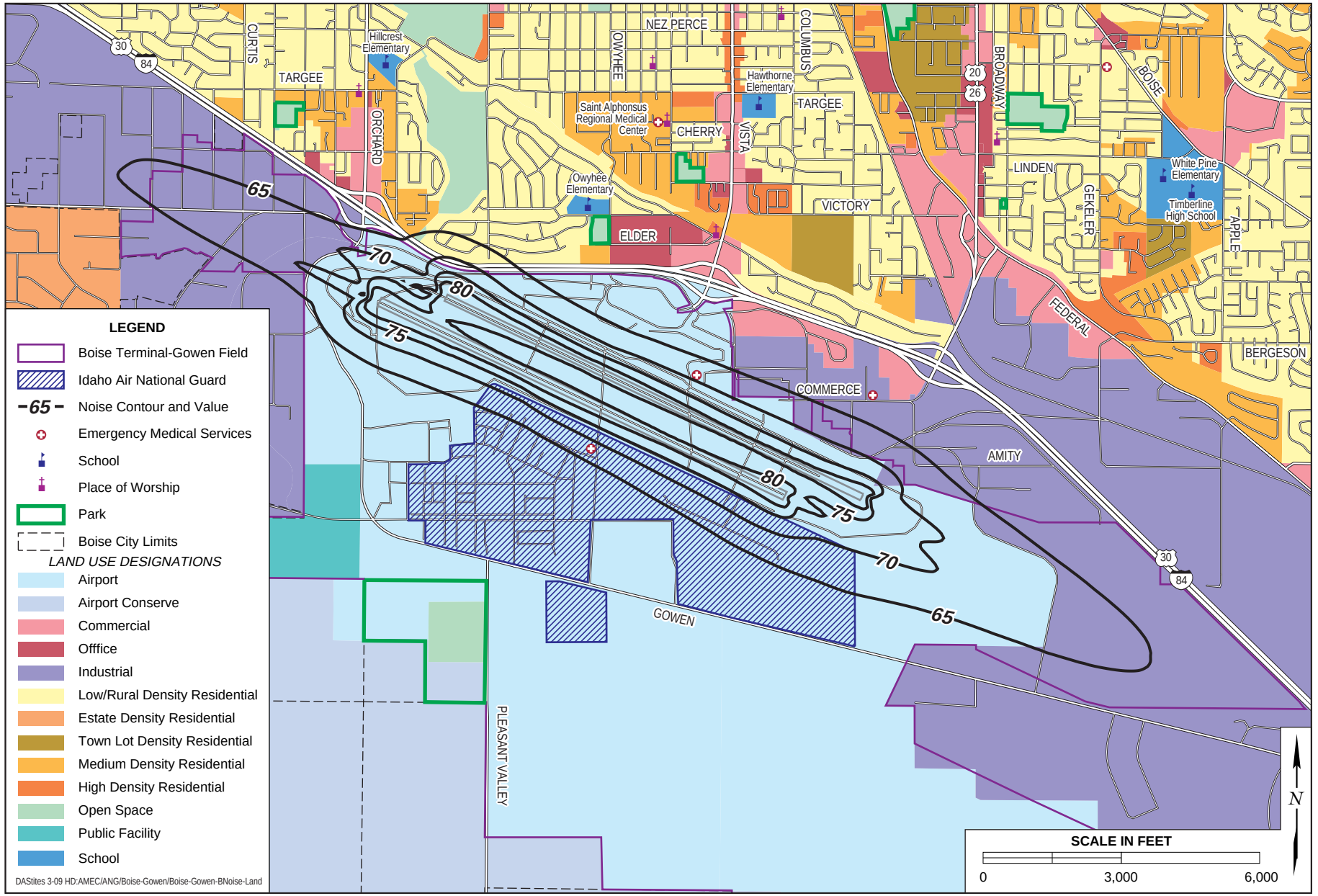
3.2.2.2 BOI/Gowen Field ANGB

Existing Noise Levels

Noise contours associated with operations at BOI were developed using INM Version 7.0 (see Figure 3-2). The model inputs used for this baseline analysis were based on the 14 CFR Part 150 Study Update conducted by BOI for projected noise exposure in the year 2008 (City of Boise 2004), with modifications made to eliminate the C-130 operations and an increase in A-10 sorties to 12 per day. Under baseline conditions, BOI supports military and civil aviation activity. Overall, BOI supports an average of approximately 186,500 aviation operations per year, an average of about 511 operations per day (IDANG 2007). The land area on and adjacent to the airport encompassed by each contour under baseline conditions is shown in Table 3-4. Contours associated with the 75-79 DNL and >80 DNL remain entirely within the airport property boundary; however, the 70-74 DNL contour extends slightly off property to the east and west of the airport for a total of 3.64 acres; further, the 65-69 DNL contour extends off airport property to encompass a total of approximately 103.8 acres. Approximately 64 residences are currently located within the 65-69 DNL contour to the north of BOI; no residences are currently located within the 70-74 DNL contour (City of Boise 2008).

Table 3-4. Land Area Exposed To Indicated Sound Levels Under Current Conditions

Sound Level (In DNL)	Acres On Airport	Acres Off Airport	Total Acres
65 – 69	673.6	103.8	777.4
70 – 74	265.3	3.6	268.9
75 – 79	205.4	0.0	205.4
>80	166.7	0.0	166.7
Total > 65	1,311.0	107.4	1,418.4



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Baseline Noise Contours
Boise Municipal Airport

FIGURE 3-2

Other potential sensitive receptors in the vicinity of BOI include Hillcrest Elementary, Owyhee Elementary, Hawthorne Elementary, White Pine Elementary, Timberline High School, Saint Alphonsus Regional Medical Center, Nazarene Overland Church, and Columbia Heights Baptist Church. However, these sensitive receptors are all located outside of the airport's 65 DNL contour.

3.3 LAND USE

3.3.1 Definition of Resource

Land use comprises natural conditions or human-modified activities occurring at a particular location. Human-modified land use categories include residential, commercial, industrial, transportation, communications and utilities, agricultural, institutional, recreational, and other developed use areas. Management plans and zoning regulations determine the type and extent of land use allowable in specific areas and are often intended to protect specially designated or environmentally sensitive areas.

3.3.2 Existing Conditions

3.3.2.1 Regional Land Use

BOI and Gowen Field ANGB are located in Ada County, Idaho. Bisected by the Boise River, Ada County is surrounded by Boise and Gem Counties to the north, Canyon County to the west, Owyhee County to the south, and Elmore County to the east.

Ada County covers approximately 675,197 acres and land is under a mix of public and private ownership, with a significant amount of land owned by state and Federal agencies. Approximately 324,095 acres (48 percent) of land in the county is owned by private individuals or companies. Much of this land is located within city limits and nearby unincorporated areas. A relatively small percentage of land (10,128 acres or 1.5 percent of the total) is owned by incorporated cities. The County owns 3,903 acres or about 0.6 percent of all land within the County. Water, sewer, irrigation, fire, school and other special districts collectively own less than 1 percent of land in the County. State

agencies such as the Idaho Department of Lands (IDL), Department of Fish and Game (IDF&G), Department of Corrections, and others have substantial land holdings, totaling 48,173 acres (7.1 percent of all land). Several Federal agencies, including the Bureau of Land Management (BLM), U.S. Army Corps of Engineers, U.S. Forest Service, and U.S. Fish and Wildlife Service, own a significant amount of land—292,813 acres, or 43.2 percent of all land in Ada County. The BLM is the largest landowner in the County, with 292,399 acres. Much of this land is managed for a mix of grazing, recreational, and other public uses (Ada County 2007).

3.3.2.2 Surrounding Land Use

Gowen Field ANGB forms the southern limits of the City of Boise in Ada County and is located within the southern half of BOI. It occupies approximately 576 acres, with an additional 1,425 acres of joint use acreage shared with the airport. The City of Boise extends to north and west of the airport while unincorporated Ada County comprises the remaining area around the airport. Land to the west, south, and east of BOI is primarily designated industrial, with small pockets designated as open space, public facility, and educational to the southwest (Figure 3-3). Land further south of BOI and Gowen Field ANGB is designated Airport Conservation, which is reserved for future airport expansion but would allow limited land use such as livestock grazing, mining, farming and non-intensive recreation (e.g., golf courses). Land north of BOI is designated as commercial, office, open space, and low- and medium-density residential (City of Boise 2008).

3.3.2.3 On Site Land Use

Under a long-term lease agreement between the City of Boise and the U.S. Government for the IDANG, the city maintains and operates BOI and Gowen Field ANGB as a joint civil-military airport. However, within the approximately 576-acre lease, the IDANG has exclusive use authority for construction and other activities. Within the installation, facilities not used by the 124 WG are subleased by the USAF and other DoD tenants. In times of national emergency, the airport is subject to recapture by the Federal government. The base is zoned by the City

EA

Land Use in the Vicinity of IDANG at Gowen Field

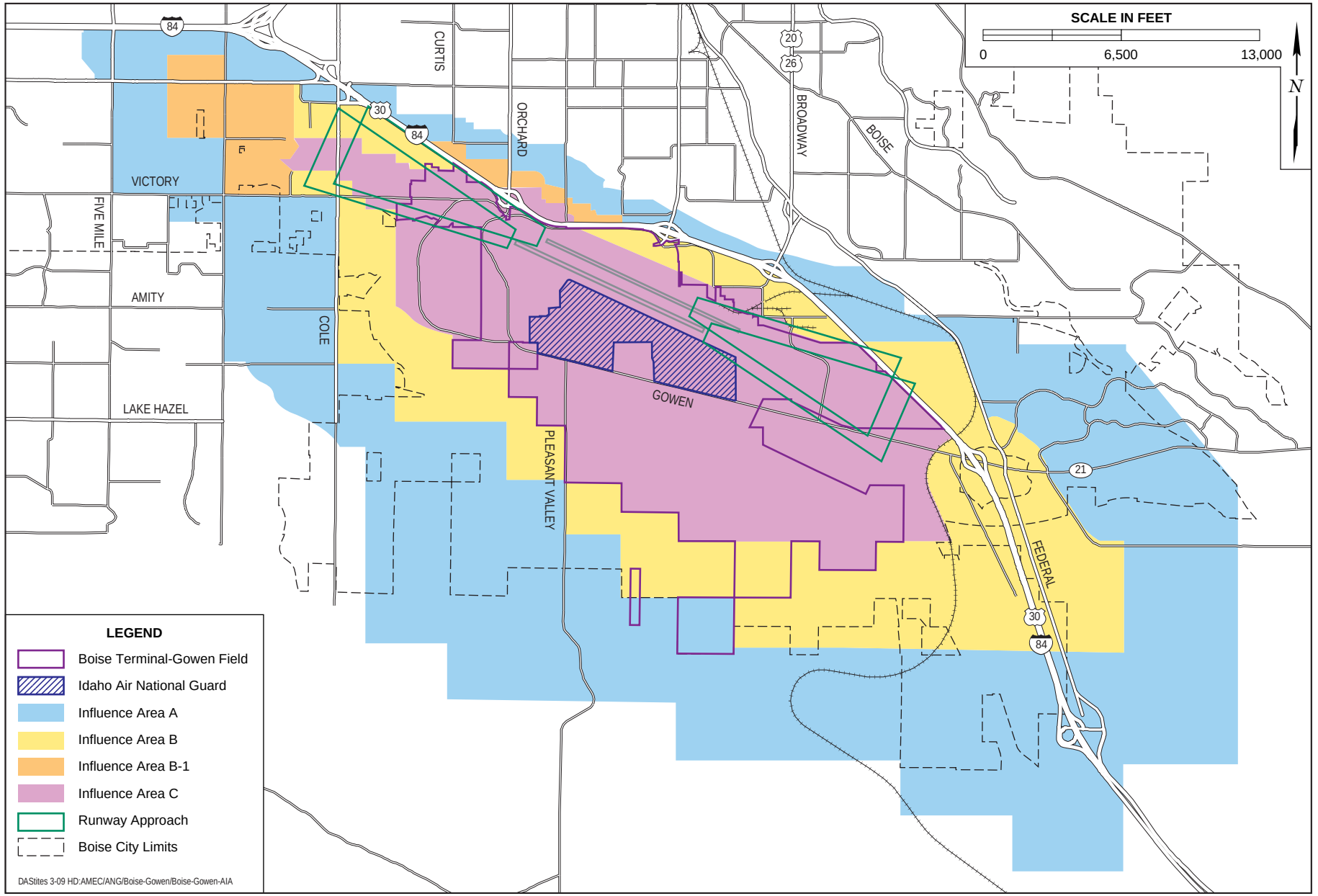
FIGURE 3-3

of Boise as a limited industrial development area with the adjacent airport area zoned as service commercial.

The base is also located within an Airport Influence Area (AIA), which includes three basic areas as shown on Figure 3-4 (IDANG 2007):

- Influence Area A: Affected by average sound levels within the 60-65 DNL contours and/or aircraft traffic patterns below 1,000 feet. New residential development and new schools within this area are required to incorporate design features to achieve sound-level reduction of 25 dB.
- Influence Area B: Affected by average sound levels in the 65-70 DNL and/or aircraft traffic patterns below 1,000 feet. New residential development is not allowed. All compatible uses are required to provide sound insulation in noise-sensitive areas of a facility.
- Influence Area B-1: Affected by average sound levels in the 65-70 DNL and/or aircraft traffic patterns below 1,000 feet. New residential development is required to incorporate design elements to achieve noise-level reduction of 30 dB. Further, for new residential development, the maximum density allowed is three residential units per acre. No new schools are allowed. Office and commercial uses are compatible. All compatible uses are required to provide sound insulation in noise-sensitive areas of a facility.
- Influence Area C: Affected by average sound levels greater than 70 DNL. The approved airport Noise Compatibility Plan suggests that existing residential uses located in Influence Area C should undergo sound insulation. Residential uses in this area are considered nonconforming. Non-noise-sensitive land use activities (e.g., manufacturing, industrial, and commercial) are allowed. All compatible uses will be required to provide sound insulation in noise-sensitive areas of the facility.

A Master Plan was prepared and adopted for the IDANG installation at Gowen Field ANGB in 1997. The plan identifies existing conditions, assesses alternative future development scenarios, and seeks to ensure the orderly future development of the installation (IDANG 2007). The installation includes the following primary land use categories: office (command and support activities), commercial and service, and some residential (barracks). Open space areas associated with landscaping, recreation, and undeveloped areas comprise approximately 30 percent of the total land area at the installation.



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Airport Influence Areas in the Vicinity of BOI

FIGURE 3-4

SECTION 4
ENVIRONMENTAL CONSEQUENCES

Environmental impacts that would result from implementation of the proposed temporary relocation of the 173d Fighter Wing (173 (FW) of the Oregon Air National Guard (ORANG) to the Idaho Air National Guard's (IDANG's) Gowen Field Air National Guard Base (ANGB) are evaluated in this section. Analyses are presented by resource area, as presented in Section 3, *Affected Environment*.

For this particular action, due primarily to the temporary and short-term nature of the deployment (i.e., 6 months) and because most environmental resources at and in the vicinity of Gowen Field ANGB were recently addressed in an EA completed in December 2007, resource descriptions and analyses focus on air quality, noise, and land use. Other resources often analyzed in a comprehensive environmental assessment (EA)—geological resources, water resources, biological resources, transportation and circulation, visual resources, cultural resources, socioeconomics, environmental justice, hazardous materials and wastes, safety, and airspace management—would not be affected by implementation of the Proposed Action and were excluded from further discussion to keep the analysis relevant and concise. (It is noteworthy, however, that the temporary relocation is expected to generate more than $8 million in economic activity as a result of direct and secondary spending in the Boise area.) For a description and brief analyses of these resource areas, please see the Final EA for Implementation of Base Realignment and Closure (BRAC) Final Recommendation for the 124th Wing (124 WG) (IDANG 2007) and Section 6, *Summary of Findings*.

4.1 AIR QUALITY

4.1.1 Approach to Analysis

The 1990 Amendments to the Clean Air Act (CAA) require that Federal agency activities conform to the State Implementation Plan (SIP) with respect to achieving and maintaining attainment of National Ambient Air Quality Standards (NAAQS) and addressing air quality impacts. The U.S. Environmental Protection Agency (USEPA) General Conformity Rule requires

that a conformity analysis be performed which demonstrates that a Proposed Action does not: 1) cause or contribute to any new violation of any NAAQS in the area; 2) interfere with provisions in the SIP for maintenance or attainment of any NAAQS; 3) increase the frequency or severity of any existing violation of any NAAQS; or 4) delay timely attainment of any NAAQS, any interim emission reduction goals or other milestones included in the SIP. A conformity review must be performed when a Federal action is anticipated to generate air pollutants in a region that has been designated a *nonattainment* or *maintenance* area for one or more NAAQS. *Nonattainment* areas are geographic regions where air quality fails to meet the NAAQS. *Maintenance* areas are regions where NAAQS were exceeded in the past, and are subject to restrictions specified in a SIP-approved maintenance plan to preserve and maintain the regained attainment status. Provisions in the General Conformity Rule allow for exemptions from performing a conformity determination if the total net increase in emissions of individual *nonattainment* or *maintenance* area pollutants resulting from the Proposed Action fall below significant (*de minimis*) threshold values.

4.1.2 Impacts

4.1.2.1 Proposed Action

Pollutant emissions associated with implementation of the Proposed Action at Gowen Field ANGB would include emissions from the temporary relocation of the 173 FW aircraft operations from Klamath County, Oregon to Gowen Field ANGB at BOI in Ada County, Idaho. The duration of increased emissions due to aircraft operations associated with 173 FW aircraft would be limited to 6 months. Northern Ada County was previously a *nonattainment* area for CO and $PM_{10,}$ but was redesignated as an *attainment* area for CO in 2002 and for PM_{10} in 2003 (USEPA 2008a). Therefore, northern Ada County is currently designated as a *maintenance* area for CO and $PM_{10.}$ Northern Ada County is designated as an *attainment* area and is in compliance with all other NAAQS.

Construction Emissions

Implementation of the Proposed Action would not require any construction at Gowen Field ANGB because facilities are available there to temporarily house

maintenance and administrative operations associated with the 173 FW aircraft inventory. The facilities are available due to the recent BRAC-related relocation of 4 of the 189th Airlift Squadron's (189 AS) C-130 aircraft. Therefore, no dust or combustion emissions associated with construction activities would occur.

Operational Emissions

Implementation of the Proposed Action would result in a short-term increase in aircraft operations and personnel levels at Gowen Field ANGB. However, there would be no long-term operational emissions associated with the Proposed Action, as the duration of the Proposed Action would be limited to 6 months. The majority of operational emissions associated with the Proposed Action would be from mobile sources due to additional aircraft operations. Other operational emissions associated with implementation of the Proposed Action would include emissions from increased vehicular traffic resulting from the increase in personnel. The Proposed Action would result in an increase of 240 personnel for a 6-month period, a 15-percent increase from current personnel levels associated with the 124 WG. This would result in an increase of mobile-source emissions at Gowen Field ANGB associated with additional Privately Owned Vehicle (POV) traffic (Table 4-1, see Appendix B).

Personnel and facilities associated with the 124 WG would be supporting flying operations of the 173 FW of the ORANG, for a 6-month period in addition to supporting the normal 190th Fighter Squadron's (190 FS) operations. Flying operations include landings and takeoff (LTO), touch and go (T&G), and low approach (LA) operations. An LTO cycle includes taxiing between the hangar and runway, taking off, climbing out of the local pattern, descending from the local pattern (approach), and touch down.

Emissions associated with the proposed temporary operation of 173 FW aircraft at Gowen Field ANGB were obtained from the Final 2004 Air Emissions Inventory (AEI) for the 173 FW at Kingsley Field (ORANG 2005). The anticipated emissions resulting from the proposed operation of aircraft were calculated based on the total number of sorties (1,800) and the number of hours per sortie (1.3). The resulting total number of flight hours (2,340) was then multiplied times the emissions per flight hour that were identified in the AEI in

order to calculate the emissions estimates associated with the proposed 173 FW flight operations. These emissions were then added to the baseline 124 WG mobile-source emissions taken from the Final EA for Implementation of BRAC Final Recommendation for the 124th Wing to estimate the total, cumulative level of emissions from implementation of the Proposed Action (Table 4-1).

Table 4-1. Estimated Increase in Mobile-Source Emissions Associated with the Proposed Action

	Emissions (tons/year)					
	VOC	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Existing Mobile Emissions	26.23	174.37	42.22	3.53	9.55	9.50
Projected Mobile Emissions from 173 FW Aircraft Operations	2.39	24.77	120.90	9.95	12.04	12.04
Projected Mobile Emissions from 173 FW POVs*	0.02	0.26	0.02	0.02	0.00	0.00
Total Mobile Emissions (Existing + Projected)	28.64	199.40	163.14	13.50	21.59	21.59
Projected Increase Over Existing Mobile Emissions	**+2.41**	**+25.03**	**+120.92**	**+9.97**	**+12.04**	**+12.04**
de minimis threshold	n/a	100	n/a	n/a	100	n/a
10% of Ada County Emissions	3,445	11,301	1,997	85	2,615	769

*See Appendix B for list of assumptions and calculations of projected POV emissions.
Sources: ORANG 2007; IDANG 2007.

Ada County is a *maintenance* area for CO and PM_{10}; however, the projected total net increases in CO and PM_{10} would not exceed *de minimis* thresholds and therefore a General Conformity determination would not be required. Further, total projected emissions would not exceed 10 percent of emissions in Ada County, a threshold provided in the SIP; therefore, implementation of the Proposed Action does not require a conformity analysis and would not result in significant air quality impacts.

4.1.2.2 No-Action Alternative

Under the No-Action Alternative, the 173 FW would not be able to conduct aircraft operations at the Gowen Field ANGB while the 173 FW installation is unavailable for use for a 6-month period during the runway repair project at Kingsley Field, Oregon. Therefore, air quality conditions in the Boise area would

remain as described in *Section 3.1, Air Quality*. If this alternative were selected, there would be no impacts with regard to local or regional air quality.

4.2 NOISE

4.2.1 Approach to Analysis

Noise impact analyses typically evaluate potential changes to existing noise environments that would result from implementation of a Proposed Action. Potential changes in the noise environment can be beneficial (i.e., if they reduce the number of sensitive receptors exposed to unacceptable noise levels), negligible (i.e., if the total area exposed to unacceptable noise levels is essentially unchanged), or adverse (i.e., if they result in increased exposure to unacceptable noise levels). An increase in noise levels resulting from introduction of a new noise source can create an impact on the surrounding environment. Noise associated with a Proposed Action is modeled and compared with the existing noise setting to determine the magnitude of potential impacts. A significant noise impact would occur if analysis shows that the Proposed Action would cause noise-sensitive areas to experience increased noise exposure to unacceptable levels.

4.2.2 Impacts

4.2.2.1 Proposed Action

Short-Term Direct Impacts

The Proposed Action would involve changes in the type and number of aircraft and aircraft operations associated with BOI; therefore, aircraft-related noise exposure would change upon project implementation. Upon implementation of the Proposed Action, the 173 FW would temporarily relocate from Kingsley Field, Oregon to BOI/Gowen Field ANGB while airfield and facilities construction occurs at the 173 FW installation. The 173 FW would bring 240 personnel, 23 F-15 aircraft, and associated equipment. The noise generated by operations associated with the Proposed Action would affect a greater number of homes and exposure area than current BOI aircraft operations, which includes

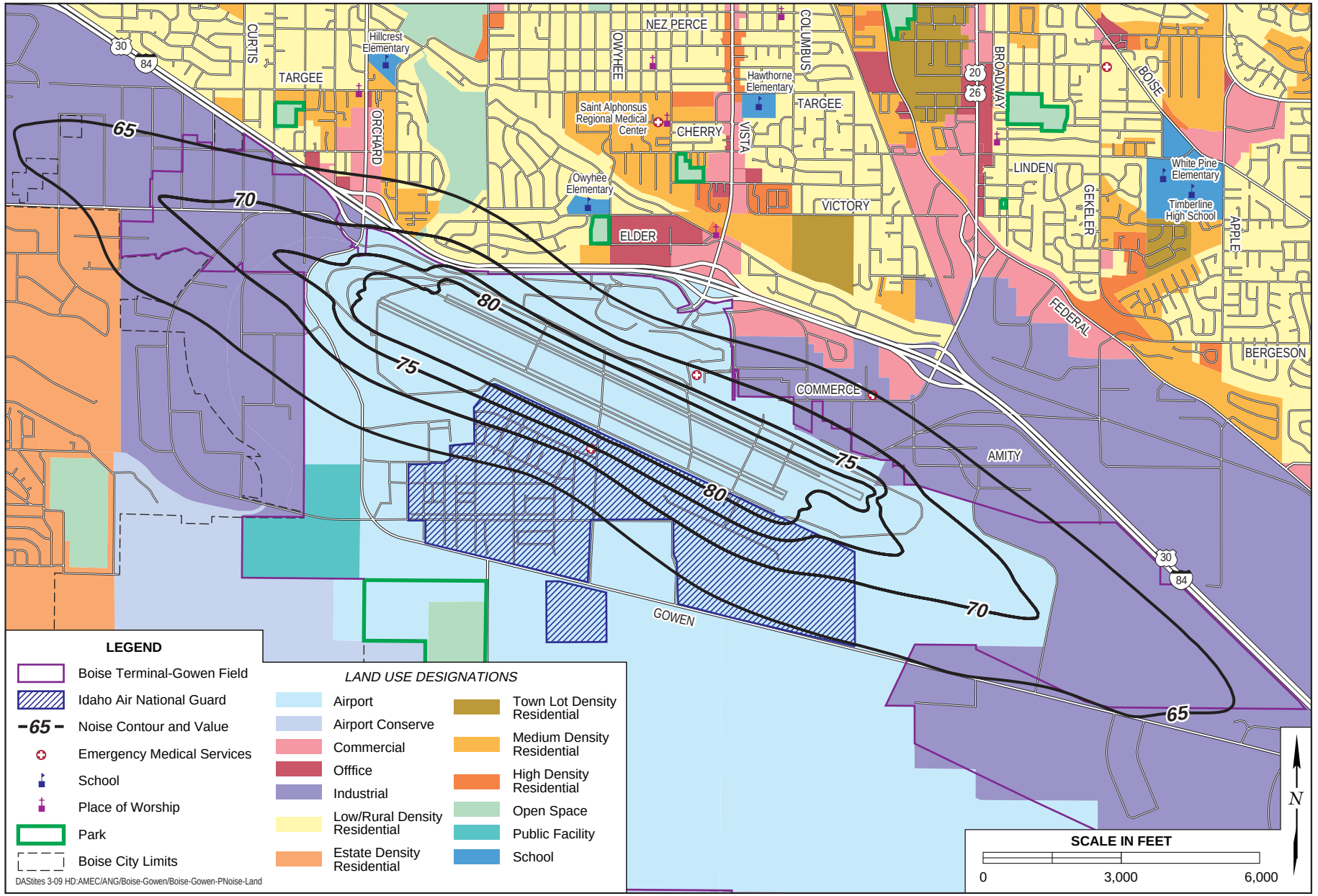
A-10 and C-130 military aircraft (Figure 4-1 and Table 4-2). The increase in noise exposure is based on increased flight operations and the greater noise levels associated with the F-15 aircraft. Specifically, the F-15 aircraft has dual turbo-fan engines with afterburners, whereas the A-10 utilizes two turbo-fan engines without afterburners and the C-130, four turbo-propellers.

The 190 FS is currently scheduled to conduct normal operations of approximately 12 A-10 sorties per day for the duration of the 173 FW proposed relocation. In addition, it is anticipated that the 189 AS would stand down on 1 April 2009 and would cease to conduct C-130 flying operations. The noise exposure estimates indicated in Figure 4-1 and Table 4-2 take into account the elimination of C-130 flying operations and normal A-10 operations in addition to proposed 173 FW F-15 operations.

Table 4-2. On- and Off-Airport Land Area Exposed to Sound Levels Under Projected Conditions

Sound Level (In DNL)	Acres On Airport	Acres Off Airport	Total Acres
65 – 69	871.6	556.8	1,428.4
70 – 74	520.8	59.3	580.1
75 – 79	244.1	0.3	244.4
>80	378.8	0.0	378.8
Total > 65	**2,015.3**	**616.4**	**2,631.7**

Implementation of the Proposed Action would result in approximately 389 additional residences being newly introduced to the 65-69 DNL contour and approximately 42 residences currently within the 65-69 DNL contour being newly introduced to the 70-74 DNL contour (City of Boise 2008). No other types of sensitive receptors (e.g., schools, hospitals, places of worship, etc.) would be newly introduced to the 65-69 DNL or 70-74 DNL contours. In addition, no long-term activities are associated with the Proposed Action. After 6 months, all aircraft and personnel associated with the 173 FW would return to the ORANG installation at Kingsley Field, Oregon and noise levels in the vicinity of BOI would return to baseline conditions. Therefore, although short-term impacts to noise would be adverse, no long-term direct impacts to noise would occur under the Proposed Action.



EA

Noise Contours Associated with the Proposed Action
Boise Municipal Airport

FIGURE 4-1

4.2.2.2 No-Action Alternative

No changes to existing noise conditions, as described in Section 3.2, would occur if the No-Action Alternative were selected. Therefore, no significant impacts to noise would result from implementation of the No-Action Alternative.

4.3 LAND USE

4.3.1 Approach to Analysis

Significance of potential land use impacts is based on the level of land use sensitivity in areas affected by a proposed action. In general, land use impacts would be significant if they would: 1) be inconsistent or in noncompliance with applicable land use plans or policies; 2) preclude the viability of existing land use; 3) preclude continued use or occupation of an area; 4) be incompatible with adjacent or vicinity land use to the extent that public health or safety is threatened; or 5) conflict with airfield planning criteria established to ensure the safety and protection of human life and property.

4.3.2 Impacts

4.3.2.1 Proposed Action

Short-Term Impacts

The proposed temporary aircraft robust would result in an increase of approximately 31 daily operations at BOI. Also, the mix of military aircraft types operating at BOI would change from only the 124 WG's 18 A-10 aircraft to include the 173 FW's 23 F-15 aircraft (this assumes the 189 AS will stand down its inventory of C-130 on 1 April 2009, as currently planned). This change in aircraft operations would result in an approximately 453-acre increase in land outside the BOI/Gowen Field ANGB boundary exposed to sound levels above 65 DNL and a 55.7-acre increase in land exposed to levels above 70 DNL (refer to Table 4-2).

Residential areas north of BOI would experience an increase in sound levels upon implementation of the Proposed Action. The remaining surrounding areas expected to be exposed to an increase in sound levels are composed primarily of open space, agricultural land, and industrial and commercial areas. Implementation of the Proposed Action would result in the introduction of noise-sensitive receptors (i.e., residences) to sound levels above 65 DNL and 70 DNL; however, any realized increase would be temporary and noise exposure would return to baseline conditions following the 173 FW's return to Oregon in November 2009. In addition, implementation of the Proposed Action would not require any changes to existing land use and zoning. Therefore, short-term impacts to land use associated with the Proposed Action would be adverse but not significant.

Long-Term Impacts

No long-term activities are associated with the Proposed Action. As indicated previously, after 6 months, all aircraft and personnel associated with the 173 FW would return to the ORANG installation at Klamath Falls, Oregon. Therefore, no long-term impacts to land use would occur under the Proposed Action.

4.3.2.2 No-Action Alternative

No changes to existing land use conditions, as described in Section 3.3, would occur if the No-Action Alternative were selected. Therefore, no significant impacts to land would result from implementation of the No-Action Alternative.

SECTION 5
CUMULATIVE IMPACTS

Cumulative impacts on environmental resources result from incremental impacts of the Proposed Action when combined with other past, present, and reasonably foreseeable future projects in an affected area. Cumulative impacts can result from minor but collectively substantial actions undertaken over a period of time by various agencies (Federal, state, or local) or persons. In accordance with the National Environmental Policy Act, a discussion of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or anticipated to be implemented in the near future is required.

For this particular action, due primarily to the temporary and short-term nature of the deployment (i.e., 6 months), cumulative impacts would be considered the same as impacts resulting from implementation of the Proposed Action. For an analysis of Proposed Action's impacts, please see Section 4, *Environmental Consequences,* and Section 6, *Summary of Findings*.

SECTION 6
SUMMARY OF FINDINGS

A summary of environmental impacts anticipated to result from implementation of the proposed temporary relocation of the 173d Fighter Wing (173 FW) of the Oregon Air National Guard (ORANG) to the Idaho Air National Guard's (IDANG's) Gowen Field Air National Guard Base (ANGB) is provided in this section.

Air Quality. Implementation of the Proposed Action would result in short-term increases in aircraft operations and personnel levels at Gowen Field ANGB. There would be no construction-related or long-term operational or emissions associated with the Proposed Action, as the duration of the Proposed Action would be limited to 6 months and would not include any construction, demolition, or renovation activities. The majority of operational emissions associated with the Proposed Action would be from mobile sources due to additional aircraft operations as well as additional Privately Owned Vehicle (POV) traffic. Ada County is a *maintenance* area for CO and PM_{10}. However, the projected total net increases in CO and PM_{10} would not exceed *de minimis* thresholds for a General Conformity determination, nor would they exceed 10 percent of emissions in Ada County. Therefore, implementation of the Proposed Action does not require a conformity analysis and would not result in significant air quality impacts.

Noise. Implementation of the Proposed Action would result in approximately 389 residences being newly introduced to the 65-69 DNL contour and approximately 42 residences currently within the 65-69 DNL contour would be introduced to the 70-74 DNL contour. No other types of sensitive receptors (e.g., schools, hospitals, places of worship, etc.) would be newly introduced to the 65-69 DNL or 70-74 DNL contours. In addition, no long-term activities are associated with the Proposed Action. After 6 months, all aircraft and personnel associated with the 173 FW would return to the ORANG installation at Klamath Falls, Oregon and sound levels in the vicinity of BOI would return to baseline conditions. Therefore, although short-term impacts to noise would be adverse, no long-term direct impacts to noise would occur under the Proposed Action.

Land Use. Residential areas north of BOI would experience an increase in noise levels upon implementation of the Proposed Action. The remaining surrounding areas expected to be exposed to an increase in noise levels support primarily open space, agricultural activities, and industrial and commercial use. Implementation of the Proposed Action would result in the introduction of noise-sensitive receptors (i.e., residences) to sound levels above 65 DNL and 70 DNL; however, any realized increase would be temporary and noise exposure would return to baseline conditions following the 173 FW's return to Oregon in November 2009. In addition, implementation of the Proposed Action would not require any changes to existing land use or zoning. Therefore, short-term impacts to land use associated with the Proposed Action would be adverse but not significant.

No long-term activities are associated with the Proposed Action. After approximately 6 months, all aircraft and personnel associated with the 173 FW would return to the ORANG installation at Klamath Falls, Oregon. Therefore, no long-term impacts to land use would occur under the Proposed Action.

Geological Resources. Implementation of the Proposed Action would not include any construction, demolition or renovation activities. In addition, the 173 FW would utilize existing buildings and facilities at Gowen Field ANGB. Therefore, the Proposed Action would have no impacts on geology and soils.

Water Resources. Implementation of the Proposed Action would not include any construction, demolition, or renovation activities. In addition, the 173 FW would utilize existing buildings and facilities at Gowen Field ANGB and would not create any new impermeable surfaces. Runoff from existing facilities would be incorporated into the installation's existing storm drainage system, which is capable of accommodating such flows (IDANG 2007). Therefore, the Proposed Action would not have significant impacts with regard to surface water, groundwater, floodplains, or wetlands.

Biological Resources. Implementation of the Proposed Action would not include any construction, demolition or renovation activities because the 173 FW would utilize existing buildings and facilities at Gowen Field ANGB. In addition, previous analyses of biological resources at the Gowen Field ANGB,

including consultation with the U.S. Fish and Wildlife Service and a review of data provided by the Idaho Conservation Data Center, have indicated that no sensitive species exist in the vicinity of the Proposed Action and concluded that Gowen Field ANGB's disturbed habitats and previous development make it unlikely that sensitive species would become established there in the future (IDANG 2007). Therefore, the Proposed Action would have no impacts to biological resources.

Transportation and Circulation. Implementation of the Proposed Action would not include any construction, demolition, or demolition activities at Gowen Field ANGB. It is anticipated that approximately 50 truck loads would be required to transport required equipment associated with the 173 FW's temporary relocation to and from Gowen Field ANGB. However, this truck traffic would only make up a small portion of the total existing traffic volume in the region. Further, increases in traffic volumes associated with truck delivery activity and the other vehicular activity (i.e., associated with the 240 relocated ORANG personnel) would be temporary. In addition, the 173 FW would utilize existing buildings and facilities at Gowen Field ANGB, including adequate parking facilities and roadways (IDANG 2007). Therefore, impacts to transportation and circulation would be short-term and less than significant.

Visual Resources. Implementation of the Proposed Action would not include any construction, demolition, or renovation activities. In addition, the 173 FW would utilize existing buildings and facilities at Gowen Field ANGB. Therefore, implementation of the Proposed Action would result in no impacts to regional visual resources.

Cultural Resources. Implementation of the Proposed Action would not include any construction, demolition, or renovation activities. As previously indicated, the 173 FW would utilize existing buildings and facilities at Gowen Field ANGB. Therefore, implementation of the Proposed Action would have no impact to cultural resources.

Socioeconomics. The Proposed Action would include the temporary relocation of approximately 240 personnel for 6 months – from 2 May 2009 to 2 November 2009. Between direct and indirect spending, it is anticipated that this temporary

deployment would generate approximately $8.8 million in economic activity for Boise's regional economy. Economic activity associated with this temporary relocation would provide short-term economic benefits to the local economy; therefore, impacts to regional or local socioeconomic characteristics would be less than significant and beneficial.

Environmental Justice.

Minority and Low-Income Populations. Implementation of the Proposed Action would not include any construction, demolition, or renovation activities. In addition, the 173 FW would utilize existing buildings and facilities at Gowen Field ANGB. Further, since no significant, adverse environmental impacts associated with the Proposed Action would occur, no populations (minority, low-income, or otherwise) would be disproportionately impacted and no significant impact with regard to environmental justice would result.

Protection of Children. No on-site housing or facilities for children currently exist in areas associated with the 124 WG installation. Because children would not have access to the temporary relocation site, implementation of the Proposed Action would not result in increased environmental health risks or safety risks to children. Thus, no significant impacts to children would occur.

Hazardous Material and Wastes. Implementation of the Proposed Action would not include any construction, demolition, or renovation activities. Although the temporary relocation of the 173 FW would result in an overall increase in the quantity of hazardous materials and waste at Gowen Field ANGB, the 173 FW would utilize existing buildings and facilities at Gowen Field ANGB, including hazardous materials and wastes storage and accumulation sites (IDANG 2007). Therefore, implementation of the Proposed Action would not result in any significant impacts to hazardous materials and wastes.

Safety. While located at Gowen Field ANGB, the 173 FW would utilize existing buildings and facilities, including established facilities for munitions maintenance, inspection, and storage. The 173 FW would conduct day-to-day operations and maintenance activities in accordance with applicable safety regulations, published Air Force Technical Orders, and standards prescribed by

Air Force Occupational Safety and Health requirements. In addition, the 173 FW would have access to adequate fire suppression and security features and would operate under the IDANG's existing Bird Aircraft Strike Hazard program. Therefore, implementation of the Proposed Action would not result in any significant impacts to safety.

Airspace Management. Implementation of the Proposed Action would include a total of 1,800 sorties conducted by the 173 FW during a 6-month period; these training sorties would be flown out of BOI and a majority of flight operations would be conducted in special-use airspaces in the region including R-3203 and R-3202. The 173 FW would fly approximately 14 sorties per day with an ASD of 1.3 hours. All operations conducted at BOI would be handled by the airport's existing Air Traffic Control Tower. During the temporary deployment period, it is anticipated that the 190 Fighter Squadron of the 124 WG would maintain existing A-10 operations of approximately 12 sorties per day. In addition, it is anticipated that the 189 AS would stand down on 1 April 2009 and would cease to conduct C-130 flying operations which would partially offset the operational effect of the 173 FW's short-term increase in aircraft operations at and in the vicinity of BOI and local airspace areas. No changes to airspace configuration or management procedures would be required. Therefore, increased operations associated with the Proposed Action would not have a significant impact to airspace management.

SECTION 7
SPECIAL PROCEDURES

Impact evaluations contained in this Focused Environmental Assessment have determined that no significant environmental impacts would result from implementation of the Proposed Action. This determination is based on thorough review and analysis of existing resource information, the application of accepted modeling methodologies, and coordination with knowledgeable, responsible personnel from the 124th Wing and relevant local, state, and Federal agencies.

Implementation of the Proposed Action would not include any construction, demolition, or renovation activities. In addition, the 173d Fighter Wing would utilize existing buildings and facilities at Gowen Field Air National Guard Base (ANGB). No special procedures would be necessary for all resource areas identified since no adverse environmental impacts associated with implementation of the Proposed Action at Gowen Field ANGB would occur.

SECTION 8
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SECTION 9
LIST OF PREPARERS

This report was prepared for, and under the direction of, the Air National Guard by AMEC Earth & Environmental, Inc. Members of the professional staff are listed below:

Project Management

Doug McFarling, Program Manager
B.A. Environmental Studies

Andrew Chen, Project Manager
B.A. Environmental Studies

Technical Analysts

Michael Henry
PhD, Ecology, Evolution and Marine Biology

Brian Cook
B.A. Biology

Katie London
B.A. Biology

Production

Janice Depew
Production

Deirdre Stites
Graphic Artist

APPENDIX A

IICEP DISTRIBUTION LIST

APPENDIX A
IICEP DISTRIBUTION LIST

Ms. Mary DeWalt
Ada Community Library
Director
10664 West Victory Road
Boise, ID 83709
(208) 362-0181

Mr. Kevin Booe
Director
Boise Public Library
715 S. Capitol Blvd.
Boise, ID 83702
(208) 384-4450

Jill Singer
City of Boise, Boise Airport
3201 Airport Way, Suite 1000
Boise, ID 83705
(208) 383-3110

Ms. Christina Reichgott
U.S. Environmental Protection Agency
Region 10
ETPA - 088
1200 Sixth Avenue
Seattle, WA 98101
(206) 553-1601

Idaho Department of Environmental Quality
Directors Office
1410 N. Hilton
Boise, ID 83706
(208) 373-0204

City of Boise
Planning and Zoning
1501 N. Capitol Blvd.
Boise, ID 83702
(208) 384-3853

Eric Leitzinger
Biologist
Idaho Department of Fish and Game
SW Region
3101 S. Powerline Road
Nampa, ID 83686
(208) 465-8465

Suzi Pengilly-Neitzel
Deputy SHPO and Compliance Officer
Idaho State Historical Society
210 Main Street
Boise, ID 83702
(208) 334-3847

Mr. Mark Robertson
U.S. Fish and Wildlife Service
Snake River Basin Office.
1387 S. Vinnell Way, Room 368
Boise, ID 83709
(208) 378-5287

Ms. Sue Sullivan
Idaho Department of Transportation
Development Division
3311 W. State St.
Boise, ID 83707-1129
(208) 334-8203

Ada County
Development Services
200 West Front Street
Boise, ID 83702
(208) 287-7900

Mr. Ted Howard
Cultural Resources Director
Shoshone-Paiute Tribes
Duck Valley Reservation
P.O. Box 219
Owyhee, NV 89832

Mr. Greg Martinez
U.S. Army Corps of Engineers
Boise Office
304 N. 8th St., Room 138
Boise, ID 83702
(204) 345-2064

Cayla Morgan
Environmental Specialist
Federal Aviation Administration
Seattle Airport District Office
1601 Lind Avenue, S.W.
Renton, WA 98055-4056
(425) 227-2653

NATIONAL GUARD BUREAU
3500 FETCHET AVENUE
ANDREWS AFB MD 20762-5157

SAMPLE LETTER

Jill Singer
City of Boise, Boise Airport
3201 Airport Way, Suite 1000
Boise, ID 83705

Dear Ms. Singer

The 173^{d} Fighter Wing (173 FW) of the Oregon Air National Guard (ANG) has proposed to temporarily relocate its training activities from Kingsley Field in Klamath Falls, Oregon, to Gowen Field Air National Guard Base (ANGB) located at the Boise Municipal Airport (BOI) in Boise, Idaho.

The Oregon ANG, in conjunction with the Federal Aviation Administration, has recently approved a comprehensive airfield improvement program at Kingsley Field in Klamath Falls, Oregon. In order to continue training and operational activities during this planned runway construction project, the Oregon ANG has proposed to temporarily relocate the 173 FW currently operating at Kingsley Field to the Idaho ANG's Gowen Field ANGB, located on the south side of BOI. This temporary deployment of the 173 FW would include the relocation of 240 personnel and 23 F-15 aircraft and associated equipment for an estimated 6 months – from approximately 2 May 2009 to 2 November 2009. While deployed to Gowen ANGB, the 173 FW would utilize a currently unoccupied hangar and associated facilities recently vacated by the 124th Wing (124 WG) of the Idaho ANG. This hangar space and associated maintenance and administrative facilities previously supported the 124 WG's C-130 aircraft mission, which is scheduled to stand down on 1 April 2009 in accordance with *2005 Base Realignment and Closure (BRAC) Commission Recommendations*. Operationally, implementation of the Proposed Action would include a total of 1,800 sorties flown by the 173 FW during this 6-month period; these training sorties would be flown in existing general and special use airspaces around Gowen Field ANGB. No construction or demolition is proposed for this action.

For this particular action, due primarily to the temporary and short-term nature of the deployment (i.e., 6 months) and because most environmental resources at and in the vicinity of Gowen Field ANGB were recently addressed in an EA completed in December 2007, a focused Final Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) have been prepared in accordance with Council on Environmental Quality regulations to comply with the National Environmental Policy Act of 1969.

In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your assistance in reviewing the enclosed Draft FONSI and providing comments. If you should need further information, the Final EA can be accessed online at http://nationalguard.idaho.gov/. We also request your assistance in advising appropriate agencies of this proposed action and soliciting their comments concerning potential environmental impacts. Offices listed in Appendix A of the Final EA have

already received this package; if there are additional agencies you feel should review and comment on the proposed action, please include them in your distribution of these materials.

Please review this information and respond with comments within 30 days to our consultant, AMEC Earth & Environmental (AMEC). The point of contact at AMEC is Mr. Andrew Chen. Please forward written comments to Mr. Chen at 104 West Anapamu Street, Suite 204A, Santa Barbara, California 93101 or via e-mail at andrew.chen@amec.com. Thank you for your assistance.

Sincerely

KEVIN MAREK
Environmental Specialist
Plans and Requirements Branch

Attachment:
Draft FONSI and Final EA
(on CD)

APPENDIX B

AIR QUALITY CALCULATIONS

Calculation of On Base Mileage for Personally Owned Vehicles (POV)s

	Estimated Vehicles Entering Base/Year				
Personnel	Daily	Annual [1]	Adjusted Vehicles/Year [2]	Miles/Vehicle/ Day	Total Miles/Year
Daily Employees	240	31200	31200	0.75	23400

(1) Estimate the annual number of vehicles entering the base for the 6 month Proposed Action
e.g. employee vehicles/day x 5 (day/wk) x 26 (wk/yr) = Annual Vehicles
(2) Carpooling is not tracked
(3) This is the estimated average on-base distance traveled by employees in their personal vehicles. For example, it could be the average round trip distance from the front gate to various parking lots.

Calculation of Criteria Pollutant Emission Rates

				Vehicle Emission Factors (gm/mile)						Emissions (tons/year)					
	Vehicle Type	Vehicle Model Year	Annual On-Base Mileage	CO	VOC	NOx	SOx	PM10	PM2.5	CO	VOC	NOx	SOx	PM10	PM2.5
POV	Light Duty Gasoline Vehicles (LDGV) - passenger vehicles	2001	23400	10.2	0.6	0.7	0.07	0.01	0.01	0.26255	0.01544	0.01802	0.00180	0.00026	0.00026
Calculation of Annual Actual Emisssions															
Emission Factor (gm/mile) x Annual on-base mileage x 0.00220 lb/gm = Emissions															

Source:
Emission Factors can be obtained from Air Emissions Inventory Guidance Document For Mobile Sources at Air Force Installations, IERA, December 2003.