



F-35A Training Basing

Environmental Impact Statement



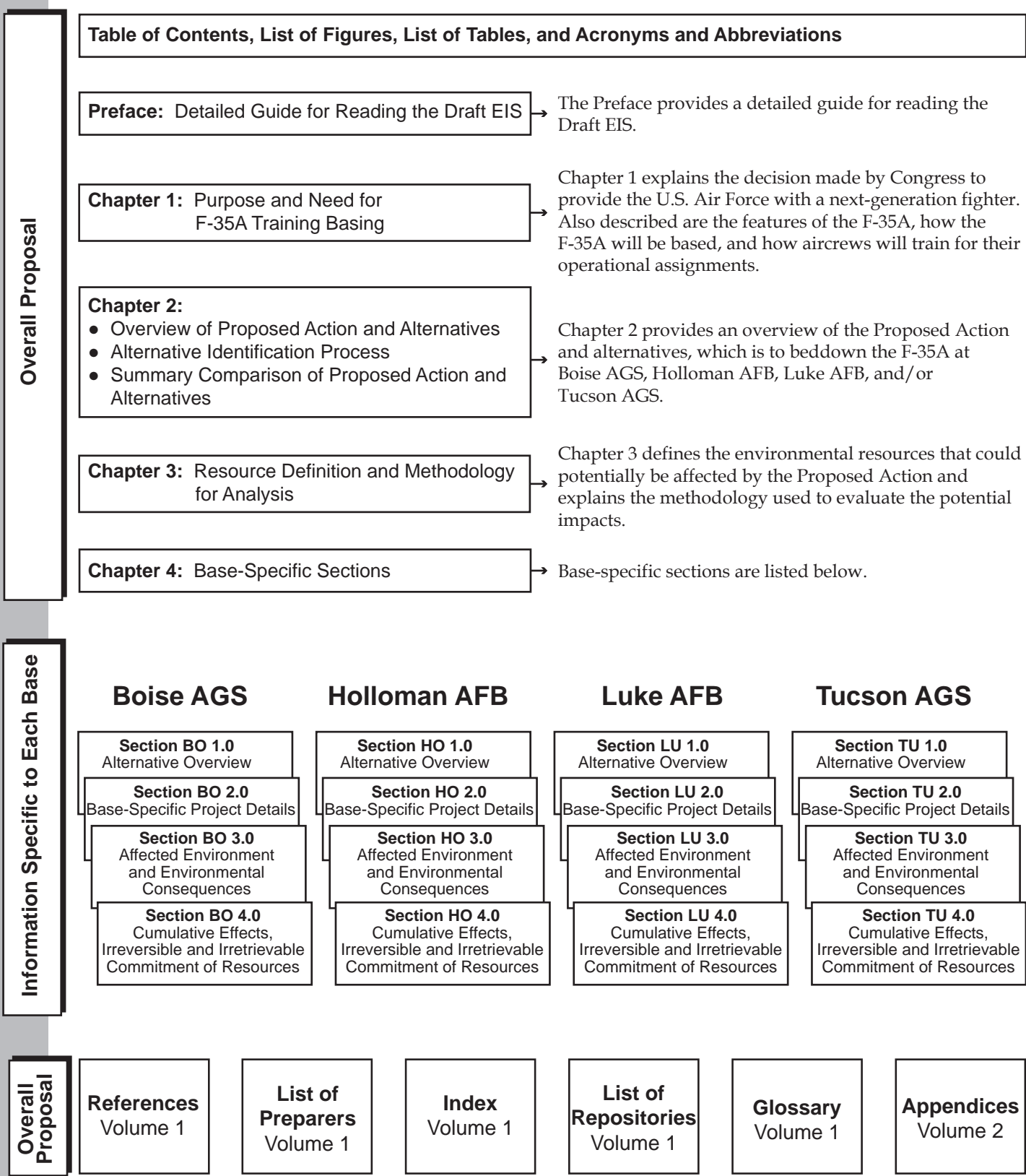
Draft
Volume I



January 2012
(Includes Updates)

How to Use This Document

Our goal is to give you a reader-friendly document that provides an in-depth, accurate analysis of the Proposed Action, the alternative beddown locations, and the potential environmental consequences for each base. The organization of this Draft Environmental Impact Statement (Draft EIS) is shown below.



Draft

**F-35A Training Basing
Environmental Impact Statement**

Public comments on this Draft EIS are requested pursuant to the National Environmental Policy Act (42 U.S.C. 4321 et seq.). All written comments received during the comment period will be made available to the public and considered during Final EIS preparation. The provision of private address information with your comment is voluntary. However, this information is used to compile the mailing list for Final EIS distribution, and failure to provide such information will result in your name not being included on the list. Private address information will not be released for any other purpose unless required by law.

January 2012

COVER SHEET
DRAFT F-35A TRAINING BASING
ENVIRONMENTAL IMPACT STATEMENT

- a. *Responsible Agency:* U.S. Air Force (Air Force)
- b. *Cooperating Agencies:* Federal Aviation Administration and the Department of the Navy, U.S. Marine Corps
- c. *Proposed Action:* The Proposed Action is to base a Pilot Training Center (PTC) and beddown up to 144 F-35A training aircraft at one or more existing alternative locations. The PTC would support the training of Air Force, cooperative international partners, and U.S. Foreign Military Sales pilots in the safe and effective operation of the F-35A. The Air Force has defined four alternative bases for consideration as the location of the F-35A PTC: Boise Air Terminal Airport Air Guard Station (Boise AGS), Idaho; Holloman Air Force Base (Holloman AFB), New Mexico; Luke Air Force Base (Luke AFB), Arizona; and Tucson International Airport Air Guard Station (Tucson AGS), Arizona. Each alternative base was evaluated to determine the range of F-35A aircraft scenarios the base would be capable of supporting. At Boise AGS and Tucson AGS, this Draft Environmental Impact Statement (EIS) evaluated 24, 48, and 72 F-35A aircraft scenarios. The basing scenarios at Holloman AFB evaluate 24, 48, and 72 F-35A aircraft in addition to the baseline of the F-16 FTU. To facilitate potential future decisionmaking with respect to F-35A basing and provide for comprehensive NEPA planning, the Air Force is also taking into consideration beddown of 24, 48, 72, 96, and 120 F-35A aircraft without the F-16 FTU. At Luke AFB, 24, 48, 72, 96, 120, and 144 F-35A aircraft scenarios were evaluated. Personnel changes and new or renovated facilities were determined based on the requirements at each base to accommodate the mission under each aircraft scenario. The F-35A would conduct flight operations in existing airspace and ranges in proximity to the alternative bases. Additional flight operations would be conducted on auxiliary airfields identified for each alternative.
- d. *Inquiries:* For further information on this Draft EIS, contact David Martin, Air Force contractor, or Kim Fornof, HQ AETC/A7CPP, 266 F Street West, Building 901, Randolph AFB, TX 78150-4319. Telephone inquiries may be made to Headquarters Air Education and Training Command at (210) 652-1961. This Draft EIS is released for public review and comment. All public comments will be incorporated into a Final EIS, expected to be prepared in the winter of 2012.
- e. *Designation:* Draft Environmental Impact Statement
- f. *Abstract:* This Draft EIS was prepared by the Air Force in accordance with the National Environmental Policy Act of 1969 (42 *United States Code* [U.S.C.] 4321 et seq.), as implemented by the Council on Environmental Quality regulations (40 *Code of Federal Regulations* [CFR] 1500-1508), and Air Force Instruction (AFI) 32-7061, *The Environmental Impact Analysis Process* (as promulgated in 32 CFR 989). This EIS assessed the environmental consequences of the alternatives on the following resource categories: airspace management and use, noise, air quality, safety, soils and water, vegetation and wildlife, wetlands and aquatic communities, threatened and endangered species, cultural resources, land use and recreation, socioeconomics, environmental justice, infrastructure, transportation, and hazardous materials and waste. Analysis established that no substantial adverse impacts on the following resource categories would result from implementing any of the alternatives or associated aircraft scenarios: airspace management and use, air quality, soils and water, vegetation and wildlife, wetlands and aquatic communities, land use and recreation, transportation, or hazardous materials and waste. At Boise AGS, Luke AFB, and Tucson AGS, noise levels generated by the F-35A in the vicinity of the main airfields would adversely impact the exposed population, subsequently resulting in potentially adverse impacts on residents, property values, and environmental justice communities, including children. Noise generated at the Roswell International Air Center, El Paso International Airport, and Biggs Army Airfield auxiliary airfields would generate adverse impacts under the Holloman AFB alternative. Personnel changes at Holloman AFB would create potential adverse impacts on infrastructure, particularly water, and housing in the local communities. Construction expenditures and personnel changes would generate beneficial socioeconomic impacts on the surrounding communities by generating additional jobs and income.

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Acronyms

Acronyms

°F	degrees Fahrenheit	ATRC	automatic target recognition and classification
µg/m ³	micrograms per cubic meter	Aux-1	Luke AFB Auxiliary Airfield 1
AAF	Army Airfield	AZGFD	Arizona Game and Fish Department
AATC	Air Force Reserve Command Test Center	AZPDES	Arizona Pollutant Discharge Elimination System
ACC	Air Combat Command	B Course	Basic Initial Qualification Training
ACM	asbestos-containing materials	BAI	Backup Aircraft Inventory
ADEQ	Arizona Department of Environmental Quality	BAM	Bird Avoidance Model
AESA	active electronically scanned array	BASH	Bird/Wildlife-Aircraft Strike Hazard
AETC	Air Education and Training Command	BAWA	Bosque del Apache Wilderness Area
AFAF	Air Force Auxiliary Field	BDM	Basing Decision Memorandum
AFB	Air Force Base	BDU	Bomb Dummy Units
AFI	Air Force Instruction	BHWG	Bird Hazard Working Group
AFM	Air Force Manual	BLM	U.S. Bureau of Land Management
AFOSH	Air Force Occupational and Environmental Safety, Fire Protection and Health	BMGR	Barry M. Goldwater Range
AFRC	Air Force Reserve Command	BMP	Best Management Practice
AFSOC	Air Force Special Operations Command	BRAC	Base Realignment and Closure
AGE	aerospace ground equipment	BWWSA	Boles Wells Water System Annex
AGL	above ground level	CAA	Clean Air Act
AGS	Air Guard Station	CAB	Combat Aviation Brigade
AHAS	Avian Hazard Advisory System	CAP	Central Accumulation Point
AIA	Airport Influence Area	CAS	Close Air Support
AICUZ	Air Installation Compatibility Use Zone	CCF	hundreds of cubic feet
Air Force	U.S. Air Force	CDNL	C-weighted day-night average sound level
ANG	Air National Guard	CDP	Census Designated Place
ANSI	American National Standards Institute	CEQ	Council on Environmental Quality
APE	area of potential effect	CFPO	cactus ferruginous pygmyowl
APS	Arizona Public Service	CFR	<i>Code of Federal Regulations</i>
APZ	Accident Potential Zone	CO	carbon monoxide
AQB	Air Quality Bureau	CTOL	Conventional Takeoff and Landing
AQD	Air Quality Department	CV	Carrier Variant
AQRV	air quality related values	CWA	Clean Water Act
ARC	Airport Reference Code	CY	calendar year
Army	U.S. Army	CZ	Clear Zone
ARS	<i>Arizona Revised Statutes</i>	dB	decibel
ARTCC	Air Route Traffic Control Center	DDESB	Department of Defense Explosives Safety Board
AS	Airlift Squadron	DEQ	Department of Environmental Quality
ASA	Acoustical Society of America	DNL	day-night average sound level
ASU	Airspace for Special Use	DNL _{mr}	onset rate-adjusted day-night average sound level
ATA	air traffic area	DoD	U.S. Department of Defense
ATC	air traffic control	DPS	Distinct Population Segment
ATCAA	Air Traffic Control Assigned Airspace	EA	Environmental Assessment
ATCT	Air Traffic Control Tower	EIS	Environmental Impact Statement
AT/FP	Anti-Terrorism/Force Protection		

EO	Executive Order	IJTS	Initial Joint Training Site
EOD	Explosive Ordnance Disposal	ILS	Instrument Landing System
EOTS	electro-optical targeting system	IMPLAN	Impact Analysis for Planning
EPA	U.S. Environmental Protection Agency	INM	Integrated Noise Model
EPIA	El Paso International Airport	INRMP	Integrated Natural Resources Management Plan
ERP	Environmental Restoration Program	IP	Instructor Pilot
ESA	Endangered Species Act	IR	Instrument Route
ESQD	Explosive Safety Quantity Distance	IRP	Installation Restoration Program
EWL	Enterprise Wide Look	IRST	infrared search and track
FAA	Federal Aviation Administration	ITC	integrated training center
FAR	Federal Aviation Regulation	JDAM	Joint Direct Attack Munition
FEMA	Federal Emergency Management Agency	JLUS	Joint Land Use Study
FES	Fire Emergency Services	JROC	Joint Requirements Oversight Council
FICAN	Federal Interagency Committee on Aircraft Noise	JSF	Joint Strike Fighter
FICUN	Federal Interagency Committee on Urban Noise	JSFPO	Joint Strike Fighter Program Office
FIP	Federal Implementation Plan	JTX	Joint Training Exercises
FL	Flight Level	JWA	Jarbidge Wilderness Area
FLIR	forward-looking infrared	L_{eq}	equivalent sound level
FMS	Foreign Military Sales	$L_{eq(SD)}$	school day equivalent sound level
FS	Fighter Squadron	L_{max}	maximum noise level
FTU	Formal Training Unit	LBP	lead-based paint
FW	Fighter Wing	LEED	Leadership in Energy and Environmental Design
FY	fiscal year	MAG	Maricopa Association of Governments
GAF	German Air Force	MBTA	Migratory Bird Treaty Act
GBU	Guided Bomb Unit	MCAS	Marine Corps Air Station
GCRMC	Gerald Champion Regional Medical Center	MG	Medical Group
GHG	greenhouse gas	MGD	million gallons per day
GIS	geographic information system	MHRC	Mountain Home Range Complex
GOV	government-owned vehicle	MJU	Mobile Jettison Unit
GPS	global positioning system	MMRP	Military Munitions Response Program
GWETRS	Groundwater Extraction, Treatment, and Recharge System	MOA	Military Operations Area
GWP	global warming potential	MOUT	Military Operations in Urban Terrain
HAZMART	hazardous materials pharmacy	MR_NMAP	MOA-Range NOISEMAP
I-84	Interstate 84	MSA	Munitions Storage Area
IAP	Initial Accumulation Point	MSD	Municipal School District
IC	Instruction Course	MSL	mean sea level
ICRMP	Integrated Cultural Resources Management Plan	MTR	Military Training Route
IDANG	Idaho Air National Guard	NAAQS	National Ambient Air Quality Standards
IDAPA	Idaho Administrative Procedures Act	NCP	Noise Compatibility Program
IDEQ	Idaho Department of Environmental Quality	NEPA	National Environmental Policy Act
IDFG	Idaho Department of Fish and Game	NEXRAD	Next Generation Radar
IFR	Instrument Flight Rules	NHPA	National Historic Preservation Act
IICEP	Interagency/Intergovernmental Coordination for Environmental Planning	NIOSH	National Institute of Occupational Safety and Health
		NIPTS	Noise-Induced Permanent Threshold Shift
		NLR	noise level reduction
		NM	nautical mile

NMAAQS	New Mexico Ambient Air Quality Standards	SAGE	Semi-Automatic Ground Environment
NMDGF	New Mexico Department of Game and Fish	SATR	Special Air Traffic Rule
NO ₂	nitrogen dioxide	SB-ESG	Strategic Basing Executive Steering Group
NOA	Notice of Availability	SDD	system development and demonstration
NOI	Notice of Intent	SEL	sound exposure level
NOTAM	Notice to Airmen	SEL _r	onset rate-adjusted sound exposure level
NO _x	nitrogen oxides	SFO	simulated flameout
NPDES	National Pollutant Discharge Elimination System	SHPO	State Historic Preservation Office
NRHP	National Register of Historic Places	SIP	State Implementation Plan
NRIS	National Register Information System	SM	statute mile
NWR	National Wildlife Refuge	SO ₂	sulfur dioxide
O ₃	ozone	SOC	Senior Officer Course
OCFFA	Otero County Fire Fighters Association	SRMA	Special Recreational Management Area
OFA	Object-Free Area	STOVL	Short Takeoff and Vertical Landing
OFZ	Obstacle Free Zone	SUA	Special Use Airspace
OSHA	Occupational Safety and Health Administration	SULMA	Special Use Land Management Area
OWS	oil-water separator	SWFL	southwestern willow fly catcher
PAA	Primary Aircraft Authorized	SWPPP	Storm Water Pollution Prevention Plan
PAG	Pima Association of Governments	TAA	Tucson Airport Authority
PAPI	precision approach path indicator	TAAFD	Tucson Airport Authority Fire Department
PAR	Precision Approach Radar	TAC	Tactical
PDEQ	Pima County Department of Environmental Quality	TACAN	Tactical Air Navigation
PEM	Porous European Mix	TCE	trichloroethene
PHL	potential hearing loss	TCP	traditional cultural property
PM _{2.5}	particulate matter less than or equal to 2.5 microns in diameter	THPO	Tribal Historic Preservation Office
PM ₁₀	particulate matter less than or equal to 10 microns in diameter	TIAA	Tucson International Airport Area
POV	personally owned vehicle	TNT	trinitrotoluene
ppm	parts per million	TP	Target Practice
PSD	Prevention of Significant Deterioration	TRACON	Terminal Radar Approach Control
psf	pounds per square foot	TUS	Tucson International Airport
psig	pounds per square inch gauge	TX Course	Transition/Conversion/Refresher/Requalification Training
PTC	Pilot Training Center	UAE	United Arab Emirates
PVC	polyvinyl chloride	UAS	unmanned aircraft system
PW	Pratt and Whitney	UFC	Unified Facilities Criteria
Q-D	quantity-distance	U.S.C.	<i>United States Code</i>
RAPCON	Radar Approach Control Facility	USFS	U.S. Forest Service
RIAC	Roswell International Air Center	USFWS	U.S. Fish and Wildlife Service
RNAV	Radar Navigation	USGCRP	U.S. Global Change Research Program
ROD	Record of Decision	USMC	U.S. Marine Corps
ROI	region of influence	USN	U.S. Navy
RPA	remotely piloted aircraft	UTTR	Utah Test and Training Range
RPZ	Runway Protection Zone	VCP	vitified clay pipe
RSA	Runway Safety Area	VFR	Visual Flight Rules
		VOC	volatile organic compound
		VOR	VHF Omni-Directional Radio Range
		VORTAC	VHF Omni-Directional Radio Range Tactical Air Navigation Aid

VR	Visual Route	WSA	wilderness study area
WG	Wing	WSMR	White Sands Missile Range
WHSA	White Sands National Monument	WSR	Wild and Scenic River
WRCC	Western Regional Climate Center	WWTP	wastewater treatment plant