

DRAFT
FINDING OF NO SIGNIFICANT IMPACT

NAME OF PROPOSED ACTION: Transforming the 49th Fighter Wing's Combat Capability, Holloman Air Force Base (AFB), New Mexico.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES: The United States Air Force (Air Force) proposes to transform the 49 FW from its F-117A low-observability penetration role to the next generation F-22A. The transformation from F-117A to F-22A aircraft would replace existing low-observability fighter assets with the most advanced capabilities and enable the Air Force to achieve rapid worldwide objectives. Holloman AFB is the only U.S. base with F-117A aircraft and provides the infrastructure, including facilities, management experience, and training airspace to support the next generation precision penetration F-22A aircraft. Thirty-six primary and 4 backup F-22A would replace 50 F-117A and associated 14 T-38A trainer aircraft over a period of 3 to 5 years. A total of 26 renovation, construction, or infrastructure improvement projects with a total cost of \$37 million would occur on 4 acres of previously disturbed Holloman AFB land. Total personnel assigned to or working at Holloman AFB would be reduced by an estimated 321 positions.

The F-22A would routinely fly at supersonic speeds to attain an advantage in attack and defense for air-to-ground and air-to-air missions. Airspace enhancements within 100 nautical miles (nm) of Holloman AFB would permit the F-22A to realistically train and deploy RR-188 (or equivalent) chaff and MJU-10/B (or equivalent) defensive flares. Proposed airspace enhancements affect Air Traffic Control Assigned Airspace (ATCAAs) above 18,000 feet mean sea level (MSL) (see Figure ES-1). Chaff and flare use is proposed over WSMR and McGregor Ranges. Defensive flare use is also proposed in the Cowboy, Beak, and Talon airspaces.

ALTERNATIVES TO THE PROPOSED ACTION: Alternative A would transform the 49 FW by replacing the F-117A and T-38A aircraft with F-22A aircraft, renovating and constructing facilities, and transitioning personnel as described for the Proposed Action, but would not include the airspace enhancements described in the Proposed Action and would permit supersonic training and chaff and flare use throughout WSMR only. Under the No Action Alternative, transformation of the 49 FW from F-117A to next generation F-22A aircraft would not occur. No Action would continue F-117A and T-38A aircraft at Holloman AFB.

SUMMARY OF ENVIRONMENTAL CONSEQUENCES: The public and agency scoping process focused the analysis on the following environmental resources: airspace management, noise, safety, air quality, physical resources, biological resources, cultural resources, land use, socioeconomics, and environmental justice. Each resource is discussed below for environmental consequences.

Airspace Management and Air Traffic Control. Holloman AFB airspace management would not be impacted by the transformation and daily operations would decrease 11.5 percent compared to existing. Connecting ATCAAs with a floor of 18,000 feet above mean sea level (MSL) and lowering the floor of Cowboy ATCAA from 30,000 feet to 23,000 feet MSL would not affect civil aircraft, including those using Sierra Blanca Airport. Airspace recreational activities in or near the Lincoln National Forest or the Sacramento Mountains, including hang gliding, would not be affected. Use of defensive chaff equivalent to RR-188 training chaff would not interfere with Federal Aviation Administration (FAA) air traffic control radars. Raising the ceiling of Talon ATCAAs would require scheduling and coordination between Air Force and FAA controllers. The Proposed Action in conjunction with existing and proposed Army and other missions at WSMR could restrict some training and missions within the airspace.

Noise. Day/night average sound levels (L_{dn}) would decrease although base housing and other on-base facilities could experience higher noise levels from individual noise events. Construction noise would be minimal and within existing airfield noise contours. Subsonic onset rate adjusted day/night average sound level (L_{dnmr}) would have no discernible difference under the Cowboy, Beak, Talon, and northern portion of WSMR airspaces. Subsonic noise over the southern portion of WSMR and McGregor Range would noticeably increase but remain below 55 L_{dnmr} (no adverse impacts expected). Supersonic training would

increase sonic booms from 1 to 2 to 20 to 25 per month under populated areas of the Cowboy ATCAA, from 5 per month to 45 per month toward the center of WSMR, and to 5 to 8 per month in the northern part of El Paso and Fort Bliss. The average sonic boom overpressure for this type of activity is approximately 1 pound per square foot (psf) and would not pose a health or other risk. Sonic booms could damage glass, plaster, or vibrate shelves and increase annoyance to residents and long-term visitors from 1 percent to approximately 6 percent highly annoyed under WSMR and from 1 to 4 percent under the Cowboy ATCAA. In addition to annoyance, sonic booms have the potential to damage structures. For the magnitude of boom associated with the Proposed Action, the probability of structure damage is extremely small, but is a concern nonetheless. At 1 psf, the probability of a window breaking ranges from one in a billion (Sutherland 1990) to one in a million (Hershey and Higgins 1976). At 10 psf, the probability of breakage is between one in a hundred and one in a thousand (Haber and Nakaki 1989).

Safety. No substantive changes are expected to flight, ground, or other safety aspects. Bird-aircraft strike hazard (BASH) would be somewhat lessened because the F-22A spends less time where species fly at lower altitudes. Training ordnance use is substantially less for the F-22A than the F-117A. Personnel are trained and facilities are adequate to handle proposed levels of ordnance, chaff, and flares. F-22A improved electronics and maintenance are expected to result in long-term Class A accident rate comparable to that of the similarly sized F-15C aircraft. Enhanced F-22A electronics substantially improve situational awareness of other aircraft in the airspace. Both participating and non-participating aircraft in the MOA and ATCAA are responsible for applying see-and-avoid safety measures. Restrictions on flare use during periods above high fire danger and altitude restrictions of 2,000 feet above ground level (AGL) for flare deployment at any time reduce any potential for fire risk.

Air Quality. Alamogordo area is in air quality attainment for all criteria pollutants. Temporary construction emissions would produce localized short-term elevated air pollutant concentrations. No change is projected to air quality within the Alamogordo area and no conformity determination is required. Change in training aircraft would not affect air quality under the airspace or visibility in any Class 1 area.

Physical Resources. Existing hazardous materials facilities support low-observability coatings of F-117A and F-22A aircraft. No significant on-base effects. Sonic booms and associated vibration would not affect soil, seasonal snow packs, or geologic formations. Chaff fibers thinner than a human hair, three to six 2-inch by 4-inch mylar pieces, and two 1-inch by 1-inch plastic pieces fall with each chaff bundle deployed. Chaff on the ground rapidly breaks down to silica and aluminum particles and becomes indistinguishable from native soils. Inert plastic pieces are not expected to affect soil or water. Each MJU-10/B defensive flare would deposit two 2-inch by 2-inch plastic pieces, one 1-inch by 1-inch by 2-inch Safe & Initiation (S&I) device, and one up to 4-inch by 12-inch aluminum-coated mylar wrapping on the ground. Plastic or mylar pieces that result from chaff or flare deployment would not be in concentrations that could affect soil or water resources.

Biological Resources. Renovation or construction on previously disturbed ground would not be expected to impact sensitive biological species. Birds and mammals associated with the base and its environs are habituated to noise and other activity. F-22A ability to rapidly climb above the normal altitude of migrating waterfowl and other birds should somewhat reduce BASH potential.

Subsonic noise changes are not expected to affect wildlife. The increase in sonic booms may startle some animals. Wildlife under the airspaces have previously experienced thunder and thunder-like sonic booms at different levels and are expected to become habituated to additional thunder-like sounds. An estimated 45 sonic booms per month toward the center of WSMR airspace is not expected to significantly impact wildlife. Even after habituation, a sonic boom, as with thunder, could startle high strung or other animals in a pen or other restricted area. The increase in supersonic flight may affect, but is not likely to adversely affect, Mexican spotted owl, northern aplomado falcon, or bald eagle. Mylar wrappings from chaff and flare use are expected to degrade from exposure to sunlight and inert plastic pieces are not expected to affect biological resources, including native or domestic animals.

Cultural Resources. No building proposed for renovation or demolition is an historic structure. White Sands National Monument, adjacent to Holloman AFB, is expected to have reduced subsonic off-base 65 dB noise contours. Subsonic noise is not expected to significantly affect historic properties. Sonic booms cause vibrations that could affect historic properties under the airspace, including within White Sands National Monument, the Mescalero Apache Reservation, and Holloman AFB. Historic structures in good condition would not be expected to be impacted, but structures or windows in poor condition could be affected by sonic boom vibration. Approximately 12 to 18 sonic booms per month are projected on the Mescalero Apache Reservation and could result in increased annoyance to Native Americans and others.

Land Use. On-base renovation and construction is consistent with the base general plan. Land use near the base are not expected to be impacted by F-22A overflights. Increased sonic booms are expected to occur over workplaces, residential, recreational, hunting, and fishing areas under all airspaces. The largest numbers of residences under the training airspace subject to sonic booms are located under the Cowboy ATCAA and include the city of Alamogordo, the villages of LaLuz, Tularosa, Carriozo, Capitan, Ruidoso, Ruidoso Downs, Cloudcroft, and Mescalero, low-density rural settlements in the Sacramento Mountains, and other communities. The increased frequency of sonic booms would not be expected to affect land use or land use patterns, ownership, or management. Chaff and flare residual pieces would not affect land use, but, if identified by a resident, rancher, or recreationist, the individual could be annoyed.

Socioeconomics. Renovation and construction would create 175 construction jobs. Authorized and other positions at Holloman AFB would reduce by 321 jobs. Anticipated population decline of 674 persons is approximately 2 percent of Alamogordo's population. Off-base housing demand would be reduced by approximately 227 units. Secondary employment is projected to be reduced by approximately 99 positions. Depending upon F-117A retirement, renovation and construction, and introduction of F-22A aircraft, socioeconomic effects in Alamogordo could proportionately result from a decline of base authorized personnel of up to approximately 25 percent before personnel stabilized at approximately 5.3 percent below existing authorizations. Sonic booms under Cowboy ATCAA in residential and tourist areas may annoy residents or long-term visitors but would not be expected to significantly affect general activities under airspace. Specific economic activities associated with horse races at Ruidoso Downs or other recreational activities, including hunting or seeking solitude, could be affected by the number of sonic booms. Lumber, recreational, and gaming industries in the Sacramento Mountains are partially supported by an economically viable Alamogordo and Holloman AFB and could be affected by an economic downturn at those locations.

Environmental Justice. Minority and low income populations in the Alamogordo area are comparable to those of the state of New Mexico. Sonic booms would not be expected to damage health or other environmental resources, although persons living on the Mescalero Apache Reservation and others under the airspace could be annoyed by up to 15 to 25 sonic booms per month. Game species such as elk and mule deer that contribute to the Mescalero economy would be expected to habituate, although an inopportune sonic boom could annoy a hunter. Sonic booms comparable to intense or distant thunder would be distributed throughout the airspace and no disproportionately high or adverse impacts on minority or low income communities would be expected. No disproportionate health or safety risks would be expected to affect children. A reduction in base and Alamogordo economic activity would have an unquantified but expectably adverse effect on the reservation tourism and gaming economy.

ALTERNATIVE A: Alternative A would have essentially the same base effects as the Proposed Action. Alternative A generally reduces sonic booms to areas under the Cowboy ATCAA when compared with the Proposed Action and substantially increases sonic booms to areas under and on the periphery of WSMR. This includes up to 80 sonic booms per month toward the center of WSMR, 30 to 40 per month at the White Sands National Monument Headquarters and at Holloman AFB, and 10 to 15 per month in Alamogordo, Fort Bliss, and the northern portion of El Paso. Chaff and flare use would also be concentrated on WSMR and McGregor Ranges. Alternative A would provide minimum training capabilities for the F-22A aircraft but would not provide multiple realistic training scenarios representative of combat situations.

NO ACTION ALTERNATIVE: No Action would continue F-117A and T-38A aircraft at Holloman AFB. The No Action Alternative has the potential to reduce the capabilities of the 49 FW, reduce the capabilities for U.S. required low-observability air-to-ground missions, and increase the future costs of deploying F-22A aircraft.

CONCLUSION: Based on the EA conducted in accordance with the requirements of the National Environmental Policy Act, the Council on Environmental Quality regulations, and implementing regulations set forth in 32 CFR 989 (Environmental Impact Analysis Process), as amended, it is concluded that implementation of the Proposed Action would not result in significant impacts to the quality of the human or natural environment. For these reasons, a finding of no significant impact (FONSI) is made and preparation of an Environmental Impact Statement (EIS) is not warranted.

NAME

Date