Final Environmental Assessment for the

Semiannual Joint Integrated Fires Exercises

at Avon Park Air Force Range, Florida

April 2006

Prepared by the
Environmental Flight
Avon Park Air Force Range, Florida

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14. ABSTRACT

The semiannual Joint Integrated Fires Exercises trains Tactical Air Controller Parties (TACPs) and Forward Observers (FOs) in coordinating the delivery of ordnance from aircraft, ground artillery, and mortars. While some of the proposed training has been assessed by the National Environmental Policy Act in the past some elements are either new or were assessed as a one-time event and are now assessed in this environmental assessment. New elements include creating new mortar firing points and firing areas firing artillery into a small, high-explosive impact area, and firing ground-based, inert rockets from a new location. Elements occurring as more than a one-time event include the concurrent use of ordnance delivered by aircraft and ground units, placing TACPs and FOs in a high explosive impact area, firing artillery from drop zones, firing mortars into a small, high-explosive impact area expanding artillery-firing points, firing ground-based, inert rockets into an inert-impact range, and increasing the amount of highexplosive and inert rockets fired at Avon Park Air Force Range. Environmental impacts include adverse impacts to threatened and endangered animal species.

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Environmental Assessment
at Avon Park Air Force Range, Florida

Proposed Action:	Conduct semiannual (twice a year) Joint Integrated Fires Exercises (JIFEs) at Avon Park Air Force Range, Florida
Type of statement:	Environmental Assessment
Cooperating agencies:	None
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Abstract: The semiannual Joint Integrated Fires Exercises trains Tactical Air Controller Parties (TACPs) and Forward Observers (FOs) in coordinating the delivery of ordnance from aircraft, ground artillery, and mortars. While some of the proposed training has been assessed by the National Environmental Policy Act in the past, some elements are either new or were assessed as a one-time event and are now assessed in this environmental assessment. New elements include creating new mortar firing points and firing areas, firing artillery into a small, high-explosive impact area, and firing ground-based, inert rockets from a new location. Elements occurring as more than a one-time event include the concurrent use of ordnance delivered by aircraft and ground units, placing TACPs and FOs in a high explosive impact area, firing artillery from drop zones, firing mortars into a small, high-explosive impact area, expanding artillery-firing points, firing ground-based, inert rockets into an inert-impact range, and increasing the amount of high-explosive and inert rockets fired at Avon Park Air Force Range.

Environmental impacts include adverse impacts to threatened and endangered animal species.

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FINDING OF NO SIGNIFICANT IMPACT

The Environmental Flight at Avon Park Air Force Range (APAFR) has prepared an Environmental Assessment (EA) that conducts the semiannual (twice a year) Joint Integrated Fires Exercises (JIFEs) at Avon Park Air Force Range, Florida. This analysis was conducted in accordance with the *Regulations For Implementing The Procedural Provisions Of The National Environmental Policy Act* (40 CFR Parts 1500-1508, July 2005) and the *Environmental Impact Analysis Process* (32 CFR 989, July 2005). This EA relies heavily on a previous EA that assessed the impacts of a past JIFE conducted as a one-time event.

Copies of the draft EA were supplied to the United States Fish and Wildlife Service (USFWS), state agencies, local governments, and the public. The public was notified by announcements in two local papers with draft EA copies available in two county libraries. The USFWS responded to the draft EA in their biological opinion. The biological opinion is found in Appendix D. Comments from the Florida State Clearinghouse were received after the response deadline. No comments were received from the public. The EA did respond to the biological opinion, but did not respond to the Clearinghouse comments.

1.0 NAME OF THE ACTION

Conduct semiannual JIFEs at Avon Park Air Force Range, Florida.

2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 Alternative A

Semiannual JIFEs would train Tactical Air Controller Parties (TACPs) and Forward Observers (FOs) in advanced and mid-level operations at APAFR. The operations would be conducted twice a year, most often during the spring and fall. The weapon platforms that the TACPs and FOs coordinate and direct would include fixed-wing (airplanes) and rotary-wing (helicopters) aircraft, howitzers, mortars, and vehicles that launch rockets. Much of the training in the JIFEs is currently conducted at APAFR and has been assessed under the National Environmental Policy Act (NEPA). Some portions of the training would be either new or conducted more than originally assessed as a one-time event. The new or more than one-time event training is assessed in this EA. The entire exercise is assessed in the Cumulative Impacts section of this EA.

The new or semiannual frequency of training assessed in this EA includes the following:

2.1.1 Concurrent use of air and ground-based military assets on a semiannual basis.

2.1.2 Placing TACPs and FOs in the North Conventional Range, a High Explosive (HE) impact range, to coordinate and direct air and ground-based delivery of ordnance on a semiannual basis.

2.1.3 Increasing the annual allotment of HE Hellfire missiles delivered on the North Conventional Range and increasing the number of inert, Reduced-Range Practice Rockets

(RRPRs) fired from ground vehicles into the North Conventional and North Tactical Ranges on a semiannual basis.

2.1.4 Firing howitzers from the Karen or Joan Drop Zones on a semiannual basis.
2.1.5 Firing RRPRs from ground vehicles from Oscar Range on a semiannual basis.

2.1.6 Firing RRPRs from ground vehicles from Old Bravo Road and Alpha Grade into the South Tactical Range.

2.1.7 Firing RRPRs into the South Tactical Range on a semiannual basis.

2.1.8 Increasing the annual allotment of RRPRs fired at APAFR.

2.1.9 Increasing the size of the existing firing points for howitzers.

2.1.10 Firing mortars from the East and West Mortar Firing Areas (MFAs).

2.1.11 Creating the Smith Grade MFA and the North MFA.

2.2 Alternative B

Alternative B is the preferred alternative and is the same as Alternative A except that mortars would be fired from existing urban villages located in inert impact ranges. The mortars located in the urban village found in the North Tactical Range would fire into the North Conventional Range, while mortars located in the urban village found in the South Tactical Range would fire into the small, HE impact area of the South Tactical Range.

2.3 No-Action Alternative

The No-Action Alternative would employ only the existing infrastructure, limit the number of Hellfire missiles and RRPRs to those previously assessed by NEPA documents, and only employ training that has been assessed by previous NEPA documents. All units would have the potential to train at APAFR, but they would train as single assets independent of each other. TACPs and FOs would only work with one asset at a time. It is most likely that some of the units would not train at APAFR at all.

3.0 SUMMARY OF ENVIRONMENTAL IMPACTS

3.1 Airspace and Aircraft Operations: Air operations would increase the amount of range use by three percent annually for Alternatives A and B, less than three percent with the No-Action Alternative. The airspace would easily accommodate semiannual JIFEs and other ongoing training.

3.2 Safety: Alternative B would require more coordination with mortar fire from the urban villages to avoid firing mortars over personnel. The No-Action Alternative would require the least amount of coordination because there are fewer firing locations and fewer locations for the

TACPs and FOs.

3.3 Noise: The action alternatives would have mortars fire from firing areas in the southeast portion of the installation that would create noise up to 300 meters off the south edge of the property. The level of noise would typically elicit complaints from human listeners; however, the affected area is in agricultural use with human listeners only present occasionally. Noise impacts under Alternatives A and B in this area would not be considered significant. The No-Action Alternative would not have noticeable noise levels leave the installation.

3.4 Hazardous Waste and Materials: Hazardous materials and waste associated with the operation of motor vehicles would be easily used and disposed of under any of the alternatives.

3.5 Environmental Restoration: Solid waste burial sites exist in the impact areas, but have been declared demilitarized and rendered safe and therefore would not be impacted by any of the alternatives.

3.6 Air Quality: APAFR is located in an attainment air-quality zone. All alternatives would only marginally contribute emissions. Expended munitions reports would be tracked in the Toxic Release Inventory Data Delivery System (TRIDDS) reporting system.

3.7 Geology and Soils: Minor amounts of soil displacement would be expected from ordnance deliveries, especially HE ordnance, and vehicle use on firing points and fire areas for Alternatives A and B. Roads susceptible to erosion may need additional maintenance for all the alternatives.

3.8 Water Resources: Craters formed by HE in the impact areas would be expected to create small depression areas with retained surface water. In upland areas, where the targets are located, these depressions would dry out, while in wetlands (non target areas) with a higher water table, they would stay wetter longer. These craters are currently common place in the North Conventional Range due to long term HE deliveries and would continue under all alternatives. The more recent artillery and mortar firing into in the HE Impact Area of the South Tactical Range would introduce more craters long term under Alternatives A and B.

3.9 Vegetation: Under Alternatives A and B, craters would disturb soils and result in early successional, wet-adapted plants. The vegetation communities would grow towards mid successional plants until disturbed again. Some previously established upland plant monitoring plots would potentially be lost due to mortar set-up. Threatened and endangered plant species would not be adversely affected. The No-Action Alternative would create far fewer craters in the South Tactical Range.

3.10 Fish and Wildlife: The federally listed threatened and endangered bird species consisting of the Florida grasshopper sparrow, Florida scrub-jay, and the Red cockaded woodpecker and the Eastern indigo snake would be adversely effected by Alternatives A and B. The effects would mostly be attributed to wildfires that were ignited by the ordnance delivered during the JIFEs. The bird species would lose nests, eggs, and fledglings to wildfire when nesting in the spring, while the snake would perish regardless of age or the season. Alternatives A and B would cause the greatest risk when the JIFE would be conducted during the spring when the potential for

wildfire is highest. APAFR has had a long term prescribed fire program that minimizes the risk of wildfire in endangered species habitat. The No-Action Alternative would not have wildfires induced by the JIFE; however, APAFR would still experience other ordnance delivered training in the spring that would have the potential to create wildfires.

3.11 Grazing Management: All alternatives would have minimal impact to grazing.

3.12 Invasive Plant Management: All alternatives would have minimal impact to management.

3.13 Timber Management: All alternatives would have minimal impact to forestry practices.

3.14 Recreation: Alternatives A and B would temporarily close a portion of a National Scenic Trail located on APAFR for up to 16 days per JIFE. The No-Action Alternative would not close the trail.

3.15 Military Training: Alternatives A and B would increase annual range use from 27% to 30%. This increase would not cause conflicts with other military training and would potentially offer other units training opportunities within a JIFE. The No-Action Alternative would use less range time and offer fewer training opportunities for other units.

3.16 Cultural Resources: There would be no effect to cultural resources as concurred by the State Historic Preservation Office. Eleven consultation letters were mailed to federally recognized tribal nations. No tribes responded. All areas involved in the semiannual JIFE have been surveyed for cultural resources.

3.17 Socio-Economic Resources: The alternatives would marginally affect socio-economic resources by increased purchases of food and fuel within the local communities.

3.18 Coastal Zone Management: The alternatives would be consistent with the Florida Coastal Zone Management Plan.

3.19 Wildland Fire and Prescribed Burning: The alternatives would not adversely affect prescribed burning. Wildfires are proactively managed on the impact ranges by prescribed burning. Prescribed burning would accommodate semiannual JIFEs as well as facilitate habitat management of endangered species.

3.20 Environmental Justice: A disproportionate number of minorities and children are found on the Avon Park Correctional Institution and the Avon Park Youth Academy properties, respectively, adjacent to APAFR. These populations would be subjected to audible noise levels that would not be considered significant under all alternatives.

3.21 Cumulative Impacts: Alternatives A and B would allow the Florida Army National Guard (FLARNG) to use expanded howitzer firing points and mortar firing areas established for the semiannual JIFE. These areas would experience more vegetation and soil disturbance than the No-Action Alternative. Because there are other firing locations available, however, the FLARNG could rotate to different firing locations to allow the vegetation and soil to recover. The

FLARNG rocket launching vehicles are currently tracked and cannot participate in a JIFE as the current wheeled rocket launching vehicles do in a JIFE. The FLARNG may convert to wheeled launchers and then would be able to participate in JIFEs. The No-Action Alternative would not create additional infrastructure nor integrate the FLARNG with the JIFEs.

The Navy is currently proposing to use APAFR for HE ordnance deliveries in an Environmental Impact Study (EIS). If an action alternative is selected, the Navy, combined with current training by all military, could use 50% to 72% of the range capacity. Coupled with semiannual JIFEs, this would increase the range capacity from a range of 53% to 75%.

3.22 Short-Term Use and Long-Term Productivity: Use of APAFR by JIFEs would only marginally affect long term productivity in the form of some vegetation loss and soil loss in very limited areas.

3.23 Irreversible and Irretrievable Commitment of Resources: Petroleum, oils, and wear and tear on vehicles and equipment would be used or lost during JIFEs. Expended ordnance and target vehicles would be lost also, although much of their metal components could be recycled.

3.24 Direct and Indirect Effects: Direct effects include minimal noise, emissions, and ground disturbance. Results of wildfire would be an indirect effect that combined with prescribed burning, would have limited damage and some benefit. A strong indirect effect would be the increased frequency of replacing targets hit directly by HE ordnance and heavy gunnery. Also, with more ordnance added to the ranges, the amount of time and effort for clean-up and disposal of ordnance would also be increased.

4.0. FINDING OF NO SIGNIFICANT IMPACT

The attached EA was prepared and evaluated pursuant to the National Environmental Policy Act (Public Law 91-190, 42 U. S. C. 4321 et seq.) and IAW CFR 32-989 *The Environmental Impact Analysis Process*. Based on the analysis presented in this EA, I conclude that conducting the semiannual Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, as described under Alternative B, does not constitute a "major Federal action significantly affecting the quality of the human environment" when considered individually or cumulatively in the context of the referenced act, including both direct and indirect impacts. Also, there are no mitigation measures necessary to implement the Proposed Action. An Environmental Impact Statement will not be prepared.

27 Apr 06
Date

Michael O. Beale
MICHAEL O. BEALE, Colonel, USAF
Chairperson
20FW Environmental Leadership Board

Acronyms and Abbreviations

ABS ..... Archbold Biological Station
ACC ..... Air Combat Command
AFB ..... Air Force Base
AGM ..... Air-to-Ground Missile
AIRFA ..... American Indian Religious Freedom Act
APAFR ..... Avon Park Air Force Range
ASOG ..... Air Support Operations Group
ATGM ..... Anti-Tank Guided Missile
BDU ..... Bomb Dummy Unit
CFR ..... Code of Federal Regulations
CZMA ..... Coastal Zone Management Act
dB ..... Decibel
DNL ..... Day-Night Average Sound Level
DoD ..... Department of Defense
DPP ..... Documented Panther Populations
DUC ..... Deployment Unit Complex
DZ ..... Drop Zone
EA ..... Environmental Assessment
EIS ..... Environmental Impact Statement
EOD ..... Explosive Ordnance Disposal
ERP ..... Environmental Restoration Program
ESA ..... Endangered Species Act
ESMP ..... Endangered Species Management Plan
FGS ..... Florida Grasshopper Sparrow
FLARNG ..... Florida Army National Guard
FP ..... Firing Points
FDEP ..... Florida Department of Environmental Protection
FFWCC ..... Florida Fish and Wildlife Conservation Commission
FGS ..... Florida Grasshopper Sparrow
FSJ ..... Florida Scrub-Jay
HE ..... High Explosive
HIMARS ..... High Mobility Artillery Rocket System
HMMWV ..... High Mobility Multipurpose Wheeled Vehicle
HQ ..... Headquarters
IAW ..... In Accordance With
Illum ..... Illumination
INRMP ..... Integrated Natural Resources Management Plan
JIFEs ..... Joint Integrated Fires Exercises
FO ..... Forward Observer
GAO ..... Government Accounting Office
mm ..... Millimeter
MFA ..... Mortar Firing Area
MLRS ..... Multiple Launch Rocket System
MP ..... Mortar Points

NAGPRA ..... Native American Graves Protection and Repatriation Act
NEPA ..... National Environmental Policy Act
NRHP ..... National Register of Historic Places
NRIS ..... National Register Information System
OP ..... Observation Point
RCW ..... Red-Cockaded Woodpecker
ROI ..... Region of Influence
RRPR ..... Reduced-Range Practice Rocket
RTRB ..... Realistic Training Review Board
SDZ ..... Surface Danger Zone
SHPO ..... State Historic Preservation Officer
SUV ..... Sport Utility Vehicle
TACP ..... Tactical Air Controller Party
TOC ..... Tactical Operations Center
TRI-DDS ..... Toxic Release Inventory Data Delivery System
UAV ..... Unmanned Aerial Vechile
US ..... United States
USACOE ..... United States Army Corp of Engineers
USC ..... United States Code
USDA ..... United States Department of Agriculture
USFS ..... United States Forest Service
USFWS ..... United States Fish and Wildlife Service
USN ..... United States Navy
UXO ..... Unexploded Ordnance
WP ..... White Phosphorus

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1.0 PURPOSE AND NEED FOR ACTION

1.1 INTRODUCTION

The 18th Air Support Operations Group (18 ASOG) Detachment (DET) 1, Operation Location Alpha (OL/A) proposes to establish semiannual (twice a year) Joint Integrated Fires Exercises (JIFEs) at Avon Park Air Force Range (APAFR). JIFEs use small groups of people to coordinate attacks by aircraft that deliver ordnance as well as ground artillery and mortars that deliver explosives. These small groups of people are located on the ground near the targets. The JIFEs at APAFR could occur during anytime of the year, but would most likely occur during the spring and fall. Each exercise would last from ten to 16 consecutive days. The exercise could occur at any time during a 24-hour period, but would most likely occur from late afternoon through midnight. The main purpose of JIFEs would be to train these small groups of people with the joint use of assets consisting of fixed-wing aircraft (airplanes), rotary-wing aircraft (helicopters), ground artillery, and mortars.

The need for such training is based on recent conflicts during Operation Iraqi Freedom and Operation Enduring Freedom. These operations required joint integrated fire from the Air Force, Army, Navy, Marines, and coalition forces. The JIFEs would replicate current battle situations. The application of the JIFEs would be broad in that they could be used in small-to-large combat situations and in a variety of terrains, including high-density urban areas. Furthermore, the JIFEs would train to improve the integration deficiencies found the Government Accounting Office's (GAO) *Military Operations: Recent Campaigns Benefited from Improved Communications and Technology, but Barriers to Continued Progress Remain* (GAO-04-547) and in the Realistic Training Review Board's (RTRB) reviews in RTRB 02-1 and 02-2.

Important factors used to determine biannual dates for the proposed exercise were the probability of good flying weather, relatively dry ground, and the availability of participating exercise assets.

1.2 Background

Avon Park Air Force Range (APAFR) is located in Polk and Highlands Counties in central Florida (Figure 1.2-1). The range complex covers approximately 106,073 acres and is about ten miles east of Avon Park and 15 miles northeast of Sebring, Florida. The major roads serving the range are US Highway 27 and County Road 64.

APAFR is the largest Air Force bombing and gunnery range east of the Mississippi River. The mission of APAFR is to provide a training infrastructure that allows US air and ground forces to practice the latest combat training techniques and procedures safely, efficiently, and realistically and to design training facilities that meet training needs. The 18th Air Support Operations Group (ASOG) at Pope Air Force Base, North Carolina, is responsible for operating APAFR, while installation command responsibility is held by the 20th Fighter Wing at Shaw AFB, South Carolina. These units are elements of Air

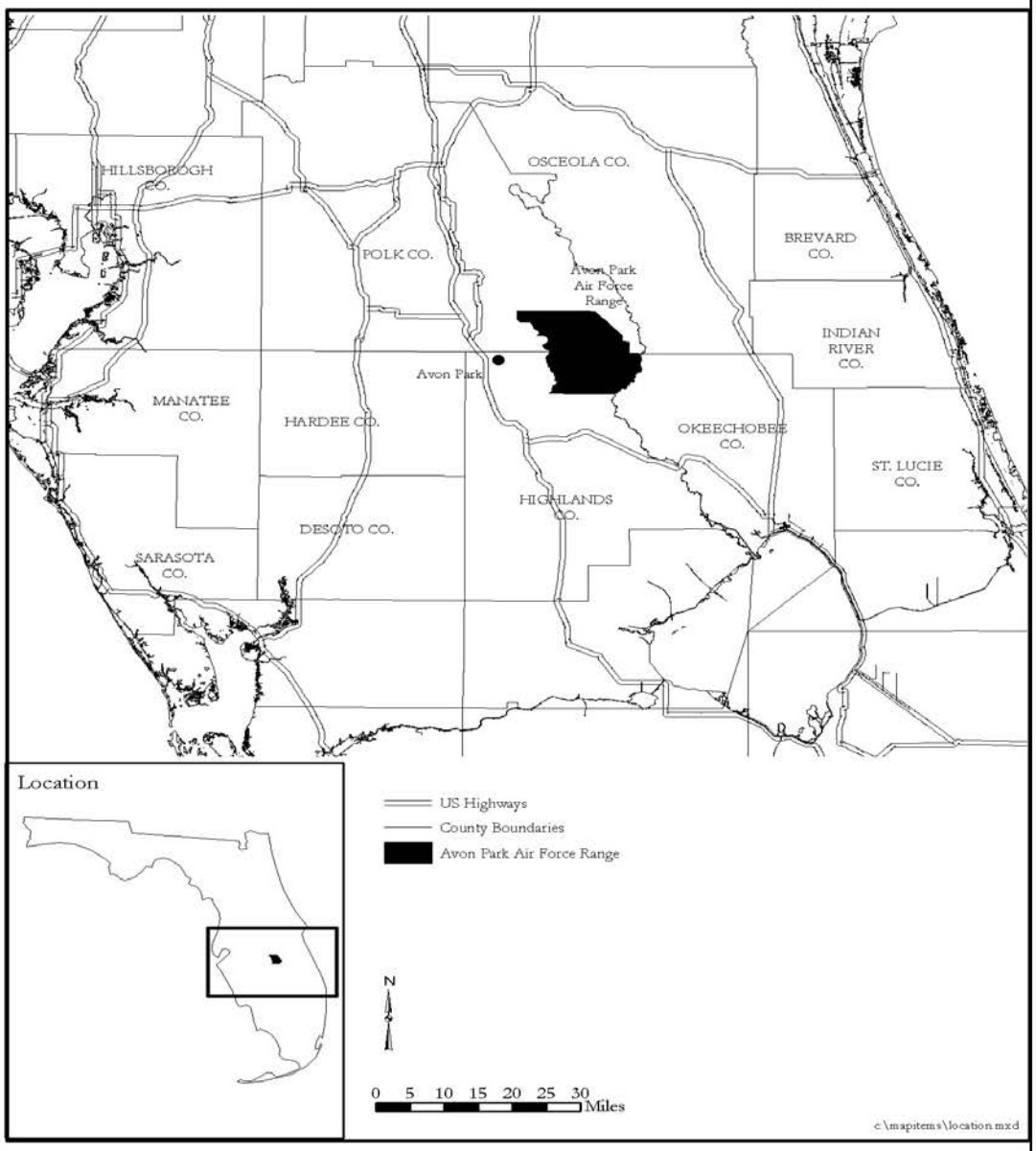

Figure 1.2-1 Avon Park Air Force Range's Location in Florida.

Combat Command (ACC). The range is used for bombing practice by US Air Force (USAF) units from throughout the southeast.

Several previous environmental assessments (EAs) for APAFR have assessed many aspects of JIFEs. Therefore, while the various alternatives are described in detail in this EA, not all aspects of the alternatives are assessed in this EA because an assessment following the NEPA process has already been performed. For example, the environmental assessment *Conversion of the 8-Inch Howitzer Weapon System to the Multiple Launch Rocket System in the Florida Army National Guard, 3rd Battalion, 116th Field Artillery* (CH2MHill 1996) assessed the impacts of launching inert reduced-range practice rockets (RRPRs) from established firing points (FPs) into the North Tactical and North Conventional Ranges. The semiannual JIFEs would launch the same RRPRs into the North Tactical and Conventional Ranges, so this aspect of the activity is not assessed in this EA. However, the semiannual JIFE would increase the number of RRPRs fired annually and would change the locations of where the RRPRs would be fired from. These aspects of the JIFE training have not been assessed in previous EAs and are therefore assessed in this EA. Previous EAs that have assessed aspects of the JIFE training include:

- *Conversion of the 8-Inch Howitzer Weapon System to the Multiple Launch Rocket System in the Florida Army National Guard, 3rd Battalion, 116th Field Artillery* (CH2MHill 1996) assessed and determined no significant impact from launching inert RRPRs into the North Tactical and North Conventional Ranges. This EA also considered the cumulative effects of existing training for artillery and mortars delivering HE ordnance in the North Conventional Range.

- *Final Environmental Assessment for 1st Battalion, 75th Ranger Regiment Fixed Wing Bilateral Training Exercise at Avon Park Air Force Range, Florida* (USAF 1998) assessed and determined no significant impact from firing 20 millimeter (mm) and 40mm HE at a designated target in the South Tactical Range from cannons mounted on AC-130 gunships (fixed-wing aircraft), ground forces firing a 40mm grenade launcher, and small arms fire. This EA effectively created the small, HE impact area in the South Tactical Range.

- *Final Environmental Assessment for Construction of Military Operations in Urban Terrain Target Arrays at Avon Park Air Force Range, Florida* (USAF 2001) assessed and determined no significant impact from air-delivered inert ordnance and helicopter gunnery on targets within mock urban villages located on the North and South Tactical Ranges and the North Conventional Range.

- *Environmental Assessment for High Explosive Ordnance Delivery from AC-130 Aircraft at Avon Park Air Force Range* (USAF 1997a) assessed and determined no significant impact from the delivery of 20, 40, and 105mm HE ordnance from cannons mounted on AC-130 gunships at a target set up in the North Conventional Range.

- *Environmental Assessment for Hellfire Missile/Aerial Gunnery Training at Avon Park Air Force Range, Florida* (USAF 1994) assessed and determined no significant impact from firing Hellfire rockets from rotary-wing aircraft at a target in the North Conventional Range.

- *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005) assessed and determined no significant impact for a JIFE as a one-time training event during May 2005 at APAFR. The purpose of this JIFE was to determine if APAFR could effectively host a JIFE and if so, lessons learned from this JIFE would be applied to the design of future JIFEs. This EA established much of the infrastructure that would be used by the semiannual JIFEs, but because the assessments were based on a one-time training event, this EA offers limited assessments that can be applied to the semiannual JIFEs.

Lessons learned from the first JIFE conducted during May 2005 that affected planning for semiannual JIFEs include:

- Hellfire missile footprint in the north ranges overlapped too many ground asset firing points and firing areas – additional firing locations would need to be established and better coordination would be needed when firing the Hellfire missile.

- Ordnance induced wildfires did occur, but were limited in size due to previous prescribed burns. Prescribe burning and future semiannual JIFEs need to be coordinated.

- HIMARS rutted firing points that had saturated soils. Future firing locations would limit the HIMARS to hardened surfaces or continuously disked areas.

- Some mortars failed to reach the HE Impact Area in the South Tactical Range and required explosive ordnance personnel (EOD) to escort biologists soon after the JIFE for monitoring endangered bird species in areas where the mortar rounds fell short. Allowance for short mortar rounds and EOD escort would need to be planned for the semiannual JIFEs.

- Better planning would be needed for access on the installation by non-JIFE contractors, installation personnel, and grazing lessees during the non-operational hours of the semiannual JIFEs.

- RRPRs broke the sound barrier and created a sonic boom. This type of noise would need to be addressed in the semiannual JIFE EA.

2.0 DESCRIPTION OF THE ALTERNATIVES

2.1 General Concepts Common to Alternatives A and B

There would be two training operations. The more advanced training (Advanced Operations) would locate the small groups of people (about two dozen TACPs and FOs) in the North Tactical and North Conventional Ranges (Figure 2.1-1). They would coordinate the fire from aircraft, artillery, and mortars at targets in the north ranges. The less advanced training (Mid-Level Operations) would locate the same number of TACPs and FOs in the South Tactical Range and they would coordinate fire from the same type of assets in the south range, but in less complex scenarios. The TACPs and FOs would remain on their respective ranges for training, while the aircraft, artillery, and mortar assets would be shared. Aircraft would move quickly and freely from the north and south ranges. The artillery would either relocate from one firing location to another in order to participate in the Advanced and Mid-Level Operations, or remain in the same firing location and participate in either operation by pivoting. The mortars, due to their limited range, would have to relocate closer to the north ranges or the south range to participate in the Advanced and Mid-level Operations.

2.2 Common Elements for Alternatives A and B

2.2.1 Dates and Times of the Exercise

The exercises could occur during anytime of the year, but would most likely occur during April through May and October through November. The exercise in the fall would be smaller than the exercise in spring. The training scenarios would occur at anytime within a 24 hour period, but requirements set that training must occur during daylight and night conditions. For this reason, the typical scenario time frame would be to start in the late afternoon and continue to midnight with most personnel retiring by 1:00 a.m. An entire exercise would occur for up to 16 consecutive days.

No recreationalists would be allowed on the installation during the 16 days of the exercise. Contractors and installation staff would be allowed on the installation in between scenarios – generally from 1:00 a.m. to 3:00 p.m. Installation staff not participating in the exercise would be allowed in the cantonment area at any time.

2.2.2 Stages of the Exercise

The exercise would be broken down into stages of progression. The first stage would be preparation. Preparation would entail the advanced parties arriving at APAFR for up to two days in advance of the main body of participants. The advanced party would prepare and ensure that the infrastructure would be in place to accommodate the exercise. The advanced party would be approximately 50 people with respective passenger vehicles. They would ensure that lodging, food service, sanitation, communications, safety, and accounting were organized and that the airfield, airspace, ranges, landing zones, firing points and areas, and road networks would be available and serviceable for the exercise.

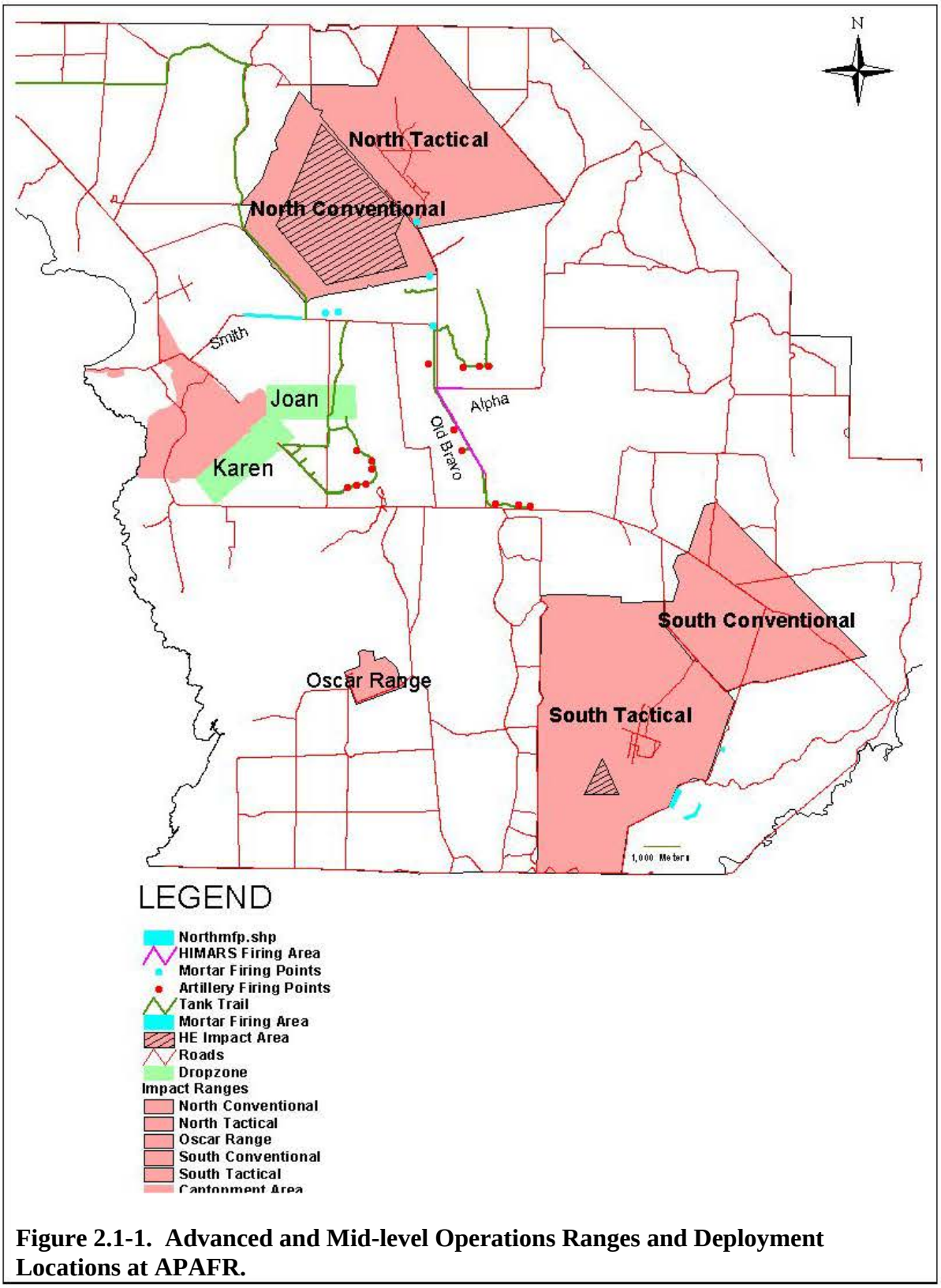

Figure 2.1-1. Advanced and Mid-level Operations Ranges and Deployment Locations at APAFR.

The second stage would be staging - when the participants would get organized for the exercise - taking up to two days. Generally, the fixed-wing assets (airplanes) with their respective support vehicles and support personnel would stage at the MacDill Deployment Unit Complex (DUC) or the unit's home station, while rotary-wing assets (helicopter), unmanned aerial vehicles (UAVs), howitzers, rocket launching vehicles, mortars, TACPs and FOs, and command center personnel would stage at APAFR. There would be the potential for all units, including their respective support vehicles and support personnel, to stage at APAFR, except for the support vehicles and support personnel for the fixed-wing bombers. The bombers would remain at their home units or the DUC. Two howitzers would have the option of being air-dropped into either the Karen or Joan Drop Zones and fire up to eight rounds of HE into the North Conventional Range. After firing, they would join the remaining howitzers during deployment.

Part of staging would include assembly. The supplies and weapon platforms [aircraft, howitzer, ground rocket vehicle called High Mobility Artillery Rocket System (HIMARS), and mortar] for the exercise, as well as the central command post located in the hanger with communications in the airfield main tower, would be assembled on the airfield. The supplies would include fuel, ammunition and ordnance, food, water, sanitation, support vehicles, communication and technological equipment, and tools and equipment for vehicles and weaponry. The ammunition would be placed in two locations on the airfield. The bulk of the ammunition and ordnance would be located in one location on the airfield and at a sufficient distance to safely allow normal exercise specific duties to be performed on the airfield. The second location would be for the smaller caliber ammunition to be stored in stationary, permanent, secured ammunition bunkers on the airfield. The ammunition and ordnance would be under a 24-hour armed guard. The aircraft assets at APAFR would be armed and prepared for the exercise. Mobile fuel trucks for aircraft would be on the airfield and set up for secondary containment while fueling. Existing fuel for ground vehicles would consist of existing above-ground storage tanks located in the cantonment area. These are located adjacent and north of the airfield. Also, mobile fuel trucks would be available for refueling vehicles in the field – again secondary containment to catch and retrieve spilled fuel would be provided for.

Food would be provided for personnel by a self-contained food service unit located in the cantonment area. Personnel would also have the option of eating at restaurants in the local towns. Lodging would be provided in the cantonment area either in dorms or a warehouse fitted with portable toilets and showers. The mortar, howitzer, and HIMARS personnel would be supplied with food, water, and ammunition by vehicle convoy. The convoy would pick up the materials in the airfield and would transport the supplies to the ground assets in the field. The convoy would remain on signed roads, tank trails, and firing points. The mortars and howitzers would be re-supplied at their firing locations. Because the HIMARS ammunition trucks require a wide turning radius, the HIMARS rocket launchers would meet the ammunition trucks for resupply on a road or tank trail. Also, the rocket launchers and trucks that tow the howitzers would be refueled at least one time in the field. Refueling would be done with secondary containment. No sanitation would be planned for the by mortar, howitzer, and HIMAR crews, although

portable toilets could be used. Each individual crew member would bury solid waste in a shallow hole if sanitation is not provided for. Trash would be hauled to dumpsters in the cantonment area. Leftover powder from the mortars and howitzers would be ignited and burned on the ground in the vicinity of where they had fired. The ignition would be done on bare ground, typically a tank trail or fire-break disk line, to reduce the risk of causing a wildfire. The HIMARS, howitzer crews, and mortar crews would sleep on site with their equipment and weapons. No defensive positions would be dug in. The howitzers would dig in with a rear spade to stabilize the guns. Mortar base-plates would be dug in to stabilize the tube.

The third stage would be operations. This is the actual participation of the personnel in the exercise. Because the operations vary by alternative, the operations are described later in this EA. Commonality amongst the alternatives would be the duration of the operational training - a minimum of seven days and a maximum of nine days. There would briefings and debriefings between operational training periods.

The fourth stage would be a final debriefing and demobilization. After the operational portion of the training would end, some representatives of the units would debrief by evaluating the exercise, while the remainder of the personnel would pack and leave APAFR. Areas where high explosives that were known to fall outside of designated high explosive impact areas would be cleared by explosive ordnance disposal (EOD) teams. One to three days would be allowed for debriefing and demobilization.

If HE ordnance was known to miss HE impact target areas, the suspected area would not be accessible until declared safe by EOD personnel. Cattle would be removed from the North Tactical and South Tactical Ranges prior to the operational portion of the exercise and given the option of returning to these ranges after the ranges have been declared safe. Cattle do not graze the North Conventional Range.

2.2.3 Aircraft, Artillery, and Mortar Assets.

The assets that would participate in the semiannual JIFEs would be those that are approved for use at APAFR. They are categorized as air based assets or ground based assets. Air based assets are further described as fixed-wing, rotary-wing, and unmanned aerial vehicles (UAVs). Fixed-wing assets are further described as fighter/attack aircraft, gunships, and bombers. While not limited to the following, the typical fixed-wing fighter/attack aircraft that would participate in the semiannual JIFEs includes the F-16 Falcon, F-15E Strike Eagle, S-3 Viking, F/A-18 Hornet, Av-8B Harrier, and A-10 Thunderbolt. The AC-130 Spectre gunship would participate in the JIFE as would the B-2 bomber. While not limited to the following, the typical rotary-wing aircraft that would participate in the JIFE would include the AH-1 Cobra and UH-1N Huey. The typical UAVs would include various Pointer type hand launched UAVs up to the Predator UAV. The Pointer is made of composite materials and has a 9 feet wingspan and a 6 feet fuselage length. Its total takeoff weight, with payload, is 8.5 pounds. Missions would be relatively short, normally lasting one hour or less. The aircraft would be under positive control by the three-person ground crew and possesses no autonomous capability. The

Predator is a mid-wing monoplane with a slender fuselage housing the payload and fuel, a high aspect ratio wing, and inverted-V tails. The Predator would need 5,000 by 125 feet of a hard surface runway and would utilize the airfield runways. In addition, the Predator requires line-of-sight with the GCS and all support components.

Ground-based assets would include wheeled rocket launching vehicles, HIMARS, that carry and launch six inert rockets. Howitzers (high angle cannons) fire HE ordnance. Howitzers are two different sizes, the smaller one that fires a 105mm round, the larger one that fires a 155mm round. Both are towed by vehicles. Both HIMARS and howitzers are considered artillery. Mortars are ground stationed tubes that fire explosives at high angles. The mortars would fire HE that impacts on contact with the ground, illumination (ILLUM) that detonated in the air, and spotting rounds and detonate on ground impact. They are three different mortar sizes based on the size of the ordnance they fire – 60mm, 81mm, and 120mm. The semiannual JIFEs would employ the 81mm and 120mm mortars. They would be carried by trucks and offloaded and set up by hand crews.

Table 2.2.3-1 shows the maximum number of assets that would be used in a single JIFE and cumulatively as a semiannual JIFE. Table 2.2.3-2 shows the baseline of usage at APAFR by each type of asset, the estimated usage contributed by semiannual JIFEs, and the percent increase of use by asset attributed to semiannual JIFEs.

The impact ranges have a capacity to accommodate 5,5657 hours of training time annually (USN 2005). From 1997 through 2003, the impact ranges have averaged 1,525 hours annually - 27% capacity. The semiannual JIFE would have exclusive use of the ranges during the operational portion of the training. With nine days of exclusive use for 16 hours per day, twice a year, the semiannual JIFE would utilize 288 range hours and thus increase annual usage by 19% - raising the comprehensive range capacity to 30%.

2.2.4 Weapons and Ordnance

Tables 2.2.4-1 lists the ordnance delivered by asset for each range that would occur during the semiannual JIFE regardless of the alternative. The following are descriptions of the ordnance. The 5.56 and 7.62mm ball and tracer consists of a standard bullet, called a ball, and a specially designed bullet that causes friction as it passes through the air – called a tracer. The friction leaves a light trail that helps the firer in acquiring the target. Millimeter (mm) after each number is the cross-sectional diameter of the round: the larger the mm number, the larger the round. A bullet is a solid, non-exploding round. HE are explosive ammunition rounds that fragment. All HE rounds in this exercise are impact- detonated, meaning that they explode immediately upon impacting the target or ground. LLUM are rounds that detonate as a flare in the air and illuminate the ground below. White phosphorus (WP) is a spotting round that chemically ignites when exposed to atmospheric oxygen. This is typically accomplished when the round impacts the ground. WP is delivered by artillery and mortars to visually reference locations on the ground. Often times WP is delivered as a reference point prior to

Table 2.2.3-1. The List of Assets, Maximum Number of Weapon Platforms, Vehicles, and Personnel Participating in the Semiannual JIFE at Avon Park Air Force Range.

Weapon Asset Platforms	Number of Platforms, Support Vehicles, and Personnel per JIFE	Number of Platforms, Support Vehicles, and Personnel per Semiannual JIFE
Fixed Wing Fighter/Attack Aircraft	24 aircraft, 28 vehicles, 200 personnel	48 aircraft, 56 vehicles, 400 personnel
Fixed Wing Bomber Aircraft	2 aircraft, 8 personnel[1]	4 aircraft, 16 personnel[1]
Fixed Wing Gunship Aircraft	3 aircraft, 8 vehicles, 70 personnel	6 aircraft, 16 vehicles, 140 personnel
Rotary Wing Attack Aircraft	12 aircraft, 10 vehicles, 75 personnel	24 aircraft, 20 vehicles, 150 personnel
UAVs	6 aircraft, 12 vehicles, 25 personnel	12 aircraft, 24 vehicles, 50 personnel
Howitzers	8 guns, 20 vehicles, 40 personnel	16 guns, 40 vehicles, 80 personnel
HIMARS	6 launchers, 20 vehicles, 60 personnel	12 launchers, 40 vehicles, 120 personnel
Mortars	8 mortars, 8 vehicles, 50 personnel	16 mortars, 16 vehicles, 100 personnel
TACPs and FOs	10 vehicles, 35 personnel	20 vehicles, 70 personnel
Command Center	5 vehicles, 10 personnel	10 vehicles, 20 personnel

[1] Support vehicles and support personnel would not stage at APAFR for any of the semiannual JIFEs.

Table 2.2.3-1. The Percentage of Increase of Training by the Semiannual JIFE in Comparison to the Annual Baseline.

Asset	Baseline Annual	Semiannual JIFE	Percent Increase
Fixed Wing	6,974 sorties[1,2]	100 sorties	1%
Rotary Wing	1,098 sorties[2]	50 sorties	5%
UAV	unknown sorties	50 sorties	unknown
Howitzers	41,280 man hours[3]	6,480 man hours	16%
Mortars	3,840 man hours[3]	8,100 man hours	211%
HIMARS/MLRS[4]	10,800 man hours	9,720 man hours	90%
TACPs/FOs	3,600 man hours[3]	5,670 man hours	158%

[1]Sortie – a single training event performed by a single aircraft based on airspace use.

[2] Source: APAFR baseline for 2000 (APAFR 2003).

[3]Source: APAFR baseline for 2000 (Stewart 2003; Cutshall 2003).

delivering HE. Bomb, dummy unit (BDU), is a free-falling bomb that is inert, meaning that it contains no explosive. It contains a very small charge of WP that is used to help the firer and ground controller see and mark where the BDU hit in relation to the target. Hellfire rockets are anti-tank guided missiles (ATGM) that are HE and have delayed high explosive fuses that penetrate armored vehicles. The 2.75" rockets are unguided, inert

Table 2.2.4-1. Ordnance Delivered by Asset for Each Range as Proposed by the Semiannual JIFE at APAFR.

ORDNANCE	ASSET	RANGE
5.56mm ball	TACPs and FOs	N. and S. Tactical, N. Conventional
7.62mm ball and tracer	TACPs and FOs Rotary Wing	N. and S. Tactical, N. Conventional
20mm bullet	Fixed Wing	N. and S. Tactical, N Conventional
25mm bullet	Fixed Wing	N. and S. Tactical
30mm bullet	Fixed Wing	N. and S. Tactical
20mm HE	Fixed Wing	N. Conventional, S. Tactical
40mm HE	Fixed Wing	N. Conventional, S. Tactical
81mm HE, Illum, WP	Mortar	N. Conventional, S. Tactical
120mm HE, Illum, WP	Mortar	N. Conventional, S. Tactical
105mm HE	Fixed Wing, Howitzer	N. Conventional, S. Tactical
155mm HE and Illum	Howitzer	N. Conventional, S. Tactical
RRPR	HIMARS	N. and S. Tactical, N. Conventional
BDU	Fixed Wing	N. and S. Tactical
Mk series bombs (inert)	Fixed Wing	N. and S. Tactical
ATGM-114 Hellfire Rocket HE	Rotary Wing	N. Conventional
2.75 inch Rocket (inert)	Fixed and Rotary Wing	N. Tactical and S. Tactical
2.75 inch Rocket HE	Rotary Wing	N. Conventional

missiles that have a small spotting charge activated on impact with a target of the ground. Reduced-range practice rockets (RRPR) are unguided missiles that are inert and have a WP spotting charge.

The North Tactical Range is designed for training with bullets and inert ordnance. There are many approved targets for the various-sized bullets and inert ordnances. The targets and attack headings by aircraft are arranged in a manner that all the expended ammunition remains within the perimeter of the range.

The North Conventional Range is designed for training with bullets and HE ordnance. HE ordnance includes artillery and mortar ordnance, HE ordnance from AC-130 gunship cannons, and Hellfire rockets from rotary wing aircraft. The targets and attack headings by aircraft are arranged in a manner that all fragmentation is encompassed within the high explosive (HE) area of the impact range. Artillery and mortars have designated targets and firing points that ensures that all fragmentation stays within the HE area. RRPR inert rockets fired by the HIMARS are the one exception that allows inert ordnance to be fired into the North Conventional Range. Other targets exist in the HE area of the North Conventional Range that are designed for the use of bullets. Again, the targets and aircraft attack headings are configured to keep the expended munitions within the perimeter of the North Conventional Range. Table 2.2.4-2 lists the baseline of ordnance expended annually at APAFR, the amount of ordnance approved to be expended annually

Table 2.2.4-2. The Amount of Ordnance Expended Annually as a Baseline, Approved Number, Estimated Number Expended for the Semiannual JIFE, and the Percentage Increased by the Semiannual JIFE Over the Baseline at APAFR.

ORDNANCE	BASELINE	NUMBER APPROVED AT APAFR BY EAs	SEMIANNUAL JIFE	PERCENTAGE INCREASE FROM SEMIANNUAL JIFE
5.56mm bullet	7,200	Unlimited	10,000	138.89%
7.62mm bullet	186,072	Unlimited	10,000	0.02%
.50 Cal bullet	54,000	Unlimited	10,000	18.51%
20mm bullet	9,295	Unlimited	10,000	107.59%
25mm bullet	736	Unlimited	2,000	271.74%
30mm bullet	54,242	Unlimited	4,000	3.69%
40mm HE	630	Unlimited	350	55.56%
81mm HE	120	Unlimited	1,200	1,000.00%
81mm Illum	60	Unlimited	120	120.00%
81mm WP	15	Unlimited	60	400.00%
105mm HE	977	Unlimited	100	10.24%
120mm HE	None	Unlimited	1,200	All from JIFE
120mm Illum	None	Unlimited	120	All from JIFE
120mm WP	None	Unlimited	60	All from JIFE
155mm HE	None	Unlimited	100	All from JIFE
155mm Illum	None	Unlimited	20	All from JIFE
RRPR	None	81	600	740.74%
BDU & Mk	8,394	Unlimited	500	5.96%
ATGM (HE)	None	48	200	416.67%
2.75 in rocket (inert)	830	Unlimited	2,400	289.16%

at APAFR as determined by previous EAs, the amount of ordnance anticipated to be expended annually during the semiannual JIFEs, and the percentage of increase over baseline of ordnance expended annually at APAFR as a result of implementing the semiannual JIFEs.

The Hellfire rocket expenditures in the North Conventional Range are currently limited to 48 per year (USAF 1994). The Advanced Operations would expend up to 100 missiles per JIFE for a total of 200 annually. The 200 annually would be in addition to the 48 that can currently be expended.

The RRPRs are limited to 81 annually (CH2M Hill 1996). The JIFE would expend up to 150 RRPR per JIFE for a total of 300 RRPR in addition to the 81 that can currently be expended. The 300 RRPR would be expended in the North Tactical, North Conventional, and South Tactical Ranges.

2.3 Alternative A

The aircraft weapon assets would deploy on the airfield in the Cantonment Area or remain stationed at the MacDill DUC or their respective stations in anticipation for a request to participate in an operational scenario. The aircraft would participate in either or both Advanced and Mid-Level operations during the same sortie. ATGM (Hellfire rockets) are only authorized to be fired in the North Conventional Range, so aircraft delivering these ordnances would not be allowed to participate in the Advanced Operations.

2.3.1 Advanced Operations

Ground-weapon assets would deploy in and fire from fixed, permanently designated areas. The HIMARS would deploy on existing roads, run-in lines, and strafe and target pads in the Oscar Range and would launch RRPRs into the North Conventional and North Tactical Ranges. Howitzers would deploy in existing artillery firing points and fire into the North Conventional Range. The two howitzers staged in either the Joan or Karen Drop Zones would be retrieved by heavy trucks and moved to an established firing point to participate in the Advanced Operations. The trucks would use existing roads and tank trails as best as possible and minimize off-road travel in the retrieval effort from the landing zones. The two howitzers could either operate independently or join other howitzers at the firing points. Both the howitzers and the HIMARS would establish tactical operation centers (TOCs). The TOCs would be located in any listed firing point or area land features described in Oscar Range. The TOCs would consist of several operational vehicles grouped together with tents and camouflage concealment over them. The TOCs would also require the use of generators. The TOCs would serve the howitzers or rocket launchers as unit command posts. The mortars would deploy in existing mortar firing points and would fire into the North Conventional Range. HIMARS, howitzers, and mortars would have the option of splitting up into two or more groups to participate in either the Advanced or Mid-Level operations. They would also have the option of relocating to different firing areas or firing points, even in locations that would place them as participants with the Mid-Level Operations. The TACPs and FOs instructors would be on static observation points in the North Tactical or North Conventional Ranges, or on any building within the mock urban village located in the North Tactical Range (Figure 2.3.1-1). The TACP and FO training teams would be on foot and allowed in any location on the North Tactical and North Conventional Ranges that are not designated as high-explosive impact areas.

The TACPs and FOs training teams would be given the training scenario via radio communication. The scenarios would include the availability of air (rotary and fixed-wing) and ground (artillery, mortar, and rocket) assets at any given time along with the current activity and location of hypothetical opposition forces in the ranges. With this information, the TACPs and FOs would prioritize opposition targets and coordinate the available assets to deliver ordnance to the targets - all under strict time constraints and at the same time regarding airspace and ground safety. The first day's training scenario would limit the TACPs and FOs to no more than two weapon platform types at any one

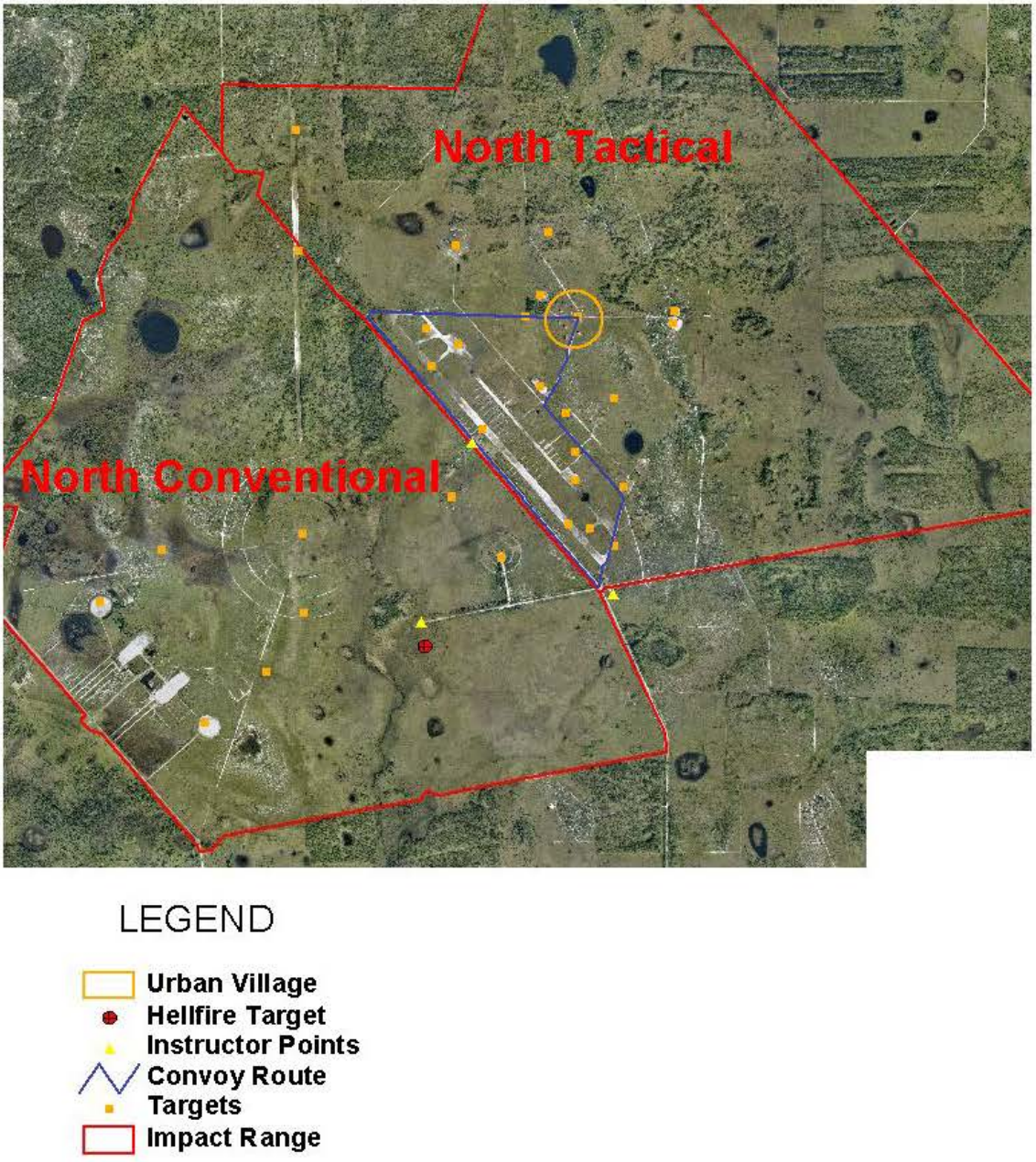

Figure 2.3.1-1. Targets, Instructor Locations, and the Convoy Route in the North Conventional and Tactical Ranges.

time. Typical examples could be F-16s with F-15Es, A-10s with 81mm mortars, and the B-2 and HIMARS. After the first day, the scenario would allow for multiple asset types at any one time and would allow the TACPs and FOs to observe and coordinate attacks from dynamic field positions in SUVs that would follow a prescribed convoy route.

The TACPs and FOs would also come under simulated enemy attack – either hypothetical or physical with portable pop-up targets. They would conduct live, small arms fire against the opposition. The fire would be conducted only in impact ranges.

Aircraft assets would expend their ordnance and munitions into the North Conventional and North Tactical Ranges as directed by the TACPs. The air assets would target existing targets with existing and approved run-in headings and ordnance delivery methods. This procedure would continue until their role in the scenario would be complete. Then the aircraft assets would travel back to the APAFR airfield, the MacDill DUC, or their home stations for rearmament and refueling to prepare for the next scenario. After the scenario(s) would be complete for any given day, the aircraft and associated support vehicles would be kept on the APAFR airfield, the MacDill DUC, or their respective home stations.

The ground weapon assets would expend their ordnance and munitions into the North Conventional and North Tactical Ranges as directed by FOs. They too would target existing targets. At the end of the scenario, the units would remain in the field and be resupplied in the field via vehicle convoy. The convoys would remain on established roads, firing points, and firing areas.

2.3.2 Mid-level Operations

Deployment and fire of ground-weapon based assets would entail locating the HIMARS on Old Bravo Road or along a portion of Alpha Grade and firing into a previously designated impact area on the South Tactical Range. The TOC would be set up adjacent to the roads. The howitzers would set up at any of the firing points and fire into the HE impact area of the South Tactical Range. The two howitzers air dropped in either the Joan or Karen Drop Zones would relocate to any artillery firing point as with the Advanced Operations. The mortars would set up at any of the three mortar firing locations southeast of the South Tactical Range and fire into the HE impact area (Figure 2.3.2-1). As with the Advanced Operations, the HIMARS, howitzers, and mortars would relocate to any previously designated firing point or firing areas during or between scenarios.

The Mid-level Operations would place the TACPs and FOs instructors on static positions located in the South Tactical Range to include any of the buildings or areas within a mock village and scoring towers. The TACP and FO teams would be allowed access to any location on the South Tactical Range outside of the designated high-explosive area. The operational scenarios would be similar to the Advanced Operations with the available assets and prioritizing targets. The Mid-level Operations, however, would be less complex and more restrictive in available assets. For the first day of operational

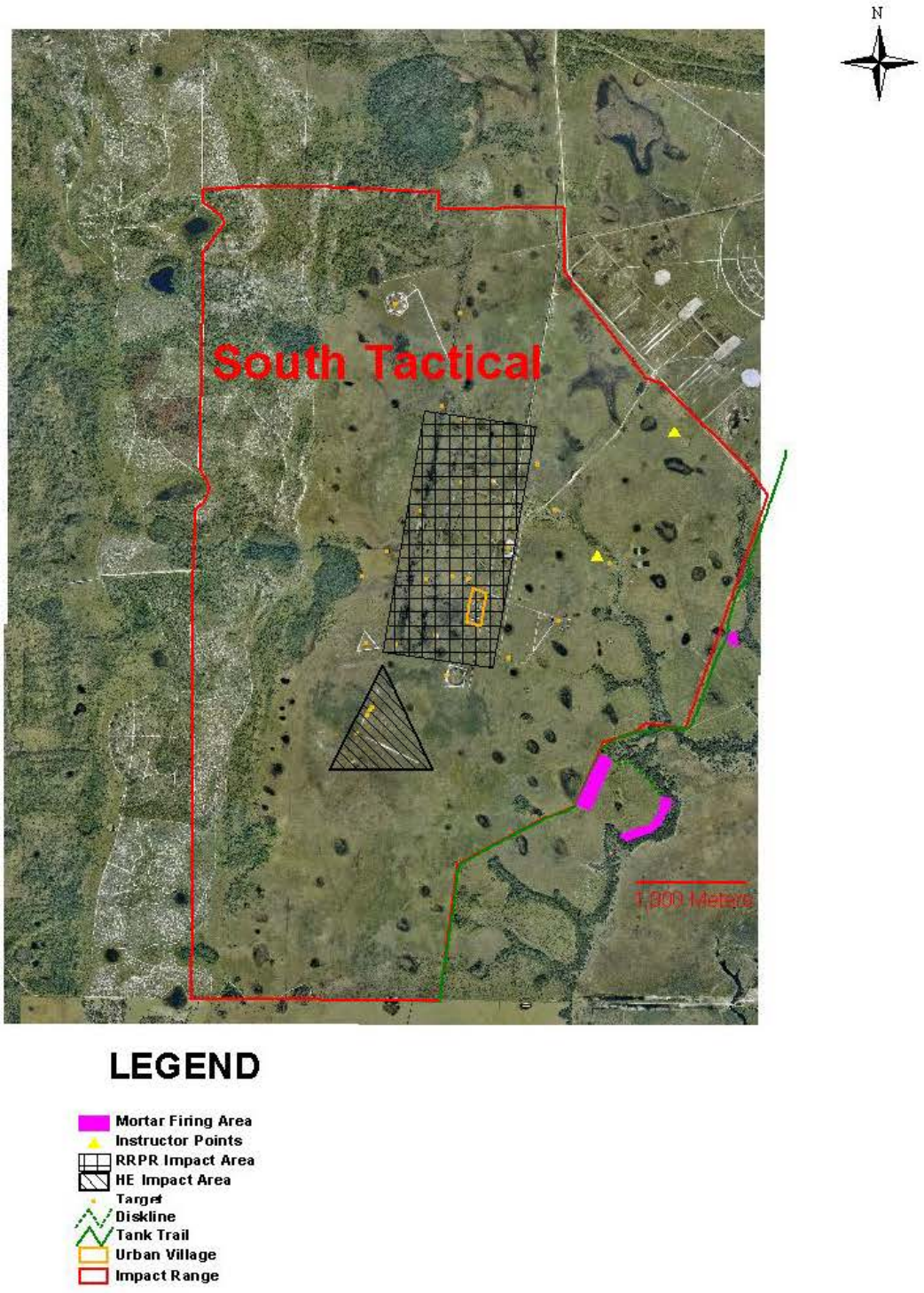

Figure 2.3.2-1. Targets, Instructor Locations, and Mortar Firing Areas in the South Tactical Range.

training, only single assets would be available at any one time. For the second day of operational training, only two types of assets would be available, and finally the remaining operational training would have three assets available. Aircraft assets with HE would be limited to the AC-130 firing a cannon with 40mm HE and a 105mm training round with a 40mm equivalent explosive charge firing at targets located within the triangular HE impact area. All other aircraft, both fixed and rotary-wing, would be available for firing their respective munitions and inert ordnance at the remaining inert-only targets located in the South Tactical Range outside of the HE impact area. HE targets for air and ground based assets delivering HE would be confined to the HE triangle. The TACPs and FOs would also come under attack by opposition forces either hypothetically or represented by pop-up targets. They would respond with small arms fire contained within the impact area.

All of the listed assets would be available to the TACPs and FOs for the Mid-level Operation as for the Advanced Operations. All of the hypothetical opposition targets would be existing targets. All of the ordnance delivered by the assets to the targets have been used and are approved for use at APAFR. All of the ordnance has been assessed for use at APAFR by the NEPA process. All air operations would deliver ordnance within airspace R-2901A or R-2901B. These restricted-area airspaces allow for ordnance deliveries from ground level to 18,000 feet above mean sea level. Ordnance delivered by asset to the North Conventional and North Tactical Ranges during the Advanced Operations for one JIFE is listed in Table 2.2.2-1. The B-2 would not deliver ordnance during the JIFE, but would participate in the Advanced and Mid-level Operations in all other respects.

2.4 Alternative B

Alternative B differs from Alternative A in that mortar firing areas would be added to both the Advanced and Mid-Level Operations. Mortars would setup anywhere within the urban village in the North Tactical Range and fire into the North Conventional Range and setup anywhere within the urban village in the South Tactical Range and fire into the respective South Tactical Range HE impact area.

2.5 Semiannual JIFE Training Assessed in the EA

2.5.1 New Training

Semiannual JIFE training that has not been previously assessed by NEPA and is assessed in this EA under Alternatives A and B are as follows:

1. For the Advanced Operations, firing mortars from the Smith Grade MFA (15 acres) adjacent and north of Smith Grade; firing mortars from within the North Urban Village (25 acres) and from the new Mortar Points 4 and 5, each within a radius of 200 meters (see Figure A-1 in Appendix A), into the North Conventional Range for the Advanced Operations.

2. For the Mid-level Operations, firing mortars from the North Mortar Firing Area (MFA) (two acres) (see Figure A-2 in Appendix A) and from the South Urban Village into the HE impact area of the South Tactical Range.

3. For the Mid-level Operations, setting up a connex box (8 ft x 8 ft x 20 ft) in the North MFA to aid in observation into the South Tactical Range.

4. For the Mid-level Operations, firing RRPRs launched by HIMARS from the Old Bravo Road and Alpha Grade into the South Tactical Range.

5. Firing 105mm and 155mm artillery from the artillery firing points into the HE area of the South Tactical Range. The HE area is not expected to increase is size. Craters from the 155mm artillery are expected to be three feet wide and two feet deep.

2.5.2 Training Previously Assessed as a One-Time Event, Now Assessed Semiannually

JIFE training that was previously assessed by NEPA as a one-time event that is now under Alternatives A and B as semiannual training is assessed by this EA as follows:

1. Concurrent Use of Air Assets with Ground Mortar and Artillery Assets: The semiannual JIFEs would coordinate air assets with mortar, howitzer, and HIMARS. This concurrent use would be accomplished on all three ranges by TACPs and FOs and would be the major focus of the exercise. Mortars, howitzers, and the HIMARS would all deliver ordnance below 8,000 feet altitude, while fixed-wing aircraft would deliver ordnance above 9,000 feet. Rotary-wing aircraft would deliver ordnance and bullets below 8,000 feet as well as fixed-wing aircraft delivering bullets.

2. TACPs and FOs in the High Explosive Area: The JIFEs would place TACPs and FOs instructors within the HE area of the North Conventional Range in one location and adjacent to it in another location (Figure 2.3.1-1).

3. Increase in HE Hellfire Missiles: Currently up to 48 HE Hellfire missiles are authorized annually for use on the North Conventional Range at the designated Hellfire missile target. Firing is from any one of three firing points. The semiannual JIFE would fire 200 HE Hellfire missiles under the Advanced Operations in addition to the 48 currently authorized.

4. Firing 155mm or 105mm Howitzers from the Karen and Joan Drop Zones: The semiannual JIFE would fire up to eight rounds per gun from the Karen or Joan Drop Zones during staging.

5. Increase in RRPRs and Use of RRPRs in the South Tactical Range: Currently up to 81 RRPRs are authorized for annual use on the North Conventional and North Tactical Ranges collectively. Alternatives A and B would fire 600 additional

RRPRs in the North Conventional, North Tactical, and South Tactical Ranges collectively. The nature of the Advanced and Mid-level Operations cannot specify an exact number of RRPRs per range, but no one of the three ranges would exceed 300 RRPRs annually attributed by the semiannual JIFEs alone. Targets selected for the RRPRs in the South Tactical Range have been configured so that the rockets will impact the area delineated as the RRPR impact area in Figure 2.3.2-1. The impact area is 285 acres.

6. Firing HIMARS from the Oscar Range: Up to six rocket-launching vehicles would fire rockets from the paved-surface road, strafe run-in lines, and the strafe pad within the Oscar Range to the North Conventional and Tactical Ranges.

7. Firing Mortars into the HE Impact Area in the South Tactical Range: Mortars from the West (15 acres) and East (11 acres) MFAs would deliver ordnance into the HE Impact Area of the South Tactical Range. The mortars would be fused to explode on impact with the ground. This type of fusing for the 120mm mortars would create a crater two meters in diameter and 15 cm deep (ERDC/CRRE 2003). Smaller craters would be expected for the 81mm mortars. Approximately 50 percent of the mortars would be expected to land within a 25-meter radius of each target. Up to 2,400 HE mortars would be fired annually, approximately half would be in the HE impact area of the South Tactical Range. To aid in identifying and segregating the location of the three targets for the crews firing mortars, white conex boxes would be placed on existing disk lines found in the HE area.

8. Extending the 200 Meter Set-up Radius at Firing Points: Current firing points limit the set-up of artillery to within a 200-meter radius of an established firing point. The howitzers in the semiannual JIFE exercises would require a 300-meter radius. The howitzers would not have dug in defenses.

2.5.3 Shared JIFE Infrastructure

FLARNG units train with live fire two to three times annually at APAFR with 105mm howitzers and 60mm and 81mm mortars. The number of hours they train annually is shown in Table 2.2.3-2. Other units train at APAFR with these assets also, but are not regularly scheduled, and cumulatively train fewer hours than the FLARNG. Under both Alternatives A and B, the FLARNG and the other units would train annually at their past use levels with the option of training on the infrastructure created for the JIFE. This would include the following:

1. Artillery firing points would be expanded to the 300 meter radius.

2. Artillery would fire from any JIFE designated firing point to the HE Impact Area of the South Tactical Range.

3. Mortar Points 4 and 5 would be utilized for mortars to fire into the HE Impact Area of the North Conventional Range.

4. Mortar Firing Areas east of the South Tactical Range would be utilized for fire into the HE Impact Area of the South Tactical Range.

5. Mortar Firing Areas within the urban villages would be utilized for firing into the HE Impact Areas of the North Conventional and South Tactical Ranges.

FLARNG units and other units that could potentially use the added semiannual JIFE infrastructure would not use the South Tactical Range during the FGS breeding and nesting season.

2.6 No-Action Alternative

For the No-Action Alternative, the semiannual JIFE exercise would be reduced to those aspects of the operations that have been previously assessed by existing NEPA documents at APAFR excluding the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida* (USAF 2005). The value of the semiannual JIFE would be greatly diminished to the point of negligible training value because the main emphasis of the exercise, joint integrated fire from air and ground-based assets, would be foregone. Air and ground-based ordnance assets would fire separately in different operations. Other attributes would be limited in terms of asset availability, ordnance used, and location of the TACPs and FOs. The Advanced Operation and Mid-level Operations are described separately.

2.6.1 Advanced Operations:

a. Ground-delivered ordnance would not be conducted jointly with air-delivered ordnance. They would be considered and employed as two separate operations.

b. The TACPs and FOs would not be in the North Conventional Range, only in the North Tactical Range. The TACPs and FOs would not convoy.

c. The howitzers would be air-dropped into the Karen or Joan Drop Zones, but would not conduct live fire: they would dry-fire only.

d. The howitzers would be limited to the 200 meter radius of the existing artillery firing points.

e. HIMARS would dry fire from the airfield into the North Conventional and North Tactical Range as prescribed in the *Conversion of the 8-Inch Howitzer Weapon System to the Multiple Launch Rocket System in the Florida Army National Guard, 3rd Battalion, 116th Field Artillery* (CH2MHill 1996).

f. Only 48 HE Hellfire missiles would be launched at the Hellfire target located in the

North Conventional Range and only if these numbers were not previously launched or reserved by other, non-JIFE exercises.

g. The mortars would set-up and fire only from MPs 1 through 3.

2.6.2 Mid-level Operations:

a. Ground-delivered ordnance would not be conducted jointly with air-delivered ordnance. They would be considered and employed as two separate operations.

b. HIMARS would dry fire from the airfield into the North Conventional and North Tactical Range as prescribed in the *Conversion of the 8-Inch Howitzer Weapon System to the Multiple Launch Rocket System in the Florida Army National Guard, 3rd Battalion, 116th Field Artillery* (CH2MHill 1996).

c. Mortars would not participate in the operation.

d. The howitzers would not participate in the operation.

3.0 Affected Environment

3.1 Airspace and Aircraft Operations

The affected environment for airspace and aircraft operations for this EA was sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.2 Safety

Safety for this EA was sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.3 Noise

Noise for this EA was sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.4 Hazardous Materials and Waste

Hazardous materials and waste were sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.5 Environmental Restoration

Environmental restoration of buried munitions and waste sites were sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.6 Air Quality

Existing air qaulity was sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.7 Geology and Soils

Geology and soils were sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.8 Water Resources

Water resources were sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.9 Vegetation

Vegetation was sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.10 Fish and Wildlife

Fish and wildlife were sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.11 Grazing Management

Grazing management was sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.12 Invasive Plant Management

Invasive plant management was sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.13 Timber Management

Timber management was sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.14 Recreation

Recreation was sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.15 Military Training

The proposed action and alternatives retain all of the previously assessed and currently authorized training and ordnance, with additional training occurring as outlined in the

alternatives.

3.16 CULTURAL RESOURCES

The definition of cultural resources and existing conditions were sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

Identified Cultural Resources

As of 2005, more than 150 cultural resources consisting of prehistoric, historic, and multicomponent sites had been recorded on APAFR. Of these sites, 23 were determined to be eligible or potentially eligible for the NRHP. Currently, no resources on APAFR are listed in the NRHP (NRIS 2006). In August, 2005 and January, 2006 APAFR staff Archaeologist Ronald Grayson, RPA, performed Phase I cultural resources surveys on the mortar firing points not previously utilized in the JIFE: no cultural materials were identified. These surveys completed a minimum of at least a Phase I Cultural Resources Assessment Survey all land involved in the JIFE.

There are no known traditional cultural properties on APAFR associated with American Indian traditions or beliefs (USAF 2003). One Euro American traditional cultural property, Fort Kissimmee Cemetery, is associated with the earliest Euro American settlers of the region. Members of the Fort Kissimmee Cemetery Association retain ownership of the parcel of land containing the cemetery, as well as a small piece of property that extends to the Kissimmee River. The Association maintains the cemetery and continues to inter their dead at that location (USAF 2003).

3.17 Socio-economic Resources

Social-economic resources were sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.18 Coastal Zone Management

The Coastal Zone Management Act (CZMA) in relation to the semiannual JIFEs were sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

3.19 Wildland Fire and Prescribed Burning

Wildland fire and prescribed burning were sufficiently described in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005). Added to this EA is that the semiannual JIFEs occur during the spring with March through mid-June being the region's average driest-highest fire danger. The fall, with September through November being the next

driest season and varies with tropical storm activity.

Prescribed burn schedules are determined annually based on the location of the recent years' fire history (both wildfire and prescribe burns) and the current year's plan. The current year's plan considers factors such as military operational objectives, ecosystem management, and endangered species management and habitat.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Airspace and Aircraft Operations

Air operations would increase the amount of range use by three percent annually for Alternative A and B, less than three percent with the No-Action Alternative. The airspace would easily accommodate semiannual JIFEs and other ongoing training.

4.2 Safety

Impacts to safety for Alternative A and the No-Action Alternative in this EA were adequately assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005). Alternative B would require more coordination with the other ground assets, especially the TACPs and FOs because weapon firing safety procedures do not allow for mortars to fire over personnel.

4.3 Noise

Impacts to noise for all alternatives in this EA were largely addressed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005). While new artillery firing points would be used under Alternatives A and B, the noise impacts associated with firing from these new points would not be expected to be noticeably different from those associated with the 2005 JIFE. The RRPRs break the sound barrier during the first third of flight which would be near Oscar Range and Old Bravo and Alpha roads. The noise would not exceed levels that would elicit complaints from prison inmates, youth academy students, nor off installation residents.

4.4 Hazardous Materials and Waste

Environmental restoration for all alternatives in this EA were adequately assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).Hazardous materials and waste associated with the operation of motor vehicles would be easily disposed of under all alternatives for this EA.

4.5 Environmental Restoration

Environmental restoration for all alternatives in this EA were adequately assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005). Increasing the training from a one-time even to semiannual events would have no additional effect.

4.6 Air Quality

Impacts to air quality for all alternatives in this EA were adequately assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005). Increasing the training from a one-time even to semiannual

events would not have a significant effect.

4.7 Geology and Soils

Many of the impacts to geology and soils for all alternatives in this EA were adequately in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005). In addition, minor amounts of soil would be displaced from howitzer HE ordnance deliveries in the South Tactical Range. Firing points and firing areas for Alternatives A and B would have more soil disturbance under semiannual training and training by the FLARNG. The disturbance could be minimized by rotating firing point and locations by FLARNG during their non JIFE training. Roads susceptible to erosion may need additional maintenance for all the alternatives.

4.8 Water Resources

Impacts to water resources for this EA were assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005). In addition, more and larger craters, due to semiannual mortar and howitzers firing HE, would be expected in the South Tactical Range. In upland areas were the targets are located, these depressions would dry out more quickly, while those in wetlands (non target areas) would be expected to retain surface water longer.

4.9 Vegetation

Impacts to vegetation in this EA were assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005). Furthermore, the USFWS South Florida Ecological Services, Vero Beach, Florida issued a biological opinion (BO) dated 5 May 2005 (USFWS 2005) assessing the impacts to the threatened and endangered plant species for the one-time event held on May 2005 JIFE. The opinion determined adverse impacts to the threatened wireweed plant species (Polygonella basiramia) and issued mandatory terms and conditions for the management of this species by APAFR in order to be exempt from the prohibitions of Section 9 of the Endangered Species Act.

The USFWS issued a BO (USFWS 2006) on 21 April 2006 that did not address threatened and endangered plant species. The preceding biological assessment (USAF 2005) submitted by APAFR to the USFWS on 31 December 2005 determined no effects to threatened and endangered plants.

4.10 Fish and Wildlife Species

Impacts to fish and wildlife, including threatened and endangered species for all alternatives in this EA, were assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005). Futhermore, the USFWS South Florida Ecological Services, Vero Beach, Florida, issued a BO on 5 May 2005 (USFWS 2005) assessing impacts to threatened and endangered animal species from the May 2005 JIFE. The BO determined adverse impacts to the Eastern indigo snake, the Florida scrub

jay, Florida grasshopper sparrow, and the Red cockaded woodpecker. The Florida grasshopper sparrow would possibly experience extirpation on North Conventional and South Tactical Ranges at APAFR. The biological opinion issued mandatory terms and conditions for the management of these species by APAFR in order to be exempt from the prohibitions of Section 9 of the Endangered Species Act.

The USFWS issued a BO on 21 April 2006 for the semiannual JIFE. The BO determined the impacts with terms and conditions to be the same as the previous BO. The adverse impacts were attributed mostly to ordinance created wildfires that would cause snake mortality, mortality of bird eggs and fledglings in nests, and the destruction of nests or nest/cavity trees.

4.11 Grazing Management

Impacts to grazing management for all alternatives in this EA were adequately assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

4.12 Invasive Plant Management

Impacts to invasive plant management for all alternatives in this EA were adequately assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

4.13 Timber Management

Impacts to timber management for all alternatives in this EA were adequately assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

4.14 Recreation

Impacts to recreation for all alternatives in this EA were adequately assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

4.15 Military Training

For Alternatives A and B, semiannual JIFEs would increase range use from 27% to 30% - an increase of three percent of the total capacity. The semiannual JIFE and other military training would be easily accommodated with a low potential for conflicts with allotted training time. Furthermore, with the emphasis on multiple weapon asset training, the JIFE would accomplish other units' training requirements in a more realistic setting.

4.16 Cultural Resources

APAFR entered into a Section 106 consultation as per the NHPA via letter correspondence to the State Historic Preservation Office (SHPO) on 2 February 2006 (see Appendix B). APAFR

determined no adverse effect to cultural or historic resources with SHPO concurrence on 14 March 2006 (see Appendix B). APAFR initiated tribal consultation with eleven tribes on 3 February (see Appendix B for sample letter). APAFR received no responses.

All of the areas effected by Alternative A and B, which can be safely investigated, have been subjected to Phase I cultural resources assessment surveys. Within these previously surveyed areas, no cultural resources eligible for listing in the NRHP have been identified. The proposed action would have no effect on cultural resources. The No-Action Alternative would have no effect on significant cultural resources.

4.17 Socio-economic Resources

Impacts to socio-economic resources for this EA were adequately assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

4.18 Coastal Zone Management

Alternatives A and B, and the No-Action Alternative are in compliance with the Florida Coastal Zone Management Plan and have no adverse affects on coastal zones.

4.19 Wildland Fire and Prescribed Burning

Impacts to wildland fire and prescribed burning for this EA were assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005). The current management practices of maintaining separate burn units in rotation in impact areas would minimize the size and spread of wildfires so that military training, such as semiannual JIFEs, would be possible while at the same time the desired habitat for threatened and endangered species and functioning ecosystems would remain intact.

4.20 Environmental Justice

Environmental justice for this EA was adequately addressed and assessed in the *Final Environmental Assessment for the Joint Integrated Fires Exercise at Avon Park Air Force Range, Florida, April 2005* (USAF 2005).

4.21 Cumulative Impacts

Cumulative impacts consider the impacts of training and infrastructure of the semiannual JIFEs in relation to the existing and future, projected training. For Alternatives A and B, most of the semiannual JIFEs would replicate training that is common to APAFR. This is especially true for range time allotted to fixed-wing and rotary-wing aircraft and their respective deliveries of inert air-to-ground ordnance. The cumulative increases by the semiannual JIFEs in these categories would not be over five percent of the existing conditions. Cumulative impacts would not be noticeable in relation to the existing training. The other assets and ordnance deliveries of the semiannual JIFEs do add a noticeable increase for their respective categories. Most of these

increases involve noise generating ordnance to include the RRPRs breaking the sound barrier, howitzers and mortars firing and respective HE exploding, AC-130 gunships firing 105mm cannons, and Hellfire missiles hitting targets. Most of these weapon types and respective ordnance deliveries sharply increase usage over existing conditions – ranging from ten percent to being attributed entirely by the semiannual JIFEs.

Impacts to vegetation and soil by ground vehicles and ground-based artillery are typical with the use of the firing points, mortar firing areas, tank trails, and access roads. The semiannual JIFEs do expand the firing points and create new mortar firing areas. These areas would tend to be disturbed and would also become available for other non-units to train on during other times of the year.

The Florida Army National Guard (FLANG) currently trains with many of the weapon types that would be employed with semiannual JIFEs. Weapons include the 60mm and 81mm mortars, 105mm howitzers, small arms live fire in inert, impact ranges, and the Multiple Launch Rocket System (MLRS). The MLRS delivers the same RRPRs as the HIMARS, but the vehicles are track based instead of wheel based and for this reason are kept off roads and on tank trails as much as possible. Aside from the MLRS, the FLARNG could easily use the new infrastructure established by the semiannual JIFEs. The MLRS may convert to a HIMARS system, which would then easily lend itself to being part of semiannual JIFEs.

There is potential for the FLARNG to participate in semiannual JIFEs with their respective weapon types, even the MLRS as it has its own firing points established for firing into the North Conventional and Tactical Ranges. This would actually reduce the overall range allotment time for the FLARNG because some of training requirements of the FLARNG would be achieved during a JIFE.

The United States Navy (USN) currently has a final EIS titled, *Environmental Impact Statement for Navy Air-to-Ground Training at Avon Park Air Force Range, Florida, October 2005* (USN 2005). The EIS assessed impacts from air-to-ground delivery of HE ordnance on the South Tactical, North Tactical, and Alpha Ranges and well as inert ordnance deliveries as already in place at APAFR. The Preferred Alternative would use only a configuration of the Alpha Range located mostly south of Alpha Grade and east of Old Bravo Road for HE, while the remaining ranges would be used for inert ordnance and gunnery. If the Navy employed this training, the increase of allotted annual range time under all Navy alternatives would increase from 27% to 50% for an average Air-to-Ground Training year, up to 72% for a year of maximum Air-to-Ground Training year. Coupled with the semiannual JIFEs, the increase would be 53% for an average Navy year, up to 75% for a maximum Navy year. Again, it would be possible to include elements of the Navy training with a JIFE exercise, but the potential has not been considered. All of the Navy's alternatives deliver HE with noise impacts clearly leaving the installation's north property boundary. These noise levels were assessed as being distracting by exceeding the 115 dBP level in some locations. The north border subjected to noise generated by Navy HE is residential with 820 to 110 individuals (depending on the alternative selected) being adversely affected. The noise effects of the JIFE could be considered cumulative, although the noise levels for the JIFE were not considered distracting off the north end of the installation's property. Noise levels from the JIFEs would be distracting, over 115 dBP, for up to 300 meters over the south

installation border. For the south installation border, land use is agricultural with human sensitive receptors not be expected to be present except on a temporary basis. Also, the artillery firing points around Alpha Grade and Old Bravo Road would have to be relocated somewhere on the installation once the Navy HE range is in place.

The Navy's No-Action Alternative would still add impacts for cumulative allotted range time because inert ordnance would be used, but not for added infrastructure, HE, nor displacement of artillery firing points.

4.22 Short-Term Use and Long-Term Productivity

The short-term use of resources has little impact on the longer-term productivity of APAFR. This is because there would very little impact to the infrastructure and resources at APAFR. Vehicles running over vegetation and marginal soil compaction or rutting would be possible, but this would be very limited and would ample recovery time, especially by limited the HIMARS to existing roads and disk lines. Craters would be formed by the mortars and howitzers in an area that has minimal depressions currently in the South Tactical Range. These would recover to some extent, but overall the craters would remain for several years and would change the vegetation composition and water holding capacities of the soils as demonstrated in the North Convention Range.

4.23 Irreversible and Irretrievable Commitment of Resources

Petroleum, oils, and wear and tear on vehicles and equipment would occur as is normal for such a training exercise. Expended ordnance and targeted vehicles would also be lost, although sizeable portions of metal would be recycled.

4.24 Direct and Indirect Effects

Direct effects would include noise generated from weapons, vehicles, and impacting and/or exploding ordnance. Emissions from vehicles and ordnance would also be a direct effect. Ground and vegetation disturbance would be a direct effect from vehicles, weapon set-up, and ordnance. Indirect effects would include ordnance-ignited wildfires.

A strong indirect effect would be the increase replacement of targets that would be subjected to HE explosive ordnance and larger caliber gunnery. This would be especially true for direct fire HE ordnance to include the Hellfire missiles and AC-130 gunnery with the 105mm cannon.

Another indirect effect is the annual range clean-up of both the HE and inert ranges. The semiannual JIFEs would add more ordnance that would require removal for recycling and detonation of unexploded ordnance, especially the HE ordnance. This would add considerable time to clean-up efforts and may require additional time or employees for range safety and disposal of ordnance.

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Years of Experience: 16

APPENDIX A

DETAILED LOCATIONS OF MORTAR FIRING POINTS AND AREAS

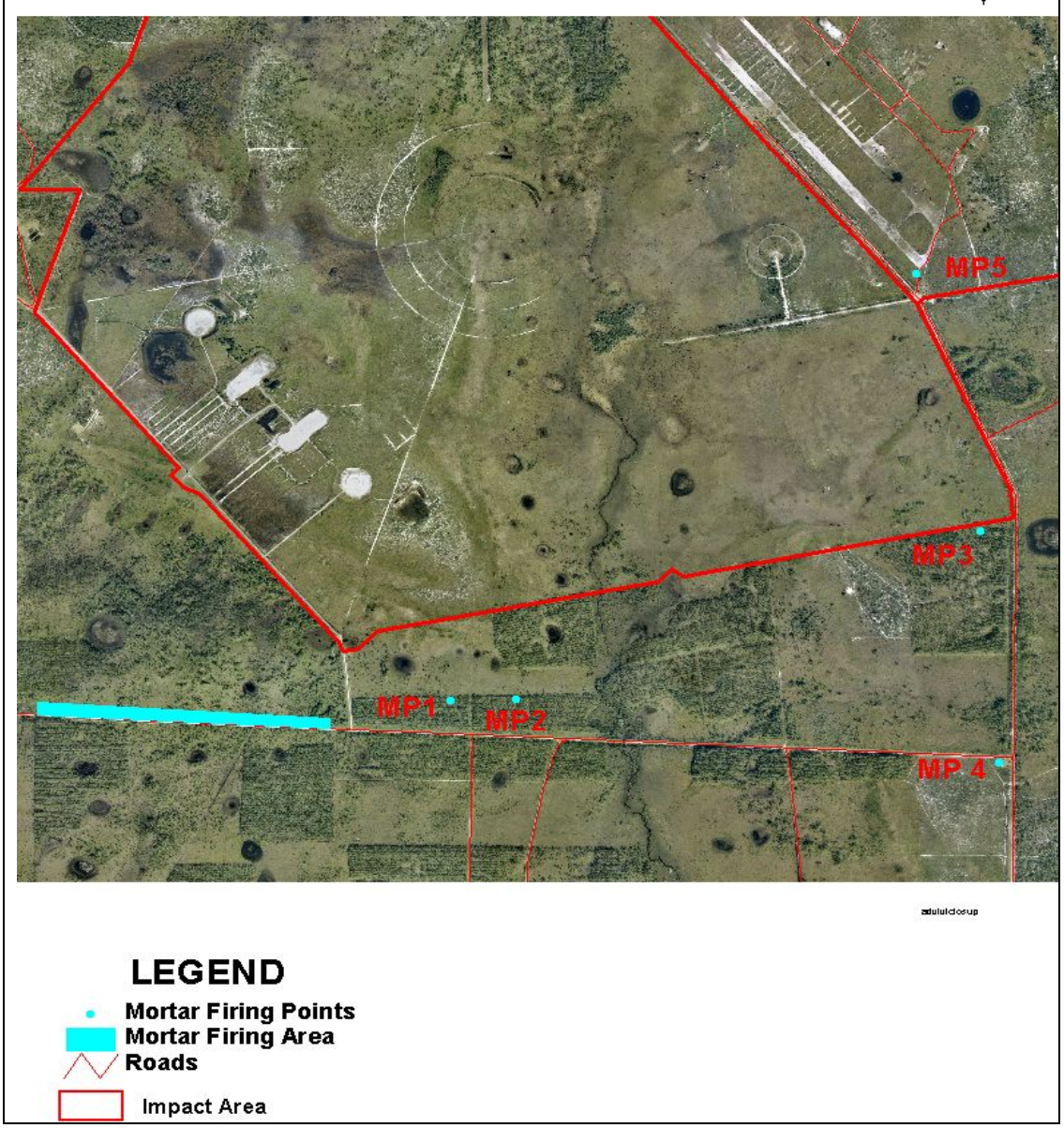

Figure A1. The Mortar Firing Points (MPs) and Mortar Firing Areas (MFAs) for the Advanced Operation.

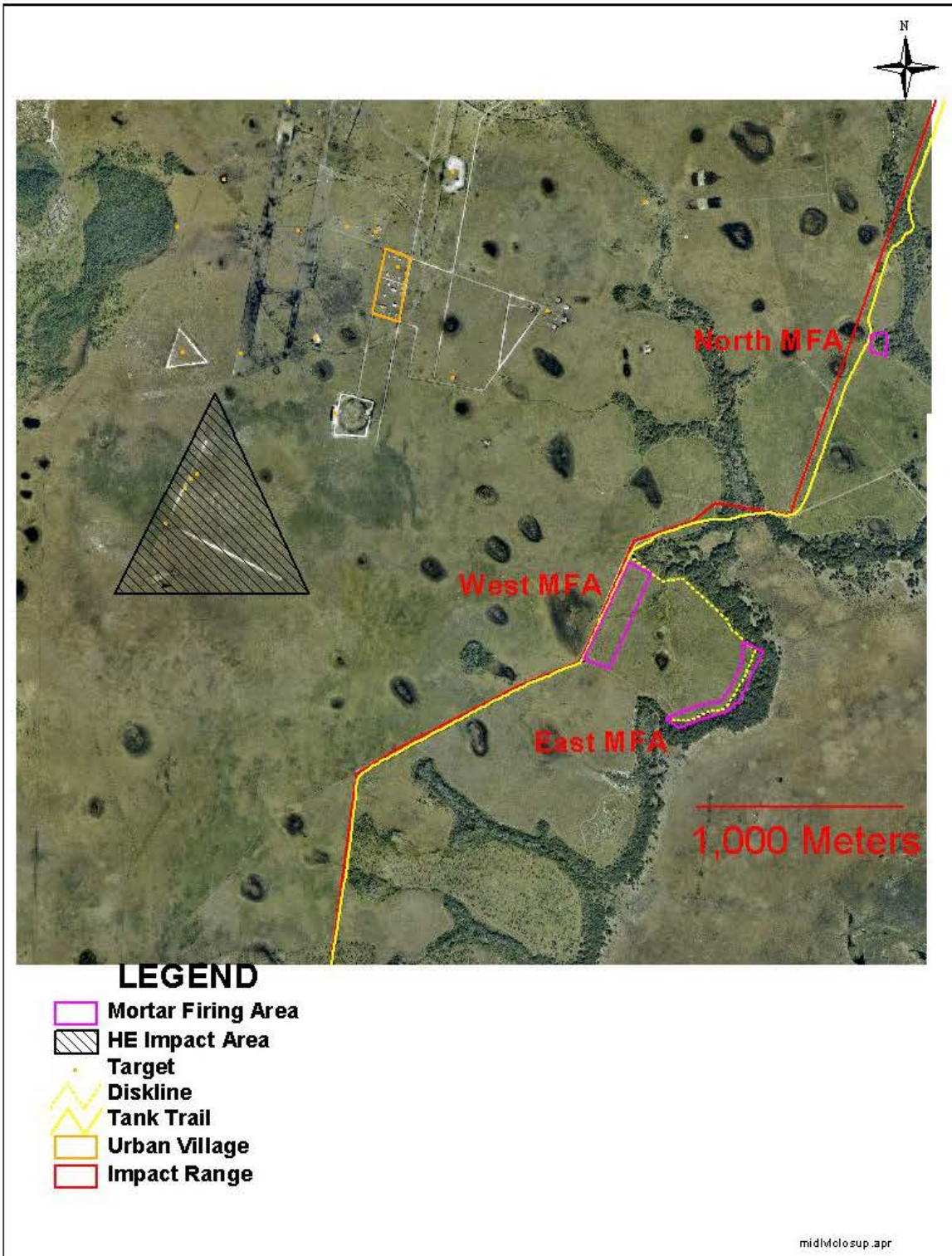

Figure A2. The Mortar Firing Areas (MFA) in the South Tactical Range for the Mid-level Operation.

APPENDIX B

RECORD OF CONSULTATION

DEPARTMENT OF THE AIR FORCE
18th AIR SUPPORT OPERATIONS GROUP, DETACHMENT 1
AVON PARK AIR/GROUND TRAINING CENTER (ACC)
MACDILL AIR FORCE BASE AND AVON PARK AIR FORCE RANGE, FLORIDA

3 February 2006

MEMORANDUM FOR Ms. Laura Kammerer
Supervisor, Compliance and Review
Bureau of Historic Preservation
Division of Historical Resources
R.A. Gray Building, 4th Floor
500 South Bronough Street
Tallahassee, FL 32399-0250

FROM: 18 ASOG, DET 1/CC
29 South Boulevard
Avon Park Air Force Range, FL 33825-9381

FILE COPY

SUBJECT: Semiannual Joint Integrated Fires Exercise (JIFE)

1. In accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended, and *36 CFR Part 800: Protection of Historic Properties*, this letter is to initiate Section 106 consultation with the office of the State Historic Preservation Officer (SHPO) about the proposed semiannual Joint Integrated Fires Exercise (JIFE) scheduled to take place twice a year on Avon Park Air Force Range (APAFR).

2. The purpose of the JIFEs will be to train small groups of ground-based Tactical Air Controllers (TACPs) and Forward Observers (FOs) with the joint use of assets consisting of fixed-wing aircraft (airplanes), rotary-wing aircraft (helicopters), ground artillery, and mortars. The semiannual JIFEs are very similar to a JIFE exercise which was previously approved by your office and conducted at APAFR in May 2005 (DHR 2005-1085). The primary changes to the Proposed Action that differ from the previous EA include:

- The exercises could occur during any time of the year but would most likely occur during the spring and fall. Each operation would run for up to 14 consecutive days.

- HIMARS would not fire from the firing points located in Area 6, rather along a portion of Old Bravo Road that is adjacent to the Alpha Range, 32S, 30E, 031 and 33S, 30E 001 (Attachments 1 and 2). These vehicles will be along the road and not go into undisturbed areas.

- Additional mortars would fire from mortar points 1, 2, 3, and 4 in Management Unit 3A, and an firing area is north and adjacent to Smith Grade in Management Unit 3

(Attachments 1 and 3). These points are in: 32S, 30E, 021-024. To properly set up these firing points, soldiers must dig small emplacements.

3. Mortar firing points 1 and 2 in Management Unit 3A are the only areas which had not been previously surveyed. In January 2006, Avon Park conducted a Phase I Cultural Resources Assessment Survey of a 15-acre area encompassing both firing points. Five shovel tests were excavated by the Cultural Resources Program Manager, Ronald Grayson, RPA, in this low-probability area. No cultural resources were identified in the project area. This report was submitted to your office on February 2, 2006.

4. All areas affected by the proposed training have been subjected to a Phase I Cultural Resource Assessment Survey to identify any Cultural Resources. These surveys revealed no cultural resources within the areas affected by the proposed training.

5. It is the determination of the US Air Force that the proposed training will have no effect on historic properties.

6. If you have any questions, please contact Ron Grayson at (863) 452-4119, ext 306, or by electronic mail at ronald.grayson@avonpark.macdill.af.mil.

John B Pechiney

JOHN B. PECHINEY, Lt Col, USAF
Commander

Attachments:
1. Areas of new activity for the Semiannual JIFE
2. New HIMARS Firing Area, Aerial
3. New Mortar Firing Points and Mortar Firing Area, Aerial
4. New HIMARS Firing Area, USGS Quad
5. New Mortar Firing Points and Mortar Firing Area, USGS Quad

DEPARTMENT OF THE AIR FORCE
18th AIR SUPPORT OPERATIONS GROUP, DETACHMENT 1
AVON PARK AIR/GROUND TRAINING CENTER (ACC)
MACDILL AIR FORCE BASE AND AVON PARK AIR FORCE RANGE, FLORIDA

3 February 2006

MEMORANDUM FOR Mr. Tarpie Yargee, Chief
Alabama-Quassarte Tribal Town
PO Box 187
Wetumka, OK 74883

FROM: 18 ASOG, DET 1/CC
29 South Boulevard
Avon Park Air Force Range, FL 33825-9381

FILE COPY

SUBJECT: Consultation for Activities – Semiannual Joint Integrated Fires Exercise

1. In accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended, and *36 CFR Part 800: Protection of Historic Properties*, this letter is to request your input on the proposed semiannual Joint Integrated Fires Exercise (JIFE) scheduled to take place twice a year on Avon Park Air Force Range.

2. The purpose of the JIFEs will be to train small groups of ground-based Tactical Air Controllers (TACPs) and Forward Observers (FOs) with the joint use of assets consisting of fixed-wing aircraft (airplanes), rotary-wing aircraft (helicopters), ground artillery, and mortars. The semiannual JIFEs are very similar to a JIFE exercise which was conducted at APAFR in May 2005. A draft Environmental Assessment (EA) was previously sent for your review and comment on March 15, 2005.

3. The changes to the Proposed Action that differ from the previous EA include:

- The exercises could occur during anytime of the year but would most likely occur during the spring and fall. Each operation would run for up to 14 consecutive days.

- HIMARS would not fire from the firing points located in Area 6, rather along a portion of Old Bravo Road that is adjacent to the Alpha Range (Attachments 1 and 2). These vehicles will be along the road and not go into undisturbed areas.

- Additional mortars would fire from mortar points 1, 2, 3, and 4 in Management Unit 3A and a mortar firing area that is north and adjacent to Smith Grade in Management Unit 3 (Attachments 1 and 3). To properly deploy the mortars, soldiers must dig small emplacements.

4. All areas affected by the proposed training have been subjected to a Phase I Cultural Resource Assessment Survey to identify any cultural resources. This testing included a thorough pedestrian inspection and subsurface testing in all areas. These surveys were conducted in 1995, 1997, 2004, 2005, and 2006. These surveys revealed no cultural resources within the areas affected by the proposed training.

5. It is the determination of the US Air Force that the proposed training will have no effect on any cultural resources.

6. Please respond to this letter within thirty (30) days indicating whether you wish to provide input on this action. If you do not respond or request an extension of time to review the proposed action and the effects it may have on tribal cultural issues, the Air Force will move forward with the next phase of the project. Thank you for your consideration of the proposed action and for taking part in the NEPA process. If you have any questions, please contact Ron Grayson at (863) 452-4119, ext 306, or by electronic mail at ronald.Grayson@avonpark.macdill.af.mil.

John B Pechiney

JOHN B. PECHINEY, Lt Col, USAF
Commander

Attachments:
1. Areas of new activity for the Semiannual JIFE
2. New HIMARS Firing Area, Aerial
3. New Mortar Firing Points and Mortar Firing Area, Aerial

Lt Col John B. Pechiney
Department of the Air Force
18 ASOG, DET 1/CC
29 South Boulevard
Avon Park Air Force Range, Florida 33825-9381

March 14, 2006

RE: DHR Project File No.: 2006-1399
Received by SHPO: February 13, 2006
Semiannual Joint Integrated Fires Exercise (JIFE)
Avon Park Air Force Range, Polk and Highlands Counties

Dear Commander Pechiney:

Our office received and reviewed the above referenced projects in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended and *36 CFR Part 800: Protection of Historic Properties*. The State Historic Preservation Officer is to advise Federal agencies as they identify historic properties (listed or eligible for listing in the *National Register of Historic Places*), assess effects upon them, and consider alternatives to avoid or minimize adverse effects.

Based on the information provided, it is the opinion of this office that the proposed project will have no effect on historic properties.

If you have any questions concerning our comments, please contact Laura Kammerer, Deputy State Historic Preservation Officer for Review and Compliance, at 850-245-6333.

Sincerely,

Frederick P. Gaske

Frederick P. Gaske, Director, and
State Historic Preservation Officer

APPENDIX C

COMMENTS

Comments from the USFWS in their April 2006 biological opinion resulted in revisions to the EA text in Section 4.0 Environmental Consequences under 4.9 Vegetation and 4.10 Fish and Wildlife. The revisions addressed impacts to threatened and endangered species.

APPENDIX D

USDI-USFWS 21 APRIL 2005 BIOLOGICAL OPINION