

PE	Type	Project Number	Title	Program Amount
Description				
65976	R&D	ZHTV120022	Create Thermal Structures Test Facility	\$1.3M
<p>This project will provide a state of the art Thermal Structures Test Facility to support verification and validation for critical aerospace vehicle structural technology programs. It enhances current capability by replacing a smaller 25 year old aluminum enclosure that suffers from many and varied deficiencies relative to safety and test requirements. Capability will benefit anticipated projects of the Responsive Reusable Boost for Space (RBS) Flagship Capability Concept (FCC) and increased collaboration among RZ/RB researchers in hypersonics as related technologies continue to receive increased emphasis.</p>				
65976	R&D	MHMOV101145	Construct Infrared Radiation Effects Laboratory	\$1.85M
<p>The Infrared Radiation Effects Laboratory project will construct a 6,000 square foot facility that will house one laboratory and associated offices for up to sixteen personnel. This project will provide the facility to accommodate demanding power requirements due to high current draw devices and a very low noise measurements floor (electronic noise caused by improper electrical isolation, poor quality ground, and interference from other RF sources, as well as low frequency mechanical noise due to building vibration). This project also addresses identified Scientific Advisory Board issues.</p>				
65976	R&D	TBD	Develop Solid Rocket Motor Transition Capability	\$2M
<p>This project will create a new S&T capability enabling the transition of next-generation AFRL solid rocket motor (SRM) technologies to industry toward the ultimate goal of providing advanced high performance solid propulsion to the warfighter. RZ-West is providing national leadership in the areas of SRM inert component, energetic ingredient, and propellant research but is currently limited to small scale activities leading to technology readiness level (TRL) 3. This new capability will synergize the efforts of multiple branches through solid rocket motor fabrication providing a platform for further development, integration, and testing of advanced SRM technologies to TRL 5. This activity will serve to mitigate the effects of deteriorating industry R&D investment, advance the readiness of domestic alternatives for a growing number of obsolescent materials, and answers recent SAB findings. It is aligned with the AF S&T Plan.</p>				
65976	R&D	ZHTV120024	Building 71A Revitalization – Integrated Laser Threat Warning & Protection	\$2.1M
<p>The B71A project is a joint RY-RX effort to modify the existing layout within B71A to integrate existing segregated capabilities into a unique, world-class laser warning and countermeasure research laboratory. The project will create a 3-story laboratory structure within the B71 A-bay, and integrate multiple areas performing laser warning and protection research. This project is heavily supported by classified customer base which lacks any similar DoD capability.</p>				
65976	R&D	TBD	Joint Optoelectronic Device Processing Facility (ODPF)	\$1.5M
<p>This project will create a semiconductor optoelectronic device process facility to be jointly used by researchers at RD and RV. Despite the fact that expertise to use this facility is already available at RD and RV, no such facility exists at the Phillips Research Site. Consequently, a large number of potential in-house projects, deemed critical in both directorates, cannot move forward. This 700 sq-ft class-100 facility will provide the necessary photolithographic etching tools to enable the formation of semiconductor devices that serve both the detector and emitter needs of the AF. Currently, the in-house research capabilities satisfy the theoretical modeling, epitaxial growth, and test & evaluation needs for in-house development of semiconductor optoelectronic devices. The addition of the clean-room facility for device processing is the one missing link that will close the research loop necessary to advance these technologies in a timely manner.</p>				
65976	R&D	FTFA041133R3	Construct Advanced Energetics Research Laboratory	\$1.6M

The Advanced Energetics Research Laboratory (AERL) project will construct a 60' x 110' steel building containing two internal (pre-fabricated) 35' x 40' research laboratories resting on vibration dampening pads isolated from the steel building's concrete floor. This project will provide a unique facility capable of handling advanced energetic materials for 6.1 and 6.2 advanced energetics basic and applied research programs, and allows for investigation and maturation of new nano-energetic materials.

65976	R&D	TBD	Weapon Seeker Research Tower	\$1.18M
This project will provide a critical need variable height tower facility at the Eglin site C-86 range for the research, development and testing of next-generation weapon seekers. The tower will enable extended slant range measurements, allow full access to range geography, reduce optical turbulence distortion, eliminate ground clutter, and protect high value lab assets from overexposure to the elements. The tower capability proposed is crucial for current and future seeker research programs supporting multiple DoD customers.				

65976	R&D	TBD	Virtual Combat Laboratory (VCL) Capability Upgrade	\$1.2M
The virtual combat laboratory capability upgrade will modify 4000 square foot of laboratory space to create multiple high security-level research areas. This will enable VCL to extend support to higher security level programs, multiple customers and domains to include cyber / IO / anti-access technologies (further details available, but classified).				

65976	R&D	TBD	Live, Virtual, and Constructive (LVC) Instrumentation of V	\$.975M
The RHA proposal creates foundational infrastructure for Live, Virtual, and Constructive (LVC) research and collaboration by constructing a central LVC test and training control facility and range instrumentation infrastructure (e.g., displays, data aggregation, virtual and constructive modeling systems, cabling, high bandwidth data transmission lines, secure routers and servers to and from AFRL test beds and the range) to support the test range at WPAFB.				

65976	R&D	ULDF10054	Stockbridge Controlled Contested Environment (Stockbridge Experimentation Upgrade)	\$1.8M
The information Directorate (Rome Laboratory) project consists of two distinct items of work. The first part provides for infrastructure upgrade consisting of power and communications infrastructure distribution to 18 locations (pads) around the test site. The fiber infrastructure at each pad will vary by location. Each pad will be 20' x 30' with 6" of compacted crushed stone and have two concrete piers available for antenna towers and one concrete pad for power distribution. Each pad will be able to accommodate a 30A current load. The second part provides for the installation of communications conduit duct banks inter-connecting each of these 18 pads located throughout the 295 acres of property and building 1480. The project is 100% designed with a funded environmental assessment/impact package to be completed March 2012.				

65976	R&D	TBD	Construct Broadband Optical Signatures Illumination Laboratory (BOSIL)	\$1.50
The BOSIL project will construct a 1,000 square foot facility housing a one-of-a-kind experimental setup capable of characterizing broadband (VIS/IR), angle-resolved, optical signatures of red/blue target components. In addition to purchasing and configuring the broadband source/detection module, funding will enable construction associated with this project to include increasing available electrical power (110, 208, and 480V), upgrading HVAC for thermal control, installing optically absorbing ceiling panels and walls, putting in vinyl flooring, installing water chillers and associated distribution lines, upgrading lighting, and acquiring and setting up optics tables with pneumatic stabilization. CE Form 332 has been submitted for approval.				

65976	R&D	TBD	Construct Joint Operations Center for Telescope Remote Operations	\$1.60
This project establishes capability for remote operations, supports site modernization, improves research collaboration capabilities and future solvency goals as approved by AFRL/CC. It upgrades the network backbone and access between the Maui Space Surveillance Complex (MSSC) on the top of Haleakala and the Maui Research Technology Park in Kihei.				

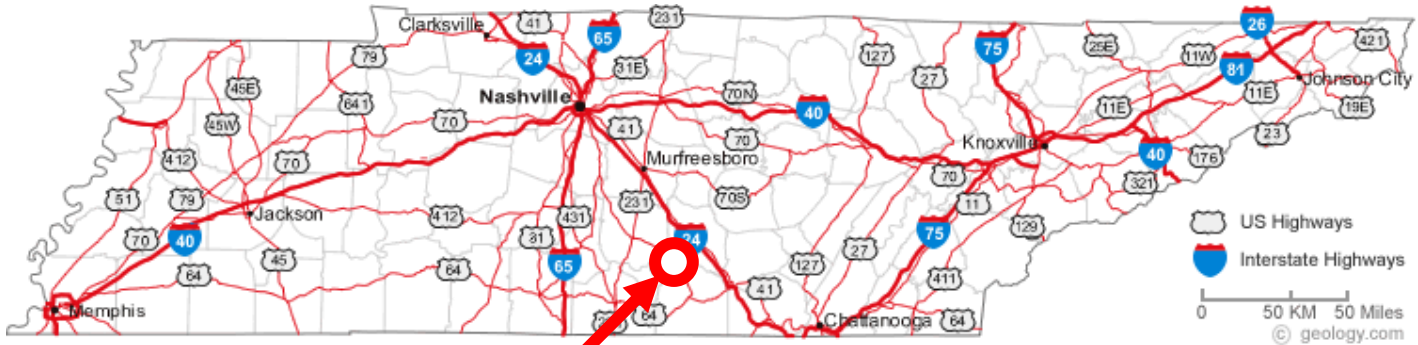
65976	R&D	TBD	Ice Harvester Design/Build	\$1.20
<p>The Starfire Optical Range (SOR) will expand its cooling capacity to include a third Ice Harvester necessary for cooling critical laser and optical test facilities. Currently, the two 100 ton Ice Harvesters on site cannot effectively cool the top of the hill to support test requirements. The design 20 years ago for the facility included an ice plant with three 100 ton Ice Harvesters to cool the laser facilities and 3.5M telescope. The facility was constructed with three 26' pits for ice collection. However, due to budget constraints at the time only one harvester was initially installed in 1990. In 1991 the second 100 ton machine was installed to serve as a backup. Since that time, two additional test facilities have been built and expansions have been made to all three facilities. All of which have taxed both of the current 100 ton Ice Harvesters to running at capacity. Under the current configuration, if one ice harvester is down, for maintenance or repair, testing cannot be conducted.</p>				

65976	R&D	TBD	Construct Controlled Fire Research Evaluation Facility	\$1.60
<p>Airbase Technologies Division will construct a 2,650 square foot facility that will provide the means for conducting medium-scale live fire tests in a windless or wind controlled environment. The facility will be used for research, engineering development, and evaluation of agents, systems, and personal protective equipment used for fire protection of forward deployed personnel, aircraft, and support assets. It will also expand the capability to validate combustion and fire suppression models.</p>				

1. COMPONENT AIR FORCE		FY2013 MILITARY CONSTRUCTION PROJECT DATA		2. DATE 15 DEC 2011	
3. INSTALLATION AND LOCATION ARNOLD AIR FORCE BASE, TENNESSEE			4. PROJECT TITLE LRDP - CONSTRUCT TEST CELL COOLING WATER LINE		
5. PROGRAM ELEMENT 72806		6. CATEGORY CODE 845-363	7. PROJECT NUMBER ANZY109056A		8. PROJECT COST (\$000) 2,300.0
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITIES					1,980
66-INCH COOLING WATER LINE		LF	700	2,150	(1,505)
66-INCH VALVE WITH PIT & ELECTRICAL OPERATORS		EA	1	100,000	(100)
MANHOLE		EA	1	40,000	(40)
CATHODIC PROTECTION		LF	700	85	(60)
FLOWMETER WITH PIT AND CONTROL CONNECTIONS		EA	1	275,000	(275)
SUPPORTING FACILITIES					0
SUBTOTAL					1,980
CONTINGENCY (5%)					99
TOTAL CONTRACT					2,078
SUPERVISION, INSPECTION, & OVERHEAD (6.5%)					135
DESIGN/BUILD - DESIGN COST (4% OF SUBTOTAL)					79
TOTAL REQUEST					2,293
TOTAL REQUEST (ROUNDED)					2,300
10. DESCRIPTION OF PROPOSED CONSTRUCTION					
Install a coated steel water line from the 84" header leaving the Secondary Pumping Station to the 54" main supplying the ASTF Air Supply area. Size pipe to provide all ASTF water requirements west of CB01 distribution valve (105kgpm). Project will include cathodic protection, isolation valve and flow meter at the supply end of the pipeline, an access manhole, and control system connection for valve and meter.					
11. REQUIREMENT: 700 LF Adequate: 0 LF Substandard: 0 LF					
PROJECT: LRDP - Construct Test Cell Cooling Water Line (Current Mission)					
REQUIREMENT: Arnold AFB's mission is to provide pre-flight testing in support of DOD pre/post fuselage, turbine and weapons testing programs. The test facilities located at the base require cooling water to support this mission. This project will provide a new capability to conduct concurrent turbine engine and wind tunnel testing during the hot summer months.					
CURRENT SITUATION: The existing cooling water to support wind tunnel and turbine engine testing is inadequate during the hottest period of the summer. Configuration of the cooling water system creates a water source problem where several test cells are all competing for the same inadequate water supply. Inability to support concurrent testing occurs during peak test load as customers attempt to accomplish testing before the end of the fiscal year. Significant test scheduling issues arise because AEDC's test capacity is reduced and the flexibility to meet customer schedules is lost. Typically, the hot summer period where the problem occurs is approximately 6-8 weeks, which equals to 12-16% of AEDC's annual earning capacity. Turbine engine testing can generate up to \$6M of testing per month. Wind tunnel testing is usually scheduled to near-full capacity, which translates to approximately \$1M per month. Alternating testing between the mission areas reduces significantly needed revenue and adversely impacts customer platforms such as fighters, bombers, missiles, bombs, and stores.					
IMPACT IF NOT PROVIDED: If this project is not accomplished, AEDC will be unable to conduct concurrent turbine engine tests and wind tunnel tests. Turbine engine testing directly affects the component improvement program, which enhances the safety and reliability of fielded engines like the F-15 (F100), F-16 (F100/F110), F-22A (F119), and B-1B (F101); qualification testing for next generation aircraft like the F-35 (F135) and Global Hawk (F137); and alternate fuels certification for F-15 (F100), F-16 (F100/F110), B-1B (F101), and F-35 (F135). Wind tunnel testing supports fighters (e.g. F-35, F-22, F-15, F-18, and UCAS); bombers (e.g. B-1 and B-52); missiles (e.g. SM3, Next Gen AEGIS); stores (e.g. SDB II, JDAM, Next Generation Jammer); and classified programs.					

1. COMPONENT AIR FORCE		FY2013 MILITARY CONSTRUCTION PROJECT DATA		2. DATE 15 DEC 2011	
3. INSTALLATION AND LOCATION ARNOLD AIR FORCE BASE, TENNESSEE			4. PROJECT TITLE LRDP - CONSTRUCT TEST CELL COOLING WATER LINE		
5. PROGRAM ELEMENT 72806		6. CATEGORY CODE 845-363	7. PROJECT NUMBER ANZY109056		8. PROJECT COST (\$000) 2,300.0
<p><u>ADDITIONAL:</u> For the revitalization and recapitalization of laboratories owned by the United States and under the jurisdiction of the Secretary concerned, the Secretary concerned may obligate and expend from appropriations available to the Secretary concerned for military construction not otherwise authorized by law or from funds authorized to be made available under section 219(a) of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (Public Law 110-417; 10 U.S.C. 2358 note), amounts necessary to carry out an unspecified minor military construction project costing not more than \$4,000,000.</p> <p>Base Civil Engineer: Mr. William (Bill) E. Wendle, DSN: 340-7916/COMM: (931) 454-7916.</p> <p><u>JOINT USE CERTIFICATION:</u> This is an installation utility/infrastructure project, and does not qualify for joint use at this location. However, all tenants on this installation are benefited by this project.</p>					

1. COMPONENT AIR FORCE		FY2013 MILITARY CONSTRUCTION PROJECT DATA		2. DATE 15 DEC 2011	
3. INSTALLATION AND LOCATION ARNOLD AIR FORCE BASE, TENNESSEE			4. PROJECT TITLE LRDP - CONSTRUCT TEST CELL COOLING WATER LINE		
5. PROGRAM ELEMENT 72806		6. CATEGORY CODE 845-363	7. PROJECT NUMBER ANZY109056A		8. PROJECT COST (\$000) 2,300.0




Arnold Air Force Base, TN

Project Location



1. COMPONENT AIR FORCE	FY 2012 PROJECT DATA (computer generated)			2. DATE 3 JAN 2011
3. INSTALLATION AND LOCATION EGLIN AIR FORCE BASE, FLORIDA			4. PROJECT TITLE ADVANCED ENERGETICS RESEARCH LAB	
5. PROGRAM ELEMENT 62602	6. CATEGORY CODE 316-333	7. PROJECT NUMBER FTFA041133R3	8. PROJECT COST (\$000) EEIC 52900 1,600.0	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITIES				1,263.6
ADVANCED ENERGETICS RESEARCH LABORATORY	SF	6,600	191	(1,263.6)
SUPPORTING FACILITIES				178.0
UTILITIES	LS			(96.0)
PAVEMENTS	LS			(9.0)
SITE WORK	LS			(73.0)
SUBTOTAL				1,441.6
CONTINGENCY (5.0%)				72.1
SUPERVISION, INSPECTION, AND OVERHEAD (5.7%)				86.3
PROFIT AND OVERHEAD (.0%)				0.0
TOTAL FUNDED COST				1,600.0
UNFUNDED COST				0.0
TOTAL REQUEST				1,600.0
<p>10. Description of Proposed Work: Construct a 60' x 110' pre-engineered metal building with a 14' minimum clear ceiling height containing two 35' x 40' modular isolated lab rooms with a 14' ceiling height at AFRL/RW's High Explosives Research and Development (HERD) Complex. Each isolated lab room floor is a thick reinforced concrete slab, a vibration dampening pad to isolate it from the exterior metal building floor with a 2-inch separation to ensure no exterior vibration. Rest rooms, lab support work areas, mechanical, electrical, and communication rooms are located inside the exterior metal building. The isolated lab rooms are also isolated from these rooms located inside the exterior metal building with a 2-inch separation to ensure no exterior vibration. The existing HERD's circulating chilled/heated water will be used for heating and cooling with new air handling units installed for each of the modular isolated lab rooms as well for the areas inside the exterior metal building surrounding the two modular isolated lab rooms. The air handling unit for each modular isolated lab room must be capable of maintaining a set air temperature plus or minus 1 degree C inside the modular lab room at all times and provide a minimum of 12 air changes per hour when exposed energetic/reactive materials or their mixtures/formulations are present. No recirculation of air is permitted in the two modular isolated lab rooms or their associated chem lab rooms. Site work will provide access, storm water drainage and utilities for the facility as required. The metal building plus rebar and any other conductors in or connected to the metal building foundation/floor, and all connected external building components must have electrical continuity and be grounded to the building master ground bus bar. All conductors in each isolated lab room plus rebar and any other conductors in the vibration dampening pad must have electrical continuity and be grounded to the building master ground bus bar.</p>				
<p>11. Requirement: 6600 SF Adequate: 0 SF Substandard: 0 SF</p> <p>PROJECT: Construct a new Advanced Energetics Research Laboratory for 6.1 Advanced Energetics basic research activities being conducted at the Air Force Research Laboratory, Munitions Directorate, High Explosives Research and Development (HERD) Complex, a unique Air Force capability accomplishing advanced energetics and explosives research, development, integration, and testing activities in support of Air Force munitions.</p>				

1. COMPONENT AIR FORCE		FY 2012 PROJECT DATA (computer generated)		2. DATE 3 JAN 2011
3. INSTALLATION AND LOCATION EGLIN AIR FORCE BASE, FLORIDA			4. PROJECT TITLE ADVANCED ENERGETICS RESEARCH LAB	
5. PROGRAM ELEMENT 62602	6. CATEGORY CODE 316-333	7. PROJECT NUMBER FTFA041133R3	8. PROJECT COST (\$000) EEIC 52900 1,600.0	
<p>REQUIREMENT: This facility will provide critically needed/mission essential laboratory areas capable of handling advanced energetic materials for 6.1 advanced energetics basic research supporting the Director of Defense Research & Engineering's (DDR&E) Advanced Energetics Major Thrust and the National Aerospace Initiative. This facility is also critical to AFRL's role as a "key participant" in the National Advanced Energetics Technology Program. This Advanced Energetics Research Lab is a critical initial component necessary to achieve the AFRL goal to develop a 6.1 Advanced Energetics basic research program recognized by AFOSR as a "Star Team", a unique world class research capability. This new facility is required to allow the HERD Complex to expand its advanced energetic basic research efforts to include laboratory work and to significantly improve the productivity of the increasing number of researchers. It will facilitate increased scientific collaboration with leading universities and distinguished researchers by providing a facility needed to support world class advanced energetics laboratory research. This world-class energetics program is critical to the development of future Air Force munitions required to meet present AFRL, AFMC, Air Force and DoD strategic plans.</p> <p>CURRENT SITUATION: No existing lab space is available or suitable/usable for the expanding 6.1 advanced energetics research activities. Existing HERD requirements are increasing and the mission is significantly expanding. The Processing Section through-put doubled in the last 3 years, quadrupled in the last 6 years. All existing facilities are fully utilized and are overcrowded causing explosives safety concerns, impacting the mission and increasing development time because of a lack of space. The number of researchers assigned to the 6.1 basic research advanced energetics program has increased 533% in the last 4 years and is increasing again this year. Without this new facility, these scientists will be unable to accomplish their critical research. Over half of current research efforts are modeling and developing experiments that cannot be completed without this new facility, and designing/procuring unique equipment for development and testing of advanced energetics. Many researchers will share the two modular isolated lab rooms. Safety allows only one experiment/test at a time in each modular isolated lab room. The lack of adequate facilities currently prevents researchers from pursuing projects offering the biggest payoff or the best chance of success. Current strategic plans at all levels of DoD show a critical need to aggressively pursue advanced energetics concepts especially for applications to future micro munitions. This unique facility will allow advanced energetic researchers to apply nano fundamental research breakthroughs currently being discovered in other labs using non explosive nano materials to advanced energetics for Air Force munitions applications. Existing facilities at universities and basic research institutes working with nano materials do not meet minimum safety requirements for working with advanced energetics.</p> <p>IMPACT IF NOT PROVIDED: AFRL will be unable to meet mid and far term DoD, Air Force, and AFRL munitions development strategic plans resulting in significant delays or forfeited future war fighter capabilities. Without this unique and critical facility we anticipate the loss of a large number of critical researchers with unique capabilities needed to support advanced energetic research. This will result in the loss or delay of time critical/essential research that will impact future Air Force and DoD munitions development for years to come, leading to a lack of appropriate munitions for future Air Force use and a significant reduction in future war fighter capabilities.</p> <p>ADDITIONAL: Under the FY2005 \$1M LRDP authorization this project was initiated and approved by the Air Armament Center Base Civil Engineer and the Installation Commander. A construction contract was signed for \$930K. Due to explosive safety and storm water requirements the current total request amount is now \$1.6M. These issues have been resolved however the resulting delay and pending contract</p>				

1. COMPONENT AIR FORCE	FY 2012 PROJECT DATA (computer generated)		2. DATE 3 Jan 2011
3. INSTALLATION AND LOCATION EGLIN AIR FORCE BASE, FLORIDA		4. PROJECT TITLE ADVANCED ENERGETICS RESEARCH LAB	
5. PROGRAM ELEMENT 62602	6. CATEGORY CODE 316-333	7. PROJECT NUMBER FTFA041133R3	8. PROJECT COST (\$000) EEIC 52900 1,600.0
<p>amendments drove a total request increase of \$670K above the 2005 contract award amount. The current construction estimate includes SIOH and contractor overhead and profit. Approval under the 2008 LRDP authority will ensure a complete and usable facility as originally programmed.</p> <p><u>JOINT USE CERTIFICATION:</u> This facility will be available for use by other services on an "as-available" basis, but the requirements set forth in this document are based only on the Air Force requirements.</p> <p>CERTIFICATION: I have reviewed this document and certify it is complete and accurate. I have validated the Project's primary and supporting costs and work classification. It has been fully coordinated with the user and other appropriate agencies and approved by the Installation Commander.</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%;">  DAVID H. MAHARREY, JR., Colonel, USAF Commander, 96th Civil Engineering Group Eglin Air Force Base, FL </div> <div style="width: 45%;"> DAVID W. FUNK, Colonel, USAF Chief Programs Division Installations and Mission Support </div> </div>			

1. COMPONENT AIR FORCE	FY 2012 PROJECT DATA (computer generated)			2. DATE
3. INSTALLATION, SITE AND LOCATION KIRTLAND AIR FORCE BASE KIRTLAND SITE # 1 NEW MEXICO			4. PROJECT TITLE LRDP-CONSTRUCT IRREL LABORATORY	
5. PROGRAM ELEMENT 62205	6. CATEGORY CODE 312-472	7. RPSUID/PROJECT NUMBER 2445/MMMV101145	8. PROJECT COST (\$000) EEIC 52900 1,847.9	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITIES				1,575.0
CONSTRUCT IRREL LAB	SF	6,000	263	(1,575.0)
SUPPORTING FACILITIES				90.0
UTILITIES	LS			(50.0)
ANTITERRORIS/FORCE PROTECTION	LS			(15.0)
SITE WORK	LS			(25.0)
SUBTOTAL				1,665.0
CONTINGENCY (5.0%)				83.3
SUPERVISION, INSPECTION, AND OVERHEAD (5.7%)				99.7
PROFIT AND OVERHEAD (.0%)				0.0
TOTAL FUNDED COST				1,847.9
UNFUNDED COST (.0%)				0.0
TOTAL REQUEST				1,847.9
<p>10. Description of Proposed Work: Construct a single story building with reinforced concrete foundation, CMU walls, structural steel framing, with a standing seam metal insulated sloped roof system. Work includes multi-zone HVAC systems, multi-voltage electrical systems, air and gas supplies and all site work. Project complies with DoD minimum antiterrorism force protection standards.</p> <p>Air Conditioning: 12 Tons</p>				
<p>11. Requirement: As Required.</p> <p>PROJECT: Laboratory Revitalization Demonstration Program (LRDP) Construct Infrared Radiation Effects Laboratory (Current Mission)</p> <p>REQUIREMENT: Construct a 6,000 SF facility with two laboratories and office space for up to 16 personnel. The Infrared Radiation Effects Laboratory (IRREL) has demanding power requirements due to high current draw devices and very low noise measurements floor (electronic noise caused by improper electrical isolation, poor quality ground, and interference from other RF sources, as well as low frequency mechanical noise due to building vibration). The IRREL requires an isolated grounding system to delete stray electromagnetic force, dedicated circuits, and single-phase, 30-amp conditioned power.</p> <p>CURRENT SITUATION: The 2010 Air Force Scientific Advisory Board (SAB) review of the AFRL Space Vehicles Directorate (RV) recognized infrared radiation effects research as a unique capability in DoD, playing a critical role in maturing technology for Space-based Intelligence, Surveillance, and Reconnaissance, but commented that poor facility conditions were holding back critical research and integration potential. Specifically, the existing lab occupies 2478 SF of lab space and 553 SF of office space in Bldg 426, which was constructed in 1958 as a dining hall. Experiment setup time is extremely time consuming due to adjusting for the widely varying conditions of temperature and ambient light variations. Extended, 24-hour data collections have been compromised when personnel arrive in the morning and turn on hallway lights, computers, etc. Setup currently requires removal of ceiling tiles, which is a violation of fire code. Noise created by other electrical equipment and power demands make experiments impossible to perform during duty hours, as ambient light, LEDs on monitors, and light created by equipment is</p>				

1. COMPONENT AIR FORCE	FY 2012 PROJECT DATA (computer generated)		2. DATE
3. INSTALLATION, SITE AND LOCATION KIRTLAND AIR FORCE BASE KIRTLAND SITE # 1 NEW MEXICO		4. PROJECT TITLE LRDP-CONSTRUCT IRREL LABORATORY	
5. PROGRAM ELEMENT 62205	6. CATEGORY CODE 312-472	7. RPSUID/PROJECT NUMBER 2445/MMMV101145	8. PROJECT COST (\$000) EEIC 52900 1,847.9

corrupting experiment data. Some experiments require light control, which is also very difficult as the current lab has extensive windows and it is very difficult to totally black-out a lab. In addition to the poor facility conditions described, there is no space available for the IRREL to expand lab characterization capabilities, nor space available for additional employees. The IRREL characterization schedule is maximized in terms of what projects can be simultaneously performed in the lab.

IMPACT IF NOT PROVIDED: IRREL is the only DoD laboratory capable of focal plane array characterization for radiometric performance, radiation tolerance, and assessment of mission readiness for these state-of-the-art sensors. IRREL is currently supporting one Advanced Technology Demonstration, Visible Array for Space Tracking (VAST), and one High Visibility Program (HIGH STARE) for critical DoD imaging systems. The Air Force SAB review of AFRL/RV recognized this research as a unique capability, playing a critical role in maturing technology for several space-based platforms, but commented that poor facility conditions were holding back critical research and integration potential. This laboratory project was part of the Space Vehicles Component Development Lab MILCON; however, the need for this critical technology can no longer wait or be performed in such substandard facilities. Therefore, it is being removed and executed under the LRDP authority.


ADDITIONAL: This project will be accomplished with 3600 funds to support mission requirements under Section 2804 of the National Defense Authorization Act amended Section 2805 of Title 10 - using the Lab Revitalization and Demonstration Program (LRDP) authority to exceed the \$750,000 minor construction limit up to \$2,000,000. All known alternative options were considered during the development of this project. Base Civil Engineer: Mr. D. Brent Wilson (505) 846-7911.

JOINT USE CERTIFICATION: This facility can be used by other components on an "as available" basis; however, the scope of the project is based in Air Force requirements.

I have reviewed this document and certified it is complete and accurate. I have validated the project's primary and supporting costs and work classification. It has been fully coordinated with the user and other appropriate agencies and approved by the Installation Commander at the 12 Apr 11 Facilities Board.

D. Brent Wilson, P.E.
Base Civil Engineer
Kirtland Air Force Base, NM

PAUL A. PARKER, SES
Command Civil Engineer
Communications, Installations
and Mission Support

1. COMPONENT AF (AFMC)		FY 2013 RDT&E MILITARY CONSTRUCTION PROJECT DATA		2. DATE (YYYYMMDD) 20111222	REPORT CONTROL SYMBOL DD-A&T(A)1610
3. INSTALLATION AND LOCATION HANSKOM AIR FORCE BASE, MASSACHUSETTS			4. PROJECT TITLE TDC LAB RENOVATION B1105B		
5. PROGRAM ELEMENT 72976, EEIC 529	6. CATEGORY CODE 317315	7. PROJECT NUMBER MXRD110043I	8. PROJECT COST (\$000) EEIC 529: 768		
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITIES					
TDC Lab Renovation		SM	305	1,907.48	581.782
SUBTOTAL					581.782
Profit (10%)					58.178
Overhead (10%)					58.178
SUBTOTAL					698.138
Contingency (10%)					69.814
TOTAL CONSTRUCTION COST					767.952
TOTAL REQUEST					767.952
ROUNDED					768.000
DESIGN (20%)					153.590
10. DESCRIPTION OF PROPOSED WORK: Renovate 305 SM in B1105B to meet TDC Lab requirements. Renovation will include upgrades and modifications to the HVAC, power, and communications systems.					
11. REQUIREMENT:					
<p>PROJECT: Renovate space in B1105B for the Theatre Deployable Communications (TDC) to create lab space for PMO engineers to ensure continued support of the deployed baseline with RDT&E funds.</p> <p>REQUIREMENT: This project is required to support the move of a classified RDT&E mission. The R&D mission requires the proper environment and security safeguards to meet the RDT&E effort. This project will use 3600 Funds (RDT&E)</p> <p>CURRENT SITUATION: The TDC team has been mandated to move from B1607 to B1105B and needs to transfer its lab and office equipment. B1105B is not currently equipped to handle the TDC lab requirements.</p> <p>The current space used by the TDC Team in B1607 is only a small portion of an area primarily used by another team. Since this office area is not large enough for the TDC team, in addition to this area, they are leasing numerous mobile shelters which reside outside Building 1607 in the back parking area. In the proposed new space, HVAC upgrades are required to handle the high heat loads from the equipment. All of the specialized testing, design and configuration equipment require high amperage electrical circuits. The communications network in the building must be configured to directly connect to the Defense Research Engineering Network (DREN). The DREN furnishes a separate test network for the TDC Team to use; assuring the Base Communications Network is not put at risk at any time.</p> <p>I have reviewed this document and certify it is complete and accurate. I have validated the project's primary and supporting costs and work classification. It has been fully coordinated with the user and other appropriate agencies and approved by the Installation Commander.</p>					
 THOMAS J. SCHLUCKEBIER, P.E., CFM, LEED AP Base Civil Engineer		12/23/11 (date)			

1. COMPONENT AF (AFMC)	FY 2013 RDT&E MILITARY CONSTRUCTION PROJECT DATA		2. DATE (YYYYMMDD) 20111222	REPORT CONTROL SYMBOL DD-A&T(A)1610
3. INSTALLATION AND LOCATION HANSCOM AIR FORCE BASE, MASSACHUSETTS		4. PROJECT TITLE TDC LAB RENOVATION B1105B		
5. PROGRAM ELEMENT 72976, EEIC 529	6. CATEGORY CODE 317315	7. PROJECT NUMBER MXRD110043I	8. PROJECT COST (\$000) EEIC 529: 768	

11. REQUIREMENT:

IMPACT IF NOT PROVIDED:

If the renovation does not occur, the TDC lab will not be able to move into B1105B and the ESC will be unable to complete its consolidation plans. This will result in organizational inefficiencies and will negatively impact TDC modernization and sustainment efforts.


Without adequate office space and appropriate design laboratory environmental conditions, the TDC Team could fall behind in their Engineering design and testing. Security Information Assurance updates will not be available in a timely manner for their end users. The deployed Air Force Operations Units that depend on this hardware and software for their entire communications networks could suffer with outdated communications equipment, impacting their missions on the ground, all over the world.

The TDC Team uses Commercial Off the Shelf (COTS) Equipment to configure and build its networks. This ensures that the technology is the most current available and that the end product will not be obsolete by the time it gets to the client. Groups of engineers research the current commercial marketplace to determine which products will best suit their mission needs. This equipment is then developed into the product that fits the mission by redesign, and reconfiguration. Testing and evaluation is the next step necessary to assure that the product can be fully accredited to standard. Without the configuration management and test function that the TDC does, there would be no technology suitable to meet these specific Air Force needs. The final product is then updated continually throughout its useful life to align it with new technological developments in the marketplace and address newly emerging security concerns.

1391 Cost Estimate
MXRD 11-0043I

PRIMARY FACILITIES		Percent	
Line Item Total			581.782
Subtotal			581.782
Profit	10%		58.178
Overhead	10%		58.178
Subtotal			698.138
Contingency	10%		69.814
Total Construction Cost			767.952
TOTAL REQUEST			767.952
Design	20%		153.59

INPUT

1. COMPONENT AF (AFMC)		FY 2013 RDT&E MILITARY CONSTRUCTION PROJECT DATA		2. DATE (YYYYMMDD) 20111222	REPORT CONTROL SYMBOL DD-A&T(A)1610
3. INSTALLATION AND LOCATION HANSCOM AIR FORCE BASE, MASSACHUSETTS			4. PROJECT TITLE CITS LAB RENOVATION B1107		
5. PROGRAM ELEMENT 72976, EEIC 529	6. CATEGORY CODE 310925	7. PROJECT NUMBER MXRD110044G	8. PROJECT COST (\$000) EEIC 529: 827		
9. COST ESTIMATES					
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)	
PRIMARY FACILITIES					
CITS Lab Renovation	SM	334	\$1,873.99	625.913	
SUBTOTAL				625.913	
Profit (10%)				62.591	
Overhead (10%)				62.591	
SUBTOTAL				751.095	
Contingency (10%)				75.110	
TOTAL CONSTRUCTION COST				826.205	
TOTAL REQUEST ROUNDED				826.205 827.000	
DESIGN (20%)				165.241	
10. DESCRIPTION OF PROPOSED WORK: Renovate 334 SM in B1107 to meet CITS Lab requirements. Renovation will include upgrades and modifications to the HVAC, power, and communications systems.					
11. REQUIREMENT:					
<p>PROJECT: Renovate space in B1107 for the Combat Information Transport System (CITS) to create lab space for PMO engineers with the tools to configure, test, and manage systems that are being acquired and implemented throughout the Air Force with RDT&E funds.</p> <p>REQUIREMENT: This project is required to support the move of a classified RDT&E mission. The R&D mission requires a secure lab facility to continue efforts to modernize and increase the security posture of the AF 'GIG'. This project will use 3600 Funds (RDT&E).</p> <p>CURRENT SITUATION: The CITS Test and Integration Facility (currently in building 1607) and the AFNET GDIT Lab (currently in Needham), will be relocating to Building 1107 as part of an ESC consolidation effort. B1107 is not currently equipped to handle the CITS lab requirements.</p> <p>The CITS area in B1607 is currently under limited use procedures which impacts mission readiness. A large portion of the computer equipment is not powered up because of insufficient space, limited accessible connectivity, inadequate HVAC and electrical power in the Lab area. The existing lab is not adequate for current mission needs or for future growth opportunities including the Needham group consolidation.</p>					
<p>I have reviewed this document and certify it is complete and accurate. I have validated the project's primary and supporting costs and work classification. It has been fully coordinated with the user and other appropriate agencies and approved by the Installation Commander.</p>					
 THOMAS J. SCHLUCKEBIER, P.E., CFM, LEED AP Base Civil Engineer				12/23/11 (date)	

1. COMPONENT AF (AFMC)	FY <u>2013</u> RDT&E MILITARY CONSTRUCTION PROJECT DATA		2. DATE (YYYYMMDD) 20111222	REPORT CONTROL SYMBOL DD-A&T(A)1610
3. INSTALLATION AND LOCATION HANSCOM AIR FORCE BASE, MASSACHUSETTS		4. PROJECT TITLE CITS LAB RENOVATION B1107		
5. PROGRAM ELEMENT 72976, EEIC 529	6. CATEGORY CODE 310925	7. PROJECT NUMBER MXRD110044G	8. PROJECT COST (\$000) EIC 529: 1,116	

11. REQUIREMENT:

IMPACT IF NOT PROVIDED:

If the renovation does not occur, the CITS lab will not be able to move into B1107 and the ESC will be unable to complete its consolidation plans. This will result in organizational inefficiencies.

The Lab deploys new capabilities to respond to customer requirements and sustains existing capabilities against new threats to the Air Force Network. The CITS group encompasses the Network Control Center (NCC) at ESC, the Network Operations Systems Center (NOSC) in the eastern United States and is the connectivity link into the Air Force Network (AFNET). The CITS is an integral part of the global Air Force Network. Without the CITS: Situational Awareness would be compromised; the Air Force would not get basic updates from the existing systems; there would be no COTS delivery and the AFNET could potentially be at risk for a Security breach.

Interruptions or downtime for any length of time would potentially put the AFNET at risk. The Lab needs to be available for engineers to do the research needed to address potential critical vulnerabilities and then immediately implement solutions to protect the GIG.


It will be critical that the proper building modifications are identified and implemented beforehand to ensure a seamless move to avoid disruption of Lab activities. The hardware systems and the software that resides on them require adequate cooling and backup generator power to ensure maximum uptime.

The goal is to avoid unacceptable delays to critical AFNET systems designed to modernize and increase the security posture of the AF GIG.

1391 Cost Estimate
MXRD 11-0044G

PRIMARY FACILITIES	Percent	
Line Item Total		625.913
Subtotal		625.913
Profit	10%	62.591
Overhead	10%	62.591
Subtotal		751.095
Contingency	10%	75.11
Total Construction Cost		826.205
TOTAL REQUEST		826.205
Design	20%	165.241

INPUT

1. COMPONENT AF (AFMC)		FY 2013 RDT&E MILITARY CONSTRUCTION PROJECT DATA		2. DATE (YYYYMMDD) 20111222	REPORT CONTROL SYMBOL DD-A&T(A)1610
3. INSTALLATION AND LOCATION HANSCOM AIR FORCE BASE, MASSACHUSETTS			4. PROJECT TITLE B1607 ELECTRICAL UPGRADE		
5. PROGRAM ELEMENT 72976F, EEIC 522	6. CATEGORY CODE 317311	7. PROJECT NUMBER MXRD110064	8. PROJECT COST (\$000) EEIC 522: 1,705		
9. COST ESTIMATES					
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)	
PRIMARY FACILITIES					
Electrical Upgrades	LS	1	\$1,291,666	1,291.666	
SUBTOTAL				1,291.666	
Profit (10%)				129.167	
Overhead (10%)				129.167	
SUBTOTAL				1,550.000	
Contingency (10%)				155.00	
TOTAL CONSTRUCTION COST				1,705.000	
TOTAL REQUEST				1,705.000	
DESIGN (15%)				255.750	
10. DESCRIPTION OF PROPOSED WORK: Perform an electrical upgrade to B1607. This upgrade will be based on the recommendations provided in the electrical load study conducted in MXRD09002. The upgrade includes a replacement of the electrical service which will include work on associated transformers, switchboards, emergency and standby generators as required by code, and the reorganization of existing HVAC, Life/ Safety, and lab loads.					
11. REQUIREMENT: PROJECT: B1607 Electrical Upgrade. REQUIREMENT: To have sufficient electrical power to support all mission activities in B1607. The CEIF Mission, operating in Building 1607, is designated by AFMC as a classified RDT&E activity. This project is required to use 3600 Funds (RDT&E). CURRENT SITUATION: The electrical system in B1607 cannot support the current load required by the mission activities occurring in the building. In addition, mission critical loads are not adequately supported by emergency and standby generators. All lab requirements and life and safety lighting operations are not currently supported. The labs are operating at limited use capacity. Only half of the computer equipment is able to be powered at the same time and there is not sufficient emergency power for life and safety systems. IMPACT IF NOT PROVIDED: The tenants of B1607 will continue to be unable to power all mission related equipment. This impacts the mission of these tenants as they will be unable to perform all of their required work. The generator cannot handle the current load and during outages, the RDT&E mission is compromised and Life and Safety backup systems are not available.					
I have reviewed this document and certify it is complete and accurate. I have validated the project's primary and supporting costs and work classification. It has been fully coordinated with the user and other appropriate agencies and approved by the Installation Commander.					
 THOMAS J. SCHLUCKEBIER, P.E., CFM, LEED AP Base Civil Engineer				12/23/11 (date)	

1391 Cost Estimate
MXRD 11-0064

PRIMARY FACILITIES	Percent	
Line Item Total		1291.666
Subtotal		1291.666
Profit	10%	129.167
Overhead	10%	129.167
Subtotal		1550
Contingency	10%	155
Total Construction Cost		1705
TOTAL REQUEST		1705
Design	15%	255.75

INPUT



DEPARTMENT OF THE AIR FORCE

HEADQUARTERS AIR FORCE MATERIEL COMMAND
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

MEMORANDUM FOR HQ AFMC ESC/XRC

FROM: HQ AFMC/A3

SUBJECT: Research, Development, Test and Evaluation (RDT&E) Determination of the Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Enterprise Integration Facility (CEIF 2.0)

1. HQ AFMC/A3 Certification Team has reviewed AFMC ESC/XRC request for RDT&E Determination for the CEIF 2.0.
2. The CEIF 2.0 meets the following criteria to support designation as RDT&E:
 - a. Subject activity does not process operational data, typically utilizes non-standard hardware/software, tools and applications.
 - b. Activity executes Development, Test, and Evaluation (DT&E) experimentation.
 - c. Activity receives 3600 funds specifically within the 6.x budget designation.
3. Thus, as DT&E Certification Authority, I have determined that CEIF 2.0 to be an RDT&E activity as follows:

Classification level: CLASSIFIED

Funding: Based upon our review the majority of the funding for CEIF is 3600 RDT&E funds under BA 6.

Mission Description: The CEIF is a Research, Development, Test, and Evaluation (RDT&E) Simulation and Integration lab.

Mission Assurance Category: 3

Interconnections: The CEIF 2.0 Enclave provides network backbone connections to secure external networks that include CFBL, DISN-LES, DREN, JTEN, SDREN, and JMETC. Connections are not persistent and will only be utilized during RDT&E events. Upon receipt of this memo, the Program Manager responsible for the subject activity is required to contact their appropriate Portfolio Manager to complete the EITDR registration process.

4. Upon registration approval, Program Manager responsible for the subject activity will be required to create the appropriate C&A version within the C&A Workflow module in order to complete the C&A process and obtain an accreditation decision.

War-winning capabilities ... on time, on cost

6. Since the subject activity is deemed to be a classified system please ensure that all EMSEC requirements are met and documented appropriately.

7. The local Information Assurance Manager (IAM) / Information Assurance Officer (IAO) will maintain a copy of this memo until the subject activity C&A package until no longer needed.

8. If you have any questions or concerns related to the above determination, please feel free to contact Mr. Steven Boettcher, HQ AFMC/A3F, DSN 787-5365, (937) 257-5365, or steve.boettcher@wpafb.af.mil for assistance.



DANIEL S. GODDARD
Technical Director
Directorate of Air, Space and
Information Operations

FY 2013 CONSTRUCTION PROJECT DATA COMPUTER GENERATED		2. DATE NOV 2011	
3. INSTALLATION AND LOCATION WRIGHT-PATTERSON AFB OH (AFMC)		4. PROJECT TITLE CONSTRUCT THERMAL STRUCTURES TEST FACILITY	
5. PROGRAM ELEMENT 65976	6. CATEGORY CODE 318-612	7. PROJECT NUMBER ZHT120022	8. PROJECT COST (\$000) EEIC 529: \$ 1,500

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITIES				
Construct Thermal Structures Test Facility	SF	780	1,666.67	1,300.0
SUBTOTAL				1,300.0
CONTINGENCY (10%)				130.0
SUBTOTAL				1,430.0
SUPERVISION, INSPECTION, AND OVERHEAD (5.6%)				80.1
TOTAL FUNDED COST				1,510.1
TOTAL FUNDED COST (ROUNDED)				1,500.0
UNFUNDED COST (A/E Fee)				

10. DESCRIPTION OF PROPOSED WORK: Remove existing test chamber in the high bay of 20065. Saw cut floor slab, excavate, and provide new foundation with sufficient reinforcing to accommodate high degrees of reaction (pulling effects). Construct a metal enclosure with structural support and reinforcing to accommodate over pressurization events. Provide HVAC systems with specialized dual air handlers with liquid nitrogen for set-point temperature control. Provide safety interlocks in the control system, spill containment, and other features to ensure operational safety. Provide connections to the facility utility systems.

11. PROJECT: Construct Thermal Structures Test Facility F/20065.

REQUIREMENT: Facilities to house research and development of structural systems for aerospace vehicles.

CURRENT SITUATION: It is proposed to test thermal protection systems, actively and passively cooled structures and non-structural components, and aerospace vehicle structural systems subject to high heat. This proposed testing will require extreme thermal environments, inert atmospheres, and mechanical load application in the presence of applied energy, all of which cannot be accommodated by the current test chamber. The existing test chamber is 25 years old and has limited capacity for proposed testing activities. The facility cannot accommodate anticipated heat and structural loads, does not have atmospheric temperature control, and is undersized for anticipated testing program. A complete tear-off of the chamber roof is required for the installation and removal of large test articles

IMPACT IF NOT PROVIDED: Flagship Capability Concepts (FCC) are high priority concept development programs generating innovative, technologically advanced "flagship" products. The Thermal Structures Test Facility will support the Responsive Reusable Boost for Space FCC (RBS FCC), the highest priority FCC for the Air Vehicles Directorate. This program will support the development of reusable aerospace vehicles for trans-atmospheric flight. Failure to provide the test chamber will adversely impact the development of thermal protection, thermal management, and lightweight hot structures technologies supporting the RRBS FCC, indefinitely delaying the development of advanced trans-atmospheric aerospace weapons systems. The United States technological advantage in aerospace weapons systems will be eventually lost.

ADDITIONAL: This project will be accomplished using Lab Revitalization and Demonstration Program (LRDP) authority for minor construction up to \$5,000,000, in accordance with 10 U.S.C. §2805(d).

1. COMPONENT AIR FORCE	FY 2013 MILITARY CONSTRUCTION PROJECT DATA COMPUTER GENERATED	2. DATE				
3. INSTALLATION AND LOCATION WRIGHT-PATTERSON AFB OH						
CONSTRUCT THERMAL STRUCTURES TEST FACILITY		5. PROJECT NUMBER ZHTV120022				
<p>I have reviewed this and certify it is complete and accurate. I have validated the project's primary and supporting costs and work classification. It has been fully coordinated with the user and other appropriate agencies and approved by the installation commander.</p> <table><tr><td>_____ DAVID A. PERKINS, P.E. Director Civil Engineer Directorate</td><td>_____ Date</td></tr><tr><td>_____ PAUL A. PARKER, SES Command Civil Engineer Communications, Installations, and Mission Support</td><td>_____ Date</td></tr></table>			_____ DAVID A. PERKINS, P.E. Director Civil Engineer Directorate	_____ Date	_____ PAUL A. PARKER, SES Command Civil Engineer Communications, Installations, and Mission Support	_____ Date
_____ DAVID A. PERKINS, P.E. Director Civil Engineer Directorate	_____ Date					
_____ PAUL A. PARKER, SES Command Civil Engineer Communications, Installations, and Mission Support	_____ Date					

1. COMPONENT
AIR FORCE

FY 2013 MILITARY CONSTRUCTION PROJECT DATA
COMPUTER GENERATED

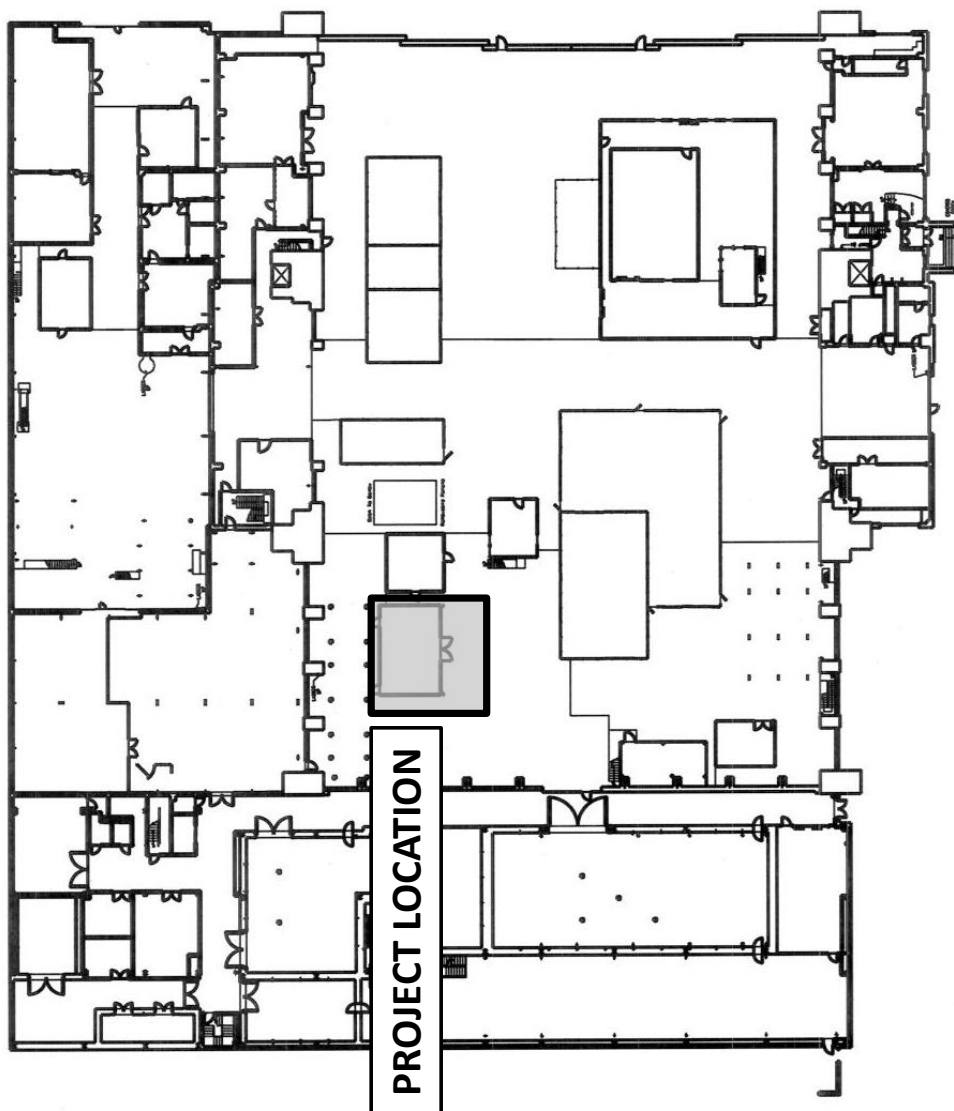
2. DATE

3. INSTALLATION AND LOCATION

WRIGHT-PATTERSON AFB OH

CONSTRUCT THERMAL STRUCTURES TEST FACILITY

5. PROJECT NUMBER
ZHTV120022



20065_1

1. COMPONENT
AIR FORCE

FY 2013 MILITARY CONSTRUCTION PROJECT DATA
COMPUTER GENERATED

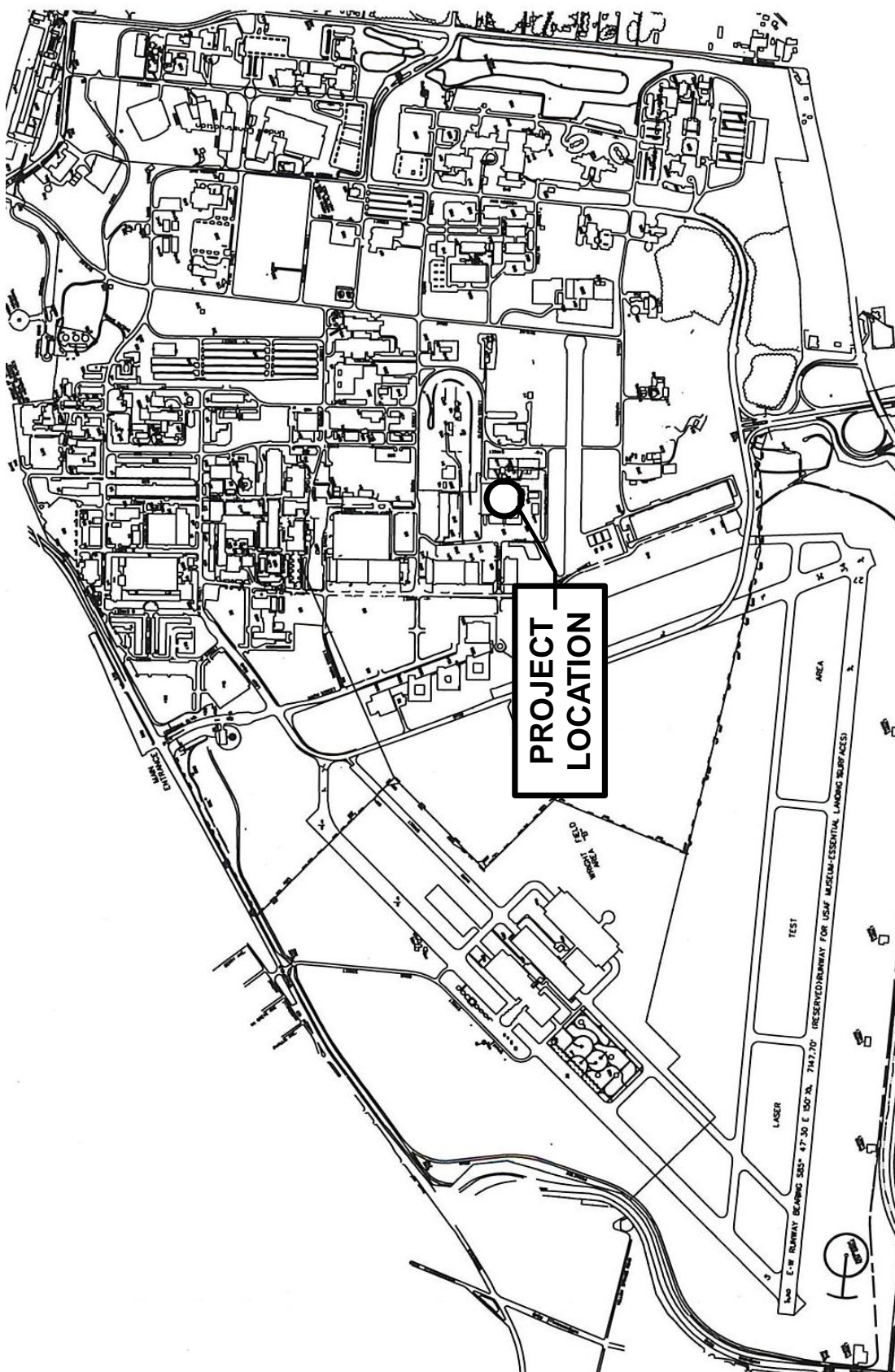
2. DATE

3. INSTALLATION AND LOCATION

WRIGHT-PATTERSON AFB OH

CONSTRUCT THERMAL STRUCTURES TEST FACILITY

5. PROJECT NUMBER
ZHTV120022



1. COMPONENT AF (AFMC)		FY 2013 CONSTRUCTION PROJECT DATA COMPUTER GENERATED		2. DATE DEC 2011	
3. INSTALLATION AND LOCATION WRIGHT-PATTERSON AFB OH (AFMC)			4. PROJECT TITLE INTEGRATED LASER THREAT WARNING & PROTECTION		
5. PROGRAM ELEMENT 65976		6. CATEGORY CODE 310-933		7. PROJECT NUMBER ZHT120024	
8. PROJECT COST (\$000) EEIC 529: \$ 2,500					

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITIES				
Integrated Laser Threat Warning & Protection Facility	LS			2,100.0
SUBTOTAL				2,100.0
CONTINGENCY (10%)				210.0
SUBTOTAL				2,310.0
SUPERVISION, INSPECTION, AND OVERHEAD (5.6%)				129.4
TOTAL FUNDED COST				2,439.4
TOTAL FUNDED COST (ROUNDED)				2,500.0

10. DESCRIPTION OF PROPOSED WORK Accomplish interior demolition, slab sawcutting, foundation excavation. Provide a structural system for a three-storey structure, including framing, seismic bracing, floor labs and stairwells. Provide interior partitions, doors, hardware, ceiling, and finishes. Provide latrine fixtures, fittings, and specialties. Provide facility HVAC system, including air handlers, chillers, ducts, and related piping and controls. Provide power and lighting. Provide plumbing. Provide fire detection, alarm, and suppression systems. All labor and materials to construt a three story Laser Threat Warning and Protection Lab in the high bay area of test cell 20071A.

11. PROJECT: Integrated Laser Threat Warning & Protection Lab F/20071A.

REQUIREMENT: Research and development of countermeasures to hostile advanced weapon systems.

CURRENT SITUATION: Research and development of directed energy weapons system technology includes research into laser threats and protection of weapon systems and the war fighter from those threats. Countermeasures research is a high priority to the Secretary of Defense and across the Air Force. Research supports supporting the Laser Warning top 10 need of the Air Mobility Command (AMC) and Air Combat Commands (ACC) draft Directed Energy Protection concept of operation. At present laser countermeasures are scattered into multiple labs operating under different directorates and located in different facilities, leading to duplicative efforts and hampering collaborative laser countermeasures research across differing technologies and directorates. Research includes investigation of technology performance in atmospheric and space environments. As an example research into countermeasures include the Tactical Optical Laser Simulator (TALOS) program, which requires a space environment to fully assess laser technology. This environment can be simulated in the F/20071A test sphere, but the TALOS lab is at some distance from this apparatus. The security level of some existing facilities isn't sufficient due to the sensitivity of countermeasures research in providing a technological advantage to the war fighter.

IMPACT IF NOT PROVIDED. Research will be hindered by fragmented and duplicated efforts, reducing the timeliness and efficiency of directed energy research. Countermeasures will not be deployed into weapons systems or deployment will be flawed due to inadequate research, putting the war fighter at risk. The US technological advantage in directed energy weaponry will be lost, ultimately posing a risk to national security.

A DDITONAL: This project will be accomplished using Lab Revitalization and Demonstration Program (LRDP) authority for minor construction up to \$5,000,000, in accordance with 10 U.S.C. §2805(d).

1. COMPONENT AIR FORCE	FY 2013 MILITARY CONSTRUCTION PROJECT DATA COMPUTER GENERATED	2. DATE
3. INSTALLATION AND LOCATION WRIGHT-PATTERSON AFB OH		
INTEGRATED LASER THREAT WARNING & PROTECTION LAB F/20071A		5. PROJECT NUMBER ZHTV120024
<p>I have reviewed this and certify it is complete and accurate. I have validated the project's primary and supporting costs and work classification. It has been fully coordinated with the user and other appropriate agencies and approved by the installation commander.</p>		
<p>_____ DAVID A. PERKINS, P.E. Director Civil Engineer Directorate</p>		<p>_____ Date</p>
<p>_____ PAUL A. PARKER, SES Command Civil Engineer Communications, Installations, and Mission Support</p>		<p>_____ Date</p>

1. COMPONENT
AIR FORCE

FY 2013 MILITARY CONSTRUCTION PROJECT DATA
COMPUTER GENERATED

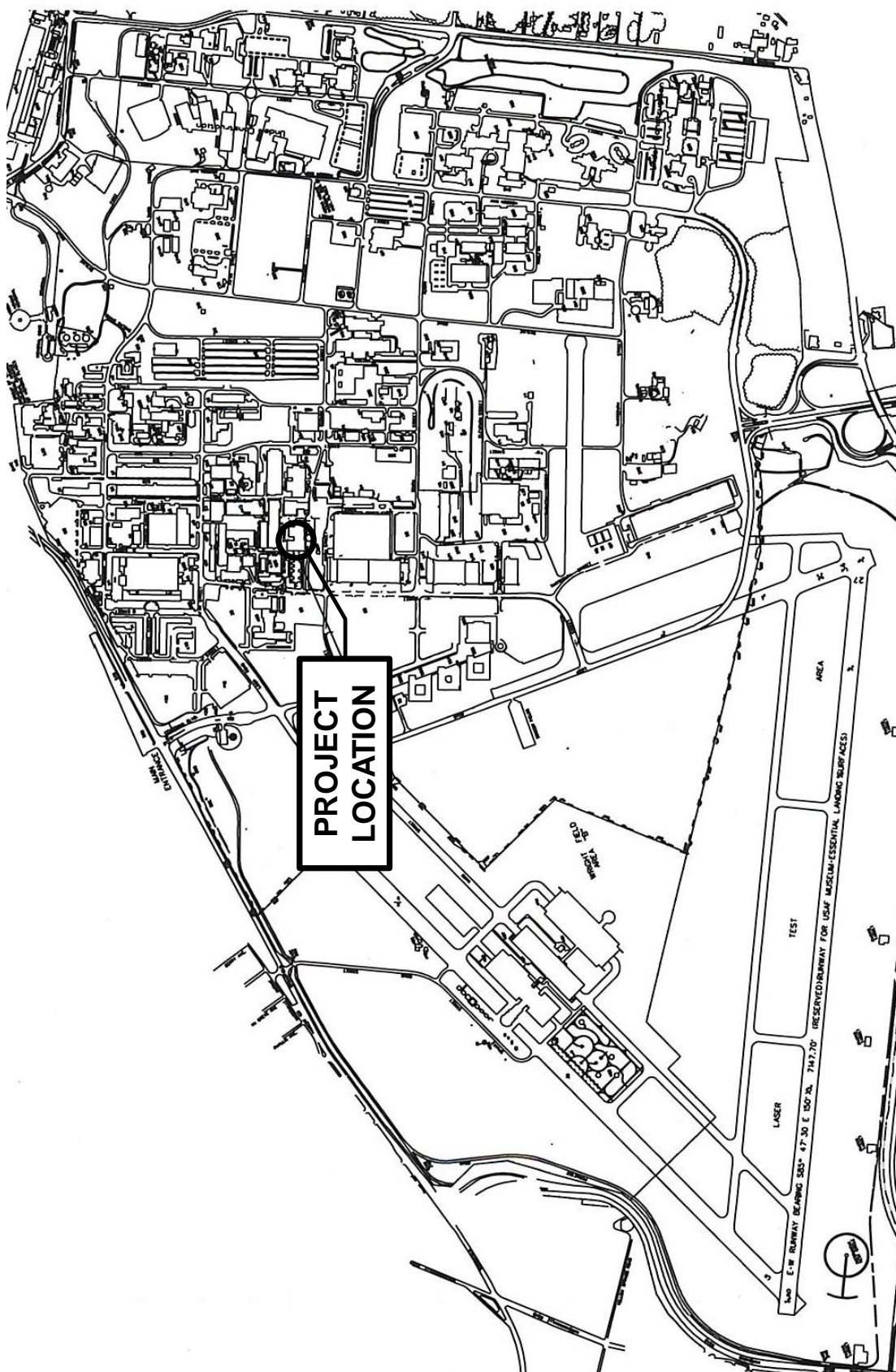
2. DATE

3. INSTALLATION AND LOCATION

WRIGHT-PATTERSON AFB OH

INTEGRATED LASER THREAT WARNING & PROTECTION LAB F/20071A

5. PROJECT NUMBER
ZHTV120024



1. COMPONENT
AIR FORCE

**FY 2013 MILITARY CONSTRUCTION PROJECT DATA
COMPUTER GENERATED**

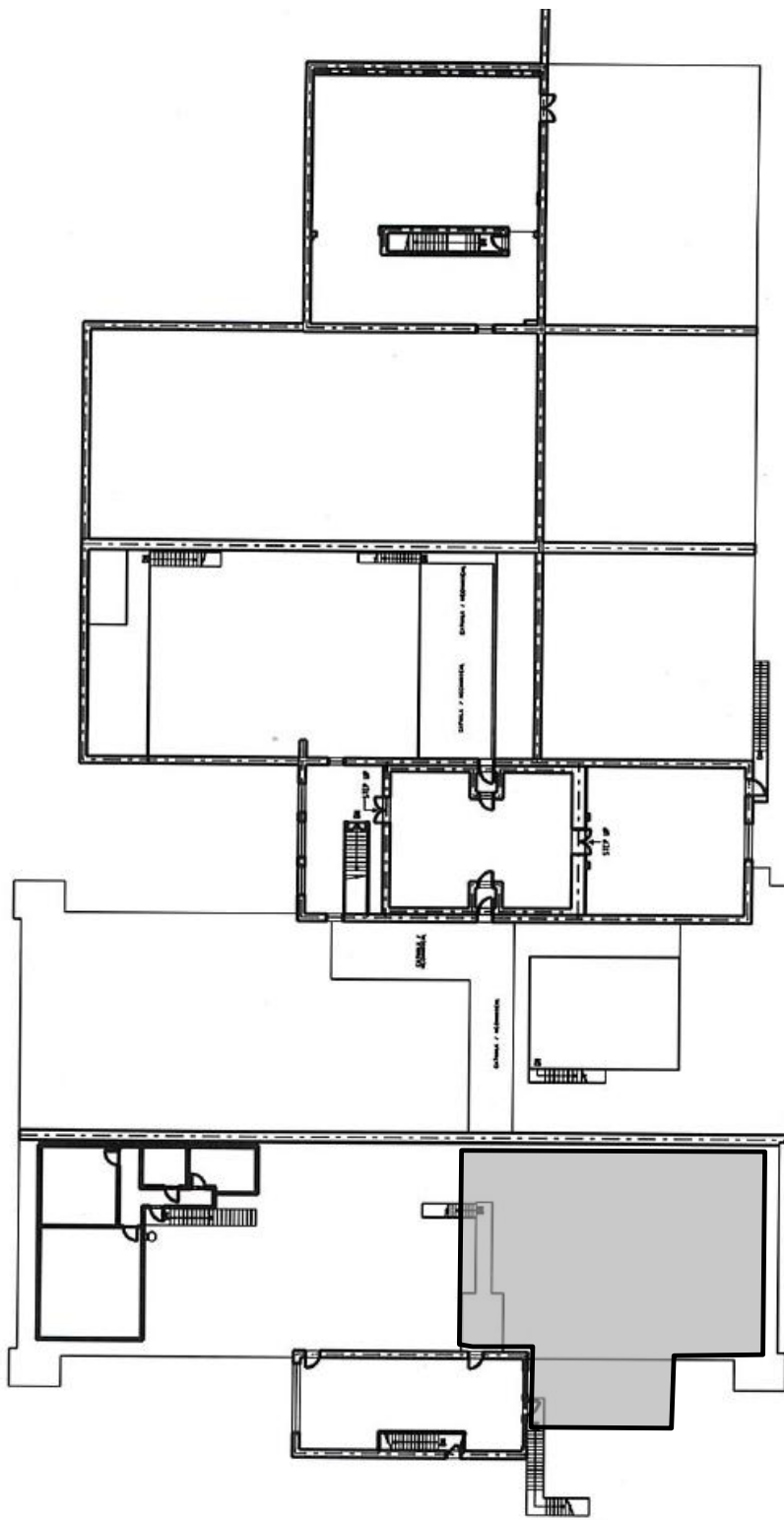
2. DATE

3. INSTALLATION AND LOCATION

WRIGHT-PATTERSON AFB OH

INTEGRATED LASER THREAT WARNING & PROTECTION LAB F/20071A

5. PROJECT NUMBER
ZHTV120024



20071A_2

PROJECT LOCATION