ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

DATE **February 2000**

BUDGET ACTIVITY
6 - Management and Support

PE NUMBER AND TITLE
0605301A Army Kwajalein Atoll

PROJECT
D614

COST *(In Thousands)*	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
D614 US Army Kwajalein Atoll	127470	139322	153326	144715	127949	135831	139560	Continuing	Continuing

A. <u>Mission Description and Justification:</u> The U.S. Army Kwajalein Atoll/Kwajalein Missile Range (USAKA/KMR) is a remote (located in the Republic of the Marshall Islands), secure activity of the Major Range and Test Facility Base as constituted by DoD Directive 3200.11. Its function is to support test and evaluation of major Army and DoD missile systems, Army Space surveillance and object identification, and National Aeronautics and Space Administration (NASA) scientific and space programs. Programs supported include Army missile defense, Ballistic Missile Defense Organization (BMDO) demonstration/validation tests, Air Force Intercontinental Ballistic Missile (ICBM) development and operational tests, U.S. Space Surveillance Network, and NASA Space Transportation System (Shuttle) and orbital debris experiments. USAKA/KMR supports the Missile Defense Act of 1991 to put in place a Ground Based Defense System by 2006 or earliest date possible. The technical element of USAKA/KMR is the Kwajalein Missile Range, which consists of a number of sophisticated, one-of-a-kind, radar, optical, telemetry, command/control/ communications, and data reduction systems. These systems include the four unique radars of the Kiernan Reentry Measurement Site (KREMS); super Recording Automatic Digital Optical Tracker (RADOT) long range video-metric tracking systems, high density data recorders for high data-rate telemetry, and underwater acoustic impact location system data analysis and reduction hardware and software. USAKA/KMR is contractor operated and is therefore totally dependent upon its associated support contractors. Program also provides funds for the contractors to accomplish installation operation and maintenance (O&M). The lean O&M funding for FY 1999 has resulted in the delay of critical repair and replacement of facilities and equipment. The FY99 reductions in this PE and the USAKA/KMR line in PE 0604759A have delayed completion of critical range modernization efforts by over one year, negating savings until FY03 and causing a serious backlog of infrastructure repair and maintenance, as well as contributed to multi- million dollar equipment repair/replacement backlog. Noted funding for FY's 00/01 is required to maintain minimal O&M support, while accepting moderate risk of continued degradation of USAKA/KMR infrastructure (housing, offices, facilities), higher future repair costs, and reduced logistical support capability, as well as continuation of the KMR Modernization and Remoting (KMAR) Program. The KMAR program is a concurrent, range-wide modernization effort to maximize the use of common, standardized Commercial Off-The-Shelf (COTS) technology to replace obsolete components; implement common hardware/software architectures and automation; and "remote" the operation of range sensors and instrumentation to the island of Kwajalein. This effort will upgrade range capabilities that are critical to the success of upcoming Theater Missile Defense (TMD) and National Missile Defense (NMD) test missions as well as reduce USAKA/KMR annual operating costs by $17.7M per year beginning in FY03 as reflected in FY03-05 funding levels above. The Army, Air Force, Navy and BMDO have programs planned, which have significant test and data gathering requirements at USAKA/KMR. Air Force programs require firing at full range with complete data collection during late mid course and terminal trajectory. BMDO programs require range sensors to collect technical data in support of National Missile and Theater Missile Defense programs being conducted at USAKA/KMR. These test data cannot be obtained except through the use of technical facilities available on and in the vicinity of USAKA/KMR. Data collection on objects in space remains significant because the Advanced Research Project Agency (ARPA) Long-Range Tracking and Instrumentation Radar (ALTAIR), located at USAKA/KMR, is one of only three sensors world-wide that has deep-space tracking capability. Programs supported include Air Force programs Peacekeeper, Minuteman III, and Delta; Army/BMDO's NMD (GBI, GBR, BMC3, IFICS), TMD (THAAD, PAC-3, System Integration of Tests, Family of Systems) Theater Missile Defense Critical Measurements Program, Theater High Altitude Air Defense (THAAD), Patriot, and ground-based radar; NASA's

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Space Transportation System (STS), Orbital Debris Measurement Program, Small Expendable Deployer System and Orbital Debris Radar Calibration Spheres, along with the Air Force Space and Missile Center's associated programs.

FY 1999 Accomplishments:

- 7899 Provided management support (salaries, training, travel, SMDC matrix, etc.).
- 606 Accomplished maintenance and repair projects, including design.
- 13011 Procured POL and MILSTRIP.
- 4678 Procured other mission operating supplies, equipment, and services.
- 5841 Provided air and sea transportation (cargo to and from continental United States).
- 35693 Continued to support Army, BMDO, NASA, and Air Force developmental and operational missile testing. Continued support to KMAR program).
- 59084 Provided logistical support to self contained islands of USAKA.
- 658 Year 2000 Compliance.

Total 127470

FY 2000 Planned Program:

- 8474 Provide management support (salaries, training, travel, SMDC matrix, etc).
- 5750 Accomplish maintenance and repair projects, including design.
- 12076 Procure POL and MILSTRIP.
- 3117 Procure other mission operating supplies, equipment, and services.
- 6657 Provide air and sea transportation (cargo to and from continental United States).
- 35012 Continue to support Army, BMDO, NASA and Air Force development and operational missile testing. Continue support to KMR Modernization and Remoting (KMAR).
- 64616 Provide logistical support to self contained islands of USAKA.
- 3620 Small Business Innovative Research/Small Business Technology Transfer (SBIR/STTR) Program.

Total 139322

FY 2001 Planned Program:

- 8515 Provide management support (salaries, training, travel, SMDC matrix, etc.).
- 10500 Accomplish maintenance and repair projects, including design.
- 16614 Procure POL and MILSTRIP.
- 5070 Procure other mission operating supplies, equipment, and services.
- 6740 Provide air and sea transportation (cargo to and from continental United States).

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- 38705 Continue to support Army, BMDO, NASA and USAF development and operational missile testing. Continue support to KMR Modernization and Remoting (KMAR).

FY 2001 Planned Program: (continued)

- 67182 Provide logistical support to self contained islands of USAKA.

Total 153326

B. Program Change Summary	FY 1999	FY 2000	FY 2001
Previous President's Budget (FY 2000/2001 PB)	133027	140344	140958
Appropriated Value	134710	140344	
Adjustments to Appropriated Value			
a. Congressional General Reductions	-1683		
b. SBIR / STTR	-5134		
c. Omnibus or Other Above Threshold Reduction		-554	
d. Below Threshold Reprogramming	+601		
e. Rescissions	-1024	-468	
Adjustments to Budget Years Since FY 2000/2001 PB			+12368
Current Budget Submit (FY 2001 PB)	127470	139322	153326

Change Summary Explanation: Funding – FY 2001: Restores 12368 to continue O&M of USAKA until KMR Modernization and Remoting project is complete.