

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

February 2002

BUDGET ACTIVITY 6 - Management support	PE NUMBER AND TITLE 0605702A - Meteorological Support to RDT&E Activities						PROJECT 128			
COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost	
128 MET SPT TO DTC ACTIVITY	6719	6833	7310	10069	10277	9565	9858	Continuing	Continuing	

A. Mission Description and Budget Item Justification: All functions and resources in this Program Element (PE) are managed by the U.S. Army Developmental Test Command, a subordinate command of the U.S. Army Test and Evaluation Command (ATEC). Meteorological Support to Research, Development, Testing and Evaluation (RDT&E) Activities provides standard and specialized weather forecasts and data for test reports to satisfy Army/DoD RDT&E test requirements for modern weaponry, i.e., (1) unique atmospheric analysis and sampling to include atmospheric transmittance, extinction, optical scintillation, infrared temperature, aerosol/smoke cloud dispersion characteristics, ballistic meteorological measurements, snow characterization and crystal structure; (2) test event forecasting to include prediction of sound propagation for ballistic firing tests, specialized prediction of light levels and target to background measurements and predictions for electro-optical testing and ballistic meteorology; (3) advisory and warning products such as go-no-go recommendations for ballistic and atmospheric probe missiles, smoke obscurant tests, hazard predictions for chemical agent munitions disposal, simulated nuclear blasts, and weather warnings for test range safety. Provides technical support to Army Program Executive Officers (PEOs), Project Managers (PMs) and the Army test ranges and sites at: White Sands Missile Range (WSMR), NM (including the Electronic Proving Ground (EPG), Fort Huachuca, AZ); Dugway Proving Ground (DPG), UT; Aberdeen Test Center (ATC), Aberdeen Proving Ground, MD; Redstone Technical Test Center (RTTC), Redstone Arsenal, AL; Yuma Proving Ground (YPG), AZ (including the Cold Regions Test Center (CRTC), Fort Greely, AK and the Tropical Regions Test Center, HI); Fort Belvoir, VA and Fort A.P. Hill, VA. Develops methodologies and acquires instrumentation and systems that allow meteorological teams to support current and future Army/DoD RDTE requirements. This PE finances indirect meteorological support operating costs not billable to customers and replacement/upgrade of meteorological instrumentation. Direct costs for meteorological support services are not funded by this PE, but are borne by the customer (i.e. materiel/weapons developers and project/product managers) in accordance with DoD Directive 7000.14R, October 1999. This program is integral to the accomplishment of the Army's developmental test and evaluation mission and its support of the Army Transformation Campaign Plan (TCP).

FY 2001 Accomplishments:

- 1546 Provided indirect costs for generating weather forecasts, severe weather warnings/advisories, staff meteorological services, and atmospheric measurements in support of Army/DoD tests and projects at nine Army sites/test ranges and alternative test sites as required.

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FY 2001 Accomplishments: (Continued)

- 4139 Modernized operational equipment to meet customer requirements for meteorological support. Sustained the Mobile Operational Meteorological System (MOMSS) and atmospheric profilers. Completed integration of meteorological instrumentation into the Major Range and Test Facility Base (MRTFB) Four Dimensional Weather System (4DWX) at DPG. Developed and installed the fifth generation mesoscale meteorological code (MM5) as the basic component of the real time four dimensional data assimilation package at DPG and YPG. Completed the MRTFB 4DWX installation at YPG and provided system sustainment. Installed the National Oceanic and Atmospheric Administration (NOAA) Port/4DWX "Light" (reduced capability) at CRTC. Evaluated the solid state Sonic Detection and Ranging System as replacement for meteorological towers.
 - 1034 Provided program management for meteorological support to the research, development, test and evaluation community and technical review/assistance to ranges and meteorological teams. Provided weather forecast support systems/data - improved/modified/increased data sets for environmental modules to virtual testing.
- Total 6719

FY 2002 Planned Program

- 1449 Provide indirect costs for generating weather forecasts, severe weather warnings/advisories, staff meteorological services, and atmospheric measurements in support of Army/DoD tests and projects at nine Army sites/test ranges and alternative test sites, as required.
 - 4309 Modernize operational equipment to meet customer requirements for meteorological support. Evaluate the Coherent Laser Light Detection and Ranging (LIDAR) at WSMR. Develop and install, using MM5 as the basic component, a real time four dimensional data assimilation package at WSMR and ATC. Upgrade and sustain the MOMSS and atmospheric sounders/profilers to increase automation, fidelity and reliability. Begin integration of meteorological instrumentation into the MRTFB 4DWX at WSMR and YPG. Install the NOAA Port/4DWX "Light" at EPG. Begin development of the Globally Relocatable 4DWX at DPG.
 - 1075 Provide program management for meteorological support to the research, development, test and evaluation community and technical review/assistance to ranges and meteorological teams. Provide weather forecast support systems/data - improve/modify/increase data sets for environmental modules to virtual testing.
- Total 6833

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FY 2003 Planned Program

- 1507 Provide indirect costs for generating weather forecasts, severe weather warnings/advisories, staff meteorological services, and atmospheric measurements in support of Army/DoD tests and projects at nine Army sites/test ranges and alternative test sites as required.
 - 4685 Modernize operational equipment to meet customer requirements for meteorological support. Lease/purchase the LIDAR at WSMR. Develop and install, using MM5 as the basic component, a real time four dimensional data assimilation package at RTTC. Upgrade and sustain the MOMSS and atmospheric sounders/profilers to increase automation, fidelity and reliability. Begin integration of the meteorological instrumentation into the MRTFB 4DWX at RTTC. Continue/complete development of the Globally Relocatable 4DWX at DPG.
 - 1118 Provide program management for meteorological support to the research, development, test and evaluation community and technical review/assistance to ranges and meteorological teams. Provide weather forecast support systems/data - improve/modify/increase data sets for environmental modules to virtual testing.
- Total 7310

<u>B. Program Change Summary</u>	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2002 PB)	6864	6890	7041
Appropriated Value	6927	6890	0
Adjustments to Appropriated Value	0	0	0
a. Congressional General Reductions	0	-57	0
b. SBIR / STTR	-156	0	0
c. Omnibus or Other Above Threshold Reduction	0	0	0
d. Below Threshold Reprogramming	11	0	0
e. Rescissions	-63	0	0
Adjustments to Budget Years Since FY2002 PB	0	0	269
Current Budget Submit (FY 2003 PB)	6719	6833	7310