

EXHIBIT R-2a, RDTE&E Project Justification

APPROPRIATION/BUDGET ACTIVITY	PROJECT NUMBER AND NAME	DATE:
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7	Technology Applications J2228	January 2006

B. (U) Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Reentry Systems Application Program (RSAP)			
RDTE&E Articles Quantity	25.9	26.6	27.0

- (U) FY 2005 PLAN
 - (U) (\$25.9) Continue Reentry System Applications Program. Fully obligated.
 - FY 2005 efforts include:
 - (U) Maintain the current capability and support the planned service life extension of Navy reentry systems.
 - (U) Continue development and ground testing of reentry vehicle candidate heatshield and nosetip materials including those available from Science & Technology (S&T).
 - (U) Characterize and develop alternate low-cost heatshield and replacement nosetip material.
 - (U) Conduct a ground and flight test program to assess performance of reentry components exposed to operational environments beyond their design life; complete evaluation of ground test results; flight test repackaged components for risk mitigation.
 - (U) Initiate fabrication of RB inertial sensor flight test instrumentation for FY 2006 flight test.
 - (U) Maintain RSAP technical program plan, conduct system assessments and continue Vulnerability & Hardening certification process development in absence of Nuclear Under Ground Testing (UGT) facilities.
 - (U) Continue Reentry Body material development and advanced flight test instrumentation activities.
 - (U) Begin development of radiation hardened processor for advanced GPS receiver.
 - (U) Initiate feasibility study of the use of Terminal Fix Sensors (TFS) for target area trajectory correction.
 - (U) Ground test advanced reentry material systems.
 - (U) Develop advanced avionics computer for new engineering instrumentation package.
- (U) FY 2006 PLAN
 - (U) (\$26.6) Continue Reentry System Applications Program. Full obligation is projected by the 3rd quarter of the first year.
 - FY 2006 efforts include:
 - (U) Maintain the current capability and support the planned service life extension of Navy reentry systems.
 - (U) Continue development and ground testing of reentry vehicle candidate heatshield and nosetip materials including those available from Science & Technology (S&T).
 - (U) Flight test alternate low-cost heatshield and replacement nosetip material.
 - (U) Flight test operationally aged heatshields to support aging trends and replacement materials assessments
 - (U) Complete development and flight test advanced reentry instrumentation such as inertial sensor and avionics computer, encapsulated on the updated engineering instrumentation package
 - (U) Maintain RSAP technical program plan, conduct system assessments and continue Vulnerability & Hardening certification process development in absence of Nuclear Under Ground Testing (UGT) facilities.
 - (U) Continue Reentry Body material development and advanced flight test instrumentation activities
 - (U) Continue development of advanced GPS receiver
 - (U) Ground test advanced reentry material systems and advanced instrumentation components
 - (U) Develop test instrumentation to demonstrate D5LE missile reentry body interface compatibility

EXHIBIT R-2a, RDT&E Project Justification		DATE:	January 2006
APPROPRIATION/BUDGET ACTIVITY		PROJECT NUMBER AND NAME	
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7		Technology Applications J2228	

B. (U) Accomplishments/Planned Program (Continued)

- (U) FY 2007 PLAN
- (U) (\$27.0) Continue Reentry System Applications Program. Full obligation is projected by the 3rd quarter of the first year. FY 2007 efforts include:
 - (U) Maintain the current capability and support the planned service life extension of Navy reentry systems.
 - (U) Continue development of reentry vehicle replacement heatshield and nosetip materials and tooling
 - (U) Conduct aging assessment update for reentry vehicle materials and their replacements
 - (U) Develop low cost replacement materials using new/improved materials and processes for flight test experimentation.
 - (U) Develop appropriate flight test plan and initiate activities to test improved in-flight instrumentation data transfer
 - (U) Flight test and evaluate the Mk4A advanced engineering instrumentation package
 - (U) Maintain RSAP technical program plan, conduct system assessments and continue Vulnerability & Hardening certification process development in absence of Nuclear Under Ground Testing (UGT) facilities.
 - (U) Continue Reentry Body material development and advanced flight test instrumentation activities
 - (U) Continue development of test instrumentation to demonstrate D5LE missile reentry body interface compatibility
 - (U) Final development of advanced GPS receiver and integrate for flight test demonstration
 - (U) Continue ground testing of advanced instrumentation components