

UNCLASSIFIED

FY 2001 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 2000

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605155N
PROGRAM ELEMENT TITLE: Fleet Tactical Development and
and Evaluation

(U) COST: (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1999 ACTUAL	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
0151 Intertype Tactical Development and Evaluation	2,689	3,086	2,886	2,940	2,798	2,663	2,933	CONT.	CONT.

1. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element supports all naval warfare task areas and provides technical and analytical support to the fleet operating forces to develop and evaluate tactics for newly evolving force structures, new and existing weapon system employment, and changing threat scenarios to improve and measure force readiness.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

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PROGRAM ELEMENT TITLE: Fleet Tactical Development and PROJECT TITLE: Intertype Tactical
and Evaluation Development and Evaluation

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1999 ACCOMPLISHMENTS:

- (U) (\$422) Torpedo selection/employment. Funded and developed Sango (small diesel) model. Developed Tactical Memorandum (TACMEMO) for employment of Mk46/48/50 torpedoes against Sango in high priority, littoral areas using high fidelity, range dependent model in the Navy Underwater Warfare Center Weapons Acoustic Facility.
- (U) (\$ 68) HARPOON (air platform) tactics against small combatants in the littoral. Developed Harpoon engagement tactics against small missile boats in a littoral environment. Evaluated results of harpoon seeker's ability to discriminate a small fast target in a dense shipping environment.
- (U) (\$ 9) Cancelled Aegis employment tactics in Theater Missile Defense (TMD). Program cancelled due to lack of practicable expertise in this area. Project is expected to be reviewed in FY-01.
- (U) (\$ 97) Sea Combat Commander Procedures. Developed a standard employment concept, currently referred to as the Sea Combat Commander (SCC), as a subordinate warfare commander option under the Composite Warfare Commander. Based on development work on the "integrated Battle Organization" by Naval Doctrine Command (NAVDOCCOM), the September 1995 Navywide OPGEN instituted SCC as an optional Composite Warfare Command (CWC) element which principally combines the functions of the Surface Warfare Center (SUWC) and the Anti-Submarine Warfare Commander (ASW).
- (U) (\$150) Tactical Aircraft (TACAIR) tactics against maritime threats. Determined effectiveness of current SUW tactics/weapons against small boat threat in littoral. Developed Tactics Techniques and Procedures to counter small boat threat in the littoral environment.
- (U) (\$ 95) Procedures for identification of surface contacts. Developed a TACMEMO that identifies specific platforms, equipment, and tactics available to assist the task group commander and surface warfare commander (SUWC) in planning and executing nighttime classification and identification of surface contacts. The SUW

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watchstander in the fleet will have a document that will give guidance on selecting assets to perform a search, recommendations on search planning methodology and guidance on assessing input information to arrive at a contact identification at night.

- (U) (\$135) Strike tactics against camouflage, concealment and deception land targets. Developed Tactics Techniques and Procedures for countering the application of Camouflage, Concealment, Deception (CCD) techniques to strike aircraft target identification procedures.
- (U) (\$128) USQ-113 communication electronic attack procedures. Developed a TACMEMO for employment of EA-6B USQ-113 for communications/datalink jamming. Developed a test plan to evaluate new employment techniques for both ALQ-99 and USQ-113 jamming pods.
- (U) (\$208) Network Centric Anti-Surface Warfare (ASJW) Tactics. Developed guidance for the use of the emergent Command, Control, Communication and Computer Intelligence (C⁴I) infrastructure in the context of coordinated versus independent anti-surface warfare. Developed recommended tactical use of current and emergent CI networks.
- (U) (\$150) Continued development of HELLFIRE missile tactics. This project will provide the fleet with tactics to exploit the vulnerability of surface craft to the HELLFIRE missile and the most effective placement of ordnance. In addition, provide procedures for use of Forward Looking Infrared Radar (FLIR) in both over land and over water missions.
- (U) (\$ 75) Acoustic jamming procedures. Investigated and developed operating guidelines for using active sonar from multiple platforms to confuse enemy submarines in the littoral environment. This project will provide the fleet with tactics to prevent hostile submarines from obtaining a firing solution without using its periscope.
- (U) (\$124) Using the HARPOON (surface platform) in the littoral tactics. This project will give Battle Group Commanders an added capability and asset to defend the Battle Group against the attack of small combatants in littoral regions. The TACMEMO and TACAID will give crews the tools to be more effective in the surface surveillance mission.

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- (U) (\$257) Battle Group (BG) tactics to counter influence mine threats. Developed a single tactical reference manual for use in countering multiple types of influence mines at differing speeds and deployment patterns. Assessed the BG signature vulnerabilities for the different patterns and speeds.
- (U) (\$104) Mine Countermeasures (MCM) tactics for AQS-14. Developed tactics for employment of the AQS-14 system in the clearing of a moored minefield. Developed a set of performance data for employment.
- (U) (\$140) Developed BG ASW Tactics. A comprehensive tactically based system for locating and targeting diesel submarines in winter littoral conditions.
- (U) (\$199) Tactics to minimize mast exposure vulnerability to new technologies. Developed a Tactical decision aid to assess the threat of detection of submarine masts with newer radars/FLIR systems available for use in the littoral environment.
- (U) (\$ 65) FLIR tactics to provide periscope or snorkel detection. Developed TACMEMO to exploit capabilities of AAS-44 (FLIR) in detecting periscopes/snorkel of a diesel submarine threat in the littoral environment.
- (U) (\$110) AEGIS cruiser Area Air Defense Commander cell. Developed Tactics Techniques and Procedures for Navy ships outfitted with the AEGIS Area Defense Commander (AADC) cell equipment, to support the embarkation of the AADC commander. Defined the relationships and responsibilities expect of this ship when supporting the AADC within a JTF environment.
- (U) (\$153) Initiate development of MCM-1 sweeping tactics.

2. (U) FY 2000 PLAN:

- (U) (\$200) Develop a method of in-current minesweeping. Develop tactics for safe current sweeping techniques for the MCM-1 class ship against specific magnetic influence mine threats.

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- (U) (\$145) Development of a methodology to defend computer networks against intrusion. Develop a formal set of guidelines for protecting Naval computer networks against new and sophisticated intrusion techniques. Consolidate and analyze the existing doctrine and identify areas for more robust security measures
- (U) (\$95) Develop a tactical decision aid using the interactive multi-dimensional acoustic trainer. Develop Tactics Techniques and Procedures for the employment of Interactive Multi-dimensional Acoustic Trainer (IMAT) as a Tactical Decision Aid (TDA) for defensive and offensive submarine tactics.
- (U) (\$100) Develop a method of employing an AN/SQQ-89 as a tactical training aid. Develop guidance and a tactical decision aid for the tactical employment of the SQQ-89 in littoral waters. Determine the optimum setup of the equipment for the predicated environmental conditions.
- (U) (\$200) Develop tactics for MCM in support of Explosive Ordnance Disposal (EOD) craft. Develop a system for determining the vulnerability of EOD type 3 craft against specific foreign influence mines which have recently been exploited and modeled.
- (U) (\$275) Develop a method of coordinating National and tactical reconnaissance planning. Develop a method for integrating tactical reconnaissance and national reconnaissance information. Provide a planning aid that identifies the strengths and weakness of each system type and provide recommended usage of tactical assets to support Carrier Battle Group/Amphibious Ready Group/Marine Expeditionary Unit (CVBG/ARG/MEU) operations.
- (U) (\$240) Develop a methodology for Underwater Autonomous Vehicle (UAV) usage in support of Strike and Special warfare operations. Develop Tactics, Techniques and Procedures for employing Medium Altitude Endurance Unmanned Aerial Vehicles (MAE UAV) and Tactical UAV to enhance Reconnaissance/Surveillance/Target acquisition (RSTA) battle management and Electronic Combat functions in support of strike warfare and Special Operations Forces. Loss of ES-3 has elevated the requirement for investment in an airborne, tactical electronic surveillance (ES) capability.
- (U) (\$108) Evaluate small craft tactics in the littoral waters. Develop Tactics Techniques and Procedures using multiple weapons systems in dealing with high-speed small boat threat attacks.

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- (U) (\$ 60) Develop a method of employing tactical oceanographic information. Consolidate cross community guidance and procedures into a single relevant tactical publication that provides a single point reference source in dealing with the littoral environment.
- (U) (\$147) Develop a method of joint employment of the ALQ-99 emissions. Develop Joint Tactics Techniques and Procedures for employment of EA-6B force simulation emissions from AN/ALQ-99 pods to be used as force multipliers and viable C²W/C⁴I deception threats.
- (U) (\$145) Evaluate combined Maritime Patrol Aircraft, ARG/CVG tactics. Will develop a series of tactics for using the modified Maritime Patrol Aircraft (MPA) in support of ARG/MEU Special Operations Command (SOC) operations. Build off of recent lessons learned in support of BDA, MIO, and gunfire missions.
- (U) (\$100) Update/modify/develop Battle Group ASW tactics. Develop and test tactics to optimize CVBG effectiveness in countering specific rest of world diesel submarine attacks in tactically relevant littoral environments.
- (U) (\$102) Coordination of VQ/VPU tactics with a CVBG. Develop coordinated tactics for use of special mission MPA aircraft in support of the CVBG. Due to the retirement of the ES-3, the special mission MPA is being used to support the CVBG. Current tactics do not address this integration.
- (U) (\$285) Develop tactics for electronic attack protection of MCM and MEU forces. Identify and rank current shipboard and airborne systems that support electronic attack in the littoral environment. Develop a methodology in which these systems can support MCM and MEU forces in an escalating hostile littoral environment.
- (U) (\$106) Develop employment tactics for use of the E-2C EMDU. Develop Tactics Techniques and Procedures for employment of the E-2C Mission Computer Upgrade/Advanced Control Indicator Set (MCU/ACIS). Determine system detection and tracking overland performance and mission endurance.
- (U) (\$120) Develop tactics for countering non-acoustic ASW threats. Develop and test new Undersea Warfare methods of countering the growing number of non-acoustic threat sensors in the littoral environment. Evaluate the limitations of current tactics against such threats in the littoral environment.

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- (U) (\$125) Develop S-3 depth bomb tactics. Develop Tactics Techniques and Procedures for employment of MK-80 series weapons against shallow water diesel submarine. Project requires research and analysis of existing data on depth bomb performance.
- (U) (\$ 75) Develop employment tactics for using the Joint Direct Attack Munition from Naval aircraft. Develop carrier air wing strike and target area tactics for interdiction strikes using the increased capabilities of Joint Direct Attack Munition (JDAM) weapons. JDAM IOC is Sep 99.
- (U) (\$150) Update/modify/develop tactics for combat search and rescue. Develop improved Tactics Techniques and Procedures to support CSAR missions that account for modern aircraft capability against modern threats such as mobile SAMS, Man Portable Air Defense System (MANPADS), etc.
- (U) (\$206) Develop torpedo selection/employment for 5th Fleet AOR. Similar to project 99-01; develops Tactics Techniques and Procedures for employment of MK-46/48/50 torpedoes against Sango sub using high fidelity, range dependent model for another high interest area of the world. Only light-weight torpedoes currently funded.
- (U) (\$ 45) Tactical Development and Evaluation.
- (U) (\$ 57) Program Support.

3. (U) FY 2001 PLAN:

- (U) (\$100) Develop coordinated Air/Mine Inshore Undersea Warfare (MIUW) tactics.
- (U) (\$250) Continue development of MCM Tactics.
- (U) (\$ 58) Develop Undersea Warfare (USW) C⁴I tactical capabilities.
- (U) (\$150) Continue development of TACAIR Tactics against Maritime Threats.
- (U) (\$106) Refine communication electronic attack tactics.
- (U) (\$150) Continue refinement of strike tactics against land targets.

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- (U) (\$180) Continue development/evaluation of network centric ASW tactics.
- (U) (\$150) Continue development of surface weapon tactics.
- (U) (\$ 78) Continue development of P-3C synthetic aperature radar tactics.
- (U) (\$265) Continue development of BG tactics against mine threats.
- (U) (\$145) Continue development of MCM sweeping tactics.
- (U) (\$130) Develop coordinated USW tactics with Extended Echo Ranging.
- (U) (\$100) Continue development of tactics for countering non-acoustic ASW threats.
- (U) (\$135) Develop improved electronic warfare tactics in littoral.
- (U) (\$180) Develop improved BG Combat Identification in littoral.
- (U) (\$140) Develop tactics to counter non-military threats and evacuation forces.
- (U) (\$134) Evaluate/improve Aegis employment in T
- (U) (\$135) Continue development of multi-platform MAD search/localization tactics.
- (U) (\$185) Continue development of USW C[#]I tactical capabilities.
- (U) (\$115) Evaluate coordinated Air/MIUW tactics.

3. (U) PROGRAM CHANGE SUMMARY:

(U) FY 2000 President's Budget:	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY2001</u>
(U) Appropriated Value:	2,739	3,103	2,883
(U) Adjustments from PRESBUDG:		3,103	

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(U) SBIR/STTR Transfer	-37		
(U) Various Rate Adjustments			3
(U) Inflation Adjustments	-12		
(U) Execution Adjustments	-1		
(U) Congressional Rescissions		-17	
(U) FY 2001 PRESBUDG SUBMISSION	2,689	3,086	2,886

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

1. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

2. (U) SCHEDULE PROFILE: Not applicable.

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