

ALTERATIONS

Alterations to non-flying tactical hardware are continuing requirements for the Strategic Weapons System (SWS). Requirements primarily relate to shipboard investments in Commercial-off-the-Shelf/Non-Pr Developmental Items (COTS/NDI) SWS subsystem equipment, including periodic refresh cycles, to ensure continued reliable performance of the weapon system for its extended service life to match the OHIO Class life extension. Alterations (SPALTs) also entail the application of available technology to eliminate personnel safety hazards, correct design deficiencies, maintain system effectiveness by resolving equipment operability problems, achieve logistic economies, and provide for shipboard subsystem D5 life extension modernization efforts. Amounts included in this P-1 line for alterations are subdivided as follows:

	FY 2010	FY 2011	FY 2012
\$000			
Launcher and Handling Equipment	10,117	6,521	7,830
Fire Control Equipment	34,020	55,441	46,443
Navigation Equipment	56,658	61,874	79,041
Instrumentation/Missile Checkout Equipment	5,274	715	727
<b>Total</b>	<b>\$106,069</b>	<b>\$124,551</b>	<b>\$134,041</b>

Funds are required to procure alterations to the Strategic Weapons System launcher and fire control subsystems; to inertial, non-inertial, and Electro-statically Supported Gyro Navigator (ESGN) navigation subsystem equipment on deployed SSBNs and installed at supporting shore facilities, including the TRIDENT Training Facility (TTF), Bangor, TTF, Kings Bay, the Ashore Navigation Center, and the Inertial System Test Laboratory; to test instrumentation used on SSBNs, support ships and at the Eastern Test Range, the TRIDENT Refit Facility (TRF), Bangor, and TRF, Kings Bay, and to missile handling equipment, missile test and readiness equipment, and surface support equipment. Installation of approved SPALTs is performed on a turnkey basis in conjunction with the procurement of equipment. Use of Commercial-off-the-Shelf/Non-Developmental Items (COTS/NDI) has been initiated and is being implemented in all subsystems, wherever possible.

Launcher and Handling Equipment: Funding provides for launcher and handling equipment alterations to address aging and obsolescence issues. FY 2012 funds are for minor Launcher SPALTs.

Fire Control Equipment: Funding in all years will allow for implementation of Life Cycle Cost Control (LCCC) initiatives aimed at the integration of TRIDENT II SWS subsystem equipment into the Fire Control System (FCS), leveraging off of the MK-98 Mod 4 Fire Control design to implement the first phase of TRIDENT II Shipboard Systems Integration (SSI) architecture. The product of these SWS integration efforts will be implementation of an affordable design to meet all operational requirements, while minimizing total ownership costs. FY 2012 funding provides for production costs of the submarine MOD 6 SPALTs kits and pre-production of Fire Control Subsystem LCCC/Technology SSP Alterations (SPALTs), and the production and integration of Detonator Power Assembly (DPA)/Detonator Relay Box (DRB)/Variable Ejector Group Subsystem (VEEP) SPALTs/SHIPALTs will continue in FY 2012 through FY 2016.

Navigation Equipment: Funding in FY 2012 provides for Increment 4 Tech Refresh production costs, Electro-statically Supported Gyro Navigator (ESGN) replacement program, and Navigation Error Co-variance Matrix (NECM) for replacement navigator. This also provides for test efforts for Selective Availability and Anti-Spoofing Module (SAASM) Global Positioning System (GPS) Receivers and GPS Antenna Redesign to accommodate SAASM GPS Receiver.

Budgeted in all years are the alterations to Instrumentation/Missile Checkout equipment. FY 2012 funding provides for Forecast Instrumentation SPALT and Flight Test Support System (FTSS) hardware.

TRAINING SUPPORT EQUIPMENT

This category provides for procurement of and alterations to, both tactical and non-tactical equipment required at submarine training facilities to train personnel in the operation and maintenance of launcher and handling, fire control, navigation, missile checkout, and test instrumentation subsystems. Each training facility consists of an integrated family of system and unit laboratories that interface with a training simulation system to provide complete and realistic training for replacement and off-crew personnel, both officer and enlisted, as required for manning of SSBNs and shore facilities. Funding is budgeted to procure training-unique equipment required as the result of alterations to SWS tactical equipment, including those associated with D-5 life extension.

Funds are required for software and hardware design modification, lab documentation modification, facility modification, and design and system integration, as well as procurement and fabrication of all hardware needed to support Navigation and Fire Control subsystem training at both the TRIDENT Training Facility (TTF), Bangor, and at TTF, Kings Bay. The required effort includes upgrade of the Bangor and Kings Bay Navigation and Fire Control trainers from Shipboard System Integration (SSI) increments 1, 4 and 7. Integration of Fire Control SSI increments 1, 4 and 9 PC Simulation, and for the development of the Virtual Strategic Weapons System (SWS) classroom trainers. Funding also addresses the need for acquisition of upgrades to the Bangor and Kings Bay TTFs resulting from tactical changes in the TRIDENT II (D5) missile under the Life Extension (LE) program. A major task in FY12 will be implementation of the training continuum for Missile Technicians as mandated in OPNAV 1500.76B, Naval Training Systems Requirements, Acquisition and Management.

\$000	FY 2010	FY2011	FY 2012
<b>Training Support Equipment</b>	<b>\$15,033</b>	<b>\$31,906</b>	<b>\$10,638</b>

UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS  
EXHIBIT (P-6) PROGRAM COST BREAKDOWN

DATE:

February 2011

APPROPRIATION/BUDGET ACTIVITY  
Other Procurement, Navy / BA 2

P-1 ITEM NOMENCLATURE/SUBHEAD  
Strategic Missile Systems Equipment / 34U9

Total Cost in Thousands of Dollars B/LI: 5358

WEAPON SYSTEM COST ELEMENTS	Ident. Code	FY 10		FY 11		FY 12	
		Qty	Total Cost	Qty	Total Cost	Qty	Total Cost
Other Material Support							
Launcher and Handling Equipment							
Fire Control Equipment		24,770	33,721	16,641	27,577	22,480	43,128
Navigation Equipment		3,381		5,432		13,187	
Instrumentation/Missile Checkout Equipment		631		721		733	
Information technology		2,137		2,248		4,151	
Alterations		2,802		2,535		2,577	
Launcher and Handling Equipment			106,069		124,551		134,041
Fire Control Equipment		10,117		6,521		7,830	
Navigation Equipment		34,020		55,441		46,443	
Instrumentation/Missile Checkout Equipment		56,658		61,874		79,041	
Training Support Equipment		5,274		715		727	
			15,033		31,906		10,638
<b>Total</b>			<b>\$154,823</b>		<b>\$184,034</b>		<b>\$187,807</b>