



Transition Opportunity: Capturing Uncertainty FRI to LASW FNC

Presented To:
Capturing Uncertainty DRI Team

Presented On:
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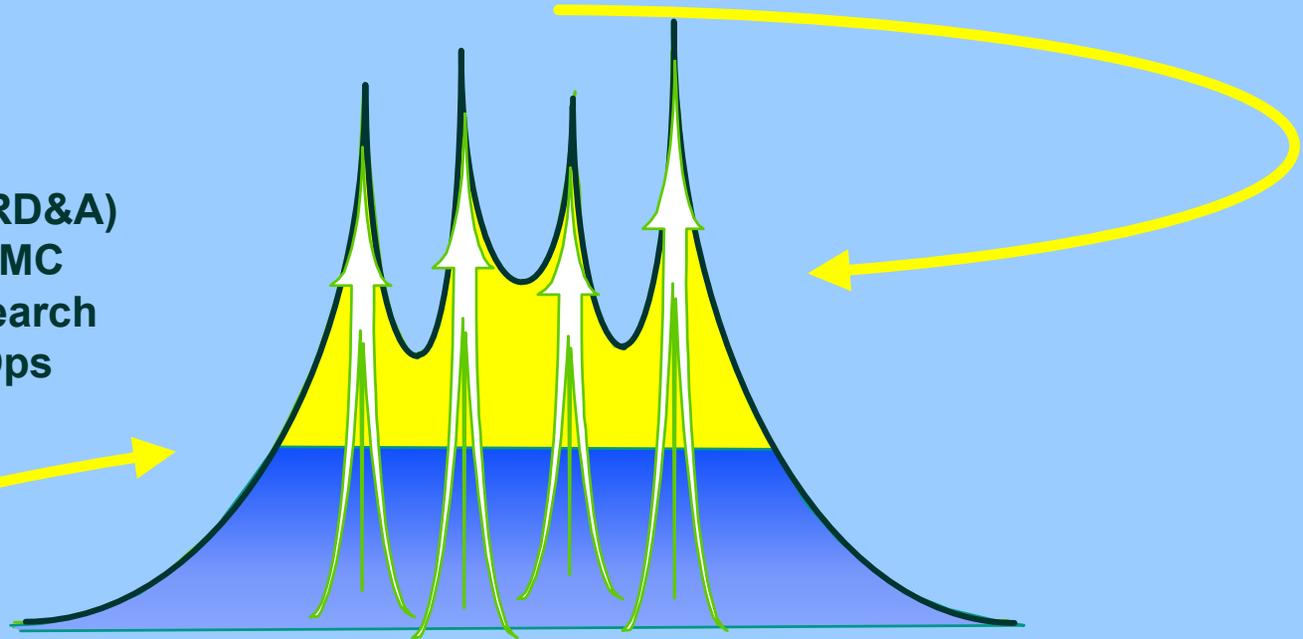


Overall “Spike” Process

DoN requirements setters propose **capabilities** in priority order for the DoN S&T Corporate Board *

* Board members:

- Asst Sec of Navy (RD&A)
- Asst Commandant MC
- Chief of Naval Research
- Vice Chief of Nav Ops



IPTs generate **technology** investment plans:

- for OPNAV to program in POM-02
- for ONR to execute
- for Acquisition to plan for transition



Littoral ASW

Objective: Provide effective capability to detect, track, classify and neutralize subsurface systems including submarines, UUVs, ASW mining, surveillance systems and systems to foul waters/deny access, in support of power projection ashore.

Investment Strategy: Develop and demonstrate affordable technologies that correct major shortfalls in key enabling capabilities .

IPT Membership

Acquisition – Tim Douglass (PEO-USW)
ONR – Frank Herr (ONR321)

Requirements – CAPT Jerry Ferguson (N84) - Chairman
 CAPT Skip Miller (N874)
 CAPT James Woods (N863)
 CAPT Chris Owens (N880E2)

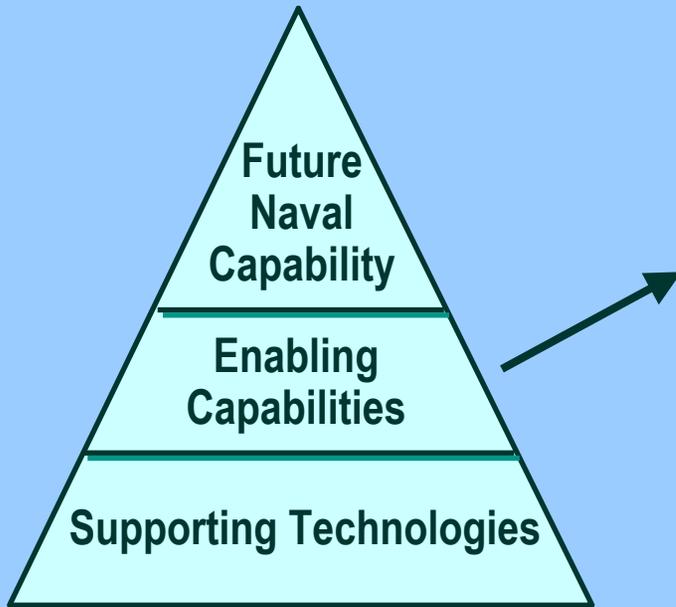
S&T Resource Sponsor – James Andrews (N091)

FNC Core Program Allocated Budget (TY\$M):

<u>FY</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>Total</u>
6.1	0	0	0	0	0	0	0
6.2	25.5	25.1	24.1	24.9	22.9	22.3	144.8
6.3	32.6	33.5	31.7	29.9	31.8	32.8	192.3



Littoral ASW IPT



- Detect, classify, localize and track to support engagement of targets outside of threat weapons release range
- Characterize the battle-space to provide content for a Common Tactical / Environmental Picture
- Rapidly and/or covertly deploy and sustain surveillance systems for wide area search, detection and cueing
- Engage/neutralize bottomed, surfaced or low Doppler targets beyond threat weapon release range
- Proficiency technology to enhance performance
- C4 for Common tactical/environmental picture

Littoral ASW



Characterize the Battlespace - Core Program Enabling Capability #2

- Goal:**
- Leveraged “Through the Sensor” In-Situ Measurements
 - Improved Common Models In-Situ Measurements and Environmental Databases Enables Tactically Useful Planning and Performance Assessments.

	Transition To	FY02-07 6.2/6.3 Funding Then Year \$M	02	03	FY		06	07
Cross Platform Data Fusion - Common Tactical Picture (CTP) Use cross-platform & cross-sensor data to adaptively set sensor thresholds to optimize joint performance	ASTO/AUSWC/ N86/N87/N88 PE 0603207N, 0603561N 0604503N, 0604558N 0205620N POC Jim Thompson	6.3	4.2	2.1				
Cross Platform Data Fusion - Common Environmental Picture Builds on CTP information to incorporate up-to-date environmental information into sensor performance prediction capability Leverages CTP program	ASTO/AUSWC/ N86/N87/N88 PE 0603561N, 0604503N 0604558N, 0205620N 0204261N POC Jim Thompson	12.0	0.4	2.5	4.2	3.8	1.1	
Sensor Performance Uncertainty Prediction - Common Tactical/ Environmental Picture Capture uncertainty of environmental measurements for adaptive signal processing & sensor performance prediction. Builds on \$10.7M ONR “discovery” program	ASTO/N86 PE 0603207N, 0603561N 0604503N, 0604558N 0205620N POC Jim Thompson	21.5		1.6	1.9	2.5	7.3	8.2



Technical Thrust of Uncertainty in the CT/EP

- Quantify uncertainty in tactically significant parameters: Pd, Search Rate, etc.
- Address current active and passive sensors
 - 53-C
 - EER
 - surface ship and sub towed arrays
- Incorporate uncertainty into cross platform sensor fusion
- Incorporate uncertainty into Tactical Decision Aids
 - Search
 - Configuration of assets