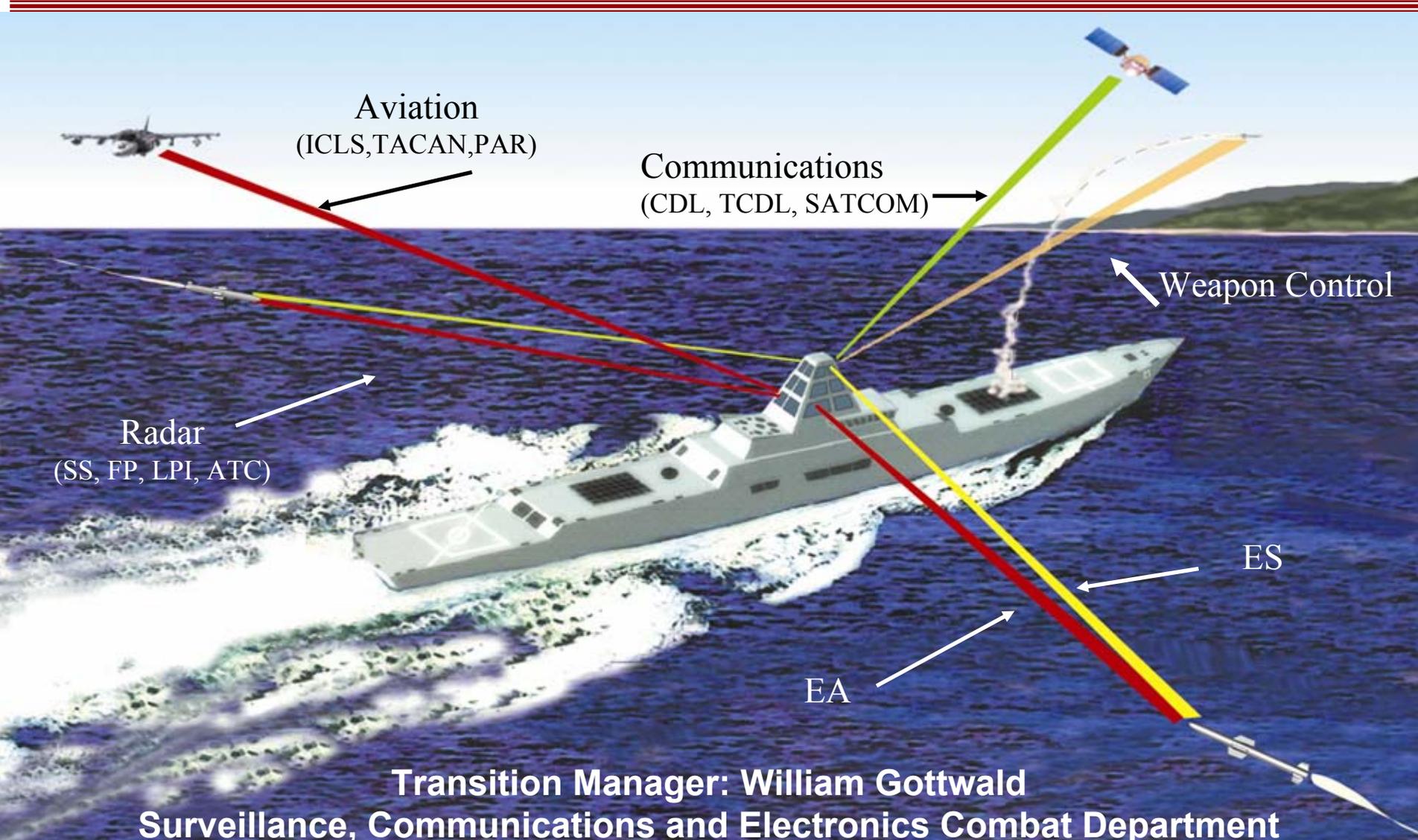
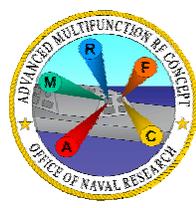




MFEW Program



Aviation
(ICLS, TACAN, PAR)

Communications
(CDL, TCDL, SATCOM)

Weapon Control

Radar
(SS, FP, LPI, ATC)

ES

EA

Transition Manager: William Gottwald
Surveillance, Communications and Electronics Combat Department
Office of Naval Research



Presentation Outline

The MFEW mission statement

New DoDI 5000.2 May 2003

Proposed Broadband MFRF roadmap

ES TD phase

- *Schedule & funding*
- *Program summary*

SEWIP EA Transmitter

Summary



The MFEW mission statement



Develop the capability to integrate **Electronic Warfare**, **Communications**, **Radar (low power/duty cycle)**, and **Aviation Navigation** functions into a common set of broadband RF apertures capable of generating multiple simultaneous beams such that the functionality is defined dynamically by software.

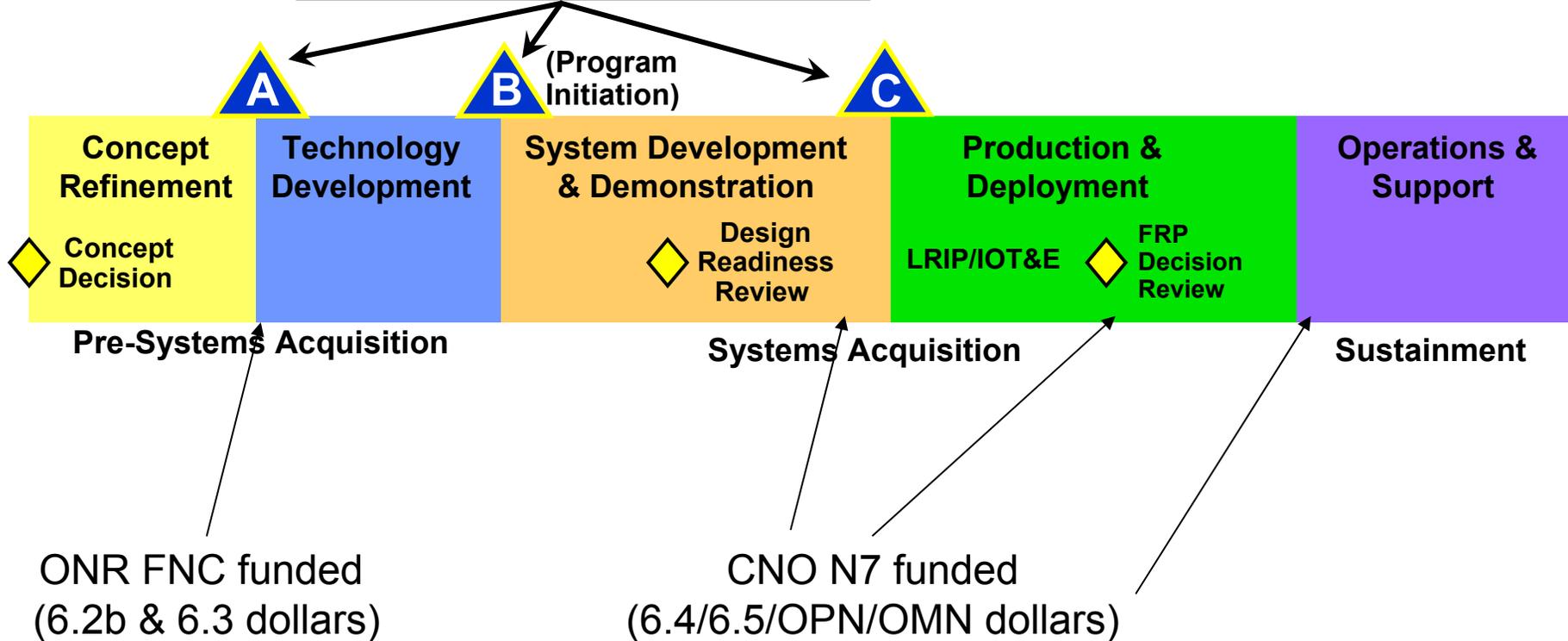


MFEW Acquisition/S&T program CNR & CNO N7 together

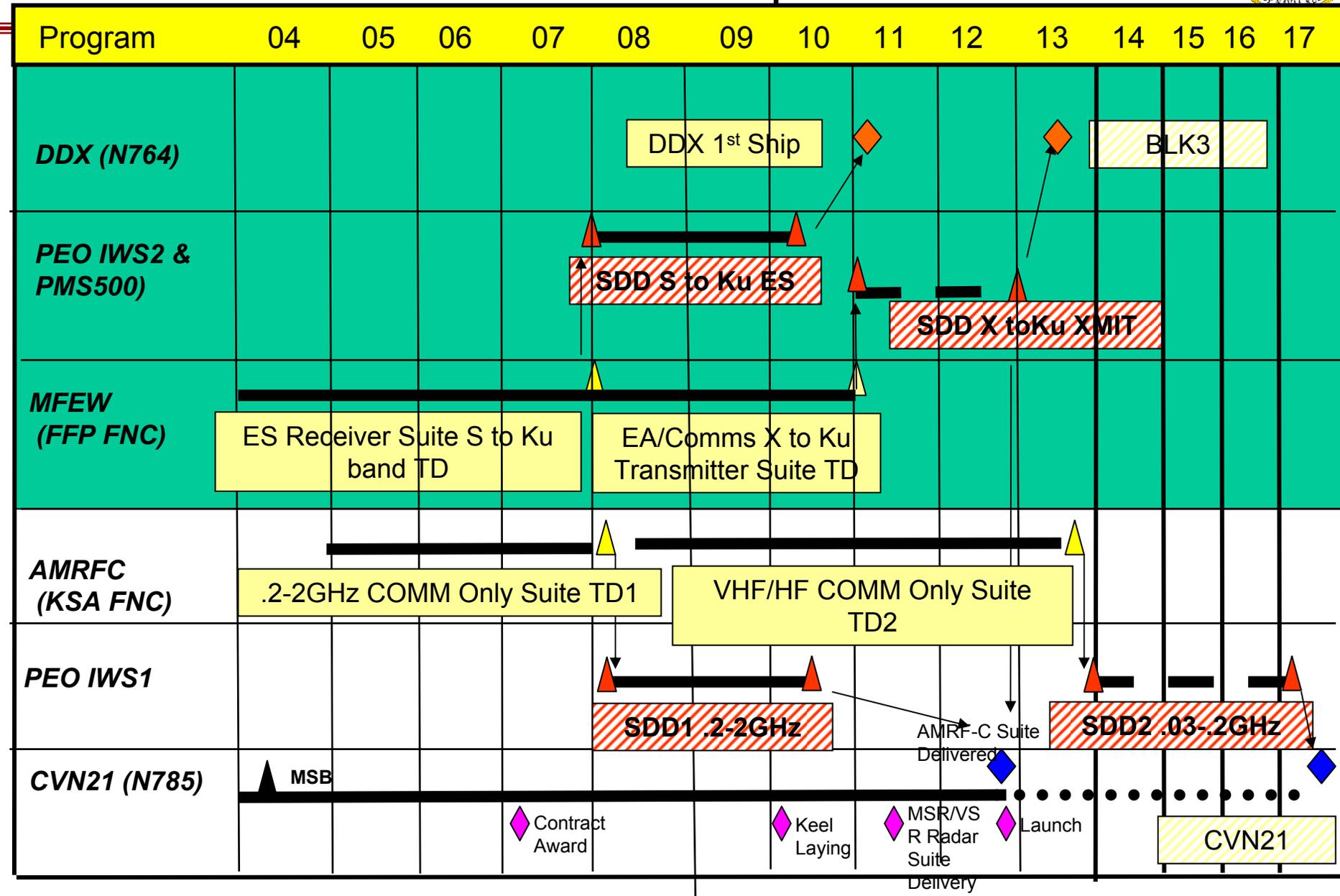


DoDI 5000.2, May 2003

User Needs &
Technology Opportunities



Proposed Broadband Multifunction RF Roadmap





MFEW TD phase (FY05-FY07)



- Technology Development Phase of Teamed S&T/ACQ prgm
- ONR Funded (approximately \$80M)
- ONR Goal - Transition AMRFC technology
- NAVSEA IWS-2 Goals
 - Utilize AMRFC technology to fulfill EW requirements for DD(X)
 - Reduce remaining technology risks
 - Develop & test (DT) new MFEW equipment suitable for DD(X) use
- Specific H/W and S/W Interface Definitions will be developed and documented in ICDs and API Guides
 - ICDs and API Guides shall be open to all
 - Final revisions completed by early FY07

Proposed SEWIP EA Transmitter



DESCRIPTION:

Further reduce technology, cost, and schedule risks for MFEW transmitters array by demonstrating advanced technologies and system architectures to make the MFEW(EA) technically and economically viable.

REQUIREMENTS:

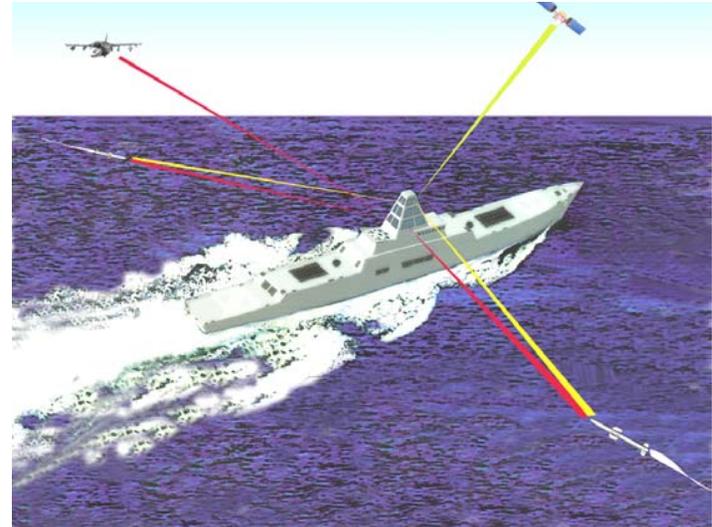
DD(X) Requirement for Electronic Attack (EA)
IWS2 Requirement for SLQ-32 replacement

DELIVERABLES:

- 1) Low-Cost High-Band Transmitter Array (X to Ku band)
- 2) Hardware demonstration

TRANSITIONS:

IWS2 to merge program into SEWIP block III and initial forward fit into DDX



WARFIGHTER PAYOFF:

- Enables disruption/deception of surveillance, targeting, and terminal sensors until threat engagement or evasion.
- Improved frequency and elevation angle coverage combined with higher power transmitters provides more effective jamming.
- Improved jamming effectiveness results in increased survivability.



Summary



- MFEW TD Phase (FY05-07)
 - Development of single-face receive-only system covering S to Ku band
 - Managed by ONR – Technology Development Phase
 - Capable of being integrated with DD(X) combat system
 - Arrays and Receiver/Beamformer Equipment shall be capable of supporting additional functions (besides ES functions)
- MFEW SDD Phase (FY08+)
 - Development of multi-face receive-only system covering S to Ku band
 - Tested at-sea
 - Managed by NAVSEA – System Development & Demonstration Phase
 - Integrated with DD(X) combat system
 - Arrays and Receiver/Beamformer Equipment may be “de-populated” to reduce cost while still providing adequate ES functionality
 - Technology Development Phase begins for Transmitter