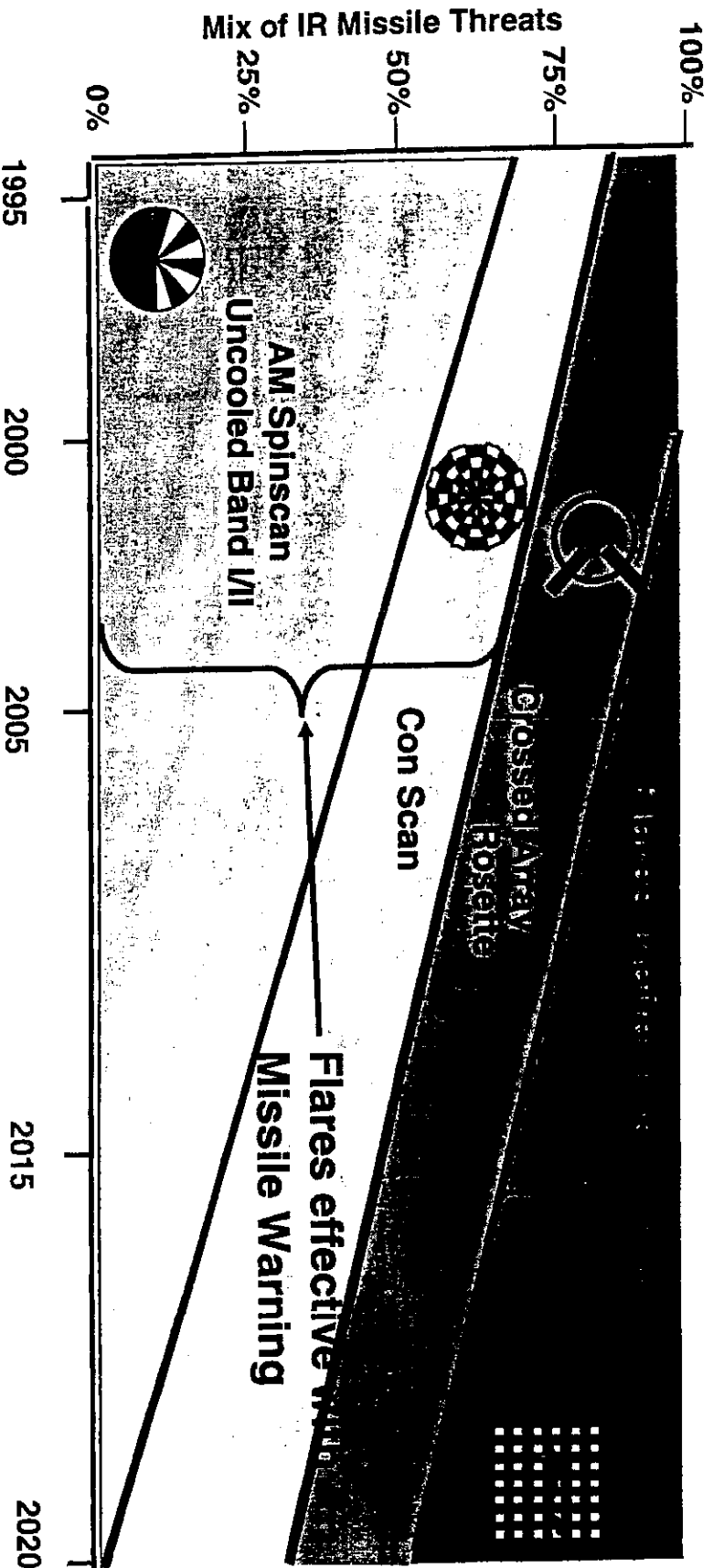




# *Navy IRCM Requirements Overview*



## IRCM - An Expanding Capability Gap

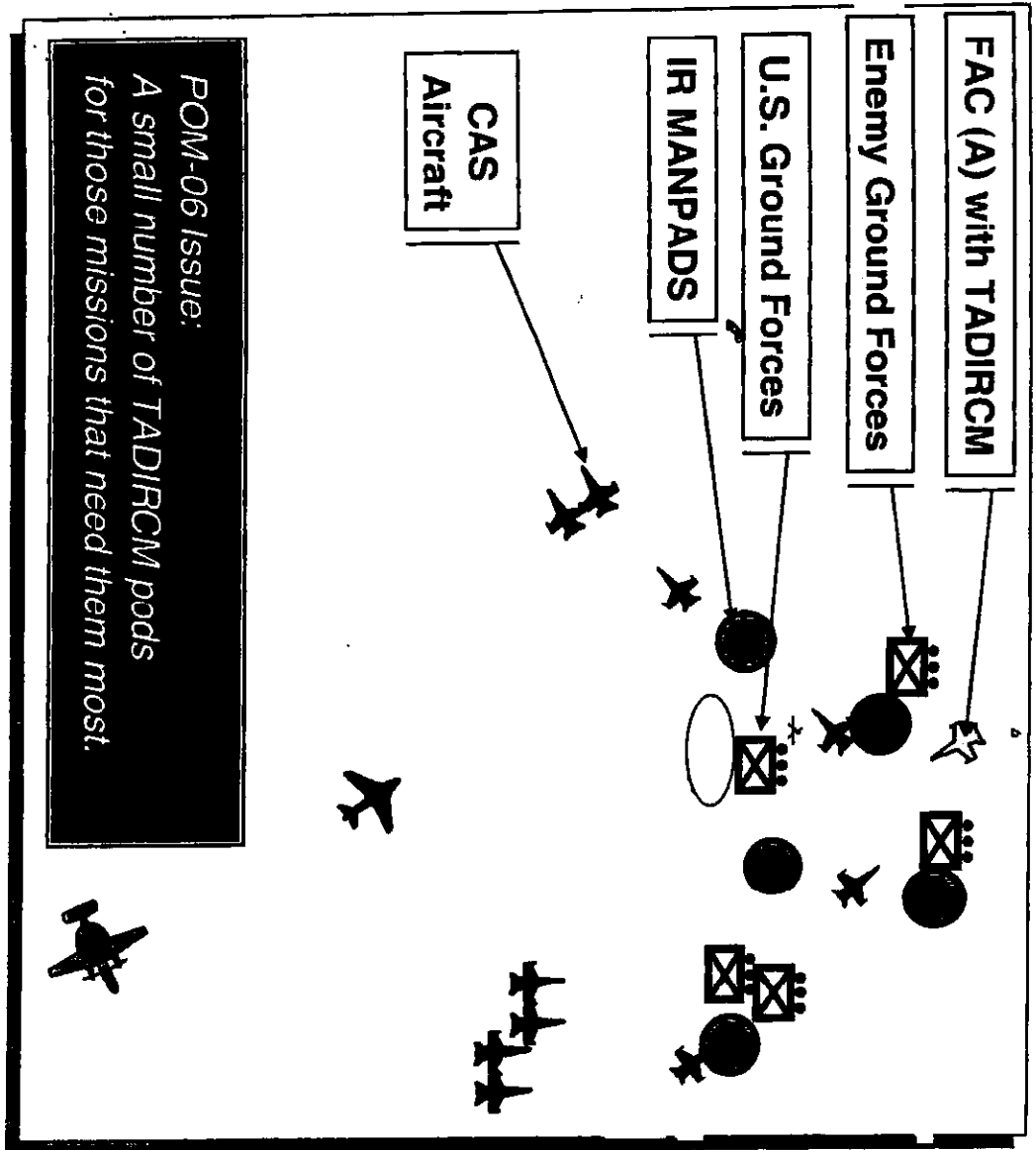


- The percentage of IR missiles in the world with flare rejection technology will increase over time as older missiles are expended and new ones are manufactured.
- Flares are ineffective against imaging seekers
- Directed IRCM (DIRCM) will beat all IR missiles including imagers.

# DOD IRCM Solutions

- Suite of Integrated Infrared Countermeasures (SIIRCM)
  - U.S. Army Lead Service
  - Post Milestone C
  - Helicopters
- Large Aircraft Infrared Countermeasures (LAIRCM)
  - USAF Lead Service
  - Post Milestone C
  - C-17 and other large aircraft
- Tactical Aircraft Directed Infrared Countermeasures (TADIRCM)
  - Navy Lead Service
  - Pre-Milestone B
  - Pod for FA-18, F-16, AV-8B etc

# IR Threat Self Protect EW Suites for CAS 2010



**POM-06 Issue:**  
A small number of TADIRCM pods  
for those missions that need them most.

## 2 Different IR suites

- Legacy
  - ALE-39
  - ALE-47
- Future
  - TADIRCM
  - ALE-47

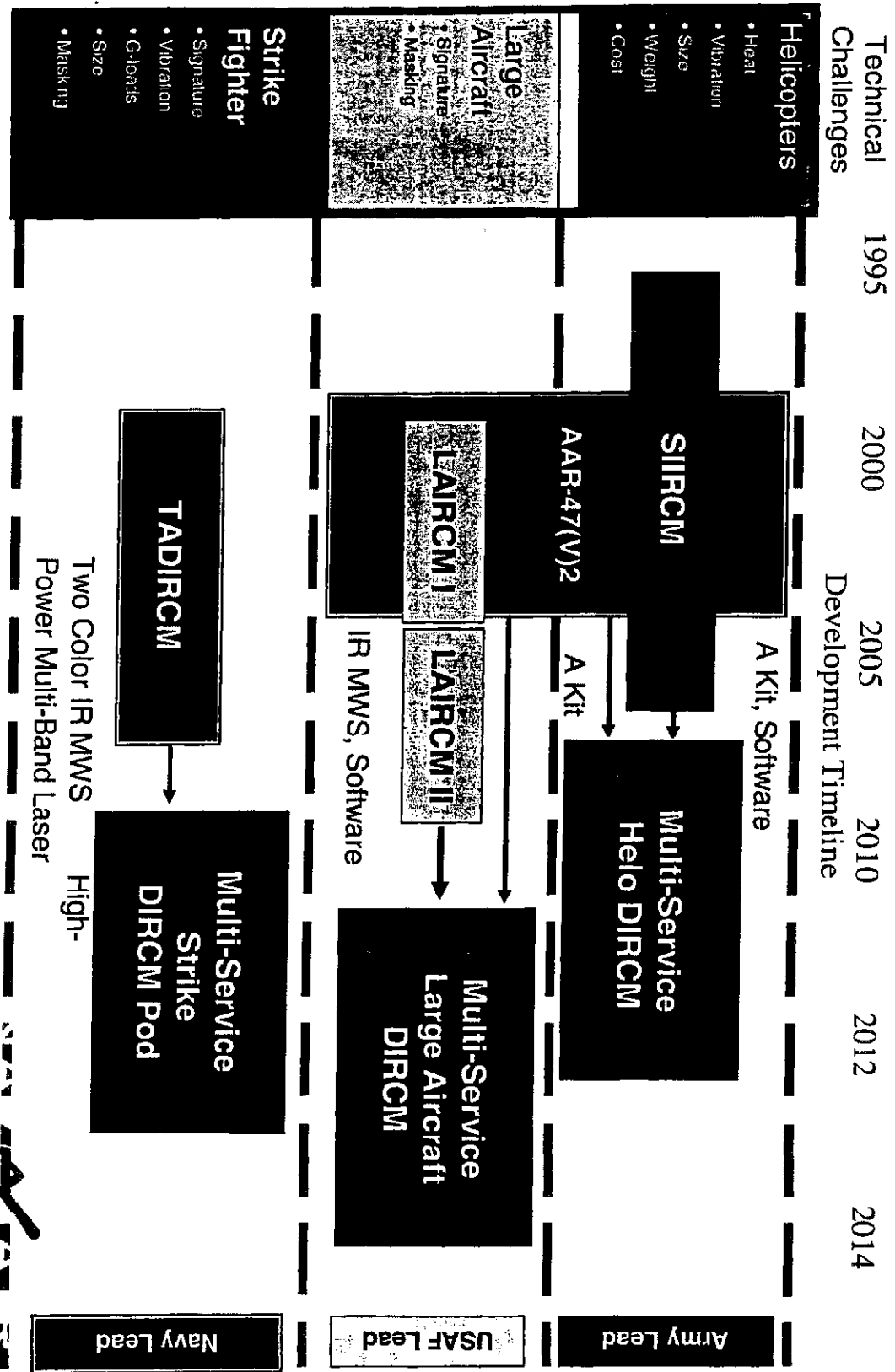
**FAC (A) spends long On-Station Periods in and around MANPADS**

**Aircraft without TADIRCM spend short periods at low altitudes**

**Aircraft Stay Above MANPADS unless FAC(A) or delivering ordnance**

4

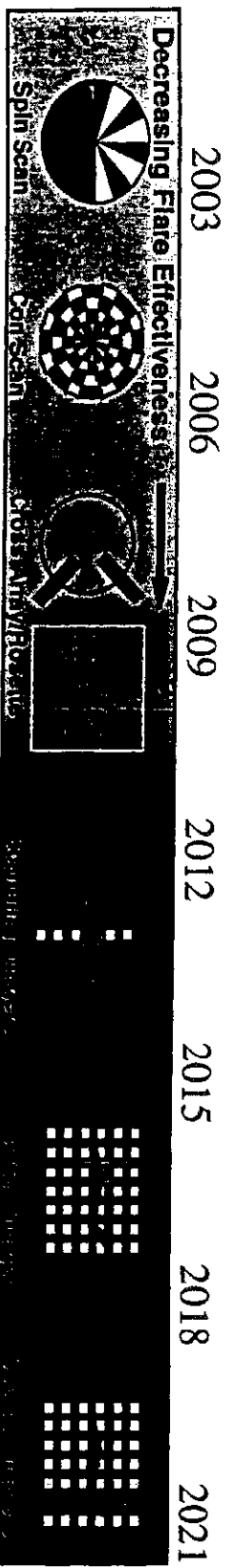
# OSD and JROC Guidance



# Navy/Marine IRCM Investment Strategy

- Short term – Complete procurement of the current suite and support it
  - AAR-47(V)2 procurement accelerated and expanded in FY04 due to OIF II requirements
  - ALE-47 procurement expanded in FY04 due to OIF II requirements
  - Flare production increased in FY04 due to OIF II expenditures
- Mid term – Initiate DIRCM development programs for all Naval Aircraft
  - Join programs with other services that capitalize on TADIRCM investments
  - Concentrate on the affordable approach
- Long term – Procure DIRCM systems for Naval Aircraft
  - Build system requirements that make for flexible fielding options
  - Procure sufficient systems to meet Navy/Marine requirements
  - Reduce flare production

# Navy and Marine IRCM Strategy



- KC-130J
- MV-22
- UH-1Y
- AH-1Z
- MH-60R/S
- CH-53
- FA-18
- AV-8
- JSF

**AAR-47(N)2 and ALE-47**

- Currently in full rate production
- Average unit cost ~ \$100K
- Flares do not address imagers

**LAIRCM**

**Next SIIRCM spiral**

- Joint program, Army Lead
- Navy requirements dependent on TADIRCM technology

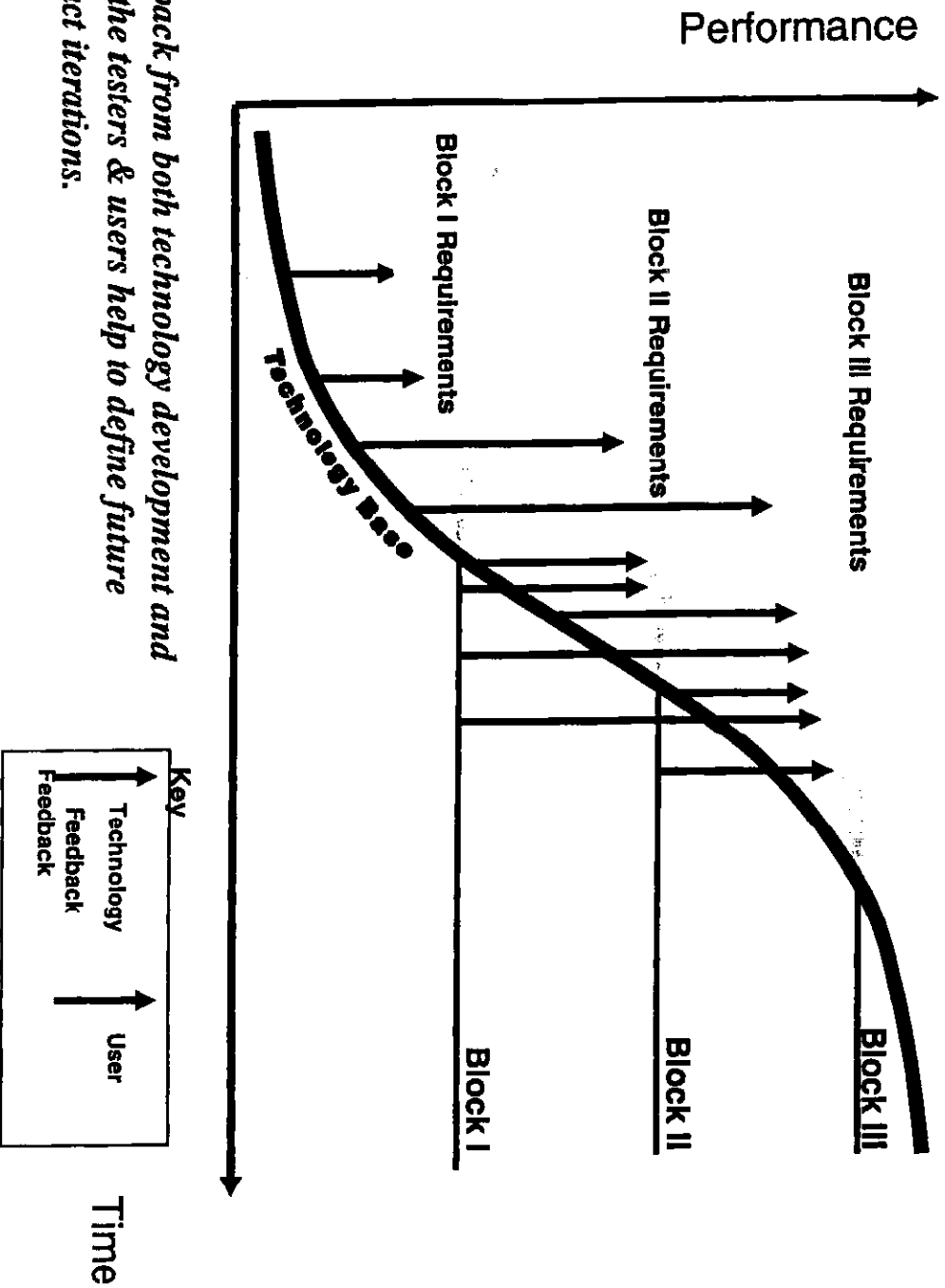
**ALE-39 or ALE-47 only**

**Strike DIRCM Pod**

- Joint Program, Navy Lead
- Builds on TADIRCM/SIIRCM

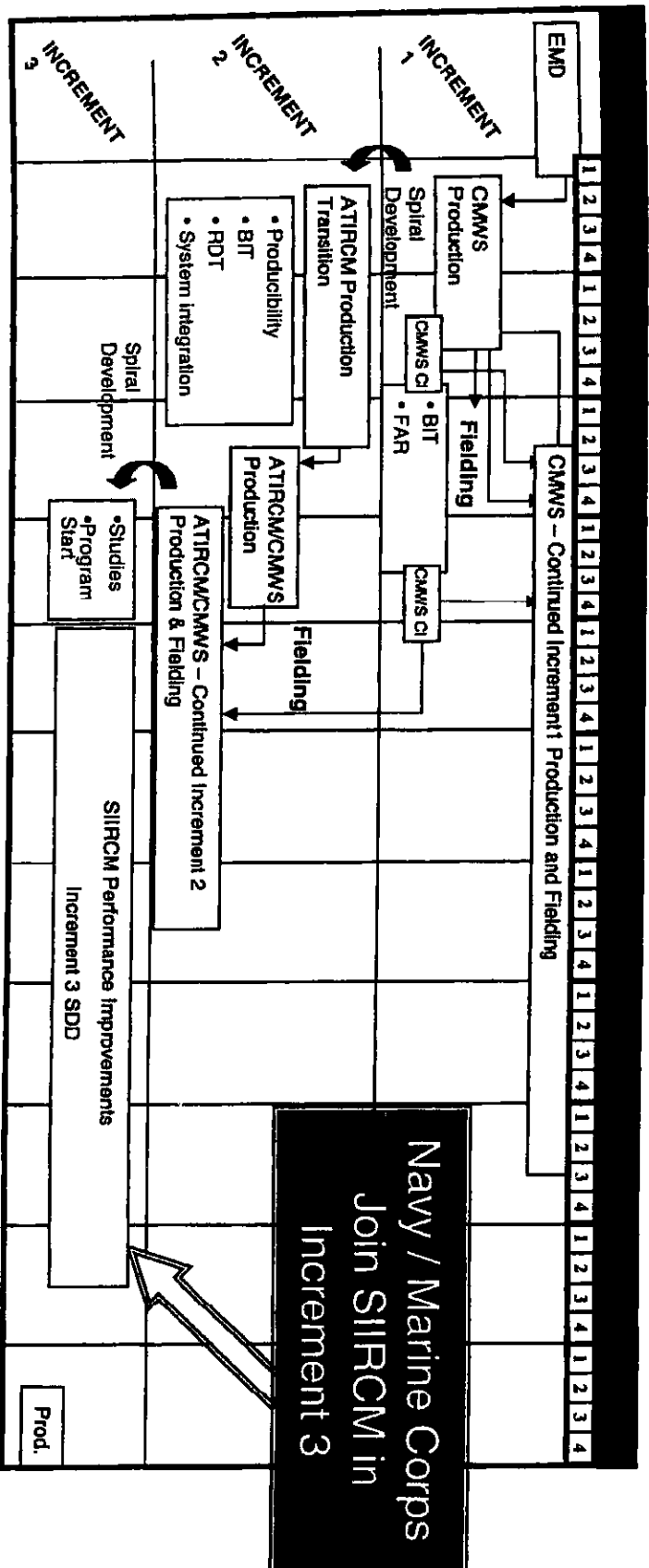
**DAS and flare dispenser**

# Evolutionary Acquisition Model



*Feedback from both technology development and from the testers & users help to define future product iterations.*

# Navy SIRCUM Evolutionary Acquisition Roadmap



- Increment 3 builds on Army SIIRCM and Navy TADIRCM investments
  - Long Range IR Threats, Advanced IR Seekers, Adds Two Color IR Missile Warning, Multi-Band Laser, and Navy / Marine Commonality

# ATRRCM P3I/Assault DIRCM Schedule

EVENTS	FY04				05				06				07				08				09				10				11				12				13				14				15																																			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																				
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<b>Deliveries</b>																																																																																
<b>Testing &amp; Evaluation</b>																																																																																
	<div style="display: flex; justify-content: space-between;"> <div style="width: 20%;"> <p>LAIRCM DHS Scorpion</p> </div> <div style="width: 20%;"> <p>2 Color MWS SDD Phase 2</p> </div> <div style="width: 20%;"> <p>Phase 1 Phase 2 (RTT)</p> </div> <div style="width: 20%; text-align: center;"> <p><b>SYS INTEG &amp; DEMON</b></p> </div> <div style="width: 20%;"> <p>EMD HW Deliveries</p> </div> <div style="width: 20%;"> <p>OA</p> </div> <div style="width: 20%;"> <p>IOT&amp;E</p> </div> <div style="width: 20%;"> <p>FOT&amp;E</p> </div> </div>																																																																															
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## Summary

- USN/USMC has an overall roadmap to address the IR Manpad Threat
- EOA starts working technology
- Co-operative with Army for USN/USMC Assault makes sense for FY06
- Strike DIRCM to leverage technology and start in FY08