PEO LAND SYSTEMS MARINE CORPS

IT'S ALL ABOUT THE WARFIGHTER

EXPEDITIONARY FIGHTING VEHICLE (EFV)

National Defense Industrial Association (NDIA)
Advanced Planning Briefing to Industry

13-14 May 08

EFV MISSION

Provide High Speed Transport of Embarked Marine Infantry From Ships Located Beyond the Horizon to Inland Objectives

Provide Armor Protected Land Mobility and Direct Fire Support During Combat Operations

EFV

Revolutionizing Expeditionary Maneuver Warfare

Present: AAV

- WWII Doctrine
- No Standoff Distance for ATF
- Slow Speed Amphibious Assault
- 1960's Technology
- Limited Survivability

Future: EFV

- EFV directly supports the Marine Corps' Capstone Concept: Expeditionary Maneuver Warfare
- The EFV will provide the tactical mobility asset required to spearhead the EMW concept and permit the Marine Corps to fully exploit littoral areas as maneuver space
- The EFV will allow immediate, high speed maneuver of Marine infantry units as they emerge from ships located beyond the horizon (25 nm and beyond)
- The EFV's unique combination of offensive firepower, armor, NBC protection, and high speed mobility on land and sea represent major breakthroughs in the ability of Naval and Marine expeditionary forces to avoid an enemy's strength and exploit its weakness

Leap Ahead to 21st Century Technology

EFV

MISSION ESSENTIAL FUNCTIONS

Move (Land)

Move (Water)

Shoot

Communicate

Carry

Protect

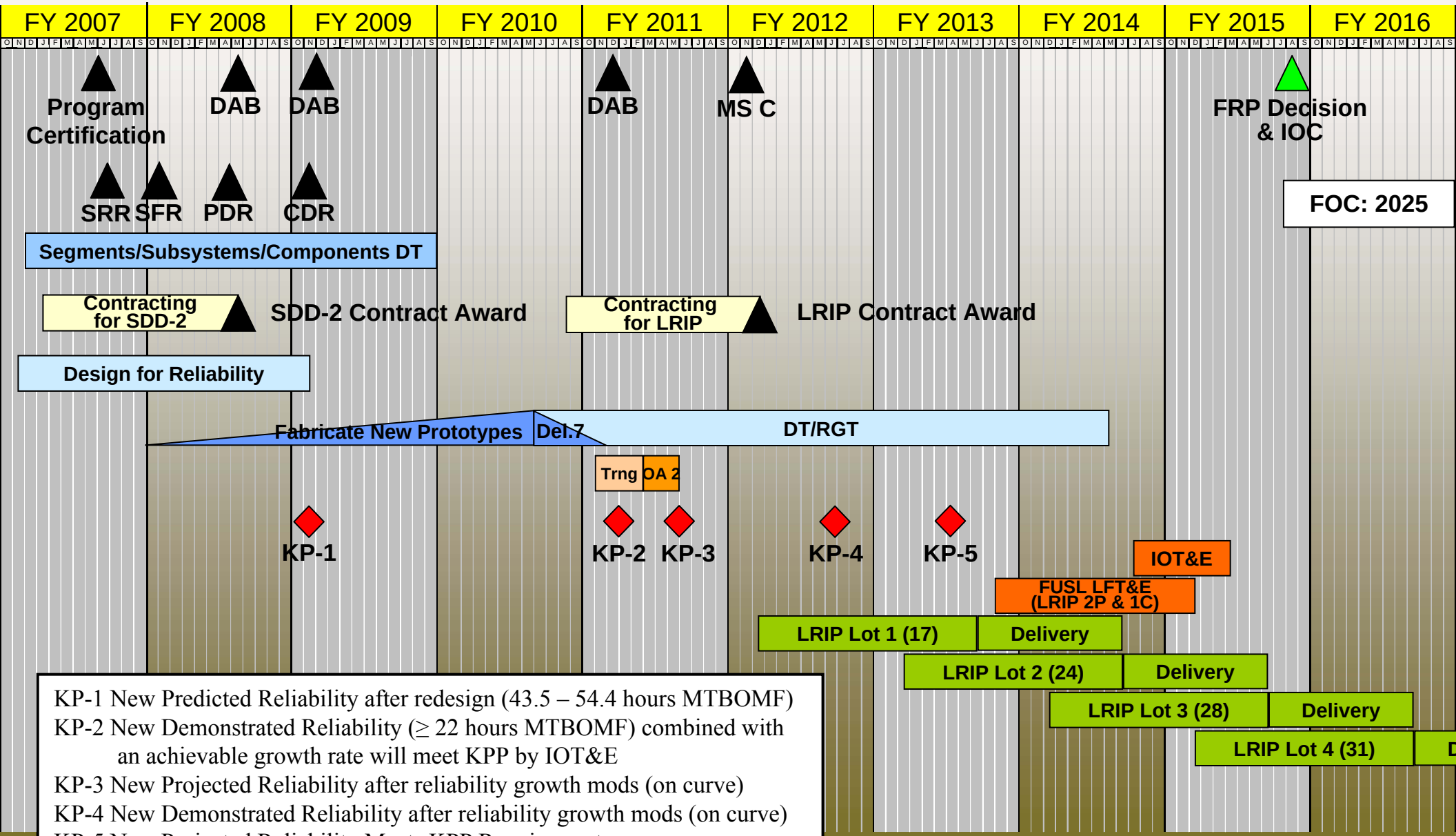
KEY PERFORMANCE PARAMETERS

CRITERIA	THRESHOLD	OBJECTIVE
• **High Water Speed -** 2'significant wave height, for not less than one continuous hour	20 knots	25 knots
• **Land Speed -** Forward speed on hard surface road	69 kph	72 kph
• **Firepower -** Maximum effective range Interoperability/standard ammunition with other service(s)	1500m	2000m
• **Armor Protection -** Any azimuth	14.5mm/300m	30mm/1000m
• **Reliability -** Mean Time Between Operational Mission Failure	43.5 hrs	56 hrs
• **Carrying Capacity**	17 Marines	18 Marines
• **Net Ready** * Compliance based on IA, GIG-KIPs, & SDE testing.	100% of designated enterprise-level or critical interfaces & services	100% of all enterprise-level & critical interfaces & services

Currently Demonstrated Plan to Demonstrate

PROGRAM UPDATE

13 AUGUST 2007 EFV PROGRAM STRUCTURE



KP-1 New Predicted Reliability after redesign (43.5 – 54.4 hours MTBOMF)
KP-2 New Demonstrated Reliability (≥ 22 hours MTBOMF) combined with an achievable growth rate will meet KPP by IOT&E
KP-3 New Projected Reliability after reliability growth mods (on curve)
KP-4 New Demonstrated Reliability after reliability growth mods (on curve)
KP-5 New Projected Reliability Meets KPP Requirement

Updated: 30 Apr 08

CERTIFIED PROGRAM STRUCTURE

- **Redesign for reliability**
  - Instituting robust systems engineering processes
  - Extensive segments/subsystems/components developmental testing
- **Build new prototypes**
  - Prototypes will be fabricated as parts “earn their way in” through the design release/verification process
- **Conduct extensive testing on new vehicles**
  - Developmental Testing and Reliability Growth Testing
  - Confirmation program is on reliability growth curve
  - Operational Assessment to support Milestone C

PROGRAM UPDATE

SIGNIFICANT EVENTS

- **System Requirements Review completed 28 Jun 07**
- **System Functional Review completed 11 Dec 07**
- **System Development & Demonstration / Design for Reliability Integrated Baseline Review Completed 20 Dec 07**
  - Resulted in formal documentation of Performance Management Baseline issues
  - Established path to a realistic, reasonable, and complete plan to Critical Design Review
- **Defense Contract Management Agency Compliance Review 14-25 Jan 08**
- **Design for Reliability Contract Mod Definitized 17 Jan 08**
  - 51 Mission Essential Components included
  - Fault Tree Model continues to predict a design of 60.7 hrs mean Time Between Operational Mission Failure
- **Preliminary Design Review / Critical Design Review**
  - Schedule re-planned to incorporate Integrated Baseline Review, Design for Reliability definitization
  - Subsystem and Component Preliminary Design Reviews underway
- **System Development & Demonstration -2 Statement of Work finalized 25 Jan 08**
- **Finalizing System Development & Demonstration and Defense Acquisition Board Exit Criteria**
  - Pacing the final staffing of Acquisition Strategy Report, System Engineering Plan and Test and Evaluation Master Plan
- **System Software Review Conducted 28 Feb 08**
- **Capstone Preliminary Design Review Conducted 2 May 08**

PROGRAM UPDATE

FUTURE EVENTS

- **System Development & Demonstration -2 Defense Acquisition Board** — **May 08**
- **System Development & Demonstration -2 Contract Award** — **Jun 08**
- **Critical Design Review** — **Nov 08**
- **Critical Design Review Defense Acquisition Board** — **Dec 08**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