THE VALUE OF ENTERPRISE BEHAVIOR

PRESENTATION TO:

PEO / SYSCOM SYMPOSIUM

VADM WALLY MASSENBURG
COMMANDER, NAVAL AIR SYSTEMS COMMAND
16 NOVEMBER 2005

NAVAL AVIATION ENTERPRISE

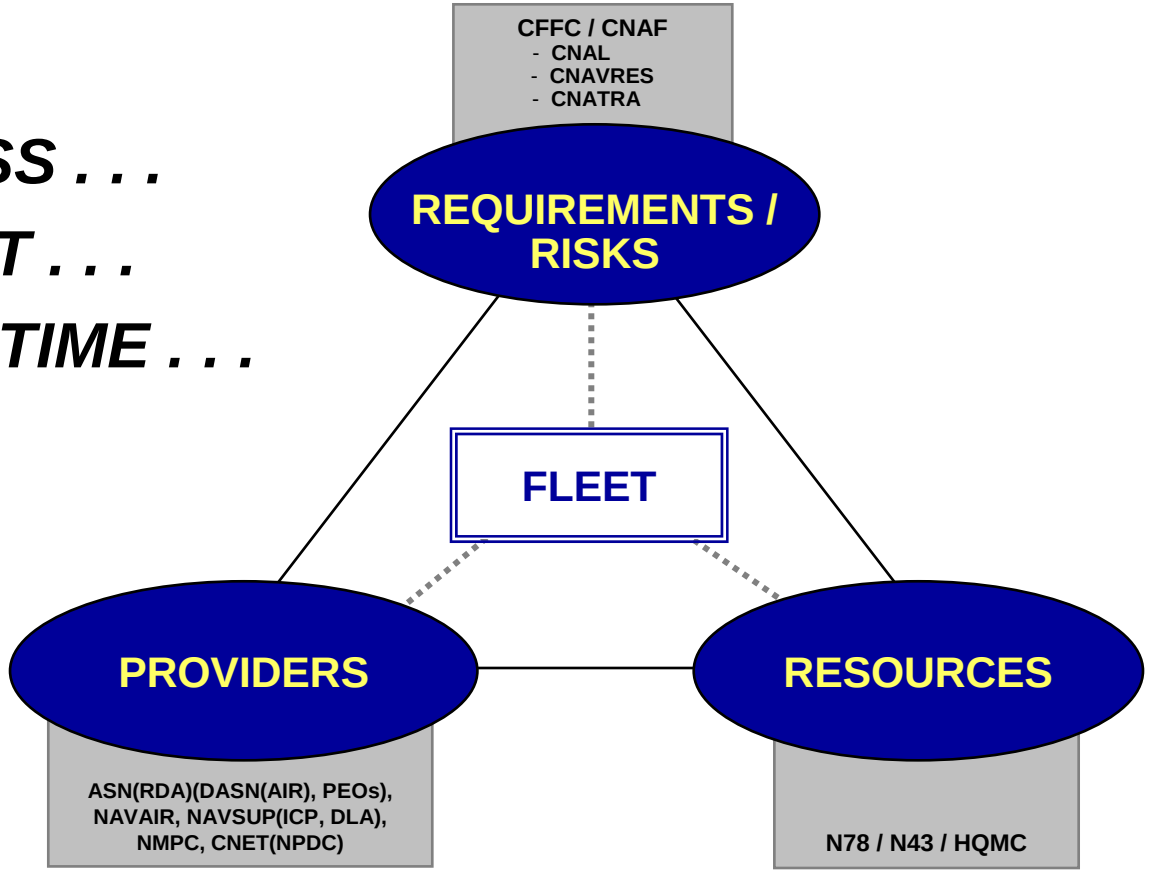
NAVAL AVIATION VISION

RIGHT FORCE . . .

RIGHT READINESS . . .

RIGHT COST . . .

RIGHT TIME . . .



. . . TODAY, AND IN THE FUTURE

OPERATING AS AN ENTERPRISE
GAINING STRENGTH AND MOMENTUM

NAVAL AVIATION ENTERPRISE (NAE)

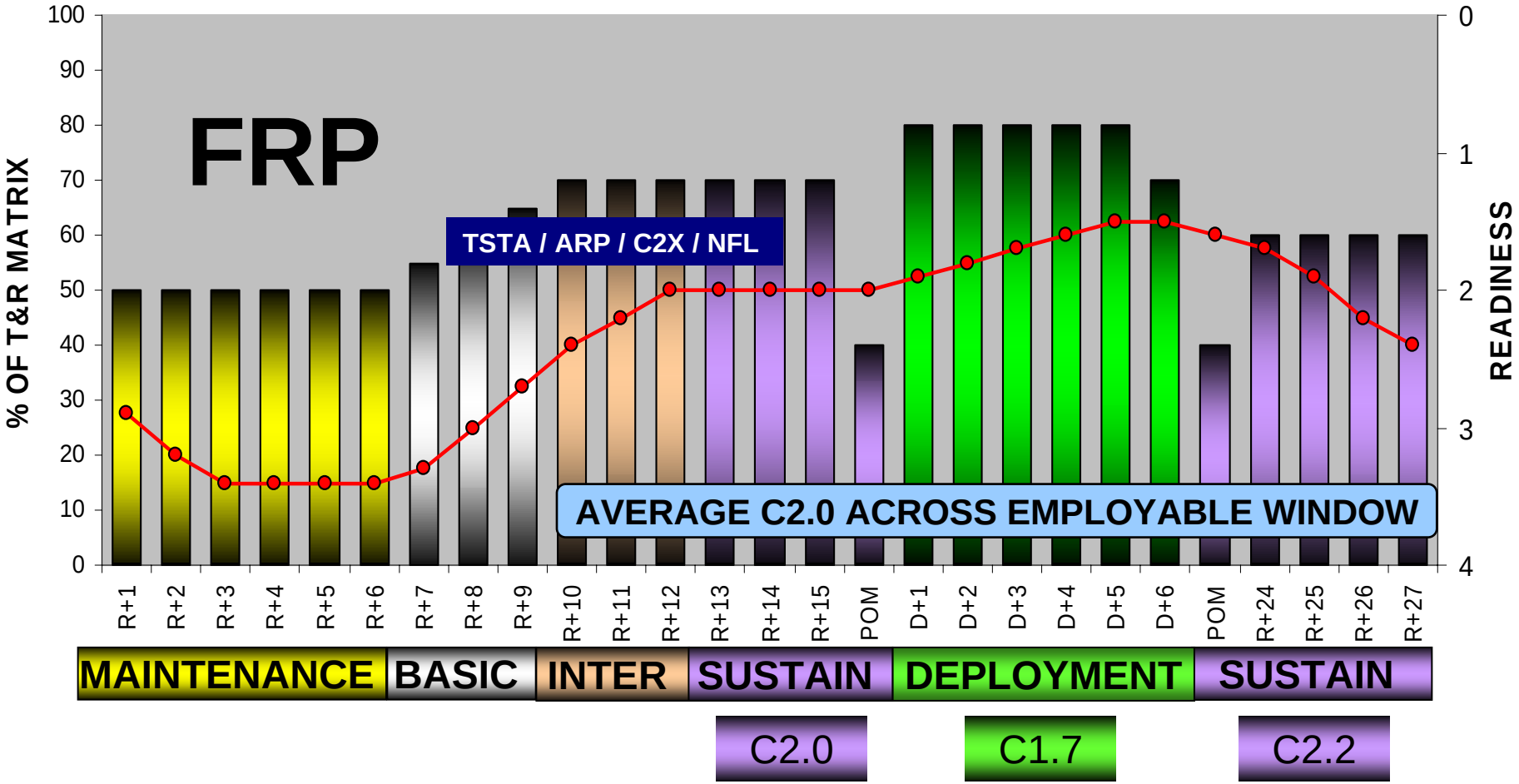
COMMANDER, NAVAL AIR FORCES – *OUR AIR BOSS*

SINGLE FLEET-DRIVEN METRIC:

AIRCRAFT READY FOR TASKING AT REDUCED COST

- INVENTORY (PEOPLE & STUFF)
- RELIABILITY
- CYCLE TIME
- TOTAL COST (VS. INDIVIDUAL COST)

PROVIDE WARFIGHTING OUTPUT
TODAY, TOMORROW, AND IN THE FUTURE



THE INSPIRATION . . . PAY FOR THE NAVAL AVIATION OF THE FUTURE

AIRCRAFT

PRESIDENT'S BUDGET (PB)

	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11
PB98	71	125	144	150	164								
PB99	71	119	143	154	164								
PB00	74	105	140	163	183	187	201						
PB01	73	116	128	130	173	177	187						
PB02	73	115	124	88	92	115	119	143	155				
PB03		115	124	90	83	85	105	147	193				
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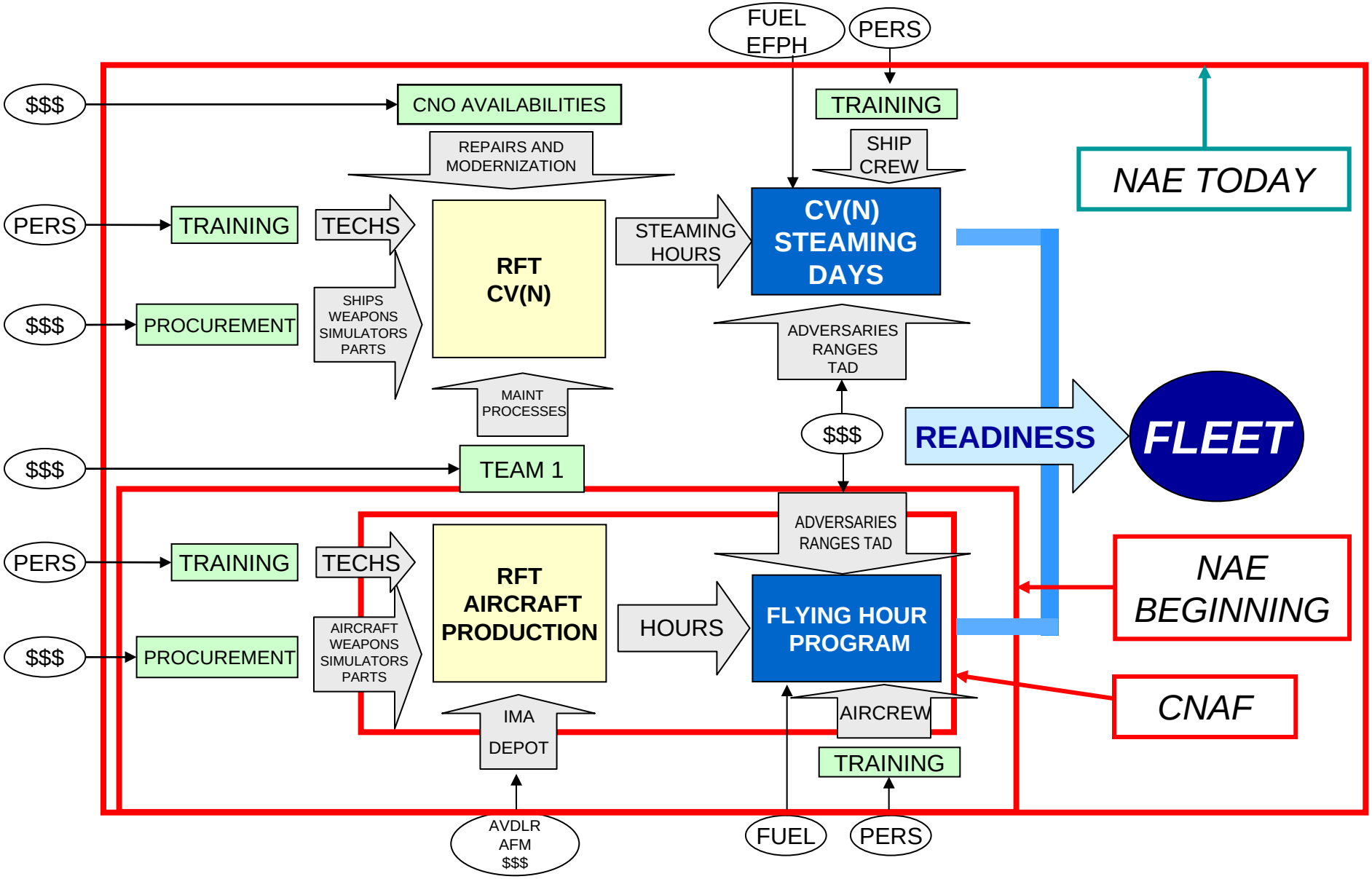
PB00 PLAN: BUY 201 AIRCRAFT IN FY05

FY05 REALITY: ON SCHEDULE TO BUY 110

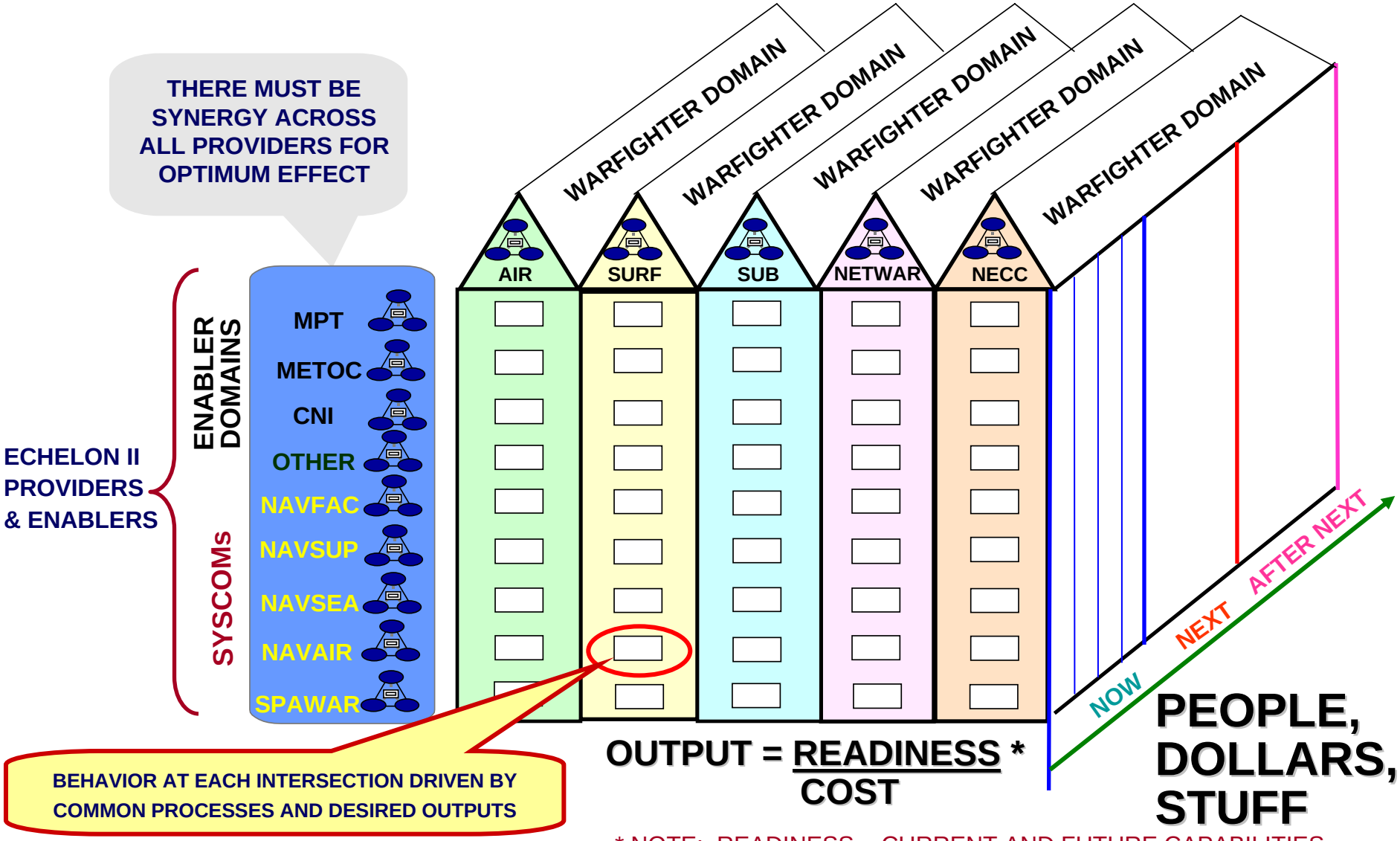
PB04 PLAN: BUY 303 AIRCRAFT IN FY09

FY09 PROJECTION: ON SCHEDULE TO BUY 249

NAE "SYSTEM" EVOLUTION



WARFIGHTER ENTERPRISE OPERATING CONCEPT



* NOTE: READINESS = CURRENT AND FUTURE CAPABILITIES

T/M/S TEAMS
BASIC BUILDING BLOCKS

DAY-TO-DAY READY FOR TASKING (RFT) MANAGEMENT BY ENTITLEMENT

COMMODORE
CAPT GARY SHOMAN

SQUADRONS

PMA
CAPT B.D. GADDIS
AIMD OFFICER
CDR JOHN KEMNA
SUPPLY OFFICER
CDR STAN DOBBS

RQMTS OFFICER (N78)
CDR BILL DOORIS

F/A-18 T/M/S TEAM

ROW VALUES FOR EACH MONTH OF THE FRTP = ENTITLEMENT

VFA FRP STANDARD

(DEMO ONLY – NOT A CURRENT STANDARD)

VFA STANDARD		
PAA =	12	
Crew/Seat Ratio=	1.42	
Crews=	17	
ESL=	1.5	
100% T&R Matrix=	28.0	
100% Training Hours=	476.0	
100% Training Sorties=	317	
Ashore Support Hours=	22	1.3
Afloat Support Hours=	22	1.3

	Reconstitute	Reconstitute	Reconstitute	Reconstitute	Basic	Basic	Basic	Basic	Basic	Intermediate	Intermediate	Intermediate	Surge	Surge	Surge	POM	Deploy	Deploy	Deploy	Deploy	Deploy	Deploy	PDL	Surge	Surge	Surge	Surge
	R+1	R+2	R+3	R+4	R+5 (B)	R+6 (B)	R+7 (B)	R+8 (B)	R+9 (B)	R+10 (I)	R+11 (I)	R+12 (I)	R+13	R+14	R+15	R+16	R+17	R+18	R+19	R+20	R+21	R+22	R+23	R+24	R+25	R+26	R+27
	ULT & Depot Mx				ARP to TSTA III					C2X to FLN			Sustain				Deployment						Sustain				
M Rating/FHP Standards																											
Predicted M Rating	2.9	3.2	3.4	3.4	3.4	3.4	3.3	3	2.7	2.4	2.2	2	2	2	2	2	1.9	1.8	1.7	1.6	1.5	1.5	1.6	2	1.9	2.2	2.4
% of T&R Matrix	50%	50%	50%	50%	50%	50%	55%	60%	65%	70%	70%	70%	66%	66%	66%	40%	80%	80%	80%	80%	80%	70%	40%	66%	66%	66%	66%
Training Sortie Standard	159	159	159	159	159	159	175	190	206	222	222	222	209	209	209	127	254	254	254	254	254	222	127	209	209	209	209
Support Hours	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
Total Hours Standard	260.1	260.1	260.1	260.1	260.1	260.1	283.9	307.7	331.5	355.3	355.3	355.3	334.9	334.9	334.9	212.5	402.9	402.9	402.9	402.9	402.9	355.3	212.5	334.9	334.9	334.9	334.9
Aircraft Standards																											
								100%																			
Flightline (Sorties) %	63%	63%	63%	63%	63%	63%	69%	75%	81%	88%	88%	88%	82%	82%	82%	50%	100%	100%	100%	100%	100%	88%	50%	82%	82%	82%	82%
Flightline (M Rating) %	80%	60%	60%	60%	60%	60%	60%	60%	80%	80%	80%	80%	80%	80%	80%	80%	90%	90%	90%	90%	90%		80%	80%	80%	80%	80%
Flightline %	63%	63%	63%	63%	63%	63%	69%	75%	81%	88%	88%	88%	82%	82%	82%	100%	100%	100%	100%	100%	100%	100%	80%	82%	82%	82%	82%
RFT %	47%	47%	47%	47%	47%	47%	52%	56%	61%	66%	66%	66%	62%	62%	62%	38%	80%	80%	80%	80%	80%	70%	38%	62%	62%	62%	62%
Flightline Standard	7.5	7.5	7.5	7.5	7.5	7.5	8.3	9.0	9.8	10.5	10.5	10.5	9.9	9.9	9.9	12.0	12.0	12.0	12.0	12.0	12.0	12.0	9.6	9.9	9.9	9.9	9.9
RFT/RBA Standard	5.6	5.6	5.6	5.6	5.6	5.6	6.2	6.8	7.3	7.9	7.9	7.9	7.4	7.4	7.4	4.5	9.6	9.6	9.6	9.6	9.6	8.4	4.5	7.4	7.4	7.4	7.4
Assigned TFLIR Standard	2	2	2	2	5	5	5	5	5	6	6	6	4	4	4	8	8	8	8	8	8	8	4.0	4.0	4.0	4.0	4.0
Ready TFLIR Standard	1.5	1.5	1.5	1.5	3.75	3.75	3.75	3.75	3.75	4.5	4.5	4.5	3	3	3	6	6.4	6.4	6.4	6.4	6.4	6.4	3	3	3	3	3
Assigned LDT Standard					4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Ready LDT Standard					3	3	3	3	3	3	3	3	3	3	3	3	3.2	3.2	3.2	3.2	3.2	3.2	3	3	3	3	3
Aircrew Standards																											
Pilot Upper Limit	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Pilot Lower Limit	12	12	12	12	12	12	12	12	14	14	14	14	14	14	14	14	16	16	16	16	16	16	16	16	16	14	14
ACTC Level 1 and Above	12	12	12	12	12	12	12	12	14	14	14	14	14	14	14	14	16	16	16	16	16	16	16	16	16	14	14
ACTC Level 2 and Above	9	9	9	9	9	9	9	9	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	11.2	11.2
ACTC Level 3 and Above	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	8	8	8	8	8	8	8	8	8	6.3	6.3
ACTC Level 4 and Above	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	3.5	3.5
CVW Strike Leads	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	3	3
SFARP	0	0	0	0	0	0	0	0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	3.5	3.5
NVG Quals	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	9.8	9.8

PET SUMMARY

PET COMPONENT	PET THESIS	IPT / PET LEADS	STATUS / REMARKS	POTENTIAL ROI ($M) (BASED ON ROM ESTIMATE)
GENERATOR CONTROL UNIT (GCU)	F/A-18A-D TOP 10 READINESS DEGRADERS – GCU RANKED AS #3 IN READINESS, #10 IN CANNIBALIZATION, AND #8 IN AVDLR	PROPULSION & POWER JILL MOORE / TOM PHAN (NADEP NI)	SOLUTIONS IDENTIFIED & RANKED WITH ROMS; READY TO BRIEF ALTERNATIVES ECD: 03/25/05	$4.20
F404 FLAMEHOLDER	RELIABILITY / READINESS ISSUE –400 ~600 HRS TOW, – 402 (SLOTTED) ~270 HRS TOW	PROPULSION & POWER JILL MOORE / BLAISE TYBOR (AIR-4.4)	IDENTIFIED BASELINE, SLOTTED AND RADIAL IN R&S; DETERMINE BEST ALTERNATIVE FOR PRIORITIZATION ECD: 03/25/05	(-)$0.70
F404 GRAY CABLE CONNECTOR	FALSE "LOW OIL" SIGNAL SENT TO COCKPIT, CAUSING COMMANDED IN-FLIGHT SHUTDOWNS AND MISSION ABORTS	PROPULSION & POWER JILL MOORE / BLAISE TYBOR (AIR-4.4)	FULLY FUNDED; MINIMAL EFFORT TO COMPLETE, LIMITED $ ECD: 03/25/05	$99.00
F404-400 HPT ROTOR (AFT COOLING PLATE & PBL)	LOWEST LIFE LIMITED COMPONENT OF THE HPT ROTOR ASSEMBLY AND ENGINE	PROPULSION & POWER JILL MOORE / BLAISE TYBOR (AIR-4.4)	FULLY FUNDED; $ INVESTED DEVELOP BEST IMPLEMENTATION ALTERNATIVES AND ROMS ECD: 03/2505	$89.00
AN/APG-65/73 XMTR ID SELF-TEST	**XMTR IS THE #2 AVDLR DEGRADER ON THE TOP TEN; IMPROVEMENT OF SELF-TEST SHOULD REDUCE BCM RATES**	**RADAR CDR BOWMAN / GERMAN LOPEZ (NADEP NI)**	**FULLY FUNDED ECP IMPROVEMENTS ECD: 04/14/05**	**$327.57**
AN/APG-65/73 XMTR ID SELF-TEST	XMTR IS THE #2 AVDLR DEGRADER ON THE TOP TEN. IMPROVEMENT OF SELF-TEST SHOULD REDUCE BCM RATES	RADAR CDR BOWMAN / GERMAN LOPEZ (NADEP NI)	FULLY FUNDED ECP IMPROVEMENTS ECD: 04/14/05	$327.57
AN/APG-65/73 XMTR	XMTR IS THE #2 AVDLR DEGRADER ON THE TOP TEN	RADAR CDR BOWMAN / GERMAN LOPEZ (NADEP NI)	PBL NEGOTIATIONS IN PROCESS ECD: 04/14/05	UNDER ANALYSIS (NOTE: 3)
CVRS FLEET SUPPORT	CVRS HAS AN EXCESSIVE BCM RATE, AND CND FROM THE OEM DUE TO THE LACK OF TESTING CAPABILITY @ THE O/I-LEVEL	CORE AVIONICS DON BLOTTENBERGER / BRETT GARDNER (NADEP NI)	FULLY FUNDED; FLEET IMPLEMENTATION IN PROCESS ECD: COMPLETE AS OF 02/11/05	$10.72

TOTAL	$551.29

NOTE 1: COST TO COMPLETE UNKNOWN; THREE COMPETING ALTERNATIVES; PET TO DETERMINE MOST EFFECTIVE STRATEGY

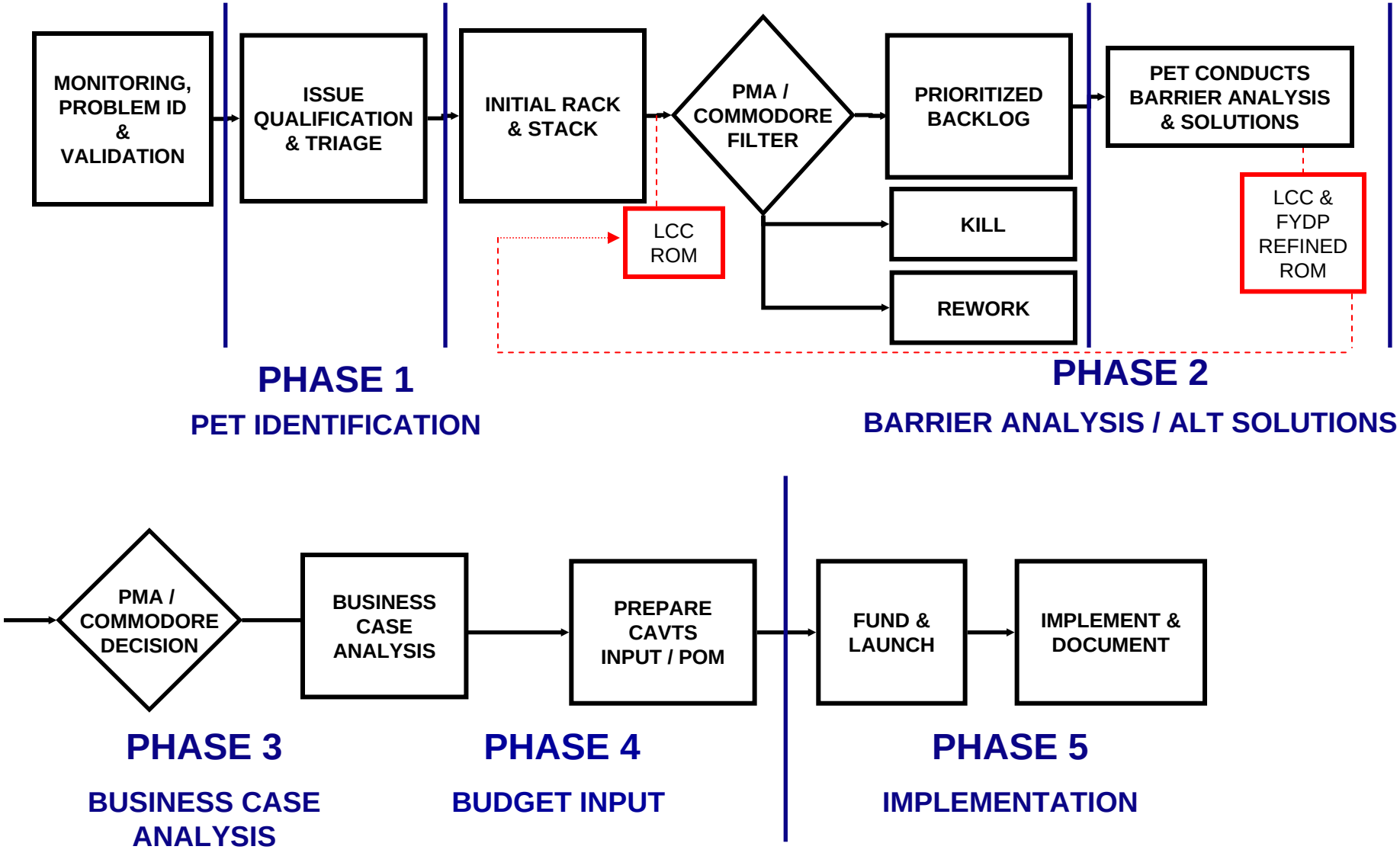
NOTE 2: COST TO COMPLETE UNKNOWN; PET TO ANALYZE CORRECTIVE ACTION

NOTE 3: PROJECT CHANGED FROM RELIABILITY PROCESS TO THE XMTR AS THE PRODUCT; ROI IS BEING RECALCULATED

CWRIIP

COST WISE READINESS INTEGRATED IMPROVEMENT PROCESS

VERSION D 6-17-05 EXECUTIVE SUMMARY



AIMD LEMOORE

- **JUNE 2000: CHALLENGES**
  - **OVER 30 BARE FIREWALLS (NO ENGINE IN THE AIRCRAFT)**
  - **HIGH MAINTENANCE BACKLOG AND PRODUCTION INEFFICIENCIES**
  - **LOW MORALE: "WE'VE ALWAYS DONE IT THAT WAY" ATTITUDE**
  - **OVERALL MANNING AT 70% OF ALLOWANCE**
  - **BACKLOG (OTHER THAN ENGINES) AT 1260 ITEMS**
  - **200 EXREPS (HOLES IN AIRCRAFT / NO PARTS ON THE SHELF IN SUPPLY)**
  - **POWER PLANTS MANNING AT 62%**
  - **ENGINE BACKLOG @ 35 AWM**
  - **MODULE BACKLOG @ 190 AWM**
- ***NO LIGHT AT THE END OF THE TUNNEL AND MORE PARTS & ENGINES COMING IN THE DOOR DAILY***

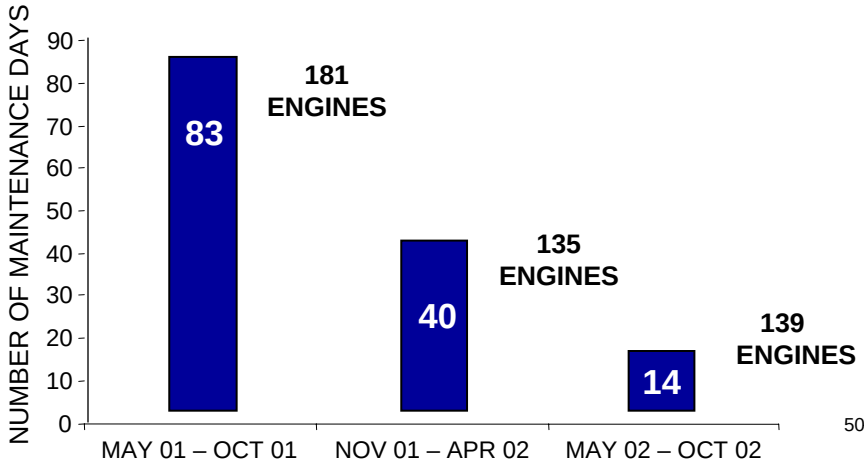
SOMETHING HAD TO BE DONE QUICKLY . . .

AIMD LEMOORE POWER PLANTS
BEFORE

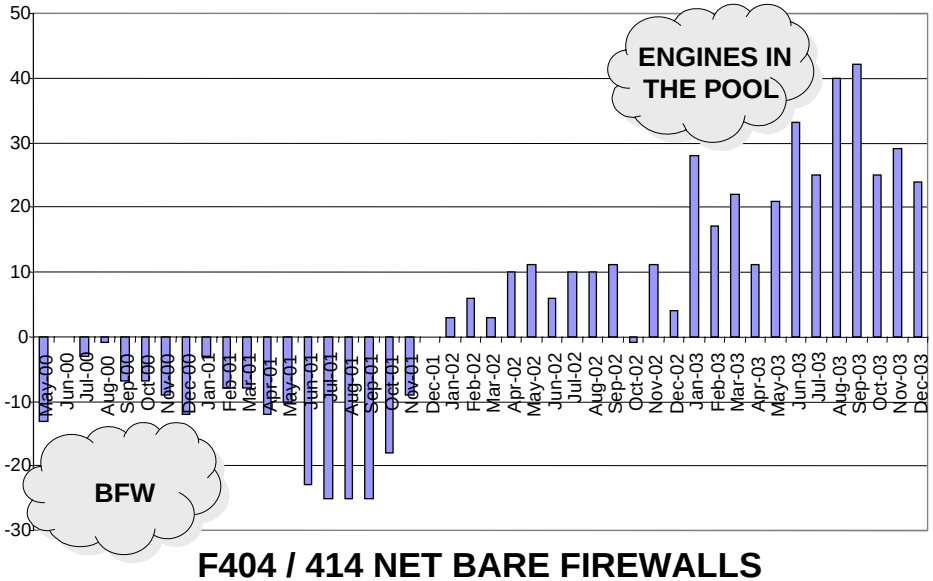
RESULTS OF LEAN

400 DIVISION – POWER PLANTS

REDUCED ENGINE TURN AROUND TIME



- **EXCESS CAPACITY**
  9→5→3 REPAIR SITES
- **EXCESS MANPOWER**
  350+ →167
- **EXCESS INVENTORY**
  RETIRED 40 ENGINES



F404 / 414 NET BARE FIREWALLS

AIMD LEMOORE POWER PLANTS
AFTER

WHAT DOES LEAN MEAN TO THE FLEET?

- 8 HOUR DAYS INSTEAD OF 12 HOUR DAYS FOR OUR AIMD SAILORS
- IMPROVED RE-ENLISTMENT RATES FROM LESS THAN 50% TO OVER 76%
- MORE PARTS ON THE SHELF AND LESS IN THE REPAIR CYCLE
- RFT (READY FOR TASKING) AIRCRAFT ON THE RAMP
- A POOL OF RFI ENGINES FOR OUR NAVY AND MARINE CORPS
- THE FLEET RECEIVES A PRODUCT WITH IMPROVED QUALITY
- ESTABLISHED REPEATABLE, CONSISTENT PRODUCTION PROCESSES

WHAT DOES THE FUTURE HOLD?

- **LEAN IS INTEGRAL TO NAVAIR AIR*SPEED* AND IS HERE TO STAY**
- **LEAN PRINCIPLES MUST BE UNDERSTOOD – THEY ARE THE KEY TO CONTINUOUS PROCESS IMPROVEMENT**
- **LEAN ENABLED THE EFFORT TO CONSOLIDATE F404 AIMDs AND THAT CONSOLIDATION IS UNDERWAY RIGHT NOW**
  - 9 SITES IN 2004
  - 5 SITES IN 2005
  - 3 SITES IN 2006 (OPTIMUM STATE)

NAE ACHIEVEMENTS
2005 FLYING HOUR PROGRAM (FHP)

WE EXECUTED THE FHP AND SUPPLEMENTAL FUNDING FOR OEF / OIF + OTHER OPS (E.G., HURRICANE KATRINA) MORE EFFICIENTLY

- **FHP EFFICIENCY RESULTED IN *$123M* AVAILABLE FOR OTHER OMN PRESSURES**
  (E.G., FUEL / OBLIGATIONS WITHIN THE ENTERPRISE)
  - ORDER OF MAGNITUDE: $123M =
    - **TWO (2) F/A-18E/F *SUPER HORNETS*** **. . . OR . . .**
    - **SEVEN (7) MH-60S *SEAHAWKS*** **. . . OR . . .**
    - **167 *TOMAHAWK* MISSILES** **. . . OR . . .**
    - **267 *ADVANCED MEDIUM RANGE AIR-AIR MISSILES* (AMRAAM)**

NOTE: CNAF AFAST DATA – USN NAVRIIP T/M/S

THE NAE ORGANIZATION

NAE BOARD OF DIRECTORS (BOD)

VADM ZORTMAN, CNAF *(CEO)* *
RADM STARLING, CNAL *
RADM BOZIN, N82
RADM MOFFITT, NSAWC
MR. KUNESH, DASNLOG

VADM MASSENBURG, NAVAIR *(COO)* *
RDML QUINN, CNATRA
RADM BULLARD, CFFC N4/7
RADM ROBB, N43 *
MR. BALDERSON, DASNAIR

LTGEN CASTELLAW, USMC AVN
RADM STONE, NAVSUP
RADM KILCLINE, N78 *(CFO)* *
RDML LEMMONS, RES

VADM MORAN, NETC
VADM MCARTHUR, NETWARCOM

VADM HOEWING, NMPC
RADM WEAVER, CNI

VADM SULLIVAN, NAVSEA
RADM SLAGHT, SPAWAR

* NAE BOD EXCOM (5 MEMBERS)

CARRIER READINESS TEAM
CAPT DONEGAN

NAVRIIP CFT
RADM STARLING

- **READINESS, STANDARDS & POLICY**
  RADM STARLING
- **MAINT & SUPPLY CHAIN MGT**
  RADM ROESNER / RDML WILLIAMS
- **ACQUISITION & LIFE CYCLE SUPPORT**
  RADM VENLET

TOTAL FORCE READINESS CFT
RDML SHANNON

- **TOTAL FORCE READINESS STANDARDS & POLICY**
  RDML SHANNON
- **TOTAL FORCE TRAINING DEVELOPMENT & DISTRIBUTION**
  RDML QUINN / SES HOLCOMB
- **TOTAL FORCE SHAPING**
  RDML LEMMONS / CAPT BARAN

COST MGMT CFT
RADM KILCLINE (CFO)
SES GILPIN

- **PLANNING**
  CAPT PORTER
- **METRICS**
  MR. SNYDER
- **EXECUTION**
  CAPT MCALOON

NAVRIIP CFT STRUCTURE

NAVRIIP READINESS CROSS FUNCTIONAL TEAM (CFT)

TEAM LEAD: RADM STARLING, CNAL
CHIEF OF STAFF: CAPT J.R. BROWN

NAVRIIP METRICS / SCHEDULING / STAFF

- ***LINKAGE***
- ***ALIGNMENT***

T/M/S TEAMS DRIVE FOCUS ON RFT, M-RATING, COST

ACQUISITION AND LIFE CYCLE SUPPORT

LEAD: RADM VENLET (PEO (T))
ACTION OFFICER: CAPT WALLACE

- **PROVIDE NAE WITH COMPREHENSIVE VISIBILITY INTO ACQUISITION EXPENDITURES IN EXECUTION**
- **FUTURE READINESS METRICS DEVELOPMENT AND MANAGEMENT**
- **ACQUISITION COST AND CYCLE TIME REDUCTION INITIATIVES**
- **EFFECT MAJOR REDUCTION IN HISTORICAL RDT&E COST GROWTH TRENDS**

THE INSPIRATION . . . PAY FOR THE NAVAL AVIATION OF THE FUTURE

AIRCRAFT

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FY05 REALITY: ON SCHEDULE TO BUY 110

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FY09 PROJECTION: ON SCHEDULE TO BUY 249

BACKUP

WAS LEAN A SUCCESS?
– DEFINITELY

- **IMPROVED SAILOR MORALE**

  SAILOR RETENTION IS CRITICAL

- **MET INCREASING CUSTOMER DEMANDS**

  MORE F/A-18s AT LEMOORE

- **CHANGED EXPECTATIONS**

  ZERO BARE FIREWALLS IS POSSIBLE

  ALONG WITH AN RFI POOL

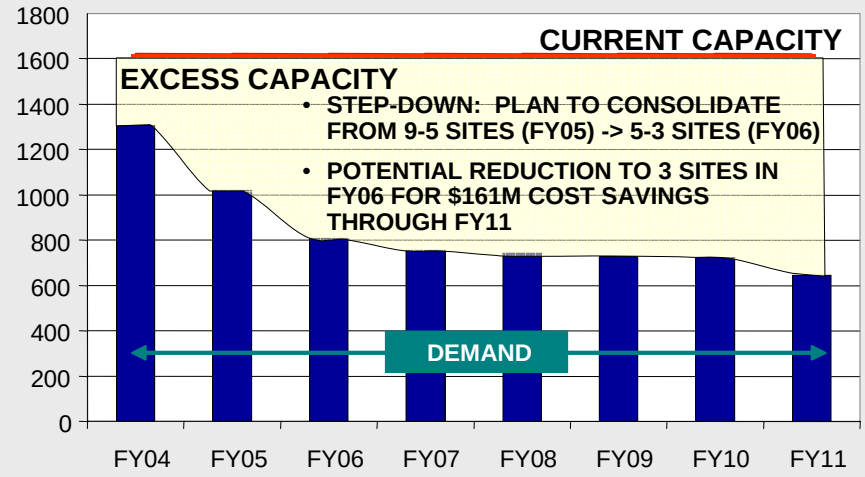
- **NEED FOR IMMEDIATE IMPROVEMENT**

  THE NUMBERS DON'T LIE

F404 I-LEVEL APPROACH

OUTCOME-BASED RESULTS

F404 ENGINE DEMAND VS. CAPACITY



NOTE: DEMAND INCLUDES 15% SURGE CAPACITY

UTILIZE OBJECTIVE CRITERIA

- DEMAND – WHAT NEEDS TO BE DONE
- PERSONNEL – HOW MANY ARE NEEDED TO ACCOMPLISH REPAIR
- SIZE – REQUIRED SQUARE FOOTAGE
- COST – HOW MUCH COULD BE SAVED

OPERATE WITH BUSINESS DISCIPLINE

- OPTIMIZE NAVY/USMC TACTICAL AVIATION AIRCRAFT
- IMPLEMENT WORLD CLASS BUSINESS IMPROVEMENTS
- WORK WITH ENTERPRISE-FOCUSED TEAMS

F404 I-LEVEL CONSOLIDATION

CURRENT LOCATIONS

- IWAKUNI, JAPAN
- BEAUFORT, SC
- MIRAMAR, CA
- LEMOORE, CA
- OCEANA, VA
- PAX RIVER, MD
- FORT WORTH, TX
- JACKSONVILLE, FL
  - I-LEVEL ONLY; DEPOT REPAIR REMAINS
- ATSUGI, JAPAN

PLAN TO STOP F404 REPAIR ACTIVITIES IN FY05

OVERVIEW

- CURRENT STRUCTURE OF 9 IMA SITES REPRESENTS 57% EXCESS REPAIR CAPACITY
- F404 ACTIVITIES IMPACTED ONLY; OTHER IMA WORKLOAD REMAINS
- MANPOWER REDUCTIONS WILL OCCUR THROUGH ATTRITION, RETIREMENT, ETC.
- FINAL CONSOLIDATION MAINTAINS 15% OR MORE SURGE CAPACITY
- F404 I-LEVEL CONSOLIDATION WILL ENSURE THE CORRECT AMOUNT OF READINESS AT THE RIGHT COST

STEP DOWN PLAN

INITIAL CONSOLIDATION

- FY05 (9 TO 5 I-LEVELS)
- REALIZE READINESS EFFICIENCIES
- CNAF TO DEVELOP & IMPLEMENT

REVIEW METRICS (MAR 05)

- OPTIMIZE INVENTORY
- IMPROVE RELIABILITY
- REDUCE CYCLE TIME
- REDUCE COST

FINAL CONSOLIDATION

- FY06 (5 TO 3 I-LEVELS)
- ELIMINATE EXCESS CAPACITY
- MAINTAINS SURGE CAPABILITY
- CAPTURE SAVINGS FOR REINVESTMENT