

2006 DOD Maintenance Symposium
Reno, Nevada

Fleet Readiness Center Southwest

“Move Your Cheese Now!”

Captain Fred Cleveland, USN

Commanding Officer





Who We Are---FRC Southwest



- Fix it once
- Fix it right
- Fix it on time

Sec Nav Priorities

- ❑ Optimize the Workforce
- ❑ Prosecute the GWOT
- ❑ Build the Navy-Marine Corps for Tomorrow
- ❑ Emphasize Safety, Manage Risk
- ❑ Reinforce Ethics
- ❑ Lean/Six Sigma

CNO Priorities

Mission Accomplishment

- ❑ Sustain Combat Readiness
- ❑ Build a Fleet for the Future
- ❑ Develop 21st Century Leaders

NAE/NAVAIR Goals

- ❑ Balance Current and Future Readiness
- ❑ Reduce the Cost of Doing Business
- ❑ Enhance Agility
- ❑ Improve Alignment
- ❑ Implement Fleet-Driven Metrics

Depot Priorities

- Alignment
- Cycle-Time Reduction
- Reliability
- I2D Integration
- Material Management
- Reduce Cost of Doing Business

What We're Doing

Alignment

Focus on Innovation
That amplifies by leveraging
aligned goals

Enterprise Alignment

Fleet Support





FY-06 Production Results

Plan / Actual

* Helo-line:	(46) / (44)	H-60 IMC aircraft
	(59) / (59)	H-1 IMC aircraft,
	(9) / (8)	H53 IMC aircraft
* E-2/C-2:	(9) / (7)	E-2 aircraft
	(9) / (8)	C-2 aircraft
* F/A-18:	(53) / (47)	PMI-1s
	(32) / (32)	PMI-2s
	(13) / (11)	Crash Damaged aircraft
	(13) / (7)	CBR+ aircraft
	(3) / (3)	"E/F" AEPD aircraft
* Field Service:	(25) / (23)	EA-6B IMC aircraft
	(6) / (6)	AV-8 IMC aircraft

**Aircraft (247) - approx 94%
of FY2006 plan**

• Components:	39,159 / 34,279 Units
	3,813 / 3,460 PBL units
	3,591 / 3,000 DMISA units
	1,235 / 829 FMS units
	28,164 / 24,990 FE units
	154 / 126 4Z units
	2,202 / 1,874 Concurrent units

**Components (34,279) - 88%
of FY2006 plan**

- * **LM2500 Engines:** (10) / (13)
- * **Mobile Facilities:** (57) / (56)
- * **Calibration:** (14,218) / (12,850) units
- * **Manufacturing:** (1,822) / (1,644) items

**Ensured Commander,
Naval Air Forces "Ready
For Tasking" Aircraft
Goals**





THIS MONTH!

FLEET READINESS CENTERS (FRC)

NORTHWEST

AIMD WHIDBEY ISLAND
(Crane ALQ-99 workload)

MID ATLANTIC

AIMD OCEANA
AIMD Norfolk
AIMD NAS Corpus Christi
NADEP CP Det Oceana
NADEP JAX Det Norfolk
NADEP JAX Det Oceana
NAWC Lakehurst Det Norfolk

Site Patuxent River

WEST

AIMD LEMOORE
NADEP NI Det Lemoore

Site Fallon
NADEP NI Det Fallon

Site N. Orleans

AIMD Atlanta (E-2C Support)
NAVAIRES New Orleans

EAST

NADEP CHERRY POINT
MALS-14 Cherry Point
AIMD Willow Grove
FRC East Det Lakehurst

Site Fort Worth

AIMD Atlanta (FA-18 Support)
NAVAIRES Fort Worth

Site New River

MALS-26 & 29 New River
NADEP CP Det New River

Site Beaufort

MALS-31 Beaufort
NADEP JAX Det Beaufort

Site Pendleton

MALS-39 Pendleton
NADEP NI Det Pendleton

Site Pt. Mugu

Site Yuma

MALS-13 Yuma
NADEP NI Det Yuma

SOUTHWEST

MALS-11 & 16 Miramar
NADEP NI Det Miramar
AIMD North Island
NADEP North Island
NADEP North Island DET NI

SOUTHEAST

NADEP JACKSONVILLE
NADEP JAX Det Cecil Field
AIMD Brunswick
AIMD JAX

Site Mayport

AIMD Mayport
NADEP JAX Det Mayport
NAWCAD LKE Det Mayport

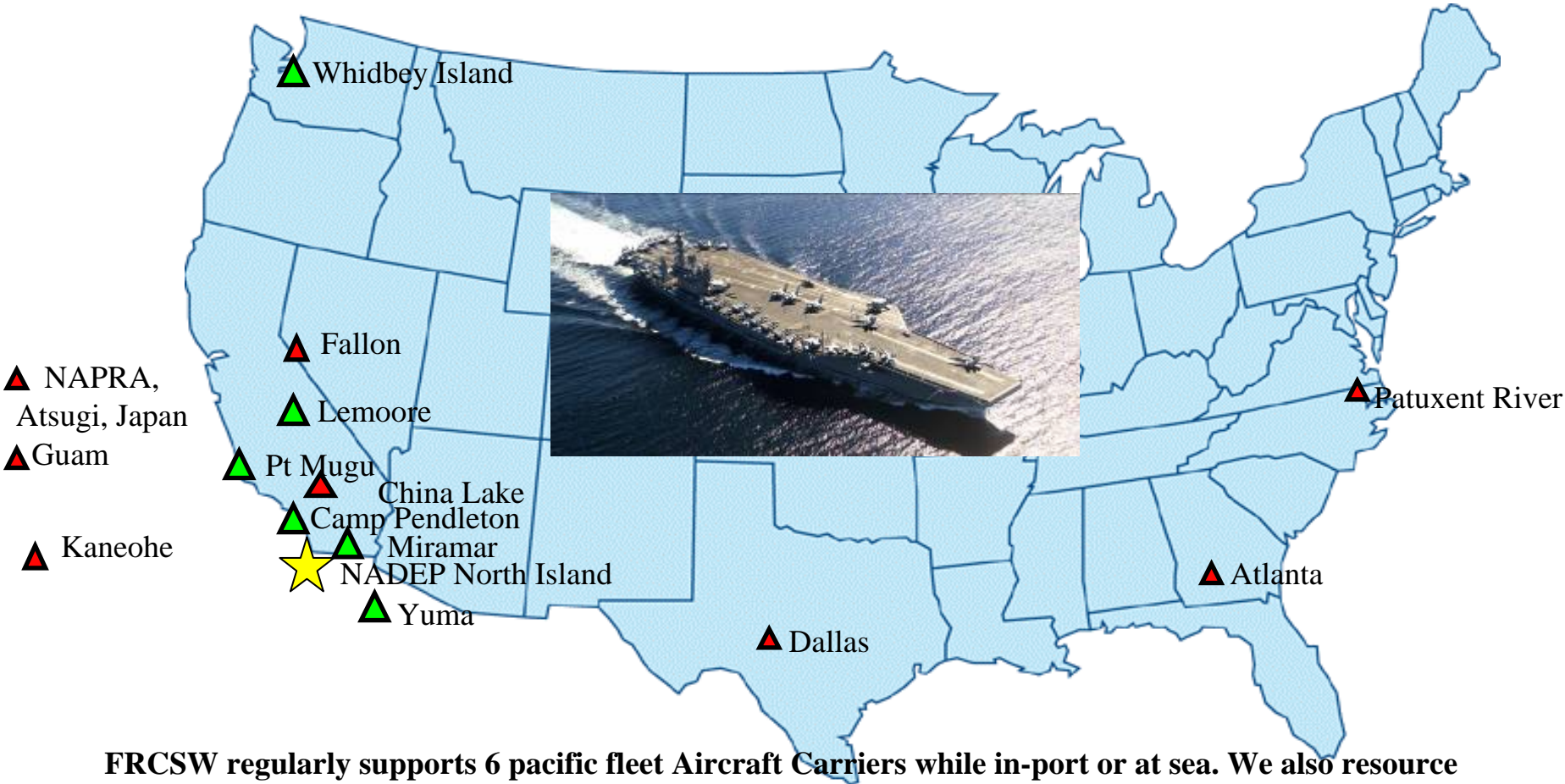
Site Key West

A MAJOR TRANSFORMATION IN DELIVERY OF AVIATION MAINTENANCE!



FRC Southwest

A Presence Far Beyond San Diego

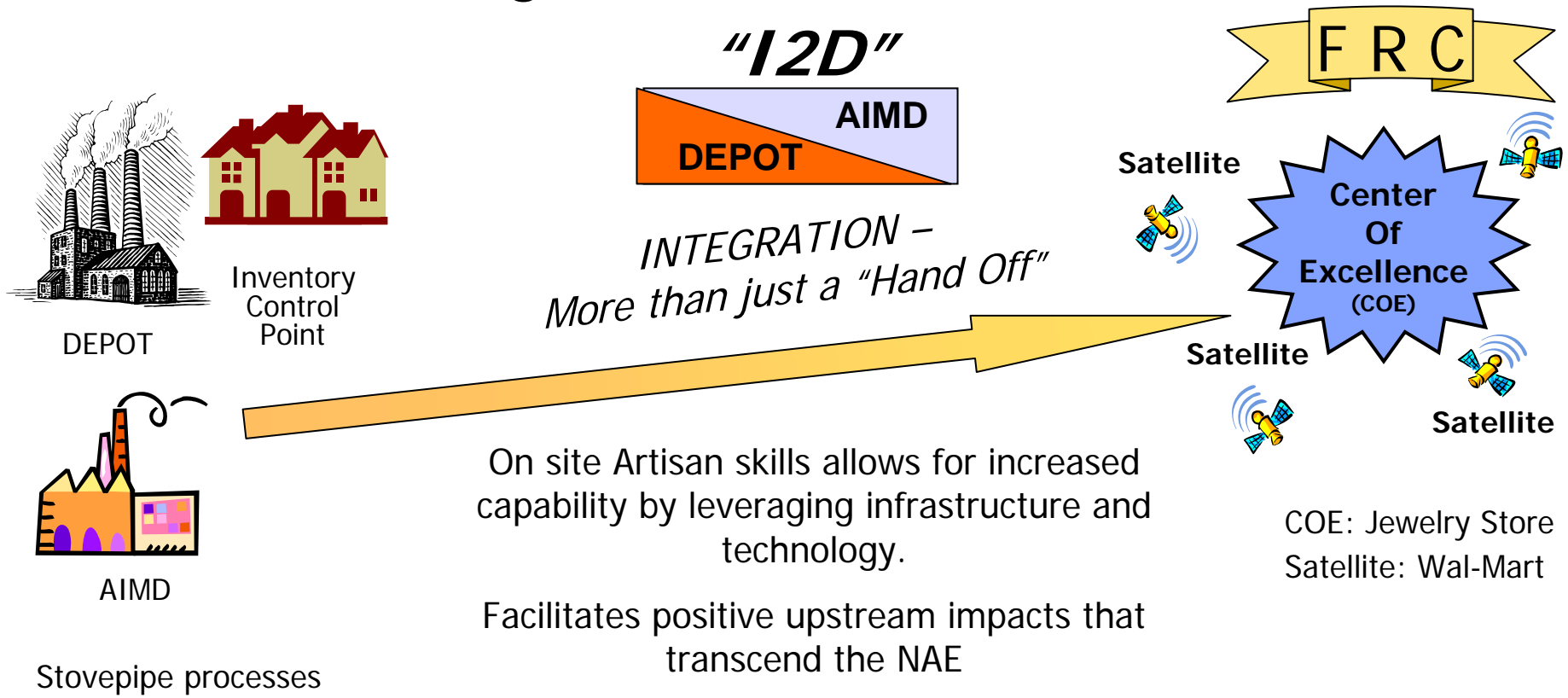


FRC Southwest regularly supports 6 Pacific Fleet Aircraft Carriers while in-port or at sea. We also resource numerous long and short-term detachments at many sites around the country and the globe. The FRC Southwest team provides immediate worldwide Warfighter support wherever and whenever needed!



The Naval Aviation Enterprise. . .

Transforming into Fleet Readiness Centers



More "Move your cheese now!"



A Simple FRC Principle

Don't Do Stupid Stuff!

Remove at
squadron

Unwrap
Screen at IMA

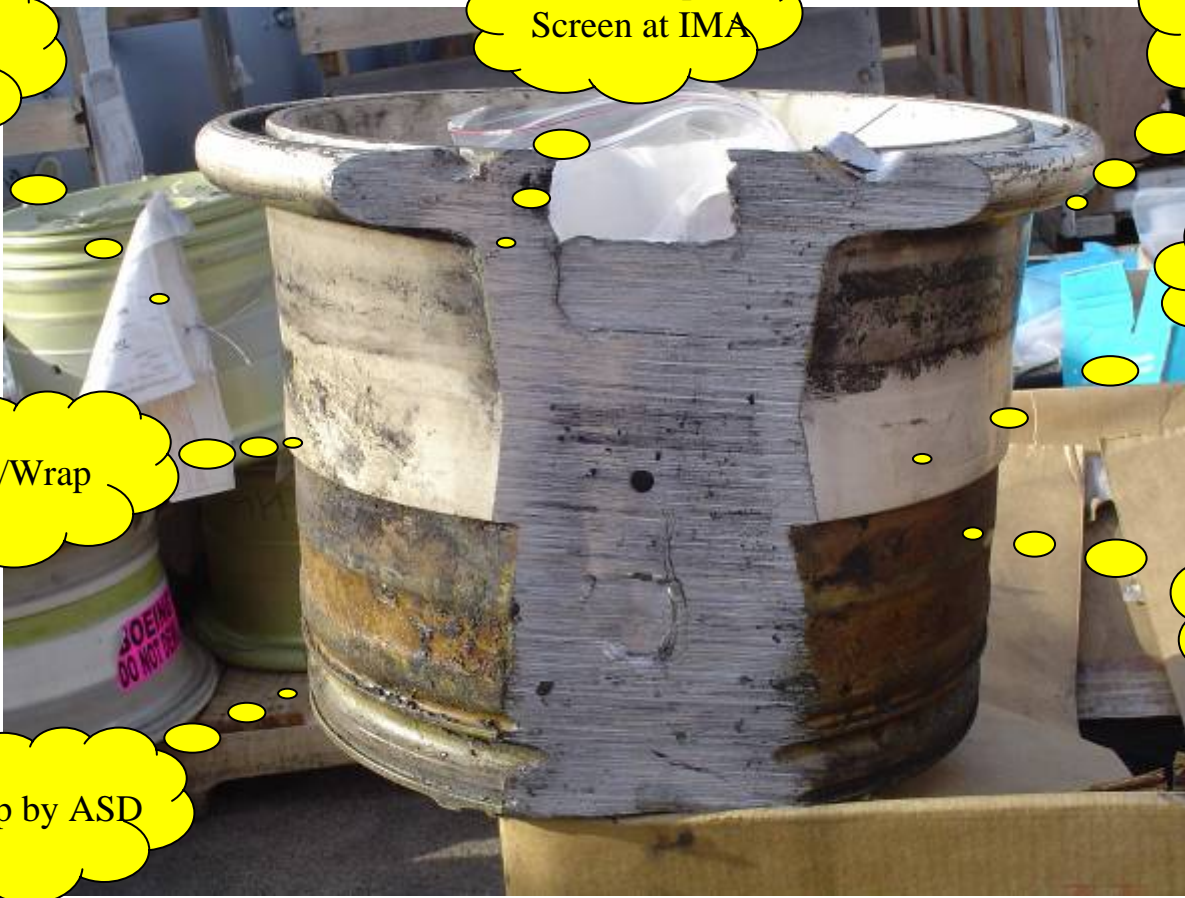
BCM at IMA
Pack/Wrap/Ship
At ASD

Stow/Unstow
at DDDC

Order/Wrap

Detrash/Induct at D
Condemn!

Pickup by ASD





FRC Planning

I2D



Whidbey Island

- Canopies, EA-6B Flight Controls, P-3 Components

\$7,462,727

Lemoore

- Radar BCM Interdiction Team
 - Number to Date: 1
 - APG-65 Pwr Supply Converter
 - ✓ Value to FHP: \$4,601
 - RFTF Bench Round Robin: 1
- Composites, Hydraulic, Avionics Interdictions
 - Number to Date: 44
 - ✓ Value to FHP: \$ 383,179

lyd, Avionics Interdictions
 er to Date: 59
 ie to FHP: \$ 2,422,917

Pt. Mugu

- Finalizing BCM Analysis
- 3-artisans planned for support

YUMA

- Finalizing BCM Analysis

NORIS Petri Dish:

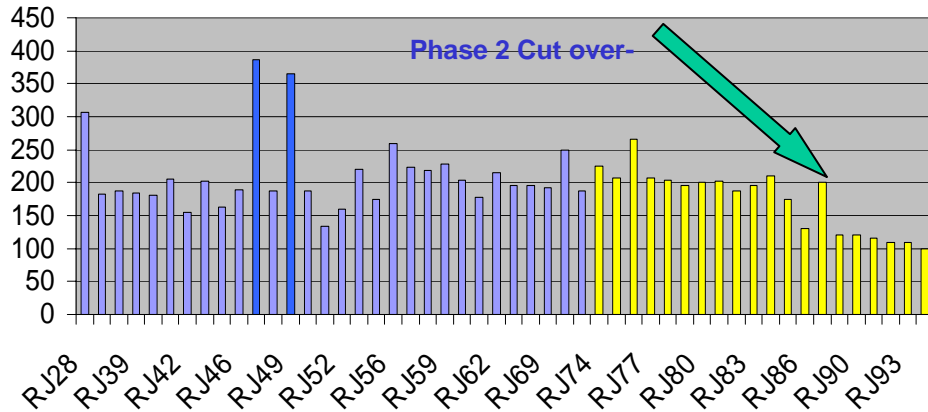
- AirSeed Plans in Final (Avionics)
- BCA with Reserves week of June 6
- BCM Interdictions
 - Number to Date: 51
 - ✓ Value to FHP: \$159,597

FY06 BCM Interdictions: *up* 41% from FY2005

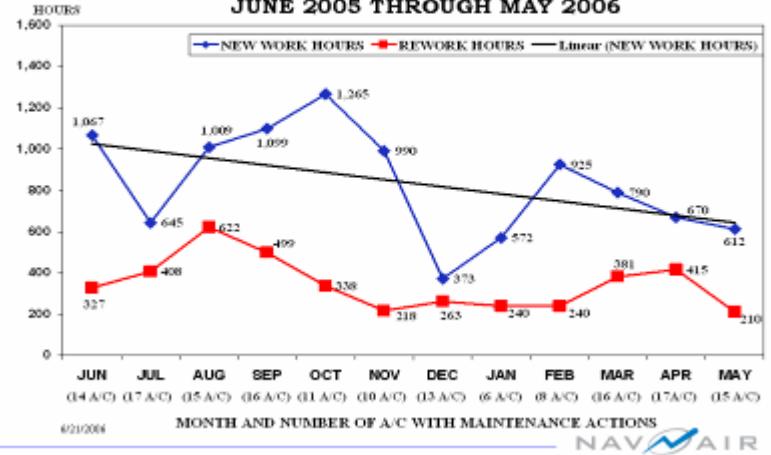
- ✓ Value to Flying Hour Program: **\$10,433,021**
- ✓ To date 344 items (51% more units)

AIRSpeed/LEAN Success Stories

F/A-18 PMI 1TAT SOLD & INFLOW ACFT

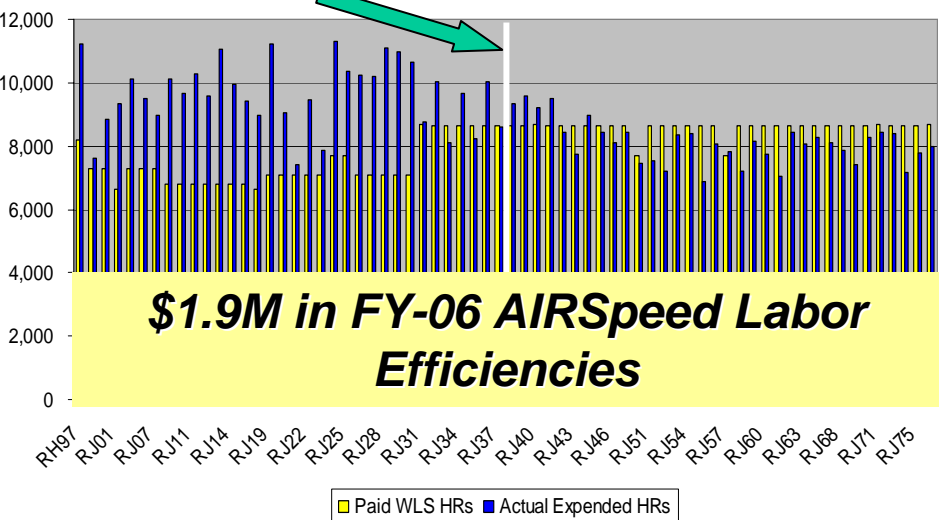


F/A-18 AIRCRAFT PROGRAM
TOTAL VIDS/MAFS MANHOUR DATA
JUNE 2005 THROUGH MAY 2006



F/A-18 HOURS Paid vs Actual

Phase 1 Cut over



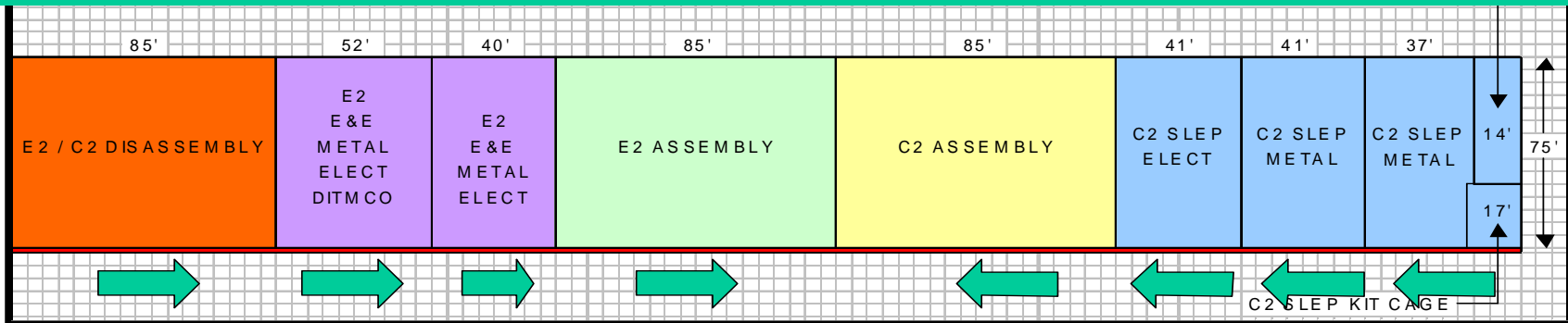
\$1.9M in FY-06 AIRSpeed Labor Efficiencies

- Phase 1, Visual Synchronization provided reduction in cost by 18 % down by 1744 man-hours
- Phase 2, Single Piece Flow reducing TAT by 33% to 120 Days
- Quality Reduction in MAF per man-hour down by 29% from first half of year



E-2/C-2 - Single Piece Flow

Synchronized Pull system based on Fleet Flightline Requirement



E-2/C-2 Local Mfg BB Project Touches All Areas of NAVAIR NI

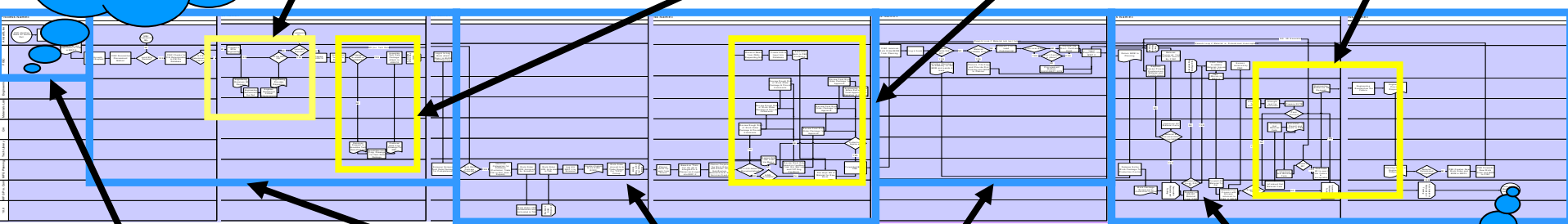


ENG CSI Determination
 4.3 Green Belt
 Jeff King
 CT reduction from 13 days to 2 days
 Savings in Prod Overhead Man Hrs Negotiated

Tech Data Package Assembly
 6.8 Green Belt
 Rebecca Buchta
 CT Reduction from XX days to <1 Day
 Eliminate Rework
 Reduction in Man hrs/yrs

MFG Plan ENG Approval
 4.3 Green Belt
 Dick Hogan
 Ct Reduction from 17 days to 3 days
 Savings in Prod Overhead Man hrs Negotiated

ENG Chemical and Strength Test for Mfg Materials
 4.9 Green Belt
 Ken LaVere
 Ct Reduction from xx days to 2 days
 Savings in Prod Overhead Man Hrs



ID & Approve Needed AC Part
 E2/C2 6.0 GB
 Denise Brent
 Ct Reduction from 5 days to 1 day with Savings in Prod work/hrs

Local Mfg Request Devel.
 NAVSUP GB
 LCDR Ken Flaherty
 CT reduction from 16 days to 4 days with Savings in Transaction fees

MFG Planning Process / Approval
 MFG 6.0 GB
 JB Thurmond JR
 CT Reduction from 8 days to 3 days with Savings in Man Hrs/Wk Years

Procurement of Materials/Tools
 NAVSUP GB
 LCDR Ken Flaherty
 reduction from 8 to 4 days with Savings in Transaction fees

Forwarding and Accumulation
 MFG 6.0 GB
 John Rubio
 CT reduction from 18 days to 4 days with Savings in Man Hrs



6.0 Process

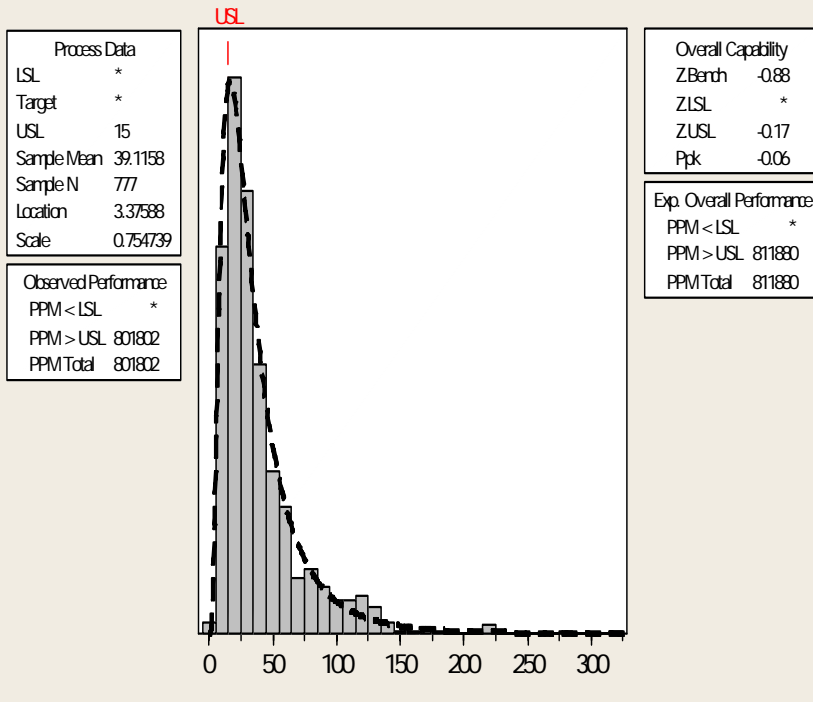
Pilot Complete – Replication on F-18, Implementation on all E-2/C-2



MFG Planning Before and After Lean/Six Sigma

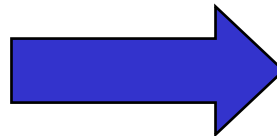
Process Capability of 13-0 from I D to Artisan

Calculations Based on Lognormal Distribution Model



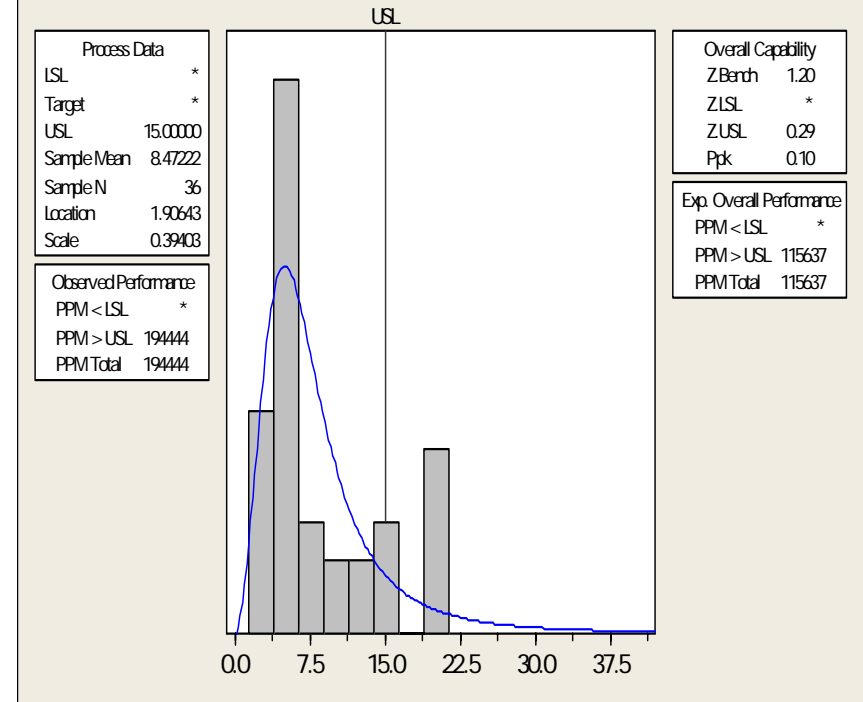
Before Lean/Six Sigma –

Process was 20% capable of Meeting 15 Day TAT



Process Capability of From E&E to Artisan

Calculations Based on Loglogistic Distribution Model



After Lean/Six Sigma –

Process Is 80% Capable of meeting 15 Day TAT



FY-06 AIRSpeed Yield Summary

Aircraft Lines

- **F-18 PMI-1**
- **H-1**
- **E-2/C-2**
- **CH-53**

Manufacturing

Components

Labor Hours	Flightline Inventory/Cycle Time
Down 20% - \$1.9M Execution	At or Above Entitlement
Down 10% 1.8M FY-07 WLS Reductions	WIP Reduction 8 AH-1W (\$8M Inv)
C-2 SLEP APN-5 Reductions 2K Hours Re-wire, 1.5K Hours SLEP	C-2 @ F/L (Adding Re-wire for 30 Days C/T) E-2 Gap Driven by Mods
At WLS	Was over 300 days, delivered last aircraft at 218 days, driving towards 175 days over next three aircraft w/Current Staffing
50% Reduction in Sheet Metal Cycle Time	
\$10.4M Repair Interdiction Savings	

Process Axis 

Product Axis

F/A-18 PMI-1/CBR+
Lean Effort

E2/C2 PMI-2/PMI-3
SLEP Lean Effort

CH-53, H-1, H-60
Lean Effort

Components
Lean Effort

BOM Improvement
Projects

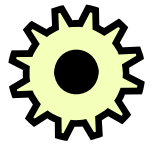
E2/C2
Manufacturing
BB Project

F/A-18
Manufacturing
BB Project

Manufacturing
Lean Effort

Business Unit Material
Ordering Projects

FISC Lean
6 Sigma

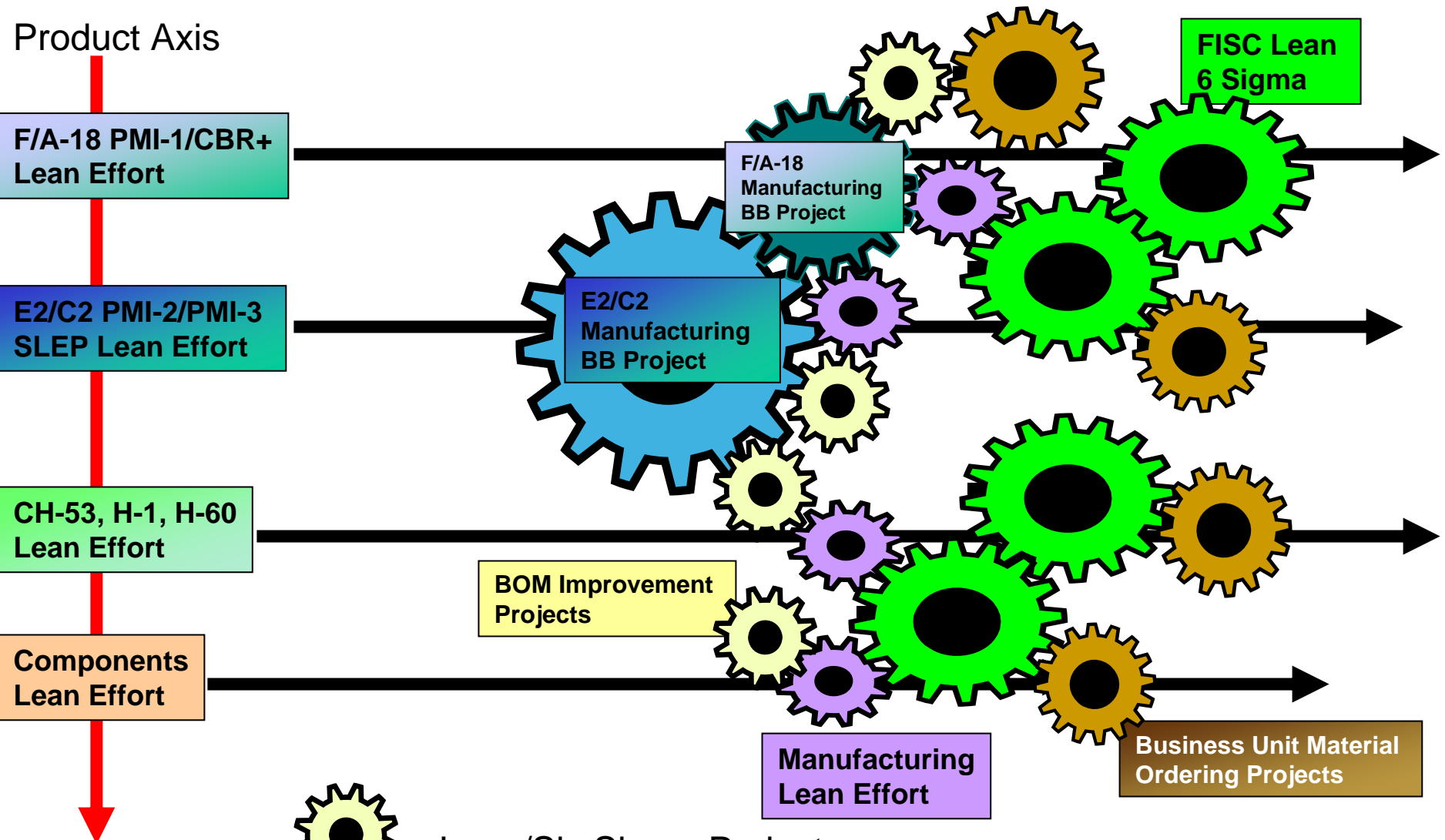


= Lean/Six Sigma Project



= Product Line Lean Effort

Connect the dots
in the value chain!!





Focus for Innovation

- Weak Signal Management
- Industrial Information Technologies
- Accelerated Supply Chain
- Coherent Human Capital
- Relevant Technology



Fleet Readiness Center Southwest



*Strategically Positioned
to Support our Navy and USMC Warfighter's*

A National asset, providing flexible, responsive, integrated maintenance solutions and cost-wise readiness to our nation's Warfighters