

NAVSEA DATA ENVIRONMENT (NDE)

A PEO SHIPS USER
PERSPECTIVE

1/27/03

NDE BACKGROUND

- PURPOSE
 - 04M to develop an enterprise data model to integrate and merge existing maintenance and logistics data structures into a simple design
 - To centralize FMP SHIPALT planning/execution and ORDALT/Field Change planning/execution into a central database

NDE-NM

PRE-DEPLOYMENT GOALS

- **Increase quality of configuration on ships**
- **Increase quality of historic ships data**
- **Decrease redundant processing**
- **Decrease the number of tables and elements**
- **Decrease the number of unsupported alterations being installed**
- **Increase the productivity of maintenance planning & execution**
- **Improve the identification of configuration for maintenance actions/enhance assessment capabilities**
- **Provide total visibility of ship configuration, maintenance, and logistics to support executive decision making**

PEO SHIPS CONCERNS

- POOR SYSTEM RESPONSE TIME
- ALTERATION CONFIGURATION MANAGEMENT
- SYSTEM CONFIGURATION MANAGEMENT
- FMP PLANNING, PROGRAMMING AND BUDGETING SYSTEM (PPBS) FUNCTION IMPACTS
- INACCURATE MATERIAL FORECASTING AND STATUSING
- TRAINING

POOR SYSTEM RESPONSE TIME

- DIMINISHED USER PRODUCTIVITY
 - Increased man-hours to accomplish routine tasks (i.e. AER/PA/JCF/SAR entry, material entry, SID/ILS cert entries, extracting reports)
 - **NDE MODULE IS USER HOSTILE AND REQUIRES 400% MORE TIME TO ENTER SHIPALT DATA**
 - Based on CY 02 FMP Change Data and measured input time **APPROXIMATELY 2.0 ADDITIONAL MANYEARS OF INPUT/EXTRACT TIME REQUIRED**

USER FEEDBACK

- “...in regards to JCF entries and Spread propagation (an NDE term) **it takes about 4 times longer** to do each action than it used to take in legacy FMPMIS.... **on average one minute for NDE per action as opposed to 15 seconds for legacy FMPMIS.**” (PMS 400F2 Support)
- “... **4.5 hours to complete** adding 16 increments and changing applicability status compared to **30 minutes maximum** it would take in legacy FMPMIS.” (PMS 470L/M Support)
- “...**SID updates - NDE-NM today - 20 updates at 4 minutes each = 1 hour and twenty minutes.- Legacy FMPMIS 20 updates at 1 minutes or less = max 20 minutes. SAR/JCF/ILS Certification today - updates 3 minutes each.** Legacy FMPMIS was 1 minute or less.” (PMS 400F4 Support)
- “...from the time that you click the alteration-detail button in adhoc browse, **it takes 27 seconds for the alteration to come up. For subsequent alteration detail pages it takes 36 seconds to come up from adhoc browse. Once in the detail page,** upon clicking a vertical tab on the left-hand side (i.e., "ADDL INFO"), **it takes 33 seconds for the page to display.** Upon hitting the "Save" button, it **for the system to come back with "Alt added to database“ it takes 18 seconds for the first save and 36 seconds for the second save...**” (PMS 400F4 Support)

ALTERATION CONFIGURATION MANAGEMENT

- EXTRACTING BASELINE CONFIGURATION FOR SHIPS
 - System allows multiple scheduling of alterations
 - PA visibility has improved
 - Difficulty transitioning approved PA to AER
 - Increased QA time required to validate entries

SYSTEM CONFIGURATION MANAGEMENT

- **PRIORITIZATION OF SYSTEM PROBLEMS**
 - Determination of criticality
 - Timeliness of fixes
- **BUSINESS RULE ADJUDICATION**
 - Data Ownership
- **TOTAL SYSTEM IMPACT**

FMP PPBS SYSTEM IMPACT

- PROGRAM MODULE
 - Material entry not triggering P1 assignment at generic SHIPALT level
 - In FMPMIS, when the headquarters material was loaded to the BOM, the P1 associated with the equipment overrode the P1 identified under the generic alteration.

Critical Issue Affecting Budget!

INEFFICIENT SUPPLY SYSTEM MATERIAL FORECASTING/STATUSING

- PRISM INTERFACE
 - Automatic interface reduced to manual
 - Manual pull vs. automatic push
 - Timeliness
 - Monthly transaction vs. biweekly
 - Additional Costs
 - Purchase of a secure server required

TRAINING



NDE-NM

PRE-DEPLOYMENT GOALS

- Increase quality of configuration on ships
- Increase quality of historic ships data
- Decrease redundant processing
- Decrease the number of tables/elements
- Decrease the number of unsupported alterations being installed
- Increase the productivity of maintenance planning & execution
- Improve the identification of configuration for maintenance actions/enhance assessment capabilities
- Provide total visibility of ship configuration, maintenance, and logistics to support executive decision making

POST DEPLOYMENT IMPACTS

- Decreased configuration control until bugs are fixed
- Able to retrieve all historical data
- Increased QA validating data entries
- Not known
- Direct entry of alterations from SPAWAR IDB results in increased number of unsupported alts in NDE
- Decreased productivity of user community due to poor system response time
- Degraded assessment capability due to questionable data validity
- Capability exists but bugs are limiting its effectiveness

CONCLUSIONS

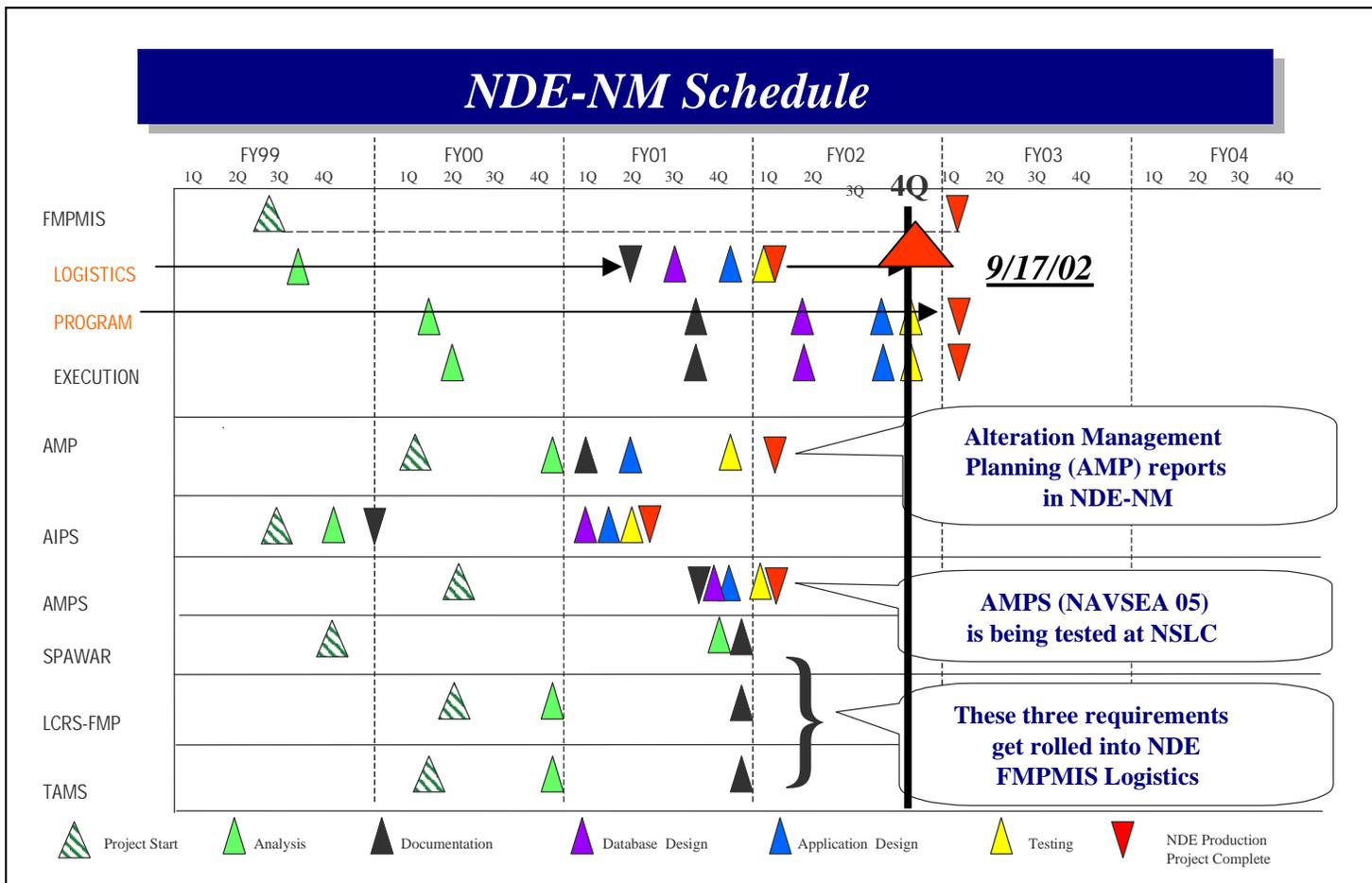
- **NDE WAS DEPLOYED PREMATURELY**
- **LEGACY FMPMIS SHOULD HAVE REMAINED UP WHILE DEBUGGING NDE**
- **GIVEN THE IMPORTANCE OF THE FMP PROCESS CAN/SHOULD FMPMIS BE RE-INSTATED AND NDE DEBUGGED IN PARALLEL?**

RECOMMENDATIONS

- INCREASE SYSTEM RESPONSE TIME
- ESTABLISH FORMALIZED TRAINING
- ACCELERATE PROCUREMENT OF SECURE SERVER FOR PRISM INTERFACE
- PROVIDE VISIBILITY OF ESTABLISHED BUSINESS RULES
- INVOLVE USER IN CHANGE CONTROL BOARD (CCB)
- FUTURE DEPLOYMENTS OF NDE VERSIONS SHOULD HAVE GREATER USER INVOLVEMENT
- ALL USERS SHOULD BE USING AUTOSIR TO ENSURE FASTER SERVICE AND AUTO VALIDATION

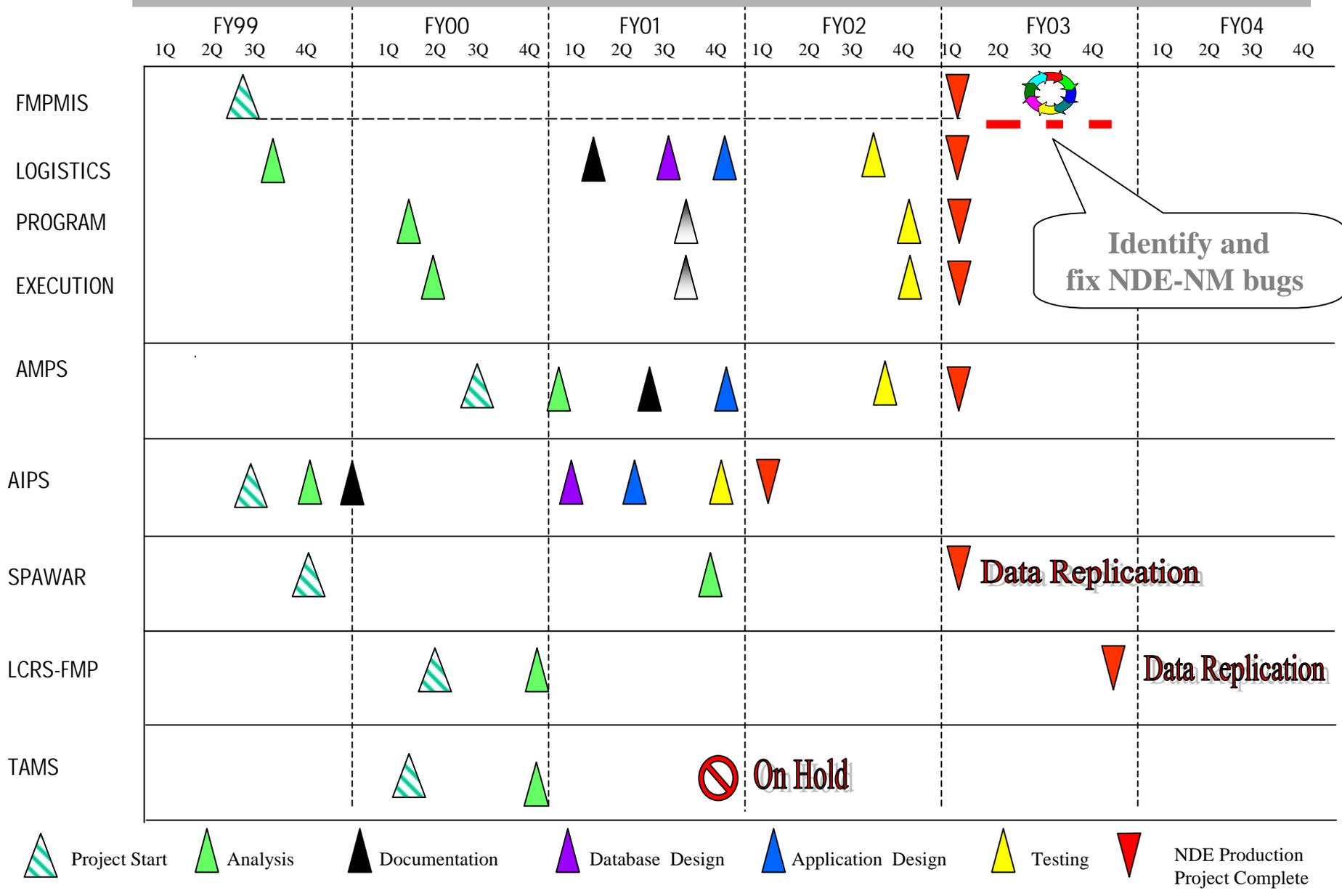
BACK-UP

NDE PRE-DEPLOYMENT TIMELINE JULY 2001



The NDE initiative is a joint NAVSEA 04L, 04M and 04I effort.

NDE-NM Schedule – Deployed 2 Dec 02



Project Start
 Analysis
 Documentation
 Database Design
 Application Design
 Testing
 NDE Production Project Complete

USER FEEDBACK

- “...the **P1 associated with the equipment is not evident on the (shipalt) generic page.** This needs to be automatic...**This is critical – it affects the budget!!!!**” (PMS 470L/M Support)
- “ Today at about 3:05pm, **S/A 941 has increments 00, 01 and 02 in the system...**when I sent my e-mail on 12/20 the folks in program module were **not able to program increments 01 and 02 because they were not available to choose from out of their S/A drop down list.**” (PMS 470L/M Support)
- “ **Every ship** for this alteration has an **applicability status of “cancelled”, but the generic status reads completed.** That **should have been changed automatically to “cancelled”.** (PMS 470L/M Support)
- “... **1 1/2 days to complete 54 material changes in NDE . The same 54 material changes would have been completed in one hour in legacy FMPMIS. Between 300 to 400 hundred changes would have been completed in a day and a half in legacy FMPMIS.**” (PMS 400F4 Support)