

# Towards an Integrated Deployment and Crisis Response Planning System for C<sup>2</sup>



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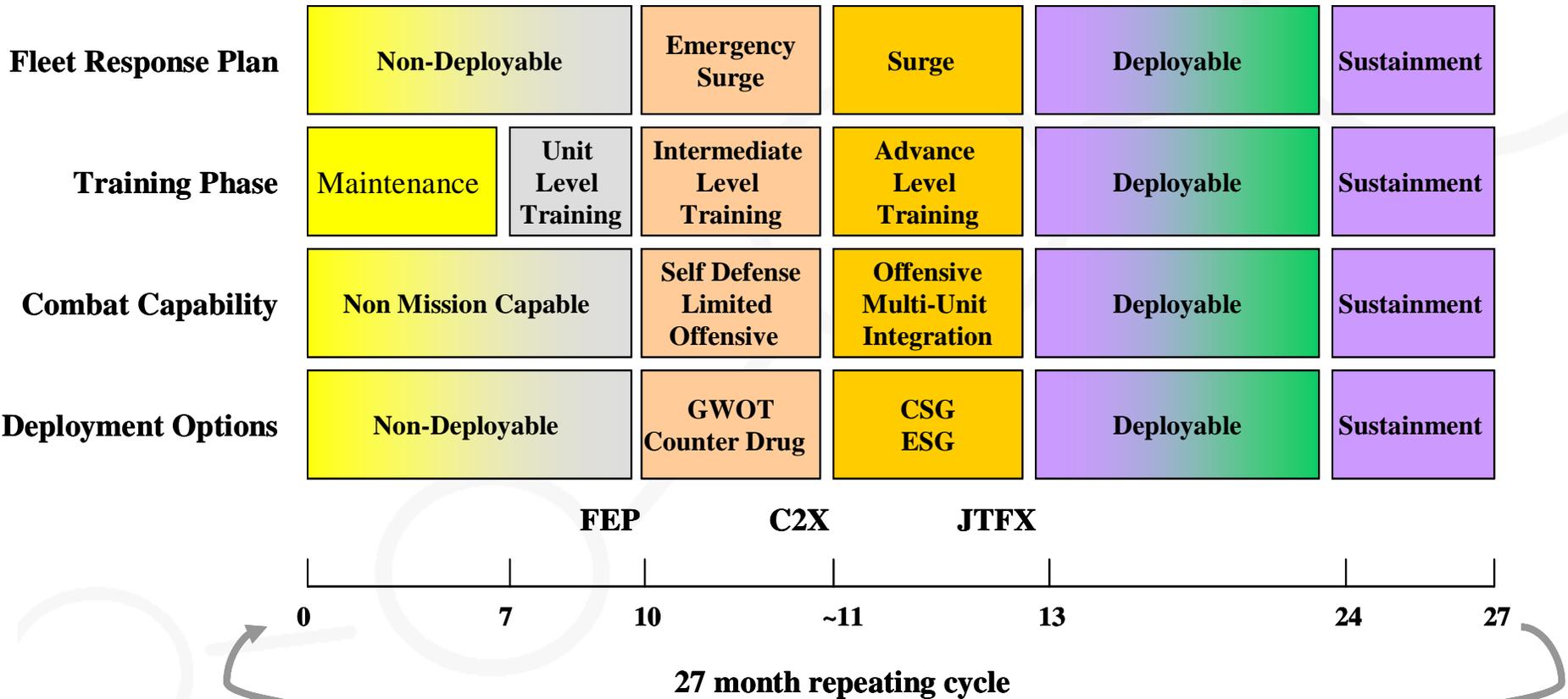
*FGM, Inc.*

*2006 Command and Control Research and Technology Symposium*

- **Navy planners are being asked to do more with less**
  - 529 ships in 1991; only 281 today!
  - Operational tempo increases due to Global War On Terrorism, Maritime Homeland Security/Defense
- **Frequency of deployment replanning is high and getting higher**
  - Crisis Response/Humanitarian Ops on the rise
  - Deliberate planning to study hard \$\$ questions rising
  - Request for Forces is migrating to Request for Capabilities (more options for response)
- **Available deployment tools do not provide sufficient Speed of Command to keep up while staying agile**

# The Fleet Response Plan and Deployment Options

## Understanding the Fleet Response Plan



# Selected Carrier Strike Groups From 2004 (in WebSked)

| <a href="#">Legend</a>   | Oct 2004                              | Nov 2004   | Dec 2004   | Jan 2005                     | Feb 2005                               | Mar 2005                         | Apr 2005               | May 2005     | Jun 2005               | Jul 2005      | Aug 2005           | Sep 2005   |
|--------------------------|---------------------------------------|------------|------------|------------------------------|--|----------------------------------|------------------------|--------------|------------------------|---------------|--------------------|------------|
|                          | 3 10 17 24 31                         | 7 14 21 28 | 5 12 19 26 | 2 9 16 23 30                 | 6 13 20 27                             | 6 13 20 27                       | 3 10 17 24             | 1 8 15 22 29 | 5 12 19 26             | 3 10 17 24 31 | 7 14 21 28         | 4 11 18 25 |
| <b>A LINCOLN CSG</b>     | A LINCOLN CSG (TG04-004)              |            |            |                              |  |                                  |                        |              |                        |               |                    |            |
|                          | DEPLOY : WESTERN PACIFIC : DEPLOYABLE |            |            |                              |  | EMERG SURGE :: EMERG SURGE       |                        |              | SURGEABLE :: SURGEABLE |               |                    |            |
| <b>C VINSON CSG</b>      | C VINSON CSG (TG05-005)               |            |            |                              |  |                                  |                        |              |                        |               |                    |            |
|                          | SURGEABLE                             |            |            | ASGN :                       |  | ASGN : CENTCOM AOR : COMFIFTHFLT |                        |              | ASGN : M               |               | COH : NEWPORT NEWS |            |
|                          | DEPLOY : CENTCOM AOR : DEPLOYABLE     |            |            |                              |  |                                  |                        |              |                        |               |                    |            |
|                          | MLTSL :                               |            |            |                              | ASGN :                                 |                                  |                        |              | MLTSL :                |               |                    |            |
|                          | JTF                                   |            |            | SURGEABLE ::                 |  |                                  |                        |              |                        |               |                    |            |
| <b>DD EISENHOWER CSG</b> | DD EISENHOWER CSG (TG06-001)          |            |            |                              |  |                                  |                        |              |                        |               |                    |            |
|                          | ROS :: ROS                            |            |            |                              |  | PSA : NORFOLK VA : REFIT         |                        |              | BASIC ::               |               |                    |            |
| <b>HS TRUMAN CSG</b>     | HS TRUMAN CSG (TG04-003)              |            |            |                              |  |                                  |                        |              |                        |               |                    |            |
|                          | DEPLOY : CENTCOM AOR : DEPLOYABLE     |            |            |                              |  |                                  | SURGEABLE :: SURGEABLE |              |                        |               |                    |            |
|                          | MI                                    | ASGN :     |            | ASGN : CENTCOM AOR : CTF 050 |  |                                  |                        | ASGN : M     |                        |               |                    |            |
| <b>JF KENNEDY CSG</b>    | JF KENNEDY CSG (TG04-002)             |            |            |                              |  |                                  |                        |              |                        |               |                    |            |
|                          | DEPLOY : NORTH ARABIAN                |            |            | SURGEABLE :: SURGEABLE       |  |                                  |                        |              |                        |               |                    |            |
|                          | ASGN :: CTF 050                       |            | ASG X      |                              |  |                                  |                        |              |                        |               |                    |            |
| <b>KITTY HAWK CSG</b>    | KITTY HAWK CSG (TG05-008)             |            |            |                              |  |                                  |                        |              |                        |               |                    |            |
|                          | SRA : YOKOSUKA : SRF YOKOSUKA         |            |            |                              | DEPLOYABLE : PACOM AOR : COMSEVENTHFLT |                                  |                        |              |                        |               |                    |            |
|                          |                                       |            |            | E <sup>2</sup>               |  |                                  |                        |              | EXER                   |               | E <sup>2</sup>     |            |

# Deployment Planning is a Complex Process (tradeoffs/impacts are everything)

**Installs/Maintenance**

**Force Structure**

**Ordered Deployments**

**Readiness**

**Tomahawk Requirements**

**Presence Requirements**

**Training Plans**

**Navy Policy (rules)**



**Course Of Action  
Development**



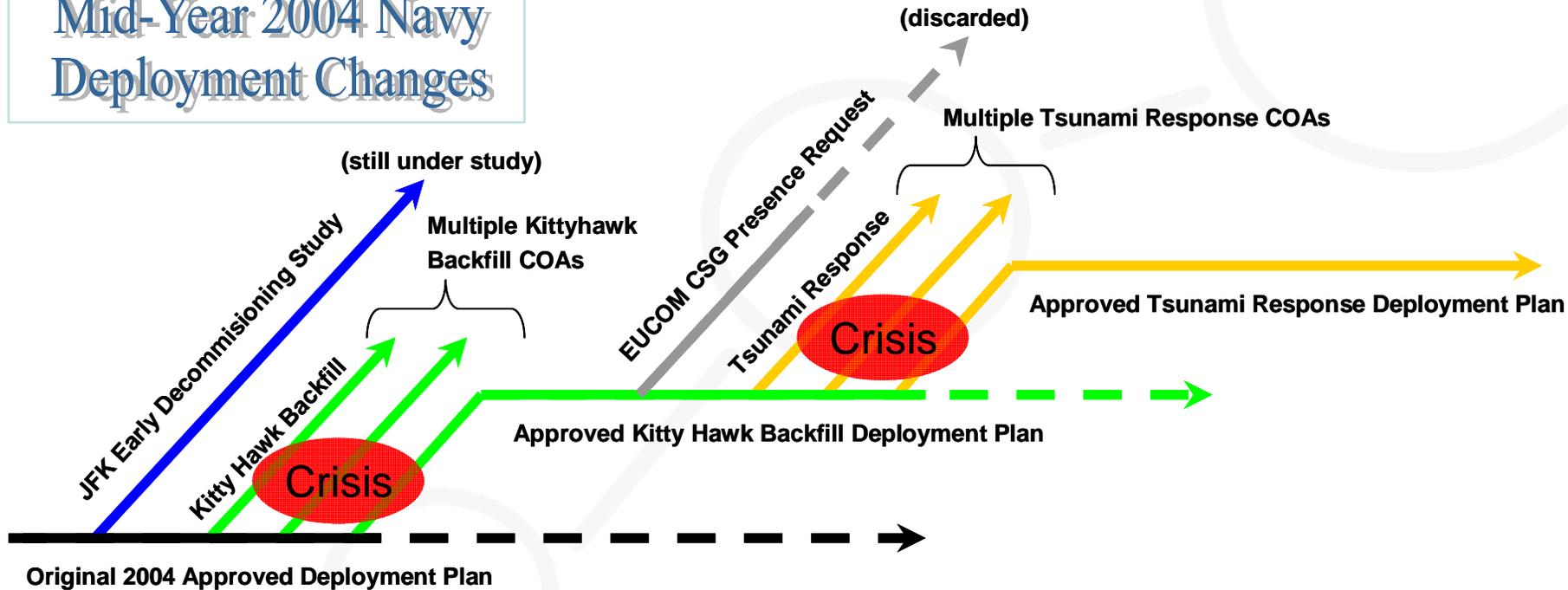
**Team  
Vetting**



**The Approved Deployment Plan**

# Change Happens Frequently and Fast (Each Change Trigger the Planning Cycle)

## Mid-Year 2004 Navy Deployment Changes



**•First Fielded in 2002; Designated by CNO as Navy's Authoritative Employment Scheduling System in 2004**

## Features

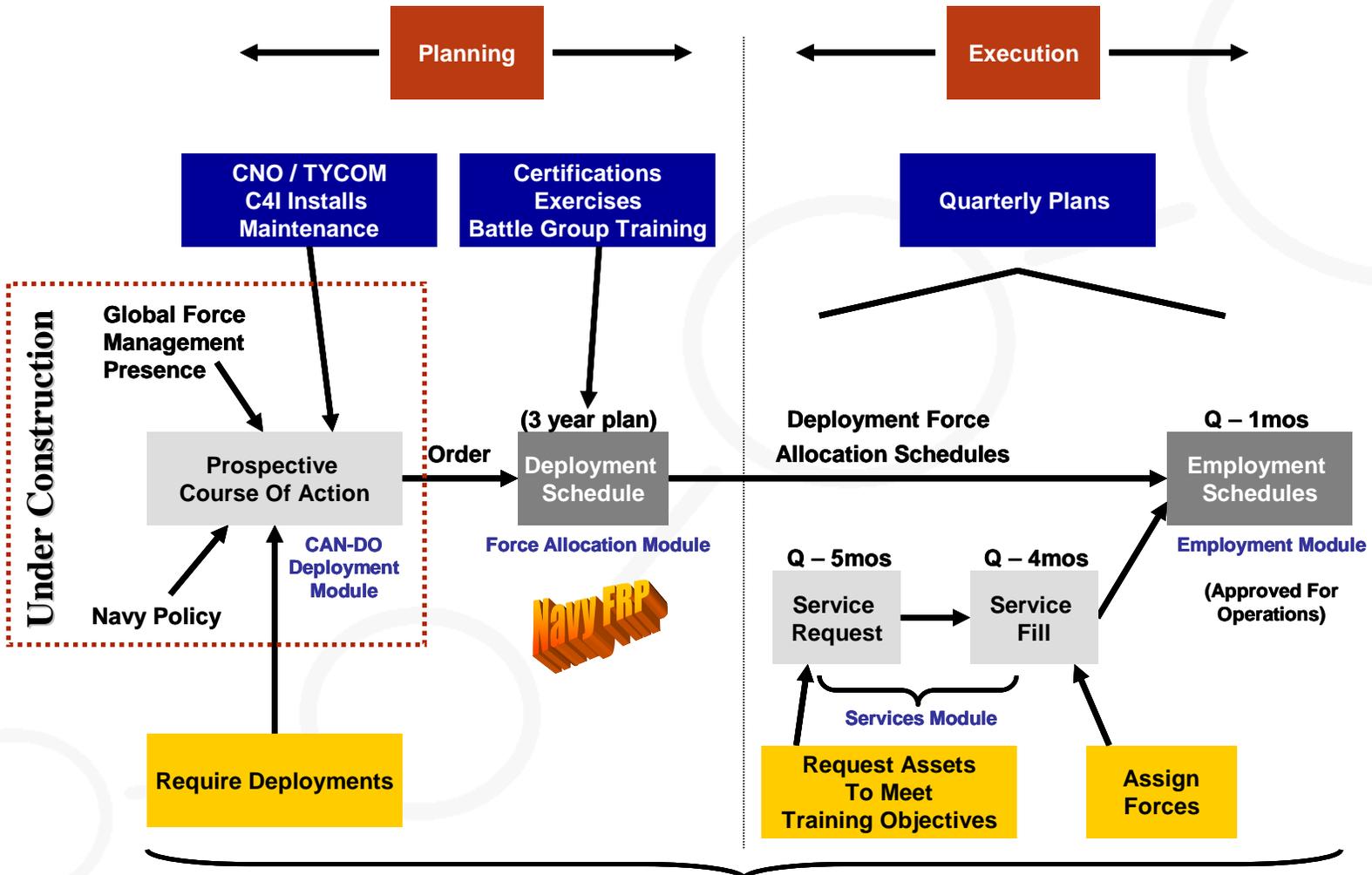
- Visual Scheduling
- Optional Offline Scheduling/Print (MS Excel)
- Automated Workflow
- Email Notification
- Common Schedule Picture
- Ad Hoc Reporting
- Planning Decision Aids
- Fuel Planning and Estimating
- Support for Large Sets of Contingency Plans (Emp)
- **Force Planning and Allocation**
- Mission Needs Brokering (Services)

## Schedules Maintained

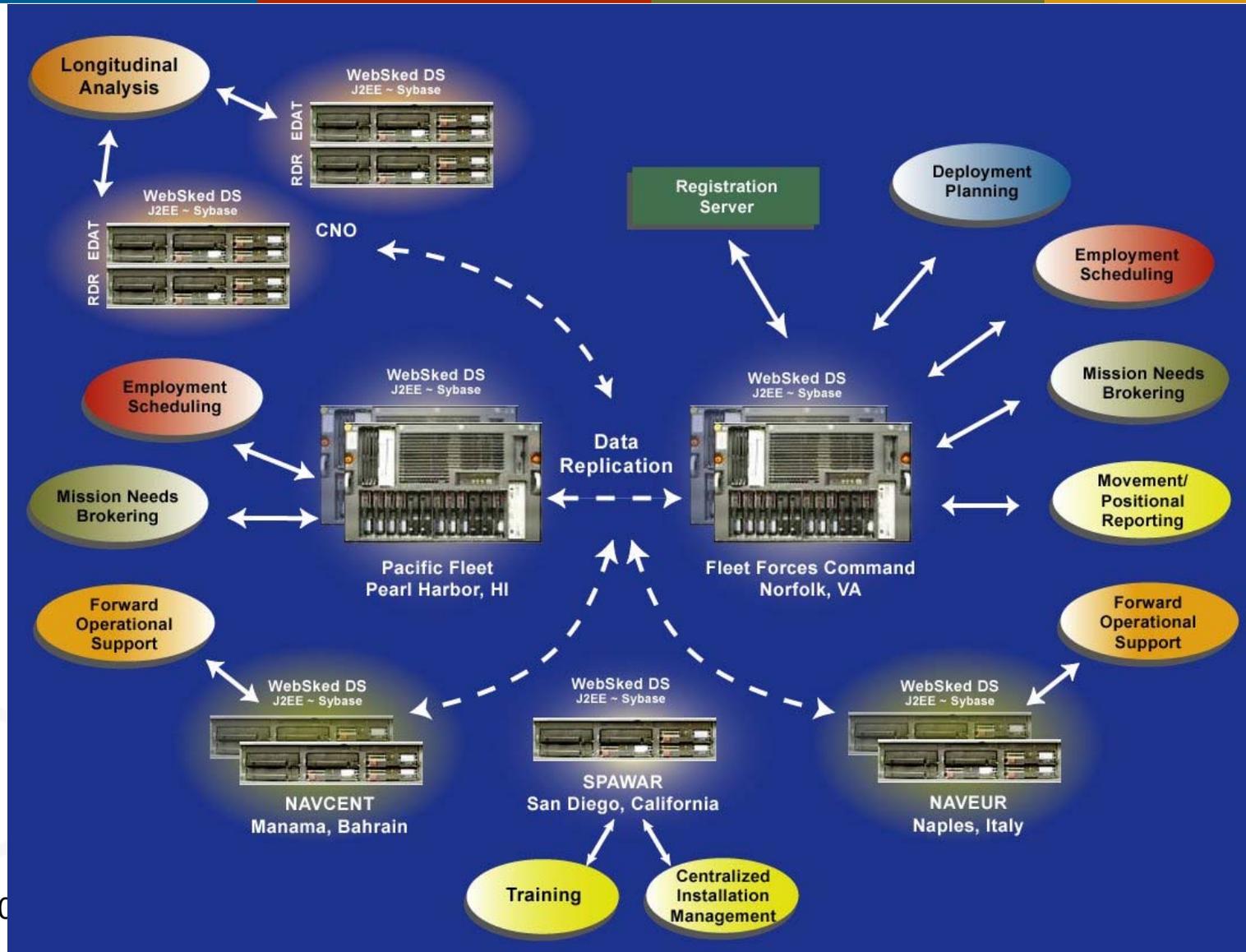
- **Global Naval Force Presence Schedules**
- **Deployment Schedules (Fleet Response Plan)**
- Contingency Planning (Emp)
- Modernization Schedules
- Exercise Schedules
- Transit Schedules
- Services Schedules
- Mid Range Battle Group Training Cycle Schedules (import)
- Operational Schedules
- Historical schedules (last 5 yrs of operational schedules)

- Complete the automation of the Navy Deployment/Employment planning chain in WebSked
  - Leverage existing automation investment in Employment Sheduling and Fleet Response Plan maintenance
  - Movement of planning data from requirements to deployment plans to employment schedules to execute is fast and efficient
- Develop the WebSked Composeable Assistant for Networked-Deployment Operations (CAN-DO) module
  - Easy Visual Course Of Action (COA) deployment planning
    - Quick to plan; Quick to change
  - Electronic fusion of multiple planning sources
    - Eliminate the laborious manual data collection and entry
  - Automation and enforcement of the COA review/vetting process among all Navy deployment planning stakeholders (the TeamSked Community)

# The Navy Deployment Planning Process (with WebSked Automation)

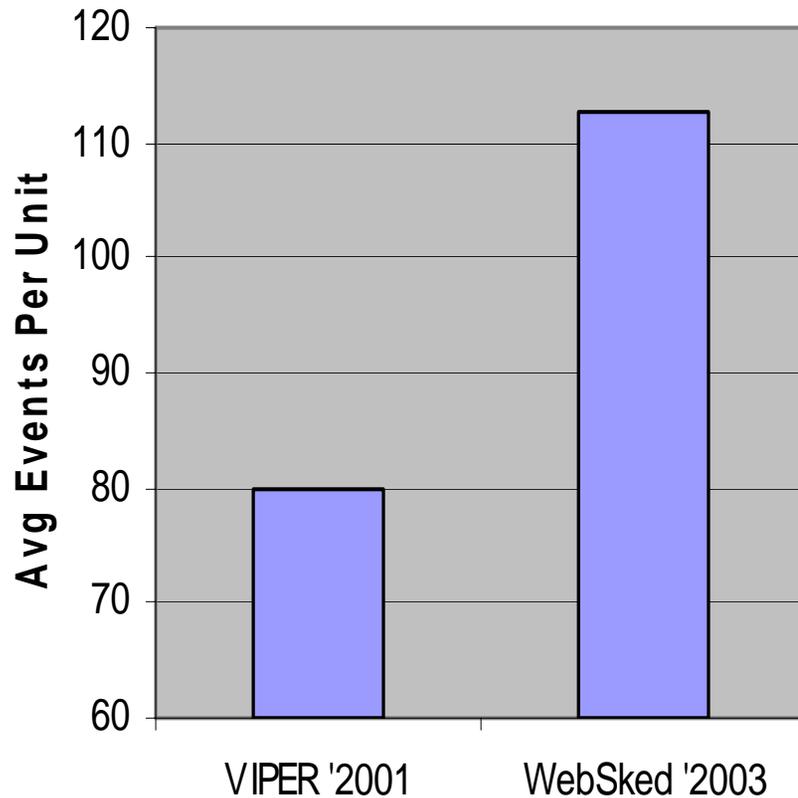


# The WebSked Distributed Services Architecture

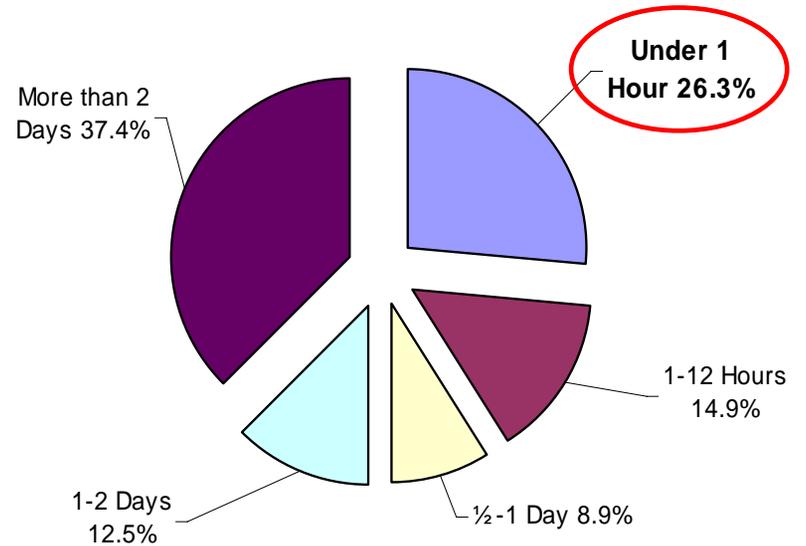


# WebSked Usage, Approval Speed, and Fidelity Improvements

**Schedule Fidelity of USS Units**



**Speed Of Change  
 Current Quarter Schedules**



| <u>Load Item</u>        | <u>2003</u>  | <u>2005</u>               |
|-------------------------|--------------|---------------------------|
| Active Users            | <b>517</b>   | <b>1,268</b>              |
| Active Units            | <b>382</b>   | <b>937</b>                |
| Transactions/Day (Avg)  | <b>1,228</b> | <b>4,517</b>              |
| Transactions/Day (Peak) | <b>2,837</b> | <b>10,438<sup>1</sup></b> |

# Expected Reduction in Planning Cycle Time With Full Automation

• From Real-World Deployment Planning Mid-2004

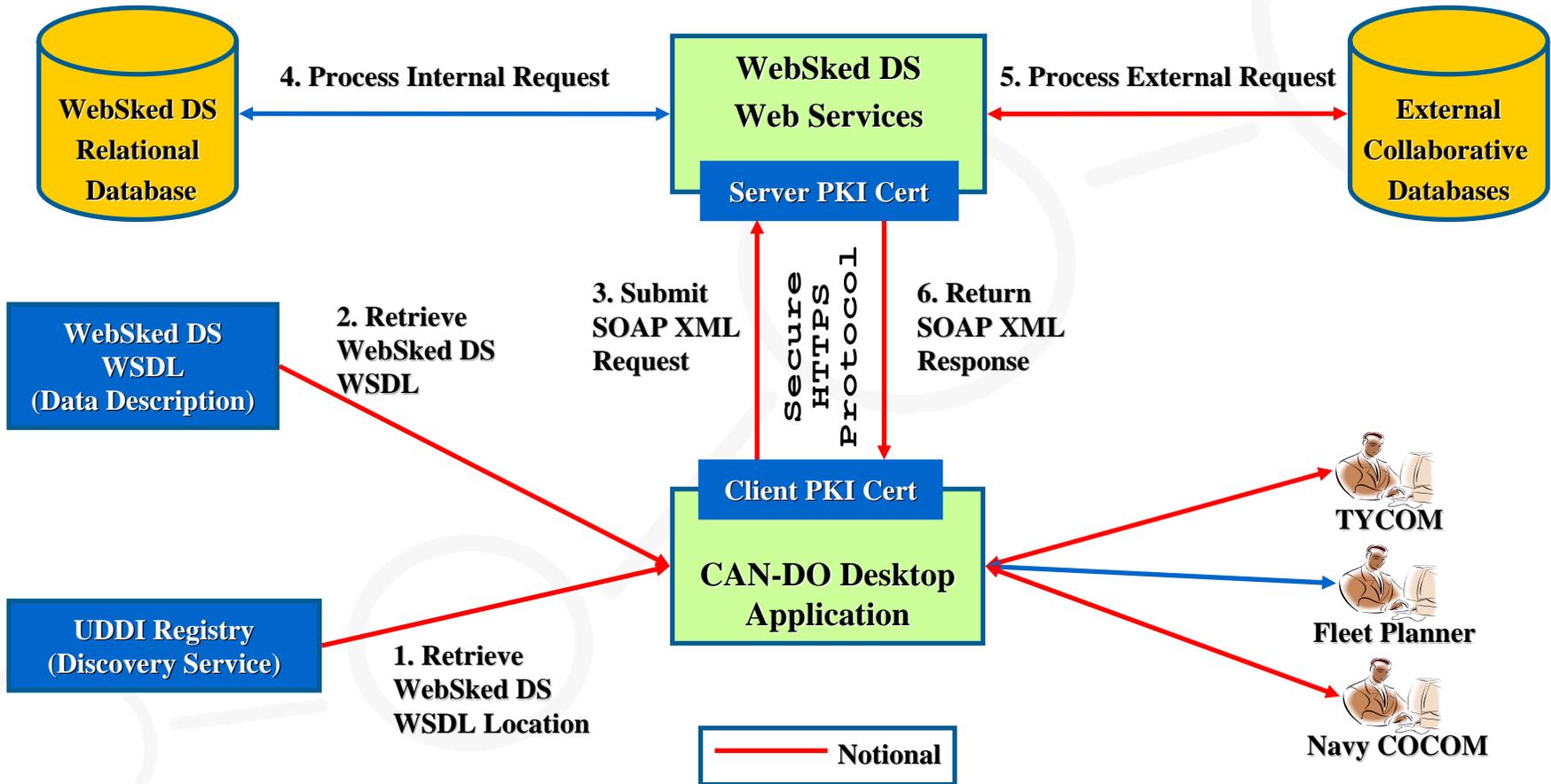
• Kitty Hawk Backfill RFF

| Deployment Planning Phase/Step | Time Current (Days) | Time Automated (Days) |
|--------------------------------|---------------------|-----------------------|
| <b>Data Gathering</b>          |                     |                       |
| Research Current Plans         | 2.0                 | 1.0                   |
| Calculate Unit Availability    | 2.0                 | 0.25                  |
| Manual Data Entry              | 1.5                 | 0.25                  |
| <b>Planning</b>                |                     |                       |
| Plan Development               | 4.5                 | 1.5                   |
| Course Of Action Analysis      | 4.5                 | 2.5                   |
| Collaboration                  | 6.0                 | 3.0                   |
| <b>Execution</b>               |                     |                       |
| Order Issuance                 | 5.0                 | 5.0                   |
| Plan Transition                | 10.0                | 3.5                   |
| <b>Totals</b>                  | <b>35.5</b>         | <b>17.0</b>           |

53% Reduction In This Case

@10 Similar Cycles/Yr  
 Potential 188 Planning Days Saved!

# CAN-DO Deployment Planning in the WebSked Services-Oriented Architecture



**CAN-DO Builds On Existing WebSked Web Services  
 For Full SOA Participation**

- **CAN-DO is scheduled to deploy in 2007**
- **CAN-DO Deployment Planning will complete the automation of the Navy Deployment/Employment Scheduling chain (from requirements to sailings) in WebSked Distributed Services**
- **Full automation shows the promise of cutting deployment planning Course Of Action cycles by over 50%**
- **Shorter planning cycles means increased Speed Of Command and a more agile and responsive Navy!**

- Approved Maritime Schedules (Available to ANYONE on the SIPRNET)
  - WebSked Central <http://websked.spawar.navy.smil.mil>
  - Also user help including account creation
- WebSked User Help (unclassified)
  - [WebSkedHelp@spawar.navy.mil](mailto:WebSkedHelp@spawar.navy.mil)
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