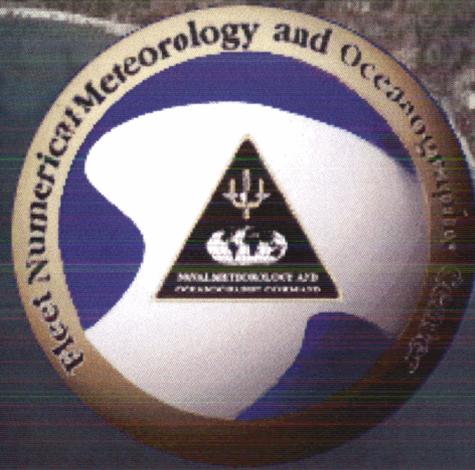


# Fleet Numerical Meteorology and Oceanography Center



**CAPT Dave Titley  
Commanding Officer**

**08 August 2005**



FNMOC

# Fleet Numerical Meteorology and Oceanography Center (FNMOC)



- **Mission**
  - Principal weather and ocean prediction center in DoD
  - Around-the-clock support to U.S. & allied forces worldwide
  - Uniquely satisfies military requirement for global weather prediction
  - Information Assurance → protected against Cyberwarfare attack
  - Supports virtually every Navy combat platform and weapons system
  - Provide special weather and ocean prediction products to the Intelligence Community
- **Chain of Command**
  - Echelon IV Command under Commander Naval Meteorology and Oceanography Command (CNMOC), and Commander Fleet Forces Command (CFFC)



# FNMOOC (Continued)



FNMOOC

- **Budget**
  - ~\$20M operating funds annually
  - ~\$4M capital funds annually
  - **Total capital investment ~ \$120M**
    - Buildings
    - Supercomputers, servers and networks – 4.5 TeraFLOPS
    - One of most extensive and complex software suites in DoD
- **People**
  - 135 government civilian
  - 89 officer and enlisted
  - 40 contractor

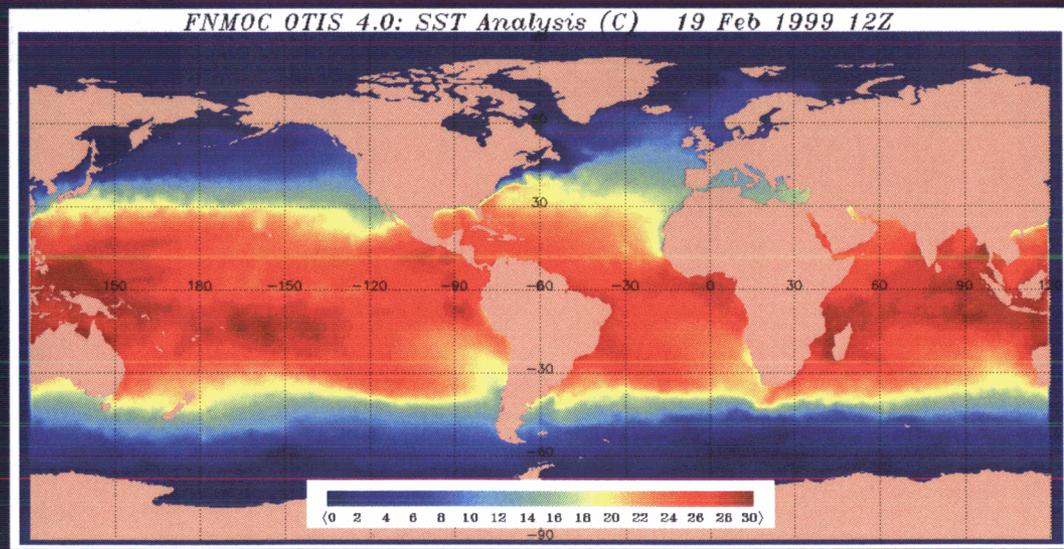
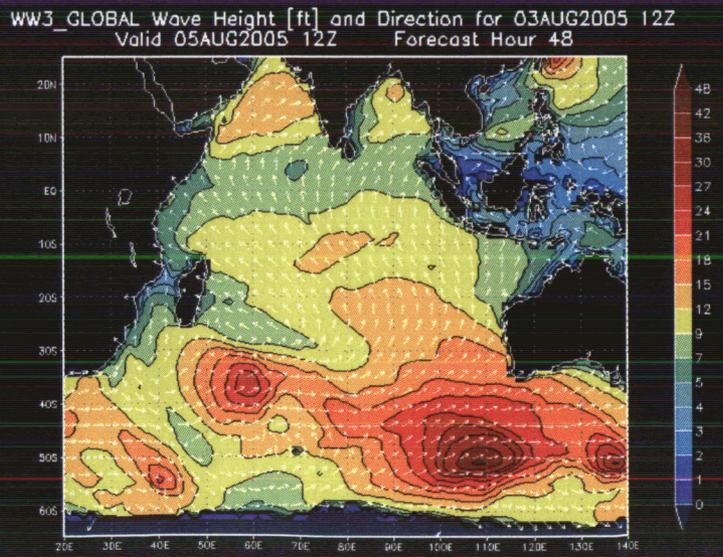
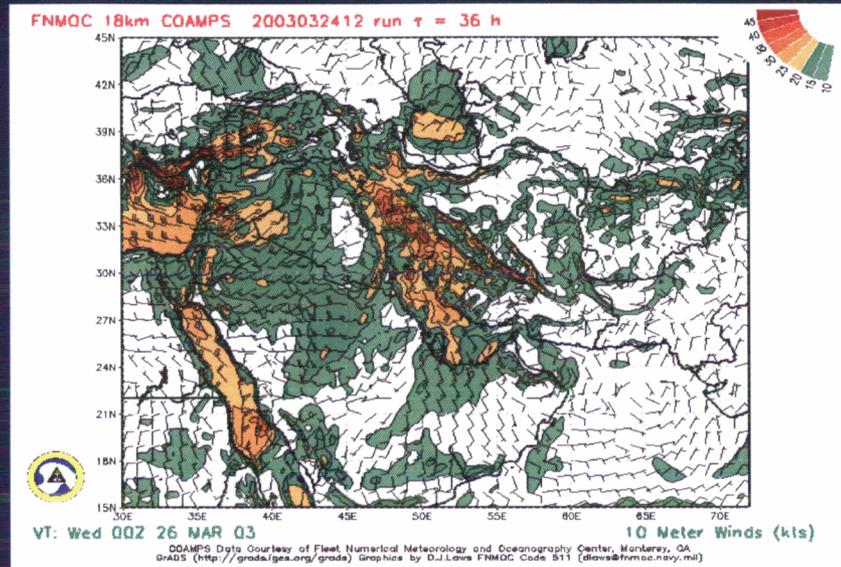
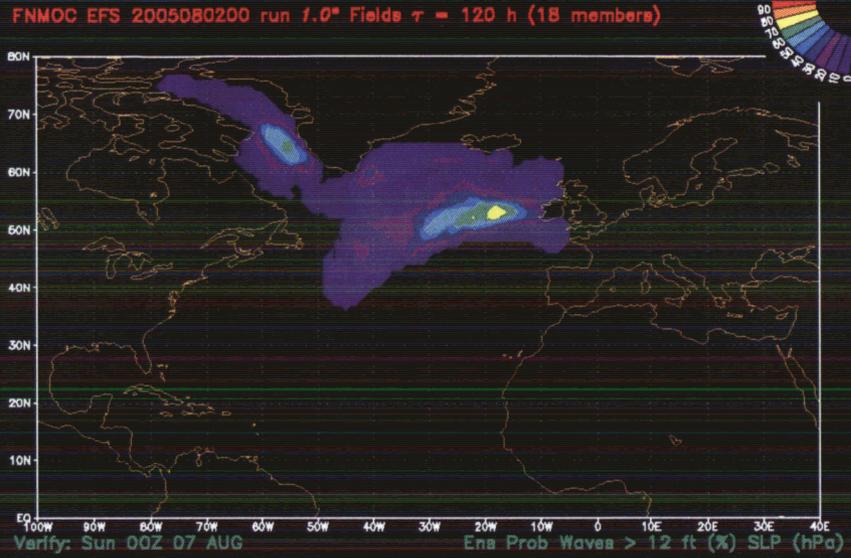


# FNMOC Operational Models

## (Global and Regional, Atmosphere and Ocean)



FNMOC



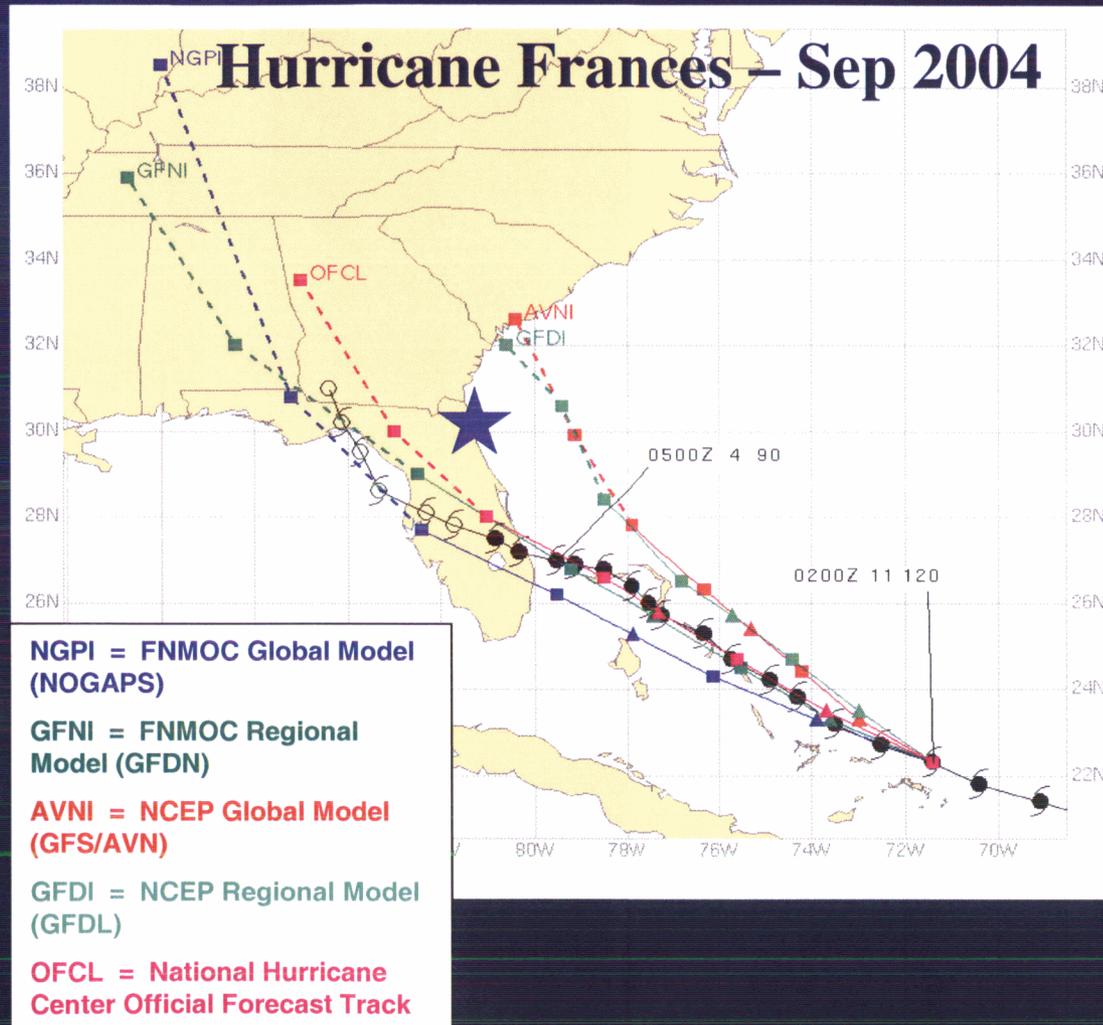


# Analysis and Prediction

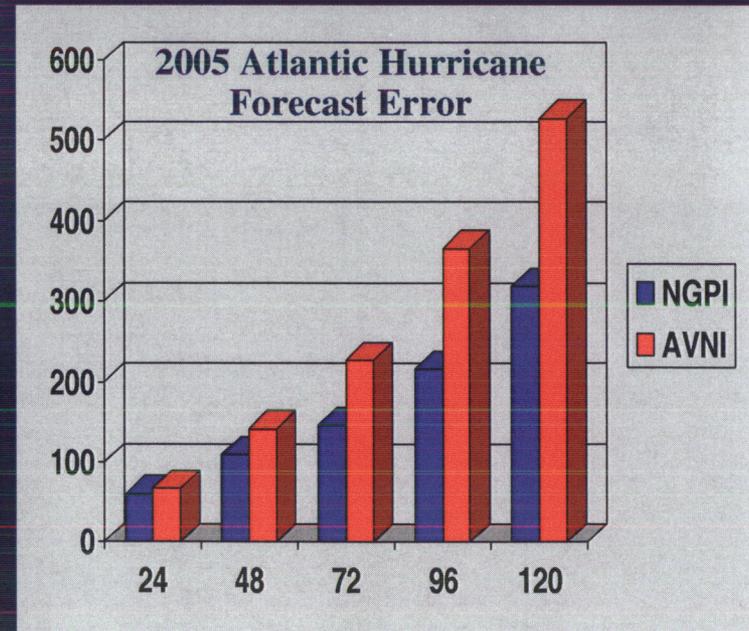
## Making a Difference



FNMOC



**FNMOC impact on consensus forecast: prevented unnecessary sortie from Naval Station Mayport that would have cost \$7M.**



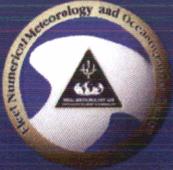


# FNMOC Relocation Estimate



FNMOC

- **If relocated, mission critical systems would have to remain online at the present site until duplicate capabilities could be fielded and thoroughly tested at the new site.**
- **Funding required to relocate FNMOC → \$120M plus**
  - **Facilities**
  - **High Performance Computers (HPC)**
  - **Software re-host**
  - **People**



FNMOC

# Summary



- **FNMOC fully supports DoD decision to maintain all defense activities in Monterey “as is”**
- **FNMOC a 24X7 operational command that supports Fleet/Joint Force combat operations worldwide**
  - Echelon IV command not associated with Education
- **FNMOC/NRL/NPS represent a highly effective team for the Navy’s Meteorological and Oceanographic mission**
- **Five years and over \$120M to relocate FNMOC**





FNMOC

# Team Monterey



Joint Support

Educational Opportunities for Staff

Shared Computational & Data Resources



Shared Operational Testbeds

**Physical Science Expertise**

Joint Transition Teams

Academic Support from Staff

~ 90 PhD's  
~ 80 MS

Rapid Response; Troubleshooting



Exposure of students to broader activities

**Information Technology Expertise**



Joint Projects that Leverage Local Expertise

**Back up Slide**

Rapid Transition of R&D