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Commander, Navy Region Southwest*

Navy Shore Energy

For

Naval Energy Forum

13 October 2011



Navy Energy Goals

“Department of the Navy will by 2020 produce at least half of our shore-based energy requirements on our installations from alternative sources.”

-- Secretary of the Navy Ray Mabus





Navy Shore Energy Strategy

**Transform Navy From
Culture of Consumption to
Culture of Conservation
*Through Transparency
and Accountability***

**Navy
Energy Culture**

Energy Security:
- Redundancy
- Resiliency
- Reliability

**ENERGY
SECURITY &
COMPLIANCE**

**Energy
Efficiency First**

***The Right Technology
at the Right Time***

- Watch
- Partner
- Lead

**Renewable
Energy &
Sustainability**

Energy Efficiency

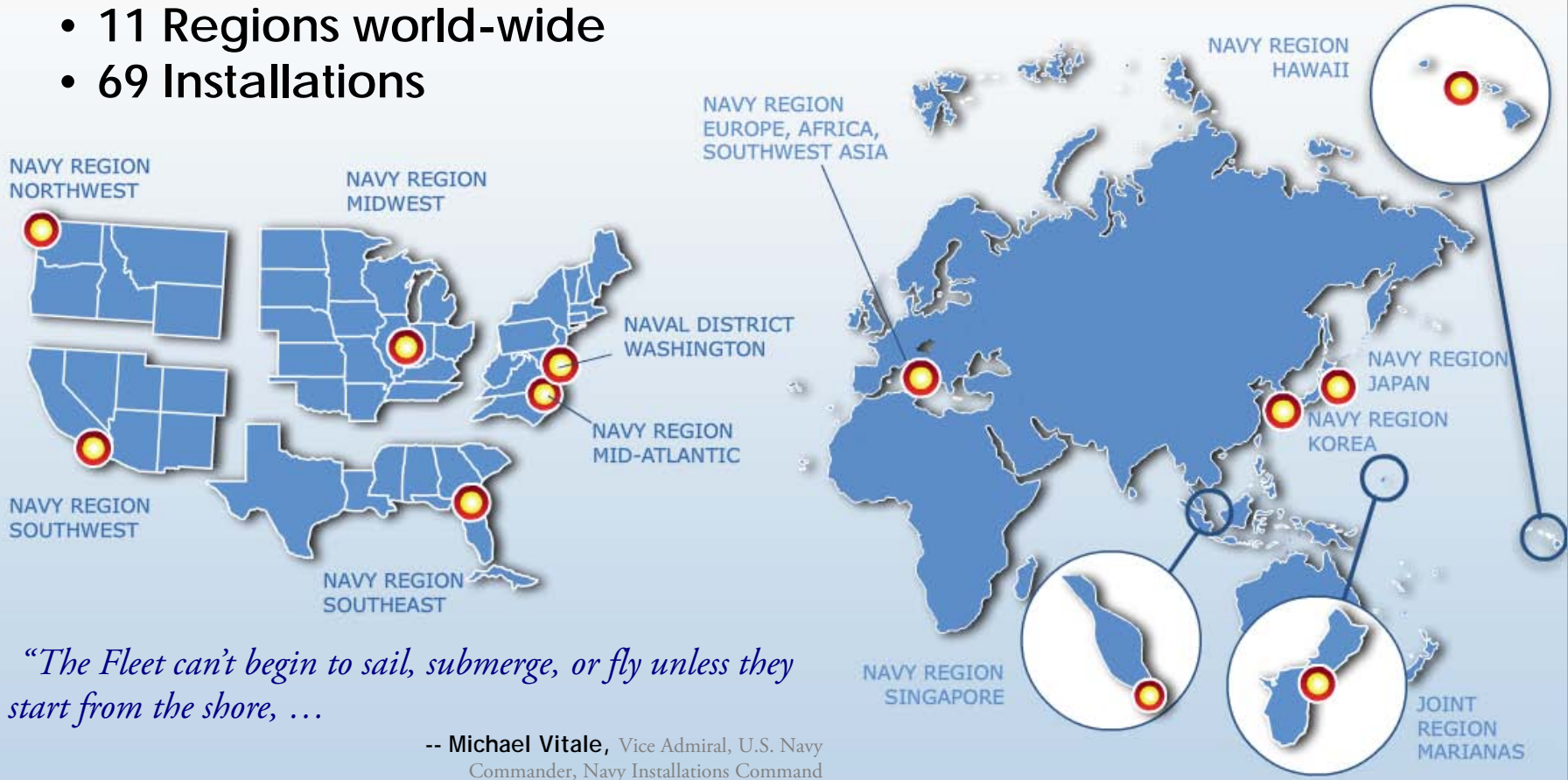
“Compliance” is unique to the Shore



Navy Installations Command

Sustain the Fleet, Enable the Fighter, Support the Family

- 11 Regions world-wide
- 69 Installations



"The Fleet can't begin to sail, submerge, or fly unless they start from the shore, ..."

-- Michael Vitale, Vice Admiral, U.S. Navy
Commander, Navy Installations Command



Region Southwest





NB Coronado - Warehouse



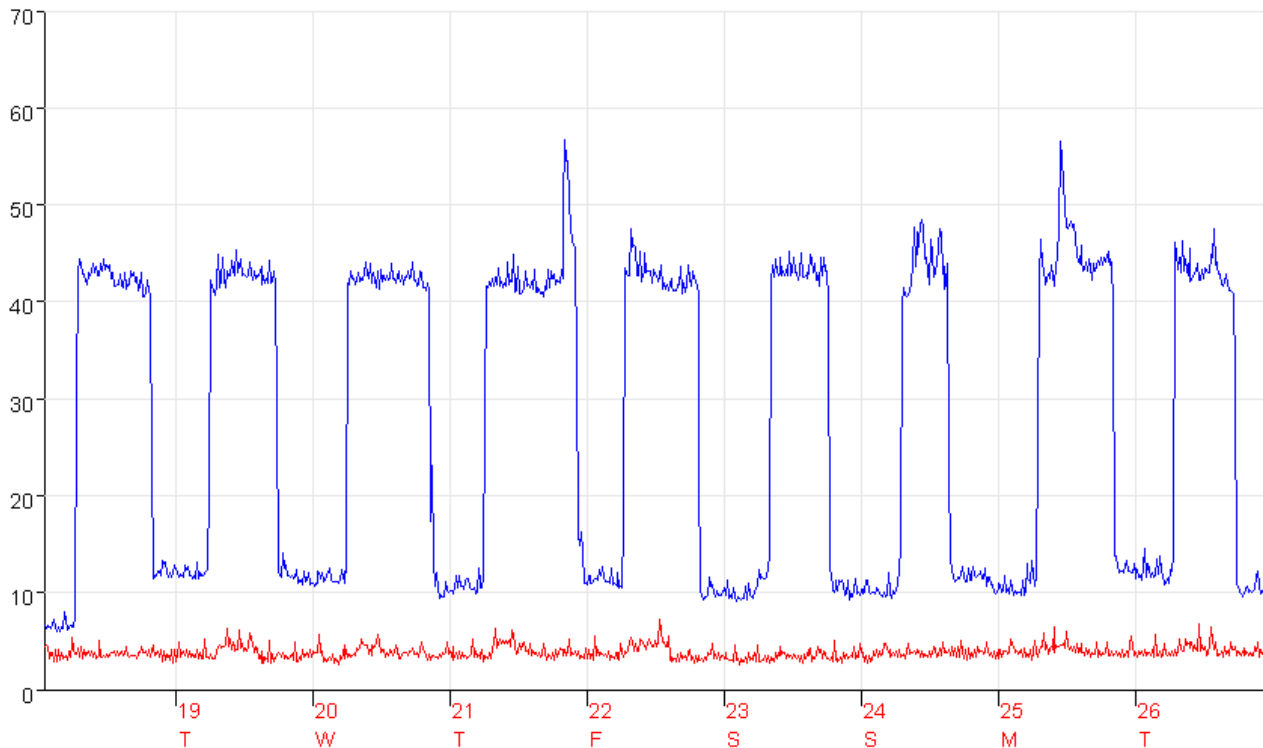


Warehouse Lighting/ Daylighting

KW (channel: 1 Set: 0)

Comparison Graph

NI-B-77



Add Line

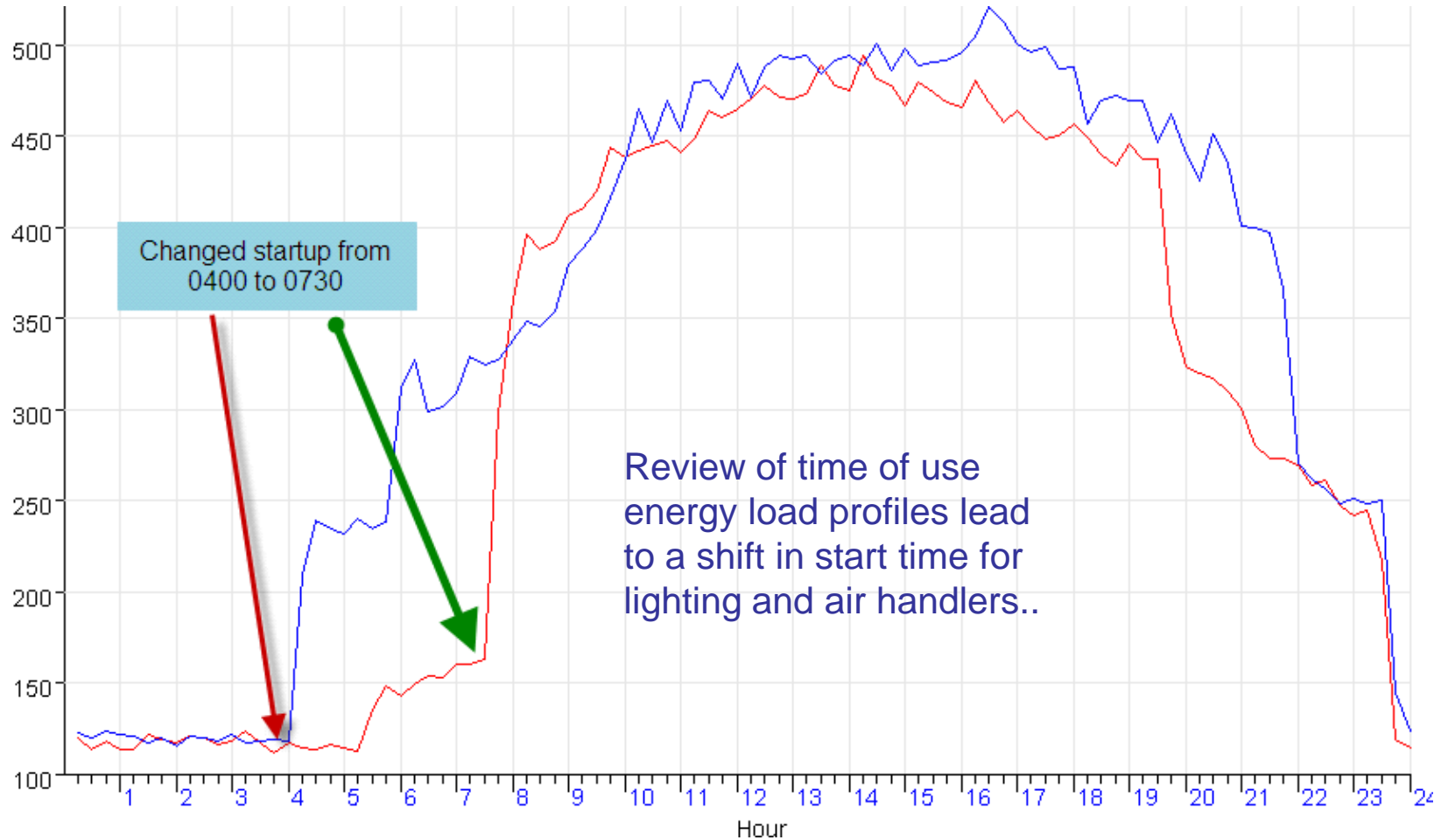
NI-B-77

NI-B-77

\$33,000 annual cost reduced to \$5,000



Shore Energy Management





Flight Simulator



Naval Base Coronado - Building 352



Helicopter Flight Simulator

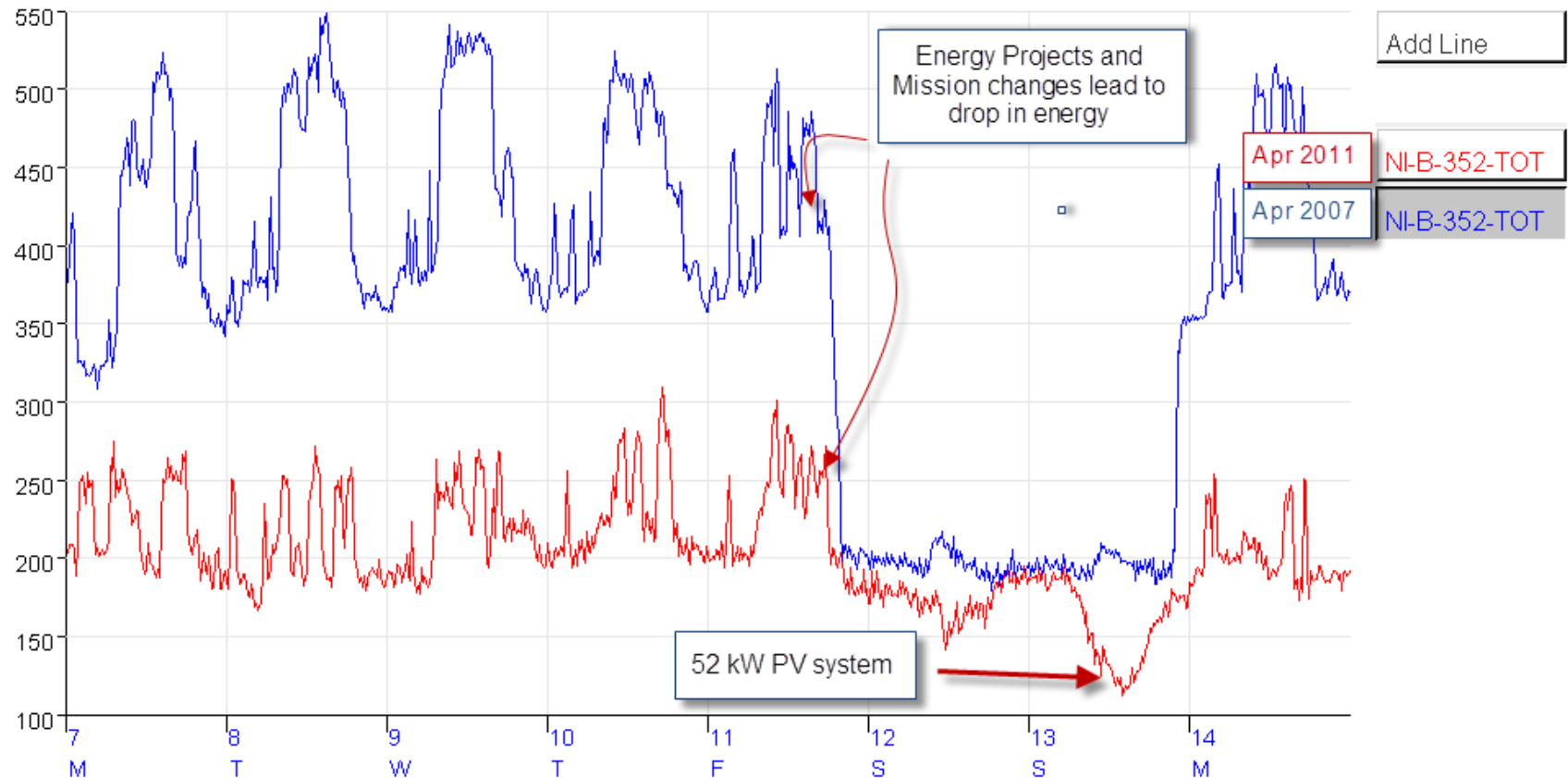


Flight Simulator Building

KW (channel: 1 Set: 0)

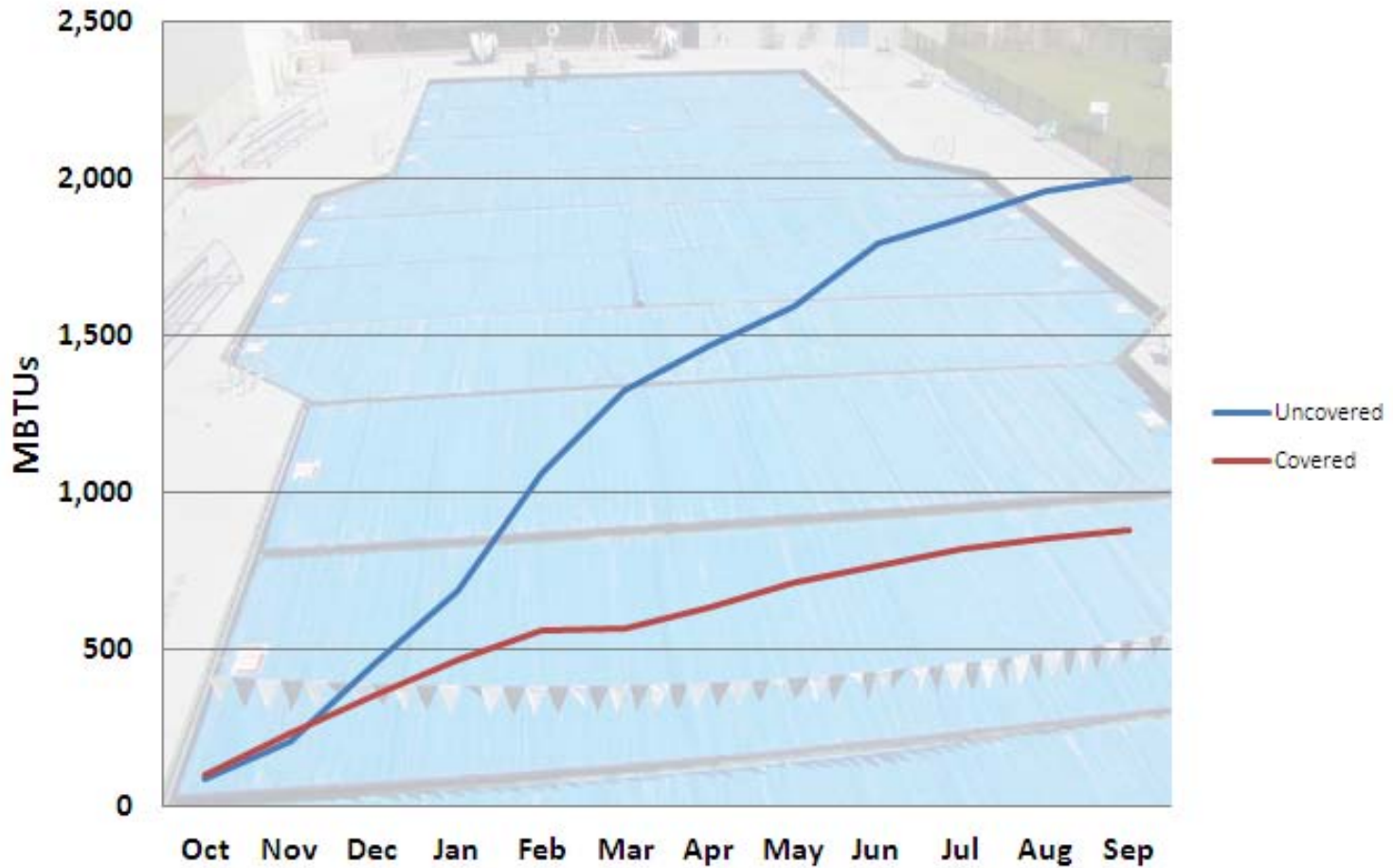
Comparison Graph

NI-B-352-TOT



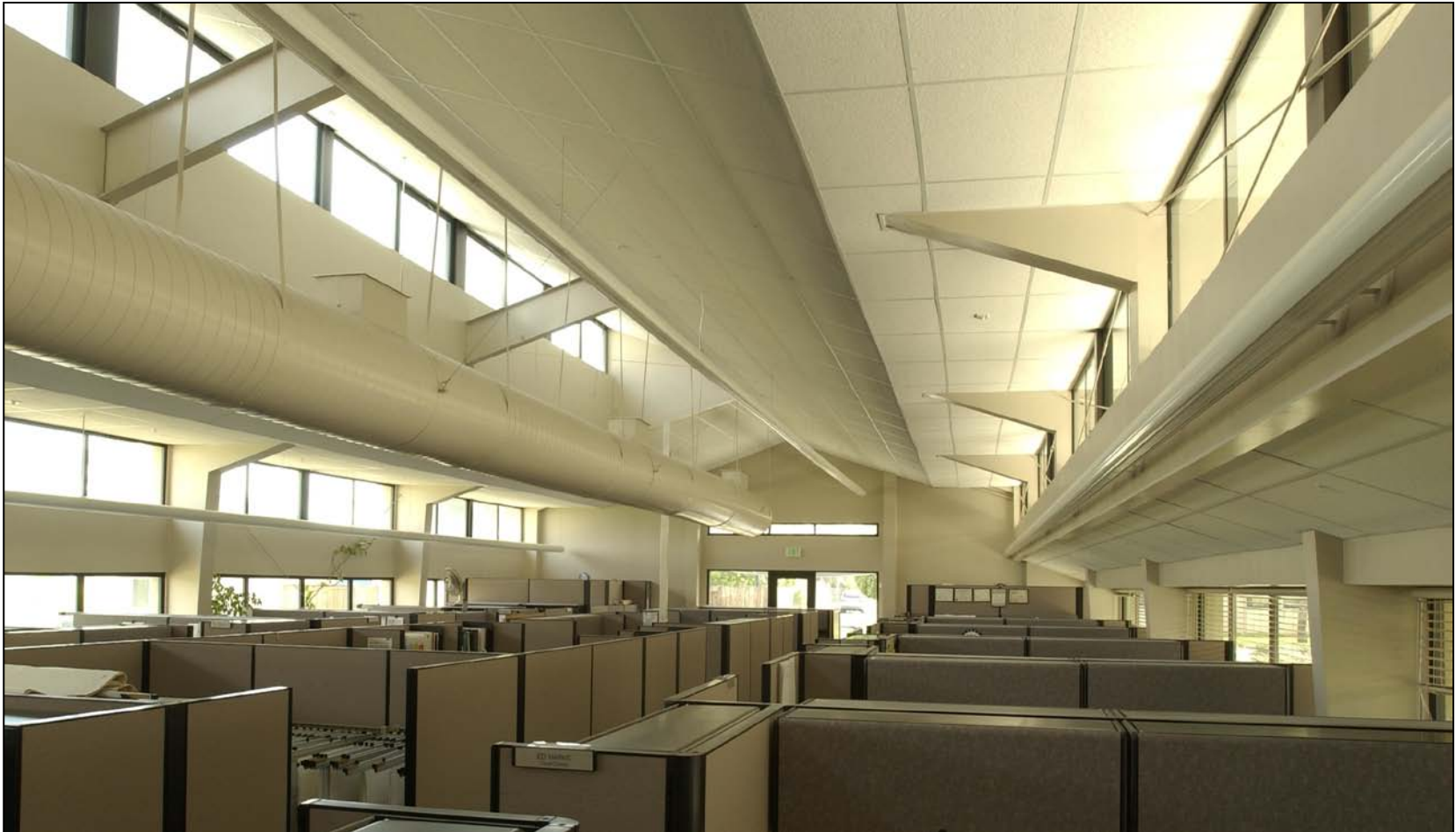


Swimming/ Training Pools





Energy Efficient Buildings





Shipboard Shore Energy Management



October 25, 2011

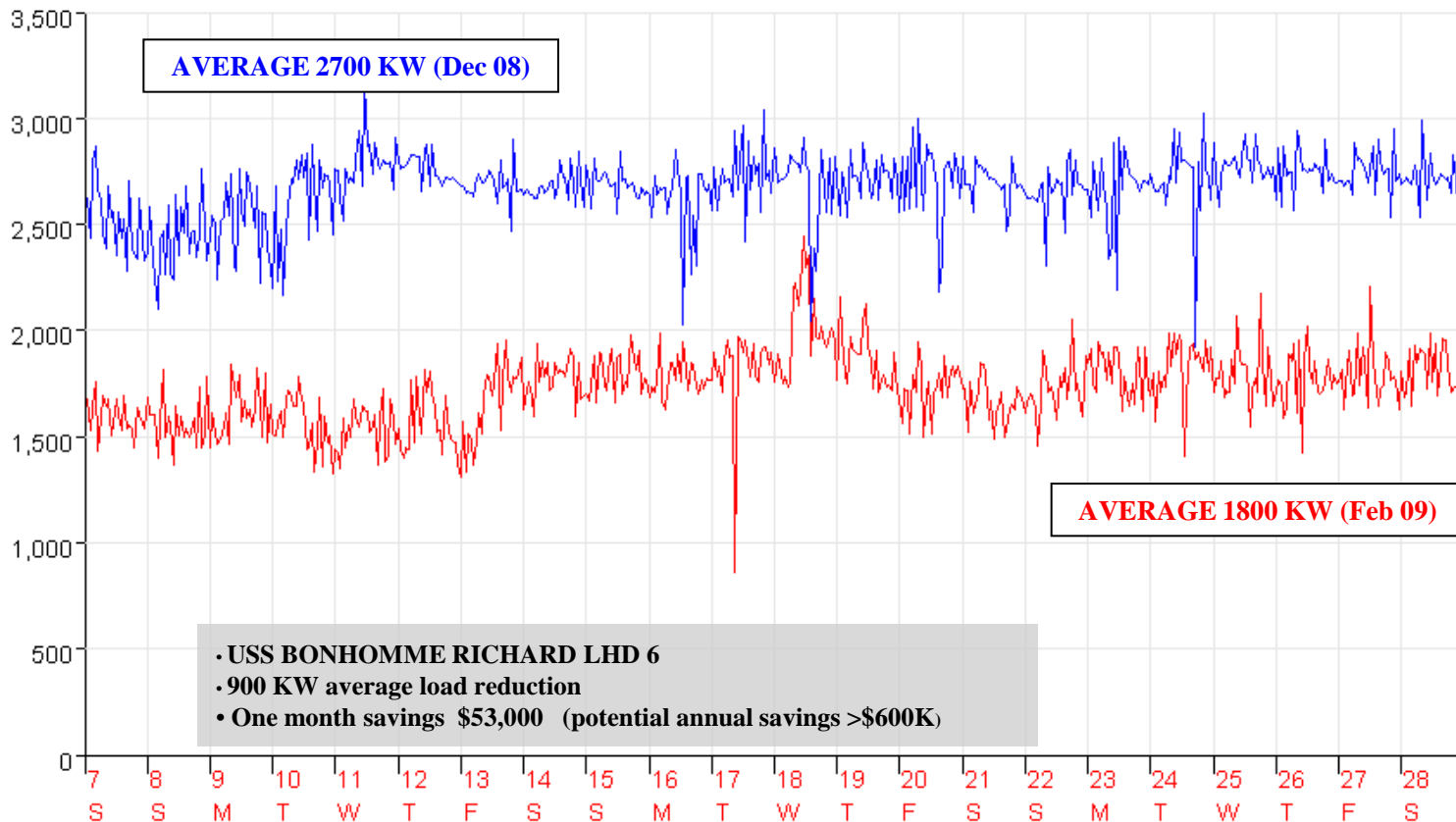


Shipboard Shore Energy Management

KW (channel: 1 Set: 0)

Comparison Graph

LHD6



Add Line

LHD6

LHD6



Shipboard Shore Energy Management FY10 Biggest Losers



FY10 Most Efficient Cold Iron Ship

Cruiser CG - USS Antietam CG-54

Destroyer FLT I - USS John Paul Jones DDG-53

Destroyer FLTII - USS Stockdale DDG-106

Frigate - USS Rentz FFG-46

LHA/LHD - USS Boxer LHD-4

LPD WI Class - USS Dubuque LPD-8

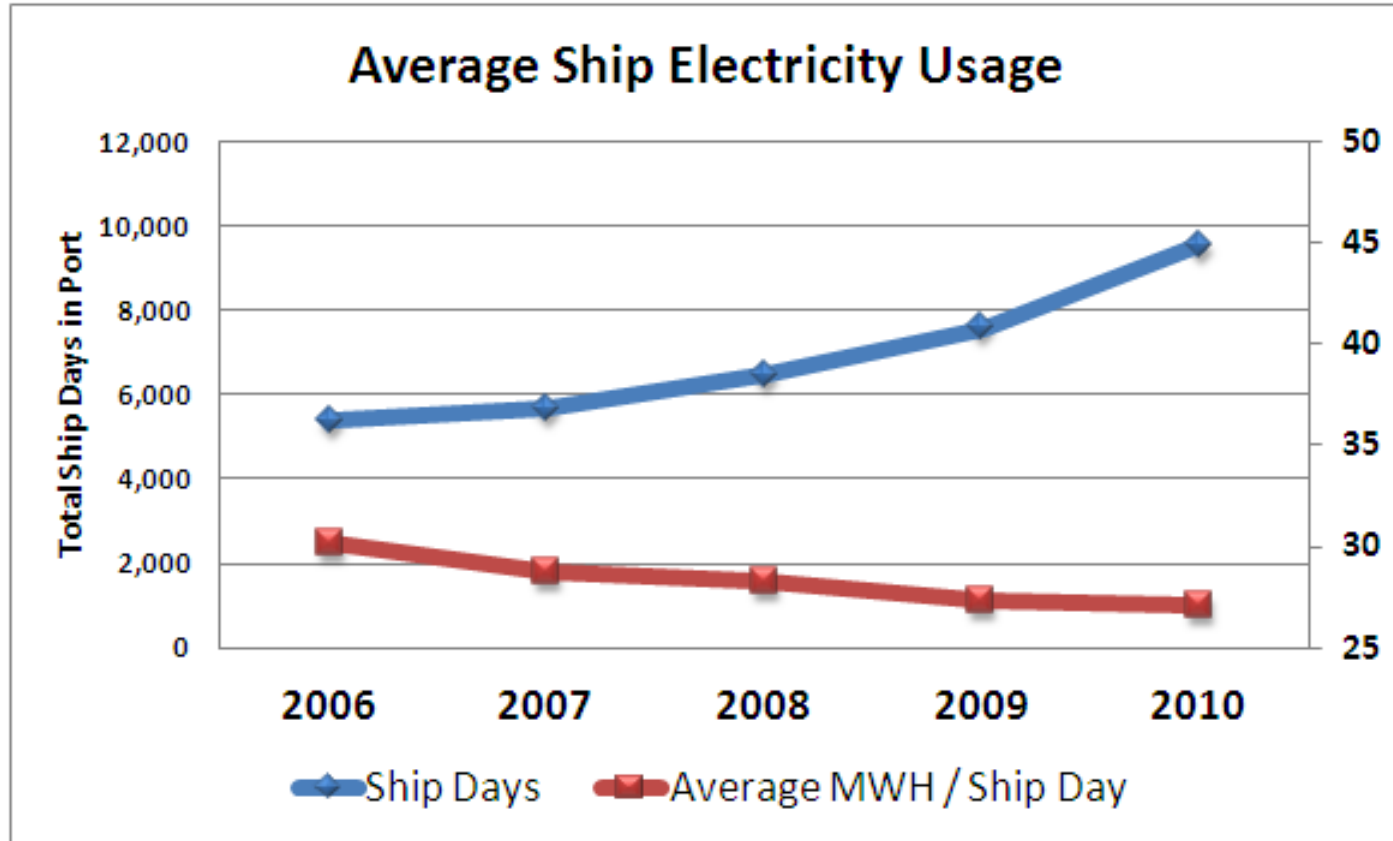
LPD SA Class - USS New Orleans LPD-18

LSD - USS Comstock LSD-45

MCM - USS Devastator MCM-6



Ships Electricity Usage Trend



>\$8M savings over a 4-year period

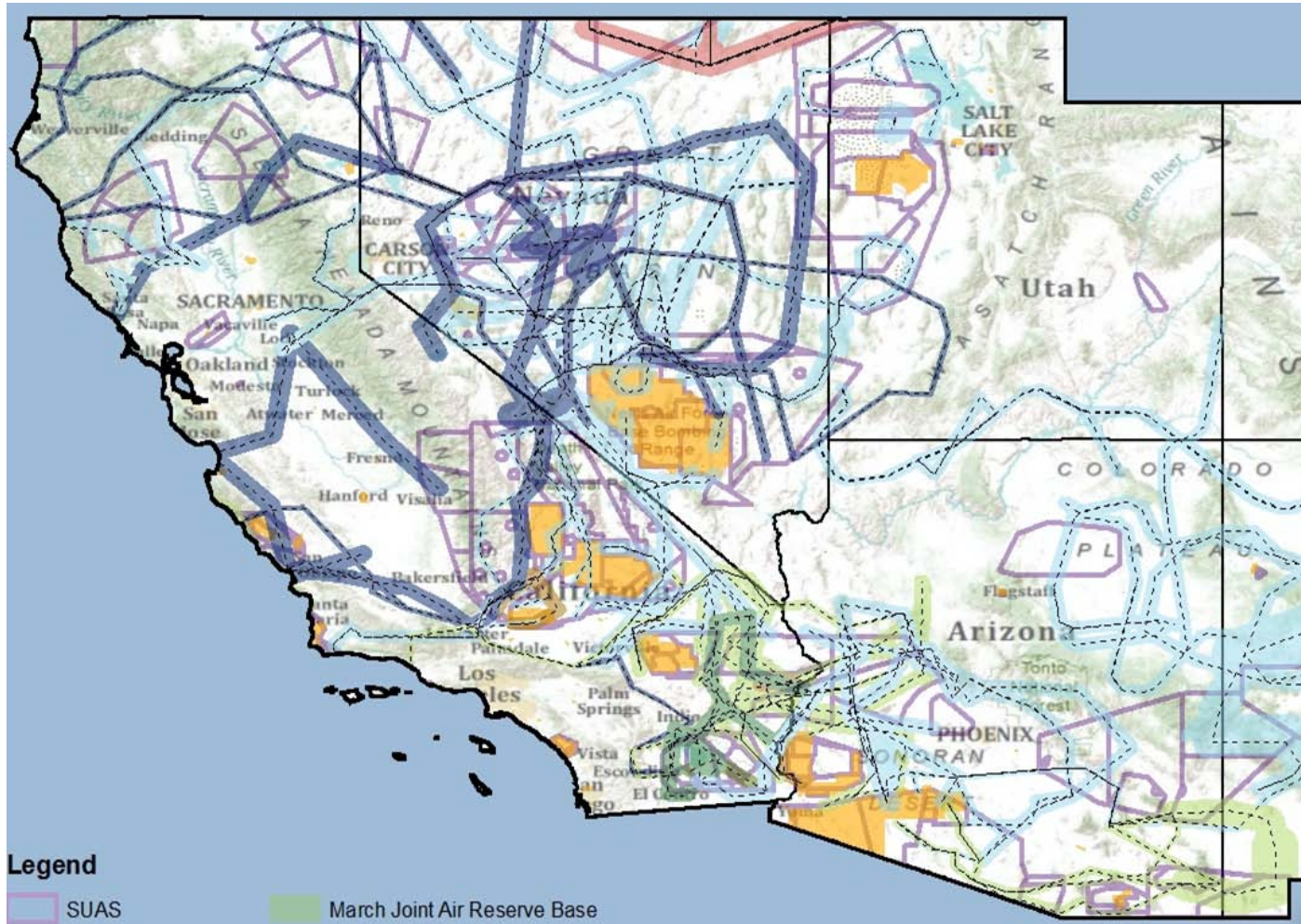


Renewable Energy





Mission Compatibility Assessment Tool (MCAT)





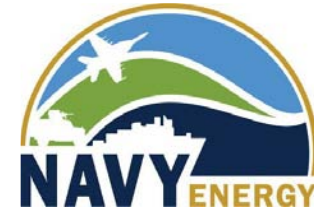
Navy Smart Grid



Energy Efficiency



Energy Security

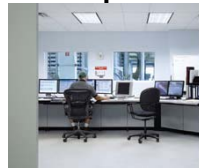


Sustainability

Analysis & Knowledge Mgmt



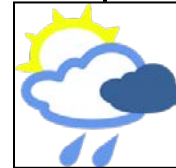
Energy



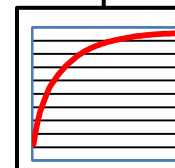
Monitoring/
Controlling



Digital Controls



Weather



Equipment
Efficiency

Sources



Utility
Company
Power



Wind

Storage



Geothermal

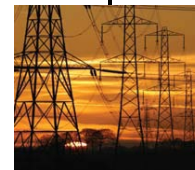


Solar

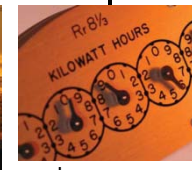


Future
Technologies

Data



SCADA



Legacy
Meters



Existing
Controls



Advanced
Metering
(AMI)



Enabling the Warfighter

