Aviation Energy Initiatives in the Fleet

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Overview

• Fleet aviation initiatives in support of Navy Task Force Energy:
  – SMART Tanking
  – Cold (Truck) Refueling
  – Simulation
  – Additional Potential Initiatives
SMART

- **Short-cycle Mission And Recovery Tanking**
  - Carrier Air Wing 5
    - NSAWC Journal Article – Winter 2008
  - Carrier Air Wing 7
    - Initial Use 2009 Deployment
  - Continued Fleet Utilization

- **Potential Savings**
  - 65% reduction in tanker burn
    - Reduced tanker flight time
    - Increased tanker CV recovery
  - Savings demonstrated
    - CVW-7 2010 Deployment
    - CVW-3 2010 Deployment
Cold (Truck) Refueling

- **Hot Pit Refueling**
  - 2006 Lemoore Study
    - 18 min per aircraft
    - 70 gallons per refueling
    - 3.5% of total fuel per sortie
  - Validated truck refueling
    - Hot pit refueling reduced approximately 50%

- **Additional Savings**
  - Aircraft Components
  - Squadron TAD personnel

- **Additional Costs**
  - Truck maintenance
  - Refueling Personnel
Simulation

• Current Simulation
  – Training
    • Emergency Procedures
    • Flight Preparation
    • Tactical Repetition
    • Mission Rehearsal
  – Training & Readiness
    • 2010 CNAF T&R Conference
    • Increased T&R Simulator Contribution
      – Limited by current simulators
      – Designed for basic training

• Future Simulation
  – Training & Readiness
    • Continuing T&R Simulator Roadmap
    • Balancing Flight Time vs. Simulator Time
Additional Potential Initiatives

- **Fueling/Defueling Practices**
  - FCLP
  - Tanking
  - Maintenance

- **Mission Planning**
  - Extended Training Flights
  - RVSM Certification

- **External Stores Carriage**
  - Minimize to mission essential

- **Maintenance**
  - Ground Support Equipment