

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

