



# Lessons Learned in Planning and Executing F-35 Full Weapon Systems Testing



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# Planning For Success

- Briefed WDA range demand signal to Point Mugu/China Lake leadership Jan 16 resulted in Ear Marking Surge schedule (21 Jul – 16 Aug 2016) - JSF owned the water
- Developed Weapon Delivery Accuracy events to Capabilities
- Ensured must fix problems addressed by development team
- Coordinated extra Range Clearing and Drone Air Launch Aircraft
- Assured back-up Range Clearing Aircraft for Point Mugu and doubled number of presentations/drone
- Pre-positioned inert munitions at EDW ITF and live munitions at EDW Ammo
- AMRAAM Eglin Weapon build shop priority - Immediate response
- Critical Aircraft Spares Were Delivered Before Surge
- All spares moved to EDW
- Trained/Certified additional manpower - resulted in 6 Integrated Weapon Loading Teams



# Range Statistics

- **Total Range Availability – Weapons Related Missions Only**

- *98 % Available – Only 1 of 47 Weapons Missions Scheduled During Surge Were Not Executed Due to Range (Drone Issues)*
- *47 % of Range Requested was Used – 22 of 47 Mission Scheduled Were Used*
- *Reason for Not Using 25 Range Scheduled Missions*
  - **11 Were Backups and No Longer Required**
  - **5 Cancelled for Aircraft Maintenance Issues (Instrumented EHA R/R)**
  - **3 Cancelled for Late Eglin Weapon Certs to the Range**
  - **2 Cancelled Due to Chase Aircraft Problems**
  - **2 Cancelled for Weapons Telemetry (TM) Issues**
  - **1 Cancelled for Instrumentation Issues**
  - **1 Other**

- **Surge Conops Changes that Contributed to Success**

- *Allowed to Schedule Multiple Backups for Each Primary*
- *Allowed to Flex to Different Mission if Primary was Successful*
- *Range Support Assets (Clearing Aircraft, Drones, Control Rooms) Were Pre-coordinated Weeks Prior to Surge*
- *Day of Range Flexibility*

***Data Shows That Dedicated Range Allocation Contributed Significantly to Success***



# Lessons Learned

- **1<sup>st</sup> Quick Release s/w drop executed – non airworthiness changes**
- **Received s/w in 2 weeks - 6 Critical Deficiency Reports fixed opened 7 WDA's**
- **Weapon Ground checks verified correct configuration prior to msn**
- **Delivered Weapon Configuration different from request (Conflicting FTS tones)**
- **Pulled missions left when Primary mission was successful**
- **Reached max capacity of Eglin missile build shop**
- **Certification FTS paperwork trailed missiles**
- **Weapons FTS Recertified twice on Site by PMSR Personnel**
- **Saved ~ 5 days each time vs routing weapon back to Eglin**



# Lessons Applied

- **Range Coordination**
  - *Brief WDA Demand Signal to Ranges*
  - *Request Flex scheduling transitions (back-up to primary)*
  - *Pay for RCA and Drone Redundancy*
  - *Hard Schedule back up ranges dates at risk*
- **Continue WDA/Capability Mapping with JPO/FW/ITF**
- **Continue utilizing Quick Release Capability process when able**
- **Spare parts priority**
- **Ground check weapon configuration prior to mission day**
- **Minimize alternate sources of priorities influencing ITF execution**



# Questions?

