



Joint Combat Operations

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Agenda



- ***Joint Fires Training***
- ***Joint Precision Targeting***
- ***Precision Munitions***
- ***C-RAM***



Joint Operational Fires and Effects Course



No "Single" Service School Established to Train Fires & Effects Above the Brigade Level (Lethal and Non-Lethal) in Support of the Joint Force Commander.

Ft Sill Developed Joint Operational Fires & Effects Course (JOFEC) Sep 04

5 Courses taught to date, Scheduled 4 x per Year (Anticipate 8) with 30 students per course

Focuses on Operational Level Fires & Effects

Emphasizes both Lethal and Non-Lethal Fires & Effects, IO, Space and EBO

Recent innovations include Counterinsurgency and Coalition Issues as topics



Joint Operational Fires and Effects Course



In JFCOM Course Catalog

Overwhelming Request for Attendance; Extensive Waiting List

Attendance breakout—14 Army, 4 USAF, 4 USMC, 4 USN, 4 SOCOM

Desired End State: Highly Trained Joint Service Members Capable of Flawlessly Integrating and Executing Joint Fires & Effects in Support of the JFC



Joint Fires Observer (JFO) Concept



Army has Identified the Need for increased Terminal Attack Control Capability. Air Force is Increasing JTAC Structure Beginning FY06.

Army-Air Force-SOCOM JFO MOA Signed (Nov 05).

JFO Definition Approved – “ A trained service member who can request, adjust, and control surface-to-surface fires, provide targeting information in support of Type 2 and 3 CAS terminal attack controls, and perform autonomous Terminal Guidance Operations (TGO).”



Joint Fires Observer (JFO) Concept



Extends the reach of JTACs.

Focus on Sergeant (E-5 or Above) Fire Support Specialist.

JFO Training at Nellis AFB (AGOS) and Ft Sill.

JTAC-JFO Train and Fight as “One Team.”

***Desired End State: 1 JFO per Maneuver Platoon
(Approximately 3,200).***



JFO Training at Fort Sill



- ***Developed JFO Training Capability at Fort Sill (Aug 05).***
- ***JFO Course Training Syllabus jointly approved by USA and USAF.***
- ***Six Courses conducted to date.***
- ***Courses conducted with simulation and live fly.***
- ***Anticipate Class Size of 18-20 students Per Class By Jun 06; 270 trained JFOs projected for FY 06.***
- ***FY 07-08 goal is 400-500 JFOs (20 Classes Per Year).***
- ***USAF has agreed to continue JFO training at Nellis AFB until FY 08.***

- ***Desired End State: 1 JFO per Maneuver Platoon (Approximately 3200).***



JFO Training at Fort Sill



- ***Air Force Detachment re-established. FY 06 End Strength is 8-10 personnel.***
- ***Ft. Sill investments include both systems and instructors.***
- ***JFOs receive training/familiarization on Precision Strike Suite for Special Operations Forces (PSS-SOF).***
- ***Course submitted, approved and included in JFCOM Course Catalog.***
- ***Desired End State: A fully resourced course, manned with adequate instructors and operators, equipped with simulators, with access to ranges for live sorties, producing JFOs to meet Army requirements.***



Joint Targeting

2004 - 2005

Operation Iraqi Freedom
Mensuration Performed
Only at AOC (Theater Level)
with
no "Eyes On Target"





Joint Targeting

2006 →...

Operation Iraqi Freedom
Precision Coordinates Performed
by
Ground Based Observers
"Eyes On Target"



***Placing precision strike Capabilities
at the Tip of the Sword***



Return of Air Force Detachment to Fort Sill (Ongoing Since 15 May 05)

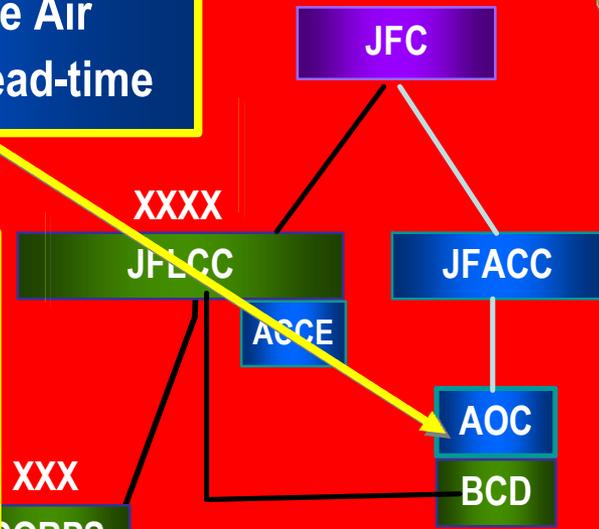


- ***USAF supportive and working issues to provide manning and support.***
- ***Anticipated AF Detachment FY06 End Strength by is 8-10.***
 - ***Currently 6 on station.***
- ***USAF (ACC) pursuing FY 08 POM support for manning.***
- ***OK Air National Guard manning will ‘bridge’ through FY07.***
- ***FY 08 unit will include both USAF Active Duty and OK Air National Guard personnel.***
- ***Linkage established with USAF units for live fly opportunities for JFO Course and sustainment training.***
 - ***Working with 7 different flying units.***
 - ***Urban CAS Scenarios included with B-52s from Barksdale AFB (Targeting Pods) and B-1s from Dyess AFB.***
- ***Desired End State: Fully integrated Air Force Detachment, enabling better Air-Ground Operations and development of Army/Joint Doctrine.***



Historically, target Mensuration has been Accomplished in the ISR Division of the Air Operations Center and Requires hours of lead-time

OIF/OEF
 The real-time need for JDAM employment in support of Troops-in-Contact Situations has led to a push for A Mensuration capability at the ASOC
 Typical Response Time: 15 to 45 minutes



PSS-SOF moves the precision strike capability to the tip-of-the-spear.
 Response Time: Less than five minutes

JFO



Force Air Request Net

UNCLASS



Precision Strike Suite for Special Operations Forces (PSS-SOF)



Requirement

- “Digital Divide” still exists for Precision Engagement by Tactical Users
- ✓ Strikes still called over voice nets using “non-integrated” GPS, LRF, map and compass
- ✓ Coordinates lack pedigree for PGMs
- ✓ Different delivery platforms require coordinates in different formats

Background

- National Geospatial Intelligence Agency (NGA) validated capability for PGM targeting and mission planning
- ✓ Hosted on user’s existing systems
- ✓ First deployed to OEF in DEC 2001

Discussion

- Common component in emerging Service Programs of Record
- ✓ SOCOM Special Operations Mission Planning Enhancement
- ✓ USAF TACP-Modernization
- ✓ USMC StrikeLink
- ✓ AFSOC Battlefield Air Operations Kit
- ✓ USA Forward Observer System

Status

- In use by SEALs, Special Forces, USA FECs, USAF Special Tactics, USMC Force RECON and MEU Intel
- Training integrated at JTAC and JFO Schools
- Transitions to USSOCOM in FY07 for sustainment
- Recognized by USCENTCOM for targeting



Precision Munitions



- ***Guided MLRS, Excalibur***
- ***24/7, All weather***
- ***Minimizes collateral damage***
- ***Supports COIN Ops***
- ***Field Artillery is transforming to a Precision Strike Combat Arm!!!***



GMLRS Unitary

Range to Target – 74 KM





First Validation Shot



- ***4 x 5 Meter Target***
- ***53 Kilometers***
- ***Point Detonation***



First Validation Shot

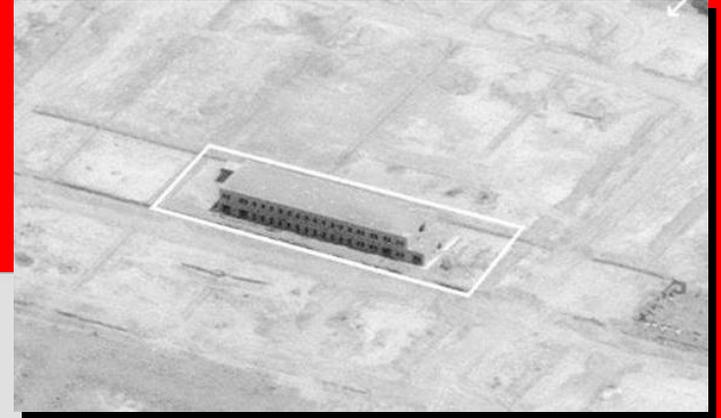




Second Validation Shot



- ***50 x 200 Foot Target***
- ***65 Kilometers***
- ***Point Detonation and Delay***



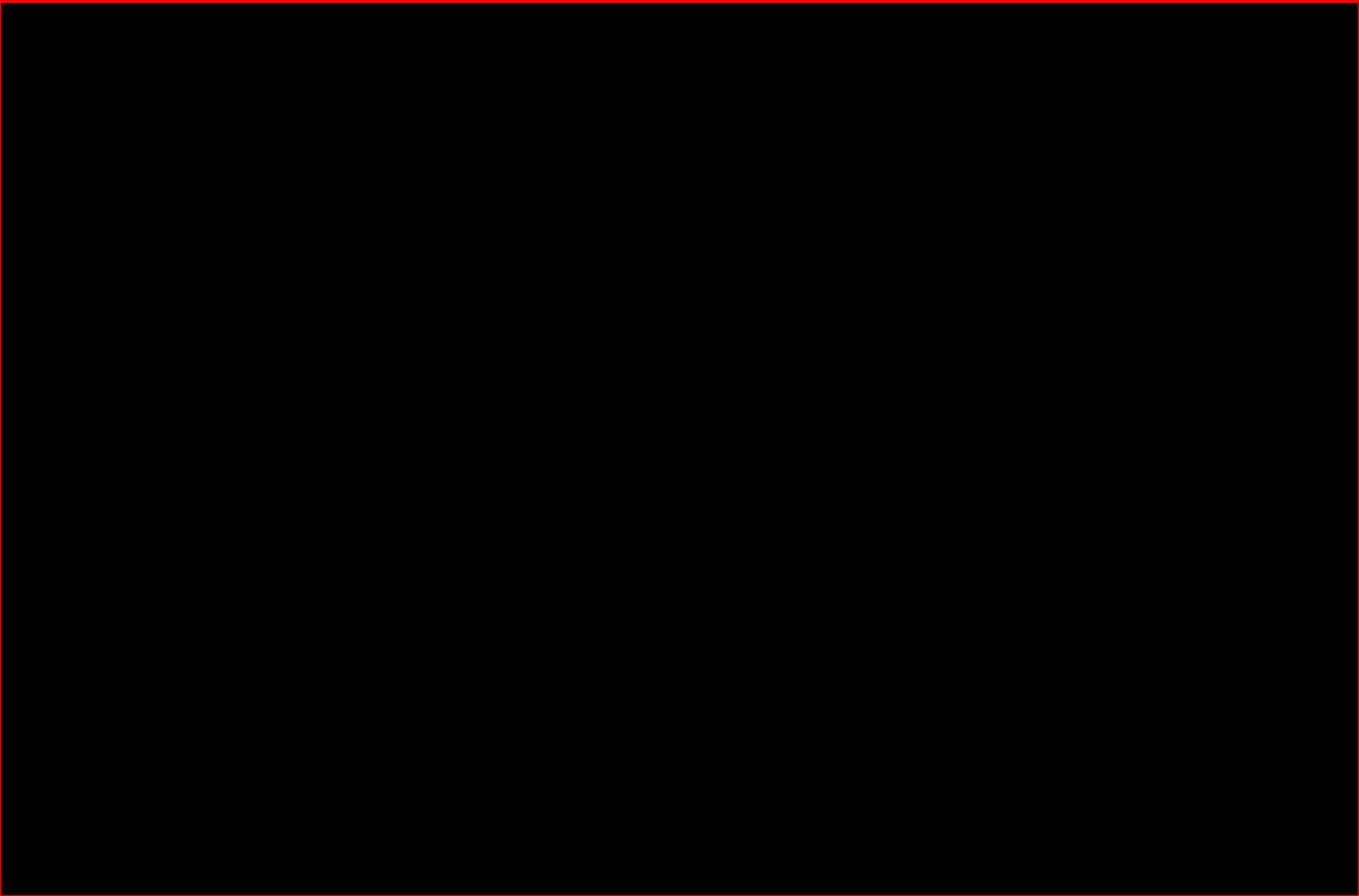
Second Validation Shot





GMLRS Unitary

OIF 10 Sep 05





Excalibur

Range to Target – 15 KM





Excalibur

Range to Target – 15 KM





C-RAM



- ***Counter-Rocket Artillery Mortar***
 - ***System of systems to counter the indirect fire threat***
 - ***7 Pillars***
 - ***Shape, Sense, Warn, Protect, Intercept, C2, Respond***
- ***Successful in Theater and at NTC***



C-RAM at NTC

Integrated Base Defense System of Systems (IBDSoS)

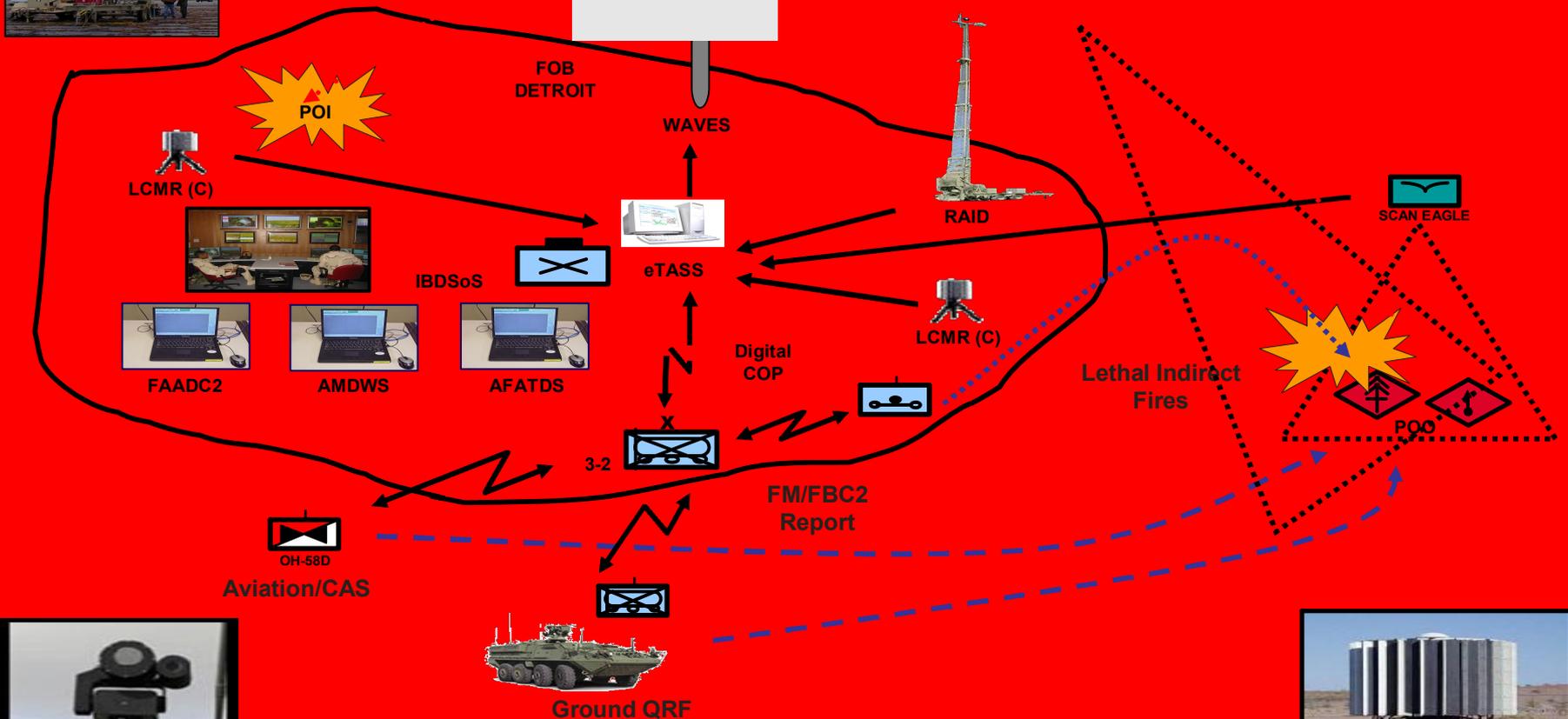
RAID Tower



SCAN EAGLE UAV



Acoustic Warning to FOB Personnel



WTSI Camera



LCMR (Constructive)





C-RAM **155mm Response**





C-RAM *Hellfire Response*





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