

Headquarters USAF Warfare Center

Testing - Tactics - Training

83d FWS NDIA Brief



Lt Col Pete “Shadow” Ford

83 FWS/CC

23 Oct 09

**This Briefing is:
UNCLASSIFIED**



Overview

- **WEG & 83 FWS Mission**
- **Targets**
- **Air-to-Air Engagements**
- **Results**
- **Future**



53 WEG Mission

Provide senior leaders an annual assessment of weapon system effectiveness & suitability through kill chain evaluations on all combinations of fighter, bomber, and remotely piloted aircraft employing both air-to-air & air-to-ground weapons in realistic scenarios that enhance training

Provide threat representative aerial targets for WSEP, DoD, and FMS weapons testing programs

***Weapons-Build Through Impact Analysis of the A/A and A/G Kill Chains
Aerial Target Systems for WSEP, DoD and FMS Test Programs***



53 WEG Mission

*Provide senior leaders an annual assessment of weapon system effectiveness & suitability through **kill chain evaluations** on all combinations of fighter, bomber, and remotely piloted aircraft employing both air-to-air & air-to-ground weapons **in realistic scenarios that enhance training***

*Provide **threat representative aerial targets** for WSEP, DoD, and FMS weapons testing programs*

**Weapons-Build Through Impact Analysis of the A/A and A/G Kill Chains
Aerial Target Systems for WSEP, DoD and FMS Test Programs**



83 FWS Mission

Provide a Tailored Force Development Evaluation on the overall effectiveness & reliability of DOD air-to-air weapons systems

Validate & expand air-to-air tactics, techniques, and procedures

Provide air-to-air missile experience to participating units



Targets



- Adaptive Full Spectrum Threat-Realistic Expendable Target
- 3-Dimensional
 - Low OR High
 - Slow OR Fast
 - Level OR Highly Maneuvering
 - RCS/RF/EA/IR/Easily Seen



- Roles...
 - Fighter
 - Cruise Missile/UAS
 - Plus...Airliner, Cessna, Helo



Air-to-Air Engagement



■ COMBAT

- Fluid, Dynamic, Un-constrained, Dangerous and Expensive!

■ TRAINING

- Ideally, similar w/o real death & danger
- ...Fluid ~ Structured
- ...Dynamic ~ Repetitive
- ...Un-constrained ~ Bounded
- ...Expensive ~ Affordable

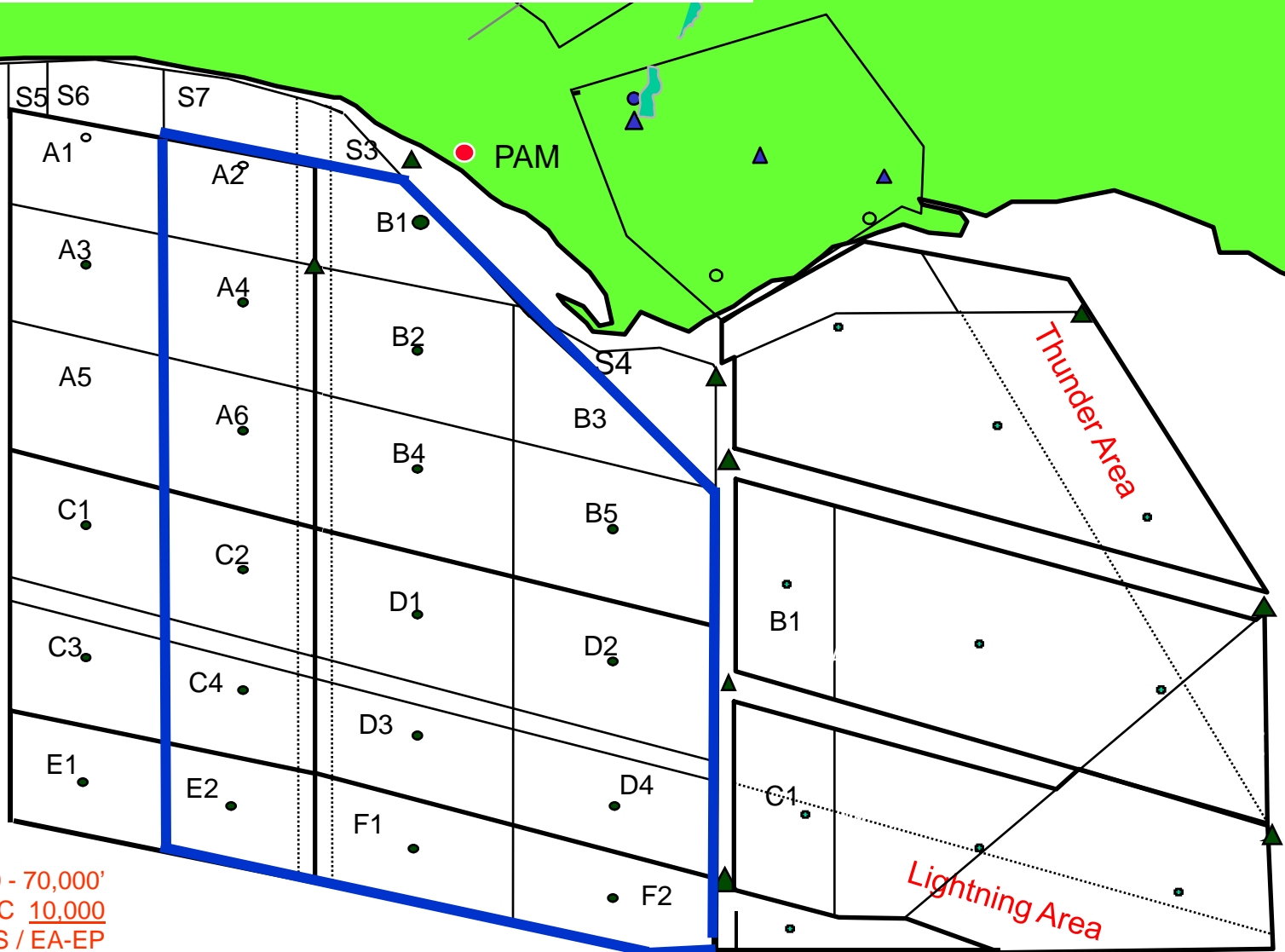
■ VALID

- Validated as we gather quantifiable data/info for analysis

- CUSTOMER - Can I have it ready yesterday and again tomorrow?

TYPICAL COMBAT ARCHER SCHEDULED RANGES

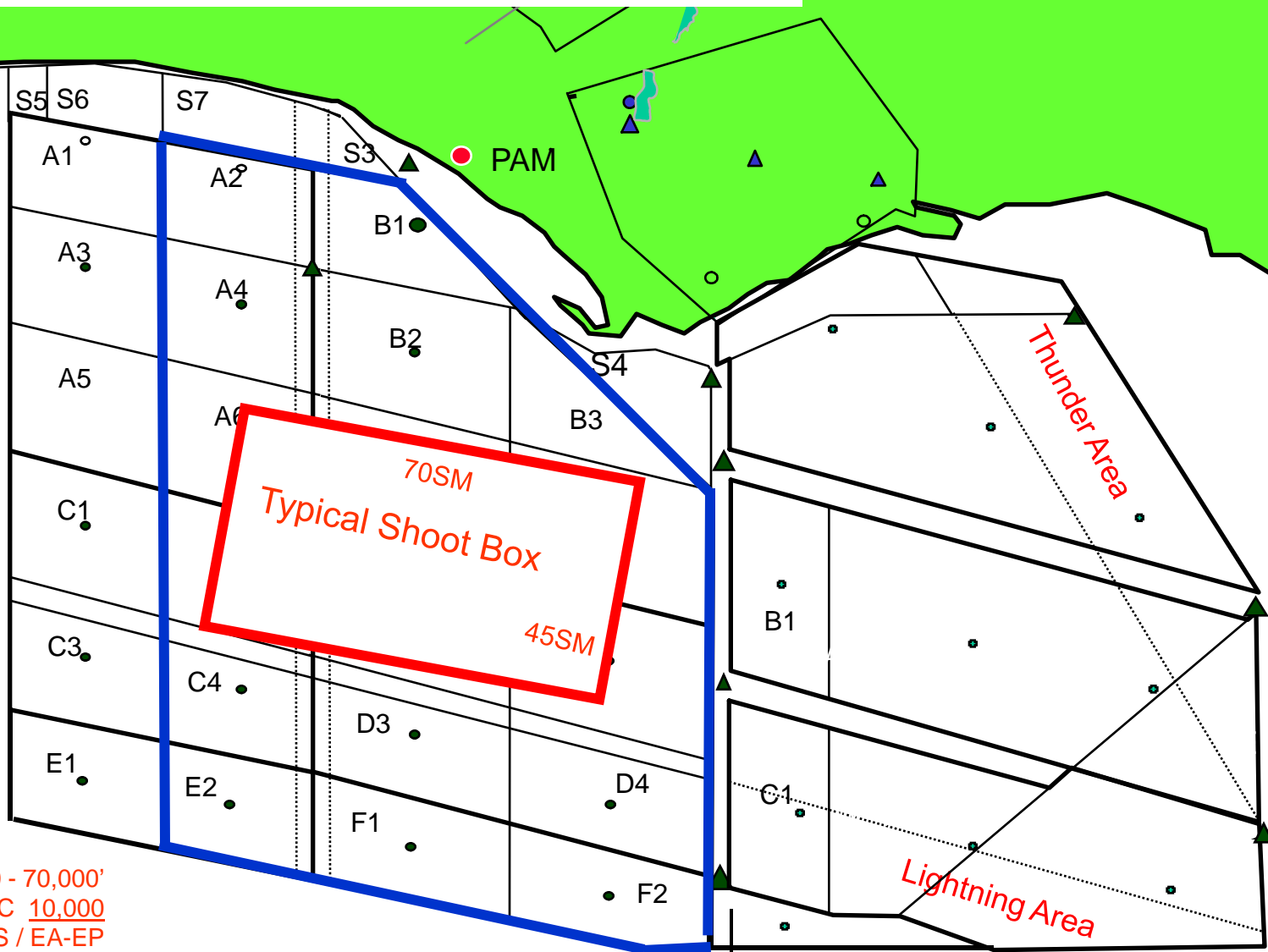
- AIRSPACE
 - W151 A, B, D, E2, F
- TIME
 - 3 Hours



0 - 70,000'
 SUPERSONIC 10,000
 CHAFF / FLARES / EA-EP

SHOOT BOX REQUIREMENT 3150 SQUARE STATUTE MILES

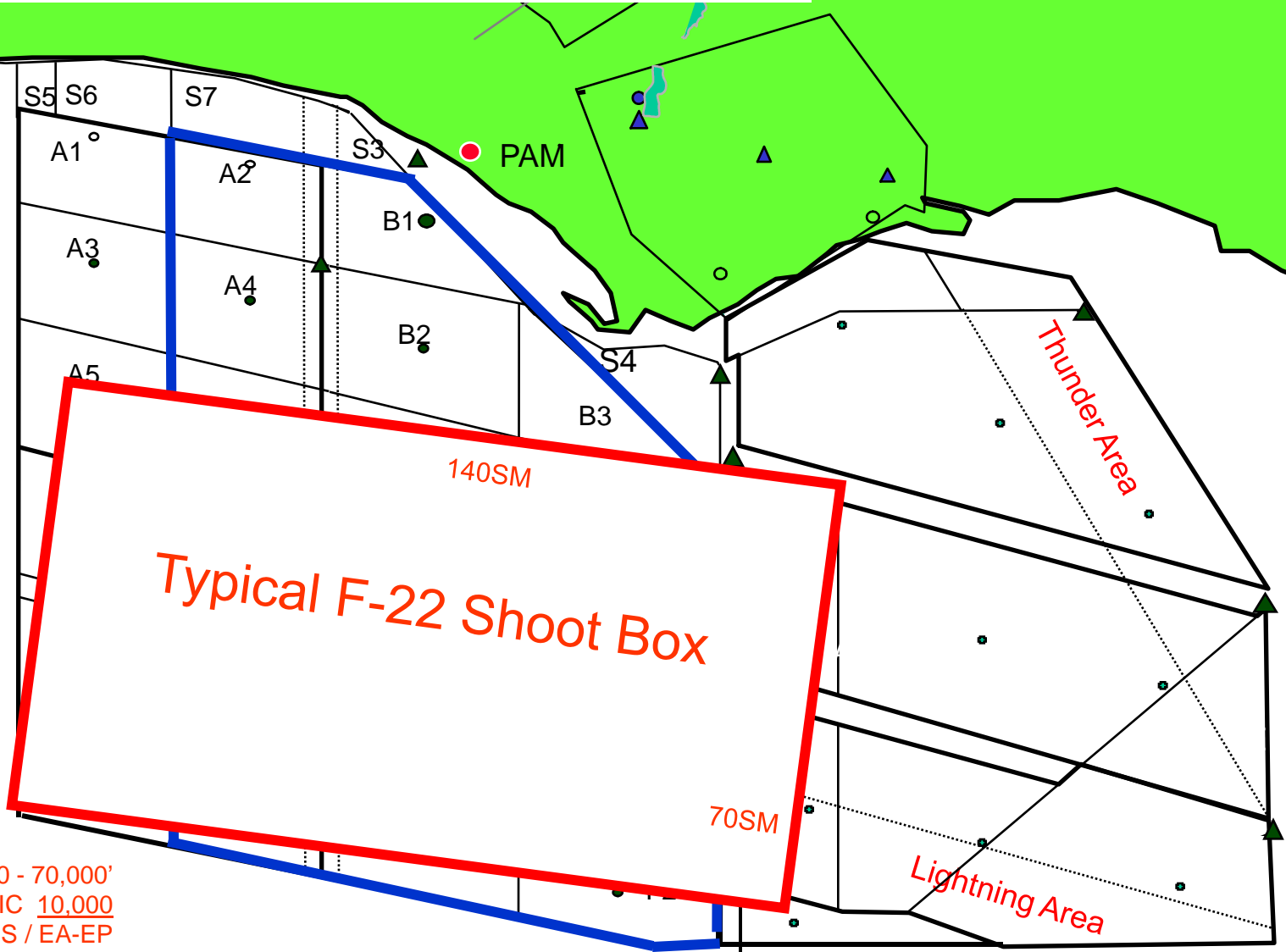
- AIRSPACE
 - W151 A, B, D, E2, F
- TIME
 - 3 Hours



0 - 70,000'
SUPERSONIC 10,000
CHAFF / FLARES / EA-EP

SHOOT BOX REQUIREMENT 9800 SQUARE STATUTE MILES

- AIRSPACE
 - W151 A, B, D, E2, F
- TIME
 - 3 Hours



0 - 70,000'
SUPERSONIC 10,000
CHAFF / FLARES / EA-EP



RESULTS

■ TACTICAL

- 3-1, TTPs, SHOT-KILL

■ OPERATIONAL

- OPLANS
- IN-THEATER WEAPONS EFFECTS

■ STRATEGIC

- TO CSAF ANNUALLY – FILTER TO OSD
- CNO GROWTH

■ DEFENSE INDUSTRY

- WEAPONS – WPNS SYSTEMS - TARGETS



NDIA TAKE-AWAYS

■ TARGETS

- Evaluate Multi-Role Platforms (Combined WSEPs)
- Target Set Expansion!
- Incorporate New Weapons Systems (F22/F35/UAS)
- Incorporate New Weapons

■ RANGES

- Optimize Efficient Use across Users...Joint Ops
- Optimize Growth (Higher, Faster, Farther, +Data Fidelity)
- Play Well with others...
 - Civilian use...Business use...
 - Gov't (FAA) use...
 - Continued Military use



Headquarters USAF Warfare Center

Testing - Tactics - Training

QUESTIONS?



PETER.FORD@TYNDALL.AF.MIL

83 FWS/CC

DSN 523-4039

COMM 850-283-4039

Keeping a Razor Sharp Edge for America...