

Headquarters Air Combat Command

Industry Day CAF DMO Update



Mr. Kent "Supe" Clark
ACC/DOT



Overview

- **Distributed Mission Operations (DMO) development**
- **Current status**
- **DMO goals**
- **Future needs**





DMO is AF Training Transformation

“DMO will be the only realistic way we can get C2ISR and shooters hooked up to test and train modern evolutions of tactics - like time sensitive targeting - that requires real-time interface among platforms that are too stressed by OPTEMPO to train together in peacetime.”

General John P. Jumper, CSAF



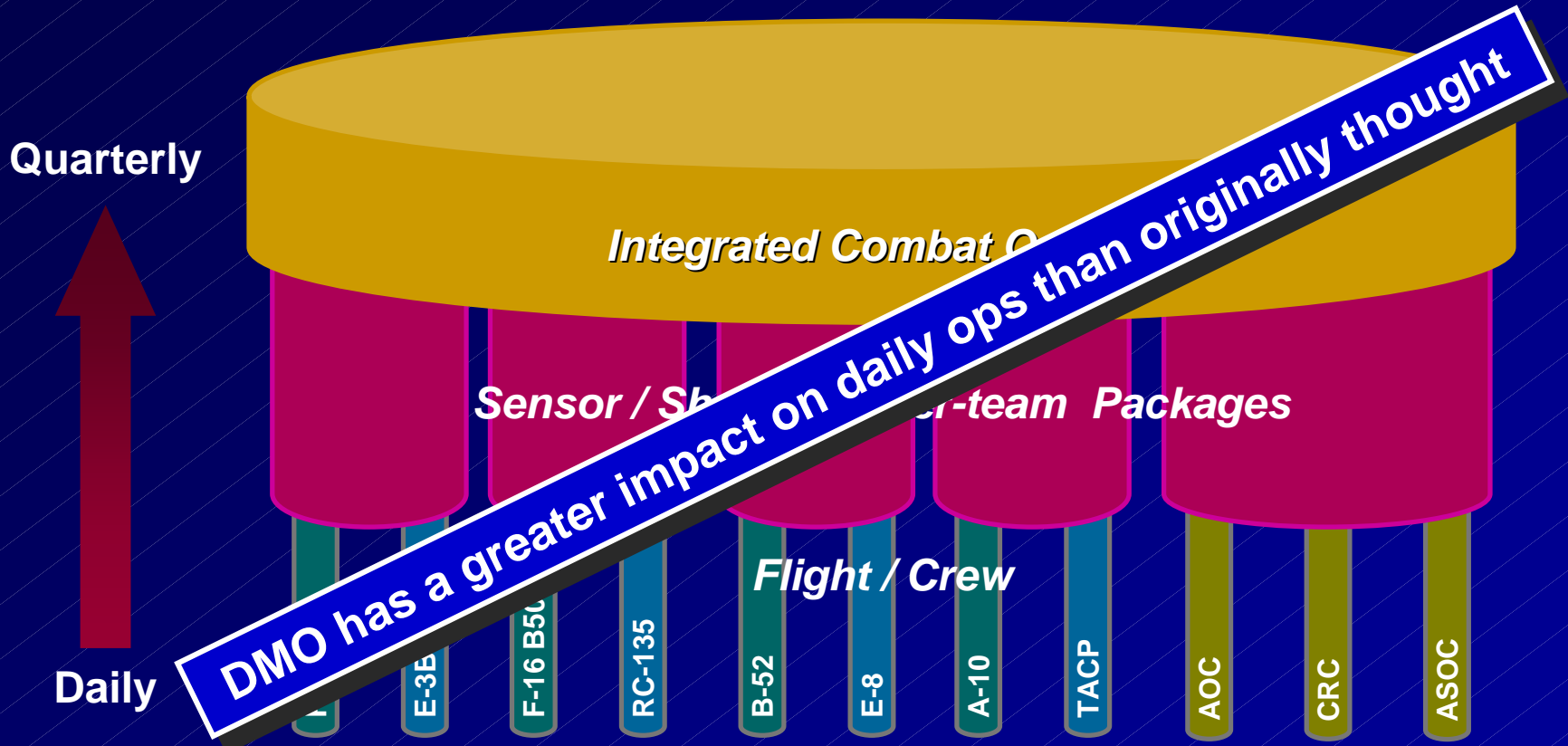
“The skills of our airmen are wearing out because they are not training to their most demanding wartime mission. In DMO we will be able to use simulators for big package rehearsals. “

General Hal Hornburg, COMACC



CAF DMO Goals

Integrated Training for Integrated Combat Operations

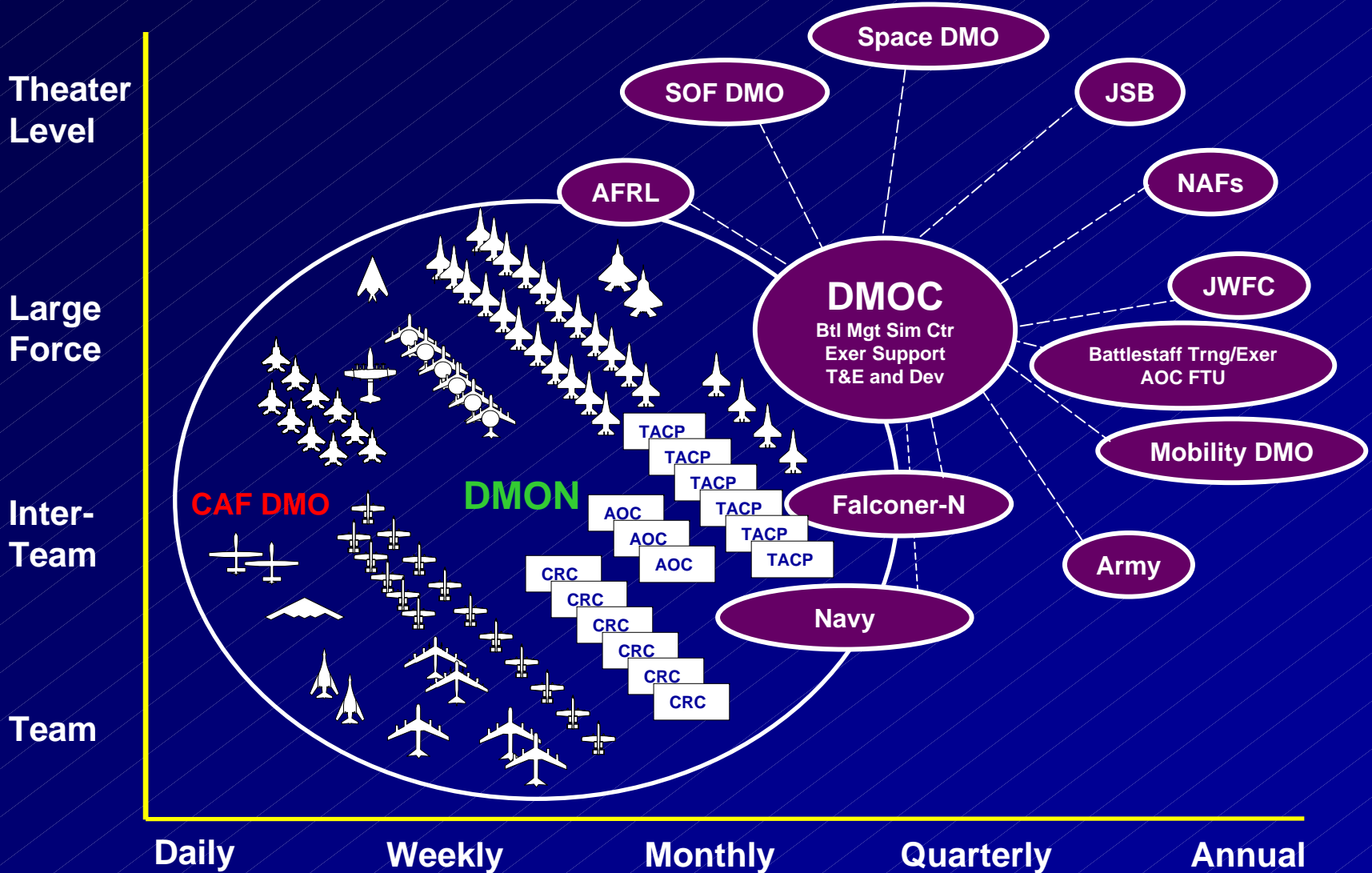


- Daily training for flights & crews; 2-ship ops is a quantum leap in simulation
- Sensors, shooters, and C2 networked for specific objectives
- Integrated Combat Ops trained through Virtual Flags



AF and Joint DMO

Future





Virtual Flag

- Quarterly joint distributed flag exercises
 - Robust air-land-maritime-space-emitter training environments
 - Focused on integrated C2ISR execution across current and evolving Combat Air Forces mission areas
- Scenarios designed to support Combatant Commanders
- Combined with Red Flag and/or Blue Flag





Future Allied Involvement

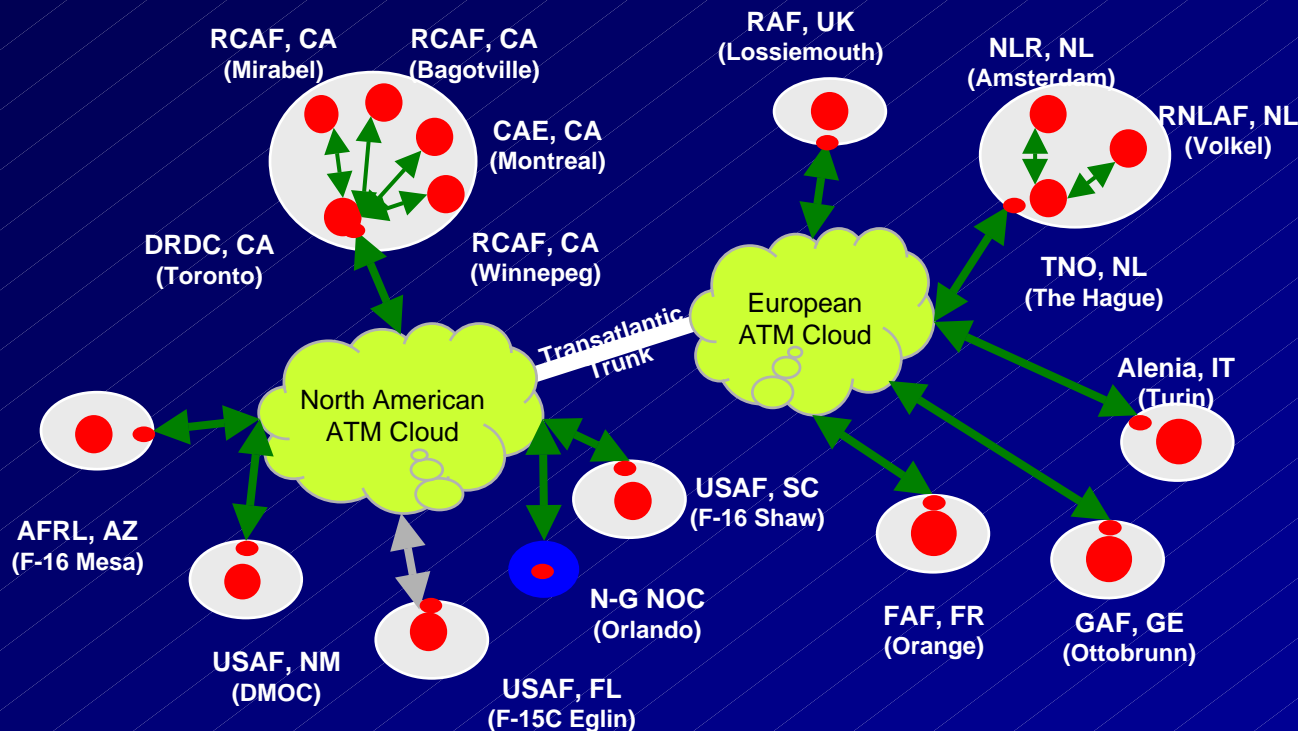
- **Mission Training through Distributed Simulation (MTDS) exercise First WAVE**
 - Seven nations including US and The Netherlands
 - Combined Air Operations (COMAO) scenarios
 - Demo potential of coalition MTDS (DMO)
- **Coalition Mission Training Research (CMTR)**
 - ACC/DOT, Air Force Research Lab (AFRL)
 - Developed common architecture to define MTDS training objectives
 - Mission-level objectives transfer among coalition members



Exercise First WAVE

First Warfighter Alliance in a Virtual Environment

- Long-haul connectivity between N. American and European ATM cloud
- Sixteen sites presents some technical and operational challenges





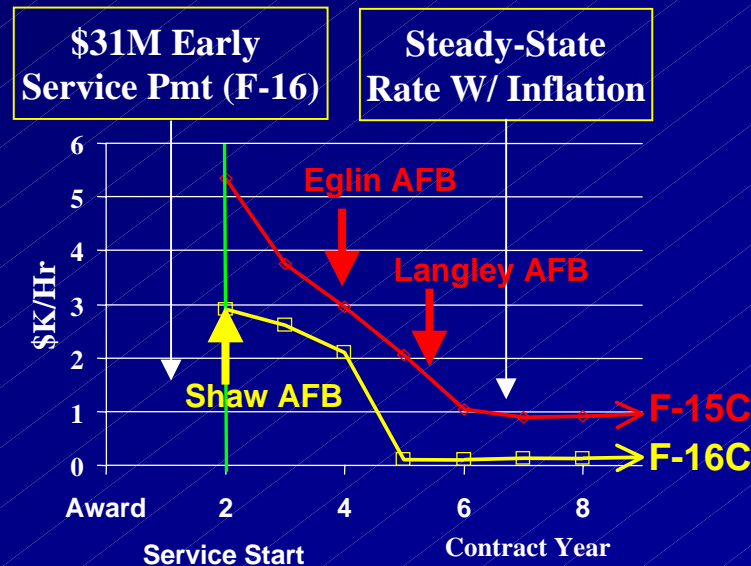
Commercial Training Simulation Services (CTSS)

- **CTSS is not DMO**
- **CTSS is**
 - **A non-traditional acquisition strategy – AF doesn't own the sims**
 - **A contractor provided service for system development, support, upgrades, concurrency w/aircraft**
- **Must have funding tail from Decision to Activate (DTA) through contract end**
 - **Funded with 3400 O & M funds (1-year money)**
 - **Once activated, each site is a must-pay bill**
 - **Cannot use fall-out funds for DTA**
- **Insufficient funding caused site activations to slip; contracts at risk**



Commercial Training Simulation Services (CTSS)

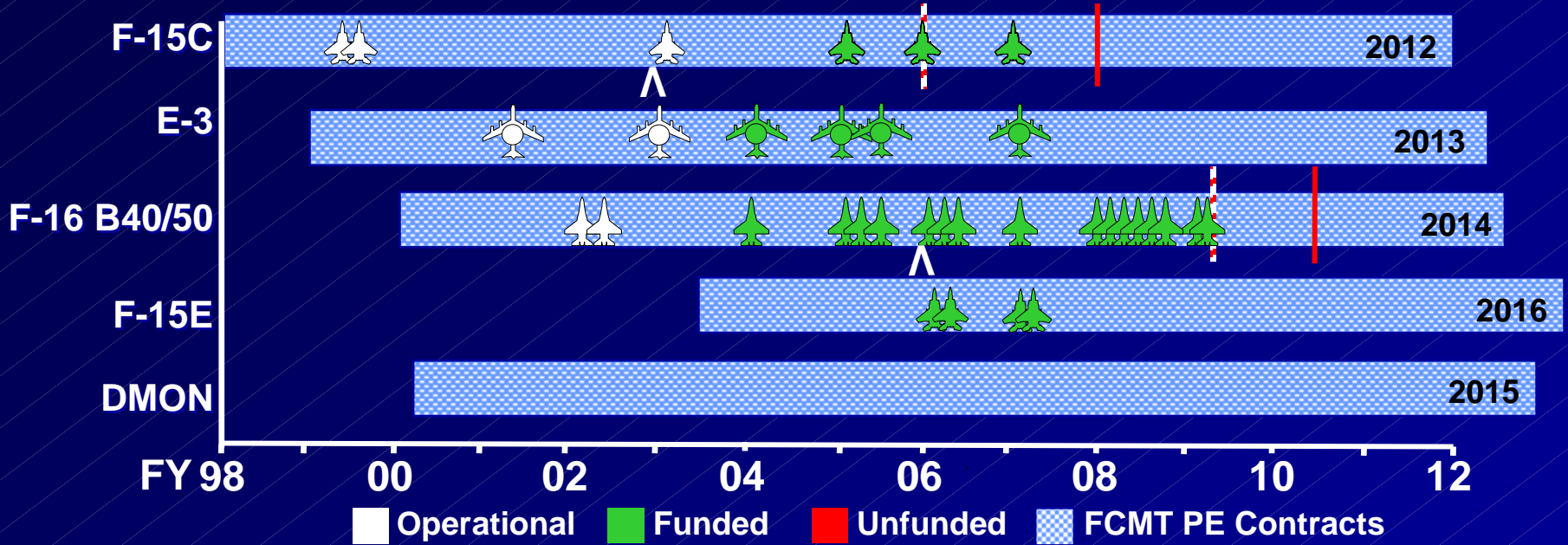
- CTSS contract costs are front loaded (cost for services with a minimum guarantee)
 - Significant cost decrease after 3-5 yr
 - Long contract periods are best value for Air Force
- Contractors' revenue tied to start of training services
 - Recover investment in initial (3-5) years' service rates





Current CTSS Status

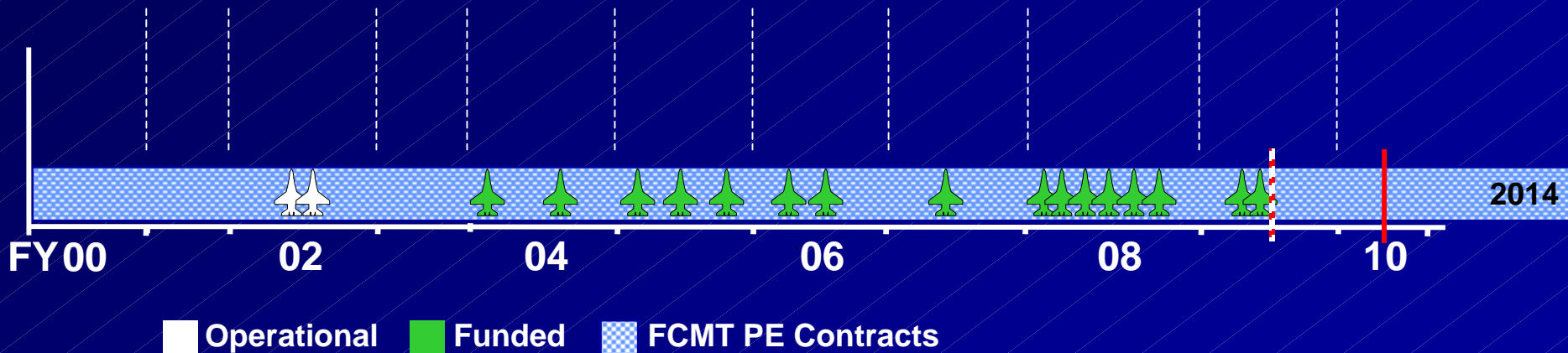
Current as of
24 Nov 03





F-16 B40/50 Roadmap

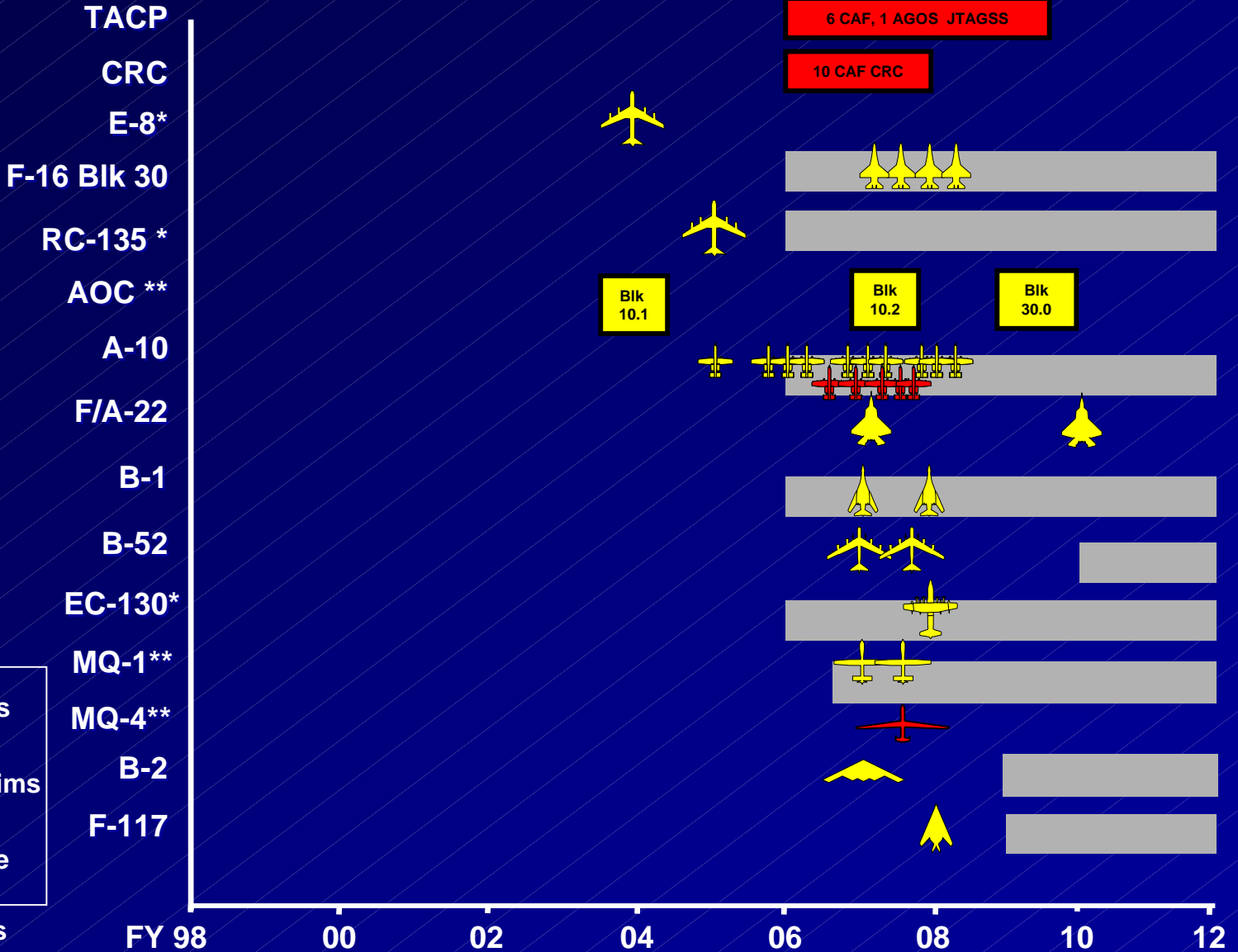
MDS	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
F-16 Blk 50		Shaw 4 Mt Home 2		Mt Home 2 Spang 4	Misawa 4 Cannon 2 Luke 4			McEntire 1 Eglin 1	
F-16 Blk 40						Luke 4 Hill 4 Eielson 2	Cannon 2	Aviano 4 Tulsa 1 Toledo 1 Des Moines 1	Osan 2 Kunsan 2





Fielded Simulator DMO

Current as of
24 Nov 03



- Existing Sims
- No current Sims
- CTSS Eligible

* Msn crew sims

** WS PE funded

FY 98 00 02 04 06 08 10 12



Future Needs Enablers

- **Programs/Initiatives**
 - CAF Distributed Mission Operations
 - SOF Signals Training/Rehearsal System (SOFSTARS)
 - Joint Distributed Engineering Plant (JDEP)
 - Diamond Matrix (DM)
 - Range Enhancement Initiatives
 - Multi-Level Security (MLS)
 - Joint Synthetic Battlespace (JSB-AF)
- **Technologies**
 - Info Technology and Info Assurance
 - Modeling and Simulation (M&S)
 - Tactical Decision Aids/Other Weather Systems in C4ISR Mission Planning
 - Blue Force Tracker (BFT)





Future Needs Enablers

- **Exercise/Experiments/Events**
 - CAF Flag-Level Exercises
 - Virtual Flag (VF) Exercise
 - AF Research and Development
 - AF/Joint Experiments
- **Infrastructure**
 - Distributed Mission Operations Center (DMOC)
 - DMO Network (DMON)
 - Space Applications and Integration Facility (SPAIF)





Future Needs Needed Capabilities

- **Rapidly develop new databases – cheaply**
 - **Goal = days**
- **Establish a common Air-to-Ground database**



Mission Rehearsal

“I was *downtown* at the start of tonight’s activities and got to launch the first HARM of Operation Iraqi Freedom...the location of my flight and the tactics employed were EXACTLY like we were practicing in the F-16 MTC at Shaw before we left...talk about *Mission Rehearsal!*”

F-16 Pilot,
Weapons School Grad





Questions?

