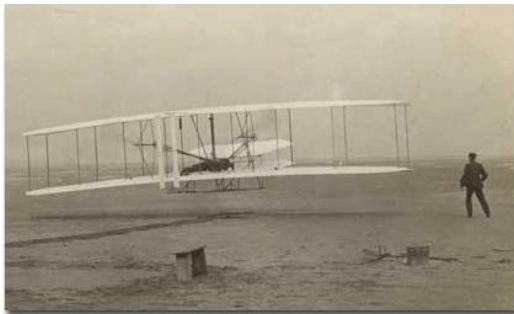


Augmented Reality Training for UAS Aircrew

History Repeats Itself



1903

~30 years

1932

From the Wright Flyer to the "Blue Box"



From Mastiff to PMATS

~30 years

1975

2005



AUVSI Unmanned Systems North America
August 2009

Brief History of DoD UAS Training

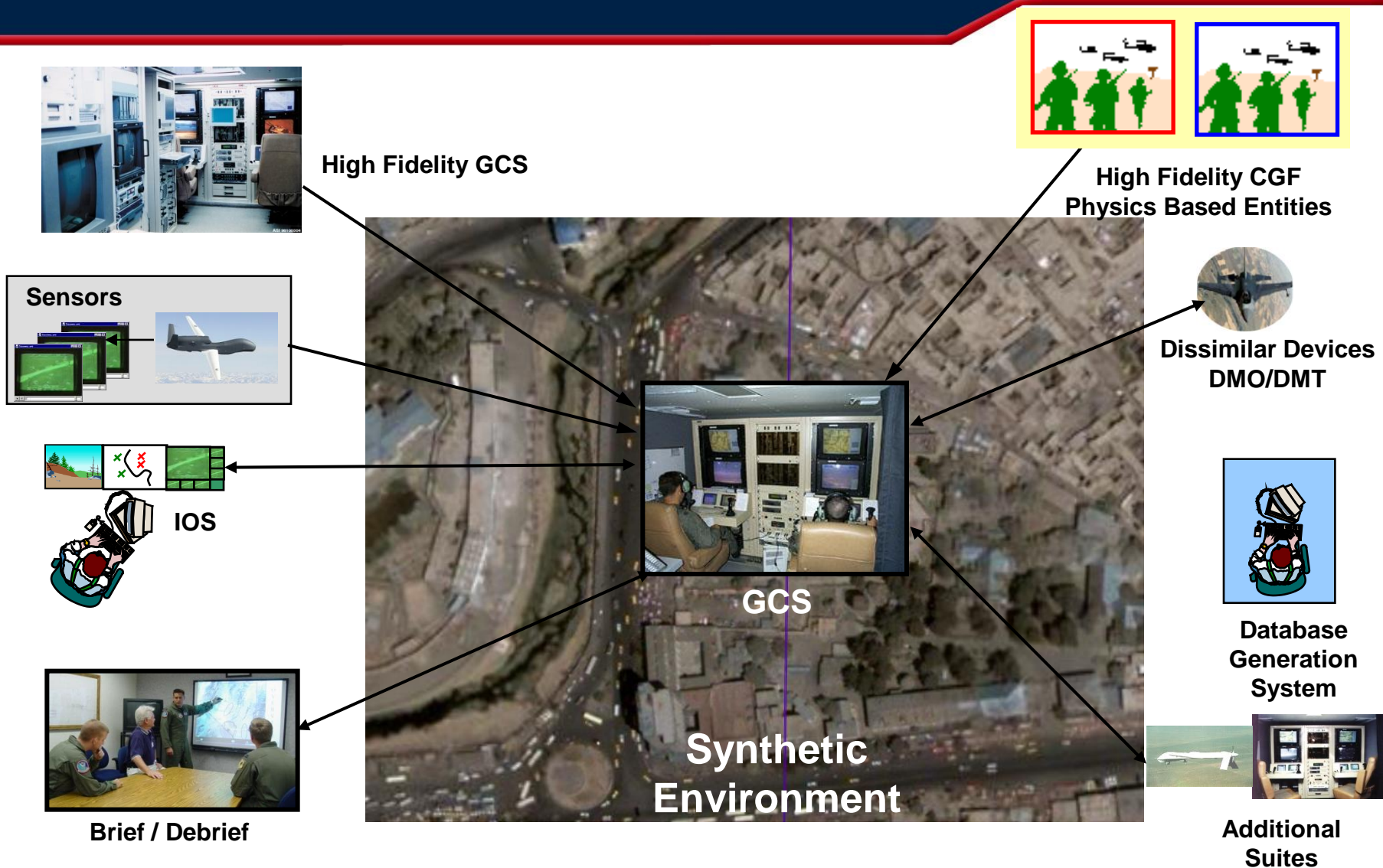
- ❑ 1980s: Israeli Mastiff & Pioneer enter DoD inventory
 - Ft. Huachuca UAS training center established

- ❑ 1990s: The MUSE Seed is Planted

- ❑ 2000s: Embedded Training Concept Takes Shape

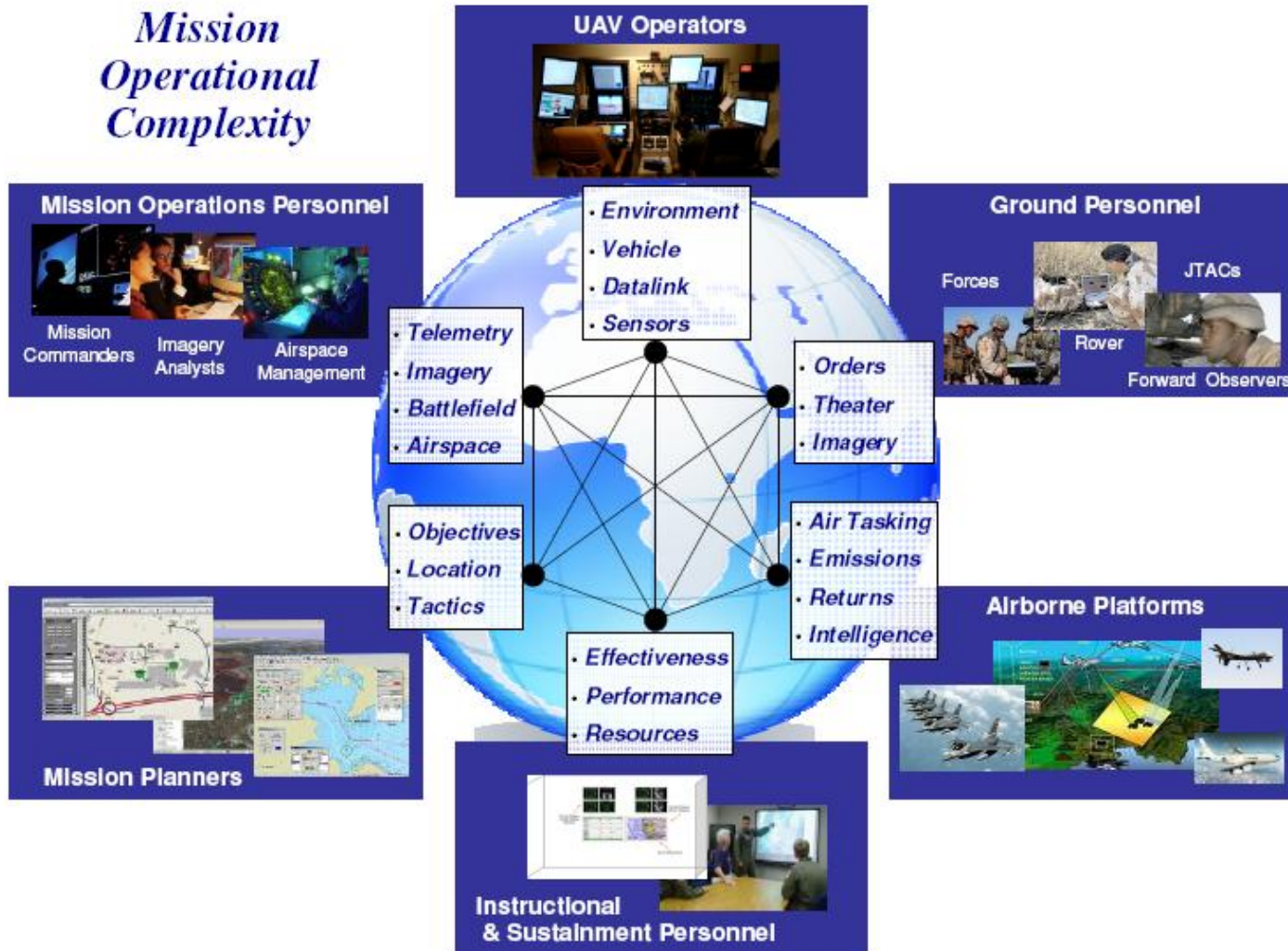
- ❑ 2009: Today's Embedded Training Challenges

Predator Mission Aircrew Training System



It's Much More Than Just "Stick & Throttle"

Mission Operational Complexity



Augmented Reality = Mission Success

*It's about
Situational
Awareness*

- expanded field of view
- frame comparison enhancements



Weather Effects

Weapons & BDA



Distributed Mission Operations



The "Immersive" Mission

- real-time imagery overlays
- datalink entity placement

Human Behaviors



High Detail Urban



Digital Communications and Control

- brown outs / weather "see through"
- map overlays with targets and battle damage
- weapon fly-out visualizations (all observers)

- real-time C2 injection
- communications visualization
- filtered team associations