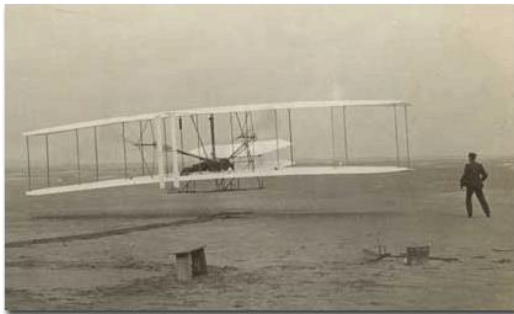


Augmented Reality Training for UAS Aircrew

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

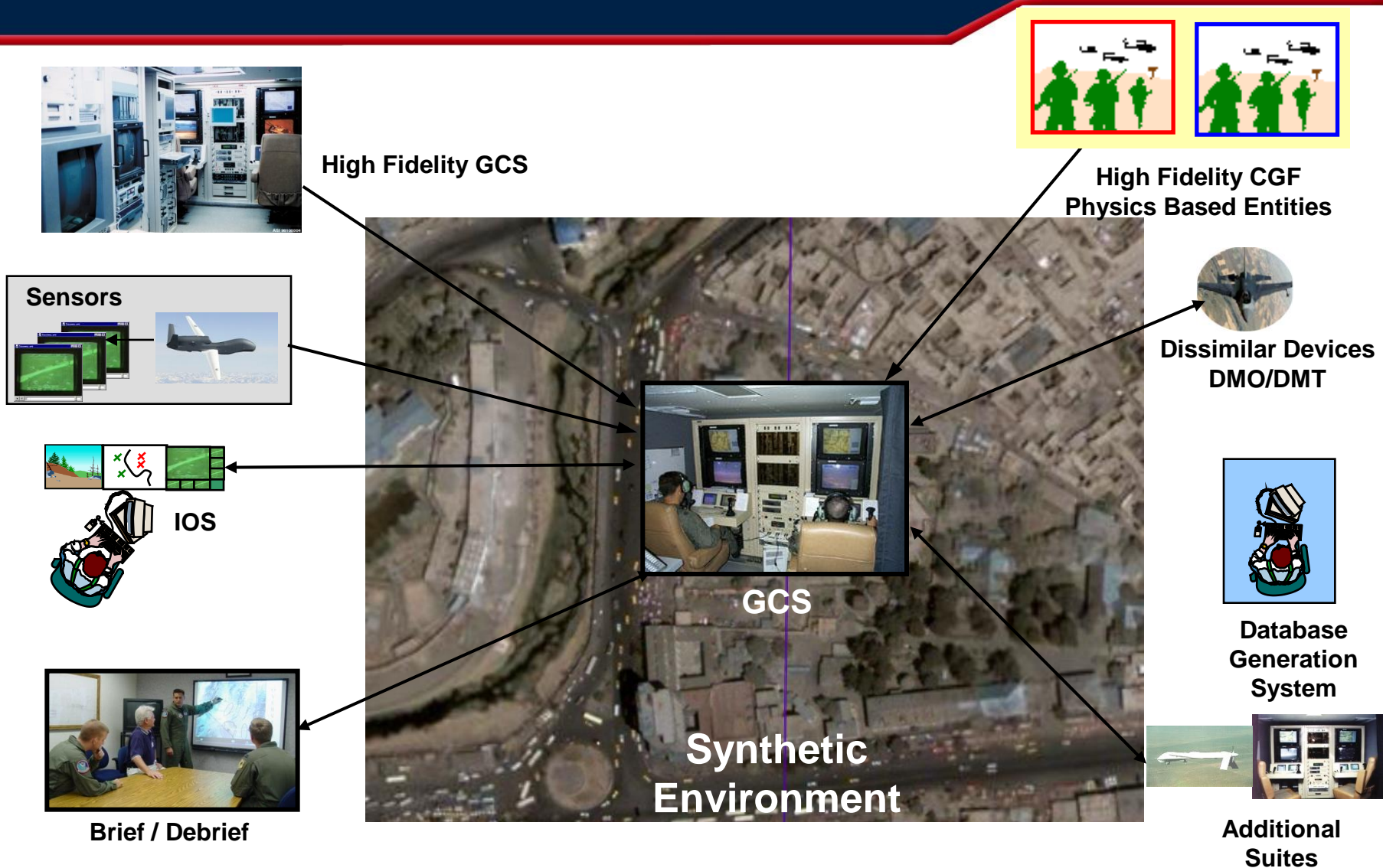
- ❑ 1980s: Israeli Mastiff & Pioneer enter DoD inventory
 - Ft. Huachuca UAS training center established

- ❑ 1990s: The MUSE Seed is Planted

- ❑ 2000s: Embedded Training Concept Takes Shape

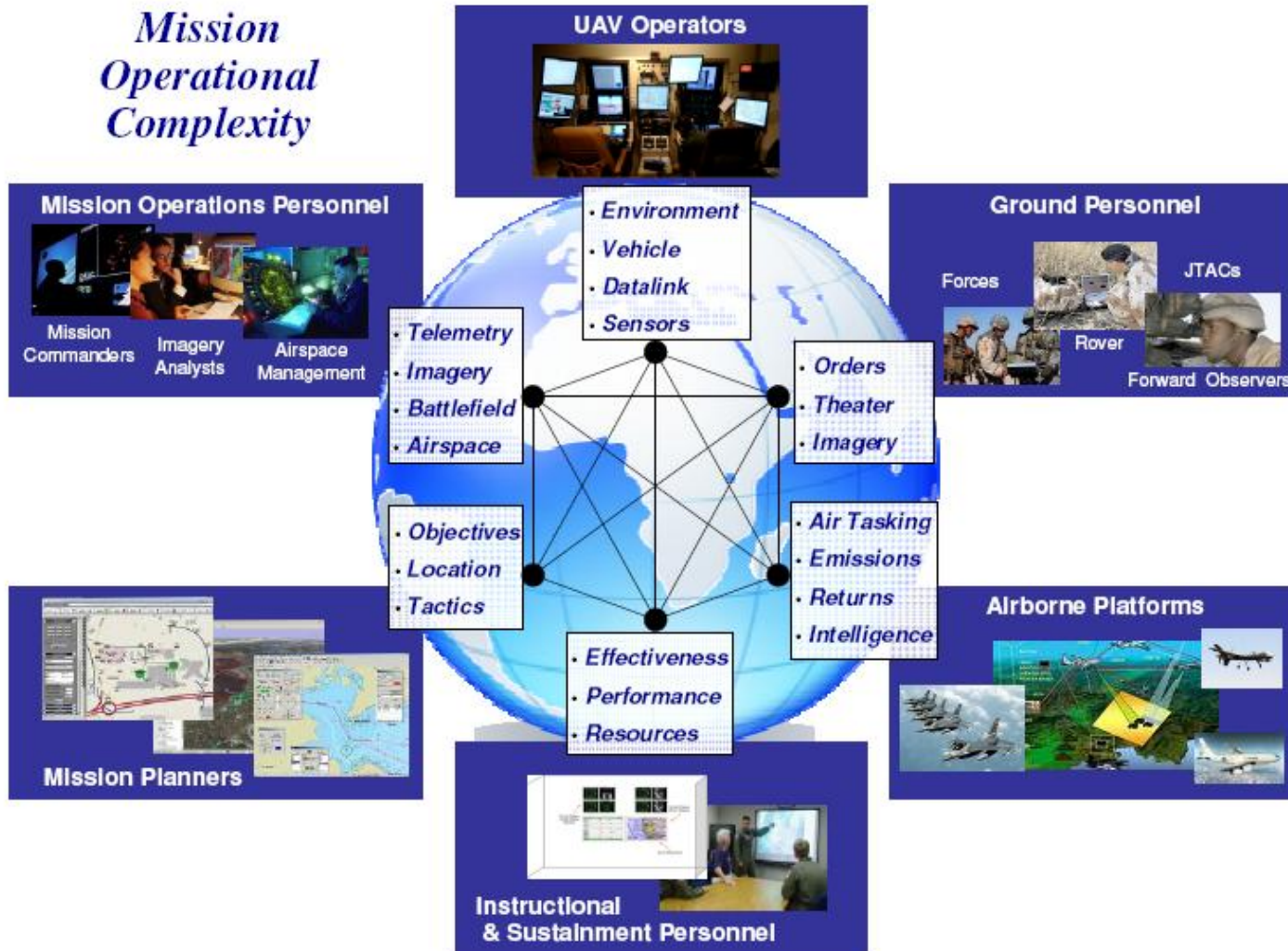
- ❑ 2009: Today's Embedded Training Challenges

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*