



# JAPCC Conference

## Transformation of Joint Air & Space Power Exploiting UACs

18 Oct 06

# The Joint Imperative

# Warfighter's view on . . .

- operational environment
  - warfighting priorities
  - future capabilities
  - challenges
- . . . and way ahead

## **Message:**

The threat has changed. Our requirements to respond to that threat have changed. Technology has changed. Capabilities have changed. The environment has changed . . . It is our job, as the leaders of NATO transformation, to tie it all together and bring about the effects we need in the new battlespace to succeed.

# A Long View Focus ...

## ...Understanding the environment

We Will face Combination of Traditional and Irregular Warfare

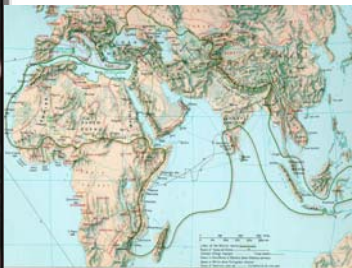


### TRADITIONAL

- state threat has not gone away
- decisive military action still matters
- legal/doctrine based
- hierarchical

### IRREGULAR

- population base is key
- seeks strategic effects through tactical action
- attacks asymmetrically
- does not follow rules of war
- globally networked, cellular-based



### Unique Aspects

- Blends into the population
- individual goal is to kill and **die**
- global aspirations, will and patience to achieve it

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If this is true ...

Then what does the environment tell us about

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... Irregular Warriors

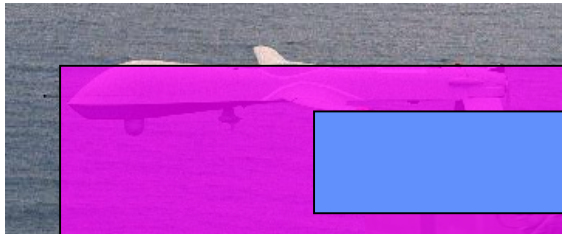
... their nature of operations

disparate, determined, dangerous

Humanitarian – Peace keeping – Stability -- Hostilities – Reconstruction

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# Insights on the Irregular Warrior

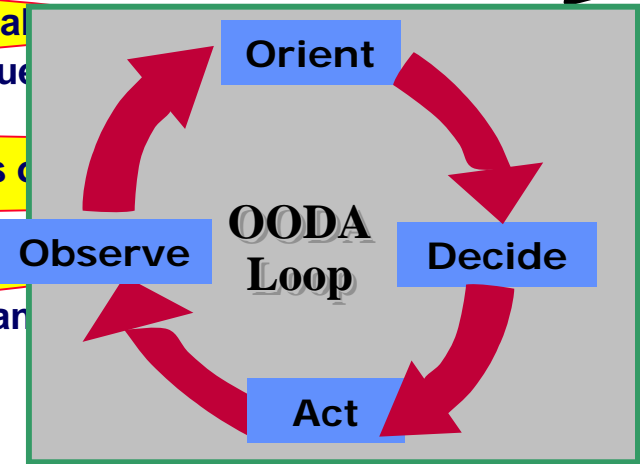
- **Knows he cannot win on conventional terms**
  - But knows that irregular warriors has defeated conventional warfighters several times . . .
- **Changes his enemy's political position by wearing down his population's will to fight**
- **Is a patient practitioner**
  - Willing to wait decades vice months or years
  - Only has to last longer than enemy's will to fight
- **Builds a resilient, self-synchronizing network, highly enabled by the internet**
- **Borrows from Maoist doctrine**
  1. Establish a network and gain political strength
  2. Commence violent acts and take control of areas that support the cause
  3. Take the rest of the ground and seize power
- **Attempts to get the poor, undereducated and disaffected on his side by offering them a comforting identity and purpose, often via a religious cause**
- **Readily adapts inside the conventional adversary's timeline . . . Has little or no bureaucracy**
- **Seeks and receives disproportionate media attention, and manipulates it to shock or persuade the adversary's population**
- **Uses readily available weapons, including locally available materials**
- **Exploits Western civilizational freedoms to attack . . . and subsequent censure of those freedoms to divide . . . his enemy**
- **Provokes the conventional adversary into mistakes, or capitalizes on unprovoked mistakes, as propaganda**
- **Usually fights on and understands his own turf . . . Readily vanishes**
- **Needs money, uses his network or criminal action to get money, and easily moves it**
- **Prefers soft targets, and will move away from hard targets**

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These are key features we need to understand and map capabilities against . . .

so the joint warfighter can get inside enemy's . . .



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  - Only has to last
- Builds a resilient, . . .
- Borrows from Maoist doctrine
  1. Establish a network and gain political strength
  2. Commence guerrilla tactics and take control of the local area, then support the cause
  3. Take the rest of the ground and seize power
- Attempts to get the poor, undereducated and disaffected on his side by offering the comfort of identity and purpose, often via religious or ethnic cause
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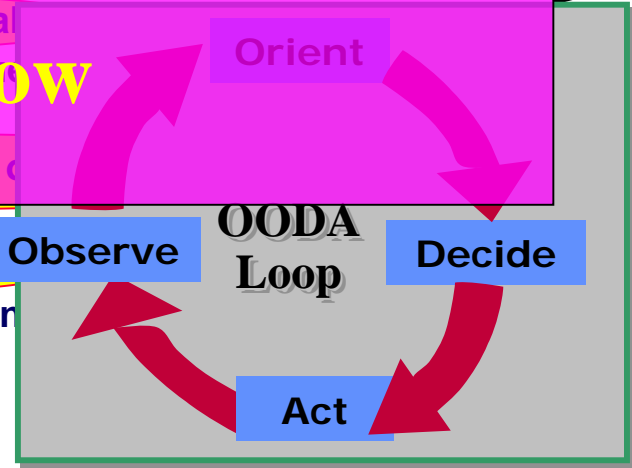
**If this is true . . .**

**Then what capabilities should we explore and implement for the Warfighter**

**. . . of today**

**. . . and tomorrow**

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# Capabilities: Now & Future

## Need emphasis on:

- Interoperability
- Access
- Fidelity
- Persistence



To enable  
NATO Forces



## Capabilities must enable warfighters to:

### Observe:

- through roofs, around corners
- deep underground
- beyond stand-off range

### Orient:

- with common operating picture to the lowest tactical levels
- through vertical/horizontal collaboration with local commanders

### Decide:

- with full situational awareness
- with 360° validation from scouts/sensors on land, air, sea, space
- with insights equal to higher-level command

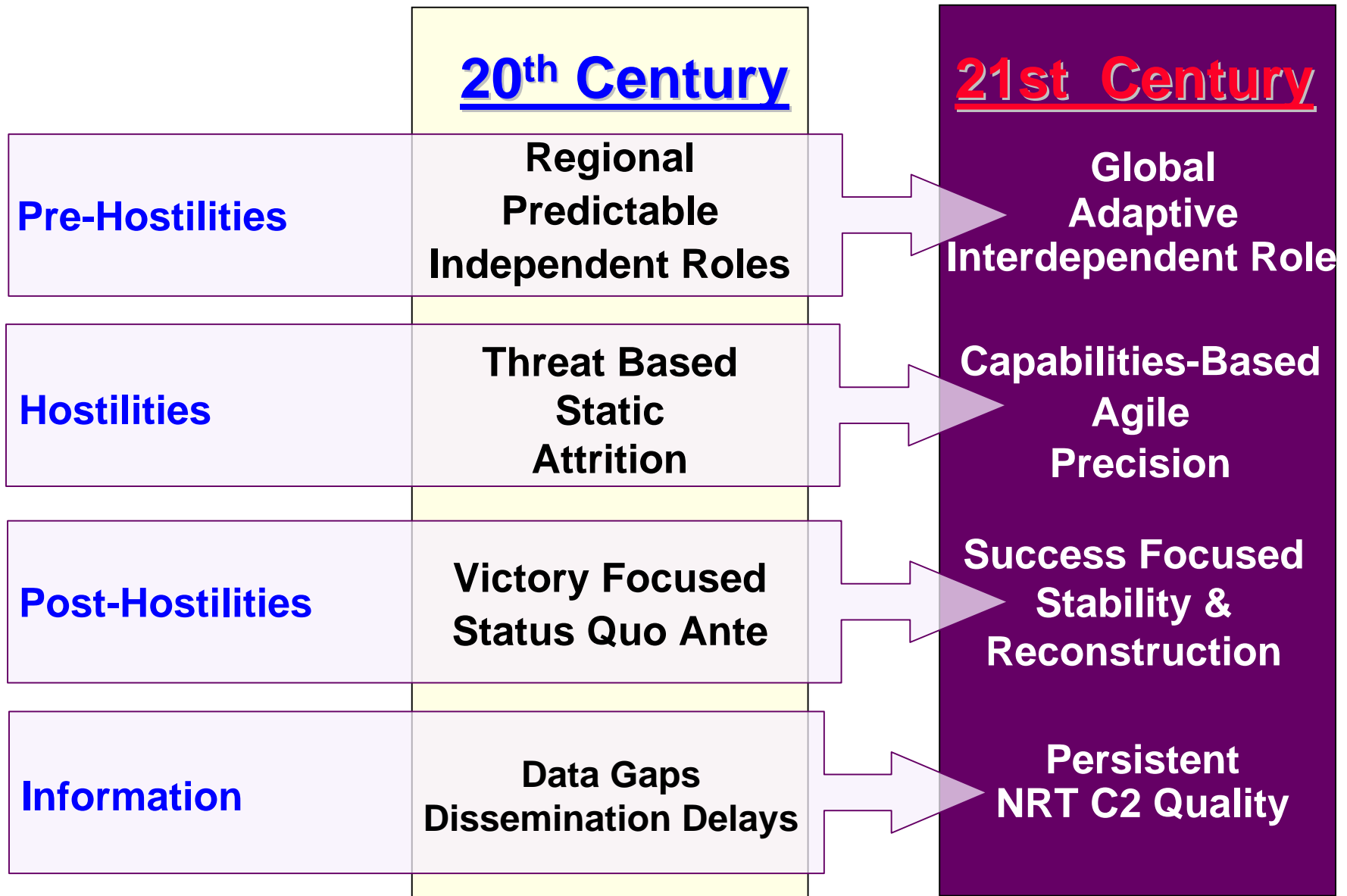
### Act:

- with lethality
- with precision and in near-real time
- with little or no collateral damage

*To find . . . fix . . . track . . . target . . .  
engage . . . assess*



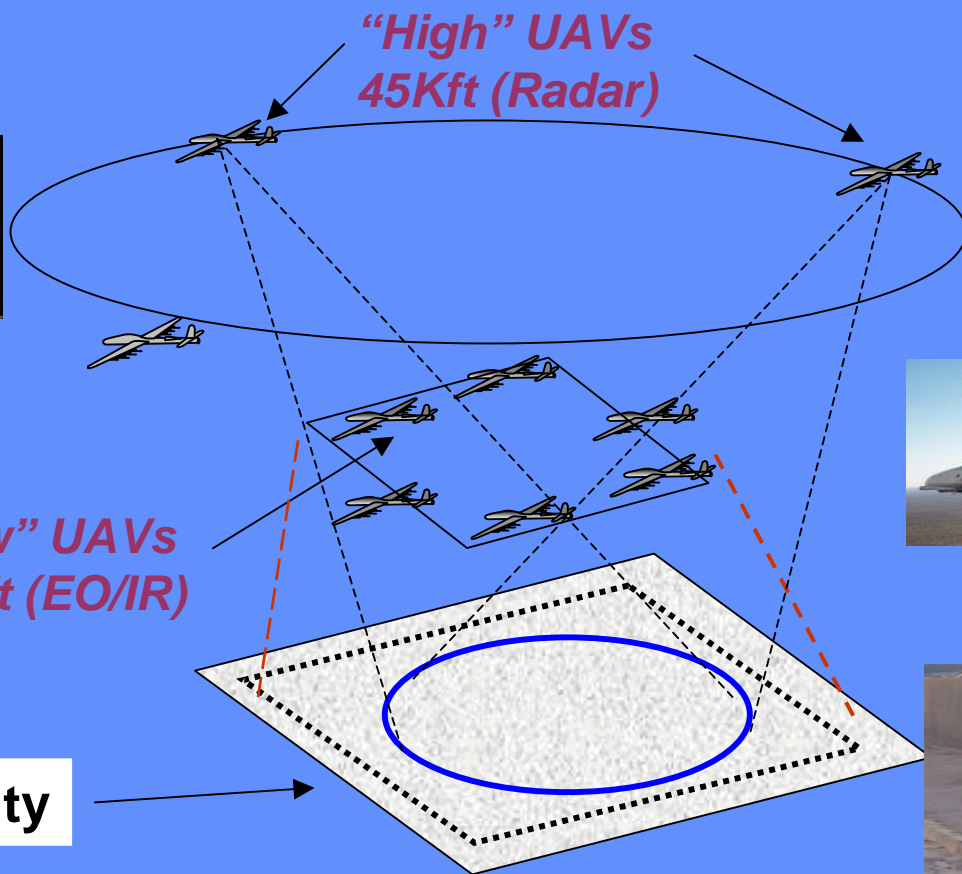
# What it Must Look Like



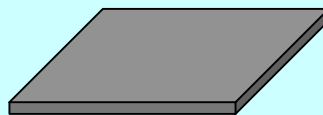
# Art of the Possible

## Persistent Air Power Constellation

*Manned & Unmanned*



**RF Personnel Tag**



**RF Vehicle Tag**



**Hyperspectral Vehicle Tag**



# CHALLENGES

- **System Compatibility**
- **Philosophy of Control**
- **Authority to Release**
- **Spectrum Management**
- **Unending Appetite for FMV**

**Centers of Excellence are NATO's drivers for change and innovation**

# Way Ahead

- Urgency of operations requires complete awareness and speed of command.
- Systems must be compatible and integrated into a complete and coherent C2 constellation.
- Data must be releasable and capable of being shared with *all Allied Forces*.
- Common tactics, techniques, procedures and doctrine must be developed and institutionalized.