

# *Lessons Learned from Combat Casualty Care*



خطر  
ابقى بعيداً  
**DANGER  
STAYBACK**

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**Gulf War Dilemma**

**Non-linear/Asymmetrical Warfare**

## ***The Challenge-***

Create lightweight, lean and mobile capability

Austere but adequate within a meaningful distance of the injured



**CASEVAC/MEDEVAC**



## Air Transportable Hospital

- Cumbersome
- Heavy
- Slow to arrive in theater
- Too many people
- Misaligned specialties
- Outdated medical equipment
- No computer capability



*Cold War Paradigm:  
Prepositioned large forces  
overseas  
Sophisticated, fixed facilities for  
medical care*



## Patient Evacuation System

- A remnant of our Vietnam experience
- Designed to move stable patients
- En route care personnel may not be current in critical care
- Normal crew
  - 2 RN's
  - 3 AET's
  - *May need to care for 60+ pt.'s*





# Historical Route From Injury to Definitive Care





# Joint Medical Support:

Medical transport aircraft at Ramstein. USAF Photo/Chris U. Duran

## Are We Asleep at the Switch?

By ARTHUR M. SMITH



## Priorities for Medical Readiness

- Provide “essential” care forward
- Austere but Adequate
  - *Emphasis on early evacuation*
- Modularize deployable medical units
- Critical care capable evacuation system



**A Solution for Homeland Security ????**



## New Problem

- Stabilized, but not stable
- Hard to provide resource intensity and duration of care in austere environment



**Solution:**

**Continuous En Route Combat Casualty Care**





# Combat Casualty Care

















# Austere Environment







# The Challenge





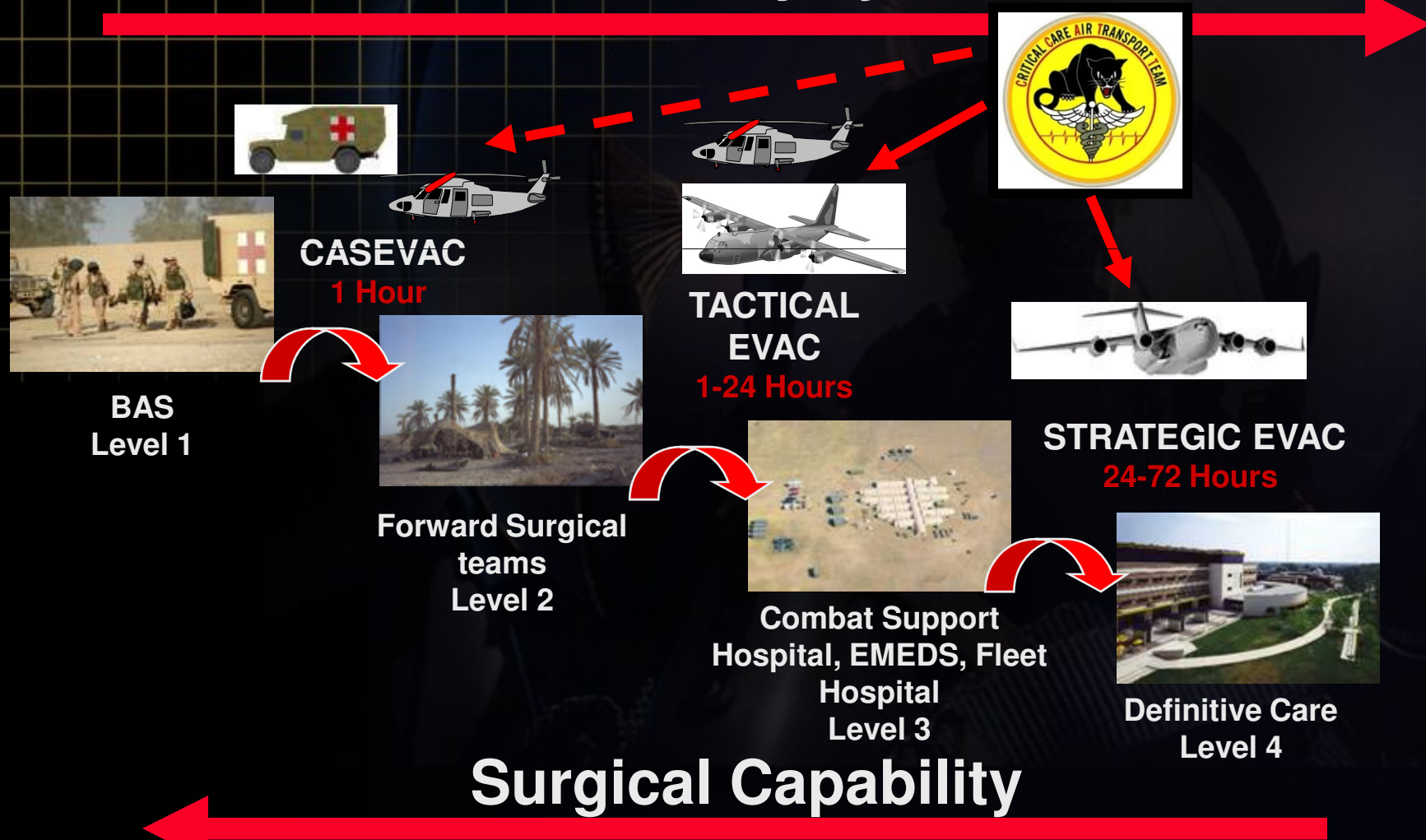
# Solution





# Continuous En Route Care

## Current Route from Injury to Definitive Care

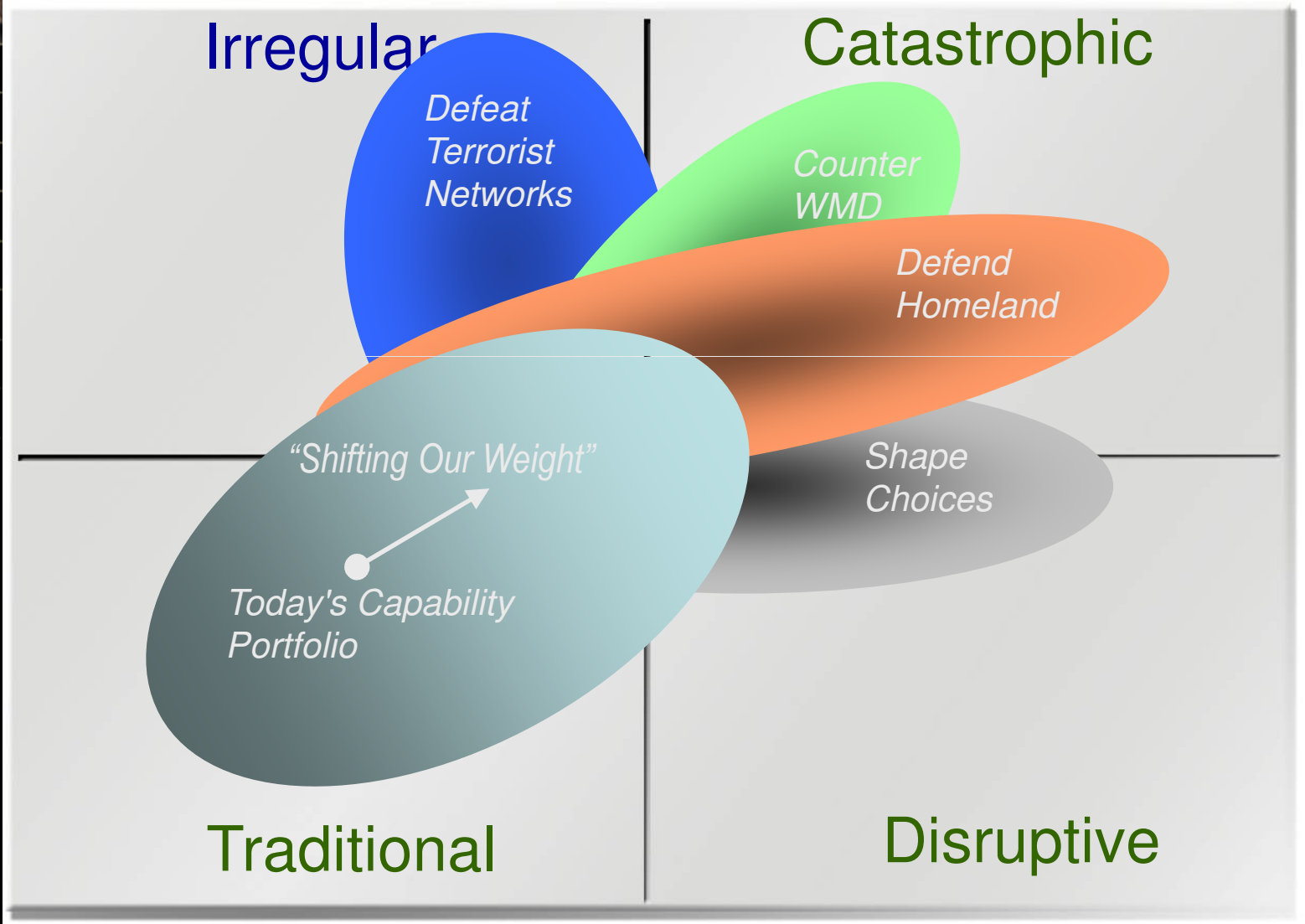








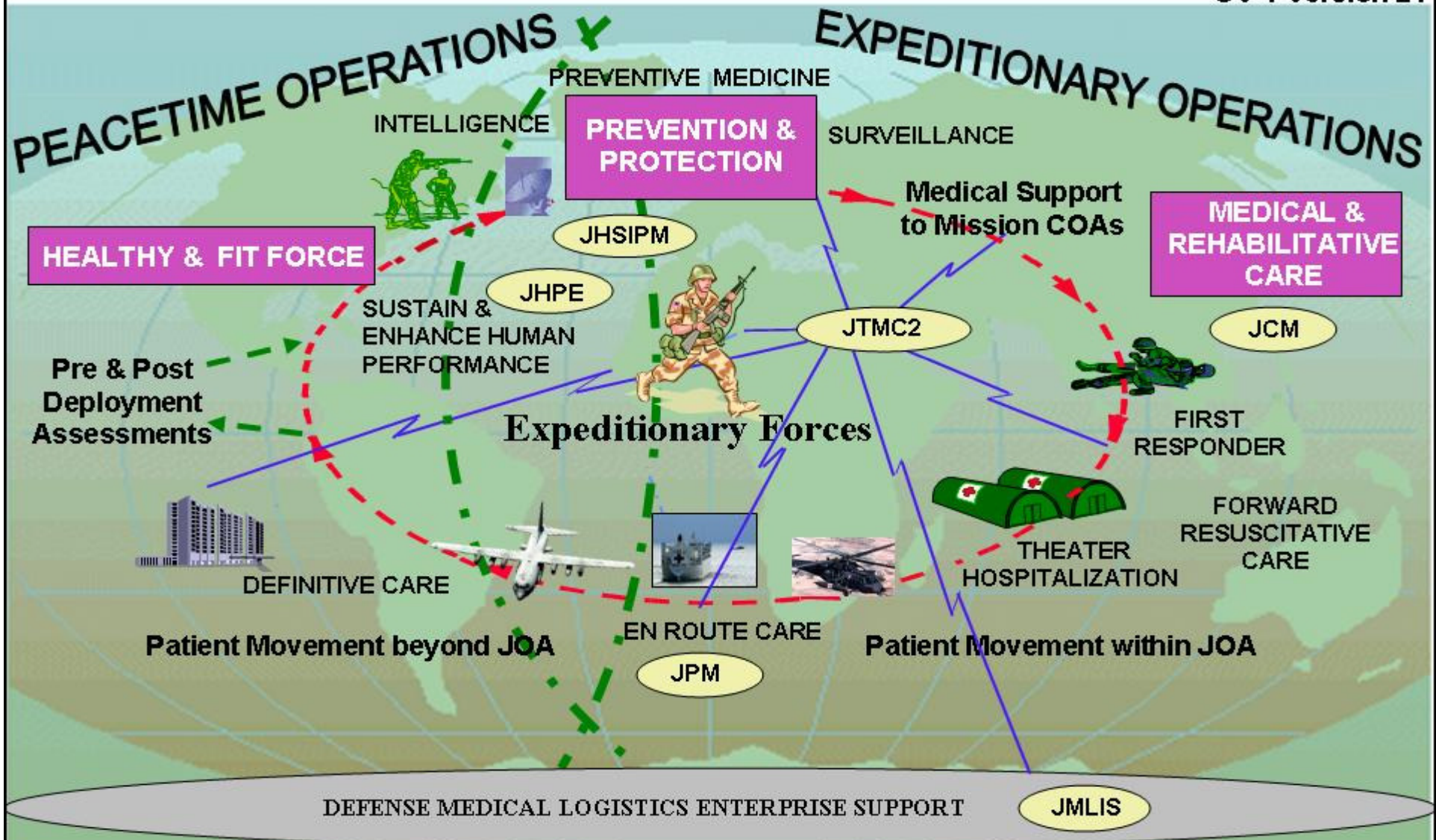






# Joint Force Health Protection Concept of Operations (CONOPS)

OV-1 Version 21





## **Force Health Protection**

- **Once perceived as largely acute, post-casualty care, military medical capabilities are being reshaped into more responsive, joint-centered capabilities with more balance between prevention and treatment.**
- **Historically, disease non-battle injuries (DNBIs) have been far greater sources of casualties than injuries and illnesses inflicted by enemy combatants.**
  - *Prevention*
  - *Intelligence*



## **Force Health Protection**

- **Continuum is no longer linear**
- **The medical system must be capable of rapidly adapting to the conditions of the operation.**
- **Ensuring the right medical assets are available at the right place and at the right time.**
- **Must be seamless, interoperable, interdependent, and fully networked to advise and consult with various SMEs, military/civilian organizations, agencies and host nation treatment facilities.**



## **Force Health Protection**

- **The warfighter relies on preventive medicine disciplines to optimize human performance; vaccines, prophylactic medicines, epidemiology and health risk assessments, vector control measures, field industrial hygiene and food/water safety and sanitation.**
- **Site and health risk assessment are key functions to ensure the protection of forces both in the garrison and deployed settings**



## **Force Health Protection**

- **Need to align military health services capabilities to meet the requirements of Homeland Defense, civil support and medical civil-military operations.**
- **Civil-Military teams must integrate medical expertise/intelligence into the earliest phases of planning, intelligence, diplomatic and military capabilities of the US Government, multinational partners and host nations, aided by adjunct academics and representative from international/agency government organizations.**



## **Force Health Protection**

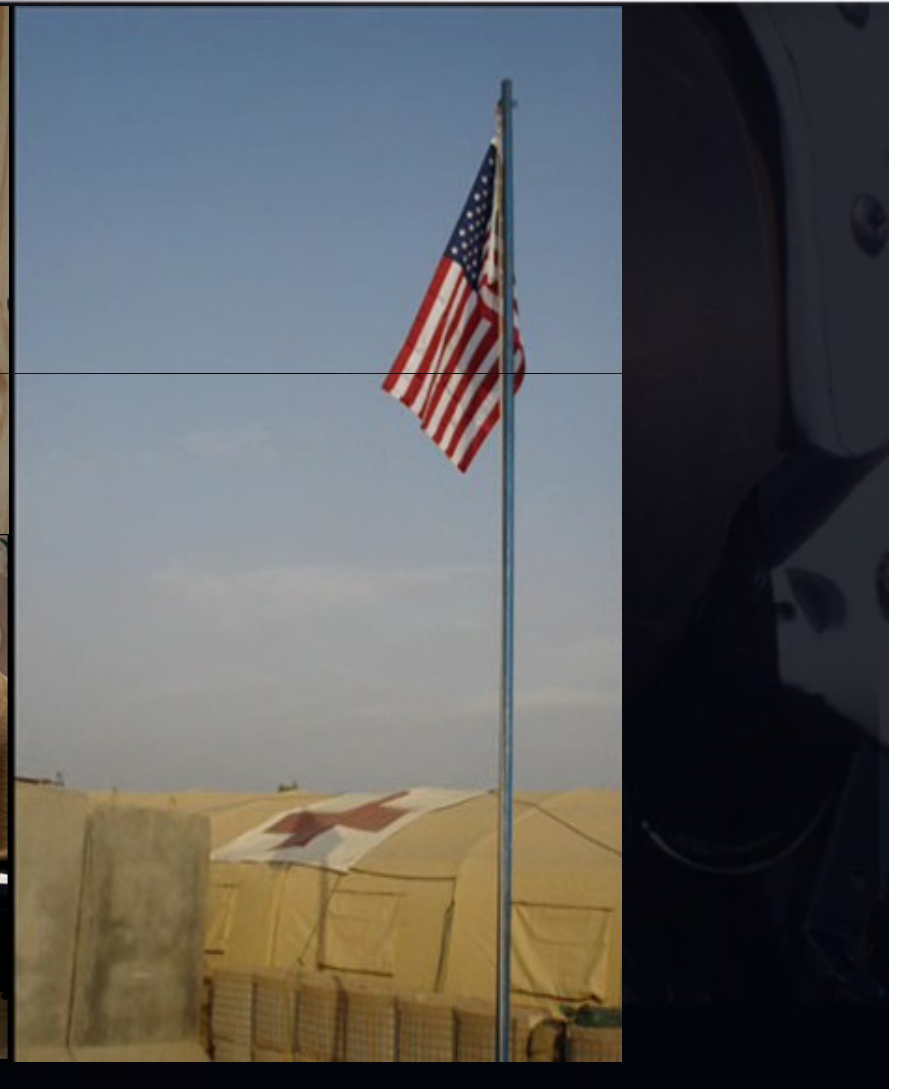
- **Must effectively provide health protection to a joint force that will**
  - *operate in a complex and diverse operational environment*
  - *confront a range of traditional and new adversaries and threats*
  - *employ and integrate new technologies*
  - *collaborate with other organizations, agencies, nations and cultures.*
- **Net centric operations to accelerate the ability to know, decide and act in real time with greater self-synchronization and precision.**



# Deserve the Very Best

With malice toward none, with charity for all...  
let us strive...  
to care for him who shall have borne the battle...

Abraham Lincoln, 1865



*Questions?*

