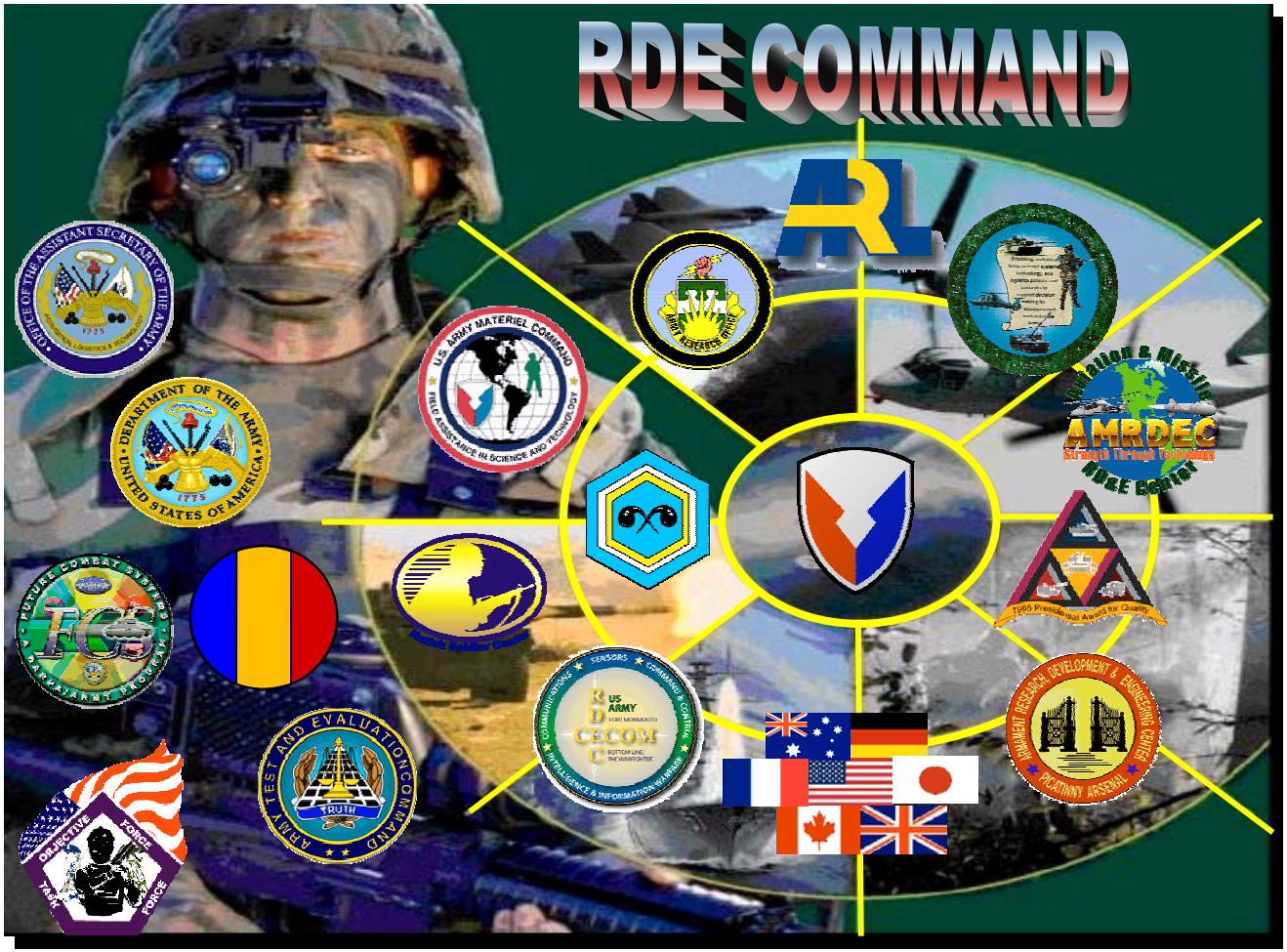
U.S. Army RDE Command

- Science and Technology to Support the Warfighter -



The NDIA Chemical Biological Roundtable Breakfast

17 September 2004

MG John C.Doesburg
Commanding General,
RDECOM

Changes in CBRN Threat

- Pre-1992
  - Large scale use
  - CW agent focus
  - Short term effects
  - Battlefield focus

- Early 1990s-present
  - Small scale use
  - HAZMAT focus
  - Low-dose effects
  - Attacks against civilians
  - Terrorism

While a number of nations possess significant CBRN capabilities, the past decade detailed a trend away from large scale use to limited or threatened use of CBRN by belligerents or terrorists to achieve desired results. Gulf-War Syndrome, Depleted Uranium and terrorism expanded the scope of CBRN beyond the battlefield focus to significantly change requirements for CBRNE Material Issues, Technology, Force Design, and Doctrine

Changes in National Policy

- Pre-1992
  - Strategic Deterrence

- Early 1990s-present
  - Domestic Preparedness
  - WMD Elimination
  - Civil Support

The changing threat required a fundamental shift in policy to prevent or mitigate a CBRN incident. CBRNE incidents require extensive specialized support not normally available at the local or state level. Legislation such as the Stafford Act amendment, Nunn-Lugar Domenici, PDDs 39,62, 63, and the formation of DHS developed federal plans to assist state and local governments to plan and prepare to respond, establish key federal and DoD capabilities, the mechanisms to support civil authorities, and adoption of a preemptive approach to CBRN threats

CBRN Response Capability

- Pre-1992
  - Conventional Forces
    - SOF
    - Chemical Units

- Early 1990s-present
  - Specialized Forces
    - SOCOM
    - TEU
    - CBIRF
    - CB-RRT
    - JTF-CS
    - WMD-CST
    - CBRNE Command
    - FBI HMRU
    - NORTHCOM

Specialized DoD CBRNE response units were developed to meet the changes in battlefield needs and also in support of civil authorities - without degrading warfighting capability

Evolution of CBRN Defense

- Changing requirements drive four functional components of CBRN defense
  - Material issues
    - The “things” required to conduct the mission
  - Technology
    - New capabilities and functions
  - Force development
    - New forces/capabilities
  - Doctrine
    - Changes in operational methods

Evolution of CBRN Defense

- Material Issues
  - New detection capability beyond classic chemical agents (Fox, HAPSITE)
  - Functional biological agent detection (BIDS, JBPDS, HHAs)
  - Modernized dosimetry and radiological detection
  - Joint development of NBC equipment vs service and use specific (JSLIST, JSM)
  - Standoff detection

Latest technology pushed the the field to bridge requirement gaps. Move to Joint management approach to R&D and acquisition, reducing redundancy and fielding time

Evolution of CBRN Defense

- Technology Issues
  - Biological Agents
    - Agent viability determination
  - Chemical
    - Specificity vs. general class, reduction of false positives
    - Reliable low level detection
  - Protective Gear
    - Heat stress reduction, respiration effort
  - Decontamination
    - Self-Decontaminating
    - Logistics
    - Non-Aqueous

Current technology is capable of overcoming these issues, however, it is cost and skill prohibitive for fielding across the services.

Evolution of CBRN Defense

- Doctrinal Issues
  - Contamination avoidance
  - Elimination of adversarial capability
    - Pre-emptive attack
    - Site exploitation (during and post-hostilities)
    - Demilitarization Operations (post-hostilities)
  - Technical standards

Our operational emphasis on quick, decisive victory to minimize casualties shifted our NBC defense focus on reducing enemy capabilities in pre-ground operations to limit use and to bypass hazard areas as much as possible. Post hostility activities however now include extensive dismantling of infrastructure to avoid proliferation of CBRN material and terrorist use.

Evolution of CBRN Defense

- New Force/Capability Development
  - State and Local Support
    - Domestic Preparedness Program
    - Federal-State Local Exercise Program
  - DoD Organizations
    - WMD-CSTs
    - JTF-CS, JTF-CM (East/West)
    - CB-RRT
    - CBRNE Command
    - CBRIF
  - Federal
    - HMRU

Recognizing clear gaps in homeland capabilities to respond to CBRN incidents, significant funding provided and new specialized organizations formed to mitigate, coordinate, and provide technical support

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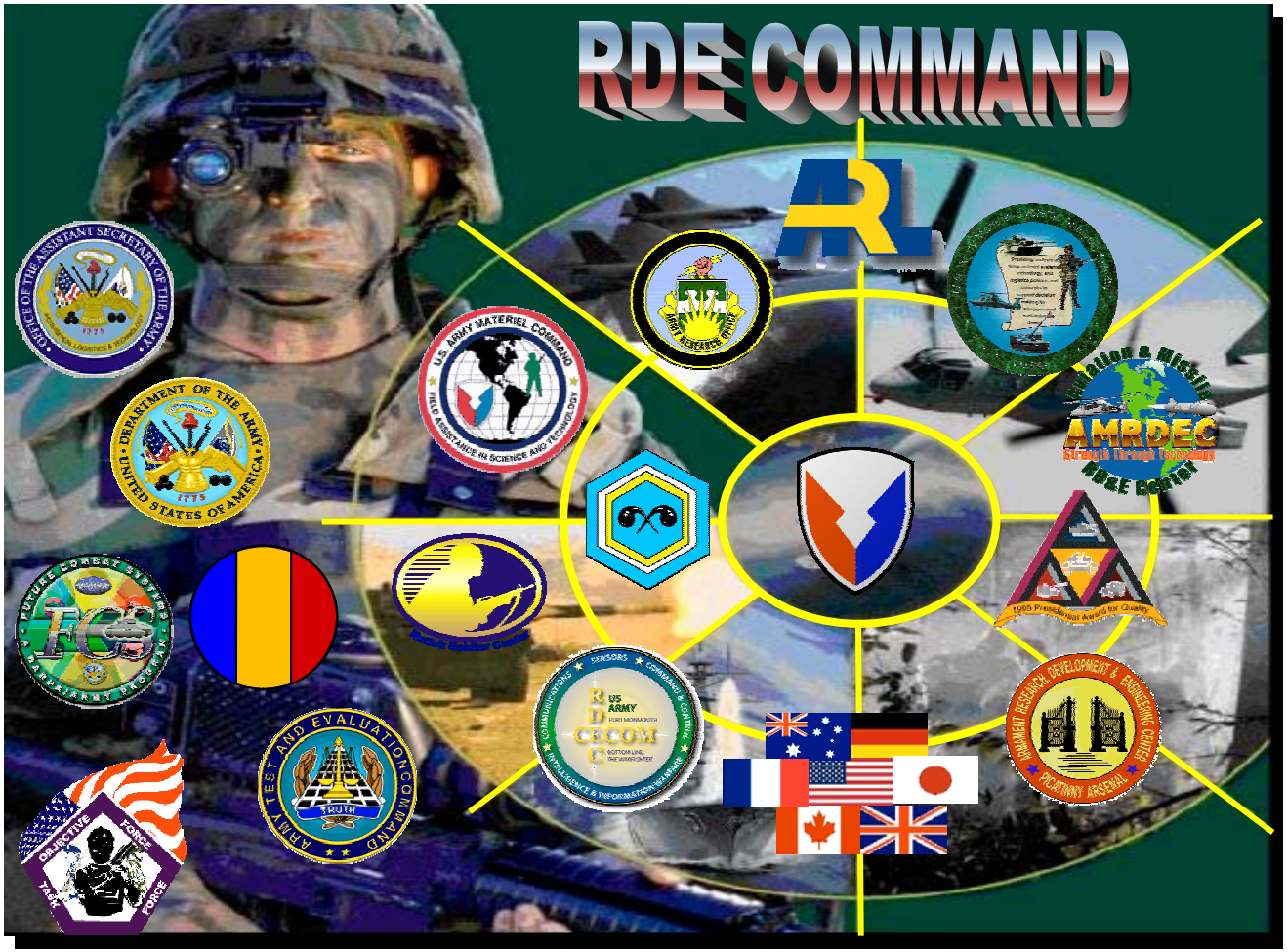

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