

Joint Requirements Office for Chemical, Biological, Radiological, and Nuclear Defense

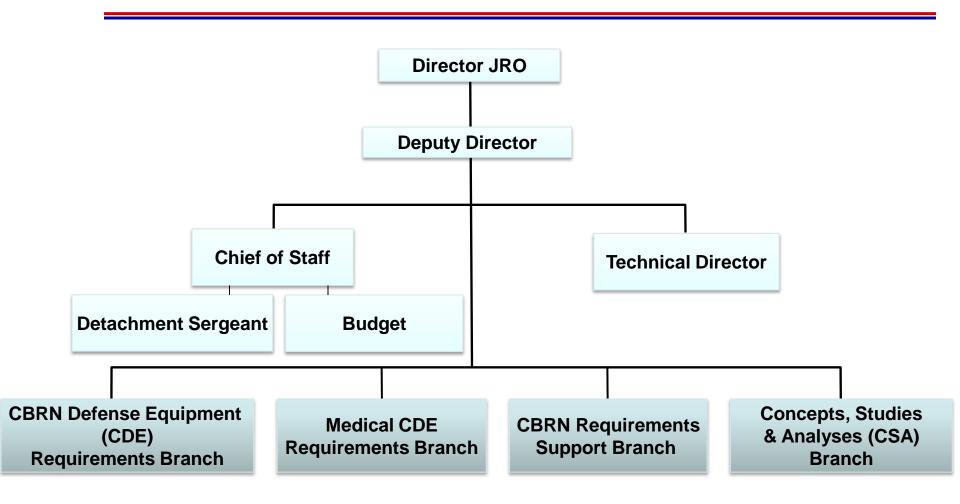
Overview

Ralph F. Kerr, Ph.D. Technical Director J8/JRO-CBRND 15 August 2017

Agenda

- **□** Organization
- Mission & Functions
- □ S-Areas & Core Capabilities
- **□** Requirements Process
- Questions & Discussion

JRO-CBRND Organization



JRO Mission & Functions

Serve as the CJCS focal point for CBRN defense concepts, requirements, and CM-Bio defense programming to advance Joint Force capability to counter WMD.

Lead joint CBRN defense equipment (CDE) and medical CDE capabilities development
 Develop and maintain the CBRN defense Operational Concepts
 Represent the Services and Combatant Commanders in JCIDS and act as their proponent for coordinating and integrating CBRND operational capabilities
 Lead development of DOD CBD POM
 Develop the CBRND Modernization Plan
 Conduct CBRN Operational Risk Assessment
 Facilitate development of joint CBRN defense doctrine, training, senior leader education, and sponsor development of multi-service doctrine

Single office within DOD responsible for the planning, coordination, and oversight of joint CBRN defense operational requirements

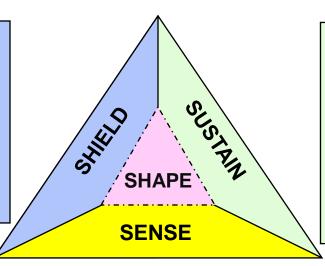
JRO as a J-8 Division

- □ Chair and operate Countering Weapons of Mass Destruction (CWMD)
 Working Group in support of Protection FCB
- □ Support DoD WMD Consequence Management (CM) efforts
- Coordinate Joint Combat Capabilities Assessment actions related to CWMD/CBRND (i.e., IPLs, CGA, etc)
- □ Serve as Joint Staff focal point for CBRN Survivability
- □ Support International CBRN/CWMD Programs/Agreements with NATO and Australia, Canada, UK & US (AUCAUKUS) as required/directed

Joint CBRN Defense S-Areas

<u>SHAPE</u> – Provides the ability to *characterize* the CBRN hazard to the force commander and develop a *clear understanding* of the current and predicted CBRN situation; collect, query, and assimilate info from sensors, intelligence, medical, etc, in near real time to inform personnel, provide actual and potential impacts of CBRN hazards; envision critical SENSE, SHIELD and SUSTAIN end states (preparation for operations); visualize the sequence of events that moves the force from its current state to those desired end states.

SHIELD – The capability to shield the force from harm caused by CBRN hazards by preventing or reducing individual and collective exposures, applying prophylaxis to prevent or mitigate negative physiological effects, and protecting critical equipment.



SUSTAIN – The ability to conduct decontamination and medical actions that enable the restoration of combat power, maintain/recover essential functions that are free from the effects of CBRN hazards, and facilitate the return to pre-incident operational capability as soon as possible.

<u>SENSE</u> – The capability to continually provide the information about the CBRN situation at a time and place by detecting, diagnosing, identifying, and quantifying CBRN hazards in air, water, on land, on personnel, equipment or facilities. This capability includes detecting, identifying, and quantifying those CBRN hazards in all physical states (solid, liquid, gas).

Joint CBRND Core Capabilities Areas

SENSE

- Chemical Detection
- Biological Detection
- Radiological Detection
- Field Analytics
- Medical Diagnostics

SHIELD

- Respiratory and Ocular Protection
- Percutaneous Protection
- Chemical Prophylaxis
- Biological Prophylaxis
- Radiological Prophylaxis
- Expeditionary Collective Protection

SHAPE

- CBRN Warning & Reporting
- Decision Analysis & Management

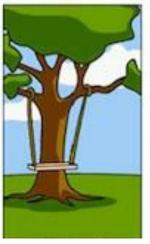
SUSTAIN

- Personnel Contamination Mitigation
- Materiel Contamination Mitigation
- Chemical Therapeutics
- Biological Therapeutics
- Radiological Therapeutics

Why Get Requirements Right?



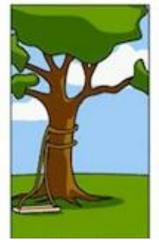
•How the customer explained it



How the project leader understood



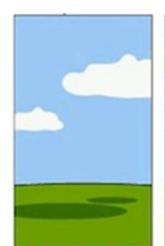
How the engineer designed it



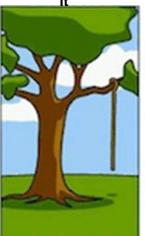
•How the programmer •How the salesman wrote it



described it



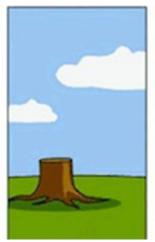
How the project was documented



■What was installed



What the customer was billed for



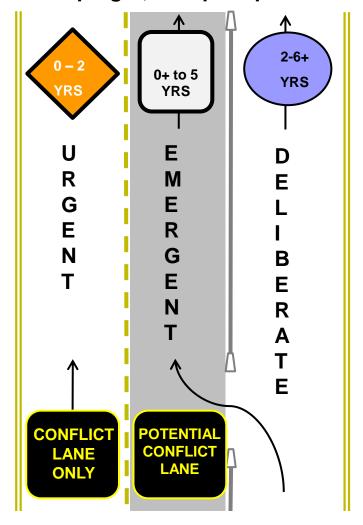
■How the helpdesk supported it



■What the customer actually needed

Integrated Requirements Process

"Keep right, except to pass"



Three "Lanes":

Deliberate Requirements

- Sponsor Driven (CCMD/Service/Other Component)
- ICDs, CDDs, CPDs, Joint DCRs
- Traditional route for capability requirements that require significant tech development for solutions and/or are not urgent in nature
- JCB/JROC validates, or delegated to Sponsor

Emergent Requirements

- CCMD Driven (JEONs / "Fast Lane")
- Supports rapid acquisition of capability solutions needed for an anticipated or pending contingency operation
- VCJCS verifies, JCB or JROC validates

Urgent Requirements

- CCMD Driven (JUONs), Sponsor Driven (UONs)
- Urgent and compelling to prevent loss of life and/or mission failure during current operations
- Require little tech development and can be resolved in less than two years
- J-8/DDR validates JUONs, Sponsor validates UONs

Requirements & Capability Development

- Evolving thinking on Capability Development and Risk Mitigation
 - Capability Sets
 - Early Warning ≠ Standoff Detection
 - > "Health Map" example
- Early Cost Performance "trade space" identification
- Risk Assessment
 - Operational
 - Institutional
 - Force Modernization
 - Future



Questions/Discussion

