Concept Briefing

USAR CBRNE Incident Response Force (CIRF)

14 JANUARY 2008

415th CM BDE
Requirement

- Provide a CBIRF type capability similar to the Joint Task Force – Civil Support (JTF-CS) existing Marine Corps unit.
- Provide an initial response team and the follow-on CIRF.
- Describe the capabilities, staffing and equipment associated with each element.
CBRIF Mission
When directed, forward-deploy and/or respond to a credible threat of a chemical, biological, radiological, nuclear, or high yield explosive (CBRNE) incident in order to assist local, state, or federal agencies and designated Combatant Commanders in the conduct of consequence management operations.

CBIRF Tasks
- Conduct Agent Detection and Identification Operations
- Conduct Casualty Search and Extraction Operations
- Conduct Personnel Decontamination Operations
- Provide Emergency Medical Care and Stabilization
- Provide Force Protection in CBRNE Environment
- Task Organize in Support of National Events
- Coordinate with Local, State & Federal Agencies
- Develop Concepts, Organization, TTP’s, and Equipment
US MARINES CBIRF Organization

Command and Control Element

Part of Service Support Element:

5-Ton Trucks
HMMWVs
ROWPU
Generators
Forklifts

RECON Element
- NBC Defense Specialist (20)
- Corpsmen (10)
- Med Officer (1)

DECON Element
- Marines (27) (* Various MOSs)

Security Element
- Infantry Marines (120)

Medical Element
- Physicians (3)
- Env Health Off (1)
- Physician Ass’t (1)
- Nurse (1)
- Corpmen (17)

Service Support Element
- Officers (5)
- Enlisted Marines (70)

Part of Service Support Element:

Detect CM/BIO Agents
Classify CM/BIO Agents
Identify CM/BIO Agents
Collect Samples
Emergency Casualty Extraction

Ambulatory Decon
Non-Ambulatory Decon

Security patrols
MOUT
Riot control
Vehicle searches
Personnel searches
Security for RECON
Quell civil unrest
Detain hostile forces
Evacuate casualties
Secure contaminated area
Security for CBIRF site
Non-Ambulatory Decon

Treat CM/BIO casualties
Administer antibiotics
Administer antidotes
Treat CM burns
Treat conventional injuries
Stabilize casualties (72 hrs)
Evacuate casualties
Shock/Trauma platoon
Advanced life support

XM-93 FOX vehicle (2)
Chemical Agent Monitors
M21 RSCAAL

HMMWV Ambulance (2)

CBIRF – approximately 276 PAX
CIRF Task Organization

IRF Headquarters

- C2 Headquarters
  - MCD Platoon
  - Reconnaissance Platoon
  - Casualty Extraction Platoon
- Field Surgical Team

- C2 Headquarters
  - MCD Platoon
  - Technical Recovery Platoon
  - Casualty Extraction Platoon

CIRF – 311 PAX

- C2 Headquarters
  - 24 PAX
  - 62 PAX

- MCD Platoon
  - 21 PAX (x2)
  - 27 PAX

- Reconnaissance Platoon
  - 21 PAX

- Casualty Extraction Platoon
  - 21 PAX

- Field Surgical Team
  - 20 PAX

- Technical Recovery Platoon
  - 27 PAX

- Casualty Extraction Platoon
  - 21 PAX

- C2 Headquarters
  - 25 PAX
  - 21 PAX (x2)
Both CBIRF and CIRF capability
CBIRF only capability
CBIRF capability, CIRF could provide

CBIRF – CIRF Comparison

Part of Service Support Element:

5-Ton Trucks
HMMWVs
ROWPU
Generators
Forklifts

RECON Element
- NBC Defense Specialist (20)
- Corpsmen (10)
- Med Officer (1)
- Detect CM/BIO Agents
- Classify CM/BIO Agents
- Identify CM/BIO Agents
- Collect Samples
- Emergency Casualty Extraction
- XM-93 FOX vehicle (2)
- Chemical Agent Monitors
- M21 RSCAAL

DECON Element
- Marines (27)
- (* Various MOSs)
- Ambulatory Decon
- Non-Ambulatory Decon

Security Element
- Infantry Marines (120)
- Security patrols
- MOUT
- Riot control
- Vehicle searches
- Personnel searches
- Security for RECON
- Quell civil unrest
- Detain hostile forces
- Evacuate casualties
- Secure contaminated area
- Security for CBIRF site

Medical Element
- Physicians (3)
- Env Health Off (1)
- Physician Ass’t (1)
- Nurse (1)
- Corpsmen (17)
- Treat CM/BIO casualties
- Administer antibiotics
- Administer antidotes
- Treat CM burns
- Treat conventional injuries
- Stabilize casualties (72 hrs)
- Evacuate casualties
- Shock/Trauma platoon
- Advanced life support
- HMMWV Ambulance (2)

Service Support Element
- Officers (5)
- Enlisted Marines (70)
- Headquarters
- Motor Transportation
  - ground transportation
  - recovery
  - maintenance
- Engineers
  - water
  - utilities
  - heavy equipment
- Embarkation
  - airlift
  - rail
  - ground
- Supply
  - ammunition
  - contractor support services
  - contracting specialist
  - 10-14 day self sustainment

Command and Control Element

Service Support Element:
Key Take Aways

- CIRF cannot perform Security missions
- CBIRF Casualty Extraction and DECON platoons are not MOS specific
- Field Surgical Team is capable of performing some of the same tasks as CBIRF medical section
- CBIRF is self-sustaining for 10 days
- CIRF has limited Service Support Capability compared to CBIRF
- CIRF provides 4x the DECON capability as CBIRF
- CIRF provides 2x the casualty extraction capability as CBIRF
- CIRF provides additional Technical Recovery capability
## Fly-Away Comparisons

<p>| | | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>USMC CBIRF</strong></td>
<td>12 PAX</td>
<td>Assessment Team</td>
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<tr>
<td><strong>20&lt;sup&gt;th&lt;/sup&gt; Support Command CBRNE</strong></td>
<td>15 PAX</td>
<td>Commo. C2 and reach-back capability</td>
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<tr>
<td><strong>NG CST</strong></td>
<td>22 PAX</td>
<td>Commo, C2, support, advise, site assessment.</td>
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<tr>
<td><strong>CIRF (light)</strong></td>
<td>23 PAX</td>
<td>site assessment team, C2, commo, C2 and reach-back capability</td>
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<tr>
<td><strong>CIRF (heavy)</strong></td>
<td>64 PAX</td>
<td>C2, commo, RECON, MCD and casualty extraction</td>
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CBRNE Initial Response Team (Light)

Commander
NCOIC

COMMAND

OPERATIONS
- Ops Officer
- Ops NCO - Assessment
- Ops NCO-Intel
- Ops NCO – Movement

ADMINISTRATION & LOGISTICS
- Logistics NCO
- Admin NCOIC
- Contracting Officer

COMMUNICATIONS
- Comms Tm Chief

MEDICAL
- Med Ops Off
- Combat Medics (x2)

Chaplain

RECON Platoon
- 9 PAX

4 Officers and 19 NCOs (23 Total)

Equipment
- Mobile commo set
- Mobile RECON set
- 1 LMTV (x1)
- Cmd and Ctrl HMMWV (x4)

Capability
- Site Assessment
- Command and Control
- Communications
- Support
- Advise
- Prepare for follow-on forces
CIRT (L) Capability

- Provide Command and Control
- Establish communications
- Support civil authorities at incident scene
- Assess current and projected consequences
- Advise on response measures
- Chemical, biological and/or radiological assessment of incident scene (identify, classify and sample)
CIRT (L) Communications Package

- PSC-5 (1) for secure radio to NORTHCOM and JTF via military satellite
- INMARSAT M4 (1) for voice or data via commercial satellite or ISDN line
- Mobile VTC (1) for voice, data, or VTC via commercial satellite
- STE (2) for secure voice or data via landline
- Secure (2+) and Nonsecure Laptops from unit CTA
- Ricoh Secure Fax (1) for secure facsimiles
- Iridium Phone (2) for mobile, secure calls via satellite
- Mobile Phones from unit CTA (2)
- Secure Phone Sectera (4)
Liquid and Vapor Chemical Detection

Weather Sensing

Biological Sampling and Identification

Radios

Handheld Explosives Detection

Personal Decontamination Equipment

Spectroscopic Chemical Identification

Multi-gas vapor Detection

Collapsible Cart

Liquid and Vapor Chemical Detection

Water Test Kit

Biological Sampler and Identification

CIRT (L) RECON Equipment
CIRT (L) RECON Equipment

- 3 KW Diesel generator
- Gamma/Neutron Radiation Detection
- Vapor Hazard Detection
- Air Compressor
- Chemical Vapor Monitor
- Personal Radiation Exposure Monitor
- Personal Protective Equipment
- Hazardous Material Sampling
- Man-made and Natural Radionuclide Detection
- Self Contained Breathing Apparatus
- Alpha, Beta, Gamma, X-Ray Radiation Detection
CBRNE Initial Response Team (Heavy)

6 Officers and 58 NCOs (64 Total)

Equipment:
- Unified Command Suite
- MCD trailer and prime mover
- RECON trailer and prime mover
- C2 HMMWVs (x4)
- LMTVs (x4)

COMMAND
- Commander
- NCOIC

OPERATIONS
- Opns Officer
- Opns NCO - Assessment
- Opns NCO-Intel
- Opns NCO – Movement

ADMINISTRATION & LOGISTICS
- Logistics NCO
- Admin NCOIC
- Contracting Officer

COMMUNICATIONS
- Comms Tm Chief

MEDICAL
- Med Opns Off
- Combat Medics (x4)

Chaplain
- Chaplain

Capability:
- Command and Control
- Communications
- Site Assessment
- Casualty Extraction
- Mass Casualty Decon
- Support
- Advise
- Prepare for follow-on forces

RECON Platoon
- 27 PAX

MCD Platoon
- 21 PAX

Equipment:
- C2 HMMWVs (x4)
- LMTVs (x4)
- RECON trailer and prime mover
- MCD trailer and prime mover
- Combat Medics (x4)
- Command and Control
- Communications
- Site Assessment
- Casualty Extraction
- Mass Casualty Decon
- Support
- Advise
- Prepare for follow-on forces
CIRT (H) Capability

• Same as Initial CBRNE Response Team (Light)

• Plus:
  - Remainder of RECON platoon
  - MCD platoon
CIRT (H) Communications Equipment

- Unified Command Suite (UCS). Mobile command and control system. Provides communications to command, technical references, and information databases.
  - Data: UHF/VHF, SATCOM, INMARSAT, NIPRNET, SIPRNET, and Video
  - Air Transportable by C-130, C-141, C-5, C-17
CIRT (H) RECON Platoon

• Personal Protective Equipment (PPE). Standard chemical defense equipment for warfare agents, Level A and Level B Ensembles for hazardous material protection.

• RECON Trailer and prime mover

• Cascade system

• Conducts site assessment (identify, classify, sample collection)

• Determines protective measures and PPE requirements

• Emergency casualty extraction
• MCD Trailer and Prime Mover
• Operational within 30 minutes
• 20 non-ambulatory per hour
• 75 ambulatory per hour
• Work rest cycle approximately two hours (decreased during Heat Category 3-5 conditions)
IRF Headquarters

C2 Headquarters
4 PAX

MCD Platoon
21 PAX

Technical Recovery Platoon
27 PAX

Casualty Extraction Platoon
21 PAX

Field Surgical Team
20 PAX

C2 Headquarters
4 PAX

MCD Platoon
21 PAX (x2)

Casualty Extraction Platoon
21 PAX

Remaining 247 PAX
Balance of CIRF

- 3 additional MCD platoons (3 DECON trailers and prime movers and MTOE equipment)
- 2 casualty extraction platoons (2 DECON trailers and prime movers and MTOE equipment)
- C2 and service support elements for sustained operations (Battalion and 2 Company headquarters and MTOE equipment)
- Remainder of Field Surgical Team (MTOE equipment)
- Technical Rescue Platoon (1 Recon Trailer and prime mover and MTOE equipment)
Technical Recovery Platoon

- Listening device magnifies faint or distant sounds

- Thermal imaging camera images through walls can assist Search And Rescue teams in locating victims

- Powered Air Purifying Respirator (PAPR) provides user with constant, filtered airflow and positive pressure

- Training for confined space entry

- Training for vehicle extraction

- Training for collapsed structure recovery
Casualty Extraction Platoons (x2)

- Personal Protective Equipment (PPE). Standard chemical defense equipment for warfare agents, Level A and Level B Ensembles for hazardous material protection.
- DECON capability
- 8 two-man extraction teams per platoon
CIRF Total Capability

- 1 x RECON Platoon – 3 site assessment teams for multiple locations or continuous coverage at single location.
- 4 x MCD Platoon – one to four MCD sites. Capable of 80 non-ambulatory and 225 ambulatory per hour. Requires augmentation for operations greater than 2 hours.
- 2 x Casualty Extraction Platoons – provides up to 20 entry teams to extract casualties.
- 1 x Technical Recovery Platoon – provides up to 10 specialty entry teams to extract casualties.
- 2 Company Headquarters - provides support to sustain platoons for continuous operations
- 1 Battalion Headquarters – provides C2 and communications capability for continuous operations
- 1 Field Surgical Team – provides medical support to the CIRF
## CIRF Elements

<table>
<thead>
<tr>
<th>Personnel</th>
<th>Equipment</th>
<th>Capability</th>
</tr>
</thead>
</table>
| CIRT (L)  | 23        | Mobile commo set  
|           |           | Mobile RECON set  
|           |           | 1 LMTV (x1)  
|           |           | Cmd and Ctl HMMWV (x4)  
|           |           | Site Assessment  
|           |           | Command and Control  
|           |           | Communications  
|           |           | Support  
|           |           | Advise  
|           |           | Prepare for follow-on forces  
| CIRT (H)  | 64        | Unified Command Suite  
|           |           | MCD trailer and prime mover  
|           |           | RECON trailer and prime mover  
|           |           | C2 HMMWVs (x4)  
|           |           | LMTVs (x4)  
|           |           | Command and Control  
|           |           | Communications  
|           |           | Site Assessment  
|           |           | Casualty Extraction (10 tms)  
|           |           | Mass Casualty Decon (1 plt)  
|           |           | Support  
|           |           | Advise  
|           |           | Prepare for follow-on forces  
| CIRF      | 311 plus 8 additional Special Staff | Unified Command Suite  
|           |           | 4 MCD trailers with F-550s  
|           |           | 4 RECON trailers with F-550s  
|           |           | 20 HMMWVs  
|           |           | 29 LMTVs  
|           |           |  

CIRF Concept

- Can be inserted by civilian or military ground, rail, or air transportation
- Provides an initial response team to assess the incident scene
- Provide Command and Control
- Establish communications
- Support civil authorities at incident scene
- Assess current and projected consequences
- Advise on response measures
- Chemical, biological and/or radiological assessment of incident scene (identify, classify and sample)
Additional Special Staff Requirements

• Engineer Officer
• PAO
• Finance Specialist
• Legal NCO
• Contracting Officer
• Technical Escort
• Nuclear Officer SME
• Environmental Specialist