Syria: CW & BW Forensic Realities & Lessons

Hamish de Bretton-Gordon OBE COO
Operations In Iraq & Afghanistan

• **Gulf Wars 1 & 2 (1991 & 2003).**

• **Commanding Officer 2004 - 2007:**
  - UK Joint CBRN Regiment.
  - NATO Multi-National CBRN Battalion.
    - Sarin Rockets.
    - Anthrax.
    - Chlorine.

• **Afghanistan:**
  - Toxic Industrial Chemicals.
  - Narcotic Production.

• **Kurdistan – Halabja:**
  - Identification.
  - Decontamination.

• **Syria**
  - Sarin
  - Chlorine
Syria: Chlorine Attacks Apr 14

- CBRN Task Force – Aleppo.
- SecureBio & Daily Telegraph 27-29 Apr 14: Collection, Identification, Declaration
- 20,000 Chlorine Barrel Bombs.
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence or Report</td>
<td>Media, Medial, Faction</td>
</tr>
<tr>
<td>Witness Statements</td>
<td>Casualties, Eye Witnesses</td>
</tr>
<tr>
<td>Aerial Data</td>
<td>If Available</td>
</tr>
<tr>
<td>Visual Check</td>
<td>From Distance and in Hot Zone</td>
</tr>
<tr>
<td>Photos/Video/GPS Log/GPS Camera</td>
<td>On Arrival to Completion</td>
</tr>
<tr>
<td>Casualties/Corpse’s</td>
<td>Signs of injury</td>
</tr>
<tr>
<td>Dead Animals/Birds</td>
<td></td>
</tr>
<tr>
<td>Munitions or Parts</td>
<td>Markings, Colours, Types</td>
</tr>
<tr>
<td>Oily, Gas, Staining</td>
<td></td>
</tr>
<tr>
<td>1 Colour Detector</td>
<td>IMS/FP/EC/FTIR</td>
</tr>
<tr>
<td>3 Colour Detector</td>
<td>Use separate Technology from that used in Tech 1</td>
</tr>
<tr>
<td>Detector Tech 1</td>
<td></td>
</tr>
<tr>
<td>Detector Tech 2</td>
<td>HAPSITE/Griffin/Tridion</td>
</tr>
<tr>
<td>MS Only</td>
<td>As Above (DATA Sample)</td>
</tr>
<tr>
<td>GC/MS</td>
<td></td>
</tr>
<tr>
<td>Physical Sample</td>
<td>AEP 10</td>
</tr>
<tr>
<td>Sample Courier</td>
<td>SIBCRA</td>
</tr>
<tr>
<td>Analysis</td>
<td>Approved Lab</td>
</tr>
</tbody>
</table>
Battlefield Realities & 80% Solutions:

- **Sampling:**
  - Violent and Hostile Environment.
  - Multiple Threat Agents Used.
  - Hours – Days – Weeks To Reach Scene.
  - Uncontrolled Scene.
  - Cross Contamination.
  - Limited Equipment & Supplies.
  - Limited Time On Scene.
  - Documentation.
    - Unwillingness To Supply Names
  - **Decontamination.**

- **Transportation:**
  - Chain of Custody – *discarded 75% of samples*
  - Sample Degradation.

- **Analysis:** - 3 Different Methods
  - Accredited Laboratory Days Away.
  - International Travel.
Compromises:

• **Sampling:**
  – Rapid Action.
  – Light.
  – Use of Trusted & Trained Third Parties.
  – Documentation.
    • Use of FMV.

• **Transportation:**
  – Chain of Custody.
  – Reduce Distance To Analysis.

• **Analysis:**
  – On Scene Detection And Identification.
  – Retention of Control Sample(s).

• **Support:**
  – Reachback.
• **Operationally Focused**
  – Not Blinded By Science.
  – Speed of the essence

• **Appropriate Use of Technologies**
  – Twitter, Skype etc
  – Mobile analysis
  – Data links
  – Reach back

• **Understanding Of Battle Space**
  – Likely Threats.
  – Atmospherics.

• **Team Work**
  – Multi-Skilled Team.
So What?

- Legal dilemma/realities of war
- Training – operate forward
- Protection – data links
- Monitoring - Proof
Questions?

The Fear Of CBRN Is Killer
Not
The Toxicity Of The Agents