CHEMRAT and
Updating Air Force Manuals
10-2602 & 10-2517

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AFRL  HEPC CBD
• CHEMRAT initiated by warfighter urgent need request

• Ver 1.0 Developed and fielded in 3 months
  — Released in Jan 2003
  — Deployed to OIF

• Interim accredited by DATSD-CBD in April 2003

• Transitioned to JOEF in FY05

• Currently used by USAF, USN, NORTHCOM, DHS, DOE

• Ver 1.5 to be released this quarter
• USAF guidance manuals being updated with revised hazard prediction tables
  — AFMAN 10-2502
  — AFMAN 10-2517
• Estimates derived from updated VLSTRACK predictions
• Incorporates newest agent fate data
• Scheduled release in Dec 2005
Decision Aiding Analysis
Revised C-CW CONOPS and TTPs

• Leveraged live agent outdoor tests to quantify and assess detection levels of:
  — CAMs
  — M-22 ACADAs
  — M-8 paper
  — M-256A kits
  — HAPSITE
  — M-279 surface sampler

• Determine droplet spread factors

• Quantify transfer of liquid agent by vehicles

• Determine effectiveness of foot/glove decon procedure

1-Nov-05
Transitioning CW Agent Fate S&T Into Products For CBDP Users

Agent Fate on Soil Sampling Time (min)

GD in Air Above Soil (mg/m³)

0 1 2 3 4 5 6 7 8

Rain Event

Sampled To Date

Table: Fate of CW Agents

<table>
<thead>
<tr>
<th>Agent</th>
<th>Release</th>
<th>Timing</th>
<th>Apparent CTR</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High</td>
<td>100%</td>
<td>0.5</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
<td>50%</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Agent Fate on Soil

Sampling Time (min)

Rain Event
Agent Fate Program Products

- CHEMRAT 1.0
- CHEMRAT 1.5
- New version of VLSTRACK (June 2004)
- Rain event added to AFMAN 10-2502 & 10-2517 (Dec 2005 release)

AFMAN 10-2502 & 10-2517
Vapor hazard persistence tables updated (Dec 2005 release)

Publications on agent fate (technical reports, scientific papers, etc.)

C-CW CONOPS & TTPs

1-Nov-05
Questions?