Unplanned Explosions at Munitions Sites (UEMS)

“Generic Preventive Measures”
in support of the convention on Certain Conventional Weapons (CCM) – Protocol V

Palais des Nations, Conference on Disarmament – 25 April 2012
Today’s talk

■ The Small Arms Survey: mandate, donors, and work

■ The UEMS Database:
  □ raison d’être
  □ UEMS definition
  □ information sought
  □ initial findings
The Small Arms Survey

- Reliable and impartial policy-relevant analysis on all aspects of small arms and armed violence
- Work closely with governments in multilateral forums
- Supported primarily by governments:
  - Australia
  - Belgium
  - Canada
  - Denmark
  - Finland
  - Germany
  - Netherlands
  - Norway
  - Sweden
  - Switzerland
  - United Kingdom
  - United States
- Additional support from UN System and foundations
Examples of work SAS undertakes

- Small Arms and Armed violence Assessments
- Evaluations of AVR activities
- Development of homicide and UEMS databases
- Analyses of disarmament and arms recovery initiatives
- Studies on gangs and armed groups
- Capacity-building training
Small Arms Survey publications

- The Small Arms Survey yearbook
- Book Series
- Occasional Paper Series
- Working Papers & Special Reports
- Issue Briefs & Research Notes

CCW - Protocol V – Conference on Disarmament, 25 April 2012
Publications on identifying, managing, and destroying surplus small arms

CCW - Protocol V – Conference on Disarmament, 25 April 2012
Additional PSSM-related materials

CCW - Protocol V – Conference on Disarmament, 25 April 2012
Other noteworthy PSSM resources

RASR Initiative (www.rasrinitiative.org)

CCW - Protocol V – Conference on Disarmament, 25 April 2012
UEMS Database: raison d’être

- 10+ years of research into “illicit trade” underscores important role diversion plays

- Tendency to view surplus as an asset rather than a liability

- Existing lists/“databases” thin on details

- UEMS’ effects on human security poorly understood
Safer Stockpiles: practitioners’ experiences with PSSM assistance programmes

Figure 2.2 Population surrounding a military depot, Bukavu, DRC
Source: Courtesy of Gwenn Dubourthoumieu/MAG

CCW - Protocol V – Conference on Disarmament, 25 April 2012
“Unplanned Explosions at Munitions Sites (UEMS) include accidents resulting in explosions of abandoned, damaged, or inappropriately stored or properly stored stockpiles of munitions and explosives.

For our purposes, munitions sites comprise storage areas (including those temporarily maintained during demilitarization or explosive ordnance disposal) and processing sites, whether temporary or permanent. Ammunition manufacturing facilities (ordnance factories) are not included, but accidents during ammunition processing operations within munitions sites have been included where known.”
UEMS database: information sought

- **The accident**: date, location, casualties (e.g. fatalities/injuries)
- **depot ownership and type**: govt./private/armed groups
- **depot contents**: volume, type of material, value
- **socio-economic impact**: displacement, infrastructure damage
- **additional data**: grid coordinates, blast effects, political impact

- Number of UN Member State with recorded UEMS
- Number of UN Member State with unrecorded UEMS

*According to United Nations Statistic Division (Revised in July 2011).

*Small Arms Survey UEMS Database (Forthcoming)
UEMS Database – initial findings:

a growing problem

CCW - Protocol V – Conference on Disarmament, 25 April 2012
# UEMS Database – initial findings: a presence of data gaps (e.g. causes)

Table 2: Reported causes of UEMS, January 2000–March 2011

<table>
<thead>
<tr>
<th>Categorization</th>
<th>Causes</th>
<th>Total</th>
<th>% of all causes</th>
<th>% of known causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Deterioration of the physical or chemical condition of the ammunition and explosives</td>
<td>Auto-Ignition of Propellant</td>
<td>14</td>
<td>6.4%</td>
<td>9.2%</td>
</tr>
<tr>
<td>2. Unsafe storage practices and infrastructure</td>
<td>Electrical Fault</td>
<td>7</td>
<td>3.2%</td>
<td>4.6%</td>
</tr>
<tr>
<td></td>
<td>Fire&lt;sup&gt;a&lt;/sup&gt;</td>
<td>45</td>
<td>20.5%</td>
<td>29.6%</td>
</tr>
<tr>
<td></td>
<td>High Temperature</td>
<td>7</td>
<td>3.2%</td>
<td>4.6%</td>
</tr>
<tr>
<td></td>
<td>Lightning</td>
<td>11</td>
<td>5.0%</td>
<td>7.2%</td>
</tr>
<tr>
<td></td>
<td>Other&lt;sup&gt;b&lt;/sup&gt;</td>
<td>2</td>
<td>0.9%</td>
<td>1.3%</td>
</tr>
<tr>
<td>3. Unsafe handling and transport practices</td>
<td>During Demil/EOD Clearance</td>
<td>24</td>
<td>10.9%</td>
<td>15.8%</td>
</tr>
<tr>
<td></td>
<td>Handling/Negligence</td>
<td>34</td>
<td>15.5%</td>
<td>22.4%</td>
</tr>
<tr>
<td>4. Poor security conditions</td>
<td>Security/Sabotage</td>
<td>8</td>
<td>3.6%</td>
<td>5.3%</td>
</tr>
<tr>
<td>5. Unknown causes</td>
<td>Not known</td>
<td>68</td>
<td>30.9%</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td>220</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Sources: Wilkinson (2011); Small Arms Survey (Forthcoming).

a. Many of these fires may have originated as auto-ignitions of propellant.
b. The forthcoming UEMS database also lists blasts triggered by firecrackers and fallen debris.