DISPOSAL OF SURPLUS AMMUNITION AND WEAPONS

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STATUS IN 2006

About 12,100 t of ordnance

About 77,000 pieces of various weapons

10 facilities for storage of ordnance and 2 weapons storage

Significant amount of hazardous chemical materials in Bay of Kotor

Obsolete storage infrastructure
### Ordnance Condition

- Ordnance are age between 20 and 50 years.
- Large amounts of ammunition with critical stability of gunpowder.
- Difficulties in tracking the chemical stability of gunpowder, because most of ammunition in earlier periods was located outdoors or in inadequate facilities that were unable to provide the required micro-climatic conditions.
- Large amounts of surplus ammunition was stored outdoors.
- There were bigger quantities of ammunition stored in depots than it was allowed.
QUANTITIES OF ORDNANCE IN STORAGE SITES 2006

- PLJEVLJA 223,4 t
- BREZOVIK 6.191,2 t
- SASOVIĆI 1.014,1 t
- ŠPILJICE 228,3 t
- PRISTAN 1.064,7 t
- PETROVIĆI 707,5 t
- OPATOVO 1.142,5 t
- TARAŠ 849,0 t
- ROGAME 361,8 t
- GOLUBOVCI 354,3 t

Total 12.136,82 t
Surplus 11.240,47 t
Part of the ordnance located outdoors
2006: BIG QUANTITIES OF AMMUNITION IN THE FACILITIES
Storage ammunition Brezovik

Capacity 7.675 t.
CONDITION OF STORAGE FACILITIES IN 2006

- Age of storage facilities was between 40-60 years
- Obsolence, especially of roof constructions
- Facilities were not suitable to means of integral transportation
- Significant quantity of facilities had no proper protective battlements
- Inadequate protective fence
- Roads in storages were in poor condition
- Storages had no lighting, video surveillance, fire alarm systems, adequate ventilation, etc.
Layout of ammunition facilities in Brezovik in 2006

Buildings in the storage site were built during the fifties of the 20th century, obsolete, with poor roof construction.
Due to poor packaging there were a possibility of leakage, causing major pollution with unforeseeable consequences.
Examples of heavy weapons
PRIORITIES OF DEMILITARIZATION

- Reduction of risks for atmosphere and marine environment in Bay of Kotor by disposal of chemical hazardous materials
- Reduction of risks from unplanned explosions by disposal of surplus ordnance
- Demilitarization of limited amount of heavy weapons
- Reduction of risks by developing safe and secure storage infrastructure
DEMILITARISATION PROGRAMMES

- MONDEM Programme
- National Capacities (Preventative)
- US-MNE Technical Agreement
- NATO Trust Fund
- Pilot Project with Albania

SURPLUS
## DISPOSAL OF TOXIC CHEMICAL MATERIALS

<table>
<thead>
<tr>
<th>NAME OF CHEMICAL COMPONENT</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxidizer AK-20K (Melange)</td>
<td>48.1 t</td>
</tr>
<tr>
<td>Missile fuel TG-02</td>
<td>42.7 t</td>
</tr>
<tr>
<td>Powder for NAPALM bombs</td>
<td>25.8 t</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>116.6 t</strong></td>
</tr>
</tbody>
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*Destroyed in the plants of “SAKAB” – Sweden*

This program component is completed

Price: **224.310,02 €**
# DISPOSAL OF SURPLUS AMMUNITION

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL IN STORAGES</td>
<td>12,136.82 t</td>
<td>2.673,92 t</td>
</tr>
<tr>
<td>SURPLUS</td>
<td>11,240,47 t</td>
<td>1,777,57 t</td>
</tr>
</tbody>
</table>
Quantities of ammunition by storages in 2017

In total 2,673,92 t.  
Surplus 1,777,57 t.
DEMILITARIZATION OF SURPLUS AMMUNITION

Surplus ammunition has been cut down for over 84%.

Most critical ammunition and ammunition prohibited by various conventions is disposed.

Cluster, aerosol, anti-infantry mines, much of the sea mines, air missiles, and large caliber ground forces ammunition (155, 130, 128, 105, 100, 90 mm etc.)

Ammunition which became unstable and most of ammunition of reduced stability.

No more ammunition located outdoors.
DISPOSAL BY PARTICULAR PROGRAMMES

![Bar Chart]
FLOW OF REDUCING THE TOTAL QUANTITY OF AMMUNITION BY YEAR
PORTION OF DEMILITARIZED AMMUNITION
## DISPOSAL OF SURPLUS WEAPONS

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>76.800</td>
<td>27.363</td>
</tr>
<tr>
<td>SURPLUS</td>
<td>59.120</td>
<td>9.683</td>
</tr>
</tbody>
</table>

![Bar chart showing disposal of surplus weapons](image)
# DEMILITARIZED HEAVY WEAPONS

<table>
<thead>
<tr>
<th>SORT OF WEAPON</th>
<th>TYPE</th>
<th>QUANTITY (pcs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TANKS</td>
<td>T-55</td>
<td>61</td>
</tr>
<tr>
<td>ANTI-TANK WEAPONS</td>
<td>Hand rocket launchers</td>
<td>288</td>
</tr>
<tr>
<td>ARTILLERY</td>
<td>Cannon 130 mm M46</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Cannon 100 mm T-12</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Other devices</td>
<td>7</td>
</tr>
<tr>
<td>ANTI-AIRCRAFT WEAPONS</td>
<td>Cannon 20/1 i 20/3 mm</td>
<td>229</td>
</tr>
<tr>
<td></td>
<td>Cannon 30/2 “Praga”</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Ship launchers for “S-2M”</td>
<td>211</td>
</tr>
<tr>
<td>SHIP CANNONS</td>
<td>Diverse</td>
<td>125</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1025 pieces, weight about 3.000 t</strong></td>
<td></td>
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</table>
A PORTION OF DEMILITARISED HEAVY WEAPONS

$1.200.000 have been invested in MONDEM programme which was generated through the sale of scrap metal after cutting surplus weapons.
SAFE STORAGE OF AMMUNITION

- Improving storage infrastructure
- Installation of appropriate security system storage
- Installation of fire alarms and equipment
- Improving the ammunition management system
STORAGES IN PROSPECTIVE

- **PLJEVLJA**: 400 t
- **BREZOVIK**: 2.800 t
- **TARAŠ**: 800 t

**Capacity**: 4.000 t
TARAŠ STORAGE FACILITY

Reconstruction of a storage within the MONDEM programme:

- New administrative building
- New security system with video surveillance
- Perimetric security system
- Improvement of infrastructure for access
- Internal roads ~ 1,400 m, parking space for trucks
- New fence around the storage facility
- Lighting of an entire storage facility
- New fire protection system
- New electric power supply system

Invested: € 1.23 million
COMPLETE STORAGE IS COVERED WITH VIDEO SURVEILLANCE
BEFORE

Roads

AFTER
BEFORE

Wire fence

AFTER
STORAGE FACILITIES APPEARANCE

Before:

After:
The reconstruction was planned to encompass:

- Reconstruction of depot - COMPLETED
- Security upgrade (video-surveillance, perimetry)
- New fence around the depot
- Reconstruction of access roads
- Improvement of the ventilation system
- New fire protection system
- Lighting of an entire storage facility
- Internal roads

The project value: € 2.5 million
Government of the Federal Republic of Germany donated €500,000.

Works on reconstruction of 2 facilities (400 t each) were completed by the end of 2012.

Works on reconstruction of 3 additional facilities (400 t each) were completed in June 2015.

Works on reconstruction of 3 facilities (400 t each) through the MONDEM Programme (EU donation) were completed in November 2014. (€283,000)
CURRENT PROBLEMS AND PLANS FOR THE NEXT PERIOD

Continuation of disposal of the remaining surplus ammunition

Continuation of reconstruction of storage facility Brezovik

Destruction of ammunition with large amounts of composite explosives (anti-ship missiles, torpedoes, aircraft missiles, marine mines, etc.)

Disposal of ammunition with white phosphorus
THANK YOU FOR THE ATTENTION!

QUESTIONS?