MILITARY INTELLIGENCE AGENCY OF THE MINISTRY OF DEFENSE OF THE REPUBLIC OF MOLDOVA

SECURITY AND INTELLIGENCE SERVICE OF THE REPUBLIC OF MOLDOVA

REPORT

Cobasna: Separating Myth from Reality

An assessment of information manipulation and the actual consequences of a potential explosion

CHIȘINĂU 2026

EXECUTIVE SUMMARY

The threat posed by the Cobasna ammunition depot has been systematically exaggerated. This report - based on technical data on storage conditions, ammunition characteristics, simulations, engineering calculations, terrain features, and classified intelligence - demonstrates that a detonation of the entire arsenal cannot occur under any realistic scenario, and that even the worst credible incident would remain confined within the depot grounds.

The Cobasna depot is a military complex located in territory outside the control of the Republic of Moldova, operated entirely by the Russian Federation through the Operational Group of Russian Forces, illegally stationed in Moldova's Transnistrian region. It has long been portrayed - by representatives of the separatist regime on the left bank of the Nistru river, by some members of the Russian leadership, and in maximalist theoretical calculations based on a "perfect explosion," including some produced by domestic experts - as a potential catastrophe of regional proportions.

The technical reality is different. A proper assessment begins not with the question "How many tons of munitions are stored at Cobasna?" but rather "What quantity of explosives could be involved in a specific event, and how would that event propagate?" Of the roughly 14,000 tons of munitions stored at the site, approximately 2,800 tons represent explosives: four fifths of the stockpile consists of casings, packaging, and inert components that cannot detonate at all. The explosive fraction itself is dispersed across dozens of separate storage facilities of three types - above-ground, semi-buried, and underground (Annex No. 1, 10 pages). This dispersal, together with the protection provided by compartmentalized infrastructure and the terrain, means that any incident would involve successive explosions and localized fires rather than a single large-scale blast.

This scenario is consistent with the dynamics observed in previous incidents at depots of comparable size, including inside the Russian Federation itself. Map-based simulations likewise indicate that shock-wave effects on nearby settlements would be limited. The outermost storage facility lies two kilometers from the administrative boundary of Andreieni, the village closest to Cobasna. Because any realistic incident would originate at an individual facility deeper inside the complex - not at its outer edge - and because the topography and natural and man-made barriers channel blast effects toward uninhabited terrain, the village lies beyond the reach of major damage. Such damage would be confined to a radius of up to two kilometers around the point of origin, within the depot grounds, which have a perimeter of approximately five kilometers.

The "disaster" narrative is therefore not an assessment but an instrument. It is an exaggeration intended to influence national decision-making: the risk of an explosion is used to legitimize an illegal military presence, turning a degraded ammunition depot into a strategic barrier to national stability and security.

1. GENERAL CONTEXT

The Cobasna depot was established by the Soviet authorities and has occupied its current location since May 1949. Designated Artillery Depot No. 1411, it formed part of the Soviet Army's military infrastructure. Following the dissolution of the USSR, it came under the control of the Russian Federation's 14th Army. During the Soviet period, ammunition withdrawn from the former Warsaw Pact countries was stored at Cobasna.

After the dissolution of the Soviet Union in 1991, the depot remained on the territory of the Republic of Moldova. However, the 1992-armed conflict resulted in the loss of constitutional control over the Transnistrian region of the Republic of Moldova, where the depot is located. Consequently, the depot is currently under the de facto control of the Russian Federation and is guarded by the Operational Group of Russian Forces (OGRF).

At the 1999 OSCE Istanbul Summit, the Russian Federation committed to withdrawing its troops and ammunition. However, no significant progress has been made to date, except for the partial removal of munitions.

Between 2001 and 2004, approximately 22,000 metric tons of munitions were removed or destroyed under OSCE monitoring. The process subsequently stalled. The remaining stockpile is currently estimated at 14,000 metric tons, consisting mainly of obsolete munitions whose authorized storage life has expired. Of this amount, less than 2,000 metric tons are believed to consist of training materials, signal cartridges, or logistical items. The estimate of the remaining stockpile is based on an analysis of military activities conducted on the left bank of the Dniester over the years, as well as information derived through HUMINT, OSINT, GEOINT, and SIGINT.

The depot infrastructure is divided into two distinct sections (Figure 1). One section is used to store munitions and weapons, while the other serves as an auxiliary area supporting the OGRF’s operational activities (Annex No. 2, 2 pages) and day-to-day activities (Annex No. 3, 3 pages).

The depot covers a total area of approximately 132 hectares and has a perimeter of about five kilometers. The technical storage area covers approximately 1.03 km^2 and contains 42 ammunition storage facilities of three different types. These facilities are located approximately 80–200 meters apart and are separated by natural and man-made barriers (Figures 2 and 3).

Fig. 1. General Layout of the Cobasna Military Complex

Fig. 2 Structural Details of the Cobasna Ammunition Depot

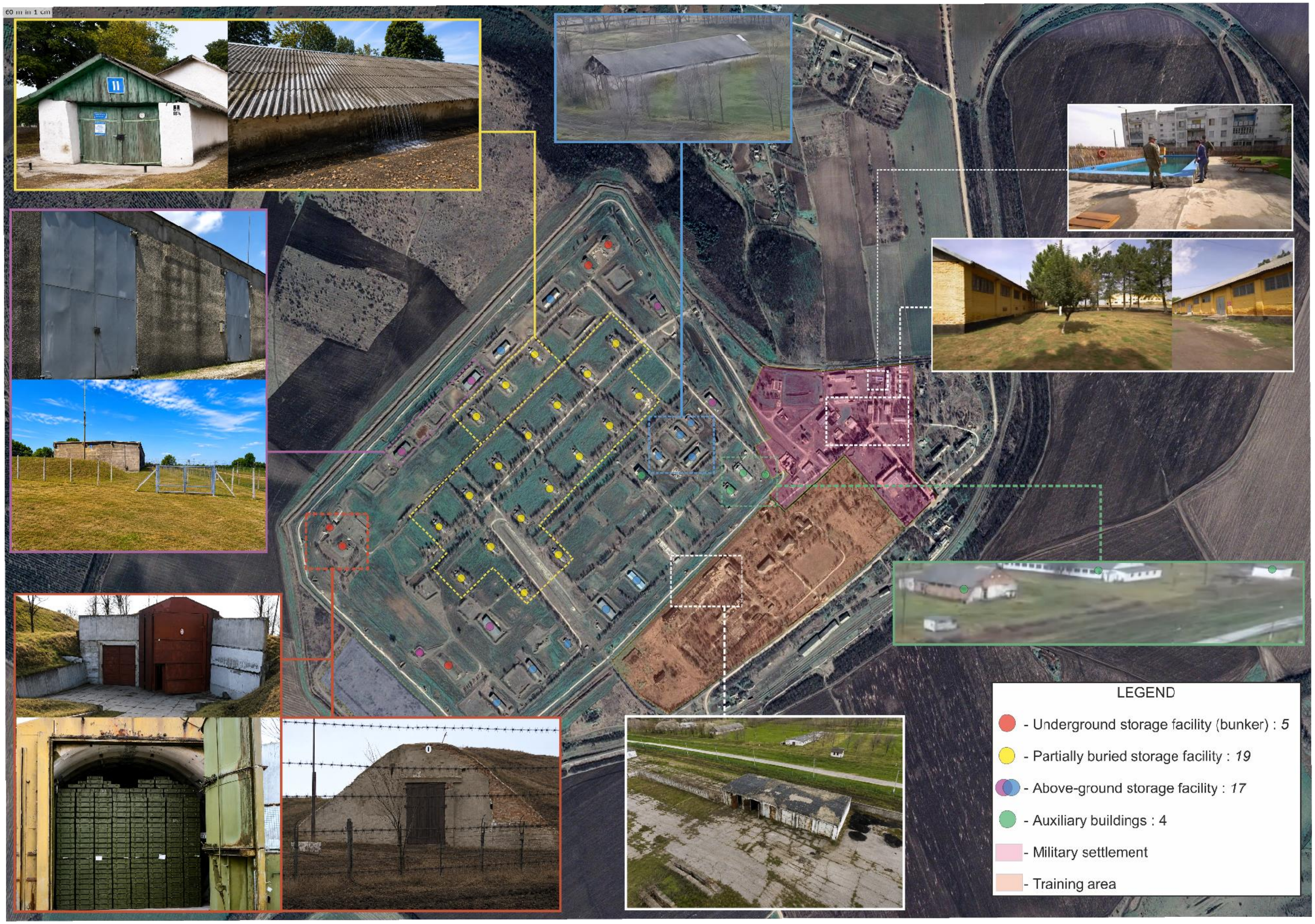
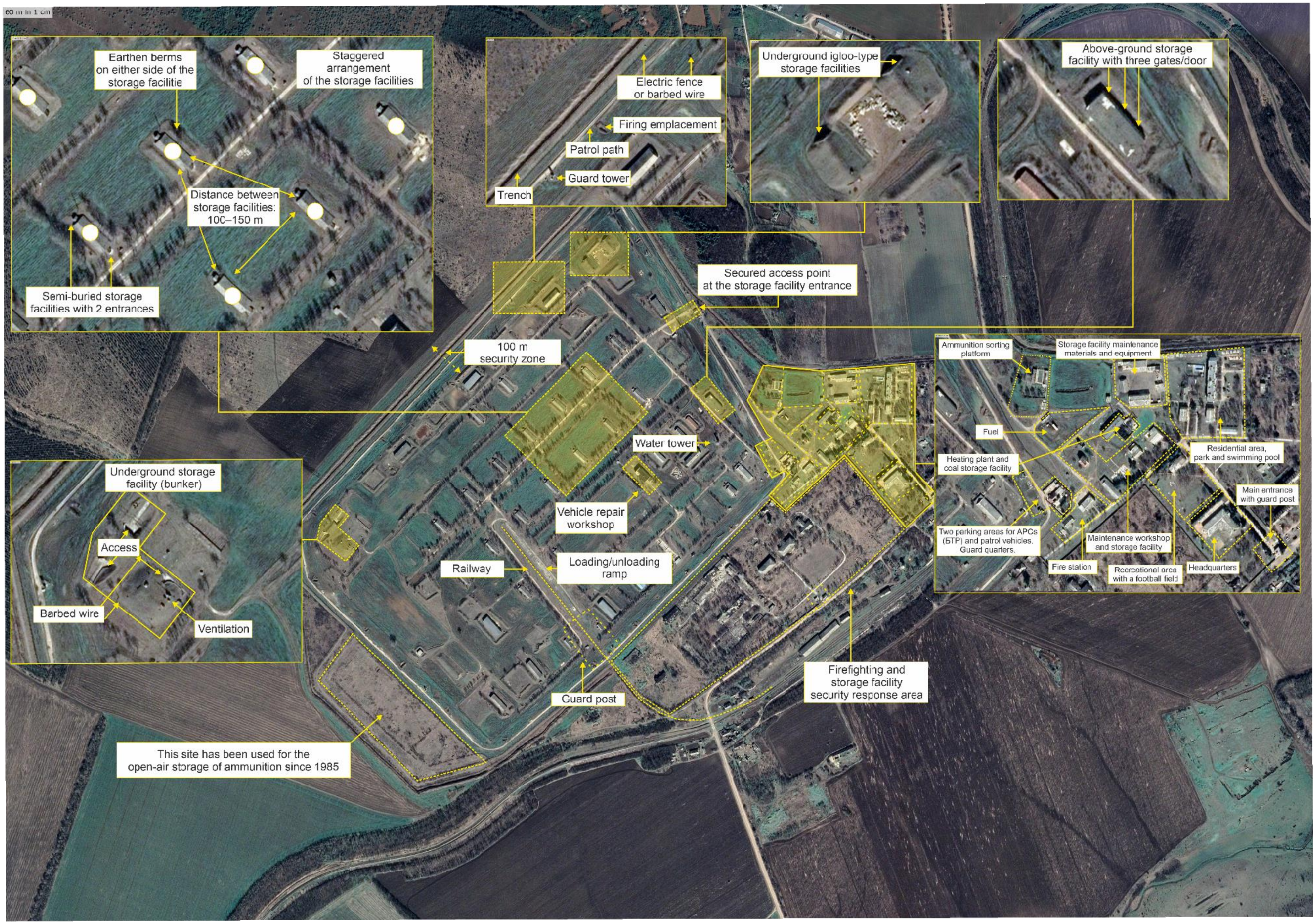


Fig. 3 GEOINT Analysis of the Cobasna Ammunition Depot



2. PROBLEM DEFINITION

In addition to the quantity and age of the munitions, the central issue is that the depot remains outside the control of the constitutional authorities of the Republic of Moldova and operates under complete opacity. Following the OSCE's last visit in 2006, access to the site was denied, turning degraded military infrastructure into an instrument of blackmail. Without reliable visibility into the inventory stored at Cobasna, the international community is compelled to rely on the Russian Federation's exaggerated risk assessments. Russia has a clear political interest in maintaining uncertainty and fear by deliberately overstating the actual scale of the problem.

3. ANALYTICAL METHODOLOGY

A multidisciplinary analytical approach was used to provide an accurate assessment of the situation. Relevant and current information was collected, and the analytical process was structured around three main areas. **First**, the technical analysis and assessment were based on data from OSCE Mission reports and other sources, including satellite imagery (GEOINT), open-source information (OSINT), human intelligence (HUMINT), and communications and electronic signals intelligence (SIGINT/ELINT). These data were used to examine military force activity, site infrastructure, ammunition characteristics, and the modeled effects of a potential explosion (Annex No. 4). This approach provided a realistic and evidence-based assessment. The projected effects were also compared with those recorded during explosions at ammunition depots in Lovnidol (2011), **Bulgaria**; Vrbětice (2014)[1], **Czech Republic**; Balakliia (2017)[2] [3]; Ichnya, (2018)[4] **Ukraine;** Achinsk (2019)[5], and Toropets (2024), **Russian Federation**.

Second, the damage resulting from a potential explosion was estimated using explosives engineering, the technical parameters of the storage structures, and terrain characteristics. The results indicate that the **scenarios disseminated in the information environment are false** and that the risks and damage to the population and infrastructure resulting from the direct

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1 https://www.youtube.com/watch?v=yxgZNU9WhNM

2 https://www.youtube.com/watch?v=e_Dhrz0We8A

3 https://www.youtube.com/watch?v=Dqb-nN1ecwQ

4 https://www.youtube.com/watch?v=UqWgCQ9wOwE

5 https://www.youtube.com/watch?v=qzGbXarmMlQ

effects of an explosion would be limited. The UN SaferGuard IATG Support Toolkit[6] was used during this stage. The results were also cross-checked against engineering calculations performed by national experts.

The analysis is based on:

- Official OSCE reports;
- Geospatial Intelligence (GEOINT);
- Open-source Intelligence (OSINT);
- Human Intelligence (HUMINT);
- Data collected from communications and electronic signals (SIGINT/ELINT);
- Technical assessments and simulations of the effects of explosive materials;
- Official positions of other state institutions of the Republic of Moldova.

4. TERRAIN ANALYSIS

The terrain in the Cobasna area is characterized by varied topography consisting of hills and valleys, with elevations ranging from 34 to 247 meters (Figure 4). This topographic configuration creates significant elevation differences among the various sectors of the area.

Settlements near the depot, including Ulmu, Andreieni, Cobasna, Gherșunovca, Stanislavka (Ukraine), and Velike Burilove (Ukraine), are located at lower elevations, in valleys, or on lower slopes (Figure 5). By contrast, the Cobasna ammunition depot is situated on higher ground than most neighboring settlements, contributing to its natural separation from nearby populated areas.

The elevation differences between the depot and the surrounding settlements may act as a natural mitigating factor against the effects of a potential explosion. The hilly terrain, intervening slopes and landforms, and forest belts in adjacent areas reduce shock-wave intensity. As blast effects propagate across broken terrain, their energy is dispersed and attenuated by existing natural obstacles.

Consequently, the area's topographic characteristics help limit the extent of destructive effects and reduce the vulnerability of settlements located near the depot.

[6] https://unsaferguard.org/

Fig. 4 Terrain Elevation differences

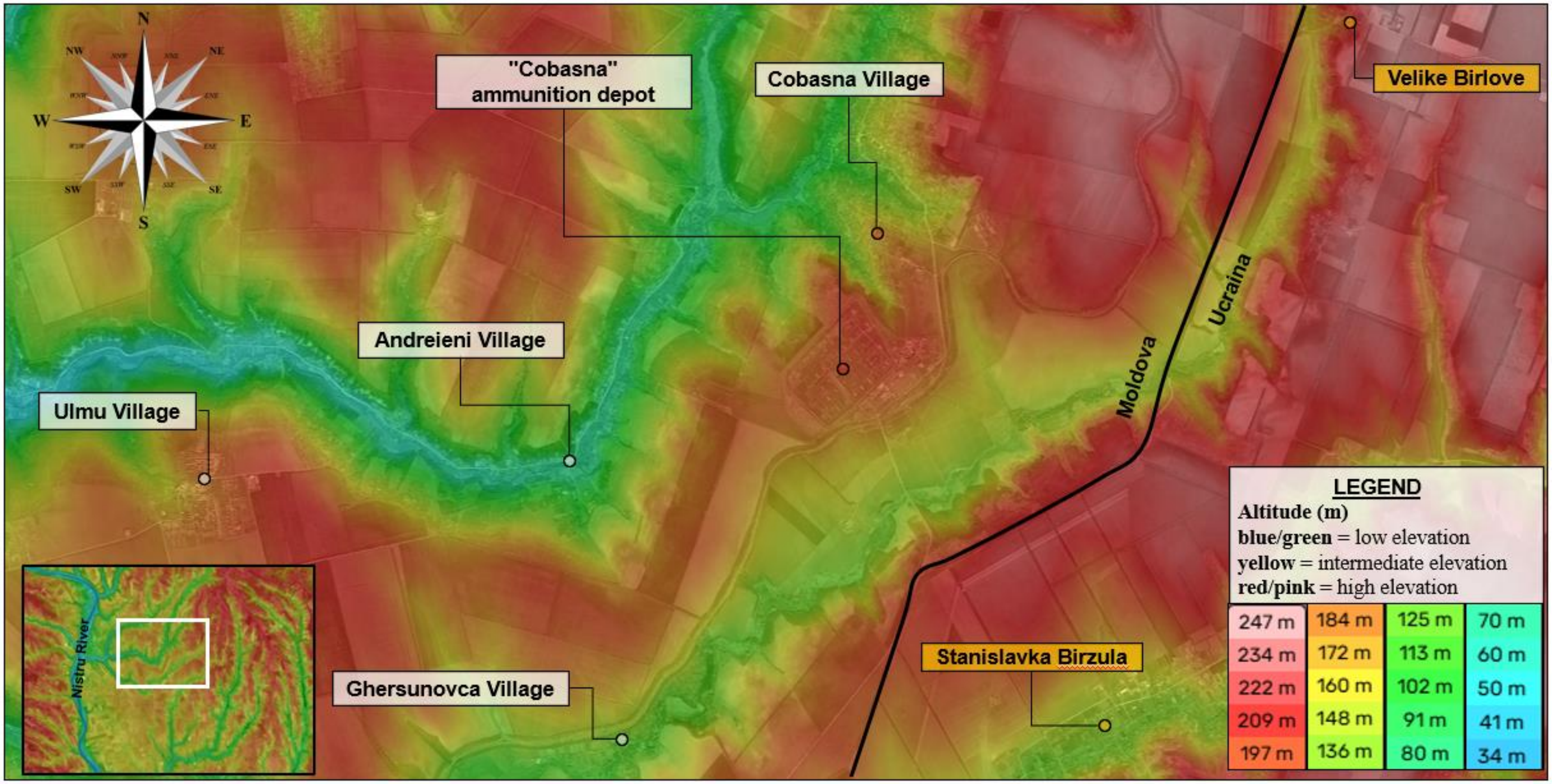


Fig. 5 Location of settlements and distances from the Cobasna Depot

5. REALISTIC CONSEQUENCES OF THE SIMULATED WORST-CASE SCENARIO

The worst-case, and also the most realistic, scenario (Figure 6) is based on an assessment of explosion effects conducted in accordance with the UN SaferGuard Blast Damage Estimation methodology. Under this methodology, the assessment is based on a user-defined equivalent free-field explosion and is intended to estimate the direct effects of the blast wave on people and structures.

Under real-world conditions, an ammunition depot does not behave as a single homogeneous mass of explosive material (TNT)[7]. Storage structures contain different types of ammunition, packaging, metal components, void spaces, and projectiles that may burn, detonate partially, or generate secondary explosions. The design of the depot structures also attenuates blast-wave propagation and reduces external explosion effects.

Consequently, the actual effects on neighboring areas are generally less severe than those estimated using the equivalent free-field explosion model. This model does not account for the shielding effects of structures, protective barriers, fragments, or structural debris.

Experience from incidents at ammunition depots indicates that explosions generally develop progressively and are accompanied by fires, secondary detonations, and fragment ejection, rather than the simultaneous detonation of the entire ammunition stockpile.

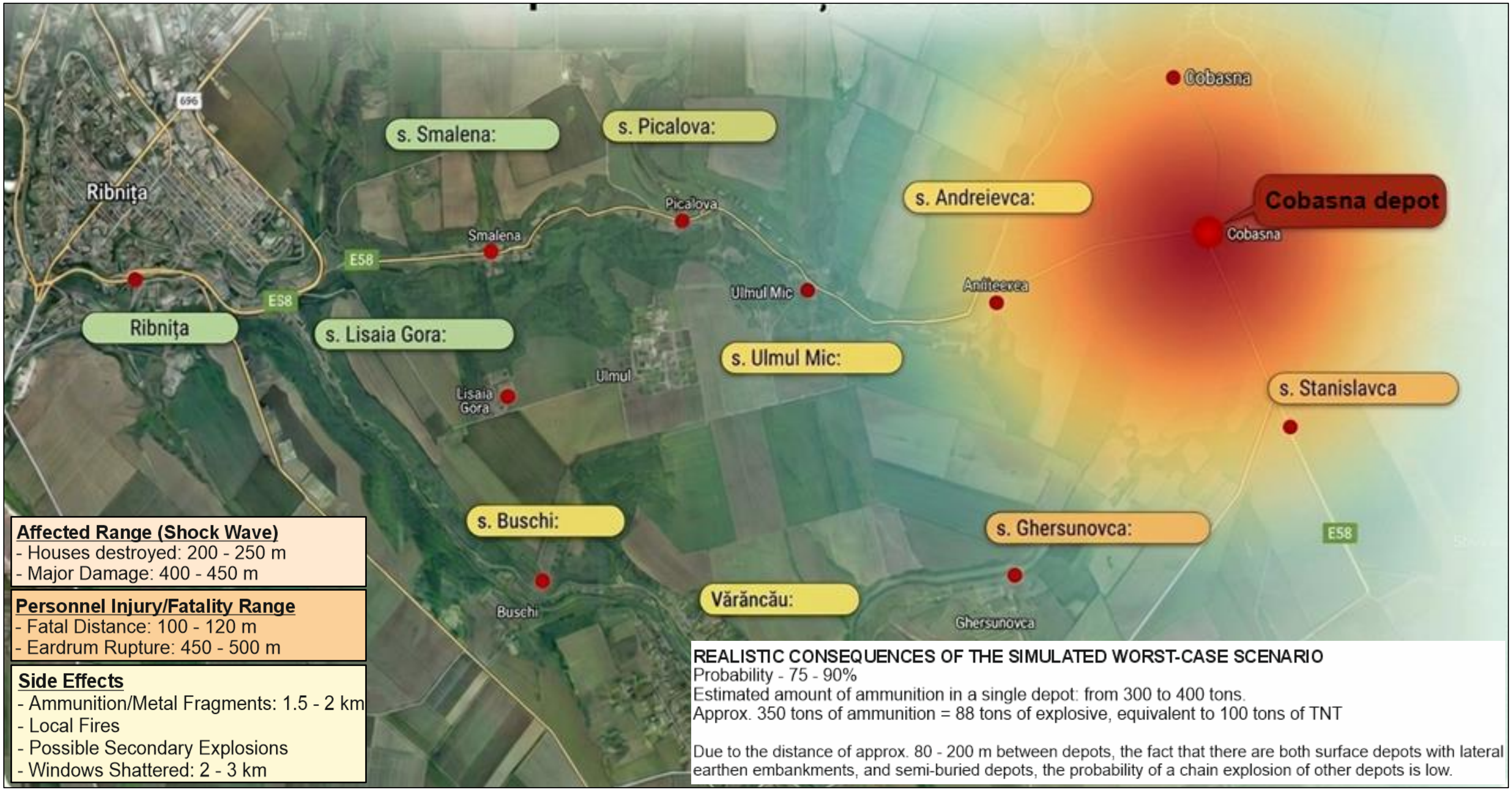
The blast wave would propagate in all directions and rapidly lose intensity. Its effects would be attenuated by the depot fortifications, while the terrain and elevation differences would disperse the energy and limit the impact on populated areas. Fire could spread gradually from one storage structure to another. However, the separation distances and existing natural and man-made protective measures (Annex No. 5) would confine major damage to a radius of up to two kilometers.

Nevertheless, the primary hazard would remain the dispersal of ammunition components, metal fragments, and infrastructure debris over distances of up to two kilometers, as well as air pollution, which could have minor adverse effects on the population and the environment.

In conclusion, although the incident would generate repeated explosions and fires, its effects would remain localized and would not endanger the entire area.

[7] Trinitrotoluene (TNT) is an odorless, yellow solid widely used for military and industrial demolition purposes. Due to its stability - it does not readily detonate following accidental impact - and its low melting point, TNT can be easily cast and shaped into various forms.

Fig. 6 Explosion impact analysis



6. FALSE NARRATIVES AND COUNTERARGUMENTS

On April 21, 2026, Sergei SHOIGU, Secretary of the Security Council of the Russian Federation, stated with reference to the Cobasna military depot that “most of the munitions are old and dangerous.” He also suggested that the depot had the potential “to cause a regional environmental disaster and numerous human casualties.”

A 2005 study conducted by the Academy of Sciences of Moldova stated that an explosion of the munitions stored at Cobasna could have a yield comparable to “a 10-kiloton nuclear explosion, similar to the Hiroshima explosion in 1945,” and could cause “a magnitude 7.5 earthquake on the Richter scale.” The report was widely cited and disseminated at the time by Russian news agencies and, in subsequent years, by other media platforms. Even if an explosion occurred at the Cobasna depot, would it actually have the explosive yield of a nuclear bomb? **The simulation and assessment results demonstrate that this claim is false, as shown by the following arguments.**

Argument 1: Confusion Between Total Ammunition Mass and TNT Equivalent

Claims of a potential disaster comparable to a nuclear explosion disregard the difference between the total mass of the munitions and the actual mass of their explosive content. The Hiroshima bomb had an explosive yield of approximately 15 kilotons, equivalent to 15,000 metric tons of TNT-1,500 times greater than the most powerful conventional munition. Conventional munitions contain only a fraction of explosive material relative to their total mass. Artillery projectiles typically contain an explosive charge representing approximately 14–17% of their total mass, while the proportion in aerial bombs rarely exceeds 30–40%.

Consequently, at a depot storing different types of ammunition, the net explosive quantity (NEQ)[8] is several times lower than the gross mass of the stored munitions. For this claim to be valid, the equivalent of 1,500 conventional 10-metric-ton bombs, such as the Soviet FAB-9000 aerial bomb, would have to detonate simultaneously at the same location. This is impossible at the Cobasna depot.

[8] Net Explosive Quantity (NEQ) is the actual total mass of explosive material contained in a device, munition, firework, or package. This value excludes the weight of any external packaging or casing and is calculated solely based on the active explosive substance.

Argument 2: Ammunition Storage Principles Reduce the Risk of Simultaneous Detonation

Ammunition depots are specifically designed to limit explosion propagation and the risk of mass detonation. Ammunition storage safety standards include measures such as the physical separation of stockpiles, compartmentalization, segregation by category, the use of protective barriers, and the distribution of munitions among separate storage units. Although the Cobasna depot dates from the Soviet period and its standards may differ partially from NATO standards[9] and the recommendations set out in the International Ammunition Technical Guidelines (IATG)[10], the fundamental safety principles of dispersal, isolation, and propagation mitigation are universal for military infrastructure of this type. Therefore, even in the event of an incident involving the storage or handling of munitions, the most likely scenario would involve sequential, intermittent detonations accompanied by a spreading fire, rather than a mass, simultaneous explosion.

Argument 3: Recent Explosions and Incidents Refute the Nuclear-Equivalent Explosion Narrative

Experience from similar incidents (Figure 6) in Bulgaria, the Czech Republic, Ukraine, and the Russian Federation provides a relevant practical basis for assessing the risks. In all these cases, the depots involved contained substantially larger quantities of munitions than the estimated stockpile at Cobasna.

None of these incidents involved a single, simultaneous detonation. Instead, the observed effects followed the same pattern: an initial fire, repeated explosions over several hours or days, and the dispersal of munitions and fragments.

Even the scenarios documented by ENVSEC/OSCE in connection with the study conducted by the Academy of Sciences of the Republic of Moldova include the caveat that the simultaneous detonation of the entire complex is unlikely.[11]

For example, the depot near Balakliia, Ukraine, which exploded in March 2017, was one of Ukraine's largest ammunition depots. Following the explosion, residents of adjacent settlements were evacuated without any casualties. Detonations continued for several hours

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[9] AASTP-1, NATO Guidelines for the storage of military ammunition and explosives, November 2025.

[10] https://data.unsaferguard.org/iatg/en/V3_IATG-01.10_en.pdf

[11] https://zoinet.org/wp-content/uploads/2018/01/ENVSEC-EE_eng.pdf

and eventually developed into isolated fires. The observed effects did not correspond to a single-detonation model. Instead, they followed a pattern characterized by initial fires, repeated explosions over several hours or days, and the dispersal of munitions and fragments.

Fig. 6. Comparative table of explosions at similar military depots

Location	Lovnidol (Bulgaria)	Vrbětice (Czech Republic)	Balakliia (Ukraine)	Ichnya (Ukraine)	Toropets (Russian Federation)	COBASNA
Date of incident	November 12, 2011; EMCO depot near Lovnidol	October 16 and December 3, 2014; two ammunition depots in Vrbětice	March 23, 2017; Ukraine's largest ammunition depot, located at Balakliia	October 9, 2018; Ministry of Defense depot	September 18, 2024; 107th GRAU Arsenal, Toropets, Tver Region	
The amount of ammunition stored	Unknown	Approx. 69 metric tons	**Approx. 138,000 metric tons**	**Approx. 88,000 metric tons**	**Approx. 30,000 metric tons, including missiles, guided bombs, and artillery ammunition**	Approx. 14,000 metric tons
Cause of the incident	Sabotage	Sabotage	Possible drone attack	Possible sabotage; initial explosions occurred at different points within the depot	Drone attack	Possible cause: accident, sabotage, or deliberate detonation initiated internally or externally
Casualty	No casualties reported	2 casualties	2 civilian casualties, including 1 fatality	No casualties reported	No fatalities reported; 13 people hospitalized	
Consequences	The depot and an undetermined quantity of munitions were destroyed.	451 secondary explosions; the most powerful cumulative episode involved 115 metric tons of explosives.	The depot was completely destroyed; munitions were dispersed into the city and surrounding areas.	Explosions occurred at a rate of 2–3 per second; the fire was fully extinguished by October 24, 2018.	An "earthquake blast"-type shock wave; estimated explosive equivalent of 200–240 metric tons.	

Argument 4: Ammunition Depot Siting Standards Prevent Chain-Detonation Propagation

Ammunition depot siting standards are designed to limit chain-detonation propagation through the physical separation of infrastructure and control of the storage environment.

Storage facilities are placed in separate areas according to hazard categories and compatibility groups, at prescribed safety distances, within individual structures or bunkers, or in compartmentalized areas. This allows explosion effects to be absorbed or vented upward before affecting other storage facilities. Siting standards[12] account not only for the explosion itself but also for structural fragmentation. The distances between storage facilities are calculated so that debris generated by a potential detonation does not retain sufficient kinetic energy to penetrate the walls of neighboring structures or bunkers. Protective features such as earthen berms, blast walls, and the controlled orientation of structures significantly reduce the effects of the blast wave and fragmentation.

7. CONCLUSIONS

Although the Cobasna depot poses a risk to residents of the Republic of Moldova and Ukraine living in settlements near the site, the scenario of an explosion equivalent to a nuclear bomb belongs more to the realm of myths and alarmist rhetoric than to technical reality.

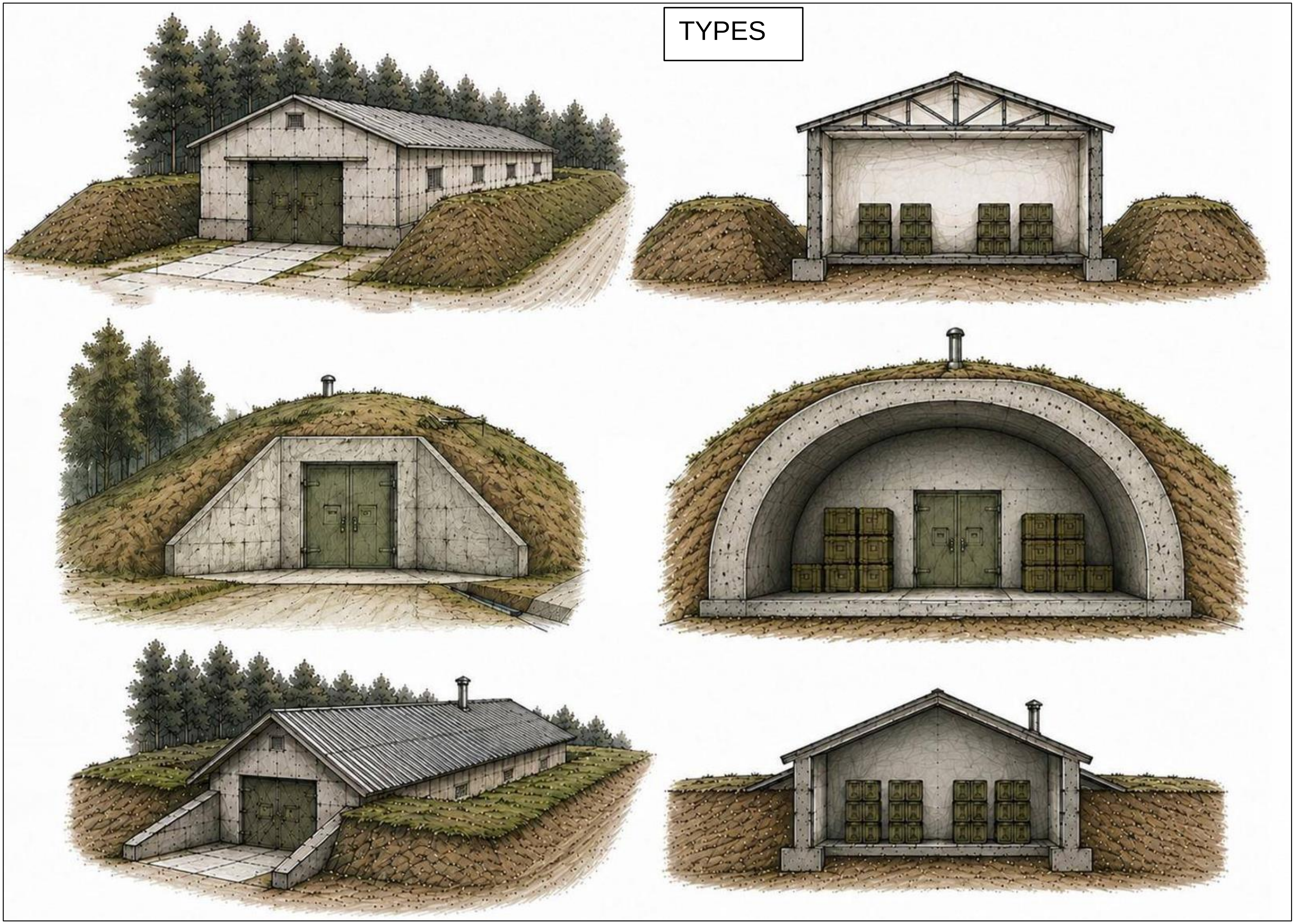
This report provides compelling evidence that the Cobasna depot does not pose a significant risk in terms of the consequences of a potential explosion. Based on the types and volume of munitions stored at Cobasna, the analysis indicates that the probability of an event with widespread effects is low. The technical characteristics of the munitions, their storage configuration, and the energy dispersion provided by the infrastructure **preclude the simultaneous detonation of all 42 storage facilities.**

However, speculation and manipulation concerning the depot are exploited by the Russian Federation for political and information purposes as an active instrument of hybrid warfare. Official Russian messaging over the past ten years reveals a consistent pattern: whenever the Republic of Moldova advances in its relationship with the European Union, alarmist statements emerge concerning an alleged major threat at Cobasna. This indicates that the issue is being used as an instrument of pressure and intimidation.

The situation at the Cobasna depot should therefore be treated as a manageable risk rather than a large-scale threat. The priorities are the gradual reduction of the stockpile, an independent inspection of the depot, strengthened physical security, and continuous monitoring - not the amplification of disproportionate and false scenarios.

[12] AASTP-1, NATO Guidelines for the storage of military ammunition and explosives, November 2025.

Annex No. 1




UNDERGROUND STORAGE FACILITY (BUNKER)
1/05
1/07
N-1


UNDERGROUND STORAGE FACILITY (BUNKER)

Annex No. 1.3

Annex No. 1.4

Annex No. 1.5

Annex No. 1.6

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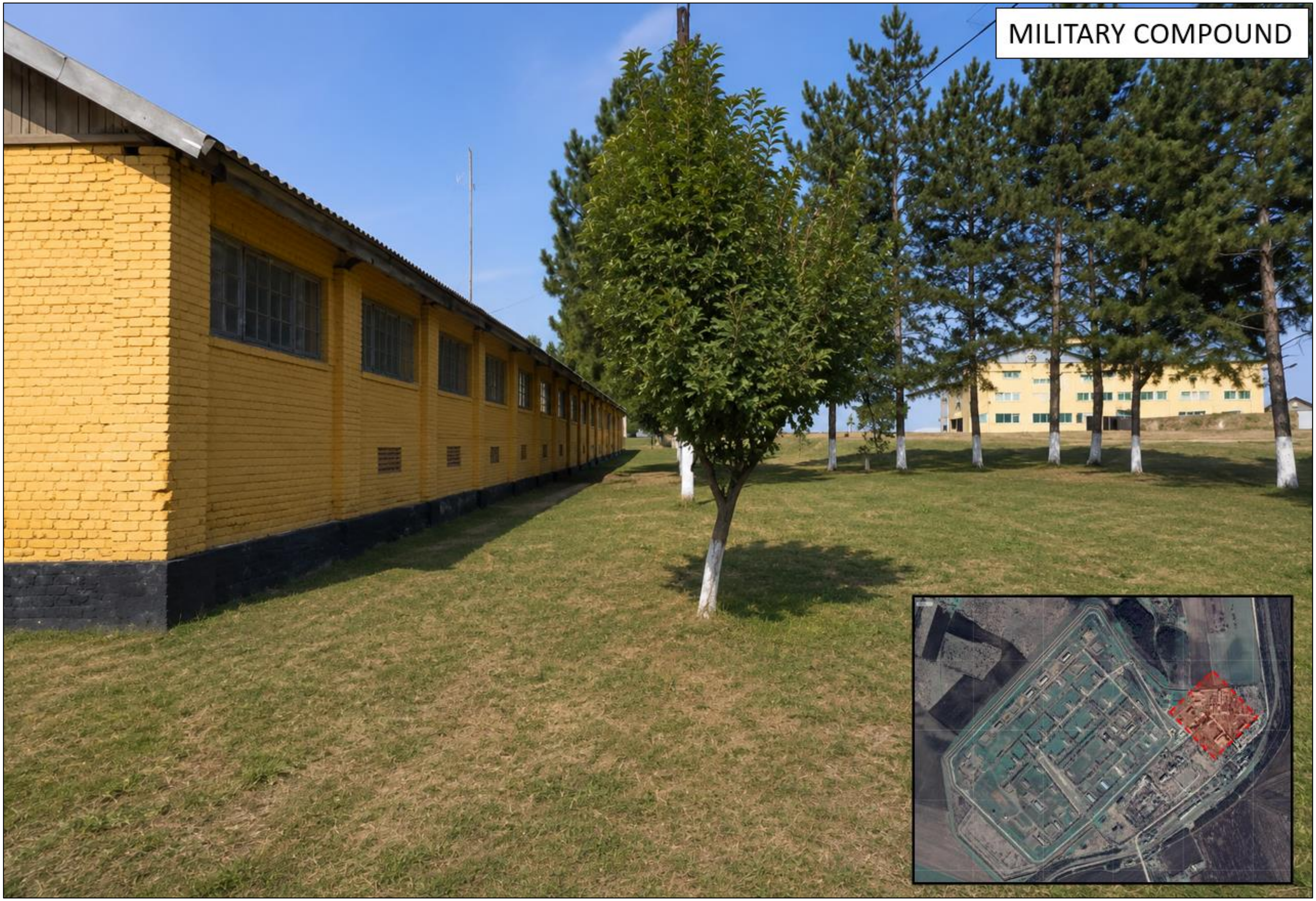
Annex No. 2

Annex No. 2.1


MILITARY COMPOUND

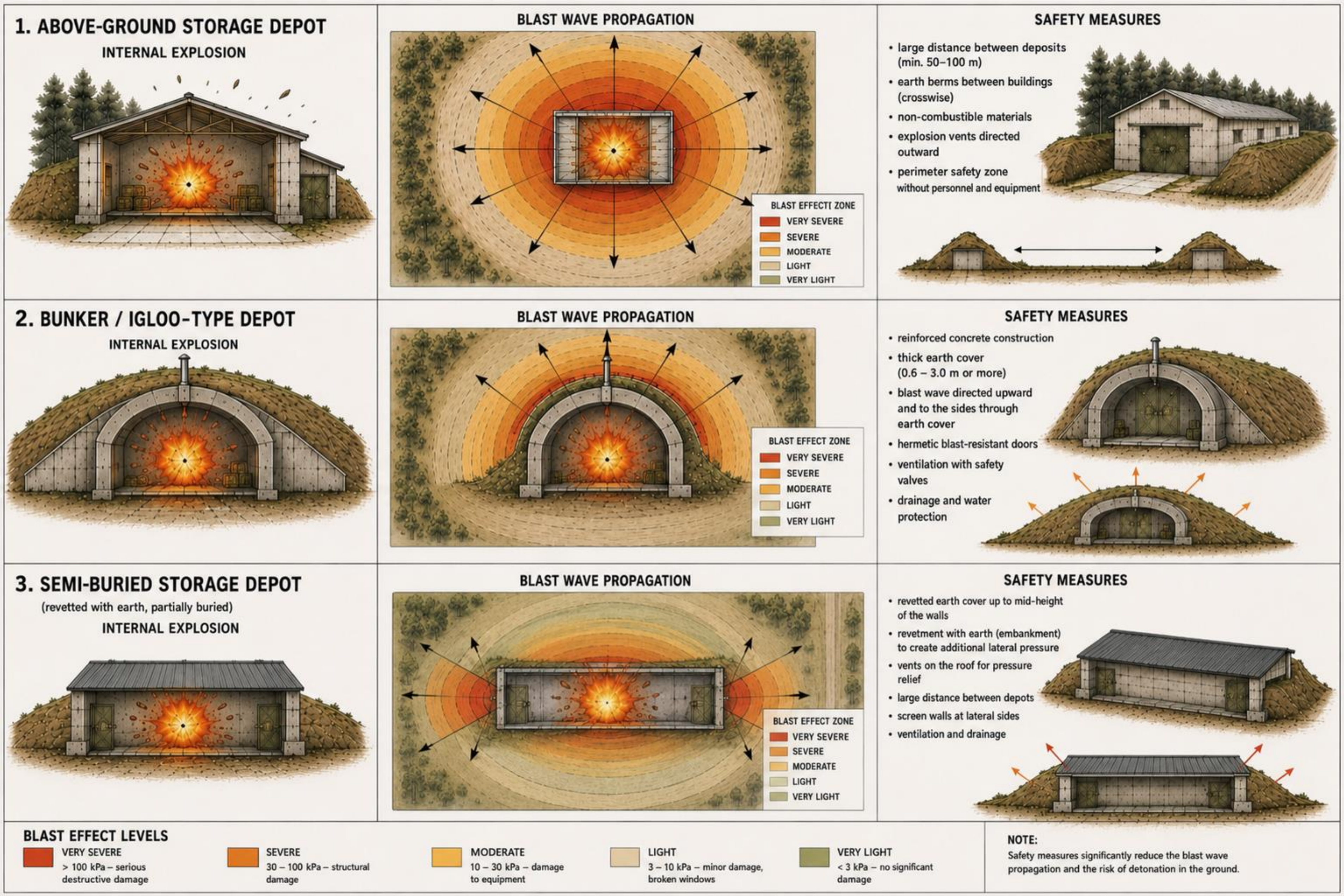
Annex No. 3.1



Annex No. 3.2


ACCESS CONTROL POINT
СТОЙ
ПРЕДЪЯВИ БАГАЖНИК И
САЛОН К ОСМОТРУ
ВС
РФ
КОНТРОЛЬНО-
ПРОПУСКНОЙ ПУНКТ

Annex No. 4


1. ABOVE-GROUND STORAGE DEPOT
INTERNAL EXPLOSION
BLAST WAVE PROPAGATION
BLAST EFFECTI ZONE
VERY SEVERE
SEVERE
MODERATE
LIGHT
VERY LIGHT
SAFETY MEASURES
• large distance between deposits (min. 50–100 m)
• earth berms between buildings (crosswise)
• non-combustible materials
• explosion vents directed outward
• perimeter safety zone without personnel and equipment
2. BUNKER / IGLOO-TYPE DEPOT
INTERNAL EXPLOSION
BLAST WAVE PROPAGATION
BLAST EFFECT ZONE
VERY SEVERE
SEVERE
MODERATE
LIGHT
VERY LIGHT
SAFETY MEASURES
• reinforced concrete construction
• thick earth cover (0.6 – 3.0 m or more)
• blast wave directed upward and to the sides through earth cover
• hermetic blast-resistant doors
• ventilation with safety valves
• drainage and water protection
3. SEMI-BURIED STORAGE DEPOT
(revetted with earth, partially buried)
INTERNAL EXPLOSION
BLAST WAVE PROPAGATION
BLAST EFFECT ZONE
VERY SEVERE
SEVERE
MODERATE
LIGHT
VERY LIGHT
SAFETY MEASURES
• revetted earth cover up to mid-height of the walls
• revetment with earth (embankment) to create additional lateral pressure
• vents on the roof for pressure relief
• large distance between depots
• screen walls at lateral sides
• ventilation and drainage
BLAST EFFECT LEVELS
VERY SEVERE > 100 kPa – serious destructive damage
SEVERE 30 – 100 kPa – structural damage
MODERATE 10 – 30 kPa – damage to equipment
LIGHT 3 – 10 kPa – minor damage, broken windows
VERY LIGHT < 3 kPa – no significant damage
NOTE:
Safety measures significantly reduce the blast wave propagation and the risk of detonation in the ground.

Annex No. 5