

IMPROVISATION DURING MANUFACTURING MINE EXPLOSIVE ORDNANCE AND CONTROL OF PRECURSORS AS AN ELEMENT OF STATE SECURITY

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Abstract: Contemporary society is permeated by conflicts in all segments, new warfare techniques are inevitably introduced, the goal is to keep the opposing side in a constant state of tension and readiness. Stakeholders resort to different ways of fighting, starting from conventional, through guerilla methods and up to terrorist activities. Actions under a "false flag" as well as spontaneous terrorism are a special item. One of the points of contact of all the mentioned forms is the lack of material resources, resorting to improvisation when making explosive ordnance, needed for the realization of certain tasks. For the successful production of the mentioned means, good knowledge and the materials from which they will be made are needed. Materials that can be used to make improvised explosive devices can be found on the free market, these materials are called explosive precursors. One part of this paper deals with improvised explosive devices (IED). The second part of the paper deals with precursors and legal regulations related to the control of production and circulation of these items in the EU and the Republic of Serbia as an important element of security.

Key words: improvisation, IED, training, precursors, control

1. INTRODUCTION

Modern times, huge progress of civilization, but what is the price to pay?

The price is expressed in the spilled blood of innocent people, destroyed nature and stolen natural resources. A common example is organizing various actions for the purpose of destabilization or achieving their own goals. Instead the progress of civilization being reflected in prosperity, it is reflected in constant conflict, whether it is wars or terrorism. In order to send a message and destabilize countries or regions, explosive ordnance used very often, due to their effect on the masses. The abuse of explosive ordnance is characteristic during terrorist activities, or the execution of actions under a "false flag", in both cases it is about improvised devices manufactured in the homemade. The aim of this work is to show the possibilities for

improvisation when making IED, to indicate possible precursors, and to pay attention to the control of precursors. According to the EU Regulation, precursors are substances and mixtures that can be misused for the illicit production of explosives and that can be found on the free market (EU 2019/1148). We distinguish „Restricted explosives precursor” and “Regulated explosives precursor”. Restricted explosives precursor means a substance listed in Annex I that is at a concentration higher than the corresponding limit value set out in column 2 of the table in Annex I, including a mixture or another substance in which a substance listed in that Annex is present at a concentration higher than the corresponding limit value. Regulated explosives precursor means a substance listed in Annex I or II including a mixture or another substance in which a substance listed in those Annexes is present, excluding homogeneous mixtures of more than 5 ingredients in which the concentration of each substance listed in Annex I or II is below 1% w/w (EU 2019/1148).

2. IMPROVISIZATION DURING MANUFACTURING MINE EXPLOSIVE ORDNANCE

Due to the execution of certain tasks with the use of explosive ordnance, the problem of limited resources or the impossibility of procurement on the market or on secret channels often arises. This conditions the need for improvisations when making explosive ordnance and mines. Untrained and uneducated subjects must not be engaged in this work. That is why in some units in the military and police structures, topics related to improvised mines and booby traps are dealt with. In order to use that knowledge during armed conflicts, and in peacetime conditions to use the acquired knowledge and experience to remove improvised devices. Improvised mines and Mine explosive ordnance are ordnance that are most often made by hand on the spot or in a homemade, from the ordnance that are available at a given moment (Seckovic V, 1972). These ordnance do not have to look like formational ordnance, but they can be the same or more destructive in terms of effect. All Mine explosive ordnance in the form of mines consist of some basic parts: fuse (mechanical, chemical, electrical or electronic), a detonator, an explosive charge, and a body (or elements that will throw off the explosive). When making improvised ordnance, there is a possibility of partial use of formation ordnance and the rest is improvised, another possibility is to completely improvise all ordnance. In order to get a better picture, all elements of improvised ordnance will be processed individually.

3. FUSES

The purpose of the fuse is to provide the initial impulse when activating the explosive chain. Fuses can be distinguished according to the principle of action: mechanical, electrical, chemical and a combination of the aforementioned methods (Seckovic V, 1972). With the development of technology and techniques, the cheap acquisition of various technical devices has been facilitated, they can be used or adapted for the successful activation of explosive devices. It is known that terrorists have perfected the technique of using mobile phones as fuses when carrying out terrorist acts. In addition, various portable computers were used to make explosive devices, especially in air traffic (Stankovic V, Stojakovic G, summer 2014). Various timers, communication devices or children's toys can also be used as fuses, which opens up a wide range of cheap fuses, which cannot be traced during investigations, and also import and traffic control cannot be carried out.

4. DETONATORS

Detonators are one of the most complex parts, especially because of their sensitivity to external influences. They are most often purchased in their original form, and they are rarely made at home. It is very risky to make and install an initial explosive. The process of synthesizing these explosives is very sensitive and it is difficult to ensure safety (Maksimovic V. Petar, 1981,

103-126). For the successful production of improvised Mine explosive ordnance, the safest way is to acquire original parts, whether they are detonators or electric detonators (Skarec Zeljko, 1979), or, more rarely, nonel systems. The acquisition of these items is a criminal activity, theft from mines, quarries, military or police warehouses and factories that manufacture these items.

5. EXPLOSIVES

Explosive substances (explosives) can be defined as metastable chemical systems (compounds and mixtures), capable of changing very quickly to a more stable condition under the influence of external influences (impulses), during which a large amount of energy and gaseous products are released, which are in a position to make a work on the environment in the process of expansion (Bajic Z, 2015).

Based on their characteristics (physical-chemical, explosive) and application in practice, explosives and explosive substances are divided into (more in Bajic Z, 2015):

- initial (primary);
- high explosive (secondary);
- propellant explosives;
- pyrotechnic mixtures

Explosives of all kinds are often used to make improvised devices, some can only be mixed with other explosives, some can be synthesized at home (Maksimovic V. Petar, 1981), and some can be made from non-explosive materials, which can be bought at the market. (so-called ANFO explosives). Commercial explosives can also be used (Jeremic R, 2/2006), compared to military explosives, they usually have a less explosive effect, but still enough to achieve the goal. The most frequently used explosives for carrying out terrorist attacks were plastic explosives from different manufacturers, or one type of ANFO explosive composed of artificial fertilizer and fuel oil (Skarec Zeljko, 1979). How prone artificial fertilizer is to detonation under certain conditions, an example is the detonation of a large amount of ammonium nitrate-based artificial fertilizer in Beirut on 08/05/2020. (<https://vuv.bbc.com/serbian>). In addition to the already mentioned possibilities, explosive is possible to provide from various mines (anti-personnel mines, anti-tank mines), mortar missiles, tank or artillery missiles, aerial bombs. Especially if an armed conflict was taking place in a certain territory or in the surrounding area, the acquisition of these items is facilitated.

6. BODY OF EXPLOSIVE ORDNANCE

The body of the explosive ordnance has the task of connecting the entire assembly into one functional unit. The most common role of the body is to explode due to the action of explosives and cause losses with its pieces (shrapnel). The body can be made of plastic, steel, wood or other available materials. A special place is occupied by the vests that are made for suicide bombers, instead of the body, they have packed explosives together with metal elements that are glued directly to the explosives in order to be thrown away. If formation mines, bombs and grenades are used, they already have a body that protects the explosive, and its basic purpose is also to explode and cause losses with its pieces. Binary explosives and explosives that consist of multiple elements as a body can even use the container in which they are mixed. This is current in acts related to air traffic, it is also the reason why airlines have prohibited bringing large quantities of certain substances in hand luggage (Stankovic V, Stojakovic G, summer 2014).

Taking all of the above into account, it is clear that today's technique and technology provide favorable conditions for obtaining the components needed to make an improvised explosive device that can endanger human lives. Such devices can have two effects, firstly they can endanger the one who makes them if he is not trained enough, and secondly they can endanger the one for whom they are made. Regardless of the threat, explosive devices will continue to be a source of danger in the future. They can be used for various manipulations of the masses and creating general insecurity, as evidenced by the large number of terrorist attacks around the world. Explosives are very suitable for creating fear in people, and it is known that throughout history, fear was one of the main factors that directed the course of history. The forerunners of the terrorists saw this in time, thus Hasan ibn el Sabah (1034 - 1124), the creator of the sect of assassins, realized in time how easy it is to manipulate the frightened masses, and he based his work on that. His guiding thought and the guiding principle of all other terrorists was "Fear is effective only if it is great and if it is constant". (Simeunovic Dragan, 2009, Terorizam). This is also followed by modern terrorists, only they have much more opportunities to create such fear, development in all spheres of society has given many opportunities. The most effective way is the use of explosives, they create terrible images after the effect, which through the media very quickly get on the ether and into the subconscious of the observer. This is the reason to implement rigorous control and ensure the safety of the individual and the state.

7. ITEMS THAT CAN BE USED FOR THE MANUFACTURE OF EXPLOSIVE SUBSTANCES - PRECURSORS

It is known that explosive substances are most often complex compounds that, under certain conditions, pass from an unstable state to a stable one, releasing a large amount of heat and gases (this process is called an explosion or detonation depending on the speed of the reaction). Most explosives are obtained under strictly controlled conditions, but some can be made at home. An example is ANFO explosives, which require ammonium nitrate, coal dust and diesel fuel (Maksimovic V. Petar, 1981). All these components can be found in free market, and in principle, as long as they are not mixed in certain quantities, they do not pose a danger.

Some of the basic components for making explosives are: concentrated nitric acid, concentrated hydrochloric acid, ethanol, mercury, lead nitrate, lead acetate, concentrated acetic acid, sodium hydroxide, hexamethylenetetramine (urotropin), acetone, sodium carbonate, glycerin, ethylene glycol, phenol, ammonium nitrate, potassium chlorate, sodium chlorate (Maksimovic V. Petar, 1981). Most of these components are not intended only for making explosives, they are found in a large number of devices used in the home or in commercial activities. Elements that can be found on the free market and that can be used to make explosives and explosive devices are called explosive precursors. In the Republic of Serbia, there is currently no legislation that regulates which precursors and in what quantity are subject to reporting to the competent authorities. Partial control of the procurement and import of precursors is carried out at customs, the document that regulates the work is the Decision on establishing the national control list of dual-use goods ("Official Gazette of RS", No. 18/2018). In this way, the import and procurement of certain elements is only partially regulated.

In the European Union, due to the terrorist threat, this problem has been recognized and efforts are being made to introduce order in the trade and market of certain substances, for example, in the Republic of Croatia, petrochemistry have the task of recording to whom and in what quantity they deliver their products (Petrohemija, 13). With its Regulation (2019/1148) on the placing on the market and the use of explosive precursors, the EU gave its members guidance on how to act and what should be included in the legislation, for the best possible control of precursors and risk reduction. The annexes to the regulation contain a list of substances, in

Annex 1: List of substances that are not made available to individuals, nor can they be possessed or used as such, unless their concentration is less than or equal to the values given in the table. Any suspicious transactions or disappearance must be reported within 24 hours. Annex 2: List of substances as such or in mixtures for which suspicious transactions or significant disappearances and thefts must be reported within 24 hours (Regulation EU 2019/1148). This Regulation regulates the procedures and obligations during control, and the member states are given the authority to form authorized bodies for the control of the traffic of precursors throughout the territory.

8. CONCLUSION

The interests of the great or the response of the weak in the eternal conflict. Acting under a "false flag", carrying out terror or committing terrorist acts have a common feature (indiscriminate action using explosive devices). Why explosive devices? The answer to that question lies in the very core of the mentioned actions, they are theatricality and a psychologically strong message, which, due to the availability of media, is very quickly transmitted over long distances and to a large number of people. Explosives leave very impressive effects by their action, and are relatively easily available from various sources. One of the sources is described in this work, an improvisation that is done in case of shortage or lack of necessary funds. Explosives can be partially or completely improvised and made on site from available resources. Most of the terrorist acts were carried out with improvised explosive devices, where explosives of the ANFO type in combination with other explosives (car bombs), as well as plastic explosives (bomber vests and bombs in air traffic) are leading the way. The methods of activating explosive devices have reached a worrying level with the progress of technology, the availability of content on the Internet opens up a new sphere, spontaneous terrorism (Simeunovic Dragan, 2009, Terrorism). Anyone can with a little effort make an improvised explosive device and use it, with more or less success.

Due to the events of the previous period and the constant threat of terrorism on its territory, the EU passed a regulation regulating the traffic of explosive precursors. Based on the regulation, member countries should harmonize their legislation for the sake of common security. In the region of the Republic of Serbia, a lot of work is also being done to adjust the legislation in order to implement the provisions of the EU Regulation. Republic of Croatia has made the most progress in its domain, they adopted Law of implementation of Legislation (EU) 2019/1148 and the market and use of precursor of explosive, and amendment Legislation (EU) 1907/2016 and out of force Legislation (EU) 98/2013 and entry into force date 03.04.2021.

Given that there were no terrorist acts carried out with explosive devices in the Republic of Serbia, and EU regulations do not have a binding character, the issue of precursors has not been elaborated in detail. Precursor traffic is partially regulated by customs regulations, but internal traffic is not regulated. The danger to security in the Republic of Serbia due to possible misuse of precursors is evident. Looking at the possibility of acquiring and using precursors, without the control of the state and authorized state bodies, the question arises when someone will abuse it. With this approach, the overall security of the Republic of Serbia is called into question. One of the solutions, considering that it is striving to enter the EU, on the basis of the EU Regulation, adapt the legislative system to the prescribed provisions and Roadmap for a sustainable solution to the illegal possession, misuse and trafficking of SALW and their Ammunition in the Western Balkans by 2024. Also, at the level of the Republic of Serbia, a body should be formed that will collect information, carry out controls and educate all participants (producers, traders and users of precursors). One of the possible authorities with territorial jurisdiction may be the Mine Action Centre of the Republic of Serbia, given that

mine action are under its jurisdiction. Given that mine action is under of jurisdiction the Mine Action Centre of the Republic of Serbia, a part of the Centre could deal with prevention, and training (staff, other participants in the production, circulation and use of precursors). In this way, prevent action will be achieved and will raise awareness about all relevant data to the security of the Republic of Serbia regarding the mine explosive ordnance, whether they were left over from the conflict or there is a possibility that they could be misused. The safety of the Republic of Serbia and every one of its inhabitants is imperative, an important item in all of this is the establishment of precursor control on the entire territory.

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