

## Complex counter explosive examination in investigations of the acts of terrorism accomplished with the use of explosive devices

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**Abstract.** The questions of perfection of detection, fixing and withdrawal of explosives and explosive devices, their parts, setting of legal examination on the fact of act of terrorism by using of explosive devices are considered in the article. The features of setting of complex explosives expertise are reflected at investigation of crimes of a terrorist character accomplished by explosions. Set of measures of law enforcement authorities is considered on counteraction to terrorism.

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### Introduction

In recent times of development of society struggle against terrorism gets increasing value. Special danger of terrorism is conditioned by that a feaance even of single acts inflicts serious harm to vitally important interests of not only individual but also society and state on the whole. Trenching upon the higher value of any civilized society – man's life, terrorists get the real possibility of providing of criminal influences on such society, on population of region or country, public authorities with the purpose of acceptance by them appropriate decisions.

In dynamics of terrorism at the end of XX - beginning of XXI century are traced clear tendencies which studying has important value, as for understanding of terrorism role as global threat to humanity and for scientific development of measurement system necessary for effective fight against it.

Scientists distinguish different kinds of terrorist displays including: political, criminal, nationalistic, air, international, ideological, ethnic, religious, individual, state, military, peaceful, mercenary, criminal, idealistic and other [1]. In some sources we can find different typologies of terrorists [2]. Specialists count more than 20 types of terrorism: from prison to computer. Various kinds of displays of terrorism can be classified on different bases: on volume actions (to scale); by character consequences; aims (orientation of actions); to reasons [3]; to quantity and organization of participants also on their psychological health; used tools, methods, financial assets and sources; on connection with official structures [4].

One of the first classifications of terrorism on the basis of damaging action of methods used in

criminal purposes presents dividing of terror into three basic kinds: chemical (with application of poison substances), physical (with application of cutting, fire weapons, explosive devices) and biological (with application of biological agents). Among tools used for realization of terrorist events distinguish: cutting weapon, firearms, explosives, poisoning substances, biological agents, radioactive materials, nuclear weapons, electromagnetic radiations [5].

Selection of different types of terrorism is important from the point of view of their professional deep study by corresponding specialists and in the aspect of purposeful adequate counteraction in compliance with awareness about the specific of its different displays and parties.

Acts of terrorism with the use of explosive devices in our view can be referred to the most dangerous varieties of terrorism, as in result of such actions the amount of crime victims and property harm can be essentially increased, including can be transformed into ruins of building, construction and other objects of life support, transport vehicles (aircraft and ships, objects of railway transport etc.) and other purposes are destroyed. At the present time during availability of technical equipment and information, manufacturing of explosive devices does not require considerable financial and material expenses. Opportunity of using of explosive devices with distant control and clockwork mechanism promotes safety of terrorists. In addition explosions are widely covered by mass media that has importance for achievement by terrorists of the aims.

It is necessary to note prevalence of concerned method of execution of terrorist act both in the world and in Republic of Kazakhstan. Before

terrorism in Kazakhstan was not considered as the real risk, concerned more to category of potential dangers. Accordingly the system of national safety was more focused on non-admission and prevention of other risks - interethnic conflicts, narcotraffic, economic threats, corruption etc. Situation changed in 2011, when a number of terrorist acts were accomplished. In all occurred cases terrorists rendered active armed resistance and terrorist act made by explosion. Each terrorist grouping had a certain arsenal of weapon. For example, well known Al-Qaida presently uses so-called "Body Bombs", explosives which can be implanted via injections. Such bombs would not be detectable to airport body scanner [6].

Among prominent features of the facts having a place are distinguished:

- presence of weapon and equipped of terrorists: made independently on the basis of Internet materials, hunting guns and homemade explosive devices, pistols, guns, grenades, grenade launchers and other arms and ammunitions to them;
- scales and methods of use by terrorists of the Internet resources: using the Internet contacted with arming and forming, studied materials whereby made explosive devices [7].

In all cases explosives and explosive devices came forward as objects of operational-search and inquisitional search, inspection, fixing, withdrawal, preliminary and forensic expert researches[8]. Accordingly at investigation of crimes accomplished using of explosive devices there are questions, for permission of that the special knowledge is needed. As analysis of law-enforcement activity shows the basic form of using of special knowledge while investigating criminal activities is production of legal examinations.

In accordance with legislation legal examinations are conducted in connection with investigation and consideration of criminal, civil and administrative cases, as a result of that new information that extends possibilities of cognitive process of investigation and court, allowing using all arsenals of modern scientific and technical facilities during investigation and trial cases.

Legal examination can be defined as proceedings which basic maintenance makes conducted on the task of legislative investigation or court person specially appointed by them and in certain law order research with the use of special knowledge with a view of proof reception.

Objects of examination are materialized sources of information determined by criminal procedure law, materials of criminal case [9]. When the object of examination does not suppose its familiarization to action by virtue of different

circumstances, expert leans against information about it, files contained in materials, in collected proofs (for example posthumous psycho-psychiatric expertise). Thus, for examination typically that as result of research one proofs is formed by other proofs.

Legal examinations classified on different bases. First of all on the knowledge sector or by special knowledge used for examining. On volume basis of examination researches are subdivided: on basic and additional; on structure of used knowledge: homogeneous and complex; At the place of realization: in law examination and out of law examinations; on the sequence of realization: primary and repeated

At investigation of act of terrorism with the use of explosive devices special value has assignment and production of complex examination.

Complex examination is the expert research, conducted for decision of frontier questions, contiguous for different kinds of examinations which cannot be resolved on the basis of one sector of knowledge (sort, type of examination). Such examination is usually conducted in regard to the same material evidences by few specialists presenting different branches of knowledge.

According to the procedural legislation complex examination is appointed when for establishment of circumstance mattering for affair needed research on the basis of different sectors of knowledge and conducted by experts of different specialties within limits of the competence.

Structural unity of object comes forward the main condition of complex examination - carrier of the properties used by persons versed in different areas of knowledge. Complex approach allows to create more complete picture of investigated object, than separate approaches.

Drawing on the complex (totalities) of methods is not complex examination within the framework of sort (kind) of legal examination, also researches of the same material evidences conducted simultaneously or in certain order by specialists of different profile if each of them operates independently within the limits of concrete sort of legal examination.

Complex examinations are divided on different kinds depending on character of branches of knowledge, which totality is used during researches. In decision about setting of complex examination it is specified the representatives of what branches of knowledge it should be executed.

Examples of complex examinations are medical-criminalistics researches of traces of shot on clothes and body of man (ballistic and medico-legal),

trace examination, vehicle and medico-legal researches and other.

For effective investigation of assassinations with use of explosive devices investigator should appoint complex counter explosive examination as at investigation of similar affairs there is a necessity for attraction of special knowledge from different branches.

This examination can include production of counter explosive, physic metallurgical, chemical, trace, technological and other types of researches in which specialists of different branches of knowledge can take part.

The subject of this type of examination makes a complex of the tasks resolved in regard to explosives, explosive devices and traces of their action with application of methods and technical tools making essence of the special knowledge in examination area of explosion traces. The circle of the found out in the process of examination facts, having evidentiary value and related to the circumstances of manufacturing, storage, establishment and application of explosive devices, is wide enough and determined by kind and character of examination objects.

To the objects of complex counter explosive examination belong:

- explosive devices (industrial and homemade manufacturing) their details, explosives, facilities of initiation and deceleration;
- tools used for manufacturing of explosive device, drafts, records, pictures;
- the rest of explosive and the traces of explosion, represented on subjects of environment;
- tests of soil and substances from the places of greatest destructions and tests of water and air, scrapes and washouts;
- clothes and vehicles, samples of substances and subjects, situation in place of incident etc.

The feature of complex counter explosive examination is circumstance that it decides not only identification but also classification, diagnostic, reconstruction, situational and other problems. To research both material evidences and subjects and proceedings (protocols of inspections, interrogations; scheme; video and photo documents) are exposed to.

Contents of legal examinations on matters about explosions is determined by character of investigatory situations. When a criminal is unknown and his active search is conducted there is a task before experts of establishment of constructive elements of explosive, their assignment, places of possible use and acquisition, source of making of professional skills and qualification of criminal in explosive affair area.

In other situation when the criminal is detained, with help of examination it is necessary to define likeness or distinction of explosives, means of the separate subjects and substances withdrawn with suspected or got another way that were used for explosion. Tasks of definition of group belonging and identification of tools and adaptations being used at making of homemade explosive, here are solved identification of person who made explosion.

In general on results inquisitional and expert practice and analysis of accessible sources can distinguish following groups of questions arising at investigation of similar affairs:

- on establishment of fact of application of explosive : whether there are traces of action of explosive on presented objects; whether there are damages which have been found out on a place of incident, by result of explosion of the special device; whether the presented objects are parts of details of explosive device;
- by definition of construction of the applied explosive : what explosive device was used for the production of explosion, its construction, form, sizes, way of manufacturing, principle of action, packing/masking; what is represented on withdrawn with suspected schemes and drafts, whether it is the image of explosive or details to it.
- on determination of corps (cover) of the applied explosive : what was used as a corps (shells); what his way of manufacturing (industrial, homemade); what appearance (form, sizes) had corps of explosive, from what material is made; whether there are fragments withdrawn from place of explosion (taken from the body of victim) by part of corps (shells) of explosive;
- on determination of kind and amount of used explosive: whether the substance presented on research is explosive; what type and brand it behaves to; which his properties are; whether had a charge of explosive any extraneous inclusions (grouts, salt, nails, shot etc.) whether it is suitable for explosion; what quantity of explosive was used for explosion; by what factory and in what area these explosives are issued and applied ;
- whether chemical composition and other descriptions of explosive applied at explosion are identical, and withdrawn with suspected.
- on determination of method and facilities of exposing : what method and means were used for injury of explosive; what chart of electric chain of explosive is; what was used as a source of current; whether slowing down device was used in an explosive device, if yes, then which principle of its action is
- on establishment of belonging of suspicious object : whether the good presented on research is an

explosive device, if yes, then which his chart and principle of action are;

- on establishment of likeness of constructions of different explosive and circumstances of explosions : what degree of likeness between explosive applied in place of incident and explosive which has been found out at suspected; what similarity between circumstances of preparation and manufacture of the explosions accomplished in different places and different times;

- on determination of professional skills and qualification of manufacturer of explosive and executor of explosion: what can be done suppositions about the profession of person making the explosive of his qualification etc.

At setting of complex counter explosive examination the special attention should be given to packing of subjects and substances, directed to research, maintenance of its integrity, that can affect reliability of experts conclusion.

To detection, withdrawal and packing of explosives and other objects, including explosive substances it is necessary to attract specialists of explosive affair. Explosives and initiation devices are subject to separate packing, storage and transportation, to eliminate dangerous external affecting them (impact, friction, heating) as a result of which there can be explosion.

Delivery on examination of explosive materials by mail sending or transportations in a public transport is strictly forbidden. They are delivered in expert institution personally on special transport. Non-observance of rules of handling explosive subjects can result not only in loss of objects of examination but also to accident.

Careful appeal is required also with subjects and different tests on which there can be micro particles of products of explosion of explosive. They must be placed in separate boxes and hardly to fasten in packing, to warn from impact, direct sun beams and moisture. Changing the primary packing of such objects is not recommended.

Inspector should not delay with assignment of complex counter explosive examination that can result in undesirable consequences as many explosives are chemically unstable, especially in trace amounts after explosion, owing to what at delayed assignment of examination or overdue direction of materials for research, their detection happens impossible.

Complex counter explosive examination can be successfully conducted only at presence of disposal of experts of full and reliable basic data. In this aspect key role plays carefully and professionally conducted examination on a place of incident, as a result it is possible to get a large amounts of information [10]. Meantime, the analysis of law

enforcement practice shows that inspectors own not enough requirements showed to volume and quality of basic data on which reliability of conclusion of the expert depends.

Advantage of complex counter explosive examination unlike assignment of few examinations under the act of terrorism consists in an opportunity to coordinate work of experts, carrying out it on a single plan using different methods in certain order. All this will speed up process of investigation of criminal cases and establishment of guilty persons.

Analyzing foregoing we deem it wise to carry out a complex measure for warning perfection, disclosing and investigation of acts of terrorism with the use of explosives:

- to limit on legal bases public information on manufacturing of explosives in social networks;

- systematic to carry out trainings of inspectors qualification improvement on work with objects and subjects, withdrawn from the place of incident on fact of terrorism, special courses for experts-criminalists;

- to use opportunity of experts participation in examination of place of incident with a further commission to them productions of corresponding examination. Expert personally participating in examination gets more information about occurred crime, what he can draw from protocol examination. This circumstance will allow to him in subsequent during examining, to answer the question more full;

- are estimations of the state of criminality and her quality

Prognostic estimations of condition of criminality and its qualitative changes allow supposing that in the nearest years can sharply increase the number of examinations of explosives. In this connection extremely actual direction in activity of expert subdivisions is training and expansion of possibilities of counter explosive examination.

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