БЕЗПЕКА ТА НЕРОЗПОВСЮДЖЕННЯ

SECURITY & NONPROLIFERATION

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Dear Reader,

At last, Ukraine is with a new President and a new government. The late 2004 events added a dramatic but extremely vivid page to the Ukrainian newest history and demonstrated to the outer world the birth of a genuine political nation. The people of Ukraine, to a big surprise of the ruling regime, displayed an ability to act as the source of power as set forth in the Constitution, to be an active subject rather than object of historical events. However, the excitement that gripped the bigger part of the Ukrainian society as a result of Viktor Yuschenko's victory bears certain social-political and economic risks. The point is that the expectations for radical economic and social life changes are set as high as never. The newly-formed government and regional authorities are challenged to act so as meet the Ukrainian people's expectations and reach declared goals or at least make people of all regions of our country without exception to believe in the feasibility of completing the ambitious tasks declared.

The new government has inherited a corrupt state machinery, unrealistic budget, resource-consuming economy and high-flown social commitments. If the declared governmental policy is made a reality and government officials make decisions based exclusively on national interests and leaning on social support, there is hope that we will see positive results as early as the end of this year. The cornerstone for a real democracy is to build a civil society with the authorities keeping a steady dialogue with the public on pressing issues of the country's life.

Our journal's editorial staff will endeavor to contribute to the coverage of national security and non-proliferation problems, assist in the civil society formation, and encourage a more active participation of civilians in the security-related decision-making.

This current journal issue discusses the problem of ammunition disposition, which is critical for today's Ukraine. The authors of three articles on this subject not only analyze the current status in this area, but propose ways to resolve this complex problem for discussion. Under the heading *On the Path to a Civil Society* we publish an article by a young political scientist O. Poltorakov, treating the subject of civil control over Ukrainian enforcement structures. With this article, we are initiating a new topic on our journal's pages.

We welcome your involvement and are looking forward to receiving feedback and new articles of topicality from you.

Olga Kosharna, Serhiy Kondratov

CONTENT

U.S. establishes an Office to Oversee Radioactive Material Monitoring within the Homeland Security Department

Prosecutor General's Office is after *Ukrspetsexport*

Over 37 Kilos of Depleted Uranium Seized by Privolzhye Customs Workers.

"TOGETHER WE ARE MANY"… AND WORK TO DO IS PLENTY

January 2005 happened to be so overwhelmed with important events that it seems to be comparable only to those times in the newest Ukrainian history when Ukraine was becoming independent. Emaciated by a lingering confrontation, the state could finally breathe with relief and optimistically contemplate its further prospects. But that optimism – and that is what the majority of Ukrainian society acknowledge – may be considered justified only if our expectations are married with hard everyday work aimed at reaching the goals set forth by the new President in his inauguration speech and supported by the majority of the society.

It concerns the efforts of state authorities and non-governmental organizations in countering the proliferation of weapons of mass destruction. The challenges that international terrorism has thrown down to the world community call for an immediate changeover to modern approaches to efficient interaction at the international and national levels, and effective information exchange. Besides, if the Euro-Atlantic foreign policy vector is to be confirmed, the old stereotypes of reticence characteristic of totalitarian regimes should be abandoned, conditions should be created as appropriate for civil society development and mechanisms for social control over of the activities of state authorities, including those related to security. This, in turn, calls for a high degree of awareness of all population layers including the state's political elite.

And the reality of many challenges ahead and much hard work waiting to be done on that "front" is reflected by the fact that on 12 January 2005 the Supreme Council defeated the bill on ratification of the *Protocol Additional to the Agreement between Ukraine and the IAEA on Safeguards Application in Connection with the Treaty on the Non-proliferation of Nuclear Weapons* signed by our country back in 2000. The ratification was declined by representatives of the Communist Party of Ukraine and the Julia Timoshenko Bloc, and while such a position seems logical as of the Communists since they have been consistent opponents to Euro-Atlantic integration, the voting of the rest of deputies most of which enthusiastically support Ukraine's Euro-Atlantic ambitions is very controversial and leads to conclude on an insufficient level of information and analytical support for the adoption of that important law.

Ukraine already has certain obligations as to civil society development, recorded, in particular, in the Ukraine/NATO Action Plan, which calls for "strengthening civil control of the Armed Forces of Ukraine and other security forces, including enhanced cooperation and oversight of Parliament and increased participation of civilians in decision-making related to security issues". Our journal that has celebrated its first anniversary endeavors to make an adequate contribution to this cause.

On 18 January 2005, the Editorial Team together with the newly established Editorial Board consisting of state officials, prominent experts, scientists and law-enforcement authorities, summarized the team's performance over the year 2004 and considered suggestions on how to consolidate the periodical's reputation, diversify the subject-matter and expand readership, etc.

Mr. O. Siver, STC Director and manager of this project funded by the Swedish Nuclear Energy Inspectorate (SKI), and Editor-in-Chief S. Halaka summarized their evaluation of the team's performance over the year, presented the measures taken to expand readership and authorship, and communicated their plans to increase the volume of the periodical. Much of the discussion focus was on the ad-hoc issue devoted to the 10th anniversary of Ukraine's accession to the NPT. A lively discussion occurred about the positive role the journal can play in forming elements of a civil society, particularly, in enhancing civil control over the army and other military units, involving civilians in the export control and non-proliferation decision-making process.

The meeting attendees offered a number of recommendations as to the content and form of information presentation. Specifically, the Editorial Team was proposed to consider a more extensive use of interviews with experts and state officials, etc. The participants were supportive of the opinion that the periodical can largely contribute to the formation of the circle of WMD non-proliferation specialists and experts, in particular by facilitating the development and implementation of non-proliferation training courses. Mr. O. Siver's idea to create based on the *Security and Non-proliferation* journal a public organization with the same name was appreciated as a sound one and consistent with the civil society development goals. In addition, the attendees agreed on the benefit of holding such joint discussions on a regular basis.

Serhiy Kondratov

Hryshutkin O.M.
State Service for Export Control of Ukraine, Kiev

Formalized Export Control Models and Decision-Making Mechanisms in the Export of Dual-Use Technologies

Export control of dual-use technologies envisages taking into account the current and prospective development goals of the world community countries. Global (international) export control of dual-use technologies is thought to coordinate the states' efforts in countering the threat of proliferation of high-tech armaments and related destabilization in separate countries of the world. The article dwells on formalized export control models and decision-making mechanisms in the area of dual-use technologies export.

As a result of exporting such technologies the economical development of not only exporter countries but also importer countries is accelerated, which corresponds the collective needs of humanity. However, when used for military purposes, such technologies may bring about new powerful centers of military potential, which will contribute to destabilization in certain regions of the world and ultimately trigger armed conflicts. The leading role in maintaining international stability is played by international treaties on export control aimed at precluding military uses of dual use technologies. Global (international) export control of dual-use technologies is intended to coordinate the states' efforts in countering the threat of proliferation of high-tech armaments and armed conflicts.

The world community's global development is based on using dual-use technologies. The new technologies are converted into principally new products, services, and scientific/ technical developments with a major export potential. The states possessing effective dual-use technologies manage to form high-technology industries, adapted to the world market requirements and capable of a prompt response not only to the novel technical and technological opportunities, but also to changes in the foreign market sensitivity. High technologies result in increasing the portion of high technology products in states' export and considering that such products have extremely high foreign economic performance norms, their increase will speed up and the state's economical growth.
On the one hand, the more unique dual-use technologies are the more dangerous they are when used by the military. On the other hand, the uniqueness of a technology secures its high export potential. Such a situation reflects the essence of the conflict of interests between economic development, national security, and international coordination during state export control over dual-use technologies. State export control systems generally undertake to create favorable conditions for economy and society development over a long-term perspective. The more unique a technology is, the more it is profitable, therefore both the exporter and the state are interested in export. This is one of the most important factors to be taken into consideration in export control over dual-use technologies. Assisted by relevant state authorities, the state "contributes to activities related to international goods transfers when they are consistent with national interests and, primarily due to creating new and retaining existing workplaces in the high technology area, or limits or bans such activities in the event that they contravene Ukrainian national interests, international commitments and antiterrorist goals…"

High technology development sharpens conflicts between the economical interests of exporting companies and security interests of exporting states. Therefore, while implementing export control measures, the permanent task is to resolve contradictions between national and international security goals and economic development objectives. The rationale for

international dual-use technology trade, which combines economical effectiveness and potential damage to national security interests resulting from the risk of proliferation of such technologies in creating weapons of mass destruction, is shown on Figure 1.

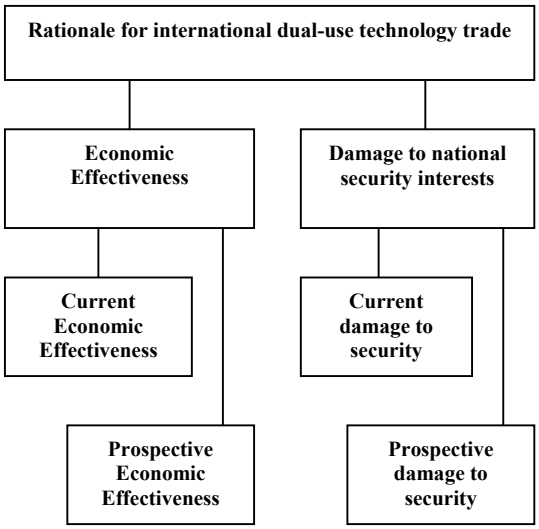


Fig.1. Rationale for international dual-use technology trade

In the circumstances when there is a global mutual dependence on the threat of weapons of mass destruction proliferation, the need for the coordination of international security efforts by the states significantly grows, which objectively leads to the institution of appropriate international organizations or reaching agreements aimed at countering not only the proliferation of weapons of mass destruction, but also destabilizing pileups of conventional weapons. To protect states' national security and the world community's security national systems and international regimes of export control are established. Export control like any other management form has its subject and object of management. A subject of export control may be an exporting enterprise, a state authority or an international organization, while an object may be represented by a relevant dual-use technology meant for export, i.e. the one in a certain export demand.

In international practice, partner states not only select different strategies in a given context of relationships, but also change the very structure of those relationships by creating international institutions and mechanisms, which implement specific principles, norms, rules, and procedures to accomplish mutual goals. The relevant mechanisms to run international relations are entitled international regimes. An international regime is a complex of institutions, procedures, rules established to regulate and control international and interstate relations in the subject area. The hierarchy of an international expert control regime is shown on Figure 2.
This model represents enterprises possessing dual-use technologies shown as the basis.

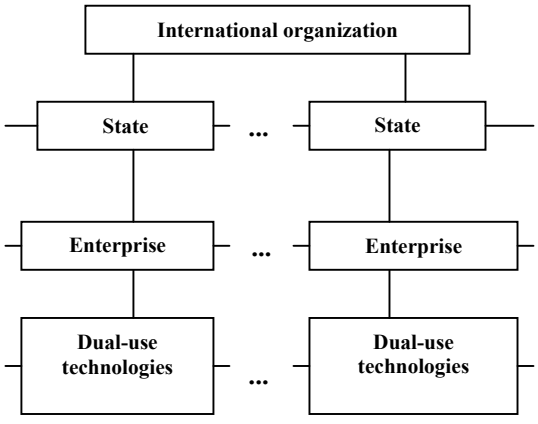


Fig. 2 Export Control International Regime Hierarchy

Resources available for those enterprises (i.e. relevant technologies) are used by economies of various states, while each state's authorities establish one export control mechanism or another. To resolve the coordination problems organizations for international regimes of export control are established. Five international regimes of export control currently function. The so-called Wassenaar Arrangement is an example of such a regime, an agreement reached by participant states on common principles for controlling export of conventional arms and related dual- use goods (including technologies).

Export control mechanisms used in the models given below regulate actions by an exporter and export control center in a three-level international community/state/exporter system. In this connection, the design of a comprehensive export control mechanism is split into three components:

Establish an international export control mechanism to regulate activities of the state export control center and those of the exporter at the international level;

Establish a national export control mechanism to regulate activities of the exporter at the national level;

Establish an export control internal compliance mechanism to regulate exporter personnel activities at the in-house level.

The export control center is responsible for surveying, classification, and encouragement of the exporter within its competence.

Decisions made by the expert control center may be as follows:

Autonomous i.e. using only the data available with the center;

Coordinated at the state level, i.e. using the data available with other state bodies and addressing those bodies' suggestions;

Coordinated at the bilateral interstate level, i.e. addressing recommendations offered by the competent bodies of another state

Coordinated at the international level, i.e. addressing recommendations offered by the competent international organization.

The expert control center's interaction with a subject can be represented in two basic models for the expert control center's autonomous or state level-coordinated actions

Self-adaptation (self-training) model;

Model based on adaptation (training) using the information or recommendation from another authority;

The model with export control center's autonomous adaptation (self-adaptation) is shown on Figure 3.

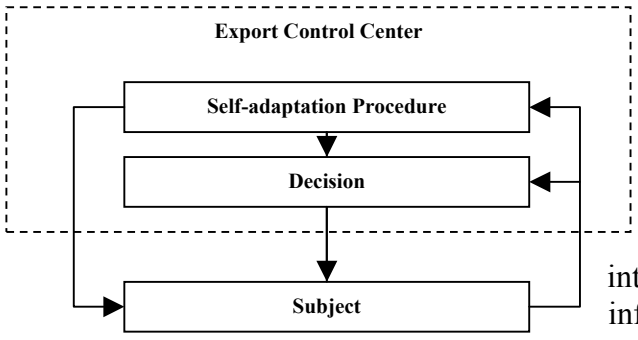


Fig. 3 Self-adaptation-Based Model of a State Export Control Center

In this model, an export control center (ECC) reviews the subject's application for a specific international goods transfer based on the information in his direct possession and makes a

decision on encouragement of that subject, i.e. a positive or negative decision to issue a permit as appropriate. ECC manages the task of designing a self-adaptation mechanism based on game theory by studying the exporter's and importer's games. The export control center in such a model not only makes decisions on the subject's classification based on its own information, but also makes adjustments of its own decisions within the limits that do not contradict export control objectives, based on analysis of the subject's activities. Thus the decision-making goes in parallel with the center's self-training based on the subject's behavior.

The model with export control center's adaptation (training) using another authority's information or addressing recommendation from other bodies is shown on Figure 4.

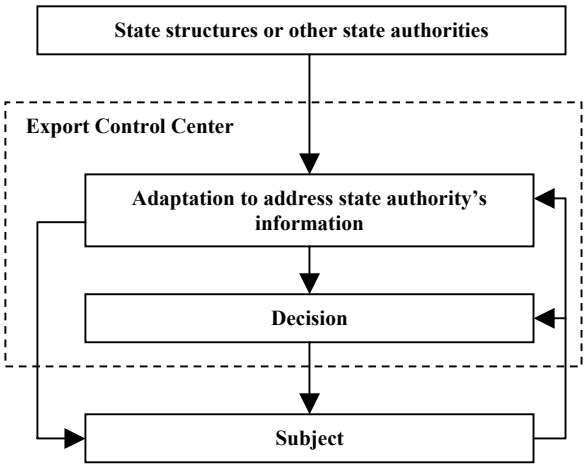


Рис. 4 Model with adaptation (training) to address other state authority's information

In this model the export control center, based on the active systems theory, offers recommendations on developing adaptive parameters – export normatives. The export control center in this model makes a decision on subject's classification not only based on its own information, but also addressing recommendations from other state bodies. In addition, like the in the self-adaptation model, the export control center makes adjustments in its own decisions within the limits that do not contradict export control objectives and proceeds from an analysis of the subject's activities using its own information and recommendations offered by another state body. I.e. in this model the center's self-training is carried out by addressing recommendations offered by another state body.

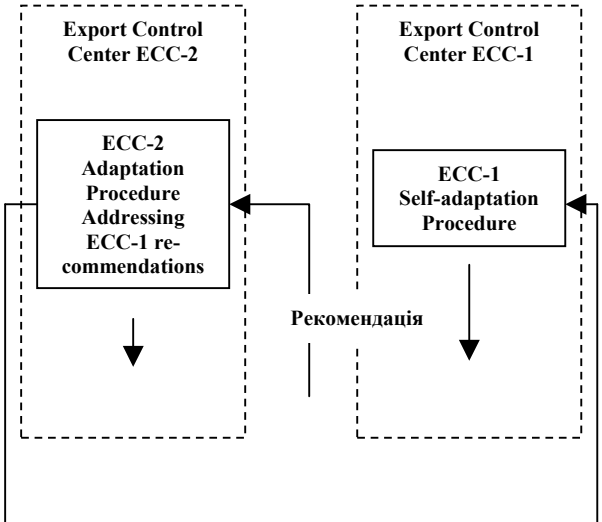
The export control center's interaction with the subject, addressing international recommendations during decision-making, can be represented by two basic models:

Export control model with coordination at the bilateral international level;

Export control model with coordination and the multilateral international level.

The export control model with coordination at the bilateral international level is shown on Figure 5.

This model reflects the option of interaction between a state export control center that possesses a larger amount of information (ECC-1 on Figure 5) and an export control center of a friendly state, which lacks additional information. In practice such a model is a combination of two models considered above – the self-adaptation model (ECC-1 behavior on Fig. 5) and the model based on information from other agencies (ECC-1 behavior on Fig. 4).



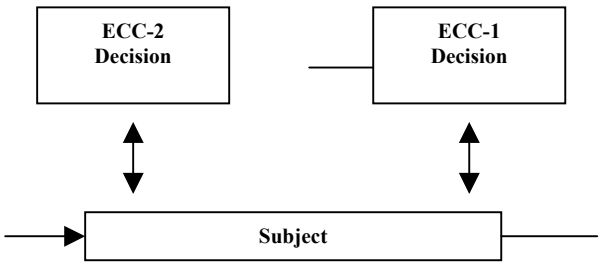


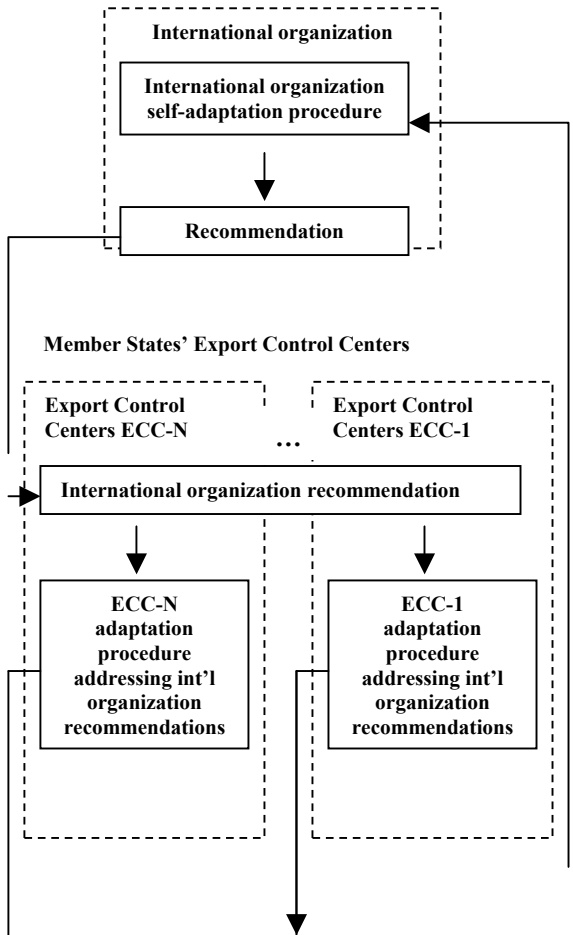
Рис. 5. Export control model with coordination at bilateral international level

In this model, unlike the state export control center's adaptation (training) based on information or recommendation from other bodies, "another body" for ECC–2 is ECC-1 with its "recommendation" regarding the ECC-1 decisions with respect to the subject.

Export control model with coordination at the multilateral international level is shown on Figure 6.

This model reflects the option of interaction between export control centers of states party to the corresponding export control regime with the international organization for this regime.
In practice such a model is a combination of models considered above – the self-adaptation model (international organization) and associated number of models with adaptation based on information from other bodies (ECC-1, ECC-2 and on to ECC-N depending on the number of international organization members).

Unlike other models, in this model, "another body" for ECC-1, ECC–2, etc. is the international organization with its "recommendation" regarding the decisions by member states' export control centers.



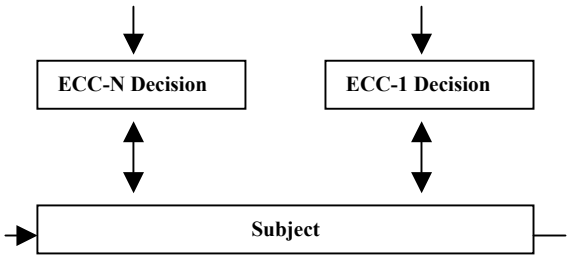


Fig. 6. Export control model with coordination at multilateral international level

The feature common for all the above described models is that the export control center surveys the activities of the exporters by analyzing the documents obtained from them, and, based on this analysis, makes positive or negative decisions to issue a permit as appropriate.

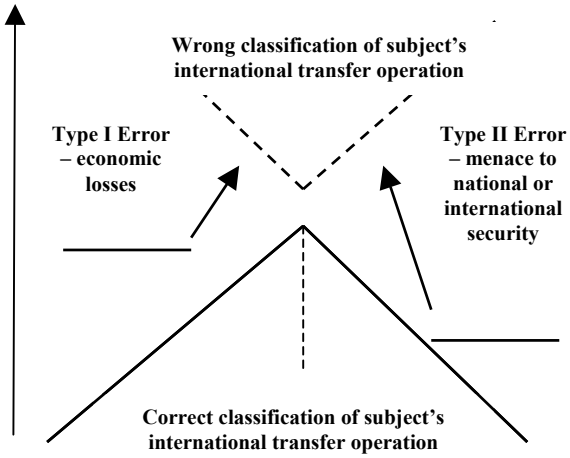
When reviewing the subject's export order, the export control center analyses a substantial amount of factors including dependence of undesirable consequences on the amount of export, conditions for transition of quantitative characteristics of the export order into a new capacity that poses a threat to national or international security, etc.

The export control center, while making a decision on issuing a permit as appropriate, prioritizes the interests of national an international security first, the economical interests second. In a similar fashion the so called "good-willing subject" should act. In practice, however, the subject often places its own economic interests first in his priority list, i.e. the exporter's target function is to gain profit. Such a target function discrepancy between the center and the subject sometimes causes a conflict between the economical interests of the subject and the center, which considers the national and international security interests its first priority, since upholding such interests is fundamental to the export control legislation.

In decision-making, the export control center considers not only its own information, but also information from other state bodies, specific states, and international organizations and refers the analysis results to one of the two categories:

- Violation of the export control agreement;
- Compliance with the export control agreement.

The "export control agreement" is understood to be the subject's compliance with the foreseen procedure for international goods transfers and compliance of such transfers with the national security requirements and international commitments. The state export control center's risk related to classification of international goods transfer operations is graphically demonstrated on Figure 7.



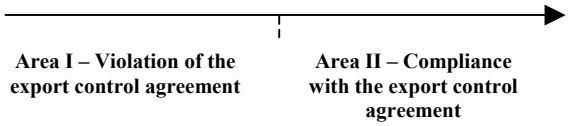


Fig. 7 State Export Control Center's risk associated with classification of subject's international commodity transfer operation

The export control center's export risk due to inaccurate classification of the subject, i.e. referring to the international transfer operation in question to:
Area I, export control agreement violation in circumstances when the subject complies with the agreement
Area II, compliance with the export control agreement in the circumstances when the subject violates the agreement.

When referred to Area I, unjustified economical losses are incurred by both the subject and the state, while referral to Area II (despite the subject's economic profit) jeopardizes national security or brings about failure to meet international obligations and results in negative consequences for international interaction.

The established procedure for international goods transfers is met by applying the appropriate export control mechanisms that envisage:

comprehensive assessment of each international goods transfer intended by the subject and making a decision regarding its possibility (so called comprehensive export order assessment);

enforcement of adequate penalties and sanctions to subjects failing to meet export control requirements;

creating conditions favoring subjects meeting export control requirements

Based on the above export control models, state and in-house export control mechanisms are initiated. In order to make well-grounded decisions on specific export orders, a comprehensive export order assessment is used. The comprehensive export order assessment is a procedure applied in one way or another by export control authorities to determine compliance of the subject's specific export order (application and documents requesting an appropriate permit authorizing a specific international goods transfer) with the state's current and prospective economic development goals on the one hand, and with national or international security interests on the other. The export order comprehensive assessment identification and analysis create the formalized basis for licensing decision-making in the area export control.

The succession of actions during a comprehensive export order assessment is shown on Figure 8.

Each local assessment of the export order submitted by the subject has several categories (ranks) characterizing the degree of reaching the center's goal in the associated area while fulfilling the order.

For example, the local assessment of an export order against four categories (highest, first, second, penalty) the highest order category corresponds to the highest level of reaching the center's goal in this area while the penalty category indicates a conflict of the export order with the set goal.

In developing local assessments of the export order, export controls norms are taken into account as well as penalties and sanctions for failing to meet those norms.

An export order can be harmonized with the export control objective particularly by addressing recommendations received from other state authorities, international organizations, and export control centers of other states. Based on those recommendations and viewpoints, categorization normatives are formed, which are used to rank the current and prospective export order quality.

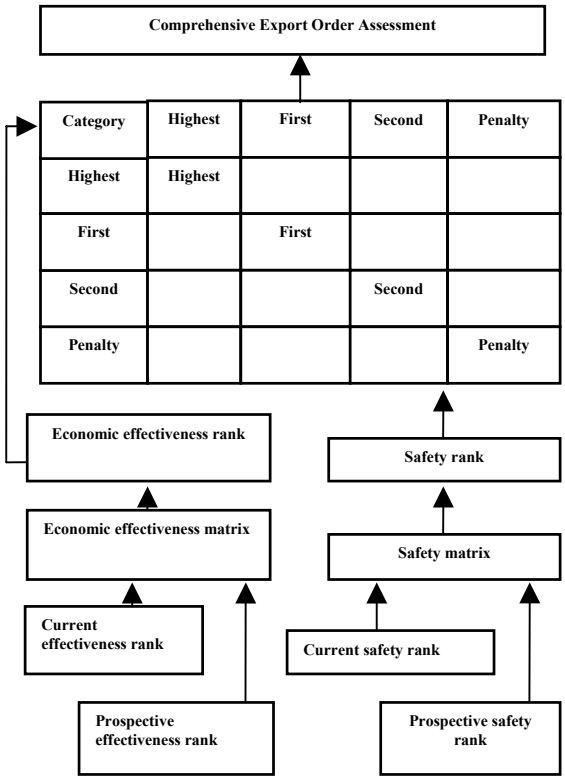


Fig. 8 Comprehensive Export Order Assessment

The procedure for a state export control center's decision-making based on a comprehensive export order assessment can be as follows:

Issue an export license (provided the comprehensive export order assessment is referred to the highest category);

Obtain agreement from all affected state authorities (if the comprehensive export order assessment is referred to the first category);

Obtain agreement from export control centers of affected foreign states (if the comprehensive export order assessment is referred to the second category);

License denial if the comprehensive export order assessment is referred to the penalty category.

Assuming that the subject's target function is gaining profit both through the specific current international transfer operation and its future actions and at the international market, export control legislation should encourage the subject to make "loyal" decisions and penalize for violations committed. For this purpose the legislation of states active in the area of export control incorporates penalties and sanctions to be imposed on a violator.
Penalties are coercive actions on the part of the state.

Qualitatively, the penalty procedure can be described as follows:

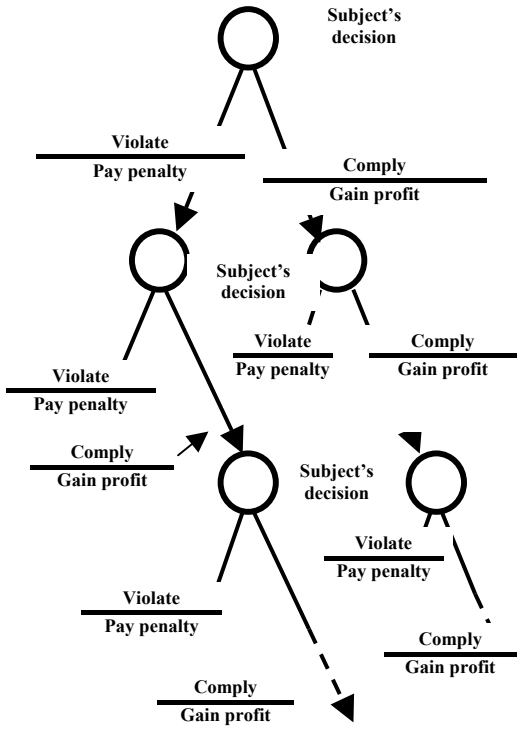


Fig. 9 Penalty Enforcement Model

Penalties shall be imposed in the event that the export control requirements are violated, i.e. the subject fails to comply with the established export control norms;

The penalty amount shall be commensurate to the violations committed by the subject;

Penalties should not only be commensurate with the violations committed, but should also discourage a recurrent violation in the future.

Assuming a simple penalty enforcement model, it can be represented as a so-called decision tree as shown on Figure 9.

This model shows that in the event that the subject has not violated the export control requirements, it is entitled to gaining profits both in the current international goods transfer operation and in similar operations in the future, given compliance with the export control norms. I.e. the subject is actually stimulated to carry out both the current and subsequent operations in compliance with the legislation.

In the event that the subject has committed a violation in any subsequent operation, the center is responsible for imposing on such a subject a penalty exceeding not only the expected amount of profit from the faulty operation, but also that of a potential profit from subsequent "violation-free" operations.

Thereby the center creates conditions encouraging the subject to carry out international goods transfers without violating export control requirements.

Unlike penalties, which though being a burden for the subject do not suspend the subject's international market activities, sanctions are extremely severe measures taken to exactly suspend the subject's activities at the international market.

Sanctions can be applied in different forms with the most common being sanctions as follows:

Invalidation or suspension of a permit for specific international goods transfer operations

Invalidation of the subject's registration with the state executive export control authority

Termination of the subject's authorization to carry out international transfers of specified commodity categories (for example, military goods)

A simple model of sanction enforcement represented as a so called decision tree is shown on Figured 10.

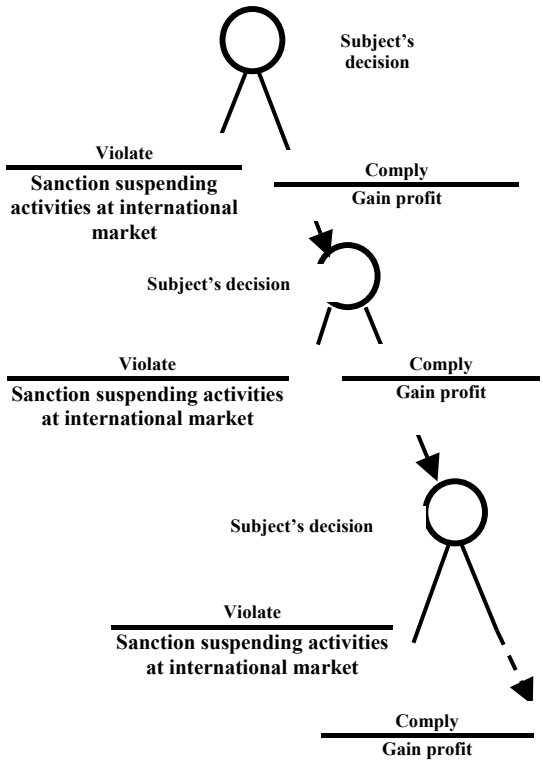


Fig. 10 Sanction Enforcement Model

Despite the possibility of enforcement of sanctions under the export control legislation, such a norm is applied rarely enough in practice. It can be explained by the fact that the very likelihood of their application is an important factor for the subject to refrain from committing violations. Such behavior on the part of the subject results from unwillingness to have the business suspended through enforcement of sanctions, yet on the contrary, willingness to meet its target function in working in a stable manner and gaining profit both in the current international transfer operation and all similar operations in the future.

Export control internal compliance mechanisms are created based on a structure providing for maximized exporting enterprise effectiveness as the value of its profit under unconditional compliance with the export control legislation i.e. norms and rules. The subject meets in-house export control objectives based on a preliminary export assessment and using the norms and normatives set by the state export control center.

The formalized export control models and decision-making mechanisms discussed in this article account for current and prospective goals of coordination and development of states in the area of export of dual-use technologies and can represent cornerstones to form national export control systems along with associated export control international interaction mechanisms. Using the described models in practical activities makes it possible to establish appropriate export control systems and mechanisms and therefore to counter terrorism, restrict destabilizing pileups of conventional arms and prevent the proliferation of weapons of mass destruction and their delivery means.

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Valentyn Badrak, Serhiy Zhurets

Centre for Army Conversion and Disarmament Studies

Valentyn Badrak, Serhiy Zhurets

Centre for Army Conversion and Disarmament Studies

EXPLOSIVE CROSSROADS

Ukraine has faced problem of choice in the issue of ammunition disposition

Ammunition and Light Shooting Armament (LSA) disposition has turned into real problem for Ukraine. Armament and ammunition reserves produced at the time of Soviet Union substantially exceed the real needs of the National Military Forces. In addition to that, condition of arsenals becomes more dangerous, what was proved by the fires and explosions at the missile-artillery storage in Artemivsk, Donetska oblast, and at the storage base near to Melitopil, Zaporizka oblast. Retrieval of the optimal strategy for quick and effective securing of Ukraine against "Ammunition hazard" – is the task for State Administrative Organs, commercial organizations, and Non-Governmental Organizations.

Volumes of Ammunition and Light Shooting Armament Surpluses in Ukraine

Nowadays there are 184 storage objects of strategic, operational and military reserve of MF of Ukraine, where 2,448 million tones of missiles and ammunition has been storing [1].

The medium term of technical validity of ammunition is approximately 12 years.

Since the day, when Ukraine became independent the National Military Forces did not obtain new ammunition (last deliveries are dated by 1989-1990) [2].

That means all the ammunition of MODU does not comply with technical requirements of validity.

Almost 340 thousand tones of ammunition need to be urgently utilized, and already after 2,5 years that amount will make 510 thousand tones.

"They need to be exploded or utilized", – claims Administration of MODU.

Till the year of 2010 it is planned to utilize or realize almost 1,366 million tones of potentially unsafe ammunition [3].

Nevertheless, there is one more problem – substantial part of ammunition is stored in the open air, disposition process can't be conducted on the spot, because there are a lot of important strategic objects in the neighborhood.

Relocation of the ammunition to the places of disposition and retooling of the major part of storages needs new tare.

Also a great amount of LSA is stored at the MF storages.

Its surplus makes 1,5 million – that is predominantly obsolete types of light and shooting armament since World War One and Two, which were withdrew form MF (Mosin's rifles, pistol-machine-guns PKSH, machine-guns "Maxim" etc.)

Ukraine as a state, which signed Ottawa Convention in the year of 1999, has become obliged to empty arsenals from substantial reserves of infantry mines.

Disposition process of 404 thousand infantry mines PMP-1 and PMP-2 has already begun.

Besides, there are approximately 6 million of high-explosive infantry mines (1,18 million PFM-1 and 4,765 million of PFM-1S) must be destroyed.

Normative base for disposition of the ammunition and LSA.

It is significant, that at the time of Soviet Union there was no systematic destruction of the ammunition belonging to the Army or other militarized state agencies.

In particular, definition of "Ammunition Disposition" has appeared at the end of 1980-ies and was related to the liquidation of the nuclear weapon and means of delivery within the START.

Since the year of 1993 conventional weapons and ammunition were included into the nomenclature of the armament to be utilized.

With its Decree dated 31.12.1993 number 1079 Cabinet of Ministers of Ukraine (CMU) has made a decision on establishment of State Program for disposition of ineligible ammunition.

Program was targeted on organization of the chain of disposition works, selection of the executors, determination of financing of the works and scopes of ammunition disposition per year.

Moreover, the Program had to provide state control on explosive materials rotation inside the country as well as safety of disposition works.

The Program was worked out by the State Scientific-Research Institute (SSRI) of chemical products in Shostka town.

Three editions of the Program were adopted.

The last one, which was approved by the Decree of CMU dated 20.01.1996 no. 40-1, was valid till 2004.

After approval of mentioned edition of the Program by the MODU and Ministry of Economy of Ukraine (MOEU) the controlled disposition scopes per year were increased on an average up to 58 thousand tones per year [4].

But all these Programs were not fulfilled. Its Achilles heel was that, the works related to the disposition were to be financed on account of disposition products, i.e. on account of realization of ammunition materials and products of deep treatment.

At such an approach, the useful disposition products, which could be used (TNT, brass, different types of metal), were extracted and other matters (hexogen, ballistic gun-powder), has been left at the storages for the "definite period".

According to the last assessment, only 3% of ammunition, which is the subject to disposition, can be destroyed on account of financial assets, received from "marketable" products of disposition [5].

I the year of 2004, after the explosion of storages near to Melitopil, CMU had charged SSRI of chemical products (DerjNDIHP) to work out a new edition of the State Program of ammunition disposition, which would foresee treatment of 500 thousand tones of ineligible armament till 2010.

MODU register of 300 thousand tones of shells has been already passed over to and DerjNDIHP started to develop technical and economical assessment of its treatment [6].

The Program should be prepared till June of 2004; however MODU did not perform registers for the scope of the rest of ammunition.

For that reason DerjNDIHP is not capable to determine list of absent design documentation, and without it conduction of practical disposition works is impossible.

In order to provide a reliable storing of armament, missiles and ammunition MODU in 1995 initiated development of "Provisional program for improvement of survivability, explosion-and-fire safety of the arsenals, bases and storages for armament, missiles and ammunition of MFU for the period of 1995-2015."

Annual, minimal necessary costs for its fulfillment should make 47 million hryven.

However, since 1995 for these purposes was marked out only 37,8 million hryven, which is 13,1% of provision.

That points out that during the long period of time, and namely since 1995, Ukraine and its leadership did not study the matter of ammunition disposition as top-priority [7].
Starting from 1999, in accordance to the CMU's Decree number 98-04, the coordination and operative control on the disposition works of ineligible ammunition was entrusted to the MODU, and namely to the Deputy Minister of Defense, Head of Arming of MFU.
Annually, MODU contracts for the ineligible ammunition disposition with the main contractor. Till recently the main contractor for the disposition works in Ukraine was the corporation "Spivdrujnist".
Corporation "Spivdrujnist" consist of the following: Association of enterprises "Spivdrujnist", DerjNDIHP (Shostka, Sumska oblast), "TASCO" Corporation (Kyiv), OJSC UkrNDI of aviation technologies (Kyiv), MODU represented by military unit A-1352.
Corporation was solving disposition problems intimately connected with JSC SPA im. Frunze, factories "Impuls" and "Zirka" (Shostka, Sumska obl.), chemical association im. Petrovskoho (Luhanska obl.), Artemivsk factory for the treatment of non-ferrous metals (Artemivsk, Donetska obl.), State Company "Ukrspetsexport" and its daughter enterprises.
MODU was entrusting to "Spivdrujnist" conduction of whole range of works. The indispensable condition of the agreement was inclusion into the disposition list of not only "profitable" but "unprofitable" ammunition as well.
The main contractor was signing an agreement with joint participants on terms of availability of special equipment, which was allowing utilizing specific types of ammunition elements in necessary quantities and within the time-period agreed upon with MODU. If productivity of enterprise equipment was insufficient, then another agreement had been signed with different contractor.
Management of "Spivdrujnist" insisted that till 2002 proportion of "profitable" and "unprofitable" ammunition liable to disposition, still was giving an opportunity to fulfill disposition works on the basis of such-called principle of self-financing, but, starting from 2002 disposition process became stable-unprofitable.
Moreover, beginning from that year MODU started involving of other organizations into disposition works. In such a way, Joint Venture "Halev-LTD", "TASCO" Corporation, CJSC "Iner-Vast" and so on, appeared on the market [8].

Concerning the disposition of LSA and infantry mines, all these processes are mostly concerned in the context of foreign "donor" assistance.

Thus, the contracts for destruction of 404 thousand infantry mines was awarded to the Agency of technical services and supplying of NATO (NAMSA) and State Committee on Defensive Industrial Complex issues on February 26, 2003 and financed by NATO party.

Project for destruction of LSA surplus in Ukraine also controlled by NAMSA and sponsors can be performed by Greece, Germany or Turkey.

Project is estimated for the period of 10 years and can become the hugest one in the history of NATO.

As a participant of the project the Ukrainian party does not divulge details of its financial participation.

It is known that project may be realized in several steps – at the same time during each step different countries will participate in it as on behalf of NATO.

Besides, it was reported that USA is ready to become the main sponsor of the project for liquidation of 1,5 million of LSA units and 133 thousand tones of ammunition on the following condition if Ukraine would include portable antiaircraft missile complex into the list of subjects to disposition [9].

Such an approach of Americans can be explained by political reasons and first of all by their anxiousness because of possibility for portable antiaircraft missile complex to fall into terrorists hands. It's been a long time participation of the United States in disarmament of Ukraine and these long-term works in liquidation of strategic offensive armament has already formed rather constructive form of dialogue.

Ukraine's potential in ammunition disposition. Organizational–and–structural solitaire.

The available capacities of MOIPU and MODU enterprises as well as involved commercial entities allow utilizing 50 thousand tones of ammunition every year.

If we consider that scope of ammunition, which is the subject to urgent disposition, makes approximately 500 thousand tones, then it'll become clear, that Ukraine with its own capacities will be deciding this problem for decades.
As a result of conduction of works by entities of different forms of property during the period from 1995 till 2002 in Ukraine have been utilized 168,9 thousand tones of ineligible missiles, artillery, engineering and other types of ammunition.
Approximately 80% of it goes to "Spivdrujnist" Corporation.
In the year of 2003 there was utilized 35,1 thousand tones.
In the year of 2004 it was planned to increase the scopes of missile and ammunition disposition up to 49,9 thousand tones, however during eight months of 2004 using capacities of MOIPU and MODU there was utilized no ammunition unit.
"Spivdrujnist" Corporation, which is the only one authorized contractor on the market, could not sign a disposition agreement for 2004.
After the explosion at the storages near Melitopil in May 2004, when approximately 900 conditional cars of ammunition flew outside the base and losses, according to different information made from 2,5 to 4 billion hryven [10], a new phase in disposition field has begun.
It runs about formation of new rules of the game on the domestic market of disposition.
Mentioned process is not complete, the previous statements give an opportunity to determine interests of the old and new players on this market, where the national security and business interests are tightly combined.
Tragic accident proved the necessity to review the approach in not only designing of storages, but in use of new technologies in construction of protective erections and simply tare for ammunition.
There still have not been worked out the unified approach to organization and functioning of integral system of management a scientific and technical provision, production, storing and disposition of ammunition.

Moreover, interests of the Government, separate bodies and ministries, enterprises and special exporters not always meet each other.

Government. Government of Ukraine announced in May 2004 about its intentions to establish state company, which would be specialized in ammunition disposition.

As Vice-prime-minister Andriy Kluev informed, company will unite a chain of enterprises of MODU and state factories of MOIPU [11].

Decision on necessity of cooperation between arsenals and industrial enterprises was made by the Government and was based on recommendations of special meeting of National Council for Security and Defense of Ukraine, which took place on May 25,2004. The main subject of the meeting was determination of the backgrounds for liquidation of extraordinary situations, which had occurred in the several storages of MODU during last year. Status of new state company is still not defined.

As to the opinion of Volodymyr Tereshchenko, Head of the Sector for Security, Defense and Military Issues of the National Centre of Euro-Atlantic Integration [12], such state company has a right to form an ammunition disposition strategy and dispose of necessary for that resources and must subordinate directly to CMU.

Exactly the state company, on a tender basis, has to choose the subcontractors of separate contracts for disposition of one type of ammunition or the other.

Tender basis of works, in its turn, should stimulate development of effective technologies at all domestic special chemistry enterprises, which have capacities and rights to fulfill relevant works. Still Defense body had to exclusively store ammunition and transfer the ineligible ones for disposition.

Besides, establishment of inter-departmental company will help to involve foreign investments. NATO and European Union (EU) are ready to provide assistance in disposition of ammunition, however, today there is no such a structure in Ukraine, which is acceptable for negotiations with foreign organizations in this regard. (Such a situation has occurred after liquidation of State Committee for Defense-Industrial Complex.)
MODU. The Defense body is interested in amalgamation of existing disposition capacities into Concern or State company “under the roof” of MODU. The purpose is concentration of the resources, establishment of modern technological lines, closed loops with 100% use of funds received from realization of disposition products for the purpose of development and purchasing techniques and armament for the needs of MFU. Exactly this position made a stand for Minister of Defense, Evheniy Marchuk, in his letter addressed to the Prime-minister of Ukraine. Decision made in favor of MOD would expand capabilities of the Army on the account of enterprises of MOIPU. Thus, earlier non-substitute scopes of disposition works had been executed, because of shortage of technologies on the enterprises of MODU. There were special workshops and special brigades for repairing of the ammunition. They were requlified to dismantling of the ammunition. Defense body has been mainly conducting disposition, by means of contracting (till 2003 inclusive) with “Spivdrujnist” Corporation, on which factories have been utilizing up to 25 thousand tones of ammunition annually.

Exactly E. Marchuk foresaw establishment of unified enterprise for disposition before August 2004. This forecast had been done after NCSDU assembly on 3 June 2004, where MODU was entrusted to contract with public and other state enterprises on disposition of missiles and ammunition. Straight agreements were destroying already formed patterns of MODU’s cooperation with enterprises through the “Spivdrujnist” Corporation.
It is significant, that there was a disposition department included into the structure of MODU. It is obvious, that after O. Kuzmuk came to the MODU, he had strengthened positions of this Ministry regarding the issues of its participation in ammunition, armament and ineligible military techniques disposition process.

Enterprises. There are three enterprises involved into disposition process in Ukraine. The leader in this field is a Pavlohradsky chemical factory (PCF), which enters the administration sphere of the National Space

Agency of Ukraine. This enterprise is capable to issue more than 100 thousand tones of the explosives per year. This factory utilizes different types of ammunition ineligible for further storing and usage. PCF was the only enterprise in Ukraine for production of the solid rocket propellant. That is quite naturally that the factory became the main one in disposition of intercontinental ballistic missiles RS-22 stages, which Ukraine got as a heritage from the former Soviet Union and, which are the subject to destruction within the Program of NIS, which being mutually fulfilled by Ukraine and USA. In July 2004 the Government of Ukraine has approved corrected program of disposition of intercontinental ballistic missiles RS-22. These changes also had an impact on the financial articles of the program. It is foreseen to finish all the works on a pilot set and to come over to designing of the complex for solid rocket propellant disposition by means of hydraulic beating. It is expected to use the products of disposition in production of industrial explosives, which are used in ore mining industry. Exploitation of this complex will start by the end of 2008.

Donetsky and Shostkynsky factories (Shostkynsky state factory "Impulse", Shostkynsky state factory "Zirka") are also engaged with disposition. Donetsky state factory for chemical products since the beginning of the Program has treated 51,929 thousand tones of ammunition. At the same time productive capacities of the factory are being used at the rate of only 55–60%. Exactly this enterprise participated with NATO within the joint project for disposition of 404 thousand tones of infantry mines.

Must be admitted, that enterprises do not have clear specialization, though each one of them is obliged to deal with preliminarily defined types of ammunition or missiles. Thus, Donetsky factory of chemical products has quite complicated technology of disposition of the ammunition containing hexogen, which needs further studying.

Special exporters. Specialized bodies of Ukraine demonstrate its readiness to participate in ammunition disposition. They were established for export and import of production and services of military and dual-use appropriation. This way, company "Ukroboronservice" (daughter enterprise of "Ukrspetsexport") announced about its readiness to establish five centers for disposition and maintenance of ammunition and armament, by means of involvement of its own assets [13]. One of those centers has been already established in Kyiv. It provides maintenance of ZRS S-300 as well as disposition of some types of ineligible armament. This enterprise confidently feels itself on the international market of armament and intends to establish such centers in the other regions of the country: centre in Khmelnytska oblast for disposition of Air Force and TNT containing ammunition; centre of humanitarian demining and ammunition disposition in Crimea; centre for aviation armament disposition in Kyivska oblast as well as international centre for ammunition disposition.

Specialists of "Ukroboronservice" are conducting negotiations with foreign bodies to involve investments in establishment of such centers. Partnership can be fulfilled according to different schemes and the main is to invest technology and equipment into ammunition disposition process of MFU. The profit of it will be mutual. First, new technologies will give us an opportunity to turn unprofitable ammunition into profitable. That will provide return of the investments and receiving of profits by foreign partner. Second, establishment of new enterprises for disposition will help to find a solution for the workplaces and employment of the population at the ammunition storage regions. Third, new technologies of disposition designed taking into account preservation of the ecological balance from the external negative influence. Except the profit due to investments, foreign partner will improve its scientific and production base. Nowadays, the negotiations with a Swedish company NAMMO moved forward most of all. Not excluded that NAMMO in particular will become an assignee of Ukrainian-American enterprise "Ellaent-Kyiv", which has stopped its existence.

Regional initiatives. Against the background of national arrangements concerning decreasing of the threat from the direction of obsolete ammunition there start to appear initiatives on readiness to solve those problems on a local level. Thus, MOD together with Vinnitsa State regional administration in August 2004 announced about establishment of the Center for disposition of armament, ammunition, explosives and rocket propellant on the basis of regional state enterprises [14]. Establishment of such Center is foreseen by the Program of joint actions for implementation of top-priority arrangements of safe functioning of arsenals, bases and storages for ammunition and rocket propellant, located in Vinnitskaya oblast. The Program is counted for the period of 2004-2010 and contains whole list of works and financing for introduction of the mentioned security arrangements at the arsenals, bases, ammunition and rocket propellant storages. There are about 39 thousand tones of ammunition being stored, half of it is already expired. Vinnitsa authority is the first and only

one in Ukraine, who expressed its readiness to partly finance disposition of ammunition. MODU will mark out 22,114 million hryven, Vinnitska state regional administration – 16,311 million. And the initial ammunition disposition should be led at the standing enterprises, instead of bases and arsenals. What enterprises will that be – still unknown. Besides, disposition technologies are still have not been detected, the main requirement of which – ecological safety. Specialists do not exclude that for this reason Vinnitsa initiative might be left unrealized.

Technical and financial realities of ammunition and LSA disposition

Nowadays, Ukraine does not have disposition technologies for all the variety of ammunition stored at the arsenals of MOD. Ammunition containing TNT is being utilized more successfully. There are a few of that kind left and industry of Ukraine will be able to take care of it. Still we do not have an optimal technology for disposition of ammunition containing hexogen. Technology, which was adopted on the Donetsk chemical products plant, only partly meets the requirements of such ammunition disposition. Production capacities for disposition of bullets, shooting armament, ammunition of small caliber, naval ammunition, aviation means of destruction (except TNT aviation bombs), systems of volley fire are almost absent. So, missiles for sets "Hrad", "Urahan" contain comparatively small charges of a gun-powder, for which disposition we don't have a technology.

Pavlohgadsky chemical plant is now working in this direction, having an objective to utilize 5 thousand tones of hard rocket propellant for strategic missiles Z-24. Plant is interested in receiving of American technology of hydraulic beating, in order to process rocket propellant into explosive. USA has refused to complete this technology for Ukraine, because they consider it too much expensive. Mining plants of Ukraine announced that they prefer to work with a traditional TNT explosive and are aware of new emulsion type.

This way, we see that technologies must be bought or developed. However, the variant of ammunition disposition by means of its explosion at the MOD's polygon can be used as well. Also, not excluded exploitation for the mentioned purpose of some districts in Chernobyl zone. Suitable for the explosion of ammunition could be storage of strategic missiles near to Makarov.

Administration of the MOD measures cost of the ammunition surplus disposition as an amount of 50 million Euros [15]. Said amount is necessary to establish preliminary technological lines for ammunition disposition. Law of Ukraine on State budget 2004 has foreseen 20 million hryven for ammunition disposition, 10 million out of it is for financing of practical works in the filed of disposition of unprofitable ammunition. These funds were never developed. For the year of 2005 MOD has foreseen financing of State Program for disposition of conventional ammunition, ineligible for further storing and use, an amount of not less then 50 million hryven and financing of Maintenance Program for arsenals, bases and storages of armament, missiles and MFU ammunition an amounts of not less then 100 million hryven.

Infantry mines disposition also related to the chain of technical problems. According to the filling of mines, they can be divided into three groups: TNT, TNT-hexogen and mines-«butterflies», filled with a liquid explosive. This explosive is produced on the basis of chlorine and is a very toxic one. During its production people wear respirators. I order to burn it the specialized heavy domes are needed. Still effective an Agreement between Ukraine and NAMSA on disposition of TNT and TNT-hexogen mines. Destruction of mines-«butterfly» needs as it was mentioned earlier approximately 8 million USD [16]. During its disposition Ukraine can count on international assistance. But the only one difficulty in realization of the project on disposition of liquid mines PFM is unwillingness of Ukraine to ratify Ottawa Convention, which was signed three years ago. Because of this "slipping" foreign investors step-by-step redefined to Republic of Belarus. Minsk has Ottawa Convention ratified and funds for disposition of PPM and PFM has already flown there.

To resume negotiations with representatives of Canada, Euro Commission, Namsa concerning disposition of mines and LSA Ukraine must define a body authorized to conduct this activity on behalf of the State. In this context, establishment of the state corporation for armament disposition and ratification of Ottawa Convention might help to involve foreign investors to the disposition project of 1,5 million units of LSA and 133 thousand tones of ammunition. In addition to that Ukrainian party can receive 25% from 75 million Euros necessary for realization of this project.

USA has shown its interest in participation in disposition of Mobile Anti-aircraft Rocket Complex (MARC), which are stored at the arsenals of Ukrainian Army. Probably it is worth of studying its state,

possibility and expediency of storing this armament to оцінити ресурс його. Any way MARC will be utilized. Destruction of outdated MARC will allow producing more ideal systems. In the line with USA, OSCE is ready to provide financing for destruction of LSA and MARC.

Finally, it is not worth of neglecting technological working out of Ukraine. For example, Institute of automated systems has performed new tare for ammunition designed on the basis of basalt fiber. According to the information of the specialists of the institute, boxes are capable to stand a temperature up to 750 Cº above zero.

During disposition of LSA Ukraine is trying to work according to such schemes as sale for export and realization inside the country. Export of different types of light and shooting armament classified by MOD as surplus, has become complicated for the reason that rifles and pistols science World War Two are not of an interest to any buyer. Inside the country the company "Ukroboronservice" successfully remaking different samples of LSA into non-battle, presents. These methods can be applied to thousand of units and in reality they are millions.

Conclusions

1. Ammunition disposition problem has become a national one. National programs for the destruction of surpluses, ineligible ammunition and LSA had not been fulfilled. Budget funding of this tasks are quite limited. Such a situation does not let to clearly define time frames of at least disposition of most dangerous ammunition.
2. There is no common vision of the optimal and effective system of development, provision, production, storage and disposition of ammunition. Departmental and business interests in this segment of activity caused formation of different centers of impact on disposition process and selection of its direct participants. Independently from that how will be the issue of optimization of the structure process control of disposition (by means of establishment of unified operator-state corporation, subordinated to the CMU or through the direct agreements between MOD and direct executors of disposition), it must be based on the scheme, which will provide transparency of decision-making process. Moreover, if the number of disposition contractors-executors would be small, then control of this process, financing, distribution and accounting of ammunition must be unified.
3. Ukraine must more active involve foreign assistance for finding solution of ammunition and LSA utilization problems. There must be overviewed the variants of not only donor funds involvement from UN, OSCE, separate states but participation of foreign enterprises/firms in the joint Ukrainian-foreign companies for utilization, access of foreign companies to the participation in tenders for utilization announced by the Government of Ukraine or authorized by the Government body. That will allow the Government during the tender for utilization of defined quantity and types of ammunition to choose most attractive proposal.
4. Ukraine is short of technologies for utilization of all the nomenclature of ammunition and LSA. These technologies must be worked out or purchased and that will demand coordinating activity of MOD, MOIP and separate enterprises. This process will be easier to arrange in case if utilization functions will be entrusted by the Government to the united operator.

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Valeriy Pavlukov

President of TASCO Corporation

Disposition of Ammunition. Problems and Ways of Solution.

Disposition of ammunition is a problem more relevant for Ukraine then for the rest of the countries-participants of the former Warsaw Block, nevertheless ammunition of USSR Army, earlier quartered in the countries of Central and Eastern Europe, was removed exactly to Ukraine.

Because of the shortage of sufficient quantity of prepared storage facilities, ammunition frequently was stored according to the temporary schemes "in the open air", as a result to that quality of their seal has decreased up to 60-70 percent, and does not allow to provide safe transportation to the place of disposition on the plants of the Ministry of Industrial Policy of Ukraine (MIPU).

Another serious problem for Ukraine is substantial exceeding of the norms for ammunition conservation at the bases and arsenals.

Often, they are located close to the civil objects and in case of emergency such a neighborhood can lead to the techno gene catastrophes, human victims not only among the personnel but among the population.

This problem becomes more complicated because of some decisions, which define the strategy of works in the field of ammunition disposition, which have been made without taking into consideration opinions of the specialists, under the influence of emotions, desiring to insure oneself from punishment in case of the events with fatal consequences.

Thus, after events in Artemivsk and Novobohdanivka, which have occurred because of rough violation of discipline and security rules of work conduction, all the disposition works without exception were stopped, even those, which conduction was fully complied with safety requirements.

Mentioned works were resumed only in October 2004, according to the scheme, which is from the financial point of view expensive for the state budget and less safety because of increasing transportation flows of explosive cargos through the territory of Ukraine.

Як відомо, емоції, перестрахування, монополізм і відомчий підхід у вирішенні питань заважають реалізації будь-яких проектів.

As well known, emotions, reassurance, monopoly and departmental methods in solving tasks disturb realization of what-ever projects.

More obviously that can be traced from the example of ammunition disposition.

In that way, initially right decision concerning creation of two organizations in 1993-1994 as consolidated contractors of the Ministry of Defense of Ukraine (MODU), which should be engaged with ammunition disposition on the economic accounting principles, through the chain of objective and subjective factors resulted appearance of monopoly of one of those organizations.

That tied up works development process and also froze the scope of performance at the rate of 18-22 thousand tones per year.

Only after overcoming of resistance of some officials of MODU and MIPU, the other organizations were tapped to the works since the year of 2000 that gave an opportunity to crown the year of 2003 with the utilized ammunition scope record at the rate of 36 thousand tones.

Arrangements applied by the MODU in the second half of 2004 with support of the Cabinet of Ministers of Ukraine (COMU), which provided full financing according to the State Defense Request, allowed to safe disposition rate, however state budget funds were spent several times more, then during all the period since the beginning of disposition works.

To my opinion, while solving an ammunition disposition problem we can not run to extremes or try to resolve appearing tasks by some way or other.

After all there must be a program worked out, which would take into consideration not only interests of specific enterprises, but technical condition of ammunition reserves, needs to support ammunition field, and finally, financial capabilities of the State.

If we consider last three factors during development of the disposition program, then part of the funds set for disposition could be directed to the development and creation of new types of ammunition and its elements, i.e. to the vital needs of Ukrainian Army, which were not funded for the last ten years.

Arrangement of such productions on the acting enterprises will provide them with future prospects of survival and development.

Every factory of the field specializes on a separate kind of works; therefore creation of multi-purpose production will demand considerable financial expenditures.

Thus, technology of ammunition equipment with hexogen containing explosives has been worked through, however till now there are no modern high-productive and energy-saving technologies of extraction of such from the ammunition.

The more so as Ukraine does not have ecologically appropriate technology for extraction of amatol explosives from ammunition, the part of which were preserved since World War Two.

During the first phase of ammunition disposition in the 90-ies almost all of the ammunition, which contained nonferrous metals and TNT were processed; and conduction of disposition of the ammunition remaining in storages demands introduction on the new technologies and schemes of work, which decrease expenditures and gives an opportunity to economically spend funds of State Defense Request.

The analysis of expenditures for the disposition works shows that more then 30-35% of expenditures for the disposition makes the expenditures for the transportation of the ammunition to the places of disposition, since the prevailing part of the enterprises is located in the East and storage bases in the West.

Ammunition disposition centers, as to my opinion, must be located as closer to the storage places as possible and that will allow not only to decrease transportation costs but to increase safety during carriage.

Such centers can be located in the Crimea and North-West of Ukraine.

Next expedient direction to define is to create, by means of internal funding or foreign companies bringing in, a high-productive energy-saving technologies and equipment for disposition of ammunition, equipped with a composition of explosives on the basis of hexogen and ammonium nitrate, and to locate such productions at the disposition centers, which to be established.

With the purpose to load capacities, existing on the enterprises of the field and reasoning from the specialization of such enterprises they should be provided with the ammunition and its elements prepared for disposition.

That will assist to increasing expenditures for creation of multipurpose capacities and transportation.

According to existing disposition scheme the non-productive expenditures are related to repair of tare (usually it sustains not more then one flight, after that it gets utilized, that is to say it is not to be repaired).

The tare is produced of wood (deficit of which have been existing earlier and now) its cost recently has increased till 30% and, for example, cost of one box for 125 mm shell equals to 150 hryven.

At the same time the weight and size of a box are compared to the same parameters of the shell, and that leads to the additional expenditures during transportation and storage.

Taking into consideration the above said, it is expedient to take up possibility to switch to plastic tare, as it is done in the world.

To my deep belief, one of the fundamental conditions, which provides purposeful disposition work, must be refusal from hysteria and practice of “at any price” task fulfillment.

That will give an opportunity to optimize expenditures and provide high rate of works.

Considering the mentioned above, TASCO Corporation participated in the ammunition disposition project and since second half of 2000 has started such works in the role of consolidated contractor of MODU.

During the period from October 2002 till April 2004 in collaboration with factories of the field there were utilized more then 6000 tones of artillery ammunition.

During this period corporation at its own expense has worked out a chain of technologies and equipment, which allow utilize ammunition of any caliber containing hexogen in complex with mines equipped with amatol explosives.

Thus, corporation has worked out and produced equipment for disposition of ammunition equipped with explosives containing hexogen, by method of blasting cartridge use (caliber till 85 mm).

At the final stage is the production of two plants, which must provide extraction of all kind explosives from ammunition of any kind (shells, mines, war-heads of the missiles, torpedo etc.) by mean of hydraulic breaking.

It is produced plans for shattering tubular gun-powders and burning of the bullets for shooting armament, capsule plug, fuses and tracer.

That entire equipment is foreseen to install at the disposition center, which will be established by corporation in the north-west of Ukraine (Jytomyrska oblast).

That will give possibility to decrease transportation costs up to 60-70%, increase productivity at shells disposition, equipped with explosives containing hexogen and hence to fulfill disposition of much more quantity of ammunition on the basis of economy accounting and self-repayment.

Second plant of hydro beating and ecologically clean burning of explosives and gun-powders, which being extracted from ammunition, can be located in Crimea (there is preliminary agreement with Ukrainian Naval-Forces Command).

It is necessary to take into consideration that ammunition, which left in the Crimea, predominantly does not contain non-ferrous metals, and is equipped with explosives containing hexogen (major part of it – war-heads of missiles, torpedo, subsurface bombs) its disposition is unprofitable even on conditions of processing on the spot.

Introduction into exploitation of the equipment, worked out and produced by the TASCO Corporation, will give an opportunity to provide disposition of 30-35 thousand tones of ammunition per year and to decrease cost price of disposition in comparison with existing ones up to 15-20%.

It is to be regretted that work, which was conducted by the corporation at its own expense is now almost suspended.

Funds, which were provided by the State Defense Request in 2004 for the creation of the disposition center, were directed for fulfillment of ammunition disposition works by the factories.

This way, been choking up the problems of current importance, our country has suspended capacities development for prospects.

Instead of giving to and support of domestic developers with the technologies our State has begun to apply to the foreign organizations for assistance in disposition.

As the result we receive equipment of not the best quality, and at the price exceed the price of the domestic one.

I consider that it is necessary to use comprehensive approach, taking into the account all the possibilities, including attraction of the domestic technologies development.

Hence, for MODU and MIPU is expedient to review approaches to the solution of ammunition disposition problem and to use urgent arrangements regarding the development of the program for disposition and optimization of work conduction, based on state interests.

By Mykola Siruk of *Defense Express*

Independent player at the disposition market

The state-owned Pavlograd Chemical Plant (PCP), incorporating the Scientific Research Institute for High Energy Materials (SRI HEM), was identified in 2003 as the leading organization for solid rocket propellant (SRP) creation, production, and disposition technology and a basic organization for ammunition production and disposition technology.

The enterprise has over 50 years of experience in manufacturing various types of ammunition, including armament sections for surface-to-water and surface-to-air missiles, air bombs FAB-500 and CSRP missile charges for the Navy. In parallel, the enterprise handles the disposition of Germany-made and domestically produced ammunition. Since Ukraine gained independence, the enterprise has been more focused on implementing technologies for ammunition, warhead, and solid rocket propellant disposition technologies. In 1997, PCP joined in the *State Program For Stagewise Reduction And Elimination Of Combat Missile Launchers*. Director General Mr. Leonid Shiman is convinced that our nation can easily handle the disposition of 5000 tons of SRP that it inherited following the elimination of intercontinental ballistic missiles SS-24 on its own, without U.S. assistance. The enterprise managers have their own vision on how to tackle the disposition of almost 2 million tons of ammunitions without compromising environmental safety and public health.

Plant capabilities

The PCP is capable of carrying out the entire range of activities; from arranging scientific research, design, and designed equipment production to the creation of production capacities and facility operation.

PCP activities include:

- manufacture of explosives and military use goods;
- disposition of fairly any inventory of ammunitions, formerly produced in the Soviet Union (small and big caliber ammo, missiles, mines with and without hexogen, with trinitrotoluol (TNT) and various other mixtures);
- production of civil explosive material, TNT-free, TNT-containing and conversion material processed from military material to a degree of safety adequate for their transport and use in explosive works;
- engineering, transportation services;
- production of power supply equipment;
- production of special equipment for explosion-hazardous activities;
- transportation of explosion- and fire-hazardous goods, raw stuff and materials such as ammunition, explosive material, raw stuff for the production of explosive material;
- security services, standards and methodology development as requested by special laboratories;
- quality control of fabricated and semi-fabricated goods, and of design work.

In 2000, PCP was certified against international ISO standards by the international firm Bureau VERITAS with certificates obtained as follows:

- conformity of quality management during design work, production and maintenance of military and civil-use goods and services with the international standard ISO 9001-2000;
- conformity of environmental impact management of all processes within and beyond the enterprise territory with the ISO 14001 international standard requirements;
- conformity of industrial safety and labor protection management with the requirements of OHSAS 18001.

Major activities worked by PCP in 2004	Capacity, Tons per year	Load, %
Production of ammunitions	9 000	0
Production of SRP	4 500	10
Disposition of ammunitions	25 000	1,7
Disposition of SRP		
Production of explosive material	103 000	40

Institute Capabilities

The Scientific Research Institute for High Energy Materials (SRI HEM) established as part of PCP develops formulations for BM, SRP, BM for military and civil uses.
The Institute's share of the total amount of products and services is 18%.
SRI HEM develops:

- Production technologies for civil explosive substances, civil-use products.
- Design documentation for special-use equipment;
- Designs for special explosion- and fire-hazardous processes, military and civil use products, solid rocket propellant, various high-energy compounds for military and civil use.
- Software for automatic production control allowing to organize production of fire-hazardous material during both pilot and industrial operation remotely, in the absence of humans.

SRI HEM monitors all stages of production from the start of construction through the implementation of developed design solutions and fabricated product control.

The institute runs a unique laboratory allowing to identify the formulation of any solid rocket propellant.

The entire scope of activities is executed by both the Plant and the Institute in a closed production cycle to comply with international standards.

Disposition of conventional ammunitions

PCP has been involved in the disposition of regular ammunitions since 1949, when technologies were first developed for disposition of ammunitions remnant after the war, including German ammunitions. The know-how that the enterprise possessed was used to fix arming defects in ammunitions, air bombs, and armament sections of missiles.

After Ukraine became independent, upon request by Ministry of Defense the enterprise started developing engineering processes for disposition of ammunitions that remained in the Ministry's depots and arsenals. In 1992, the first pilot facility mastered a technology for disposition of 100 mm caliber ammunitions, allowing annual disposition of nearly 1 thousand tons of ammunitions.

In 1994, the disposition process came to involve the Ministry for Industrial Policy. Joint effort produced a State program for disposition of ammunitions. Using the budget funds allocated under this program, PCP created additional capabilities for disposition of TNT-containing ammunitions with a capacity of 4 thousand tons per year.

Since 1998 the company has been directly involved in the disposition of ammunitions through corporations such as *Spivdruzhnist*, *Tasko*, *Elaent Kyiv* and has been steadily building up its capacities. Currently the enterprise is capable of annually disposing of up to 25 thousand tons of ammunitions of various calibers, TNT-containing ones and other explosives.

In late 2004, the Ministry of Defense placed with the enterprise an order for disposition of nearly 4 thousand tons of ammunitions.

Effective PCP ammunition disposition capacity as of 01.01.2005

#	Name, caliber of equipped ammunitions	Production Capacity, tonnes/year
TNT-containing		
1.	*Crab* Mine	4860
2.	UOF-15,76MM	10841
3.	UO-365;UOF-372,85mm	31370
4.	UO-415; UOF-412; UOF-15, 100mm	25537
5.	USh-1, 100mm	2100
6.	VOF-24; UOF-6, 115mm	27640
7.	VOF-5; VOF-6, 122mm	23155
8.	VOF-11; VOF-482, 130mm	30862
9.	OF-949, 140mm	7068
10.	VOF-546; VOF-545, 152mm	8575
11.	VF-853C, 160mm	7238
12.	VG-620; VG-625, 203mm	10105
13.	VF-864, 240mm	7166
14.	Mines TM-57	1734
15.	Mines TM-62	1067
16.	Mines MOH-200	3086
17.	Grenades Ф-1; RGD-5; RG-42	3000
18.	Railroad mines	2599
19.	Hose charges	4287
20.	TNT blocks	7449
21.	OFAB-250-270; FAB-250 M54	17247
22.	FAB-500 M 54	9890
23.	FAB-3000	43599
24.	AGITAB-250	3000
Hexogen-containing		
25.	UOR-281; UBR-281, 57mm	2183
26.	UBR-354, 76mm	3341
27.	UBR-365K; UBR-372, 85mm	7099
28.	UBR-412; UBK-2M; UBK-5; UBK-367, 100mm	8770
29.	ВБМ-3; VBM-9, 125mm	8700
30.	UOF-5; OFZ-30, 23; 30; 37mm	3000

Building up Capacity or the Three Shiman Milestones

PCP prepared a proposal for the Ministry of Defense on further building up the ammunitions disposition capacity based on the Plant's infrastructure, bringing it up to 45-55 thousand tons per year.

As Director General maintains, the additional ammunitions disposition capacity can be completed in three milestones. (Referring not only to Pavlograd, but Ukraine in general.)

The first milestone refers to initiating work on disposition of small-caliber ammunitions, and various derivative elements generated as a result of the disposition, including fuses, plugs, detonators, black gunpowder. It can be explained by the fact that the problem of disposition of derivative elements has not been solved up to now. According to Shiman, the problem can be solved by building a facility able to dispose of or eliminate those minor ammunition parts in an environmentally safe fashion. This will be a prerequisite to building up the capacity and creating new technologies for disposition of hexogen-containing ammunitions.

At the second stage production capacities need to be created to process military explosives into civil explosive materials with possible mechanized charging of conversion material at quarries. For this purpose PCP has designed special machines enabling the use of emulsion explosive materials for conversion material disposition.

And it is at the third stage only, once the first two have been completed with facilities for disposition of small parts (plugs and fuses) functioning and destination available for gunpowder and explosive materials to go to after being disposed of that one can start producing facilities for disposition of big-caliber ammunitions, armament sections of air bombs containing hexogen and its various compounds TG, TGA, A9-20 as well as facilities for disposition of marine compounds.

But until that is made a reality, believes L. Shiman, one should progressively build up the capacity under traditional technologies existing in Ukraine.

I.e., the capacity for disposition of hexogen-containing ammunitions of separate block charging ought to be built up as a first priority. The related Pavlograd capacity currently is 12 thousand tons of per year. The Ministry of Defense TNT-containing ammunitions also need to be disposed of. Therefore, Ukraine can easily approach the disposition rate of 50-70 thousand tons of ammunitions per year within the two years to come. It can be managed by two enterprises: Donetsk Rubberware Plant and Pavlograd Chemical Plant.

To double the Pavlograd capacity (up to 45-55 thousand), 22 million hryvna is required, by Shiman's estimates. This includes research, design, production of equipment and commissioning of production.

With the preparatory phases completed within two years, one can proceed to building up additional capabilities for disposition of hexogen-containing ammunitions. A similar job can be done by other enterprises. This altogether will enable a buildup of the ammunition disposition capacity in Ukraine up to 100-150 thousand tons of per year. Thus all the ammunition stored in the Ministry of Defense depots and arsenals can be disposed of within 10-18 years.

Who will pay for the disposition?

The PCP Director General maintains that the Ministry of Defense should project disposition needs for at least five yeas ahead. In this regard, the military agency should analyze similar processes in the neighboring countries, Eastern European ones in particular.

Mr. L. Shiman is certain that, from the economic perspective, the disposition should follow two arrangements.
First, the disposition is to take place based on self-financing. In this case the Ministry of Defense, jointly with enterprises possessing production capabilities, would develop a plan for ammunition disposition to be paid off by selling the materials generated as a result of the disposition.

According to the Ministry of Defense data, the amount of profitable ammunitions does not exceed 10% of the total amount of ammunitions. Assuming 2 million tons of ammunitions, the portion of profitable ones is 200 thousand tons. “Meaning a two years’ worth of work for at least two enterprises busy at full throttle. These are the two years needed to complete the preparatory phases prior to full-scale disposing of big-caliber ammunitions containing TNT and non-ferrous metals and exceeding 100 mm in caliber”, notes Mr. Shiman.

Second, ammunitions of the other group should be disposed of based on a subventions system as it is done in Europe. A subvention here is interpreted as the difference between the value collected from selling material resulting from the disposition and ammunitions disposition costs incurred. The amount of subvention can be accurately calculated for each type of ammunitions. Therefore, all materials resulting from state-ordered disposition could be sold by enterprises in compensation for the difference not covered by a state-budget subvention.

Not by word but by deed

No budgetary funding provided, the plant invests its own funds in the creation of pilot facilities to elaborate the disposition technology for small-caliber ammunition (76 mm - 5,45 mm) with a total TNT equivalent of up to 2 kg. This category refers to hand grenades, antipersonnel mines, including mines PFM1, PFM2.

Unlike the U.S.-made *Donovan* camera, the Pavlograd facility works non-stop. The facility qualifies the enterprise for participation in both Ukrainian and international tenders for disposition of small ammunitions to be carried out under the Ottawa Convention (signed by Ukraine 24 February 1999). The same applies to tenders under the auspices of NAMSA (NATO Maintenance and Supply Agency), which coordinates regular weapon disposition projects in Eastern European countries. It is NAMSA that will be in charge of the project for disposition 1.5 million pieces of small arms and 133 thousand tons of ammunitions in Ukraine.

The European Commission intends to sponsor the project for disposition of so called “liquid” PFM mines, counting over 6 million pieces in Ukraine, But EU requires Ukraine to sign the Ottawa Convention first to be followed by allocation of aid funds that the recent data place at €7 million.

According to L. Shiman, the enterprise has big chances to be awarded a tender for disposition of 133 thousand tons of ammunitions, and “liquid” mines as well. The Director General’s optimism is grounded in mastery of new technologies for disposition of complex ammunitions and specifically in the newly assembled facility for incineration of small-caliber ammunitions. Besides, the enterprise has transportation means capable of moving ammunitions from depots and arsenals to their disposition lactations. On the part of NAMSA the only thing needed is to fund purchases of additional equipment, necessary for specific types of ammunitions, and operational costs of the disposition facilities. And here the subvention principle could be applied, believes L. Shiman. The enterprise is ready to get involved also in the disposition of several thousands of missile launchers which, as the U.S. insists, could be included in the well known project of disposition of 1,5 million units of small arms and 133 thousand tons of ammunitions. PCP has the full documentation package for production of *Igla* missile launchers. During the Soviet Union times, PCP manufactured over 70% of the missile launchers. “If we undertake disposition of intercontinental ballistic missiles, we’ll solve that problem within a year or two. So it’s not a problem for us to dispose of 10-12 thousand of missile launchers,” notes PCP Director General.

In his opinion, Ukraine will benefit from Western partners’ participation even if their share of project funding is as low as 25%. The remainder – up to 75% of the Ukrainian contribution

refers or will refer to scientific research work conducted by the Pavlograd Plant, existing infrastructure, use of the premises, facilities, and equipment.

The Western party's contribution (25%) can be expended on missile launcher transportation, dismantling and disposition, or reducing them to scrap metal.

Disposition of missiles

Addressing the state defense order, the Ministry of Defense has already submitted for disposition 20-25 thousand units of volley fire. Last year the missile disposition was handled by the Donetsk State Chemicalware Plant (DSCP) i Petrovsky State Chemical Combine (PSCC). DSCP accepted armament sections for disposition, while missile dismantling and disposition of solid rocket fuel powder was assumed by PSCC. They dismantled the missiles, but they have no capacities to remove and process hexogen and ballast the blocks. Thus the hazard was passed on to the depots to result in the heightened threat to their own territory, summarizes L. Shiman.

This was the reason why the Pavlograd Plant took no part in such activities. "When we come to possess technologies for hexogen removal and processing, we will be ready to participate in related disposition, including that of volley fire systems such as *Grad*, *Smerch*, and *Uragan*," emphasized Director General. He does not believe the Donetsk thing to be disposition, where they saw shells and squeeze hexogen out of them and store it in their warehouses.

"For me, disposition is when everything that gets removed from ammunitions, is processed into civil explosive materials, is transported to quarries and explodes. That way it no longer poses any threat to our society", affirms L. Shiman.

He is suggesting a means to resolve the problem of disposition of volley fire systems. It requires:

- Development of a technology for hexogen removal and processing into civil explosive materials;

- Development of a technology for production of civil material containing hexogen to Mechanically the charge those materials at quarries during ore mining;

- Manufacturing equipment for such production;

- Organization of such production at PCP or other plants.

Moreover, all the three plants could share or distribute the disposition of those armament sections of volley fire systems among themselves. The distribution, as believed by L. Shiman, could be as follows: PSCC dismantles and grinds the solid rocket fuel block, DSCP removes hexogen, PCP receives the ground solid rocket fuel block, hexogen and converts them into conversion civil explosive materials and uses them at quarries during ore mining.

The enterprises can be involved in an integrated production system and effectively perform work based on existing capacities.

In this way the threat now existing at depots and arsenals is not transformed into a threat to the territory of this plant. The problem gets easily solved at the three plants by final disposition of explosion- and fire-hazardous material at quarries is during ore mining. The process uses civil rather than military explosive materials, with safety rules met during transport, fabrication and use.

We emphasize once more that there is no need to integrate the enterprises into one entity. It is the Ministry of Defense that has to plan ammunitions disposition work. On the one hand, the military authority must determine the number of ammunitions by the type and depots of their disposition. On the other hand, is expected to allocate state budget funds to set up production, clearly identifying the timeframe for the work to be completed.

We know that to establish facilities for disposition of jet systems 5-7 million hryvna is required.

Disposition of solid rocket propellant

PCP does not treat the problem of ammunitions disposition separately from disposition of 5 thousand tons of solid propellant for intercontinental ballistic missiles RS-22, inherited by Ukraine. Furthermore, as director general maintains, resolving the problem of disposition of solid rocket propelled will help develop the technology for processing conversion explosive materials into civil explosive materials containing both solid rocket propellant and solid rocket fuel powder and peroxyline powder, and military explosive materials containing hexogen and its various compounds.

In September 2004, the Cabinet of Ministers approved the program for disposition of solid rocket propellant. The first money came under the program. Overall, after the U.S. exit from this program, the disposition of all types of missile armaments stored in Ukraine would cost us over 660 million hryvna. Over 478.5 million hryvna of it will be spent on the disposition of solid rocket propellant of intercontinental ballistic missiles RS-22, over 181.9 million hryvna – on the disposition of solid rocket propellant of other missile types. Over 257 million hryvna will build a complex for disposition of solid propellant. Another 402 million hryvna or more will ensure safety during disposition or storage of solid rocket propellant for IBM RS-22 and other missile types.

The program implementation pace, L. Shiman believes, depends on the stability of program funding. If the program is funded fully and in a timely fashion, one can confidently claim that we will be operating a full-scope facility for disposition of solid rocket propellant within three years. Otherwise, Director General added, everything will be deferred to a later time.

This year the plans are to complete work at the pilot facility for solid rocket propellant removal, its grinding and stabilization, and production of explosive material containing solid rocket propellant. When completed, the pilot facility operation will allow to come up with input data and prepare a feasibility study for a full-scale solid rocket propellant elimination in Ukraine. Under this program the plant will assure operational safety of the storage sites where solid rocket propellant is currently stored in equipped missile engines.

Once this project is completed, the enterprise may feel at ease and proceed to dispose of other types of solid rocket propellants from other types of missiles including operational- tactical ones, “air-to-air”, “surface-to-air”, “air-to-surface” systems. The rocket propellant disposition technology will enable making use of the knowledge and experience in the disposition of big-caliber hexogen containing ammunitions, those over 200 mm in caliber, for instance. This also applies to the principal missile parts, air bombs, marine mines, torpedoes.

The solid rocket propellant disposition program opens opportunities for disposition of a wide range of conventional ammunitions, specifically, armament sections, solid rocket propellant, volley fire systems.

The time with the rate 2005 budget should have allocated 97 million hryvna. However, the Ministry of Finance has reduced this figure down to 60 million hryvna. The enterprise expects the budget to be revised and Program funds to be allocated. “That’s the only way we can meet

our commitments as to the pace of technological processes implementation at the pilot facility and the design of a full-scale facility followed by its construction to start in 2005", L. Shiman emphasized.

The pilot facility costs will be maximally used for the full-scale SRP disposition facility. About 40% of the pilot facility costs will be passed on to the full-scale facility. The pilot facility concentrated four processes in a single building. But all those engineering processes should be deconcentrated into separate buildings. This building are not available at this point, nor is the infrastructure; and the equipment is available for one production line only, while several of such lines may be necessary to manage the disposition of 2-2.5 thousand tons of solid rocket propellant per year. The required number of lines must be identified during and due to the pilot facility operation.

Provided sufficient state budget funds are allocated, efforts can be initiated to upgrade the infrastructure and initiate an overhaul of the buildings to be used at the full-scale facility.

Overall, the disposition of solid rocket propellant may take up to six years, believes L. Shiman. But even after that the Pavlograd plant will not be left to rest on its laurels. Apart from solid rocket propellant of intercontinental ballistic missiles, another 34 thousand tons of solid rocket-propelled missiles are stored in the country. In addition, Ukraine possesses over 100 000 tons of volley fire systems, air bombs, big-caliber marine mines, torpedo warheads. They all can be disposed of at the facilities to be set up. Therefore, investing money in the fulfillment of its international commitments, Ukraine simultaneously solves the problem of disposition of ammunitions not covered by the Lisbon Protocol. (In May 1992 Ukraine signed in Lisbon a protocol to the Treaty on the Reduction of Strategic Offensives, under which it made a commitment, jointly with Belarus and Kazakhstan, to accede to the Treaty of the Nonproliferation of Nuclear Weapons as a non-nuclear-weapon state.) These are conventional ammunitions, operational-tactical missiles. "The knowledge and technologies that will be made available to us under this program can be used in other industries, specifically for the disposition of small-caliber ammunitions and hexogen-containing ammunitions. I mean it may be a tool to comprehensively solve the problem of ammunitions disposition", notes L. Shiman.

Technical risks coming from the U.S.

PCP Director General believes the decision by the Ukrainian government to dispose of solid rocket propellant on our own to be absolutely correct. It followed the proclaimed U.S. decision to suspend the SRP disposition program funding. As it is known, in 2003 the U.S. claimed that product derived from solid rocket propellant is unstable. And Pentagon began to use the term "technical risks".
The samples prepared in the presence of U.S. experts back in 2001 remain stable in 2005 as well. "And the Americans are perfectly aware of that, they have seen all the reports", said L. Shiman. Pentagon, responsible for the solid rocket propellant disposition program, suggested that Ukraine abandon the washout method (allowing solid rocket propellant removal from rocket engines). The Americans instead suggested to Ukraine that engines charged with solid rocket propellant be burnt or blasted. Assuming that the first stage weighs 50 tons, the second one - 30 tons, the third one - 15 tons. Their incineration would release harmful gasses including dioxin that does not disintegrate.

In fact, the U.S. suggested that we run all that venom literally through our lungs and veins and pass down to our future generations, stated L. Shiman. In this situation, the Ukrainian government and the National Security and Defense Council did good to decline the U.S. suggestion. We are able to solve this problem on our own, without violating Ukrainian environmental legislation. The government-allocated funds will empower our country to be the

second country in the world after the U.S. that is able to eliminate arms with no environmental pollution.

The plant has run 13.5 thousand tests that confirm disposition safety for all types of solid rocket propellants contained in the stages of intercontinental ballistic missiles. The enterprise is currently running nearly 7 thousand tests for warranty storage terms and the use of explosive material, resulting from the disposition of solid rocket propellant. These are both emulsion explosive materials, and water-filled explosive materials, containing in their formulations solid rocket propellant.

L. Shiman declares that he as an expert, has no doubts that this process can be implemented with no damage done to human health or environment.

He assures that the SRP-equipped engines are safe. Temperature and humidity requirements developed allow safe propellant storage within that timeframe determined through scientific research done by the enterprise in 2002. Presently this product is believed by experts to pose no hazards and be able to be safely stored until 2007, but it warrants adequate storage conditions.

For 2006 a number of research activities are planned to study the possibilities for extending warranty SRP storage times with further storage modes identified. The research will help determine how long rocket propellant can be stored beyond 2007. L. Shiman believes five or six years to be sufficient time to complete the design and erection of the facility for elimination and disposition of solid rocket propellant.

Does the market need converted explosives?

Producing minerals, Ukraine annually consumes 120 thousand tons of industrial explosive material. Each year their demand grows by 3-4%. “Why not dispose of some portion of military explosive material to the benefit of the nation’s economy?”, asks L. Shiman. If the market annually receives 10-12 thousand tons of converted explosive material from solid rocket propellant disposition, amounting to a little under 10%, it will not substantially alter the situation.

The enterprise reduces nearly 42 thousand tons of industrial explosive material, including new conversion explosive materials. Military TNT is transformed into conversion TNT and is used for the production of civil explosives. Since 1995 PCP has been producing the water-helium explosive *Helex*. Since 1994, it has been developing the technology for emulsion explosive material production and mechanized charging of explosives. It uses U.S. and German machines in the process.

According to L. Shiman, the market can absorb no more than 30-35 thousand tons of explosive material extracted from ammunitions. However, explosive materials need first to be phlegmatized, transformed into conversion explosive materials, and only then be processed to become civil explosive materials. Additives like ammonium nitrate, various solutions, water, other phlegmatizers but need to be added. Then the formulations would contain approximately 22-30% of conversion explosive material. In this case the total amount of such explosive material at the market will not exceed 35 thousand tons and would count for 1/3 of the explosive material production market. To obtain such an amount of conversion explosives, 135-150 thousand tons of ammunitions need to be disposed of.

Conversion explosive sales are closely related to pricing. Without subventions such explosive materials are not competitive compared to the pricing for industrial explosive material and, accordingly, can not justify disposition costs when sold at the market. The state is supposed to

estimate subventions needed to compensate the disposition costs of explosive substances to make conversion explosives able to compete with Ukrainian civil explosives.

What are investors interested in PCP for?

A state enterprise can be attractive for investors, PCP director general maintains and refers to this fact: the Pavlograd plant completed for projects jointly with foreign companies within five years.

Three projects have paid off and bring net profit. For the fourth project the enterprise is approaching the design stage. It is not only a stable form of existence that attracts investors, but also stable turnover assets, maintains Mr. Shiman. Managing an investment project through a state enterprise, an investor receives indirect state guarantees.

Naturally, investment should be insured by an insurance company. In this case the investor, even if incurring losses from the investment projects, can recover them from the insurance company.

The Pavlograd plant is able to get a bank credit within a day, assures Mr. Shiman. Though being a state enterprise, the bank is in the position to assess the turnover and the bank balance.

As to the plants performance, conclusions can be made based on the facts as follows. Over the last five years the enterprises profit has multiplied by about 10 times, the civil use commodity production rate; by 6 times. The volume of power consumption has been reduced by 20 times. At that, the portion of power consumption in the prime cost has shrunk by about seven times. The average salary is ten times bigger while labor productivity has increased by 18 times 18. Annual value of goods and services produced per employee is 40 - 200 thousand hryvna. Overhead is down by 4 times. Manpower has decreased from 3.5 down to 1.5 thousand employees. The enterprise is exempt from the land tax.

Olexiy Poltorakov, PhD in Political Sciences

CIVIL CONTROL OVER "ENFORCEMENT" STRUCTURES IN UKRAINE: Challenges and Prospects

The political and legal machinery of a democratic state (or a state that aspires to be democratic) implies an active involvement of state authorities and state officials on the one hand; and independent public organizations pursuing their own goals and intentions on the other hand. Relationships between state and non-state (public) entities are built based on the interaction and counterbalance principle. As a result of such an intricate interface of institutions and their joint efforts, a new systemic quality emerges, and a degree of national security in its broader sense (ranging from state security to that of individuals) is achieved equal to that of the democratic nations. One major factor of potential hazard to national security is for the state administrative authorities or at least some of them to possibly go out of control. What merits especial attention is the issue of controlling those state administrative authorities conventionally called "enforcement". They would normally include the Army, frontier guard, and special security forces. In specific cases, authorities responsible for collecting taxes and financial monitoring are referred to as "enforcement". In our context, the "enforcement" includes the Armed Forces, Ministry of Internal Affairs (MIA), the police, the State Security Service (SSS) and sometimes the Frontier Guard. Altogether, they make up the institutional backbone of the state's military organization. However, since other structural elements and mechanisms are also part of the state's military organization, our survey is limited to a review of challenges related to controlling the activities of the above-listed enforcement structures (the Army and law-enforcement bodies) by the civil society that we interpret to be primarily the "third sector" institutions (NGO) and the Ukrainian community overall.

Therefore, civil control can be defined as a system of relationships between the civil society and the state, which is based on state administrative authorities reporting to the bodies of state legislative authority (parliament control) and non-governmental structures (the "third sector" and mass media). The principal vector of civil control over enforcement units is to prevent the country from becoming a "police-type" state, to contribute to the development of democratic processes in the units under control. The main problem in this regard is the lack of awareness of the public and its representatives (non-governmental organizations, journalists etc.) of the processes ongoing in the above-listed enforcement structures.

We note that civil control over the national security system is a multifaceted notion. It is much broader than civil control of the Armed Forces, and as such, implies controlling not only the Army, but the law-enforcement structures in general, that is all the political entities of the nation's security system. Nevertheless, modern scientists tend to reduce their scope to civil – military relations or the issues of democratic control over the Army, overlooking other elements of the state's military organization.

Let us review the civil control concerns in a broader context than the society/Army relations.

The Party and Political Control in the USSR

In Soviet Union times the control over the Soviet Army was twofold: the party control (through the Communist party of the Soviet Union (CPSU) and the Komsomol as a supporting link in this case), on the one part, and counter-espionage control (through KGB that was concerned with a broader range of USSR Armed Forces problems than merely countering the enemy's military espionage) on the other part.

As U.S. expert Roman Kolkowicz noted, the conflict between the civilian and military leaderships in the USSR was inherent in the Soviet political system, which warranted the need for comprehensive control over the Army. That conflict resulted from the fundamental between the Marxist egalitarian antimilitary ideology with its civil leadership requirement and the elitist realistic standpoints of the military leadership with its military mindset.[1] With this objective in mind, a ramified network of special agencies responsible for comprehensive control over the Army was created. The most important ones were the Chief Political Department (CPD) under the CPSU and the Third Chief Military Counter-Espionage Department under KGB. The lack of control on the part of KGB over the intelligence (Chief Intelligence Department of the Staff General) was offset by strengthened controls over CPD on the part of the so-called Military Section of the CPSU Central Committee. The party and political control over other "enforcement structures" of the Soviet state (namely the KGB and the police) was supplemented by internal controls ("Internal Security" services) and, partly by the prosecutor's office. For others – an absolute majority of citizens and organizations of the country– the activities of the enforcement structures and related defense industry (DI) structures was almost a "terra incognita". That is exactly why in the late 1980s through early 1990s, the civil control requirement was actually one of the democratic movement slogans.

It was only the rapid "perestroika and new thinking" processes that lifted the taboo on public discussion of problems and prospects of relationship between the authorities, the Army and special security forces. We remember how many articles were published and parliamentary requests filed to clarify, for instance, whether Michael Gorbachev had authorized military interference in Tbilisi, Vilnius, and Baku or not.

Transformation of the control system in the independent Ukraine

Following the breakup of the Soviet Union, rapid "depoliticization" processes (going in parallel with questionable "deKGBization" processes in the Baltic countries"[2]) in the post-Soviet countries did not spare the Army and special security forces. Thus, in particular, the USSR President Decree dated 24 August 1991 terminated political party activities within the Armed Forces. It resulted in a difficult situation in terms of losing one of controls and means of influence on the special security forces. The situation with the Army in Ukraine at least was complicated by the fact that the Supreme Council of Ukraine had for the most part declaratively subordinated all military units dislocated on Ukrainian soil and did it so fast[3], that it failed, in parallel, to create an efficient system of parliamentary control over the Army and special security forces. An attempt to implement the norm of parliamentary approval for the nomination of the key "enforcers" (heads of the enforcement bodies) proved a failure: "...in 1991—1992... all heads of the law-enforcement bodies and special security forces were sifted through parliamentary committees and it was then that law-enforcement bodies' effort got actually

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[1] See Soldiers, Peasants and Bureaucrats / ed. Roman Kolkowicz and Andrzej Korbonski -London: Allen and Unwin, 1982.

[2] See e.g., Krupnikov Renounces Ministership for a KGB Card // Business & Baltia (Riga) - # 202 (2085) - 17.10.2002

[3] In 1991, following the adoption of the Supreme Council of Ukraine Decree *On Military Units in Ukraine*, which defined the parliament's jurisdiction over part of the Armed Forces of the former Soviet Union, the Supreme Council of Ukraine promptly developed and passed a number of legislative acts on defense policy issues: Defense and Development Concept for the Armed Forces of Ukraine, Laws of Ukraine "*On Defense of Ukraine*", "*On Alternative (Non-military) Service"* and "*On Social and Legal Protections of Servicemen and their Family Members* ". A specific Supreme Council of Ukraine Decree established the highest state body of collective defense and security management – The Defense Council of Ukraine.

frustrated. It resulted in criminal boom, not because the law-enforcement officers led it, but because they were demoralized and disorganized"[4].

The "assumption of yellow-and-blue banners" by the police and even the former KGB (currently SBU or SSS)[5] occurred in a quite calm and easy way (due to the specifics of those organizations' regional structures and lack of appropriate attention to the political and legal problems of their functioning), however "in fact, the Service did not act during the first three or four years of independence, it was only an observant since it had no legal framework to act within"[6].

The army situation was aggravated by the nuclear weapons problem and that of the Black See Fleet. In part it is due to those sensitive cases that civil control is regarded at least in Ukraine through the prism of army/society relations, tending to overlook the subordination problems experienced by other structures also referred to as "enforcement". Ill-grounded secrecy normally featuring those structures' activities makes them impossible to control is a major obstacle on the path to democracy[7].

Democratic Control Mechanisms in Ukraine

Even at this point the Ukrainian parliament is not taking full advantage of the possibilities for controlling the enforcement structures. Special controlling bodies are yet to be established, the potential for exercising parliamentary control through military budget approval is left unused. On the other hand, we observe an "excessive concentration of actual controls over law-enforcers with one body – that is the President of Ukraine Administration, a structure with functions defined neither by the Constitution nor the laws of Ukraine and whose everyday activities are under no control by either citizens of Ukraine, or by representative bodies they elect"[8]. Therefore, the legislative branch of authority unlike the executive one has limited information on the status of enforcement structures and cannot actually implement its controls and exert its influence"[9]. Besides, the practice of parliamentary concurrence with the Prosecutor General nomination is inefficient. For as the most recent precedents have shown, once the presidential nominee fails to be approved by the Parliament, the Prosecutor General duties are assumed by an acting figure that is in no position to report to the parliament. The misbalance between the presidential and parliamentary authorities is a serious menace to national security and political stability, creating certain prerequisites for Ukraine to turn into a "police-type", or "Pretorian" (quoting S. Huntington) state. We are hopeful that the constitutional reform to be practically implemented shortly will help at least to reduce that misbalance.

The great attention the public and mass media pay to the Ukrainian Army (in a broader sense – the Ministry of Defense, MoD), cannot be explained solely by the extensive number of Army (military) units. For the number of military units that are not referred to the Army (The Frontier Guard, MIA Interior Forces, SSS departments, etc., even making no mention, for example, of the former railroad military forces now integrated with the Ministry of Transportation), is, in fact, no inferior to the number of Army units. Of course, the focus on the Ukrainian Army can be attributed to the fact that it is the military processes that remain the key issues of the Ukraine/NATO dialogue. However, one should not forget that the requirements imposed on us

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[4] Hutsal A. Democratic Control is no Cure-All // Dzerkalo Tyzhnia – 2004. - #23. - 12 - 18 June

[5] Immediately following the declaration of independence, the Supreme Council of Ukraine issued a decree dissolving the KGB of the Ukrainian SSR and raising the question of establishment of a National Security Service of Ukraine.

[6] Hutsal A. Democratic Control is no Cure-All // Dzerkalo Tyzhnia – 2004. - #23. - 12 - 18 June

[7] Emocratic Civilian Control Over The Military In Ukraine: The Path From Form To Substance. UCEPS Analytical Report // National Security and Defense. – 2000. – # 11.

[8] Hrytsenko A. Control over Law-enforcement Bodies in Ukraine – Civil but not Democratic // Dzerkalo Tyzhnia - 12 - 18 June 2004 - # 23.

[9] Bodruk O.S. Society and Army // Strategic Panorama. – 2002. - # 4.

under "special partnerships" and our NATO and EU membership aspirations (especially in their political implications – assuring democracy, transparency and freedom of speech and mass media), equally apply to the police and SSS.

Democratic Control: International Dimension

"Both NATO and EU have recently tended to tighten their focus on democratic control and anticorruption struggle in the non-military security sector."[10]. It should be noted, however, that the key document on cooperation under the *Partnership for Peace* program (January 1994) emphasized "implementing democratic controls over the Armed Forces", while making no mention of other security structures; although many democratic states have gendarmeries, any militarization of state security bodies (except for the Ministry of Emergencies and the Tax Authority) is alien to liberal, democratic traditions. It is only after the 1997 Madrid summit that the NATO bloc began to pay due attention to the non-military security sector of candidate countries. Ukrainian non-military "enforcement" structures excepting the Ministry of Emergencies joined in the Ukraine/NATO cooperation only in late 2000. In turn, after a lengthy period of icy attitude towards the NATO, MIA representatives tend to exhibit an ever increasing interested in the applicability of the NATO's Transparency Concept being is the basis for Ukraine's Defense Overview, to estimate their own costs, capabilities, and shortcomings[11]. This enables a preliminary conclusion that the Ukraine/NATO and Ukraine/EU cooperation has yet to prove itself to be an effective mechanism to facilitate civil control over enforcement structures.

MoD is known to maintain a steady process of manpower reduction, while almost zero reduction is observed at MIA, SSS and others. Even if there is a reduction, it happens in a manner invisible to the public and mass media, and that is a problem for the Ukrainian civil society. Overall, a misbalance can be observed with the public and media attention being paid in excess to the Army[12], while the police enjoy insufficient coverage, SSS even less. The most plausible explanation for this phenomenon is that the Army (already heavy-laden with lawsuits filed by former servicemen demanding payment of outstanding debts), unlike the police, SSS, DPA, etc., has no major checks-and-balances instruments against mass media – both official ones (taking a periodical or a journalist to court on libel charges) and unofficial ones (inspections and searches of publishing house offices, etc.).

In our opinion, it is the lack of efficient controls over "enforcement" bodies of executive authority that has brought about such a paradox when, for example, "our Western colleagues acknowledged that the state security bodies had been the less corrupt structures until 1991. Moreover, in 1990, our party organization of the Counter-Espionage Department "had the courage" to challenge the Kiev City Committee of the CPSU. The move was supported by Head of the Department. And nowadays we are blaming the security bodies for being the most corrupt structures"[13]. The police corruption has widely become "the talk of the town", for as early as "in 1965, the new Communist Party Secretary General, when prompted to increase policemen's salaries, replied that there was "no need to, for they take bribes anyway"[14]. The CPSU Secretary General Y. Andropov's initiative to "dilute" MIA with KGB officers proved fairly without success.

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[10] Greene J. NATO and EU Expansion: Consequences for the Non-Military Security Sector Reform in Ukraine // Dzerkalo Tyzhnia – 2004. - #23. - 12 - 18 June

[11] Sherr J. Security Sector Transformation // Dzerkalo Tyzhnia – 2004. - #23. - 12 - 18 June.

[12] Also indicative is the MoD statement dated 16 December 2004, specifically reading: "The Minister of Defense Press Service Department requests that mass-media, prior to disseminating information that can invoke negative responses from the public and destabilize the situation in the society, verify and clarify the facts to be published" (http://www.mil.gov.ua/index.php?lang=ua&part=news&sub=read&id=4630).

[13] Hutsal A. Democratic Control is no Cure-All // Dzerkalo Tyzhnia – 2004. - #23. - 12 - 18 June.

[14] Bilas I. Law-enforcement Bodies Need Clear Operational Standards // Dzerkalo Tyzhnia – 2004. - #23. - 12 - 18 June.

Mass Media as a Structural Element of Civil Control

As far as the mass media's place and role in the state/civil society relationships are concerned, one is led to conclude on a lack of efficient control on the part of mass media over the activities of the "law-enforcement bodies" at least. In the opinion of many experts, even an opposite trend can be observed. Thus, since mid-1990s a process of mass media freedom restriction has been developing, engineered by those agencies, whose activities themselves should be under information control by the media – primarily the police, SSS, Tax Police, prosecutor's office, etc. The attitude of the law-enforcement bodies towards mass media is expressly exhibited by the fact published by the Mass Information Institute: during 2003 over 80 conflict situations were registered in Ukraine between the mass media and executive authorities, including the police (14 occurrences) and the prosecutor's office (12 occurrences). In those situations the law-enforcement bodies never acted in support of the journalists[15].

Religious Dimension of Civil Control

Considering the church/enforcement structures relationships, one faces a major problem. The leading church institutions are not always in pursuit of mechanisms for constructive control over enforcement structures and mutually beneficial dialogue with them (receipt of humanitarian aid and independent monitoring of the social and psychological status). Thus, a very indicative one is the fact of signing by the Ukrainian Orthodox Church (UOC) of Moscow Patriarchate without involvement of other Ukrainian Churches and confessions, of "joint interaction agreements" with the Army, Navy Frontier Guard, and MIA Internal Forces of Ukraine. In April 1999, the Russian Orthodox Church openly made advances to the Ukrainian leaders of enforcement structures when, on the Easter Day, a member of the Russian Orthodox Church (ROC) Holy Synod, UOC Metropolitan Volodymyr (Sabodan) presented honorary church decorations to the Minister of Defense of Ukraine O. Kuzmuk, Minister of Internal Affairs of Ukraine Y. Kravchenko and Chairman of the State Border Protection Committee B. Bannykh "for Service to the Church" (meaning: to UOC being part of the Russian Orthodox Church?). Experts believe that the action was performed in compliance with the assignment ROC Patriarch Alexy II gave at the 18-23 February 1997 Archbishops Assembly of ROC, which literally read: "We should think how we could establish closer ties with the armies and law-enforcement bodies… of the CIS states."[16]. This fact prompts a preliminary conclusion that the "Church's military policy" priority is not so much in developing a system of civil control over "enforcers" as in searching for questionable means of influence on them.

Conclusions and Suggestions

The formation of a state – independent civil society is one of the post-Communist transformation elements; the depth of transformation, degree of modernization and europeization of the post-Communist states can be measured by the effectiveness degree of civil society institutions' (including non-governmental organizations and independent analytical centers) influence on the state.

Cooperation of state bodies with non-governmental organizations and independent analytical centers is an integral part of the democratic political culture after European standards. Availability of stable communication channels between the authorities and the "third sector" stands as a guarantee of state policy openness and controllability by the society, and overall compliance with the strategic national interests.

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[15] Polyakov L., Shangina L. Law-enforcement Bodies in Ukraine: Controlled Uncontrollability // Dzerkalo Tyzhnia. – 2004. - # 23. – 12-18 June.

[16] Syomin S. Church and Army: Partnership of Absorption? // National Security and Defense. – 2000. - #10.

The non-governmental organizations' experience of democratic control cooperation with the authorities predominantly points to the presence of the same problems that are characteristic of the relations between the authorities and the civil sector in Ukraine in general: the traditional reticence of the state apparatus, lack of transparency in state policy development, mutual distrust, low "third sector" effectiveness in lobbying their positions. Performance analysis of non-governmental public organizations shows that only a minority of them (The Razumkov Center; Center for Army, Conversion, and Disarmament Research; Center for Civil Society Problems Research, and some others) pays adequate attention to military and related problems.

In the meantime, over the last few years, activists of non-governmental organization (analytical centers for the most part) jointly with representatives of the authorities have somewhat succeeded in expanding the window of possibilities for mutually beneficial cooperation. In this connection, the recent MoD initiatives, specifically the availability of "hotlines" (they help find out about all concerns and processes ongoing in the Ukrainian Armed Forces") and the attempts at establishing a Civil Council under MoD, which is envisioned to be a "permanent advisory body" can only be welcome. It would be more than desirable, if similar experience (however little and insufficient) covered other structures also referred to as "enforcement".

Thus far, despite the high sensitivity of the numerous problems concerning the Army, the police, SSS, and frontier guard; the system of civil control over them leaves to be desired. Thus, for instance, it would make sense to perform a comprehensive study to objectively reflect the corruption level in the enforcement structures, allowing to make the anti-corruption and anti-bribery program more effective and efficient.

To develop democratic control systems is to accumulate experience that, once the domestic political situation has improved, can subsequently lead to forming a new culture of liaison between the authorities and the public, specifically in the area of national security in its broadest sense.

UN SECURITY COUNCIL RESOLUTION 1540
AS AN IMPORTANT MEASURE TO ENHANCE THE WMD NON-PROLIFERATION REGIME

The problem of WMD non-proliferation has been keeping attention of the international community for several dozen years by now. However, today this problem has gained a new dimension which is associated with a threat of terrorist groups acquiring and using these weapons.

Acuteness of the issue has lately reached such a point that disregarding it as a threat to international peace and security would be profoundly mistaken and, consequently, dangerous for the whole international community. Such circumstances pointed to the urgent necessity of a more active engagement of the UN mechanism, particularly the UN Security Council, to resolving the WMD non-proliferation problem as well as to introducing new and reinforcing existent measures to this end at an international level and especially at a national level.

These are the aforementioned trends in arms control sphere that have prompted adoption of the UN Security Council Resolution 1540 (2004) on WMD non-proliferation which has become one of important components of the global system of measures to combat the threat of nuclear, biological and chemical weapons proliferation, their means of delivery, materials, equipment and technology for their manufacturing.

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On March 24, 2004 the US delegation officially circulated among the UN Security Council members a draft resolution which after its passage got number 1540. Initially the draft resolution was cosponsored by the United Kingdom. Later on the number of cosponsors grew to include such states as France, the Russian Federation, Spain and Romania.

It was suggested that the resolution be adopted under Chapter VII of the United Nations Charter "Action with respect to threats to the peace, breaches of the peace, and acts of aggression" so as to reconfirm that the danger of terrorists acquiring weapons of mass destruction represented a clear threat to international peace and security and that accordingly the UN Security Council, given its authorities under the UN Charter, was a competent body to take effective measures to prevent and overcome such a threat.

It is important to underline that the draft resolution committed states to introduce specific steps at a national level with a view to minimizing the risk of providing support to non-state actors attempting to acquire, manufacture, transfer and use of WMD. Such national measures included, *inter alia*, adoption of relevant legislation and setting in place efficient physical protection measures and export, border, customs and trans-shipment controls.

The document was developed as a supplement to existing WMD non-proliferation regimes based upon the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), Convention on the Prohibition of Chemical Weapons (CWC) and Convention on the Prohibition of Biological Weapons (BWC). The draft resolution was conceived as a means to enhance these and other multilateral treaties in the relevant field.

Such an understanding has given rise to questions during the consultations within the UN Security Council as to whether terms of the resolution will impose an obligation on states that are not parties to the mentioned multilateral treaties to accede to them. In addition, Pakistan voiced fears that under the new resolution some states might take unilateral compulsory

measures against other states. In explanation of the draft resolution and to dissipate fears caused by its provisions cosponsor states pointed out that countries that were not parties to either the NPT or the CWC would not be obliged to enter into those treaties under the resolution and that this resolution did not envision or authorize use of force or other compulsory measures against those who would fail to fully implement resolution provisions.

Basically, in an open debate within the Security Council and during the informal consultations on the draft resolution practically all the delegations expressed concern about the possibility of WMD falling into the hands of terrorists and stressed the necessity of filling existing gaps in the global non-proliferation regime as well as of taking appropriate measures. Discussions of the draft resolution revealed different view points, mainly with regard to specific provisions of the document but this fact did not hamper its unanimous adoption though.

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On April 28, 2004 the UN Security Council unanimously passed Resolution 1540 on WMD non-proliferation.

According to the resolution adopted under Chapter VII of the United Nations Charter states shall refrain from providing any form of support to non-state actors that attempt to develop, acquire, manufacture, possess, transport, transfer or use nuclear, chemical or biological weapons and their delivery means.

Peculiarity of the document is that its provisions identify a range of specific domestic measures to be implemented with a view to reaching the resolution's goals.

In accordance with existing national procedures all state shall provide adoption and adherence to effective laws that prohibit any non-state actor to perform the aforementioned actions with respect to WMD, in particular for terrorist purposes as well as attempts to engage in those activities, participate in them as an accomplice, assist or finance them. States are also called upon to adopt laws and regulations to provide implementation of key multilateral international treaties in the field of WMD non-proliferation.

In addition to legislative measures, states shall introduce domestic controls to prevent the proliferation of WMD and their delivery means, including effective controls over related materials, in particular in the following spheres:

- accounting for and securing such items in production, use, storage and transport;
- physical protection;
- border controls and law enforcement;
- export controls and trans-shipment controls, including appropriate legislation on exports, transit and re-export, controls on providing funds and services related to such export and transit as well as end-user controls;
- criminal and civil penalties for violations of export control regimes.

A positive thing about the resolution is that committing states to implement specific measures the document at the same time provides for the possibility of assisting them, if necessary, in establishing appropriate legal infrastructure as well as sharing experience and allocating resources to fulfill resolution provisions.

Along with domestic measures the resolution 1540 calls on states to take specific steps at an international level, among them being promotion of a universal adoption, full implementation and strengthening existing multilateral treaties in the field of WMD non-proliferation as well as

fostering international cooperation within the framework of the International Atomic Energy Agency (IAEA), Organization for the Prohibition of Chemical Weapons (OPCW) and the BWC.

Being comprehensive in its provisions, the resolution, however, stresses its complementary nature vis-à-vis other international legal instruments and measures in the field concerned. In conformity with operative para.5 of the resolution, none of the obligations set forth in it shall be interpreted so as to conflict with or alter the rights and obligations of States Parties to the NPT, CWC and BWC or alter the responsibilities of the IAEA or the OPCW.

It is worth noting that on top of all abovementioned, adoption of the resolution 1540 has become a landmark event in terms of facilitating the implementation of the Proliferation Security Initiative, including the increase in the number of participants and development of a legal framework of the Initiative. For instance, adoption of the resolution has sent a signal for other states to join the PSI. This fact has played its role in reaching a decision with respect to participation of our country as well as of the Russian Federation in the Initiative.

The resolution envisions the mechanism to monitor the implementation of its provisions. To this end a special committee has been set up within the UN Security Council for a period of no more than two years. By the terms of the resolution, the UN member states shall report on the measures taken or planned to be taken to implement the resolution. Such a first report to the Committee was to be presented no later than six months from the adoption of the resolution (28 April 2004).

As early as the beginning of December 2004 Chairman of the 1540 Committee, Permanent Representative of Romania to the United Nations Mr. Mihnea Motoc, for the first time reported to the UN Security Council about the Committee's activities.

While listening to the Chairman's report, which was appreciated by all the delegations, members of the Security Council stressed the urgency of taking steps to encourage all the states to submit their national reports as to implementation of the resolution 1540 (as of that day only 86 countries presented country reports)[*]. Participants of that meeting also recognized the necessity of providing states, if need be, with the technical and expert assistance in crafting relevant reports.

In addition, it was emphasized upon the importance of establishing close working contacts between the 1540 Committee and the IAEA, OPCW, other specialized agencies as well as upon reinforcing the cooperation of the 1540 Committee and the two other UN Security Council committees - Counter-terrorism Committee and the Al-Qaida and Taliban Committee.

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National report of Ukraine on the implementation of the resolution 1540 was drawn up and submitted to the UN Secretariat before the deadline established by the resolution.

It should be noted that the resolution requirements were in fact being fulfilled in Ukraine at the time of the resolution adoption in April of last year.

Concerning the implementation of the international measures determined by the resolution, Ukraine has been a party to the basic instruments in the field of WMD non-proliferation - the Treaty on the Non-Proliferation of Nuclear Weapons (since 5 December 1994), Convention on the Prohibition of Chemical Weapons (since 15 November 1998), the Convention on the

[*] As of 3 February 2005 101 countries submitted their national reports.

Prohibition of Biological Weapons (since 26 March 1975) and the Convention on Physical Protection of Nuclear Material (since 5 August 1993).

Ukraine takes an active part in the fora within the framework of these treaties, works in the international organizations and their governing bodies established in accordance with the treaties. The delegation of Ukraine regularly participates in the sessions of the IAEA General Conference and the Conferences of the States Parties to the CWC. Our country was represented in the IAEA Board of Governors in 2000-2001 and twice in the OPCW Executive Council – in 1999-2001 and currently (2004-2006).

As one of the founders of the IAEA Ukraine fully endorses the Agency's activities in the field of nuclear non-proliferation. This may be evidenced by the conclusion and the strict compliance of Ukraine with the Agreement between Ukraine and the IAEA for the application of safeguards in connection with the Treaty on the Non-Proliferation of Nuclear Weapons as well as by Ukraine's signing the Additional Protocol to that Agreement in August 2000.

Ukraine is a member of the four out of five international export control regimes – the Wassenaar Arrangement (WA), Missile Technology Control Regime (MTCR), Nuclear Suppliers Group (NSG) and the Zangger Committee. Currently Ukraine is seeking membership in the Australia Group (AG). The necessary preparatory activities to join the Group have been underway.

Ukraine recognizes a key role of these regimes in inhibiting the WMD proliferation, stands for their further development and improvement of cooperation between the members within the regimes. Ukraine believes it important that the cooperation among the regimes' member states in the law enforcement and information exchange be intensified and the interaction with other countries at a level of national export control authorities be reinforced.

Ukraine participates in the Proliferation Security Initiative and the G-8 "Global partnership against the spread of weapons and materials of mass destruction".

Ukraine does not provide any form of support to either State or non-State actors attempting to develop, manufacture, acquire, transfer or use WMD.

Implementation of the international legal instruments on WMD non-proliferation and of export control, customs and border control measures is provided in Ukraine by the relevant laws and regulations.

Violation of legislation in the field of state control over WMD non-proliferation is prosecuted under the Criminal Code of Ukraine, the Code of Ukraine on Administrative Offences and the Law of Ukraine "On the State Control over International Transfers of Military Goods and Dual-Use Items" (Part IV).

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Adoption of the resolution 1540 has been a landmark event in terms of further development of the international WMD non-proliferation regime.

What is important is that this event marked a more active involvement of the UNO in the settlement of the problem of WMD non-proliferation. This issue has been determined as a threat to international peace and security and, accordingly, the UN Security Council is authorized to take immediate efficient measures to rebuff that threat. Any decision made by the UN Security Council on this issue is mandatory for the UN member states. Consequently, an additional mechanism to solve the WMD problem has been introduced at an international level.

In addition, resolution provisions are designed to encourage states to establish at a national level new and improve existing means of fighting the relevant threat. Domestic measures with respect to preventing proliferation of materials, technology and equipment to manufacture the WMD are crucial today in terms of achieving success in resolving WMD non-proliferation problem.

There two more essential things foreseen by the resolution. First thing is a mechanism to monitor the implementation of the resolution provisions (embodied in the special UN Security Council Committee) and another one which is the possibility of assisting states in the implementation of the resolution provisions.

To sum up, the UN Security Council Resolution 1540 carries significant potential with respect to consolidating and intensifying international efforts aimed at enhancing global WMD non-proliferation regime.

Serhiy Kondratov
Institute for National Security Problems under NSDC

Confident Progress of Swedish/Ukrainian Nuclear Nonproliferation Cooperation

A seminar on export control of nuclear-related goods and a round table devoted to the 10th anniversary of Ukraine's accession to the NPT were held in the framework of the Swedish/Ukrainian nuclear non-proliferation cooperation

Under the contract with the Swedish Nuclear Energy Inspectorate, the Scientific and Technical Center For Export and Import of Special Technologies, Equipment and Materials (STC) convened on 7 December a one-day seminar on the subject *State Control over International Transfers of Goods That Can Be Used In the Production of Nuclear Weapons*, the agenda of which included a "round table" dedicated to the tenth anniversary of Ukraine's accession to the Treaty on the Nonproliferation of Nuclear Weapons (NPT). The round table agenda also included a presentation of the *Security and Nonproliferation* journal issued by STC under cooperation with SKI and its ad-hoc issue in commemoration of the tenth anniversary of Ukraine's accession to the NPT.

In conducting the events, the organizers pursued the following goals: to provide nuclear energy management personnel, representatives of respective state authorities, scientists, designers with information on the changes that have lately taken place in the export control regulatory framework; to discuss Ukraine's accomplishments, problems, and prospects in the context of its renunciation of nuclear weapons and accession to the NPT; and finally, to popularize the *Security and Nonproliferation* journal by presenting its 6th issue entirely dedicated to Ukraine's accession to the NPT.

Seminar on Export Control of Nuclear-Related Goods

The seminar attendees included representatives of the Ministry of Fuel and Energy (MFE), SSEC, NAEK Energoatom (Ukrainian NPPs), Eastern Mining and Enrichment Combine, Sevastopol Institute for Nuclear Energy and Industry, and STC. Presentations had been prepared by prominent experts from the Ministry of Foreign Affairs (MFA), SSEC, and STC.

The seminar was opened by **STC Director Mr. O. Siver.** In his introduction he dwelt on the seminar goals and objectives, made a brief overview of the Center's activities since it was established, and also communicated to the attendees that STC's *Export Control* newsletter and *Security and Nonproliferation* Journal as well as the Center's website discuss information and analytical material on recent changes in the regulatory framework, events related to the international export control regimes, and international and national security problems. In particular, STC Director welcomed comments and suggestions to the text of the commentary on the Law of Ukraine *On State Control over International Transfers of Military and Dual-Use Goods.*
This commentary had been prepared by a working group that involved leading export control experts, representatives of state authorities, and lawyers working under a project similarly funded by the Swedish side (SKI).

In his speech, the **First Deputy Head of the State Service for Export Control Mr. O. Hryshutkin** underpinned the great importance of seminars aimed at researching the regulatory framework and improving effectiveness of state control over international transfers of military and dual-use goods. The speaker presented the key tasks of a state export control system, summarized the background for the formation of such a system in the independent Ukraine. Specifically, speaking of the initial stage of the export control system formation, Mr. Hryshutkin

said that the stage could be identified as a "manual control" period. The term "export control" was first legislatively introduced in the Law of Ukraine *On the Use of Nuclear Energy and Radiation Safety (1995)*. In 2003, the Law of Ukraine *On State Control over International Transfers of Military and Dual-Use Goods* was adopted. With the adoption of this law and a number of associated legislatives including Cabinet of Ministers decrees and 15 SSEC orders, the formation of the export control regulatory framework was essentially complete. Discussing the export control system organization in our country, Mr. Hryshutkin especially focused on the organization of the "nuclear" fragment of the system, and interaction between central executive authorities in this area.
In addition, the First Deputy Head of SSEC identified export control as a very sensitive tool. Applying it, the state puts certain restrictions on business activities, which cannot go without negatively affecting the profits gained by businesses, enterprises, etc. Thus, the scope of export control applicability is restricted within the non-proliferation regime goals, i.e. export control is directly linked to political issues, therefore SSEC together the relevant state authorities, while making decisions, has to factor in their political consequences. The decision to subordinate SSEC to the President of Ukraine actually ensued from those political implications.

According to Mr. Hryshutkin, Ukraine's accession to Australia Group is planned already for the near future, and that will complete the process of Ukraine becoming party to all international nuclear non-proliferation regimes.

In his presentation, Mr. **R. Nimchinsky (MFA)** provided detail on the process of Ukraine's accession to the NPT and its consequences for both our state and the nuclear non-proliferation and international security regime in general. In addition, the speaker described the efforts undertaken by the Ministry of Foreign Affairs and other Ukrainian state authorities to reinforce the NPT's role in ensuring global security and supporting the nuclear non-proliferation regime.

Presentation by the **SSEC Head of Department Ms. T. Vidzigovska** was meant to familiarize the seminar attendees with the most recent changes in the export control regulatory framework. Ms. Vidzigovska who was among the developers of the 2003 Law of Ukraine *On State Control over International Transfers of Military and Dual-Use Goods* presented the hierarchy of national legislation in this area, discussed the main provisions of the above-mentioned law fundamental to export control, and addressed the Cabinet of Ministers of Ukraine Decree #86 dated 28 January 2004 *On Approval of the Procedure for State Control over International Transfers of Dual-Use Goods*. This governmental decree has five appendices, one of which, namely Appendix 5, is a list of goods that can be used in the creation of nuclear weapons. The speaker emphasized that this list is consistent with Ukraine's commitments resulting from its participation in such regimes as the Nuclear Suppliers Group and Zangger Committee. The presentation showed a direct correlation of nuclear export control activities with the IAEA's nuclear non-proliferation safeguards system.

SSEC Head of Department Mr. O. Bulkin was also directly involved in the development of the export control regulatory framework. His lecture was dedicated to procedural aspects of export control over nuclear-related goods. In particular, Mr. Bulkin directed the audience's attention to some terminology modifications introduced to adequately address the threats that the international community has been facing over the recent years. In particular, the definition of dual-use goods has been notably expanded to address their possible uses not only for military purposes, but also "to terrorist ends or in the development and use of military goods, weapons of mass destruction, their delivery means or nuclear explosives…" Mr. Bulkin also discussed the preliminary and principal expert assessment procedure for export-controlled goods and issues of end-use control by the state, etc.

STC Deputy Director Mr. V. Sokolik presented in his lecture the organization of activities to ensure that export control legislation requirements are met by enterprises and institutions. Formation of an internal compliance system required for more effective performance of such activities is recommended by Article 14 of the Law of Ukraine *On State Control over International Transfers of Military and Dual-Use Goods*. The agency duly authorized by the state is responsible for assisting actors of international goods transfers in their efforts to establish such a system and, if the result is positive, the agency presents the actor of international goods transfers with an appropriate internal compliance system attestation certificate. The attestation procedure shall follow the order approved by Cabinet Ministers of Ukraine Decree #1080 dated 17 July 2003. Besides, STC has developed software designed to facilitate the formation of internal compliance systems at enterprises and organizations. Mr. Sokolik demonstrated specific examples of how this software works.

Round table devoted to the tenth anniversary of Ukraine's accession to the NPT

In the afternoon session a "round table" meeting was held on the subject **The Tenth Anniversary of Ukraine's Accession to the Nuclear Nonproliferation Treaty: Accomplishments, Problems and Prospects.** Apart from the seminar attendees, representatives of foreign state authorities and international organizations (Embassy of Sweden, European Commission Representative office in Ukraine, Aragon National Laboratory of the U.S. Department of Energy, state authorities (National Security and Defense Council (NSTC), Ministry of Foreign Affairs, Ministry of Fuel and Energy, SSEC, State Security Service, Ministry of Education and Science, State Nuclear Regulatory Committee, scientific and technical institutions (Institute For National Security Problems under NSTC, STC) were invited to participate in the round table discussion. Mass media, national TV channels in particular, had been invited to cover the event.

Due to the fact that the seminar and the round table were made possible exceptionally owing to sponsor assistance on the part of SKI and that the Sweden/Ukraine nuclear non-proliferation cooperation has been fruitfully going on for over ten years, the round table participants extended an especially warm welcome to the representatives of the Embassy of the Kingdom of Sweden in Ukraine Ms. K. Salomonsson and Ms. D. Radvan. Unfortunately, because of the tense political situation in Ukraine during the presidential election campaign, it was impossible to participate in this event for the managers of the Swedish nuclear Non-proliferation Facilitation Program (SNNAP) Ms. S. Andersson and Mr. L. van Dassen, who have largely contributed to the development of cooperation between our countries in this important area.

The round table discussion was opened by Oleksander Siver, Director of STC. He briefed the participants on the purpose of the event as well as STC's efforts to uphold the concept of creating a safer world through dissemination of reliable information and a broader involvement of the public in the process of overcoming challenges related to armaments control, nuclear disarmament, and WMD non-proliferation.
STC Director also introduced to the round table participants Mr. Serhiy Halaka, Editor-in-Chief of the *Security and Nonproliferation* journal, Associate Professor with Kyiv National Taras Shevchenko University Institute for International Relations. This journal is published by STC with sponsorship support provided by the Swedish Nuclear Energy Inspectorate (SKI).

Serhiy Halaka informed the attendees about the goals and objectives of the journal, introduced the Editorial Team and informed that an Editorial Board had been established shortly before the subject round table, which incorporated high-ranking state officials, prominent experts and lawyers, and scientists dealing with international and national safety and non-proliferation problems. The Editor-in-Chief announced the publication of an ad-hoc 6th journal issue entirely devoted to the 10th anniversary of Ukraine's accession to the NPT as a critical event in the

newest history of Ukraine with a major impact on the non-proliferation regime in general. In his speech, Mr. Halaka made a point that the historical dimensions of this event could probably be fully appreciated only in another decade.

The first round table discussion item concerned the interrelation between **Ukraine's non-nuclear status and its independence**. This very part of the discussion happened to be the "hottest". As generally maintained by experts, the Ukrainian leadership made a sound decision when it gave up on nuclear weapons. There were a number of reasons to justify such a decision: the integrity of NPT as the basis for the nuclear non-proliferation regime being under threat, with associated pressure applied by nuclear weapons states; economic benefits from compensatory nuclear fuel supplies to Ukrainian NPPs; impossibility of keeping nuclear weapons at an appropriate level of maintenance; unwillingness of the majority of Ukrainian society to inherit elements of the aggressive foreign policy of the former Soviet Union, consequences of the Chernobyl disaster, etc. Nevertheless, the unanimous judgment made by the attendees was disputed by a well-known TV journalist from the national TV channel STB. In making her inquiries, she questioned the experts' viewpoint, declaring that it is powerful states that make world policy and it is the possession of nuclear weapons that is the fundamental feature of a powerful state. Ukraine, in renouncing nuclear weapons and acceding to the NPT, is believed by the journalist to have become more vulnerable to external threats.

In replying to the journalist's questions, O. Hryshutkin (SSEC), V. Pakhil (MFA), S. Halaka (Institute for Foreign Relations), I. Arhuchinsky (NSDC), R. Nimchinsky (MFA), O. Kosharna (Institute for National Security Problems, INSP), S. Kondratov (INSP) expressed their viewpoints regarding this problem, pointing to the specific factors that impacted the adoption of that difficult decision to abandon nuclear weapons. Yet all the experts without exception were unanimous in believing that decision to be adequate and, probably, the only one possible in terms of Ukraine's further association with the civilized world. The discussion went on to demonstrate the support by a significant number of participating experts for the position held by the IAEA Director General Mr. M. ElBaradei: "Insecurity breeds proliferation. It is instructive that nearly all nuclear
proliferation concerns arise in regions of longstanding tension."

The second item proposed for discussion concerned the **evolution of viewpoints as to non-proliferation of weapons of mass destruction in the modern world** (led by O. Kosharna, INSP). In their speaches A. Dmytriev (State and Law Institute under the Academy of Sciences), O. Kosharna (INSP), S.Lopatin (SNRC), S. Kondratov (INSP) expressed different standpoints with regard to the causes and effects of the evolutionary changes in the treatment of the WMD non-proliferation problem, yet all of them underpinned the unique role that international organizations, primarily U.N. and IAEA, are expected to play in forming adequate responses to contemporary challenges. The discussion was especially focused on the Protocol Additional as an efficient tool to verify the countries' compliance with their nuclear non-proliferation obligations.

The third discussion of them concerned the **Global Partnership against WMD Proliferation** program (led by R. Nimchinsky, MFA). The round table participants dwelt on the initiatives launched by the G8 countries in pursuit of reducing the threat of international terrorism, especially involving WMD. The MFA representative R. Nimchinsky made the meeting participants aware of the tendencies observed in this area, discussed prospects for Ukrainian participation in the global partnership program and MFA efforts to facilitate Ukraine's accession to the Program as a recipient state. The information aroused substantial interest, which can partly be attributed to the insufficient information exchange even at the level of central executive authorities. Thus, in his reply the MFE representative Mr. Mishchenko expressed an opinion that the Ministry of Foreign Affairs would benefit from a closer involvement of representatives of

other state authorities in the development of specific project proposals particularly aimed at strengthening and improving physical security measures in the area of nuclear energy use. The MFA representatives supported his statement, referring to the importance of effective interagency cooperation at this historical stage of the international community's global war on terrorism. Representative of the Embassy of Sweden in Ukraine Ms. K. Salomonsson took the floor to emphasize the importance of cooperation between Sweden in Ukraine in countering nuclear proliferation and assured the attendees of Sweden's great appreciation of the Ukrainian contribution to international security. Renouncing nuclear weapons, Ukraine acceded to the NPT as a non-nuclear-weapon state and supported the integrity of the Treaty as the basis for the international nuclear non-proliferation regime in its critical moment. Ms. Salomonsson related best wishes of success in this important area from the SNNAP program managers Lars van Dassen and Sarmite Andersson whose direct involvement in the preparation of the seminar and round table have made these events possible.

The round table discussion was summarized by Mr. O. Siver. He reiterated his emphasis on the significant contribution that Ukraine has made to upholding the nuclear weapons non-proliferation regime. In his concluding remarks, he stressed exceptional importance of such events in facilitating adequate understanding by the society of the complex processes going on in the area of WMD non-proliferation and armaments control, which are directly related to national security. On his part, the STC Director made a commitment that his Center as well as the Editorial Team of the *Security And Non-Proliferation* journal would try their best to make such events happen on a regular basis. He informed the audience of the intent to dedicate the next round table to discussions of the commentary on the Law of Ukraine *On State Control over International Transfers of Military and Dual-Use Goods*, which is fairly complete the moment.

Afterword,
or a few words on the role of non-state organizations in countering the WMD proliferation

The Scientific and Technical Center for Export and Import of Special Technologies, Equipment and Materials (STC) participates in quite a few international projects aimed at strengthening the weapons of mass destruction non-proliferation regime and improving the mechanisms for Ukraine's compliance with its international obligations under multilateral export control regimes. In its international activities, STC has proved to be a reliable partner that, due to its non-state and nonprofit organizations status, is in a position to provide essential support to relevant state authorities, supporting their efforts in those activities where flexibility and promptness of decisions and their implementation are exceptionally critical. STC's international contacts are constantly expanding, specifically, the Swedish Nuclear Energy Inspectorate (SKI), well-known in the countries of the former USSR for its stable support to the new independent states' efforts against nuclear proliferation and terrorism joined in STC's international partnership.

The subject events are outstanding for the very fact that, during the period of dramatic political events associated with the presidential election campaign in Ukraine when the activities of many central executive authorities were largely limited if not entirely frustrated by the measures taken to prevent irrevocable social economy changes, it was the STC alone (though in close interaction with such governmental authorities as the Ministry of Foreign Affairs and SSEC) that managed with SKI sponsor assistance to commemorate the 10th anniversary of such an outstanding event as Ukraine's accession to the Treaty on the Non-proliferation of Nuclear Weapons as a non-nuclear-weapon state in a timely manner[17].

[17] According to our information, a representative SKI-initiated international conference in commemoration of that event is scheduled for spring 2005.

Draft Law on Ratification of Protocol Additional to the Agreement between Ukraine and the International Atomic Energy Agency on Safeguards Application in Connection with the Treaty on the Non-proliferation of Nuclear Weapons Gets Defeated

The Protocol Additional was signed on behalf of Ukraine on August 15, 2000 in Vienna by the Resident Representative of Ukraine to International Organizations. The requirements the document contains are intended to improve the effectiveness and efficiency of the nuclear weapon non-proliferation safeguards regime. Applying the Protocol Additional will enable early detection of attempted diversions from peaceful uses of nuclear energy to the creation of nuclear weapons. In accordance with the strengthened safeguards regime, each state undertakes to provide additional information on nuclear fuel cycle-related research and design work plans; production of dual-use goods such as zirconium pipes, heavy water, granite, spent fuel containers; information on export and import of nuclear technologies and on the nuclear fuel cycle-related facilities. As of November 01, 2004, the Protocol Additional had been signed by 86 countries of the world, in 59 of which the Protocol has entered into force. Yet more countries of the world are adopting the new safeguards regime, and Ukraine as a country with a major nuclear program, cannot stand aloof of this process.

The 12 January 2005 plenary meeting of the Supreme Council considered the draft law *On Ratification of Protocol Additional to the Agreement between Ukraine and the International Atomic Energy Agency on Safeguards Application in Connection with the Treaty on the Non-proliferation of Nuclear Weapons*. The draft law was presented by Chairman of the State Nuclear Regulatory Committee of Ukraine Mr. Vadym Gryshchenko.

The discussion was joined by People's Deputies S.Stashevsky, E. Hirnyk, A.Aleksandrovska, Y. Solomatin, V. Puzakov, V. Yavorivsky, V. Shibko, S. Khmara.

Opponents to the draft law, including representatives of the Communist faction and *Batkivshchyna* faction grounded the main reasons for their disagreement with the document on the failure by international organizations and western states to meet their commitments related to the shutdown of Chernobyl NPP and the need for by non-state-owned businesses to incur additional financial costs to comply with the additional protocol requirements. In the opinion of People's Deputy Ms. A. Aleksandrovska, this will cause an increase in production costs of goods and services and will eventually complicate entrepreneurship activities.

The voting resulted in defeating the bill (vs. 125 positive votes).

Nevertheless, Protocol Additional adoption is part of the agenda for all parties to the Treaty on the Non-proliferation of Nuclear Weapons, to which Ukraine acceded on 5 December 1994. Ratification of the Protocol is a necessary step for our country to make on the path to Euro-Atlantic integration and this task is part of the Action Plan for the Implementation of Priority Provisions of Ukraine's Integration into the European Union (CMU Decree #744-r dated 27.12.2002). In addition, the Protocol application has repeatedly been identified by the Nuclear Suppliers Group, to which Ukraine is a party, as a prerequisite for nuclear material and technology export and import. The decision is very likely to be made in 2005. Since Ukraine is a state importing nuclear fuel for nuclear power plants and nuclear technologies while exporting dual-use equipment and technology, non-ratification may entail international sanctions that will imperil the market outlets and jeopardize the normal functioning of our domestic nuclear industry. Countries refraining from enforcement of Protocols Additional for one reason or another tend to face ever-increasing pressure by the world's leading countries and that pressure will take diverse forms (political, economic, diplomatic, etc.).

If the new political leadership of our nation is set on demonstrating to the world community their political will and emphatic support for the action taken by the world's leading countries to

counteract the threat of international terrorism and nuclear proliferation, adoption of the Law on Ratification of Protocol Additional to the Agreement between Ukraine and the International Atomic Energy Agency on Safeguards Application in Connection with the Treaty on the Non-proliferation of Nuclear Weapons must be expedited.

Olga Kosharna

U.S. Establishes an Office to Oversee Radioactive Material Monitoring within the Homeland Security Department

According to the **1 February 2005** information disclosed over the internet by the Nuclear Threat Initiative (NTI), co-chaired by Ted Turner and Sam Nunn, the Bush administration Bush administration is set to announce next month the creation of a new office within the Homeland Security Department that would coordinate the monitoring of radioactive material, MHS spokesman said yesterday.

The office will be responsible for the detection of unauthorized domestic nuclear transfers, researching new detection technologies and improving training on their use, helping to decide where detectors should be installed and leading the federal response to detected material, according to the New York Times. The office would include representatives from several governmental agencies, including the Defense, Energy and State departments and the FBI, the Times reported.

The program is set to receive about $200 million in initial funding, with half coming from new money and half taken from other programs, according to an administration official.

The Homeland Security Department has placed more than 400 radiation monitors over the last two years at U.S. ports, border crossings and post offices, the Times reported. The agency plans to continue to add monitors, and cities such as New York have also been buying equipment to detect radioactive material (*New York Times,* 1 February 2005*).*

Prosecutor's General Office is after Ukrspetsexport

On 4 February 2005, the *Obozrevatel* news agency informed that the Prosecutor's General Office had initiated, upon request by People's Deputy Hryhoriy Omelchenko, an inspection of the state-owned company *Ukrspetsexport* that sells arms and military equipment abroad, announced the Head of the PGO Press Service Vyacheslav Astapov.

According to him, PGO plans to complete the inspection by 9 February, but does not rule out possible extension of the inspection due to a large amount of work, transmits the *UNIAN* Agency.

As you may remember, Omelchenko requested the Prosecutor General of Ukraine Svyatoslav Piskun to file a criminal case against and detain *Ukrspetsexport* Director General Valery Shmarov and other officials that were involved in illicit sales of weapons and military equipment abroad.

His request emphasizes that only recently has the State Security Service informed that it stopped a criminal group of weapon traders, which attempted in 2004 an illegal export out of Ukraine of 20 air-launched cruise missiles of the Kh-55, Kh-55SM type manufactured in the former USSR, capable of carrying nuclear weapons. In addition, the deputy informed about the established fact of illegal export of a P-14F radar station from Ukraine to Eritrea in 2000.

Over 37 Kilos of Depleted Uranium Seized by Privolzhye Customs Workers

ITAR-TASS. 28 January 2005

Over 37 kilograms of depleted uranium has been seized by customs workers, as the Press Office of the Chief Department Against Contraband (CDAC) under the Federal Customs Service of Russia disclosed to our correspondent today.

"The dangerous cargo was spotted by Iletsk customs-post workers of Orenburg Customs House of Privolzhye Customs Department on 26 January", the correspondent was told.
During the radiation monitoring of a GAZel vehicle at the international automobile checkpoint, the *Yantar* high radiation-detecting system worked.
The inspection revealed a cylinder-shaped metal object being a source of radiation. Experts identified the dangerous find as a protective container KZ-1 intended for remote manipulations during loading and unloading of radioactive sources, containing 37.5 kilograms of uranium-238/depleted uranium.
"The uranium container was described in a customs declaration as a "dumb-bell", CDAC informed. The owner of the container claimed to have found it at a dump, used it for exercise, and sometimes straightened nails with it. Specialists are currently investigating the origin of the container.

In response to the illicit transfer of a radioactive substance through the customs border of Russia, a criminal case under the Russian Federation Criminal Code Clause *Attempted Contraband of a Radioactive Substance* has been filed.

Specialists of the Russian Agency of Atomic Energy told ITAR-TASS that neither a conventional nor "dirty" bomb could be made from the confiscated amount of uranium. Uranium-238 is one of the most available elements in the earth crust. About 60,000 tonnes of uranium a year is extracted in the world, the Agency was told.