

An International Methodology for Evaluation of Combat Capabilities of Military Systems: The Bulgarian Perspective of Greater Transparency and Confidence

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Sofia, October 1996

Research Report, No. 5

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This Research Report was produced with the support of the Institute for Security and International Studies (ISIS), Sofia. The ideas and opinions in the Report are the authors' in his capacity of ISIS associate and do not reflect positions of official institutions

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ISBN 954 - 9533 -01 -8

The problems of peace and security in Europe occupy an important place in the public conscience. New ways of improvement of the security situation are constantly being examined. The lessons learned from the terrible events in former Yugoslavia show us there is a lot to be done. Europe needs new and better instruments for strengthening of stability and security, applicable to all countries. This Research Report offers some ideas in that direction.

The dissolution of the Warsaw Pact increased the number of countries in Europe whose national security interests are being defended mainly by themselves.

The usefulness of all the international efforts, like the Helsinki Final Act, the Declaration of Madrid Meeting and the CFE Treaty is indisputable. They treat the problems of the then existing two opposing military alliances. The efforts of the people who gave birth to these processes deserve the highest estimation and respect. Now new steps towards a further development of the

confidence and the security of our continent are needed. Our special interest is directed to a higher transparency in the military area.

It is well known that one of the factors influencing the national security of a country is the ability of this country to maintain its independence and sovereignty by military power. The abilities of the military structures to exercise force depend to a high extent on the level of their *combat capabilities*. The combat capabilities of the armed forces of a country indicate their abilities, under certain conditions, to defeat a given group of forces of the adversary for a given time and they are a sum of the combat capabilities of the services included. The latter depend mainly on the *technical combat capabilities of the weapons and equipment* (generally called military systems), which are in the inventory of the services at a given moment. There are other factors which also shape the combat capabilities of the armed forces: the morals, motivation and level of education and training of personnel, the abilities of the country for continuous logistic support of combat operations, theater equipment, available depots of materials and systems the production of which is impossible or problematic, availability and loyalty of allies, etc. The verification of all these factors in linear values is much more difficult. The possible changes are difficult to prove and part of the information concerned is classified by national legislation. A separate research on each of them could be made.

It is known that the evaluation of the technical combat capabilities of a given weapon (airplane, tank, etc.), that is of its qualities as a fighting tool, compared to those of another from the same class, is a difficult task. As a result of this and other reasons, **quantitative measurements** of various systems are used at international consultations and negotiations, or whenever gross estimations are made. In negotiations and comparisons we speak about numbers of weapons or systems. Such was the approach of the CFE Treaty. For the five categories of military systems which it includes, definitions were used like "combat aircraft", "battle tank", "armored combat vehicle", etc. The numeric values in the treaty distinguish "artillery" (above 100 mm) from the rest of them, tank's guns with caliber not less than 75 mm, mass of the combat vehicles etc. This terminology and the agreed procedures do not allow the verification of the quality of each system. Thus, comparing only *quantities*, it becomes impossible to really assess the combat capabilities of a group of armed forces. If we want to get a picture of the strength of two groups of forces and we only know the number of systems in each of them, the evaluation will be so rough, that it is not worth doing it. I think there is no doubt about the necessity of making such estimations.

For achieving a change it is necessary to have new instruments for evaluation, the full information about which is internationally available.

The CFE Treaty, signed 19.11.1990, reduced the *numbers* of arms and systems in the most saturated with weapons region of the world. The maintaining of control of the allowed numbers of systems aims to increase confidence between countries, to achieve a steady balance (i.e. equal strength - but then it was between two military alliances!) of the conventional forces in Europe, to avoid reaching a military potential strong enough for the execution of a surprising invasion and the initiation of large scale offensive actions, etc. During the application of the treaty the processes of control, verification, notification for future military activities, the human contacts between officers from different countries bring to the improvement of the military-political and psychological climate and a certain increase of confidence. Thus CFE Treaty became a milestone in European security.

At the same time all specialists know very well that it is difficult to obtain real confidence in the military field even when you are fully aware of the combat capabilities, if not of the real intentions, of a given country. It is unlikely that a country's leadership would dare achieve its goals by means of force without being completely confident in the estimations of its General Staff for a considerable superiority in combat capability.

The CFE Treaty does not forbid the upgrading of old and purchasing of new military systems. We should not forget the situation in which the negotiations were carried out and the signing was done. In those conditions we could hardly reach anything better. The meaning of this treaty, as well as of the Open Skies Treaty is lasting though the position of Bulgaria and of other countries became rather vulnerable after the end of the Cold War. As it is well known *the combat capabilities* of new generations of combat aircraft, battle tanks, ships, antitank and anti-aircraft systems, artillery, C4I systems and many others, considerably outperform those of older generations. The quick application of scientific research and development allows total improvement of new systems' features. The substitution of old models and modifications of systems by new generations while keeping their *numbers* unchanged, increases significantly the combat capabilities of the forces armed with them.

Thus it is possible for a country to formally stick strictly to the clauses of CFE Treaty and simultaneously increase the combat capabilities of its forces through replacement of older generations of systems with newer ones. If we extrapolate approximately this tendency in time, comparing it with the combat capabilities of a country which cannot do this replacement, we will see that after some years the increase of the difference of combat capabilities reaches a point where no balance exists whatsoever (see drawing).

The process of upgrading and purchasing new systems took place throughout the whole history of mankind and is taking place now in each country - member or not of the CFE Treaty, which can afford spending the relevant amount of money. This 'cascading', as it is called in the CFE terminology, is done by a number of Balkan states. From the point of view of our national interests such actions cannot enhance security or increase confidence in spite of all the other positive tendencies which followed the signing of CFE Treaty, the processes of European integration, the efforts for improving relations with neighbouring countries, the exchange of student-officers, the PFP Initiative, etc. Weapons and systems are cascaded and purchased at high rates in Turkey and Greece and at rather slower ones - in the rest of the Balkan countries.

Fig 1 (hard copy only):

INCREASE OF DIFFERENCE BETWEEN THE COMBAT CAPABILITIES OF TWO COUNTRIES (ESTIMATED)

The expression '...increase of imbalances in the military area on the Balkans...', which is used in official talks and by the media became popular in the Bulgarian military-political language during the last few years. One can argue whether there were ever any ballances but now there is no need of special analysis to see that the ratio of military strength is dramatically changed. The deep concern repeatedly expressed by Bulgarian political and military leadership did not and could not influence the actions of foreign governments. Presently the Bulgarian armed forces find themselves in an unequal position in terms of quality of the systems in their inventory.

This research report does not assess the probability of a local conflict in Europe. When elements of national security are discussed the dimensions are long-term both as a duration in time and as a degree of uncertainty.

Whether a potential threat will transform into direct menace for the national security of a country or not, is difficult to predict. In some countries the existence of imbalance in the military area is considered by the respective experts a potential threat and models for action are prepared in case it becomes a danger. The very fact of casting more light on this issue may increase stability and security on the continent and the Balkans. In the traditional atmosphere of mistrust, determined by historical burdens, local syndromes, etc., it is necessary to look for **ways to increase security and confidence**. We must find out forms of communication, exchange of

information and coexistence which could increase the transparency and further reduce the obscurity and tension in the military-political area.

A possible approach is the signing of a treaty between the countries concerned, on the acceptance of an ***Internationally worked out and adopted methodology for evaluation of combat capabilities of military systems***. The ideal case is this treaty to be signed by all countries in the larger European zone of security. When ready this methodology could be a package of computer software by which we could verify and compare the quality of military systems from equal classes. 'Internationally worked out' means that the criteria for evaluation of the quality of a system, the interpretation of these criteria and the results obtained, would be equal for the experts from the member-countries and would lead to equal estimations. The signing of such a document also means that the specialists of various countries could do, if necessary, ***equal qualitative*** assessments of the technical combat capabilities of groups of forces which otherwise might bring concern, uneasiness or anxiety in one military-political leadership or another. For this purpose official data could be used as well as unofficial. After signing the treaty each member-country could have more accurate and internationally acknowledged means for making evaluations of technical combat capabilities of groups of forces in various countries. This could clarify the picture of the 'imbalances' and would shed new light on the actions of governments. It seems obvious that even without dealing with the rest of the above mentioned factors which also influence the combat capabilities of armed forces, the creation and signing of a treaty on the **acceptance of an *internationally worked out and adopted methodology for evaluation of technical combat capabilities of military systems*** would be an important step forward in international relations when all efforts for preserving and enforcement of peace on the Balkans and in Europe are important and meaningful.

A new spirit to international relations would be added. The application of this methodology would increase transparency and confidence in the military-political area in Europe. It would add a positive impulse to the international climate and confidence between countries. Many intentions, positions and attitudes of countries towards the cause of security would become clearer. The attitude to the creation of the methodology might become itself an indicator of the actual intentions for building European security.

The preparation of Bulgaria for membership in NATO or some other collective security system would take a long time. The methodology may become another instrument in the hands of the governments in the Euroatlantic and the broader OSCE zones for seeking guarantees for national security. It might also bring the possibility for creating a

wholesome and relatively exact picture of the technical combat capabilities of the armed forces of many countries in an effort to reveal eventual "imbalances".

Such a document would have positive effect even if at the start it is signed only by a small group of countries from the Euroatlantic area including two or three of the Great Powers.

The speed and duration of the work for creation of the methodology depend on the interests of the participating countries; the degree of actual recognition of human values by the political and military leadership and to some extent - on the political conjuncture.

An open approach is possible - a certain number of countries start working on the initiative at the beginning and they undertake to work for the creation of a methodology for evaluation of combat capabilities of only a few (2 to 4) military systems. New countries join in at further stages while the number of evaluated systems is increased.

It would be fair to mention that attempts for evaluation of combat capabilities of different types of weapons have already been made in many countries. They have been divided into groups - main battle tank, armored personnel carrier, fighter bomber, combat helicopter, frigate, etc. The technical combat capabilities of a certain brand or model in each group is taken as a unit measure. Evaluations of the same parameters of other brands and models from this group are carried out and they receive numeric values. We could start approximately this way. The information we receive can be mathematically processed and the results taken into consideration and interpreted in different ways. The comparison of the numeric values would give the opportunity for reaching significantly exact qualitative assessments. This means that in case the experts are given clear tasks, it would not take them much time to agree on the core of the subject.

The work could include the following stages:

1. The Bulgarian Government takes a decision to initiate the process internationally. The Ministers of Defense and Foreign Affairs make informal consultations with the relevant representatives of certain countries regarding the acceptance of an eventual initiative for the creation of the methodology.
2. In case of a positive response the Ministers of Defense and Foreign Affairs assign a working group for the preparation of the necessary documents.
3. The Ministers of Defense and Foreign Affairs approve the draft documents of the working group.

4. The Bulgarian Government deposits the initiative in the PFP programme, or
 1. The Bulgarian Government deposits the initiative as an official proposal to OSCE, or
 2. The Bulgarian Government deposits the initiative in the UN, or deposits it in all the above mentioned institutions.

The further procedure may be standard: after the approval by the respective international organization or reaching agreement by a certain number of countries, delegations of experts work out:

- a list of the military systems (weapons and equipment) whose capabilities will be evaluated by the methodology;
- a list of the parameters of each system to be evaluated;
- a list of conditions under which every system will be evaluated;
- a scale of the parameters to be evaluated according to their importance;
- mathematical methods for making the evaluations, which would allow obtaining of coefficients that could be summed up, so that each system is evaluated by a certain number, expressing its combat capabilities (the method of expert evaluations may also be used in some cases or stages);
- the estimated stages of work ;
- procedure for publishing the results of the evaluations of the various systems.

It is possible that at the expert-level discussions one or some of the countries offer their methodologies which have already been used and proved (Russia, USA, Germany). Another possibility is that a methodology offered by a delegation is taken as a basis and accordingly changed.

The final internationally worked out and adopted document is signed up by representatives of the participating countries at a previously agreed level.

The signing of such a treaty will neither reveal any information classified by national legislation nor any national secrets. Military systems are sold internationally and their features are well known. The signing will only internationally institute and officially acknowledge what has been more or less known. It will also increase the transparency in the military area and would allow making a more accurate picture of the ratio of forces of all the member countries. New initiatives for further peace and stability enhancement, increase of confidence and security in the integrated European space could be raised on the basis of such an accurate picture. The availability of information about the technical combat capabilities would strongly reduce the necessity of obtaining such information by means of

intelligence. We should not forget the lessons of the near past when the lack of sufficient information inspired the crazy arms race. We are bound to get rid of this thinking.

The creation of an internationally worked out and accepted methodology - an instrument for estimating the technical combat capabilities of military systems, would give an impetus to the process of building confidence and security.

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Publications of ISIS:

1) *"Bulgaria and the Balkans in the Common Foreign and Security Policy of the European Union"* (Plamen Pantev, Valery Rachev, Venelin Tsachevsky), 44pp., July, 1995. Research Study 1. In Bulgarian and English. Electronic version: Internet, <http://www.fsk.ethz.ch/isn/institutes/isis-pub.htm>

2) *"Problems of Civil-Military Relations in Bulgaria: Approaches to Improving the Civilian Monitoring of the Armed Forces"* (Plamen Pantev, Valeri Rachev, Todor Tagarev), 96 pp., April 1996. Research Studies - 2. In Bulgarian.

3) *"Bulgaria and the European Union in the Process of Building a Common European Defence"*, 51 pp., September 1996.

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6) *"The Bulgarian Foreign Policy in the Post-Conflict Period: Tendencies, Roles, Recommendations"* (Plamen Pantev, Valeri Rachev, Venelin Tsachevsky, Tatiana Houbenova-Delisivkova, Dinko Dinkov), 35 pp. Research Reports 3. In Bulgarian.

7) *"The Bulgarian Military Education at a Crossroads"* (Todor Tagarev), 29 pp., September 1996, Research Reports 4. In English.

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