

ASPECTS REGARDING "RED TEAM" AND "RED TEAMING"

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The decision-making process has always been commanders' responsibility both regarding the actual process and the acceptance of the inherent consequences. The possibility to support the decision process through analyses coming from different prospective has favored the appearance of *Red Teams* and their subsequent activities, *Red Teaming*.

Keywords: Red team; alternative analysis; decision-making process.

Red teams and their specific processes have been used along the years as instruments of increasing productivity by both governmental and commercial enterprises. Some of their important objectives were the reduction of risks and the

at the level of an organization with the declared purpose to support the decision-making process.

The importance of the *Red team* and of its specific activity has generated different definitions which harbor the idea of identifying the alternatives

Table no. 1

THE DEFINITIONS OF RED TEAMS

RED TEAM	SOURCE
An organizational element comprised of trained and educated members that provide an independent capability to fully explore alternatives in plans and operations in the context of the operational environment and from the perspective of adversaries and others	<i>JP 2-0, Joint Intelligence</i> , CJCS, 2013, p. GL-11.
A Red team is a team that is formed with the objective of subjecting an organization's plans, programs, ideas and assumptions to rigorous analysis and challenge	<i>Red Teaming Guide – second edition Development</i> , Concepts and Doctrine Centre, Ministry of Defence, 2013, p. 1-2.
Red teams are established by an enterprise to challenge aspects of that very enterprise's plans, programs, assumptions, etc. It is this aspect of deliberate challenge that distinguishes Red teaming from other management tools.	Bryce G. Hoffman, <i>Red Teaming, How Your Business Can Conquer the Competition by Challenging Everything</i> , Crown business, 2017, p. 50.

identification of possibilities to increase their opportunities¹. *Red team*, translated in Romania as *echipa roșie*, is defined as the concept represented

in organization in order to improve its activity. The experience in practice of using these teams has generated the definitions from the following table:

The structure of the *Red team* should depend on the type, the scope, and the time span of the project or the supported activity, being composed of personnel selected due to their professionalism,

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knowledge, and experience in the field, professional perspective, imagination and critical thinking. The teams can be permanent or established for a limited amount of time while their members could be from within or outside the organization, their tasks being also temporary or rather permanent. In certain cases, the organizational culture can function so that it will take action as its own *Red team*².

The team results depend to a great extent on the accurate selection of the members. A good candidate for the team has to be first and foremost professional, and then intelligent, imaginative, curious, analytical, logical, with vision, conscious, trustworthy and open³. It is essential that beside these qualities, the team members should be open using alternative approaches to the problem solved in question.

The dimension of the team is important in undertaking specific activities and, logically, the number of the members varies according to the specific tasks, the project, and the length of the period of time. If some publications consider that a *Red team* should have between 2 and 15 members or even more, considering the optimal number between *five and nine*⁴, another variant puts forward another optimal number of *five to eleven members*⁵. Regardless the approach, a smaller number of members could reduce creativity and diversity while a bigger number can have an impact on the quality of products.

The results when using such a team recommend it for any type of organization or institution whose main objective is to increase the quality of its specific services for the following reasons⁶:

- It performs critical analysis of both the plan and the hypotheses on which it was built;
- It forces the structure to take into account new, alternative, points of view regarding the institution and its activity;
- It assists in understanding business partners, potential customers, and members of the competition by presenting them in a different light;
- It assists in understanding not only the threats, but also the challenges to the business environment;
- It assists in the identification of potential threats, of possibilities that need to be avoided and turned into advantages;
- It supports, through its designed products, the decision-making process of the organization.

However, the *Red team* should not be seen as the solution to all the problems of an organization. The success of this team is based on its members' experience and intelligence, on the quality on information at their disposal, on the management support and, last but not least, on the other departments' understanding of their role. The team's activity has to be discreet and its success depends to a great extent on the support provided by the higher echelon of the organization. It is possible that the presence of the *Red team* may not be comfortable to the members of an organization, but on the whole, its activity will assist the organization in facing competition.

The activity performed by the *Red team* is called *red teaming* and is defined as: „the independent application of a range of structured, creative and critical thinking techniques to assist the end user in making a better informed decision or produce a more robust product”⁷.

Regardless of the structure of an organization or of its objectives, the *Red team* activity will be a methodology/method/process⁸ which will give the organization the opportunity to identify its vulnerabilities and perform activities to understand their cause in order to draft a plan, envisage outcomes or produce improved procedures.

The activity of the *Red team* can be considered as both art and science used for the benefit of the whole organization, not just its leadership. If science is based on necessary instruments and techniques to overcome human boundaries from the decision-making process, art results from the intelligent selection of those instruments, techniques and circumstances favorable to their use⁹. We would like to stress the fact that the correct use of specific techniques and instruments does not necessary lead to the desired outcomes, but demonstrates that the personnel is well-prepared. Choosing the moment when a certain technique can be used correctly and with best outcomes and the identification of proper results ensure an important support in the decision-making process.

The success of the red team depends to a great extent on the organization of the activities and on the establishment of teams' limits. When an organization considers that a *Red team* should be necessary, its activity should not be regarded as¹⁰:

- A challenge to the organization leadership in the sense that it is compulsory for it to adopt the conclusions and propositions of the team;

- A replacement for planning or for a plan. The team's product will never be a plan, but it will contribute to its improvement;

- An excuse not to take action and postpone taking action until the team delivers specific analysis;

- A source to predict the future or grant the success of the plan;

- A way to hunt for errors in a plan without mentioning the possibilities to limit them;

- A negative and cynical approach instead of a critical and skeptical one;

- A panacea.

The lessons-learned after the military's participation in different exercises and operations approach the problem of the decision-making process as part of military leadership. The importance of using a structure to support this process was identified a long time ago by military leaders.

Even if the actions that are specific to these structures have been identified along history, it is possible that, officially, the necessity to have these teams was highlighted in the USA, in 2003, when *Defense Science Board Task Force* presented a report on *The Role and Status of Department of Defense Red Teaming Activities*. The report underlined the fact that *red teams* were important to the analysis of future operational concepts in order to discover their weaknesses before the enemy did. At the same time, „in the wake of recent military operations, use of red teams can temper the complacency that often follows success”¹¹, thus supporting the need to commence and continue the transformation of the armed forces in order to face an adaptable adversary in the situation when *perhaps the most difficult environment to transform an enterprise is during a time of great success*¹².

The need to create such teams was identified at different military structures taking into account the possibility to actually support processes that result in decision-making. So, in the USA, the analysis of factors that represented the foundation of incorrect decision at strategic level before and after 11th September 2011, made by different governmental commissions and consultative councils, identified as of utmost importance „the adoption of Red teams in an effort to reduce risk, avoid surprise, spot opportunities, increase operational flexibility, broaden analysis, and enhance decision making”¹³.

At NATO level, the drafting of specific plans, policies, and procedures has complied with the same consensus that exists in other fields of the Alliance. The identification of capabilities to support the decision-making process in the Alliance became necessary and was performed through the *alternative analysis*¹⁴. From several points of view, *alternative analysis (AltA)* is the equivalent of the specific activity performed by the *Red team*, being defined as *the deliberate application of independent, critical thought and alternative perspective to improve decision-making*¹⁵.

Even if the term *Red team* is relatively new, military organizations performed activities that can be considered as belonging to these structures. One of the best examples is the war game used to test courses of action. To these, we can add other activities that are currently used frequently at the planning stage of an operation such as those related to the identification of a plan's vulnerabilities in the drafting process, to the validation or invalidation of identified planning hypotheses or to the identification of variants and alternatives. The team's fields of expertise can be related to the development of concepts and plans within different structures, to operational planning, to making products from the information field, developing doctrines, manuals and instructions, etc.

A *Red team* in a military structure does not guaranty the success of any operation, but, it can definitely contribute to the improvement of the decision-making process. Any operational plan is based on planning hypotheses while these are based on the identified information that lead to knowing and understanding the operational environment and the actors. The analysis of planning hypotheses from another perspective can lead to the identification of that information that can be considered as important to improving the plan. The analyses of the team, presented as briefings, reports or in the form of debates, should provide the commander with the possibility to understand every option at his disposal and to select the one that assists him in the decision-making process. On the other hand, the commander of the structure should be aware of the consequences and risks of selecting a specific option.

The concept of *Red team* appeared after the term *red cell* had already existed and been used for war games, aspect which might have caused confusion

among the military, thus resulting in its being misused especially by those involved in planning operations. If *red cells* belong to the intelligence department and have specific responsibilities in the planning process as they *perform threat emulation*¹⁶, *Red team* is a group composed of trained experts who provide the commander with an instrument that gives an alternative perspective when it comes to critical analyses, reviewing operational plans and analyses of enemy's capabilities in order to support the decision-making process¹⁷. It is essential that both the *red team* and the *red cell* work together, using specific, but still complementary products in order to support the decision-making process. Depending on commander's expectations, the operational environment and the characteristics of the operation, the *red team* should ensure the following¹⁸:

- Identification of logical fallacy and wrong analysis;
- Evaluation of the quality of information;
- Identification of opportunities or alternative results for existing solutions;
- Evaluation of consequences regarding a course of action;
- Testing a system, concept or plan from the enemy's perspective;
- Understanding available options for the enemies and other actors;
- Understanding the perspectives and most probable courses of action of allied actors.

Within military organizations, different factors can influence *the success of the Red team, but the activity of the structure should lean on three golden rules*¹⁹:

- *Time framing*. Products have to be delivered in due time in order to preserve their utility;
- *Quality*. The activity should be based on the best standards in order to preserve the team's credibility and utility of products;
- *Access/support*. Results have to address the organization's leadership in order to influence decision-making.

Methods, instruments, and activities used by *Red team* in its activity are numerous and have in common the analysis and testing of plans and activities of military structures from different perspectives. Depending on the type of military organization, the methods and instruments may vary, but they should be on the following list, which is surprisingly not an exhaustive one^{20, 21}:

- Structural techniques: *mind mapping, concept mapping*;
- Creative techniques: *brainstorming, reverse brainstorming, six thinking hats, creative combinations*;
- Diagnostic techniques: *key assumptions identification, role-plays, outside-in thinking, alternative futures analysis, analysis of competing hypotheses, war games, experimentation, deception detection, high impact/low probability analysis, quality of information check*;
- Inciting techniques: *team A/team B, devil's advocacy, what if analysis*.

However, could *red teams* and *red teaming* function in a military structure in case the critical thinking and alternative analyses contradicted to some extent the military standards and code? It may seem difficult, but eliminating barriers depends on gaining credibility by displaying professionalism in their fields, gaining critical thinking through training and education, convincing other structures that alternative analyses permit the identification of new perspectives and, last but not least, obtaining the unconditional support of the commander.

Conclusions

Red team is leapfrog forward in the decision-making process even if it is sometimes difficult to perform its activity according to the established principles as the insufficient promotion of its activity and the misunderstanding related to its real mission can lead to its marginalization and the minimization of the obtained results. In these conditions, the activity that will be performed to support the decision-making process will be no more than the sheer verification according to internal procedures of the way in which the other structures function.

The commanders or military departments and the teams that support them in decision-making can be influenced by the solemnity of the moment or by the consequences of the decisions, thus leading to less realistic decisions. The existence and the use of a structure such as the *Red team* can only be beneficial and provocative at the same time in the context of the new missions of military organizations and the array of new threats. This team's activity assists in understanding the enemies, who are becoming increasingly adapted to the operational environment, and especially their capabilities

and their potential use. A new perspective on the enemies contributes to the rethinking of the way in which organic forces may be used, plans improved and implicitly rate of success increased.

NOTES:

1 *The Role and Status of Department of Defense Red Teaming Activities*, Defense Science Board Task Force, Office of the Undersecretary of Defense for Acquisition, Technology and Logistics, Washington DC, 2003, p. 2.

2 *Ibidem*, p. 3.

3 Bryce G. Hoffman, *Red Teaming: How Your Business Can Conquer the Competition by Challenging Everything*, Crown business, 2017, p. 108.

4 *Red Teaming Guide – second edition*, Development, Concepts and Doctrine Centre, Ministry of Defence, 2013, pp. 2-5.

5 Bryce G. Hoffman, *op.cit.*, p. 107.

6 *Ibidem*, p. 50.

7 *Red Teaming Guide – second edition*, Development, Concepts and Doctrine Centre, Ministry of Defence, 2013, pp. 1-3.

8 Within the references, the activity of the *Red Team* is presented as methodology/method/characteristic/process.

9 Bryce G. Hoffman, *op.cit.*, p. 51.

10 *Ibidem*, pp. 59-63.

11 *The Role and Status of Department of Defense Red Teaming Activities*, Defense Science Board Task Force, Office of the Undersecretary of Defense for Acquisition, Technology and Logistics, Washington, DC, 2003, p. 1.

12 *Ibidem*, p. 16.

13 ***Joint Doctrine Note 1-16, *Command Red Team*, Joint Force Development, p. I-1.

14 Alternative Analysis (AltA).

15 *The NATO Alternative Analysis Handbook*, Second Edition, NATO, Joint Analysis and Lessons Learned Centre, 2017, p. 3.

16 *** JP 2-0, *Joint Intelligence*, CJCS, 2013, p. I-28, <http://www.jcs.mil/Doctrine>, accessed at 12.11.2018.

17 *Ibidem*, p. I-28.

18 *Red Teaming Guide – second edition*, Development, Concepts and Doctrine Centre, Ministry of Defence, 2013, p. 1-5.

19 *Ibidem*, pp. 2-7.

20 *Red Teaming Guide – second edition*, Development, Concepts and Doctrine Centre, Ministry of Defence, 2013, pp. 3-9 and *The NATO Alternative Analysis Handbook*, Second Edition, NATO, Joint Analysis and Lessons Learned Centre, 2017, pp. 17, 18.

21 While developing the concept, new instruments, procedures and activities are discovered or assimilated so that they will be later used for the alternative analysis.

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