



The application of critical thinking in the decision-making cycles of the **Allied Rapid Reaction Corps**

THE CONCEPT OF RED TEAMING IN CORPS' WARFIGHTING

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RED TEAMING, or applied critical thinking, is the process that, through the application of analysis tools and methodologies, allows review of an operational plan. In NATO, it is called "alternative analysis", and is generally used within operational and strategic decision-making processes. This article's intent is to describe a real application of red teaming at the tactical level, within the planning and decision-making cycle of the Allied Rapid Reaction Corps (ARRC) during the execution phase of Exercise LOYAL LEDA 2020. The use of this type of analysis contributed to the success of the exercise, which led to the recognition of the ARRC as NATO's first Warfighting Corps since the end of the Cold War.

The Groupthink Problem

Large organizations, both military and non-military, have entire branches and divisions dedicated to supporting the decision-making processes of their leaders. These groups of people work with the aim of producing highly accurate, executable plans that solve problems and achieve objectives.

Once implemented, however, several of these plans do not work as intended and result in new challenges. Why? What could be done to increase the odds of success?

People who work for a long time in the same environment tend to receive similar training and share identical experiences within the same hierarchical structure. In the military planning process, these factors may lead to decisions and plans that are not optimal. In

fact, most of the group analysis and work is developed based on what the group believes the commander wants, what older or more experienced members advise, and what is collectively deemed to be unquestionably true. Some erroneous decisions may be the result of plans based on assumptions and individual bias that may have led the commander to disregard alternative interpretations of the facts. In the worst case, staff members could intentionally disregard information because it does not support the "script" that the group has already decided to follow, without considering possible alternatives. They may define information as irrefutable, when actually it is not. Furthermore, the group may have misunderstood what the commander wanted, or ignored ambiguous and



complex points, thinking they were not relevant. Or again, I think, less seasoned staff members, despite having noticed the problem, may prefer not to intervene for fear of contradicting the more experienced members or the subject matter experts. As human beings, we develop behavioural and mental patterns that help us to achieve our goals with as little effort as possible. In other words: we often take shortcuts. We tend to believe that we fully understand situations only because we find similarities in an experience from our past and prefer to exclude ambiguities for convenience, not fully appreciating the asymmetries.

The Red Team

A red team is a team formed with the aim of rigorously analysing the plans, programmes, ideas and assumptions that lead to a commander's decision. Staff members apply a broad spectrum of structured, creative, and critical thinking techniques to assist the commander in making a more informed decision or finalizing a more robust product. The red teaming function must not be confused with the red cell function, which is normally con-

ducted within the intelligence branch (G2/J2) to support military planning. There can be many objectives of red teaming:

- Discover and fill gaps in understanding the scenario,
- Identify further vulnerabilities, risks and threats,
- Identify bias, groupthink dynamics preconceptions and tendencies to jump to conclusions,
- Reveal external influences that condition the plan,
- Consider second- and third-order effects of relevant factors,
- Determine the need for possible contingency plans,
- Support the focus of the intelligence collection.

The team must have the right balance of skills and experience to tackle the problem and is generally made up of a combination of experts and analysts. However, regardless of the number and background of its members, the team must be nurtured, with personnel selected for their ability to think critically and creatively.

Red Teaming in the Tactical Decision-Making Process

For each phase of the decision-making process at the operational level, which in NATO is split into four phases (assess, plan, refine, execute), red teaming techniques can be implemented and used effectively. However, even at the tactical level, red teaming can be applied successfully throughout. At this level, the four phases of the decision-making cycle (assess, plan, prepare, execute) occur simultaneously during the execution of an operation, obviously with different time focuses: the execution looks at the present and the immediate future (current operations: generally no more than 48 hours); the preparation phase refines the plan based on the evolution of the situation within a wider timeframe (future operations: generally up to 120 hours); finally, the planning extends its horizon beyond the current phase of the operation (future plans: over 120 hours).

Composition, role and objectives of the red team, as well as its use within the decision-making cycle, are iteratively defined by the commander. However, it is obviously in the planning part that one can most easily see the



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Photo by ARRC



ABOVE: ARRC was certified as NATO's first Warfighting Corps since the end of the Cold War during LOYAL LEDA 2020. Photo by the British Army.

benefits of this analysis methodology. In this phase, the assumptions underlying the plan can be challenged and validated in time, and the shortcomings and weaknesses inherent in the plan can be brought to light.

Red Teaming on Exercise LOYAL LEDA 2020

LOYAL LEDA, a computer-assisted, command post exercise (CAX/CPX) conducted in November 2020, aimed to validate the ARRC as NATO's first Warfighting Corps since the Cold War. During the execution phase of the exercise, within the decision-making cycle of the Corps — in particular in the future plans' horizon — a working group was generated with a red teaming function, in order to identify possible vulnerabilities in the running plan.

To this end, this cross-functional group drawn from the different branches of the Command set out to study and analyse a hypothetical scenario in which the ARRC could fail and be defeated. This scenario, defined as "pre-mortem", uses a technique that explores and demonstrates the potential impact of apparently unlikely events that can have major

repercussions for an operation. Some might argue that the method is not so different from the risk analysis and management techniques that are already part of operational planning. In reality, it is the starting point of the analysis that changes and determines a new study perspective: in risk management, the starting point is the success of the plan; in the pre-mortem analysis, it is the plan's failure.

The latter allows a holistic view of the interrelation of various risk factors (some probably not previously identified or understood) that contribute to the failure of the operation. Using this technique is advisable when an event or a series of events are considered so unlikely that they do not draw the attention of the staff and thus the possible consequences could be ignored.

The Pre-Mortem Technique

The analysis in question was developed in three distinct phases, conducted in parallel with the execution of the decision-making cycles of the Corps, in a high-intensity, high-tempo scenario, where time was a limited resource.

In the first phase, defined as "divergent", the members of the group brought to the table the events considered catastrophic for the ARRC, each according to the point of view of the function they represented. This phase openly embraces creative thinking, leading the participants to question the basic assumptions of the plan: no idea was discarded, even if absurd, since each could open the mind of the participants to aspects not previously considered and lead them to form new ideas.

In the second phase, called "discussion", the group analysed the ideas generated in the previous phase and identified a central theme for failure, such as an event, or rather a series of events, based on the ideas deemed most valid and potentially catastrophic for the organization.

In the third and final phase, defined as "convergent", the red team finalized the catastrophic scenario, and integrated it with a series of recommendations for the commander and his staff. Most important was the definition of a series of indicators and warnings to identify the possible change of scenario and, above all, a set of mitigations to be implemented immediately to reduce the possibility that such a catastrophe would occur. During the exercise, a part of the hypothetical pre-mortem scenario did actually occur, but, having become aware of how the plan could fail, the commander and staff responded effectively.

Conclusions

Red teaming is an analysis tool to support the decision-making process. Its use, at any level, can give the end user (the commander, leader or manager) a more robust starting point for decision-making. It is a procedure that requires staff to have an open working perspective aimed at learning, and a willingness to accept challenges and criticisms. The practical example of the ARRC in the conduct of LOYAL LEDA 2020 has shown that, even at a tactical level, red teaming techniques can add depth to the awareness of the commander and his or her staff. In particular, mapping in detail the course of an unlikely, but plausible event, can highlight hidden relationships between key factors and basic assumptions of the plan and provide useful tools that strengthen the plan. ✦