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October 7th – Learning Beyond Debriefing: A Topological Framework for Laying Out Crisis-Inducing Surprise Scenarios for the Israeli Air Force

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Abstract

The purpose of this article is to lay the groundwork for learning from the October 7th scenario for future, unknown scenarios that may differ in their manifestation yet share the core element of a surprise attack that prevents the Air Force from realizing its full potential for at least several hours—a situation this article defines as a *Crisis-Inducing Surprise*. To this end, a unique methodology has been developed to move from the particular—the specific incursion that occurred on October 7th—to the general: surprise attack scenarios accompanied by an operational crisis for the Air Force lasting at least several hours. This is achieved through a topology that maps the space of crisis-inducing surprise scenarios along two axes, following the rationale of "from where and to where": the dimension in which a surprise incursion might occur and the primary target of the attack. The article clarifies how this topology is both suitable and complete for a learning process and demonstrates its application. It subsequently proposes the following: (1) Utilizing the proposed topology for force-design and preparedness for nine extreme scenarios, according to the rubrics of the mapped space, will enable the Air Force to be ready for nearly any combination thereof, allowing it to function semi-automatically in the initial

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hours of a surprise attack and thereby significantly mitigating the crisis during a future fundamental surprise. (2) In order to avoid irreversible damage during a surprise attack stemming from a situational surprise, the Air Force must forgo its reliance on early warning for the protection of itself, its capabilities, and its assets.

Keywords: Israeli Air Force, October 7th, Surprise Attack, Fundamental Surprise, Situational Surprise, Crisis, Scenario Space.

Introduction

It is indisputable that on the Black Sabbath of October 7, 2023, the Israeli Air Force failed to realize its might and to thwart, or at least significantly curtail, Hamas's surprise attack and its invasion of Israel's western Negev. This failure is particularly conspicuous in light of the Air Force's subsequent operations in Lebanon against Hezbollah, especially during September and October 2024, as well as its exceptional performance in June 2025 during the attack on Iran.

According to the Air Force's debriefing,[2] the morning of October 7th began with a complete surprise. In the initial stages of the events, the Air Force was still operating under the assumption that these were isolated terrorist incidents rather than a full-scale invasion. Consequently, soldiers and crews were sent to shelters during "Code Red" alerts, and only later did the bases transition to an absorptive (wartime) posture. Shortly after 07:00 a.m., the Commander of the Air Force declared a state of war, yet the Air Force was still far from being effective on the ground. The first UAV strike was carried out at only 07:15, and the first combat strike occurred around 08:00 a.m.

This was due to several reasons: at this stage, the IAF commander had very few aerial forces at his disposal; the lack of both an intelligence picture and a situational picture meant that the Air Force command had not yet grasped the scale of the raid or what exactly was happening on the ground and where; and the

2 Several caveats are in order. First, as of this writing, neither the Air Force debriefing nor any part of it has been made public. The analysis here is based exclusively on what has been reported about the debriefing, which has been nearly identical and repetitive across various Israeli media outlets. Second, it is unclear whether the Air Force debriefing truly addresses all the root causes of the failure. Criticisms regarding omissions—whether because insufficient time has passed to investigate the issues without the emotional proximity to the events themselves, or for other reasons related to the nature of the debriefing, such as its conductors or timing—have yet to be definitively clarified. These criticisms include claims of irrelevant attacks, overly centralized command, and delays in the arrival of reserve personnel. Nevertheless, the author posits that for the purposes of this article—which focuses on learning from the events of October 7th rather than on the specific debriefing itself—the core failure, as reflected in published reports, is rooted in a crisis of preparedness and function in the face of a surprise attack that constituted a fundamental surprise.

absence of effective guidance from ground forces, primarily because they were engaged in a difficult absorptive combat posture following the overwhelming of the IDF Gaza Division, and because they too had not yet constructed a complete situational picture. According to the IAF commander, as cited in sources quoting the debriefing and its summary, even if more forces had been available to him at that point, the Air Force would not have been able to stop the invasion but perhaps only mitigate its damage (which is also not insignificant): "Whatever we would have done, without intelligence and prior preparation, we could not have prevented the disaster, only reduced the damage," he said.

At 09:30, the IAF commander gave an order to "iron" the border fence area—meaning to bomb everything within a one-kilometer range on both sides of it—apparently understanding that this was the most effective measure at the time to block additional Hamas forces or to prevent their safe return to Gaza. However, at this stage, apparently by order of the high command, the force's aircraft were still focused on bombing targets inside Gaza, which were far less relevant at that time. Furthermore, the IAF commander ordered the decentralization of control (direct communication between Air Force assets and those who could operate them on the ground) and more permissive rules of engagement. All these actions, it seems in retrospect, were indeed somewhat effective, but they were insufficient to stop the invasion itself and the ensuing disaster. Nor did they prevent Hamas from continuing its actions and the massacre, from sending additional waves of terrorists and civilians into Israeli territory and communities, and from returning to Gaza with hostages throughout most of October 7th (Bohbot, 2025; Maniv, 2025; Nissani, 2024; Sadan, 2025; Shapira, N., 2025; Shoval, 2024; Zitun, 2025). In other words, the Air Force was not truly present and effective for most of October 7th and was far from realizing its full power.

The Air Force has already begun to learn the lessons of the failure. For example, the Participation and Helicopters Group was upgraded to the Participation and Borders Group, which will be responsible for preparing the Air Force for future ground invasions, including offensive action within Israeli territories (Ashkenazi, 2025a; Ganor, 2025). The Air Force is also working to expand and renew its fleet of attack helicopters, procure reconnaissance and defense aircraft (Ashkenazi, 2024), and upgrade the defense of its bases against the threat of a ground breach or conquest, which nearly materialized on October 7th (Ashkenazi, 2025b). Additional lessons from this failure to inform future engagement have also been proposed by other actors. These include, for instance, addressing the infiltration of powered paragliders, which the Air Force was

unable to effectively counter on October 7th,[3] and which in the future could cause significant damage across a wide range of scenarios, such as blocking intersections, halting reinforcement forces, or infiltrating bases (Langer, 2024); increasing the Air Force's effectiveness in dealing with a future large-scale (particularly mass) ground invasion by changing its force design, structuring it to meet ground support needs based on the new Group (Heller, 2025); or implementing structural changes that would allow the Air Force to operate almost independently for the containment effort, "a shift from a reactive border defense doctrine... to a proactive one...," based on air power and distinguishing between routine security operations and military attacks (Dan, 2025a).

The debriefings and their subsequent processes, aimed at analyzing the specific failure of October 7th to build better preparedness for a future similar invasion of the country's borders, represent a classic investigative process for failures, errors, and near-misses within the context of a single scenario, which must be studied repeatedly in the pursuit of operational excellence. However, addressing the issue of ground invasion alone is too narrow and does not constitute the complete and comprehensive learning process that should accompany the events of October 7th, which is the aim of this paper.

The purpose of this paper, therefore, is to lay the foundations for a comprehensive and rigorous learning process regarding potential surprise attack scenarios, with a focus on the Air Force, in the spirit of "let's prepare for the next war, not just the last one." The goal is to learn from the October 7th scenario, not only about similar cases of a ground invasion, but also about those that may be fundamentally different in their manifestation yet share the core element of a surprise attack that prevents the Air Force from realizing its power for several hours, during which the surprising side succeeds in inflicting significant damage on Israel (whether on its civilians or its military). This is analogous to what Hamas did during the initial hours of October 7th, when it overwhelmed the IDF Gaza Division, conquered parts of Israel's Western Negev, and murdered and abducted civilians and soldiers. Additionally, beyond establishing a rigorous process for the layout of surprise attack scenarios the Air Force must prepare for, the paper proposes two important conclusions stemming from the analysis of the learning space.

The paper focuses solely on the events of October 7th and not on the Air Force's performance in the days, months, and years that followed, in the Gaza arena or elsewhere. Furthermore, it does not aim to address the overall resilience of the Air Force or its ability to maintain functional continuity over time. This

3 On October 7th, the use of powered paragliders and their impact on the overall picture of the invasion were minor.

paper proposes a learning process designed to improve readiness for the critical initial hours of crisis-inducing surprise situations. Such scenarios involve (1) a surprise element, (2) significant harm to the state or its military (including the Air Force), and (3) take place within a short timeframe. These fundamental elements are similar to those of October 7th attack, and to some extent also to those of October 6th 1973.

The article's focus on the brief timeframe, from hours to a day, stems from the fact that during the initial hours of a surprise attack, the attacked party—in this case, Israel—is at its most vulnerable. It is during this period that the enemy seeks to maximize the advantages afforded by the element of surprise. The enemy's objective is to secure gains that would be unattainable without the element of surprise, and which could potentially be sustained over time, at least in part. This timeframe is particularly relevant for the Air Force, whose very nature—along with its planning, force design, budgeting, training, alert schedules, and force accumulation—allows it to transition from routine to an emergency posture in a relatively short period compared to other forces, provided it is not significantly damaged in the surprise attack. This transition period is on the order of hours to a day. In other words, this is the estimated timeframe after which the Air Force, assuming no hindering factors in its organization, can be prepared for an emergency posture of operational continuity under attrition.

It should also be noted that the term "crisis" implies the Air Force is operating in a crisis environment; that is, it is not at full capacity but only partially functional due to the surprise. This may be for a variety of potential reasons. These include not yet having fully mobilized its forces, a lack of situational awareness or intelligence, significant damage to its capabilities, or the cognitive state of the command and personnel for various reasons, as well as a combination of these factors.

This paper's importance stems from several factors. First, focusing on ground-based surprise attack scenarios akin to October 7th, however important, overlooks the opportunity for a deeper understanding of the factors that led to the failure and their potential implications in a broader context. This approach is particularly crucial for learning how to prepare for various types of crisis-inducing surprise attacks. Second, some scenarios within the proposed topology indicate the potential for significant damage to the Air Force itself. Such damage could prevent it from subsequently leveraging its full power to meet the comprehensive needs of the state and the military. This contrasts with the October 7th scenario, in which the Air Force itself remained almost entirely unscathed. Furthermore, some of these scenarios suggest a more comprehensive threat to the entire nation, one exceeding that of October 7th. As a strategic component of Israel's

national security, the Air Force must diligently learn from and prepare for such scenarios—perhaps even more so than for those resembling the October 7th attack. Finally, the force buildup and readiness required for some of these scenarios differ from those focused on an invasion modeled after October 7th. In an environment of scarce resources where prioritization is essential, it is prudent to consider all these scenarios before making decisions regarding the direction of force buildup.

Consequently, the proposed learning process seeks to establish a comprehensive intellectual framework for a mindset that prepares not for the ”war that was,” or a similar one, but rather for the one that may come in a multitude of forms—and to do so in a systematic, methodological fashion.

Methodology

This paper does not simply present another set of possible surprise attack scenarios. Such scenarios are numerous, and the imagination can conjure up an endless array of them. Doing so, however, can lead to an overwhelming number of possibilities that are impossible to fully accommodate or prepare for, or, conversely, to the omission of plausible ones. Instead, the paper proposes a structured methodology for moving from the specific to the general. The specific is the particular invasion scenario that occurred on October 7th; the general comprises surprise attack scenarios accompanied by an operational crisis within the Air Force lasting for at least several hours. We will term these scenarios *Crisis-Inducing Surprise*.

The methodology of this paper consists of three consecutive steps. First, the paper focuses the learning process and defines a ”Crisis-Inducing Surprise”, thereby specifying the intended learning process and its scenarios of interest. The second step involves mapping the general space of possible Crisis-Inducing Surprise scenarios by expanding from the specific to the general, using a topology of two axes: The first is the axis of the dimension in which a surprise invasion might occur (its origin)—air, ground, or another dimension. The second is the axis of the target (its objective)—whether the attack focuses on the Air Force, a specific region or sector of the country, or the nation as a whole. Together, they map out a complete space from the perspective of the Air Force, which is therefore the primary subject within this space. The rationale for choosing this particular topology and the degree to which it is comprehensive and represents the required lessons will be presented later. The third step points to two initial conclusions derived from analyzing the space mapped by the chosen topology.

Crisis-Inducing Surprise – Definition

The article focuses on the key factors that run as a common thread through all attempts to explain the Air Force's failure on October 7th—surprise, intelligence, and operational readiness, and the connection between them—as the Commander of the Air Force himself linked them: "Whatever we would have done, without intelligence and prior deployment, we could not have prevented the disaster, only reduced the damage" (Shapira, N., 2025). There is no particular novelty in any of these factors, whether in the general context of surprises or in the specific context of October 7th. However, sharpening and emphasizing these factors is crucial as a foundation for the learning process, as we must connect them to successfully transition from the unique, specific case of October 7th, to the general case.

Accordingly, the article defines a *Crisis-Inducing Surprise* as one of two possibilities: (1) A fundamental surprise, due to which the Air Force is entirely unprepared for the surprise scenario, or (2) a situational surprise, due to which the Air Force does not arrive ready for the event despite its principled readiness for the surprise scenario.[4]

A *Fundamental Surprise* is one that undermines the surprised party's perception of reality and basic assumptions (Lanir, 1983), similar to what Taleb termed a "Black Swan", meaning a phenomenon that does not exist on the spectrum of expected threats as perceived by the surprised party (Taleb, 2009).[5] In the case at hand, the fundamental surprise was Hamas's very *ability* to execute an invasion on the scale it did, according to an orderly plan it had labored over for years, which was contrary to the prevailing perception of reality within the Israeli defense establishment regarding its capabilities (Shapira, I., 2025); as well as the very *decision* to execute this invasion contrary to the (erroneous) Israeli perception of reality that Hamas had been deterred (Lupovici, 2024; Shapira, I., 2025). When the surprise is fundamental, one must assume that the operational readiness for it will also be deficient because according to the surprised party's perception of reality, the event is not supposed to occur. Furthermore, the shock from the very occurrence of an event not on the spectrum of expected events is great and creates a non-trivial crisis for the surprised

4 It should be noted that to avoid this article becoming a theoretical treatise or a review on the subject of surprise, and on the assumption that the intuitive definition of surprise is clear to the readership, the article will confine itself hereafter to a very brief explanation of fundamental versus situational surprise alone. This distinction is essential for defining a "crisis-inducing surprise" and for the subsequent analysis.

5 In his book, "The Black Swan", Taleb coined this term to denote an event perceived as impossible or having a minimal probability of occurrence, yet which, should it transpire, has a profound impact on history. See:, Taleb, N. (2007), "The Black Swan: The Impact of the Highly Improbable".

party due to the collapse of basic assumptions regarding the state of the world. Correspondingly, the recovery time from such a surprise depends heavily not only on the extent of the damage experienced by the surprised party and its ability to organize in response, but also, and even more so, on the ability to recover from the crisis itself generated by an event that "was not supposed to happen as it did"—both in the pure aspect of preparedness and in the human aspect—i.e., the ability of people to change their perception of reality quickly, to improvise, to be creative, and to act according to the new situation (Dan, 2025b; Razi and Yehezkeally, 2013).

A *Situational Surprise* is a surprise that does not undermine basic assumptions but rather a specific intelligence picture at that time. For example, had the IDF, and the Air Force within it, been prepared for the possibility of a Hamas invasion on the scale that actually occurred—but were surprised regarding the timing—we would say this is merely a situational surprise, one that is easier to cope with after it has happened, rather than a fundamental surprise that undermines all basic assumptions (Lanir, 1983; Shapira, I., 2025). When the surprise is situational—meaning the surprise is not regarding the very existence of the scenario but regarding its timing, scope, or another aspect of it—then the Air Force's response capability depends on its alert level: to what extent it relies on precise early warning regarding the event and its nature, or alternatively, to what extent it maintains a high threshold of readiness even in the absence of early warning of an attack. In such a case, one should expect the Air Force's recovery speed to be greater than in the case of a fundamental surprise.

In both cases, it is important to note that the Air Force's ability to overcome the crisis and the time required to do so are contingent upon the intensity of the damage it and its forces sustain. The greater the damage to the Air Force itself, the longer the recovery time will be, depending on the severity of the impact. Conversely, the more a surprise scenario is primarily directed at other elements (as was the case on October 7th), the more quickly the Air Force is likely to be brought to bear. This critical point is well understood by the nation's adversaries, who recognize the Air Force as a linchpin of the operational capabilities of both the IDF and the State of Israel, crucial for both the speed and subsequent power of its response. Consequently, it is reasonable to assume that in any future surprise attack, the Air Force itself will constitute a primary target. This aspect also influences the chosen topology, in which the Air Force is the initial target on the relevant axis, as will be presented below.

A Topology for Mapping the Space of Crisis-Inducing Surprise Scenarios for the Air Force

The proposed topology for expanding the October 7th surprise scenario is mapped across a space created by two axes. This framework enables a broader learning process from the October 7th failure, specifically from the perspective of the Air Force: where the surprise attack originates (in terms of dimension, not its source) and where it is directed (the primary target of the attack).

The horizontal axis represents *the target of the attack* (who and what is the primary victim). This axis begins with crisis-inducing surprise scenarios aimed at and damaging the Air Force itself, primarily because the focus of the article, as stated, is on the Air Force, which must specifically address the potential for damage to itself and its ability to fulfill its role in any configuration or scenario. Furthermore, as previously noted, the Air Force's role within the IDF's capabilities—encompassing its rapid mobilization in response to an attack, its contribution to ground combat, and its power and strategic importance as a firepower arm and the leader of deep-strike operations—collectively render it a central target in any attack on Israel. This is especially true in a surprise attack, when its readiness to absorb damage is at its lowest. The axis continues to scenarios involving partial damage to the state—affecting a specific region or sector (with the October 7th failure serving as a representative example of regional damage). Such a scenario could, of course, also include damage to the Air Force itself (which did not occur to a significant degree on October 7th). The axis culminates in a crisis-inducing surprise scenario involving widespread damage to the country or an all-out war.

The vertical axis represents *the domains in which the surprise occurs*. The first is the aerial domain alone, which is under the full responsibility of the Air Force. This is followed by the ground domain, being the primary domain for capturing territory in a war threatening the state's sovereignty and survival. Finally, there is a crisis-inducing surprise scenario unfolding across several domains simultaneously (e.g., land and cyber, air and cyber, sea and land). On October 7th, for all intents and purposes, although there were also minor incursions by air (powered paragliders) and by sea (several rubber boats, some of which successfully landed on the coast), the invasion was overwhelmingly terrestrial in its scope and essence. The use of other domains was intended to facilitate a rapid arrival on the ground, rather than to conduct warfare within those other domains. Accordingly, the following matrix maps the crisis-inducing surprise scenarios along the two aforementioned axes. The table provides examples of a possible scenario for each category.

Table: Mapping of Crisis-Inducing Surprise Scenarios on Two Axes.
Horizontal axis of the target of the attack (where the attack is aimed) and a vertical axis of the medium in which the attack occurs (where the attack comes from). Inside the table are examples of a possible scenario within each of the categories.

		The target of the attack – where the attack is aimed		
		Air Force Operations & Assets	Geographic Region or Specific Sector	Widespread & significant damage to the State
The domain in which the attack occurs	Multiple	A cyberattack on all IAF command and control systems, combined with an attack on facilities and aircraft using UAVs, drones, and commando units	An aerial and naval attack on central Israel, accompanied by a nationwide cyber attack	Full-scale invasion by a foreign army, coordinated with additional attacks on two more fronts, along with internal uprising by terrorist and criminal organizations
	Land	A ground invasion accompanied by incursions into Air Force bases and air defense and control installations	The Hamas invasion of the Western Negev on October 7th	Ground invasion by Hezbollah and militias from Jordan and/or Syria, combined with domestic terrorist elements
	Air	A comprehensive attack on all IAF bases using missiles, UAVs, and drones	A massive-scale attack with UAVs and missiles on all IDF bases in the north and on air defense units	A comprehensive, high-volume attack with missiles, rockets, and UAVs on ~100 critical infrastructure sites and urban centers

This layout allows for a broad perspective on crisis-inducing surprises, with a focus on the Air Force's preparedness. The central box—a ground attack in a specific region of the country—represents the October 7th invasion. The other boxes represent many other potential crisis scenarios. For example, in the top-left box, which represents an attack on the Air Force exclusively across several domains, possible scenarios, or a combination thereof, include the following: disabling the Air Force's command and control systems via cyberattack; a ground invasion by elite forces from Hamas, Hezbollah, or another organization, supported by drones, to damage and paralyze Air Force bases; an infiltration into an Air Force base, disguised as an incited mob approaching and breaching the gate, followed by the paralysis of the base by terror cells or damage to aircraft; and, of course, a large-scale precision missile attack.

Two aids that can be utilized for a realistic layout of this space, though one must be careful not to let them dominate the thinking process, are intelligence on specific plans and intelligence on capabilities (irrespective of any plans). However, it is clear that such intelligence will not necessarily be available for every category. Such was the case, for instance, regarding a comprehensive invasion scenario involving Hamas from Gaza and Hezbollah from the north, possibly assisted by forces from Judea and Samaria and from within Israel itself. It is now known that Hamas and its partners contemplated such a scenario, which was ultimately not realized on October 7th due to Hamas's invasion being carried out without coordination with its partners, but with the expectation that such a scenario would partially materialize on its own. Israel had no intelligence on such a plan, yet it would have been prudent to consider it not merely as a potential scenario but also as one that could occur by surprise and create a catastrophe even greater than the one experienced.

The strength of the proposed topology—that is, mapping the space specifically according to the two proposed axes ("from where and to where": the domain and the target of the attack) rather than others or additional ones—is assessed based on three key questions. The first two draw upon the mathematical concept of spanning a space, as well as the *MECE* (Mutually Exclusive, Collectively Exhaustive) principle, a framework for strategic problem-solving developed at McKinsey in the 1960s.[6] The first question concerns the extent to which the topology is composed of mutually exclusive axes—that is, axes that map the space without any definitional overlap, as such overlap would create inefficiency and distortion in the representation. The second question is the extent to which the topology is collectively exhaustive (complete), meaning it encompasses all possibilities. The third question differs from the first two. While they examine the formal quality and completeness of the topology, the third assesses its relevance to the specific problem domain: namely, the degree to which it allows for generating significant insights regarding the question or problem at hand, as it would otherwise fail to be contributory.

The answers to these questions allow for an analysis of the extent to which the proposed topology is indeed suitable and precise for the learning process from the particular (the October 7th surprise) to the general realm of crisis-inducing surprises. The answer regarding the independence of the axes is straightforward: by virtue of their selection as the dimension and the target of the attack, they are distinct and have no definitional overlap. Regarding the completeness of the mapping, the answer is slightly more complex. From the outset, one must

6 This method is typically employed in decision trees (for example, MBA Crystal Ball https://www.mbacrystalball.com/blog/strategy/mece-framework/ or StrategyU https://strategyu.co/wtf-is-mece-mutually-exclusive-collectively-exhaustive/).

be cautious about confidently mapping all possibilities, as the very essence of a surprise is that it undermines the prevailing paradigm of realistic scenarios that might occur. However, alongside this caution, it should be noted that several additional axes were examined, such as a technological axis—a technological surprise—or an axis for the intensity of the impact, as well as others. The damage axis, for instance, appears to be embodied within the scenarios themselves, and its addition would create a dependency on the existing axes. In contrast, the technological axis is not embodied in the existing ones. It is clearly relevant to some of the Air Force's operational arenas, such as in the use of UAVs during the recent war. The weaponry itself did not constitute a technological surprise; rather, its use and its successes are what challenged the Air Force. Hence, the various scenarios must also incorporate advanced technological weaponry.

Finally, regarding the third question, to what extent is the proposed topology precise and relevant to the problem space, and how does it contribute to learning about a crisis-inducing surprise? The very choice of a "crisis-inducing surprise" as the focal point of the learning process, through the selection of a "from where and to where" topology, is intended to break away from the conventional framework of debriefings, which typically analyze an event or failure within pre-existing parameters. In other words, the proposed approach departs from the debriefing method and aligns with strategic literature that advocates for moving beyond the confines of reality or established practices to explore alternative possibilities (e.g., Lee and Co, 2014). This is achieved through a topology that maps out options within a space of uncertainty and recommends shifting into domains that are similar to, yet different from, reality and familiar possibilities.

To conclude this point, this article does not claim that the proposed topology is the only one possible or that it is entirely complete. It does, however, appear to meet the requirements for a constructive and precise topology, and as such it should be regarded as a foundation for a comprehensive learning process that moves from the specific to the broader realm of crisis-inducing surprise scenarios—a framework worth adopting.

The learning process is advanced by utilizing extreme-case scenarios. Mapping the space of possibilities through categories creates a scenario map composed not of a single reference scenario but of nine distinct ones, each representing a different category. Selecting an extreme-case scenario for each of the nine resulting rubrics and preparing for them will, by an *a fortiori* argument, enable preparedness for other, unstated scenarios as well. That is to say, the specific scenario being prepared for is less important than the very existence of an extreme-case scenario in each of the categories.

Such extreme-case scenarios should be developed by interdisciplinary teams—not one, but at least two or three that operate independently. The outcomes of their planning should then be synthesized into a leading extreme-case scenario for each category. It is certainly appropriate for intelligence on capabilities and plans to serve as the basis for one team's work, but no more than that. All teams should also consider the global technological environment and propose a scenario that remains robust as an extreme case over time. While it is possible and advisable to provide each team with different points of emphasis, the principal directive must be for them to think as if tasked with surprising the State of Israel and the Air Force, and succeeding in this mission. The objective, in other words, is not to find a scenario that is convenient to confront, but rather one against which there is no known course of action.

Discussion

To what extent can a crisis-inducing surprise scenario stemming from a fundamental surprise be overcome? A fundamental surprise is, by definition, one that shatters the surprised party's perception of reality and foundational assumptions. How, then, can the proposed topology assist in confronting such a surprise? If the proposed topology is accepted as one that describes all possible surprise scenarios, or at least the vast majority of what could occur, then it can be cautiously posited that any crisis-inducing surprise scenarios that might transpire are contained within the space mapped by the chosen topology (representing extreme cases of uncertainty beyond the known boundaries of reality). Therefore, the more the Air Force prepares for all the extreme-case scenarios in each category—through relevant force design, plans, training, and the like—it can be assumed that any scenario that might occur will be some combination of what the Air Force has prepared for. The statement by the Air Force Commander, "without intelligence and without appropriate preparation..." (Shapira, N. 2025), will change because appropriate preparation will be in place. Mapping the space of crisis-inducing surprise scenarios and building preparedness according to the various categories makes it possible to significantly mitigate the crisis resulting from a fundamental crisis-inducing surprise, by virtue of being prepared for it even if it remains a surprise on a conceptual level, thereby transforming the surprise into primarily a situational one.

It is important to understand where this approach fits into the methodology of resilience and operational continuity. In principle, organizational resilience can be divided into two parts: one that deals with the organization's fundamental characteristics, such as agility, decentralization, redundancy, human capital, and so on, and one that discusses preparedness (Col. S, 2014). The approach

proposed in this article, which is especially important for the initial hours of a surprise attack, relates to both parts of the organizational resilience doctrine. The essence of the approach is the ability to function based on readiness built through exercises, simulations, and on the basis of appropriate force buildup, one that also builds the components of resilience accordingly, to the extent that the immediate response to a crisis-inducing surprise attack becomes semi-automatic—based on preparedness. That is, it will enhance the ability of the organization and its personnel to adapt quickly in real time to a new perception of reality by allowing them to rely on semi-automatic responses, thanks to their preparation for a collection of scenarios, where the one that ultimately occurs is a combination of them. In other words, in the first hours of a surprise attack, when uncertainty is at its peak and the ability to improvise and adapt to a new situation is challenged to the extreme, partial automation of actions resulting from preparation and readiness is a critical enabling condition. This is very similar to the classic military method of repetitive drilling that reduces the need for improvisation on the battlefield. Thus, the proposed approach contributes to the first part of the organizational resilience doctrine by enhancing human capital and its agility in the most difficult hours of the surprise, precisely by leveraging the second component of resilience—preparedness.

What, then, of a situational surprise that leads to a crisis-inducing surprise scenario? The article defines a crisis-inducing surprise as either a fundamental surprise, for which the Air Force is completely unprepared for the scenario, or a situational surprise, for which the Air Force is not ready for the event despite its preparedness in principle for such a scenario. Even if the Air Force were to develop an operational preparedness that would allow it to significantly reduce the possibility of a fundamental surprise as described, it would still remain vulnerable to a situational surprise: a surprise attack for which there was no early warning, or no warning regarding its full scope.

Today, the Air Force, like other components of the IDF, is heavily reliant on early warning for many aspects of its preparedness, as well as for its self-defense. We will not delve here into the fundamental debate on the extent to which early warning can be relied upon when required, but we will cautiously note that an increasing number of actors now recognize that this reliance is problematic, to say the least. There are also proposals to keep it as an intelligence objective but to remove the element of early warning from the foundational principles of the national security concept—namely, to assume that a situational surprise will occur when the other side seeks to achieve one (Matania, 2024, p. 27).

The Air Force's criticality to the IDF's operational and strategic capabilities, as well as its role as a vital component in responding to a surprise attack—

thanks to the speed with which it can transition from routine to emergency—is now clear even to our adversaries. Therefore, and beyond the broader debate regarding the general reliance of both the IDF and Israel on the prospect of early warning for a surprise attack and the resulting implications for the IDF, it is incumbent upon the Air Force to abandon its complete reliance on early warning regarding its own ability to function and to cope with a surprise attack against itself—that is, for the crisis-inducing surprise scenarios in the left-hand column of the scenario space.

The implications for readiness and resources (both human capital and budget) are clear. Therefore, it is imperative to rely primarily and as much as possible on two classic components of preparedness for a surprise attack, which must become the cornerstones of the Air Force's emergency planning and preparation: survivability and redundancy. The importance of survivability and redundancy has steadily increased over the years. This is due, on the one hand, to modern technology that enables high-damage, precise, long-range strikes and, on the other, to the emergence of simple and inexpensive modern weaponry—such as unmanned aerial vehicles—that allows for the deployment of large quantities of assets in ways previously impossible. The State of Israel, lacking strategic depth, is particularly vulnerable to this threat (Matania, 2024, pp. 19–20; Matania & Berkman, 2024).

Accordingly, investment in survivability and redundancy, alongside a higher threshold of readiness than is customary based on early warning, will enable the Air Force to better contend with any extreme scenario involving significant damage to the force, such that the likelihood of a surprise attack crippling it to the point where it cannot recover and fulfill its range of missions is significantly reduced.

Conclusion

This article aims to expand the October 7th debriefings into a learning process that extends beyond scenarios similar to the Hamas ground surprise attack of that day. It adopts a broader, methodologically structured perspective, moving "from the particular to the general", to map the space of possible crisis-inducing surprise scenarios against Israel, with a specific focus on the Air Force. The article defines a crisis-inducing surprise as either a fundamental surprise, for which the Air Force is entirely unprepared, or a situational surprise, where the Air Force fails to be ready for the event despite its readiness for such a scenario in principle. By employing a topology that maps the space of crisis-inducing surprise possibilities along two axes—a topology that adheres to the principles

of selecting a complete and tailored strategic approach—the article proposes a method for contending with future crisis-inducing surprises.

The axes are the dimension of the surprise attack (air domain, ground domain, or others and their combination) and the target of the attack (the Air Force, a region or sector in Israel, or a comprehensive attack). By laying out these nine categories and selecting characteristic extreme cases within them—and assuming this topology approximates all possible surprise scenarios—it can be posited that force design, plans, and training for these nine extreme scenarios will inherently encompass the possible combinations thereof. Preparedness for such a comprehensive space of scenarios will render the response to a surprise attack in its initial hours—which are the most challenging due to uncertainty and a sudden shift in reality—semi-automatic, thereby minimizing the need for improvisation and reducing recovery time to a minimum. As a result, this approach can reduce the potential for being caught in a fundamental-surprise situation that undermines the Air Force's perception of reality, while also mitigating the scale of the crisis should such a surprise occur.

Finally, the article posits that to successfully contend with a potential situational-surprise, the Air Force must significantly reduce its reliance on early warning, particularly concerning its preparedness to defend itself and its assets in the event of a surprise attack. Instead, it must rely on a force design founded on the principles of survivability and redundancy, which would enable it to preserve a significant portion of its forces even during a surprise attack. This reduced reliance on prior warning is particularly vital for the Air Force, which serves as a strategic arm of Israel. Its role in any campaign is critical, and with the appropriate readiness, it can be fully prepared for a campaign or war within a matter of hours to a day. The ability to be prepared for a surprise attack with minimal reliance on prior warning is especially crucial for Israel, given its lack of strategic depth.

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