IDF Strategy – Force design

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Upon becoming Chief of the General Staff of the Israel Defense Forces, Lt. Gen. Gadi Eizenkot prepared a document “IDF Strategy.” The publication of the key elements of the document are praiseworthy.2 It provides a response to the expectations of the public to share the basic principles of military force design and force employment and invites the public, even if not explicitly, to engage in a practical public discourse on its conceptual basis.

At this meeting point between the current concepts directing the IDF’s activity and Israel’s citizenry, I will focus on three key issues which are integrally connected to the plane of civilian existence – both physical and in the mind:

1. The basic idea behind the use of ground forces and the logic connecting them.
2. The purpose and character of the ground forces reserve corps within a range of ground combat missions.
3. The IDF’s responsibility for civilian, organizational and organized cooperation in defense efforts, such as territorial defense in peace time and in war.

From the principles which guide force design in the IDF Strategy document, I have chosen to focus on one: Critical Mass:

"Force design shall be carried out while creating or maintaining a critical mass of capabilities. Beside the importance of achieving a qualitative and technological

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"advantage, the number of means that can be activated is also important. This affects the quality and flexibility of action. Mass together with flexibility is a way of dealing with uncertainty relating to future challenges on the battlefield."

This paragraph is highly significant, and is worth adopting literally. The principle that it directs us to seems simple and familiar, but its practical significance is far from obvious. Of course it emphasizes an eternal question in the use of military force - the dilemma between quantity and quality - and leaves this ongoing tension at the doorway. The question is renewed in every tactical and systemic context and it demands from the army’s commanders, both those who generate force and those who use it, the creation of an updated balance between the two.

Orde Wingate with his Special Night Squads carved into the consciousness of the founding generation of the IDF (Yitzhak Sadeh, Moshe Dayan and Yigal Alon) the model of the biblical character Gideon and his 300 warriors in the war against the Midianites at Harod Valley in the Book of Judges. The simple lesson was understood by them as an unambiguous solution to the dilemma between quantity and quality in its guidance to, in principle, prefer an operational concept based on a carefully chosen small strike force.

However, it is worth reading the story afresh. During the first selection of fighters, which took place in response to the command from God: “The people that are with you are too many […] Now go proclaim in the ears of the people, saying, whoever is fearful and afraid, let him return and depart in the early hours from Mount Gilead,” (Judges, 7:2-3) the size of the force was reduced from 30,000 to 10,000. After this first selection, a second was needed: “And the LORD said to Gideon, the people are yet too many; bring

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them down to the water, and I will sift them for you there” (*Judges* 7:4). Indeed, 300 chosen ones remained and the first nighttime attack on the Midianite camp took place with a multi-pronged assault, using the creativity and daring of this superior group.

But the story is just beginning. The initial successes developed into a pursuit of the Midianites which required numerical mass. A close perusal of the biblical description makes clear that even after the first selection, Gideon did not actually send home the 20,000 who abandoned the fight, but rather positioned them to wait and “depart in the early hours from Mount Gilead” as a *reserve formation*. For the pursuit he summoned the tribes of Naftali, Asher and Menashe and dispatched a special call to the sons of Ephraim: “And Gideon sent messengers throughout all of Mount Ephraim, saying, come down against the Midianites, and take before them the waters unto Bethbarah and Jordan” (*Judges*, 7:24).

It becomes clear that complex tactics were used which combined quality and quantity. The battle opened with a night raid by an elite force but continued with a pursuit in mass with large forces towards the North and West. This was joined by an additional approach from the southeast in order for the tribe of Ephraim to simultaneously block the Jordan River crossings.

The IDF was also built and operated in this way from the time of its founding, by combining small elite strike forces (primarily regular army) with large scale mass. This concept was already developed during the military organizational processes which took place before the 1948 War of Independence.

The issue of the appropriate balance between an elite strike force and a quantitative mass of medium quality, is well known for its significance to all dimensions of military action: On land, in the air and at sea. However, for the ground forces this issue has multifaceted complications, which are uniquely central and which are manifested through several significant variables.

The aspiration to achieve technological superiority - As a critical element for achieving tactical victory, this is the first variable
that distinguishes ground combat from aerial and naval combat. The technical features that define the performance of an aircraft have a decisive influence on the challenge of achieving aerial superiority. It is difficult, for example, to imagine a fair fight between a combat aircraft from World War II and an advanced jet fighter, certainly not if the jet were armed with air-to-air missiles.

Ground warfare, on the other hand, is characterized by a multitude of incalculable variables, such as the characteristics of the land cover and smoke on the battlefield, which would certainly give a World War II tank force a chance against a modern tank force. In the 1973 Yom Kippur War for example, the 9th Armored Brigade commanded by Col. Mordechai Ben Porat, with Sherman tanks, overcame a Syrian force armed with T-62 tanks in the battle of Khushniyah. In a similar fashion, in the breakthrough at the Quneitra salient, the 179th Armored Brigade under the command of Col. Ran Sarig, armed with the Shot Kal tank (an upgraded Centurion), suffered heavy losses from the Syrian defenses which were armed with dug-in T-34 tanks. There is no argument that in ground warfare technological superiority also has a significant influence. However, despite its influence, achieving victory is greatly more dependent on other elements including: the operational concept, combat organization and of course the quality of the fighters and their fighting spirit.

In aerial force design, however, technological superiority has decisive weight in forging the tipping point between quantity and quality. For aerial forces with a large number of low technology craft, there are no realistic operational options against a much smaller but technologically superior force. However, in ground forces force design this issues is several times more complex and is significantly different. I would argue that the difference is categorical in nature. For example, the difference between an equation with two unknowns and an equation with ten unknowns is not a categorical difference. However, the difference between balancing the equation between quantity and quality in an aerial
force and the same equation with ground forces is categorically different.

Evaluating the combat readiness of the fighter and his unit – A significant factor to be considered among the inputs to force design and maintenance, and combat readiness, is the second variable among the unique characteristics of force design for the ground forces. I dealt with this issue for many years, beginning in the 1990s when I served as head of the Combat Doctrine Department in Mahfash (the Field Forces Headquarters) under the command of Maj. Gen. Emanuel Sakel. Lt. Gen. Ehud Barak, then Chief of the General Staff, initiated a systematic process for managing the measurement of combat readiness for the ground forces, similar to that used by the Israel Air Force (IAF). Since then much work has been done on this issue. In recognizing the need for tools and processes to systematically measure the combat readiness of a military force, the ground forces also adopted the basic premise of the IAF’s force design concept. This premises states that the equation measuring required inputs for maintaining readiness given a set of expected outputs, necessarily determines the size of force needed. That is, a force that cannot be successfully kept in an adequate state of combat readiness, deserves to be disbanded.\(^4\) This premise is completely correct for an aerial force but is not binding on ground forces force design.

About a year ago, I participated in an exercise with a paratrooper unit that flew in a Sikorsky CH-53 on a dark night at low altitude. Most of the pilots that night were reservists. Of course

\(^4\) It is worth noting that the Israel Air Force of this period (the Six Day War) worked in a different manner than is accepted today. At that time, some of the missions were completed by directly attacking ground targets using older aircraft (Dassault Ouragan, Mystère, Super Mystère). During the 1967 Six Day War, the IAF even used armed Fouga CM.170 Magister training aircraft for aerial attacks in Sinai and Jerusalem among others. Maj. Gen. Israel Tal told me that he had to answer to a bereaved mother whose son was killed during fighting in the security zone in Southern Lebanon while serving in an older Patton M series tank. She asked why he was sent to fight in a tank with relatively inferior armor. While answering he referred to the above example from the Six Day War.
their readiness had to be suitable to a challenge like this. The cost of an accident would be insufferable. However, an armored force in a nighttime maneuver exercise can develop expertise and readiness while exercising. The cost of a ground accident is far lower. Also during operations, even with the enemy present, the use of an armored battalion is based on the presumption that several tanks will fall into the ditch at the side of the road, perhaps two or three will collide with one another and several others will suffer from technical issues – it is sufficient that most of the tanks arrive at the destination.

On the basis of this difference, different standards are defined for the maintenance of each type of vehicle/aircraft. A technical issue for an armored vehicle or any ground vehicle does not have the same significance as a technical issue in an aircraft. Accordingly, in the air force systems are replaced on the basis of rigid maintenance instructions, with the intention of replacing parts before they fail, whereas the ground forces can employ breakdown maintenance, which is much cheaper of course. The ground forces are built on the basis of this conceptual difference, also with regard to the inputs needed for readiness, and regarding the required size of a force, on the basis of a need for redundancy. In simple terms: For a tank battalion to be able to fight after two-three days of combat with a force of 15-20 tanks, it is structured, using the redundancy principle, on a force of 36 tanks. This numerical redundancy, based on a combat readiness standard accepts imperfection, and which would seem to involve an acceptance of mediocrity, is actually the key to flexible and efficient ground forces operations. In numerous conversations that I held with the Head of the J5/Plans and Policies Directorate, who brought with him the organizational and operational logic of the air force, I struggled to explain the practical justification for ground forces planning on the basis of these different conceptual standards. For years, even ground forces personnel have adopted the air force’s standard of excellence and have neglected the possibility that they are devoted
to a concept which is not suited to a set of conditions and needs which are different in nature.

**Large Size as a Condition for Operational Flexibility for Ground Forces**

As noted above, the Chief of Staff’s document states that: “Mass together with flexibility is a way of dealing with uncertainty relating to future challenges on the battlefield.” Given my comments up to this point, I would argue that mass, in terms of quantity, is a necessary condition for operational flexibility on the ground. Mass and flexibility are connected to one another not just - as the document makes clear – due to the uncertainty that exists regarding future battlefields, but also with regard to current and familiar military challenges. Operational flexibility is the guiding framework for aerial forces and this is what makes the IAF a key factor in the IDF General Staff’s flexibility. This is how force was engaged in 1967 and 1973 when an optimal utilization allowed aircraft to strike in Syria in the Northern arena in the morning and a few hours later to be sent out on an additional sorties over Egypt.

As we know, the ground forces operate in this respect under different time and spatial constraints. The more reliable and capable an aircraft, and as the number of sorties it can fly in a day rises, so aerial forces efficiency and flexibility grows. Conversely, once ground forces are deployed in an arena, including the most advanced and sophisticated of armored forces, moving them to another arena requires a General Staff logistics operation of more than two days. Because of this, at the moment of truth, when operational flexibility is required, the center of gravity between quantity and quality is categorically different between an aerial force and a ground force. It is true that also in the ground forces, a Merkava 4 tank has completely different performance characteristics from a mediocre main battle tank of the 1970s, but this progress, on its own, does not have a dramatic impact on our capability to cope with fewer vehicles. To put it differently: A family in Ra’anana has two working parents and two sons studying at
university with all the family members needing to travel to their work and studies every day. What will give the family the greatest flexibility and independent and efficient mobility, one luxury car or four older vehicles?

Similarly, the operational mobility concept of an armored force which needs to move autonomously across the front, even over distances of several hundred kilometers without depending on transport by tank carriers, is based on the above conclusion. In maneuver of this type some of the vehicles will no doubt become stuck by the wayside, but this is OK, as the main point is for enough vehicles to make it to the deployment zone ready for battle. The vehicles that were bogged down will be repaired and in the future will join up with the initial force as reinforcements. In short, for the ground forces, force design and employment require redundancy and size, even if of an ordinary standard, as the basis for operational flexibility.

Image 1: The Magach 7G – the Israeli version of the M60A1 Tank

Source Wikicommons, 20 July 2010
The Combination and Balance in the Ground Forces between Elite Strike Forces and Ordinary Large Size Mass

Given the sweeping adoption of aerial management norms as the standard for organizational and operational excellence, the discourse that I am proposing is likely to be interpreted as a recommendation to accept what Prime Minister Yitzhak Rabin called the “Everything will be fine” culture, during his famous speech to the IDF Staff and Command College - "Don’t worry!"

I am not preaching in favor of negligent mediocrity. I am basing myself on the understanding that excellence is context dependent: There is more than one measure of excellence and therefore the formula for excellence in one field of activity could cause damage in another, if not adopted in a critical manner. For our purposes, one has to adapt and change the basic measures to suit the combat readiness of the ground forces.

Since the days of the Six Day War, the IDF’s concept of force engagement has demanded almost immediate availability and combat readiness of the IAF. Since the outbreak of the 1967-1970 War of Attrition in the Jordan Valley, Golan and Suez Canal areas, ground forces have also been deployed on the front lines on high alert. The surprise of the Yom Kippur War intensified this demand regarding the ground forces. Reservists in the ground forces were also required to maintain immediate availability with regard to their readiness to be called up and the combat readiness of their equipment, armored vehicles and ammunition. The cost of this approach has forced the IDF in recent decades to significantly reduce its order of battle for the ground forces, in particular for reserve units.

In light of significant changes which have taken place around us, including the civil war in Syria and the collapse of the Syrian army, there are those that argue that we face an opportunity to further reduce the IDF’s order of battle, in particular in the ground forces. However, to my understanding, the changes taking place

https://commons.wikimedia.org/wiki/Image:Magach-7c_055.JPG?uselang=he
with regard to the phenomenon of war, in its operational sense, are not the only factors preventing an additional reduction in the size of the forces, but rather there is actually an increased need for engaging large-scale mass.

We have already see that the theater in which war is fought is increasingly being transferred to the urban arena. Civilians are actively and passively now in the eye of the storm. Consequently, even in Paris there is currently an open and concealed presence of approximately 20,000 soldiers and policemen. During the 1956 Sinai Operation, a relatively small force (the 37th Armored Battalion, followed by the 11th Infantry Brigade led by Irwin Doron) which was ably led by a company staff under the command of Lieutenant Jacky Even (later Major General) captured the entire Gaza Strip on its own, leading to the surrender of the Egyptian commander of the strip to the Head of Southern Command, Maj. Gen. Simhoni. The Egyptian soldiers who defended the strip were not locals and the local residents were largely unarmed and certainly not organized for combat. It goes without saying that today an operation to capture and purge the strip would require a force that is many times larger.

In light of new challenges which include the challenge of defending the communities next to the frontlines, in Gaza and the northern theater, the IDF in my estimation will need to return to a method of operations and organization of the ground forces using the approach taken during the War of Independence, which was also the approach of the biblical Gideon: Elite strike forces on high alert supported by broad mass at an ordinary level of combat readiness and preparedness. The division of responsibility will be as needed. On the basis of this idea, the combat readiness and preparedness of the ground forces will be tiered based on three types of forces:

1. Regular army elite strike forces with a high level of combat readiness whose standard inputs for training and maintenance aspire to the standards of the IAF.
2. Elite reserve brigades to complement the strike force at the levels of combat readiness and preparedness that we are familiar with today.

3. A reservist order of battle which is only partly combat ready, with ordinary weapons and with lower inputs for maintaining combat readiness and preparedness, but with a planning commitment to achieve operational availability, after organization and training, in a period of at least a week after call up.

In fact, the IDF has been structured this way for years. However, in light of the aspirations of our forces to reach a uniform standard of excellence in training and equipment, the IDF’s commanders have had difficulty implementing this approach in a way that satisfies the reservists. This is of course a question of leadership, but it needs to be accompanied by a coherent concept. It was my practice to explain to commanders and soldiers that when I participated in triathlon competitions, I made do with a 500 shekel (~USD $125) bicycle. In any case, even if I was equipped with an expensive and fancy bicycle, I wouldn’t be among the first fifty finishers. War is a macro-national event. As with an urban marathon, the tens of thousands of participants who achieve ordinary results have a significant role to play in creating the atmosphere. Given the challenge of defending communities on the conflict lines, for example the communities around the Gaza Strip facing the tunnel threat, a scenario could occur requiring a response to several concurrent infiltrations. In that case, the territorial brigades would need a mobile armored force, and for this mission somewhat older tanks would be perfectly suitable. Using these older tanks for such a mission releases the first line tanks for an offensive concentration of force.

**Strike Force Missions**

Since the First Intifada and during the years of the IDF presence in Lebanon, military commentators argued that these missions diverted the maneuver strike forces from their primary
purpose of leading an offensive during wartime. Military correspondent Alon Ben David recently made this argument again: “As in previous conflicts, and also in the future it will be the regular army that is sent to achieve a decisive defeat of the enemy. But the regular army is worn down from policing missions in the territories and guarding the borders, instead of training to be a force that knows how to quickly maneuver and to win.”

A professional comparative analysis, with the British army as an example, presents a completely different perspective on this issue. During all the years of fighting terror in Belfast, the British perceived the practical experience, including friction in “police missions” to be an opportunity to develop fighting strength, command values and control of the lower ranks. While it is true that in the transition to other combat arenas, adaptions are required, but the British paratroopers in the Falklands did not have a hard time doing so. In fact the exact opposite.

Conversely, we can see the difficulties that the Egyptian army has revealed in adapting to the fight against jihadist organizations in Sinai. From my perspective, since 1973 the Egyptian army was not involved in any real conflict and in the subsequent years it was not forced to engage in a transformation which would equip it to deal with new forms of war. Professionally, the IDF owes its operational relevance to the transformation which was forced on it during the 18 years of conflict in Lebanon and the tests of conflict in the Palestinian arena.

In this regard, a strike force is not the only force which will have to face current operational tests, rather the strike force is there to lead, as they did during the 2002 Operation Defensive Shield, in the development and adaptation of changing combat

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6 Alon Ben David. (21 November 2015). “Eizenkot’s trap: Assessed all the trees, avoided looking at the forest as a whole,” Ma’ariv (Hebrew). It is also recommended to read Meir Finkel’s chapter on the impact of routine operations on the war machine in which he argues that the influence of routine operations is negative. See Meir Finkel (2013). “Challenges and Tensions in Force design Processes.” Ma’arachot Publishing, pp. 77-117. (Hebrew)
methods in order to hand them down them to the mass forces. The foundation of the IDF’s force employment concept is based on a maximization of strength, even in a limited conflict which seems to yoke the army to police missions. This is done to avoid being caught in a situation where we saved the strike force for a ‘real war’ but in the meantime we did not achieve the necessary accomplishments in the current conflict. In addition, we need to apply our full focus on the necessity of positioning the backbone of the junior command and young combatants in such a way that they face the test of real conflict. During combat they can forge their fighting spirit and will encounter a genuine test in the face of the enemy.

**Territorial Defensive Forces – The Armed Nation**

Given the changes in the nature of war, the fabric of civilian life is slowly becoming a part of the combat arena during routine operations and in war. More than once, an efficient, immediate and timely response to a terrorist attack made the difference between a tactical incident and one with strategic-political significance.

The question is: What is the IDF’s responsibility to arm and train civilians, especially in frontier areas. I discussed this issue in Chapter 10 of my book “What is National in National Security?”. In his book, “In the Loop of Security Problems,” Israel Beer explains the necessity of the territorial defense role:

Some believe that this part of our defense system is nothing but the fruit of the conditions that existed before the creation of the State, and therefore they should be seen as a passing phenomenon, whose time has passed. However, an analysis of this type is misconceived. The principles upon which territorial defense are based, are the organization of the population into militias in order to confront those that would attack their homes and workplaces. Indeed, the integration of economic

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development and military defense cells, these principles served as a guide to the defense forces of many nations...The benefits of this military framework exist to this day: Economizing on forces on the one hand, and moral considerations which enhance the national ability to withstand adversity.a

In simple practical logic, territorial defense is needed in the same way that every house should conduct basic preparation for an emergency situation. This basic readiness releases the organized national forces to focus on their primary efforts. This principle is correct also for mass casualty natural disasters.

This issue touches at the heart of the system of attachments needed for the existence of a democratic state with a liberal orientation. However, the changing face of war enables this issue to be reevaluated. In addition, there is the discontent that accompanies the struggle of thousands of reservists who are demanding to continue serving in their reserve units in the face of threats to remove them from their reserve brigades due to cost cutting. These reservist organizations within an expanded territorial defense system would need minimal inputs in the form of training and weapons. In the emerging reality, this system helps the primary forces focus on their primary missions and, in my worldview, it would help national unity, in peace and in wartime.

Conclusion

As is written in the section of the IDF Strategy document that I quoted at the beginning of the article, the IDF needs flexibility that is also dependent on critical mass. The flexibility and operational availability of the IDF, principally the ground forces, is now dependent on a set of requirements which are more demanding than those with which were familiar over the past two decades. Since the Yom Kippur War, the IDF has been active in only

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a Israel Beer, In the Loop of Security Problems, Am Oved, Sifri’a La’am, 1957, pp. 241-2. (Hebrew)
one arena at a time and has therefore been able to concentrate most of its ground, air and naval forces. In this new period, with developing threats to the Israeli home front from Hezbollah in the north and Hamas in the south, the chances that the IDF will need engage in an offensive on two simultaneous fronts are growing. The focusing of combat on built-up and protected areas including underground fortified formations demands a large and skilled order of battle whose size is greater than we have been familiar with in the past. Responding to this challenge is dependent, as I argued above, on the need to shape a new equilibrium point between a superior elite strike force and mass forces at a middling skill level, which in many frameworks is needed more and more.