ISRAEL PLANS MILITARY 'REVOLUTION' TO FACE NEW REGIONAL THREAT

Jonathan Marcus

*BBC, 12 July 2013*

Israel's armed forces - the most powerful and best equipped in the Middle East - are changing. Older tanks and aircraft will be retired. Some 4,000 - maybe even more - professional career officers will be dismissed. A range of other changes over the next five years are intended to make the Israeli military leaner but more effective.

A range of other changes over the next five years are intended to make the Israeli military leaner but more effective. Elements of the plans were set out by the Israel Defense Forces' Chief of Staff, Benny Gantz, earlier this week. Once implemented, they promise what some analysts have described as "a revolution" in Israel's military affairs.
In part, of course, this is all about money. The defence budget in Israel is under growing pressure - social protest has erupted on Israel's streets too. Significant cuts have to be made. This is one reason why units equipped with older tanks like derivatives of the US M60 will be disbanded, as well as some Air Force units with older aircraft that are much more expensive to maintain. Streamlining the career military may also save funds in the long run.

But what is really going on here owes less to budgetary pressures and more to the dramatic changes that are under way in the strategic geography of the region around Israel.

The Arab world is living through an upheaval that shows no sign of ending. The big military players like Egypt, Syria and Iraq are either facing political uncertainty, full-scale civil war, or have been exhausted by invasion and more than a decade of bitter internal violence.

The Israeli military's five-year plan has been postponed over recent years - partly due to the budgetary uncertainty and partly due to the dramatic changes sweeping across the region. As retired Brig Gen Michael Herzog, a former head of IDF Strategic Planning, told me: "The prospect of a conventional war breaking out between the IDF and a traditionally organised Arab army is now much less than in the past. However, the risk from non-state actors, of asymmetric warfare, and greater unrest along Israel's borders (with the exception perhaps of Jordan) is increasing and it is these threats that the Israeli military has to plan for."

So what will change? Gen Herzog says there will probably be fewer tanks, but this goes much further than simply changing the IDF's order of battle. There will be a much greater emphasis upon intelligence and cyber-warfare. Given the instability in Syria, there will be a new territorial division covering the Golan front. There will be significant investment in the capacity to strike deep into enemy territory and to improve the co-ordination between air and ground forces.

There will be an even greater emphasis upon speed and the deployment of weapons that can strike targets rapidly and with great accuracy. The use of the Tamuz system, a highly accurate guided missile, during recent months against sporadic fire coming from Syrian positions is a pointer to the types of weaponry that will be more important in the future. Tamuz is actually a relatively old system, recently declassified, but its successors will play an important part in Israel's new order of battle.

"The Israeli military concept has always been to shorten the duration of any conflict, but this has become more important than ever before because of the growing missile arsenals of groups like the Lebanese Shia movement Hezbollah, which means the Israeli home-front is under threat like never before," Gen Herzog told me.

Israel already deploys a variety of defensive measures like the Arrow and Iron Dome anti-missile systems, but improving its offensive capability is seen as the key to managing the tempo and duration of any future conflict. By and large, Gen Herzog welcomes the new military plan. However, he says that "there are of course risks during any period of transition".

Budget constraints mean that in the short-term training is being cut back. This, he notes, "is the easiest way to save money in the short term". He points to the IDF's problems in Lebanon in 2006 as an example of an army that had spent too little time training for large-scale manoeuvre warfare. "Training is definitely down this year, but is set to rise in future years," he says, adding: "This is a risk albeit a calculated one.

Nonetheless, the assessment among the Israeli High Command is that this risk is bearable, given the disarray afflicting its Arab neighbours.

In Egypt, the peace treaty with Israel may not be popular but the Egyptian army is wedded to it, not least as the ticket that opens the way to large-scale US military aid. Budgetary constraints mean that military training will be cut back in the short-term Iraq is no longer a serious military player. Syria is in crisis and the regime's future remains in doubt. Instability and uncertainty characterise Israel's strategic environment with the risk of rapid escalation that could see conflicts on a number of fronts.
Many military analysts accept that reform is justified. Perhaps the greatest risk is that the government will not make good on future defence spending pledges and this ambitious programme could just look like retrenchment. Of course the Iranian nuclear challenge remains a potential threat, against which Israeli Air Force planners in particular are building up their capabilities.

New missions, too, are fast emerging, not least for the Israeli Navy which must now protect gas field installations off-shore which promise to make the country self-reliant in energy terms for a considerable period.

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**THREATS TO ISRAELI AIRCRAFT OVER IRAN**

*James Dunnigan*

*Strategy Page, July 27, 2013*

Iranian military leaders were relieved at the recent election of the “moderate” Hassan Rowhani to replace Mahmoud Ahmadinejad as president. Rowhani is known to be a superb negotiator and someone you can reason with. Ahmadinejad was neither of those things and his constant and hysterical threats to Israel made war with Israel an ever increasing possibility. This was made worse by the growing threat of Iran developing nuclear weapons. Ahmadinejad also liked to boast of how well prepared Iran was to kick Israeli ass if it ever came to a fight. Iranian military leaders cringed at this because they knew that the military power Ahmadinejad was boasting of was largely an illusion.

The constant stream of boastful press releases put out by the Iranian military were for building domestic morale, not to describe any real improvements in Iranian military capabilities. The Israeli’s knew this, as did Ahmadinejad (well, he was told) but the numerous threats against Israel caused the Israelis to threaten right back. The problem was that Israel was much more capable to attacking Iran than Iran was in defending itself.

While Israel has a huge stockpile of fuel, ammo, and other supplies for wartime (about 30 days’ worth), Iran has very little. While Iran pumps a lot of oil, it doesn’t have the refineries to produce much aircraft grade fuel. Iran has few smart bombs, missiles, and, well, not much of anything compared to Israel.

Israel can put over 500 aircraft (mostly F-15s and F-16s) a day (as in sorties) over Iran. That’s in addition to more than twice as many for any short range threat. Israel has over 25,000 smart bombs and missiles (not counting smaller missiles like Hellfire). Within a few days this Israeli air power could destroy what little Iran has in the way of major weapons systems (armoured vehicles, aircraft, warships, and weapons research and manufacturing facilities). Worse, the earlier claims of Iranian military strength would not only be exposed as false but greatly diminished from what they actually were before the Israelis came by. Iranian military leaders did not want this to happen, although the senior clerics of the religious dictatorship that rules Iran saw a positive angle to an Israeli attack; it would rally all Iranians behind the generally disliked government.

The Iranian problem is that three decades of sanctions has made it impossible to replace obsolete and worn out gear or even maintain the elderly systems they have to rely on. Thus, the best defences (anti-aircraft missiles and jet fighters) against an Israeli attack are largely absent. What is available is ancient and probably ineffective against Israeli SEAD (Suppression of Enemy Air Defences) capabilities.

For example, Iran has been having increasing problems keeping its 1970s era F-5s flying. The ones that are still flying tend to crash a lot, or not be available for use because of maintenance problems (including spare parts shortages). Spare parts for all U.S. aircraft Iran still uses have been hard to come by. Iran has managed, sort of. Nevertheless, the Iranian Air Force is largely a fraud. It has lots of aircraft that, for the most part, sit there but can't fly because of age and lack of replacement parts. Those that can fly would likely provide target practice for Israeli fighters.
The Iranian Air Force is still recovering from the effects of the 1979 revolution (which led to an embargo on spare parts and new aircraft). Despite that, many Iranian warplanes remain flyable but only for short periods. The main reason for even that is an extensive smuggling operation that obtains spare parts. Two of their aircraft, the U.S. F-4D and F-5E Tiger, were widely used around the world. Somewhere, someone had parts for these planes that Iran could buy. There are still about 40 of each in service, with less than half of them flyable at any time.

This was less the case with Iran's most expensive warplane, the U.S. F-14 Tomcat. Iran was the only export customer of this aircraft. Some F-14s have been kept flyable, despite the rumored sabotage of Iran's AIM-54 Phoenix missiles by U.S. technicians, as they were leaving. To demonstrate this, they sent 25 F-14s on a fly-over of Tehran in 1985. Today, Iran has about 20 F-14s, with less than half of them flyable.

Iran has sought to buy new foreign aircraft. In the 1990s, with the end of the Cold War and the collapse of the Soviet Union, they sought to buy from Russia. Despite the low prices, a combination of Western pressure (to not sell) and the lack of Iranian money for high-ticket items, not that many aircraft were obtained. One unforeseen opportunity was the 1991 Gulf War. Many Iraqi aircraft (most of them Russian-built) fled to Iran to avoid American attack. The Iranians never returned them. Iran ended up with up to 60 MiG-29s. There were also 18 Su-24s, a force that was expanded by more purchases from Russia. Black market spare parts have been available, but the MiG-29 is a notoriously difficult aircraft to maintain, even when you have all the parts you need.

Iran currently has about two hundred fighters and fighter bombers, but only about half can be put into action and then usually for only one sortie a day. The chronic shortage of spare parts limits the number of hours the aircraft can be flown. This means pilots lack good flying skills. The poor maintenance and untrained pilots leads to more accidents.

Iran is similarly ill-prepared when it comes to ground based anti-aircraft defence. Iran has managed to keep operational some of the American Hawk anti-aircraft missile systems it bought in the 1970s. But these are not very capable these days and the Israelis know all about the Hawk system. Iran has had limited success in buying new systems from Russia and China and, in general, is as ill-prepared as it is in the air to oppose an Israeli attack.

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**IDF’S DRUZE BATTALION TESTS NEW TECHNIQUES FOR FIGHTING HEZBOLLAH**

*IDF Blog*, July 4, 2013

The IDF’s Herev Battalion, made up of members of Israel’s Druze community, has gained many years of experience performing unique missions near the Israel-Lebanon border. In the 2006 Second Lebanon War, for instance, Herev was the first force to cross the border and the last to return – exhausted from completing a range of complex missions that earned the unit a citation.

The Herev Battalion, referred to as the IDF’s “spearhead on the Lebanon border”, used its wealth of operational experience in the region to develop new combat techniques for fighting against Hezbollah. These new techniques were tested last week for the first time in an intensive battalion-wide exercise.

“Combat in Lebanon demands the use of heavy armor and the slow advancement of troops,” explained Lt. Col. Shadi Abu Fares, commander of the Herev Battalion. He went on to explain that fighting Hezbollah requires a specific method of combat, which includes the intensive use of firepower.

“In order to fight against the enemy in Lebanon in the most correct manner, we took the techniques that exist today in the IDF for fighting in open areas, and we made the necessary adjustments. With the help of the battalion’s experience, and combined with an understanding of what to expect next time, we managed to develop a better and more efficient method,” he said.
As part of the conclusions drawn from the exercise, a special document was drafted to present the techniques, which will be sent to officers throughout the IDF in order to assist in building a new combat doctrine for fighting against terror organizations. “The Herev Battalion must teach the entire IDF how to fight effectively against Hezbollah,” said Col. Zion Ratzon, commander of the regional brigade to which the Herev Battalion is subordinate.

“There are additional adjustments to be made, but the technique proved itself during the exercise. We can already see how the fighters are now speaking a new language and that there is confidence in the methods that we tested,” Lt. Col. Abu Fares said.

The new combat techniques were put to the test in the Herev Battalion’s most recent exercise, which took place last week and consisted of three days of non-stop fighting in the Upper Galilee and Golan Heights. The exercise simulated the battalion’s role during combat while functioning as part of a full brigade, in order to train the commanders to cooperate with other forces.

The troops were accompanied by a tank platoon on their journey through the hilly terrain, while combat engineering teams cleared paths through the thick scrub and artillery forces provided suppressive fire that shook the northern Golan Heights. The goal of the method: provide so much fire that “the enemy cannot lift its head.”

The exercise simulated as closely as possible full-fledged combat in Lebanon, requiring the troops to deal with enemy rocket fire falling on their staging areas, sudden changes in mission plans and evacuating casualties in armored personnel carriers (APCs). “It was a drill against Hezbollah in every respect,” Lt. Col. Abu Faris said. “Following [the exercise], I can say with certainty that the Herev Battalion is ready for anything.”

A senior officer in the sector explained last week that Hezbollah’s actions in southern Lebanon are becoming more and more aggressive. Israeli forces stationed on the border observe well how Hezbollah agents work around the clock in the villages of southern Lebanon to gather intelligence on the IDF. The Herev Battalion, whose soldiers’ families live in northern Israel and are likely to be the first to suffer from a Hezbollah attack, continues to prepare for the “day after” on the sensitive Lebanese border.

“Changes in the region obligate us to be ready for war,” the regional brigade commander said at the end of the exercise. “For every eventuality that will be needed, with the Herev Battalion I feel more confident than any other battalion.”

ISRAELI TECHNOLOGY TURNS AIR INTO DRINKING WATER FOR TROOPS

NoCamels, Feb. 28, 2012

Military troops around the world, no matter where they are instated, know that even with the best training, personnel and arms, they cannot survive battle if they are lacking one vital thing: water.

Among the concerns of military heads is to ensure water sources are always available, even in the most arid of places.

One Israeli company took up the challenge to ensure water can be readily available, anywhere and at any time, by extracting it from the most common of things: air. Water-Gen, based in Rishon LeZion, Israel, specializes in water generation and water treatment technologies integrated with tactical military vehicles and ground units. Their technology extracts water from the ambient air humidity, and turns it into drinking water.

Initially, the system filters the air so that water can be extracted and accommodated in containers. Then, it is cooled and purified into drinking water. This water can be served from a tap within the system or inside
Chairmen and co-CEO, Arye Kohavi, says that “water transportation is one of the most common reasons for the departure of convoys across Afghanistan. These convoys are attacked and have casualties.” He adds that “if we can produce the water at the exact point where it is consumed, we spare the need to transport water and reduce the risk and expenses.”

According to the Water-Gen, the device, which can be fitted onto vehicles, produces 10-20 gallons (40-80 liters) of pure drinking water a day, even in harsh weather and field conditions. The system, which is operated by solar or electric energy, is designed to meet military needs and standards, the company adds.

The company has wide-scale pending patents for the systems and technology. In 2011, it completed a three-week experiment with US Army ground units (Army Expeditionary Warrior Experiment), in which its systems provided the soldiers drinking water throughout the drills.

Eventually, Water-Gen hopes the technology can be implemented not just in the military, but in water-scarce regions around the world too. The United States, India, The UK, Spain and the UN Refugee Agency (UNHCR) have already shown interest in the company’s products.

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**On Topic**

*The Evolution of Israeli Military Strategy: Asymmetry, Vulnerability, Pre-emption and Deterrence:* Gerald M. Steinberg, *Jewish Virtual Library*, October 2011—When the nascent Israeli leadership met on May 14, 1948, in Tel Aviv to declare independence, the country was already being attacked by neighboring Arab armies. Israel overcame these hurdles in 1948 and in subsequent military confrontations, yet despite the development of formidable military capabilities, the inherent asymmetries and existential threats to the Jewish nation-state remain.

*IAF’s Flying Camel Squadron: Drones not Always Best:* Linda Gradstein, *Jerusalem Post*, July 19, 2013—While more and more armies around the world are using unmanned aerial vehicles (UAVs), or drones, for intelligence gathering, Israel, itself a leader in drone technology and a leading source of UAVs to other countries, continues to use manned aircraft for many of its missions.

*IDF Ground Forces Launch Groundbreaking Battle Lab:* Yael Zahavi, IDF, Jan 17, 2013—The IDF Ground Forces Command has unveiled a state-of-the-art battle laboratory integrating the latest simulation technology to create life-like operational scenarios. By accurately representing enemy figures, weapons and territory, the new system – which was unveiled last month – allows for the simulation of company-sized operations without the danger of a live-fire exercise.

*Israel’s Military-Entrepreneurial Complex Owns Big Data:* Matthew Kalman, *MIT Technology Review*, July 11, 2013—Two years ago, a half-dozen programmers and entrepreneurs started working together in a Tel Aviv basement to create one of Israel’s 5,000 high-tech companies. It was a stealth company, but these 20-somethings were used to secrecy. Most had served together in the same military intelligence unit of the Israel Defense Forces.

*Gaza Crossing Weekly Report:* COGAT/Israel Ministry of Defence, July 20, 2013, [pdf]—The Coordinator of Government Activities in the Territories (COGAT) and the Ministry of Defence are responsible for traffic through the two Israeli crossings into Gaza. In a weekly report they itemize what has been let in or out of Gaza. Some interesting numbers.

*Israel’s Skylark Spy Plane:* Ultimate Weapons-Robotics, *Discovery Channel, (Video)*—A series of short videos documenting a few of Israel’s military innovations now in use.