Israeli forces take position during a protest against the closure of Shuhada street to Palestinians, in the West Bank city of Hebron in February.

The eye of the hurricane

Israel faces significant ongoing terrorist risk from militant groups, but the threat is more manageable in light of new technology that aids surveillance and intelligence groups, writes *Joe Charlaff*

errorism activity against Israel has declined for the third year in a row, according to the 2010 annual report published by the Israel Security Agency, Israel's primary counterterrorism organisation (formerly Shin Bet). Agency officials say this ongoing trend is likely related to changes in the political and economic circumstances in the Palestinian territories, "combat fatique" on the Palestinian side and the effectiveness of counterterrorism measures by Israel and the Palestinian Authority.

Terrorism is a function of two factors, Boaz Ganor, executive director of the International Institute for Counter-Terror, tells *Jane's Homeland Security Review*: motivation and operational capability. When these elements weaken, terrorist activity is bound to decline.

According to Ganor, three main groups constitute the primary threat to Israel today. They are the Palestinian organisations Fatah and Hamas, the Lebanese Shi'ite organisation Hizbullah and the international Global Jihad.

After the death of Palestinian Liberation Organisation and Fatah leader Yasser Arafat, there was a change in the practises, the stating of goals, and the whole narrative of the Palestinians in reference to terrorism. Even when Israel's relations with Arafat were good, he gave mixed messages to his own people, turning a blind eye to random acts of terror. During the second intifada, Israel accused him of taking an active role in terrorist activity.

President Abu Mazen and Prime Minister Salem Fayyad are different leaders. They, unlike Arafat, realise the danger in launching terrorist attacks against Israel. They see such attacks as counter-productive, endangering any possibility of creating a Palestinian state.

Two years ago Fayyad stated that his policy would be to pre-

pare the platform for building the infrastructure of a new Palestinian state *vis á vis* industry, economics and security. Since August 2009, Fayyad has been quietly building physical infrastructure, public services and public institutions, facts on the ground, securing international support that he has not viewed as contradictory to any other goals.

In recent years Fayyad has gained support from the EU and the US. Israel has been providing security support and working closely with the Palestinian security forces, which have been instrumental in preventing terror attacks from the West Bank. Hamas seeks acceptance as the legitimate rulers of Gaza, from the international community if not the entire Palestinian entity. Although also viewing terrorism as counterproductive to its goals, the group has been unsuccessful in halting the rocket attacks on civilian communities in the south of Israel. Splinter groups have launched some 119 rockets into southern Israel since the beginning of 2010, causing casualties and damage to property.

The Israel Defence Force spokesperson's office tells *Jane's* about the development of the Iron Dome, a mobile air-defence system designed to intercept short-range rockets and mortar shells. It is part of the multilayered defence programme that includes the David's Sling system for mid-range missiles and the Arrow interceptor system for long-range missiles.

The system is composed of three parts: detection, tracking radar and missile firing. At the time of press, the Iron Dome is expected to be declared operational within a few weeks after the Israel Air Force conducts successful test runs for the first time.

Threats

Hamas' long-term goal is to wait for the establishment of a permanent infrastructure on the West Bank and then take control as it did in Gaza. They are satisfied to let Mazen and Fayyad continue doing the preparatory work for them, provided they don't make any agreements with Israel or recognise its right to exist.

According to Ganor: "It's a strange situation in which the regional players are not really committed to the peace process and yet understand that violent activity would be counter-productive, resulting in a further lack of motivation."

Although Hamas is capable of launching suicide attacks it would be difficult to do so from Gaza because the security fence hampers operational capability. They could use an underground infrastructure in the West Bank, but the Palestinian security forces would present a serious deterrent to any potential terror operation. Before the security fence between Israel and the West Bank was built, a terrorist could walk from Qalqilya, a large Palestinian town, to the centre of Tel Aviv to launch a suicide attack, and it would have been almost impossible to stop him because of the porous border.

Today, to carry out the same type of attack, potential terrorists would need to drive 200 km, which limits their operational capability.

Another limiting factor is Israel's vastly improved intelligence in tracing potential attacks, compared to five or ten years ago.

Although reducing the level of terrorist activity facing Israel, these factors could be temporary. Any progress in the peace talks could increase the motivation of Hamas to carry out terror attacks in Israel.

Hizbullah recently became a strategic threat to Israel with its takeover of the Lebanese government, becoming one of the strongest groups in the region. However, limiting Hizbullah's threat to Israel is its lack of motivation. The group is afraid that the UN tribunal will hold them responsible for Rafik Harari's assassination. Hizbullah is still a proxy of Iran and would therefore not launch any attacks against Israel without the specific permission or initiation of Iran.

When Al Qaeda was formed in the late 1980s, Israel was not among its main interests. Although they are not really interested in the future of the Palestinians, they see the Israel-Palestinian conflict as a tool that could unite Muslims all over the world and be used to promote incitement alongside other regional disputes between Muslim states and other countries.

Ganor does not underestimate Al-Qaeda's threat of attacks against Israel. He feels that the region is becoming more problematic because of the presence of Global Jihad, a group that has already infiltrated Sinai via Bedouin communities, including elements that have infiltrated into Gaza and challenge Hamas, presenting an additional challenge to Israel.

Regarding other threats, Ganor says: "We are witnessing the change from conventional terrorism to non-conventional terrorism. The debate is whether the greatest threat is chemical, biological or nuclear. I am more concerned about chemical terrorism. The terrorist organisations have the knowhow and the same laboratories that produce IEDs could be converted to manufacture chemical weapons. Those who lack the knowledge can easily download it from the internet. I believe that the next wave of terrorism will be in the form of chemical attacks".

In the wake of recent events in Egypt, Reuven Erlich, director of the Meir Amit Intelligence and Terrorism Information Center near Tel Aviv, maintains that until now the Hamas leadership in the Gaza Strip has been careful to show itself as not exploiting the situation to carry out acts of terrorism. The other operatives in the Gaza Strip - including the Palestinian Islamic Jihad and, particularly, Global Jihad networks, such as the Army of Islam - want to exploit the situation to further their own activities and strengthen networks in the Sinai Peninsula.

Yael Shahar, director of the Database Project Institute for Counter-Terrorism at Interdisciplinary Center Herzliya, does not consider cyber terror an immediate threat. Based on the allegation that Israel was partly responsible for attacking Iran's nuclear installations with the Stuxnet worm, it is conceivable that Iran will attempt an attack on



A Palestinian protester hurls a stone at Israeli troops as a stun grenade hangs from razor-wire during a demonstration against Israel's separation barrier.

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Israel's infrastructure. Shahar believes that the likelihood of Iran succeeding is extremely low because they don't possess the infrastructure to carry out an effective attack.

"We don't have the vulnerabilities that they have," she explains. "They buy most of their supplies through black markets, through third parties who are not trustworthy. For some years Iran has been receiving parts that have been tampered with."

Despite Israel's long struggle against terrorism, there is no comprehensive legislation governing the Israeli 'war on terror'. In April 2010 the Israeli Ministry of Justice published a counter-terrorism memorandum bill intended to provide authorities with the necessary tools for counter-terrorism efforts and co-ordinate the relevant legislation, which is currently dispersed in a number of statutes. The proposed measures were drafted to balance the need to act effectively against the threats posed by terrorists and the obligation to preserve and secure the values of democracy and human rights.

The attempt to create a comprehensive counter-terrorism law will afford the Israeli authorities more legal tools that are closely tailored to Israel's counter-terrorism needs. For example, by introducing new definitions of what constitutes a terrorist crime, the revised law will allow the state authorities to detain and seek the conviction of a greater number of terrorists. At the time of press, an unnamed source told Jane's that the draft bill is in the second review stage, taking human rights and legal factors into account. The Ministry of Justice declined to comment.

Homeland security is as much a top national priority as defence because of the constant threat of terror from countries and non-state actors hostile to Israel.

Counter-terrorism technology

Several leading Israeli companies are involved in developing a diversified range of cutting-edge technology in homeland-security related programmes, including border security, early warning devices and advanced tactical imaging systems.



NICE Situator can be used in a full-scale crisis, such as a bomb threat in a public area.

Among the leading players is Israel Aerospace Industries (IAI), headquartered near Ben-Gurion airport. Utilising its wide range of technologies and experience in large-scale systems integration, IAI offers a variety of innovative equipment. The intelligence, surveillance and reconnaissance (ISR) vehicle, a recent addition, was unveiled in October 2010 at the Association of the United States Army exhibition in Washington, DC, and is well suited to homeland security operations.

The 4x4 all-weather, all-terrain ISR vehicle has a combined, comprehensive system providing the capability for independent surveillance in the field or as part of an ISR-centric network. The dominant feature is a combined system of radar and a variety of sensors mounted on a pole.

The vehicle's modular sensor suite includes ground movement detection radar, day and night electro-optic (EO) sensors with laser capability, and an advanced navigation system. A tactical unmanned aerial vehicle can also be operated from the vehicle. While scanning an area, if any irregularity is detected the operator will immediately focus the camera on that spot to assess what action, if any, is needed. Other features include independent sensors that can be mounted and deployed on or from the vehicle in a specific area if that area becomes a security concern. The information within the vehicle is protected and also acts as a mobile information centre that can generate a picture of the situation for other surveillance systems under the same command.

The vehicle is well suited to border protection because of its mobility, as most border protection installations are fixed. If closer surveillance is needed, the platform has the capacity to move rapidly from point to point. The information about a situation can be communicated directly to the command post controlling the area.

For protecting critical infrastructures, the same principle applies. The vehicle can be deployed rapidly to any position or area that it is required and immediately starts scanning and transmitting critical information to the control centre.

Amnon Safrin, senior consultant to Elta Systems' president of Homeland Security Systems, says that Israel's main security concern today is its border with Gaza.

He gave an example of how the ISR vehicle would be utilised in that area: as soon as information is received about potential terrorists attempting to infiltrate Israel, this mobile platform will be deployed to provide comprehensive coverage of the area in question.

The vehicle is connected to other fixed installations and can integrate all information coming from their sensors, pinpointing the position from which the infiltrators are attempting to emerge. The vehicle is equipped with a weapon that can react immediately and fire upon the infiltrators, if necessary.

"We have operated mobile platforms for many years but if you look back 10 years we had only one vehicle carrying one pole and reporting back without any independent capability," says Safrin.

NICE Systems, based in Ra'anana, near Tel Aviv, serves

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more than 25,000 organisations in the enterprise and security sectors, representing a variety of industries in more than 150 countries, and including 80 Fortune 100 companies.

Among their security solutions is the NICE Situator, employing the concept of situation management by enabling capture, analysis and correlation of data from multiple sensors and systems that don't usually communicate with each other. This enables security officers to correlate between alerts coming from different systems based on location, time and other factors, and associate them with the same incident. This saves time and potentially having multiple operators dealing with a single alert. It coordinates the most effective responses, ensuring that everyone in the operational chain knows what is happening, where it's happening and how to respond.

Whenever an event or incident occurs, it is routed to the relevant operator, based on the load or skill set, and then he or she is equipped with a list of activities to perform. Some may be automated (point the right camera, call the local police, lock doors) and some may just prompt execution of the next action.

"We have some cases from customers where we were able to reduce the response time by 75 per cent on average, compared to the way incidents were handled before" said Tal Amit, marketing operations manager.

Its main purpose is to manage any incident - such as a full scale

crisis, like a bomb threat in a public area that requires evacuation plans and response by multiple stakeholders – as well as day-to-day activities related to safety operations.

Controp Precision Technologies specialises in the development and production of EO and precision motion-control systems for surveillance applications. The company's automatic SPIDER LR (Long Range) scanning system has been selected by an undisclosed customer in Asia for border protection surveillance.

The system uses a 1,400 mm EO camera with continuous opti-

thorities but the linkages and connection were not made, or surveillance was reallocated to a more threatening target.

The sheer volume of information, data and live feeds that intelligence agencies have to monitor and analyse defy human comprehension. Athena's CK2I (Centric Knowledge to Insights) is a suite of dataprocessing platforms and protocols designed by former members of the Mossad and other Israeli security and intelligence agencies to provide a solution to this problem.

CK2I recognises patterns and relationships within structured as

The sheer volume of information, data and live feeds that intelligence agencies have to monitor and analyse defy human comprehension

cal zoom lens, a daytime 1,000 mm camera and a laser rangefinder. The SPIDER LR is part of a family of intruder detection systems for borders, coastlines, ports and harbours, airports, critical national infrastructure and force protection. It has been deployed for mobile area surveillance and 24/7 border protection in Afghanistan and other countries.

When such an event as 9/11 or London's 7/7 bombing occurs, it sometimes transpires that those responsible were known to the auwell as unstructured data, in addition to live feeds. Using rule-based automatic processing, analyst driven protocols and decision support tools, CK2I generates alerts and insights into actionable intelligence, empowering intelligence officers to achieve the organisation's goals: to define, complete and implement the operational cycle.

One of the applications enables the analysis to detect relations between entities that would otherwise be unrecognised. If a mobile phone is purchased with a credit card linked to the same company account that is linked to another credit card used to buy a plane ticket for 'someone of interest', then the CK2I will alert operators of this event. The system is capable of monitoring live feeds that use face, voice and vehicle number recognition, as well as any other data format derived from the various available sensors.

If the person of interest uses an 'as of yet unknown' telephone to call a number that is being monitored, the voiceprint associated with a previous number will be recognised and raise an alert. This may also automatically trigger a series of other associations related to data connected to the new number, including all previous calls and the linkages contained within them.

"CK2I is like any complex toolkit. It requires skill to be employed to full effect, but the effect may well change intelligence and security as we know it," comments Omer Laviv, chief executive officer of Athena.

Speaking at a recent security conference in Tel Aviv, the head of Israel's internal security services, Yuval Diskin, says that technology has made the world smaller and flatter and that the availability of technology has revolutionised economy and communications and has given rise to many global terror opportunities.

Diskin elaborates on Israel's battle against terror by saying that it has advanced leaps and bounds since a recent restructuring within the security services and co-operation with different anti-terror bodies.

