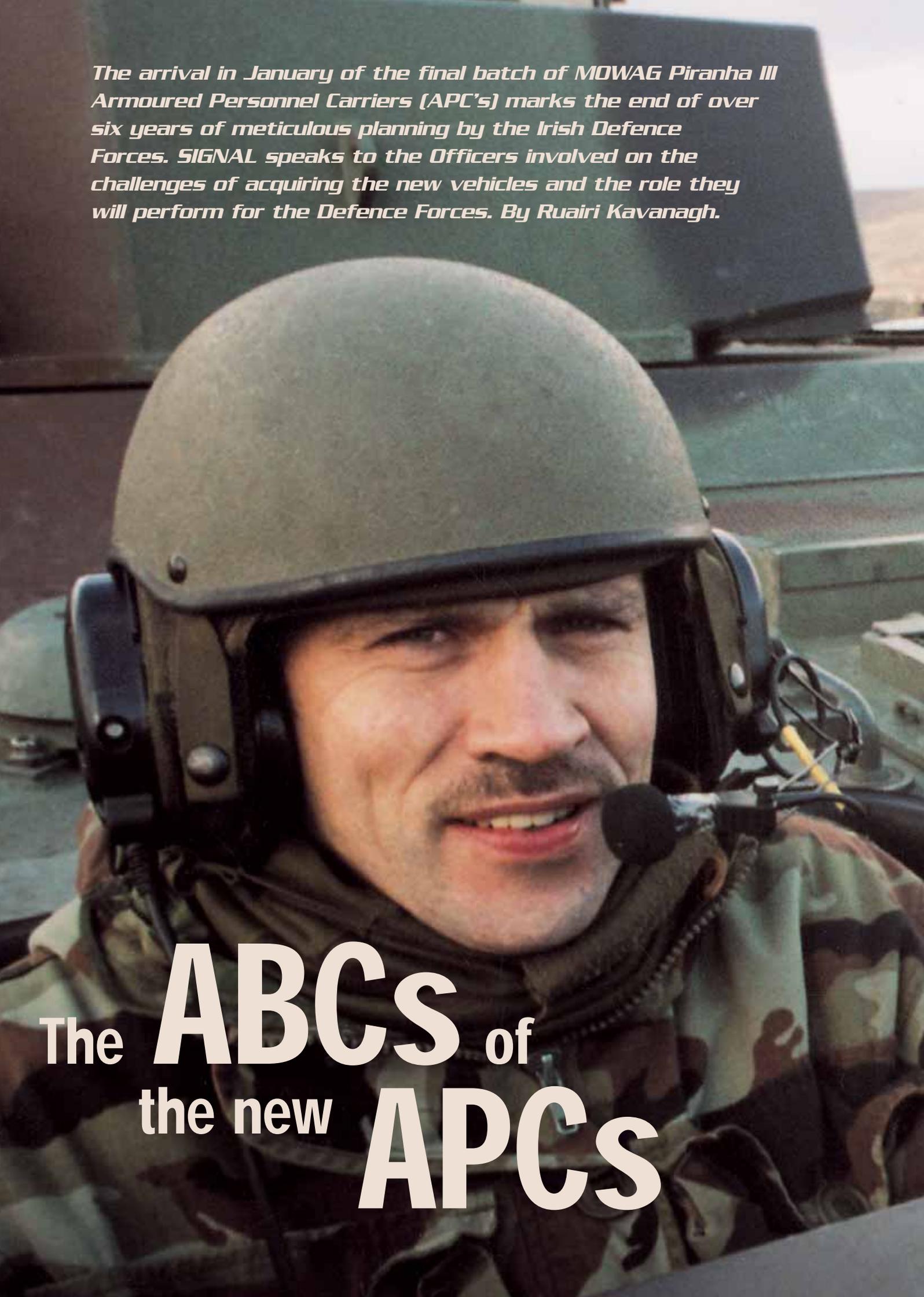


The arrival in January of the final batch of MOWAG Piranha III Armoured Personnel Carriers (APC's) marks the end of over six years of meticulous planning by the Irish Defence Forces. SIGNAL speaks to the Officers involved on the challenges of acquiring the new vehicles and the role they will perform for the Defence Forces. By Ruairi Kavanagh.



The **ABCs** of
the new **APCs**

The Background

Three officers with key roles to play in the procurement process were Commandants Tom Aherne, Dave Goulding and Frank Lawless. “The APC procurement process has its genesis in 1995,” explains Tom Aherne, “when a submission was made to the Director of Operations and the General Staff by the Director of Cavalry (DCav). The content of the submission was the state of the Panhard APC fleet, which was at that time comprised of vehicles about 25 years old that were really beyond any operational use. Essentially, the Director of Cavalry was pointing out to the General Staff that we needed to do something about the situation because the required standards were not being met.”

“In general terms, why do we need APCs?” asks Comdt. Aherne. “The Efficiency Audit Group was set up by the government to examine certain government departments, among them the Defence Forces. This group recommended in its report, *inter alia*, that a conventional all-arms combat force should be retained by the Defence Forces. The use of this phraseology is important in this context, to provide a credible deterrent and credible response to armed aggression and to provide a flexible structure to carry out all roles assigned by government. This was important for the Defence Forces because the Group could have said that there was no need for a conventional combat force.”

Flowing from the EAG report, priority was given to the provision of armoured vehicles. “The recommendations were consistent with the concept of a ‘light, infantry-based, highly mobile force capable of rapid deployment,’” says Tom Aherne. “The government’s decision was that they accepted in principle the conclusions of the report and they acknowledged the need for major reform of the Defence Forces. This came in the form of the Defence Forces Review Implementation Plan (DFRIP), unanimous in its support for a highly mobile, infantry-based, rapid deployment force.”

The Defence Forces derived from these recommendations the need to provide protection, mobility and firepower for its personnel. “This was deemed essential,” he explains. “APCs are recognised as essential by military forces throughout the world. The modern soldier is now regarded as a scarce and expensive resource. It is necessary to protect this soldier. Modern-day society also demands this level of security in the form of ballistic and anti-mine protection.” According to Tom Aherne, the Defence Forces could not credibly meet its responsibilities or protect its personnel satisfactorily without APCs. “In 1996, the General Staff decided to withdraw all 4HD-engined Panhard APCs that had been in service for over 25 years, and centralise them in B Company, 3 Infantry Battalion in the Curragh.”

The Procurement Process

In 1995, a board of officers was convened by the Chief of Staff. Among the tasks given to this board was to look at the future of APCs in the Defence Forces, examine the current and future organisation of an APC unit, and to broadly define user trials and evaluation standards. Having accepted their report the Board were directed to refine the used requirement and the evaluation process. Then a second APC board was convened whose terms of reference were to identify the most suitable vehicle for the Defence Forces and to define detailed user trials and specific technical evaluation. They were also to consider APC variants - by which I mean variations of the standard troop-carrying model such as command, control and communications (C3) vehicle, which is part of any APC unit, an armoured ambulance and a repair and recovery variant. Following the second APC Board report a Policy and Procurement Group and a Project Team (PT) were established. The Policy and Procurement Group was chaired by contracts branch in the Department of Defence and had three military members: the then Assistant Chief of Staff (Support), the project manager of the Project Team, and a representative from the Strategic Planning Office in the Chief of Staff’s Branch. It was a joint military and civilian working group that would carry the APC programme forward. This was the largest procurement project ever undertaken by the Defence Forces, and it was a learning curve for all of us as nothing of this scale had ever been done before.

The request for proposals (RFP) was issued in April 1998 and listed the critical and desirable criteria and outlined a compliance matrix to which any potential vehicle must comply. By the closing date of 27th May 1998 twelve tenders had been received. Comdt. Frank Lawless was a key figure in this stage of the process.

"Within the government procurement and tendering process there are different levels. The Request For Information (RFI) is the first official level, where traders and businesses are asked for information. The second is the Request For Proposals (RFP) where we outline in more detail what our actual requirements are. The third element is requesting selected companies to formally tender (RFT)." At the RFP stage, the document has no legal significance.

The critical criteria sought in the RFP were based on the functional characteristics of an armoured vehicle. The functional characteristics of an armoured vehicle are referred to as the design triangle: made up of protection, mobility and firepower.

Regarding protection, specific protection levels for light-armoured vehicles are defined by international military standards. In terms of mobility, the Defence Forces were looking for a diesel engine and a certain type of performance suitable for the role the vehicle is expected to play. In terms of firepower, the

Defence Forces listed in general what weaponry they wanted fitted to the APC. "At this point our criteria were quite general so as to allow a broad range of companies to reply," explains Frank Lawless.

The Next Step

Replies from the 12 interested companies were inputted into the compliance matrix

In February 1999, Restricted Tender Documents (RTDs) were issued to the two successful companies: two vehicles, the Austrian Steyr Pandur and the Swiss Mowag Piranha III, were deemed to meet the requirements.

The two companies, Steyr and Mowag, were required to produce vehicles for trials. "The trials for the vehicles themselves were con-

The Defence Forces derived from these recommendations the need to provide protection, mobility and firepower for its personnel

that had been formulated, and analysed for compliance or non-compliance. We would then either reject or accept them there and then. The compliance matrix is a general formula that the Defence Forces have compiled to help control equipment purchases.

Adds Tom Aherne: "With many manufacturers you had to constantly clarify what exactly they were telling you, some manufacturers may have felt that they met all the requirements in the compliance matrix, while the project team might not have been entirely satisfied."

ducted between April and June 1999, a very busy time," remembers Tom Aherne. "Several teams were assembled to oversee the trials. The first was technical and end user evaluation team, which involved assessment by our technical experts on how the vehicle could be maintained and repaired. The end user unit, B Company 3 Infantry Battalion, then analysed how the vehicle should fit our existing tactical doctrine and operational practices. In preparation for the trials process the Project Team visited Denmark, whose Armed Forces had purchased the Mowag



Comdt Tom Aherne during a training exercise with the new APCs in the Glen of Imaal.

Pirhanha, and Belgium who had purchased the Steyr Pandur. After we returned from our overseas visits a series of trials using existing Panhard SISU APCs were set up,” says Comdt. Aherne. The evaluations were formulated using test conditions and standards, i.e. the test that was being evaluated, the conditions in which the test was to be undertaken and the standards to be reached. This helped give focus to the trials. The analysis of results of these trials showed that we in fact produced too much information for ourselves and dealing with that information was a challenge in itself. Observations made during this trial process were clearly defined to withstand examination and scrutiny and had to clearly establish the role of the

The Training

Concurrent with the entire procurement process there was also a group within the Defence Forces whose job it was to examine the training implications of all of this in line the Defence Forces Review Implementation Plan (DFRIP). As mentioned earlier, when the procurement process was being carried out there was a parallel structure in place to look at the implementation plans for the new vehicles. This report was published in August 1999 and its objective was to identify options and make recommendations on all issues associated with the introduction of new vehicles. Comdt. Dave Goulding, Chief Instructor of the NCO Training Wing (NCOTW) who was a member of this board

team had to look at best international practise for APCs.

We also had to examine deployment and how to do it sensibly, above all to avoid ‘penny packeting’, that is having small numbers of vehicles in different locations around the country. The rationale for this is that they have to be kept together in a big enough force so you can actually train as a ‘unit’ with them. The organisation and equipping of an APC unit was another important element. We had to look at the structure of the light infantry units versus that of mechanised infantry units – which is the term associated with infantry deployed in wheeled armoured vehicles. The issue of relationships between command and staff was vital in the training planning process in order to organise and delegate training for the various training programmes needed to bring units to an operationally competent level. The supporting infrastructure was the third pillar of this study. For example, the location of training facilities, vehicle repair workshops cross-country driving testing areas and the garaging of the vehicles all had to be explored and solved.”

When these issues were clarified, the project team again looked abroad for existing expertise. These visits took place throughout the procurement process. The first visit was in 1998 to Catterick in the UK where officers and NCOs of a British Army Mechanised Battalion briefed them.

“While they didn’t have the same Mowag Piranha APCs that the Defence Forces were getting,” recalls Dave Goulding

In a region that is already volatile, recent world events have had a major effect on tensions in the Middle East.

vehicle supplier during the trials, so that the trials could be conducted in a fair and impartial manner. The time for analysing and reviewing the trials was something that a significant and adequate amount of time had to be devoted to by the project teams. For example, we would be testing and evaluating for four days out of five, it was important that you took the fifth day to analyse the information so that all information was fresh to the teams and also to ensure accurate and fair evaluation.”

With regard to the weighting of the award criteria, obviously some things would be weighted higher than others. The weighting favoured the end-user, those who would be using the vehicle in an operational capacity. The final stage in the process was the writing of the report that was submitted to the Minister for Defence in September 1999. The model that was finally decided on was the MOWAG Piranha III, made in Switzerland.

A contract was signed in November 1999 for the purchase of 40 Mowag Piranha III 8x8 APCs in four variants: 34 troop carrying APCs, 4 Command Control and Communication (C3) variants, and 1 ambulance together with an initial quantity of special tools and spare parts. The contract also allows that “the Department may purchase up to 40 APCs in addition to the vehicles already contracted.”

explains: “All training for the new APCs took place in the Defence Force Training Centre (DFTC) in the Curragh. We also had to look at developing a five-year plan to carry out an analysis of our training and how it could be improved. Training areas, as in where and how we would test these APCs, also had to be identified and prepared. Simulation equipment also had to be researched and obtained and the project



Preparing for a training exercise inside one of the new APCs.



The new MOWAG Piranha III in training.

we were nonetheless able to learn from them in terms of best international practice and current teaching and doctrine, which was of assistance. The next step was for the Project Team to get 'hands on experience'. Our troops underwent this in 1999 in the UK where members of the user unit in the Curragh took part in a British Army training exercise and their report was crucial in shaping our own tactics, techniques and procedures."

There was also a high level steering group in existence throughout the APC procurement process whose role was to coordinate all the various elements and make the project work. One of their tasks was to find a country with similar vehicles to the Mowag

used and how their simulation exercises were run. It was a valuable trip for us in terms of the lessons that we learned." Prior to the delivery of the first vehicles the final step in the planning and training process was end user training. Comdt. Tom Ahern: "In this case the end user training took place in B Company 3 Infantry Battalion.

The first phase was work-up training, or training which needed to be completed in the unit in order to receive new equipment. The vehicles started to arrive in June of 2001 so work-up training started in October 2000 and that went on for about eight months before the vehicles arrived. There also had to be training in Switzerland in the production plant for the technical crews, such as fitters

involved with since October 2001, training the various elements of the APC crews. The training for the dismounted element is based on the training manual devised by Dave Goulding and the expertise of others.

Currently, MOWAG APCs are deployed with the Irish peacekeeping forces in Eritrea (UNMEE) where they have been a welcome addition to the peacekeeping effort.

FEATURES OF THE MOWAG PIRANHA III

- Add-on armour kits for different protection levels
- Mine protection kit
- Self-recovery winch with 8 t pulling capacity (drum or capstan type)
- Air-conditioning system with approximately 10 kW cooling capacity
- Arctic heater kit for operations below -40° Celsius
- NBC protection kit (overpressure or collective face mask system)
- Amphibious kit for rough seawater operations
- Fire and explosion suppression system
- Various weapons stations and communication systems
- Customer tailored configurations
- Multiplex electrical system (BITE)
- Height-adjustability of hydro-pneumatic suspension system
- CTIS (Central tyre inflation system)
- ABS (Anti-locking brake system)

The issue of relationships between command and staff was vital in the training planning process.

Piranha, and who spoke English. The Canadian Army had a vehicle which was similar but not the same. A small group was sent over there, to Gagetown Combat Training Centre, the Director of Infantry (D Inf) Col. Martin Coghlan, Comdt. Dave Goulding and Comdt. Sean O'Keefe. "We looked at how their training was conducted," says Comdt. Goulding, "how their units were organised, we studied their tactical deployment procedures, techniques and tactics. We also examined the simulation training they

and ordnance personnel."

The MOWAG training started in February 2001 and went on until May, most of that being technical training. When the APCs arrived, one of the first things to be done was the conversion of existing APC instructors which took about ten weeks.

When this was complete, these instructors then began the training of other B Company personnel and personnel from other units of the Defence Forces. This is what the Defence Forces have been primarily





WALKING THE LINE

The Middle East and UNTSO

By Ruairi Kavanagh

The Middle East has had a definite and lasting effect on the role of the Irish Defence Forces, both in terms of military development and realising their potential in a global environment. Although Ireland's involvement in UNIFIL (United Nations Interim Force in Lebanon) came to an end last November, Irish officers remain on the ground in the Middle East. UNTSO (United Nations Truce Supervisory Organisation) has a healthy Irish presence. Indeed, it is under the command of Major General Carl Dodd of the Irish Defence Forces at present. SIGNAL talks to two of the Irish officers under his command, Commandant Liam O'Carroll and Captain Pat White on their role with UNTSO. We also take a look at the formation of UNTSO and its early history that encompassed three wars in the region.

The Role Of UNTSO: An Irish Perspective

Interview with Comdt. Pat White, Operations Officer with UNTSO on the Golan Heights.

The Role Of UNTSO

"The United Nations Truce Supervision Organisation (UNTSO) is unique in that it operates under a permanent mandate from the UN Security Council and accordingly does not have to go to the Security Council every year to renew the mandate for this peacekeeping operation. The mandate will expire when all the concerned parties, the named ones being Israel, Lebanon, Syria, Jordan and Egypt and any other parties, finally come to a comprehensive peace agreement. There are 152 military observers in UNTSO at present. The Irish Defence Forces provide 13 personnel, with 20 other countries involved in total.

There are five main components of the UNTSO operation in the region. They are:

- UNTSO headquarters in Jerusalem,
- OGL (Observer Group Lebanon) who monitor the Israeli/Lebanese border,
- OGG (Observer Group Golan) who monitor the Golan Heights.
- OGE (Observer Group Egypt) who are deployed in Egypt, and
- UNLOB the liaison office in Beirut.

Captain Pat White, UNTSO Observer, Observer Group Golan

Captain Pat White has been stationed with UNTSO in the Middle East since September 2001. He is presently Operations Officer with Observer Group Golan - Tiberius (OGG-T). Previously he served in the Military College, Defence Force Headquarters, in the Western and Eastern Brigades with artillery units, and has completed almost 20 years of service with the Defence Forces. Prior to his UNTSO appointment he completed two Lebanon tours of duty with UNIFIL.

"Irish personnel are stationed in all UNTSO outstations and HQ except Egypt and Beirut at present. In Lebanon and the Golan Heights there are UN Peacekeeping forces, UNIFIL and UNDOF (United Nations Disengagement Observer Force) respectively. Their role is to fulfill the UN Mandates for their region. They do this by manning fixed positions and occupying terrain in these two areas, and carrying out patrolling and liaison with the various parties. UNTSO, i.e. OGL and OGG, work



It is an ongoing mandate here until all the concerned parties, the named ones being Israel, Lebanon, Syria, Jordan and Egypt and any other parties, finally come to a comprehensive peace agreement.

The task in the area is very delicate and quite technical. It requires sensitivity to both sides and tolerance while still enforcing the UNDOF mandate.

under the operational control of the Force Commanders of UNIFIL and UNDOF and are an additional asset both of these armed peacekeeping forces.

“In the Golan (OGG), UNTSO operates 11 observation posts on the Golan, 6 out of Tiberias in Northern Israel and 5 from Damascus in Syria. In Lebanon (OGL), UNTSO operates 5 observation posts close to the UN demarcated Blue Line. These posts are manned twenty-four hours a day, seven days a week, all year round,” explained Captain White.

“In OGG on the Golan Heights UNTSO maintains observation on the Area of Limitation, a zone 25 km on each side of the Area of Separation between the Israeli and Syrian Forces.

“The Area of Limitation is divided into 10, 20 and 25 km zones. Every two weeks we conduct an inspection in the Area of Limitation to ensure that both sides are complying with the terms of the Agreement on Disengagement. The inspection involves UNTSO patrol teams with liaison officers on each side conducting an inspection of Israeli/Syrian positions to ensure that both sides have only the allowed number of troops, tanks, artillery in each of the zones. In the middle in the Area of Separation is UNDOF (United Nations Disengagement Observer Force).

Locked In Time

“It’s an unusual situation on the Golan Heights. There is an agreement on disengagement that dates from 1974, where both sides agreed to have certain limited numbers of troops and equipment in the 10, 20 and 25 km zones.

“The two sides do not talk to each other directly. They have no official diplomatic contact. The area is a closed zone, a cold war frontier and people cannot cross the line,

tant because you don’t want something minor, escalating by accident and potentially instigating a regional conflict. If one side see something, they can make a protest to us and we can put together a team to investigate it and endeavour to resolve the situation. Under international law, the area of the Golan occupied by Israel, it is not recognized as Israeli territory.

“The task in the area is very delicate and quite technical. It requires tolerance and sen-



Despite their status as unarmed military observers, UNTSO personnel have come under attack, the most recent attack occurred on April 4th.



apart from military personnel. UNTSO and UNDOF are an important method of communication, which helps prevent minor concerns escalating into serious regional tensions. On one hand not a lot has changed since 1974, there is no peace agreement, no peace treaty. But the amount of development on both sides has made operations more complex because of the needs of civilian communities. At present that is very impor-

sitivity to both sides and tolerance while still enforcing the UNDOF mandate to observe and report any incident that could lead or could lead to a violation of the 1974 agreement on the disengagement between Israeli and Syrian armed forces. That’s our mission. In terms of co-operation, the relationship is generally very professional and there isn’t a difficulty. Both countries still operate very large armed forces, massive in Irish terms.



Smoke rises from an Israeli army post after being hit by a rocket launched by Hezbollah in Mount Dove, Golan Heights, on the Lebanese-Israeli border on 10 April 2002. Israel intensified strikes on southern Lebanon after the Shiite Muslim guerrilla group launched an all-out attack on the occupied Shebaa Farms, dedicating it to the "heroic knights" fighting Israel's offensive on the West Bank.

The Syrians and the Israelis have established proper liaison structures on both sides to work with us. Their military officers know us and formal procedures exist to facilitate the passage of information. On any formal contact with the parties a liaison officer who helps remove any language, cultural or related problems accompanies us. On the Golan Heights, because of a clause in the 1974 agreement, no representative of any country, which is a permanent member of the UN Security Council, can operate in that area. That excludes France, Britain, China, Russia and the United States.

Therefore United Nations Military Observers with (UNMO) from those listed countries cannot either serve with UNTSO OGG or visit the OP's there.

"All UNTSO missions, because of their very nature, operate in areas of high tension, and each operation has its own peculiarities to deal with. The area of the Cheeba Farms/Mount Hermon, which is partly in the OGG/ UNDOF area, is often attacked by armed elements (AEs) from Lebanon who are opposed to Israel. This is an interesting interface in that we are dealing with an area where three countries, Israel, Syria and Lebanon, merge. The UN recognise that Israel has withdrawn from Lebanon and moved its forces south of the Blue Line which the UN regard as a demarcation line to confirm the Israeli withdrawal. While Syria claims that it ceded the Cheeba Farms area to Lebanon and armed elements in Lebanon are attacking Israeli positions in that same area to 'liberate' this zone.

Despite their status as unarmed military observers, UNTSO personnel have come under attack, the most recent attack occurred on April 4th. The incident occurred in Lebanon when an investigation patrol from OGL (Observer Group Lebanon) was assaulted. One Irish observer, among others, was badly beaten in the attack and an investigation is ongoing.

"So what is a normal tour for an UNTSO Observer? "Most UNTSO Outstations generally follow a cycle in that observers will normally serve for six months at each Outstation. Initially the observer undergoes induction training in Jerusalem for four days before being posted to one of the Outstations where they receive further training before they are assigned to a Team. In the case of OGG all of the OPs are manned by two observers, who cannot be of the same nationality for reasons of impartiality. There they learn the Observation Post routine, there is a cycle of Familiarisation Tours, Car Patrols, Inspections

Mid-East Conflict and UNTSO Involvement (1948-1973)

The origins of UNTSO go back to 1948, when the state of Israel was being created. UNTSO came about as a direct result of the violence which engulfed the region following the removal of UK influence in the region in May 1948. Following almost a month of violence between the Israelis and the Arabs, a truce was put in place in June under the influence of a United Nations Mediator, a post which had been established to deal with the escalating crisis.

During the truce, 36 observers from Belgium, France and the United States arrived to observe the truce, a number that soon rose to 93 as the scale of the problem and the area that had to be covered became apparent. As the number of personnel and responsibility in the region grew, the United Nations Secretariat of Personnel supported the creation of UNTSO, which remains essentially the same organisation today. Initially, the command of UNTSO was centered in Cairo, before it moved to Haifa in Israel.

However the truce that allowed the creation of the new body was not long in existence when widespread violence again erupted. The observers were withdrawn on July 9th, 1948. The UN managed to facilitate a second truce in the early autumn of 1948, during which time UNTSO was reconstituted with increased deployment to supervise this second truce. Over the succeeding years, UNTSO increased in size, as the Middle Eastern region staggered through a number of increasingly bloody Arab-Israeli conflicts. The first of

these conflicts was the war of 1956 commonly known as the Suez War, also referred to as the Suez Crisis, involving Egypt, Israel, France and Britain.

The Egyptians, under the leadership of Gamal Abdul-Nasser, seized the Suez Canal, vital for the flow of oil from the gulf states to the West, and also blockaded the Straits of Tiran, Israel's only outlet into the Red Sea. The Israelis responded by invading the Sinai region of Egypt, joined by France and Britain in what amounted to an invasion of Egypt. It was not the most bloody of wars, its most striking consequence was the decline of French and British power in the region. 921 Egyptians died and 200 Israelis, the war entrenched Nasser's hold on power and led to an increase in Arab nationalism in the region. In the aftermath of the war, UNTSO was instrumental in the establishment of UNEF (United Nations Emergency Force) which was to supervise the cessation of hostilities after the 1956 war. It was the first, but not the last, time that UNTSO's military expertise was tapped in order to establish an United Nations Mission. The involvement of UNTSO on this occasion set a precedence for many future UN missions. UNEF was disbanded following an Egyptian request in 1967. Another result of the 'Suez War' was that Israel renounced its participation in a 1948 armistice programme with Egypt, known as the MAC (Mixed Armistice Commissions), which was also chaired by UNTSO.

every second Monday, Investigations and ongoing training."

Risk and Precaution

What precautions are taken if UNTSO are assigned to operate in an area where the threat level is assessed as higher than normal? "Adding to the challenges of UNTSO

is the fact that its observers operate in a volatile region unarmed. What precautions are taken if UNTSO are assigned to operate in an area where the threat level is assessed as higher than normal?

UNTSO will make a risk assessment for the area bearing in mind that it is an unarmed force. In certain situations where



In a region that is already volatile, recent world events have had a major effect on tensions in the Middle East.

