



Irish soldier on patrol in Kosovo with a Marconi Personal Role radio.

# Staying in touch

## Expanding Roles of the CIS Corps

**T**he role of the Communication and Information Services Corps (CIS Corps) is one of the most rapidly evolving sections of the Defence Forces. From providing tactical and flexible communications for actual or simulated combat environments to providing entire radio/telecommunications systems for Defence Forces contingents overseas, the work is diverse and dynamic. SIGNAL talks to Lieutenant Colonel Brian McQuaid, Director of the CIS Corps about just some of its many functions.

### Roles Of CIS

"Our role is communication in the simple sense - it means at all levels; from the soldier on the ground to establishing and maintaining a rear link from Liberia or Kosovo back home via the long-range radio or via satellite. Here at McKee Barracks there are two satellite dishes, which connect us directly to Kosovo and Liberia. If you pick up the phone here and dial 302500, you're talking directly to the operator in Liberia via our own private satellite link."

The development of communications technology within the Defence Forces has come a long way. This is necessary both for ease of contact for functional military purposes and also for ease of contact by all

personnel to their families when stationed overseas. In the simple sense, the CIS Corps provide communications but there is a lot more than that. When you add in all the IT systems inherent with modern telecommunications systems, it expands the challenge for our personnel. It means providing radio, telephony and data communications to all levels of the Defence Forces.

The progressive developments and vision for the CIS Corps in the areas of specialised training and equipment purchase is down to the positive attitudes and drive of the officers of the Corps. Most of the credit for the progressive developments and vision for the future for the CIS Corps over recent years in the areas of specialised training and equipment purchase must be attributed to Major General Sean Brennan, the Deputy Chief of Staff (Operations), who previously was the Director of the CIS Corps during its revitalisation in the mid-1990's. As Director he spearheaded a variety of strategic developments for the Corps, which have paved the way for its current configuration and functioning.

### Equipment In Operation

One of most important acquisitions in terms of communications equipment over the last

7-10 years within the CIS Corps has been the SINCGARS (Single Channel Ground Air Radio System) radio, first purchased in 1996. "We have spent nearly 14m on the SINCGARS project since then and there are currently almost 1000 SINCGARS radio sets in service within the Defence Forces."

What SINCGARS meant for the Defence Forces in terms of equipment was, in essence, moving from a single frequency radio to a far more elaborate system. "Prior to SINCGARS we had a single frequency system where you literally turn it on and it worked. But external sources could eavesdrop if they wanted, and you couldn't send a data message, which is possible now. Now with SINCGARS we have a radio system that hops frequency and it's also encrypted. So even if someone could work out the hopping sequence they still have to try and work out what the encryption is on it. You can also send high-speed data. So it's a computer network in addition to functioning as a simple to use radio. That's a huge advance." Currently, Irish troops serving with UNMIL in Liberia and in the Battle Group in Kosovo as part of KFOR are currently using the SINCGARS Tactical Battlefield Management System (STBMS).

One of the most impressive pieces of CIS Corps equipment in operation with Irish troops overseas, are the elements of

Geographic Information Systems (GIS). Deployed as standard equipment with troops who are engaged on overseas peacekeeping or peace enforcing missions, these elements give an incredibly detailed computerised map overlay of the local terrain, which is of immense benefit to commanders and troops alike.

"The GIS in these cases works as map reproduction software," explains Lt Col McQuaid. "At the moment the Defence Forces demands on GIS have been purely in the area of vehicle tracking, tracking the disposition of our troops and, of course, reproducing digital maps. For example, as part of our deployment with the United Nations Mission In Liberia (UNMIL) we bought new map reproduction equipment and we sent it to Liberia, due to the absence of normal map reproduction facilities in that region."

### GPS

Another element of GIS utilises the Global Positioning System (GPS), information which is automatically delivered on every radio transmission, this information is then superimposed on a computer generated screen that allows a commander to know exactly where his troops are deployed at that time. In addition, overlays specific to the operational theatre such as mines or obstacles can be superimposed and the operational deductions passed to troops for

their guidance. Their movements can be subsequently tracked and monitored. The SINCGARS system provides our troops with a reliable and secure combat radio network that uses both frequency hopping and network hopping to counter difficulties encountered in challenging combat environments."

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### Future Challenges

The successful implementation of systems such as the STBMS in a variety of military scenarios is one of the challenges currently facing the CIS Corps. Another challenge will be the successful operation of different communication systems between different countries, particularly in relation to any future joint EU missions, NATO deployments or Partnership for Peace (PFP)

commitments. "Yes, there would be problems. For instance our SINCGARS system isn't interoperable with an American SINCGARS or Italian SINCGARS because each armed force is given their own discreet frequency settings and transition security keys. International workshops such as Combined Endeavor, which the CIS Corps participates in almost every year helps to resolve these inoperability issues. Four officers of the Corps acted as interoperability testers for Combined Endeavor 2004, each officer received the highest praise from the workshops director for their contribution"

According to Lt Col McQuaid, one of the more daunting issues to affect the CIS Corps has been to deal with the exodus of highly trained officers to lucrative appointments within the private sector. This was a real challenge during the height of the 'Celtic Tiger' years from the mid-nineties and which continues to date. "It was very difficult at times, and it stretched us to our limit at times to fulfil all our roles," says McQuaid. "Thankfully the retention of staff issue has recently abated to a certain extent. However, we are also able to offer people a highly exciting and dynamic challenge within the communications and information technology sector, that's the real reason why we want to get and retain highly motivated and highly skilled people here in the CIS Corps."

The Command and Staff Simulator in the Curragh. One of the major recent developments of the CIS Corps.

