



The Command and Staff School in the Military College has teamed up with NUI Maynooth in formulating a new MA in Leadership, Management and Defence Studies. SIGNAL magazine talks to those involved.

The Defence Forces' Command and Staff Course is a nine-month, full time, residential career course conducted annually by the Command and Staff School in the Military College. Its aim is to prepare and equip officers to fulfil command and staff appointments at Battalion, Brigade and higher formation levels, both in Ireland and overseas on international assignments. Officers reside in the School for the duration of the course, returning home at weekends. Even officers who live locally find they have to spend a great deal of time studying at night in their student accommodation. It was partly the intensive nature of the course, and the amount of work that is

involved that persuaded NUI Maynooth and its external evaluators that the award of a Masters Degree was appropriate. This Masters Degree represents a major positive advancement in the professional development of officers.

The Need For Academic Approach

"Successful military instruction needs to be constantly reviewed and adapted to meet modern challenges," says Lieutenant Colonel Ray Quinn, one of the key people behind the new MA in Leadership, Management and Defence Studies - MA(LMDS) - that is being offered to students of the 59th C&S Course, which began in September of this year.

"The work of the C&S course in providing senior officers (Commandants) with the necessary instruction and education is one of the most successful aspects of the Defence Forces. With the formulation of this new MA in Leadership, Management and Defence Studies, the Military College seeks to complement the Defence Forces' objective of ensuring that, while third level qualifications are becoming the accepted norm for officers, the level of training and education provided by the C&S Course is worthy of a post-graduate degree."

The Military College took the opportunity to co-operate with NUI Maynooth following a lengthy project to formulate a quality postgraduate programme. While the possibility of association with postgrad-



Comdt John Durnin

uate learning institutions had been investigated as far back as the mid 1980s, the current impetus in the development of this new programme was provided by Lieutenant Colonel Ray Quinn (Chief

Instructor in the C&S School), Commandants John Durnin, Séamus McDermott, Colm Campbell and Mick Beary; and Dr David Redmond, Registrar in NUI Maynooth.

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Dr David Redmond, Registrar NUI Maynooth.

According to Dr Redmond, the opportunities offered by this new MA qualification represent a learning curve for NUI Maynooth as well as the Military College.

“This is a first for us too, so we as a University are obviously looking forward to it. My role in all of this, along with my colleague Dr Anne Ryan and her team, is to act as liaison between NUI Maynooth and the Defence Forces. Our contribution from NUI Maynooth is to help students focus on the specific topics that they have chosen to research, and to assist them in the conduct of that research, and the writing of a thesis. We want to enhance the academic content and to help develop an academic approach to the course. The University as an institution of learning is constantly seeking to evolve and add new courses, and this is part of that process.”

“We have realised for a long time that there is a need for ongoing development in the career training of officers and we decided to move the focus of the course from the tactical to the operational and strategic levels,” says Ray Quinn. “We have made great advances in this direction, which have included some very progressive and wide-ranging changes. All western armies have an academic structure similar to that in the Defence Forces, that is designed to train their military personnel to analyse, persuade and adapt.”

Course Format

NUI Maynooth will award the new MA in Leadership, Management and Defence

Studies based on the student achieving a successful grade on the C&S Course, in conjunction with submitting a thesis on an agreed research topic. Topics vary from aspects of conventional and asymmetric warfare, leadership, humanitarian operations, to dealing with 'failed' states.

"The thread, or theme, that runs through this course is problem-solving and decision-making," said Comdt John Durnin. "The applicability of these skills extends beyond just military situations. We need to expand the analytical teaching process to further our aims in this field, which are to continue to develop a broader view and a broader vision." He believes that the MA programme is a part of this process as the staff at the School constantly seeks to improve the course syllabus.

"Most Command and Staff Courses abroad offer a Master's degree," he added. "In recent times we have had direct contact with schools in the USA, UK, France, Belgium, Sweden, Portugal and Germany, among others. We are ensuring that our course is of a similarly high standard, so that we can offer the same opportunity to our students. It can only benefit the Defence Forces in the long term."

In order to ratify the course content NUI Maynooth requested that the syllabus of the C&S Course be forwarded to specific foreign external evaluators who have recognised experience in the structures and aims of academic study in the military environment. These included Dr Peter Foot, Deputy Dean of Defence Studies at the Joint Services Command and Staff College in Shrivenham, UK.

A recognised authority in the field, Dr Foot recently addressed a conference on this very subject in Paris, where he highlighted the need for 'openness, transparency and multi-nationality as necessary conditions for maintaining common high standards amongst defence academies.' The syllabus was also sent to Dr. Philip Brookes and Colonel Clay Edwards of the US Army Command and General Staff College in Fort Leavenworth, Kansas, who are involved in the US Army Graduate Degree Programme. They highlighted the need for broad thinking within military academic programmes, and provided tremendous advice and assistance.

The development of the MA in Leadership, Management and Defence Studies at the Command and Staff School represents a new evolution in military studies, in partnership with NUI Maynooth, and explores new



Lieut Col Ray Quinn.

possibilities in how to develop military thinking and how to increase the scope of military studies through the operational and strategic levels. The advantages that will accrue from

this MA will further enhance the education provided by the school, and will benefit not only the school and its students, but most critically the Defence Forces as a whole.

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EQUIPMENT UPDATE



US troops conducting a live-fire exercise using night-vision equipment. The Irish Air Corps are investigating possibilities for using night vision equipment.

NIGHT VISION EQUIPMENT

The Air Corps are currently investigating developments in technology specifically in the field of night vision devices. Of particular interest are night vision goggles (NVG). Night vision devices include a variety of different technologies, such as forward-looking infrared radar (FLIR) and night vision goggles.

The simplest way of explaining how NVG's work is by comparing them to the video camera. The basic principle is the same in that the user is not directly seeing what they look at, but rather is viewing an electronic image of the scene.

NVG equipment may be monocular or binocular. However, in aviation, binocular, helmet-mounted equipment is almost exclusively used. Electromagnetic energy, both visible and infrared, reflected from the terrain at night enters the NVG through the objective lens. These photons of light energy are directed to an electronic processing unit called the image intensifier, which contains several components. Unlike the video camera, the NVG does not require much light to produce an image. Light as faint as a starlight or low-level moonlight will suffice.

However, the efficiency of the equipment will be degraded in total darkness or with too much light. The image intensifier will increase what little light energy there is on average several thousand times.

Aviation NVG models are helmet-mounted with electrical power supplied by a battery pack attached to the back of the helmet. As with any optical device, the user has a variety of ways of adjusting fit and focus. The NVG binoculars and mounting assembly are cumbersome, weighing approximately one pound. In addition, one must factor in the weight of the helmet and battery pack. The great advantage of this technology in aviation essentially provides an increase in nighttime situational awareness for pilots. This technology does not turn night into day, but it does permit the user to see objects that normally would not be seen by the unaided eye. This would markedly decrease the possibility of collisions with terrain or man-made obstructions, thereby significantly increasing nighttime flying safety.

Unfortunately, this increase in safety comes with a significant price. Some of the disadvantages of NVG's include, inter alia, a decreased field of aided view, loss of depth perception and a lack of colour discrimina-

tion. With a reduced field of vision, effective scanning techniques are even more important than with unaided vision alone. Because one is looking at an electronic image, depth perception is lost. The user must learn to recognize terrain contrast and shadowing to replace some of the lost depth perception cues. Thus, the ability of the pilot to determine precise closure on terrain or other aircraft when these are first detected is limited.

While NVG and other night vision technology are potentially great safety enhancements for night flight operations, they are expensive and sophisticated pieces of equipment requiring considerable effort to implement and maintain. Night vision goggles do not turn night into day. Operational use of these devices should be accomplished only after pilots have received extensive, supervised ground and in-flight training with the equipment. Once trained, pilots must strive to maintain proficiency by ongoing use and recurrent training. However, given such a foundation the operation of NVG's in the Air Corps would allow for a greater operational capability i.e. improve the services we offer to the Defence Forces but also in the provision of Search and Rescue, air ambulances, and assistance to the Gardaí and emergency services.