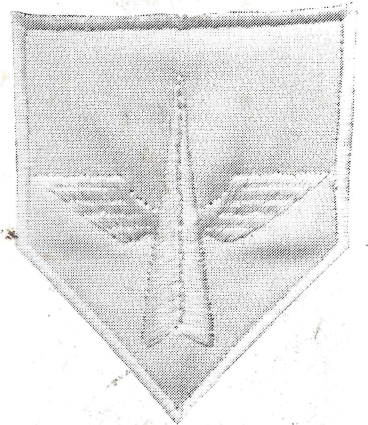


# 1 Air Defence Regiment

## Commemorative Magazine

September 1989



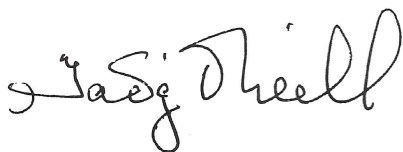


## Message from The Chief of Staff – Lt.-Gen. Tadhg O'Neill

I am glad to have this opportunity to express my congratulations to the 1 Air Defence Regiment on celebrating thirty years of FCA and PDF integration. As a former officer of the unit, I am well aware of the traditions that have been built up since its establishment in 1931. I was also glad to note at your recent demonstration in Gormanston that the excellent standards of firing, soldiering, comradeship and *esprit de corps* are still being maintained.

I am proud of what has been achieved by the regiment and I know that the regiment will continue to improve its expertise and maintain its fine tradition.

Mo comhairdóchas agus buíochas díbh go léir.



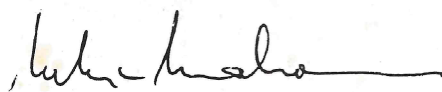
T. M. O'NEILL  
Lt.-Gen.

## Message from Col. M. McMahon – Director of Artillery

It gives me great pleasure to extend my sincerest congratulations to the 1 Air Defence Regiment on celebrating thirty years of FCA and PDF integration. Having been Officer Commanding the unit, I fully appreciate the importance of this milestone that the unit has reached. Over the last number of years the regiment has become an integral part of the Artillery Corps. The Corps has benefited enormously from the expertise in Air Defence Gunnery which has been developed within the unit. This was clearly evident from the successful demonstration at Gormanston this year.

The introduction of highly sophisticated equipment in recent years has resulted in a considerable increase in training requirements for officers, NCOs and gunners. I am glad to say that this challenge has been met successfully by the regiment.

Finally, I wish to assure the regiment that in my capacity as Director I will strive to ensure that the regiment will get maximum support from my office, so that it may continue to achieve the excellent standards it is constantly in pursuit of.



M. McMAHON  
Colonel

# Foreword

By LT.-COL. P. F. NOWLAN

Officer Commanding 1 Air Defence Regiment

IN 1959 sub-units of An Forsa Cosanta Áitiúil (FCA) were integrated with units of the Permanent Defence Forces. A subsequent re-organisation of the Defence Forces re-established the FCA as an integral part of the Reserve Forces. The Air Defence is unique in that it retains its FCA sub-units and its integrated status. The thirty years of close co-operation between FCA and PDF are remembered and acknowledged in the publication of this commemorative magazine.

In view of my recent appointment as Officer Commanding it is with particular pride that I write this introduction. Many developments have occurred during those thirty years, especially in the last ten years

with the purchase of RBS 70 Missile Units and Giraffe Radar.

In compiling this magazine we have attempted to formulate a selective historical record in the various areas of activity that form the basis of military life.

1989 has been a particularly busy but successful year for the 1 Air Defence Regiment, culminating in the Air Defence Demonstration at Gormanston Camp on 5th July, where the capabilities of the unit in the role of low level air defence (LLAD) were fully displayed.

On a personal note, I feel privileged to be commanding the 1 Air Defence Regiment as it passes this milestone. Over the last thirty years of the unit's existence it has

quietly carved out a niche for itself in the Defence Forces in many regards. This could not be achieved without the loyal dedication and meritorious service of officers, NCOs and gunners, both serving and retired since the establishment of AA Battery in 1931.

I would also like to take this opportunity to acknowledge my appreciation and gratitude to the families of all who have served with the unit; without their support, sacrifice and encouragement many achievements would not have been possible. I look forward, with confidence, to your continuing co-operation in the years to come.



P. F. NOWLAN  
Lt.-Col.

## CONTENTS

	Page
Foreword by Lt.-Col. P. Nowlan .....	1
The Ack Ack by Lt.-Col. E. Barry .....	2
The 12 Pounder Battery by Capt. R. Cooke .....	5
The Anti-Aircraft Searchlights by Sgt. J. Madden .....	8
Brief History of 2 AD Bty by Comdt. J. O'Brien .....	10
Some Reflections AA Developments 1939-45 by Comdt. P. Eager .....	13
The Shadow of The Glen by Lt. R. Coffey .....	15
Unit History Summary 3 AD Bty by Capt. P. O'Brien .....	16
Memory Lane ADR by Lt.-Col. C. O'Halloran .....	20
Artillery with a Difference by RSM Keating .....	21
4 AD Bty Unit History by Capt. J. Murphy .....	24
Irish Coastal Defence and Spike Island by Capt. J. M. Keane .....	25
40mm Bofors Gun by Terry J. Gander .....	28
1 ADR in the 80s by Lt. R. Coffey .....	32
Message from Chief of Staff (Lt.-Gen. T. O'Neill) .....	Inside Front Cover
Message from Director of Artillery (Col. M. McMahon) .....	Inside Front Cover



# The Ack Ack

(THE BEGINNING)

By LT.-COL. E. BARRY

IN 1927 an army purchasing mission to Britain purchased four 3" 20 cwt Medium Anti-Aircraft guns, two of these were mobile – they had four wheels and the other two were semi mobile – they had only two wheels. They were delivered to the Ordnance Depot in Islandbridge Barracks (now Clancy Barracks) in March 1928.

Lt. M. P. McCarthy (later Lt.-Col. and now deceased) underwent an Anti-Aircraft Artillery course at Larkhill Artillery School in England from late October 1928 to early January 1929.

An Anti-Aircraft Battery came into being on 16th September 1931. It will be noted that 3½ yers elapsed between the arrival of the guns and the formation of the Battery.

Gen. Mulcahy takes up the story. He recalls that one day he was told that two 3" 20 cwt (mobile) AA guns and two 3" 20 cwt semi-mobile guns had been in Islandbridge Barracks for a considerable time and nobody took any notice of them. He remembers getting a phone call on a Friday. It was from GHQ and he comments that this was in itself an event at that time. He does not state the date of the call but we can conclude that it must have been around mid-September 1931. The message was that he was to form an Anti-Aircraft Battery immediately. His reaction was to laugh and hang up the phone. He went in next door to his 2nd I/C Comdt. Paddy Maher (later Col., Director of Artillery and Manager of Shannon Airport and now deceased), Comdt. Maher also

laughed. They were already short fifty men in their establishment and considered forming a new battery a joke. However, on Saturday morning he got another phone call from GHQ to enquire whether the battery had been formed and he replied: "It certainly isn't, I haven't the men." He was informed to get it done immediately. He took no action. On Monday morning he was rung again – a different voice, a friend. He said: "Paddy, have you formed that battery yet?" Gen. Mulcahy replied: "I haven't and I have no intention of doing it." "Well I'm telling you you'd better get it done today" said the friend, "and I'll be ringing you this afternoon and you'd better be able to tell me that the battery has been formed", and he hung up. Gen. Mulcahy discussed the matter with Comdt. Maher and they decided to appoint Lt. Maurice McCarthy, who had done an Ack Ack course, as OC and Lt. Jimmy Dolan as his 2 IC. They arranged to have the guns brought down to Plunkett Barracks as there was no room for them in Kildare. They attached a few men under Lt. Maurice McCarthy and so the battery was formed. Later his friend rang and he informed him that the battery had been formed and had a Commanding Officer, Lt. Maurice McCarthy and they were stationed in Plunkett Barracks.

The following day the mystery of the urgency was solved. There was a Dáil question down for answer on Tuesday by the Minister for Defence and the question was: "Is it a fact

that there are guns – Anti-Aircraft guns – rusting in Islandbridge as there is no unit in the Army to look after them?" The Minister was able to stand up and say that "the answer to that question is in the negative". Thus the Ack Ack was formed and Gen. Mulcahy commented: "From there on the AA never looked back."

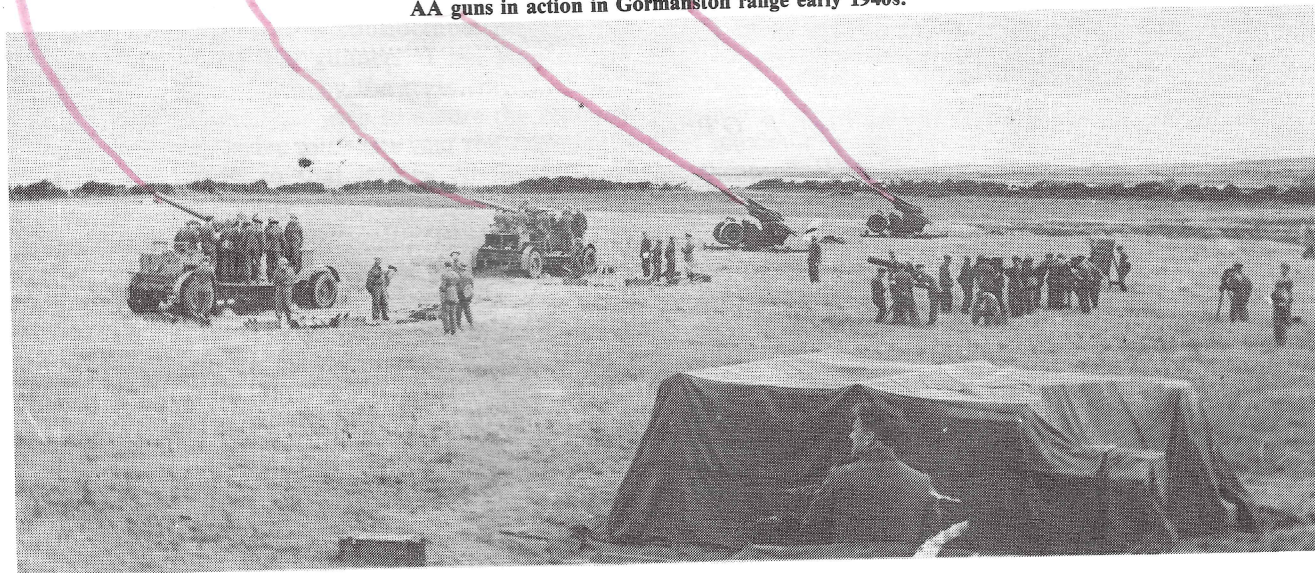
We return again to Lt.-Col. O'Halloran who indicates the details of the formation of the battery as follows: "On 16th September 1931 the Daily Routine Orders for the Artillery Corps, as it was then established, contained the new organisation in accordance with the terms of DFR No. 57 of 1931; Peace Establishment 1931/1933 and thus the Corps was strengthened by the inclusion of a new unit, 'The Anti-Aircraft Battery'. The unit was located at Kildare Barracks."

Routine Order No. 7 of the Anti-Aircraft Battery was published on 17th September 1931 by stating the terms of DFR 57; in fact it said the Artillery Corps shall include the AA Battery. The total inclusive strength of the battery on formation was two (2) officers and 48 Other Ranks.

## The Guns

The four guns arrived on 24th January 1932 amidst great enthusiasm, thus enabling Gun Drill to commence. This appeared on the programme for the first time on 30th January 1932 and thereafter was a prominent feature of all training programmes. A UB 2 Height and Range Finder was received on 19th

AA guns in action in Gormanston range early 1940s.







**Capt. S. Brennan, Cpl. D. Byrne, Sgt. R. Lennon, Sgt. J. Madden, Lt.-Col. E. Barry, Capt. J. Carroll, Capt. J. Brennan in Gormanston on 5 July 1989.**

April 1933 and added variety to the training programme involving initial training on stationary targets, to select persons who would make good Height Takers and the further training of these to the standard of First Class Height Takers on aeroplane targets. The battery had still no towing vehicle but drivers were sent to Islandbridge Barracks to receive training as tractor drivers.

#### **First Firing Practices**

Orders were received to carry out the first Firing Practices by the battery in the summer of 1933. The first towing tractor was received on 8th July 1933 and another was lent to the battery by Messrs Industrial Vehicles of Athy, Co. Kildare and enabled the Gun Section to be moved to the practice camp at Tabertoly, Co. Louth. All members of the battery attended the camp plus two NCOs and eleven men of the Class "A" Reserve.

The organisation of the camp and Safety Precautions for the Firing Practices involved considerable administration work, particularly the Safety Precautions as it was the first time that firing out to sea was undertaken. These involved "Warning Notices for Press publication, Hoisting of Red Flags, keeping the Firing Area clear of boats and vessels by a patrol boat, etc."

The first shoot took place on 18th July 1933. Present were the Director of Artillery Major P. A. Mulcahy, Comdt. P. Maher, Capt. W. Donnelly of FA Bde and the MO was Lt. Dodd. The battery fired Burst Shot Practice Ammunition at a plane flying a course roughly parallel to the coast line, but there was no danger of hitting the target as the ammunition used had a reduced propellant charge which ensured

that the shell burst considerably short of and below the plane. However, the ammunition was so designed that if the gunnery data was correct the shell would burst on the line of sight from an observer at the firing position to the target thus blotting out the target and giving the impression of a direct hit.

It was recorded by the OC of the practice camp, Lt. M. P. McCarthy, that the first practice camp was a conspicuously successful one.

#### **Manoeuvres**

In August 1933 the battery split for the autumn manoeuvres which took place in September in the area Kildare-Wicklow-Dublin; one section with Blue Forces and the other with Red. A second tractor had been received in June and it is assumed that two others had to be borrowed to enable the two sections participate in the manoeuvres. However, the battery was complimented for a high standard of tactical training and all round efficiency. The battery continued normal routine in 1934. Some personnel were transferred to the Reserve and replaced by recruits who had to be trained. In June two towing tractors were received making the battery fully mobile. Lt. Curran was transferred to the Air Corps and was replaced by Lt. T. M. Banahan. Annual firing practices were again held in Tobertoly and the shooting showed considerable improvement on the 1933 performance. The year 1934 was known as the year of the 'Big Wind' as a storm caused considerable damage at the annual training camp. In 1934 also the battery rehearsed for and participated in an aircraft display to celebrate Annual Aviation Day. The guns

tracked the aircraft and blank rounds were fired. Sadly, however, one of the participating aircraft crashed and the pilot was killed, and the display was prematurely terminated. In the Peace Establishments published in December 1934 the description of the unit was altered to the 1st AA Battery.

In 1935 the battery participated for the first time in the annual St. Patrick's Day parade and it continued to participate in this event every year up to 1939. In 1936 the annual firing practices were changed to Gormanston and have continued to be held there ever since. In that year 340 rounds of burst shot ammunition were fired. The plane flew at 10,000 feet on a pre-arranged course and the ceiling of the burst was 800 feet. Normal routine training continued in 1937 and 1938.

#### **The Clouds of War**

In 1938 the clouds of war were gathering in Europe. The main threat to Ireland in such an eventuality was considered to be air attack and the 1 AA Battery was ordered to Dublin. They moved to Portobello Barracks (now Cathal Brugha) at the end of September before moving to McKee Barracks where gun parks were available. The battery's task was to recruit and train a Volunteer Reserve. Their first step was to select and train potential Volunteer Officers and in February 1939 the first Potential Officers Course for a class of 21 volunteers commenced at McKee Barracks. The Officer IC of the course was Lt. T. M. Banahan and in addition to him, instructors were Lt. John L. O'Brien, Sgts J. Hurley, W. Bonner and W. O'Brien. Periods of training were 2 hours on 3 nights



per week and a full day every Sunday.

A night shoot was also undertaken for the first time with gun crews composed of regular troops and potential officers. The searchlights were provided by an engineer unit from the barracks which also consisted of regular and volunteer personnel under the command of Lt. J. Kilcullen, COE and his 2 IC Lt. M. McLoughlin, COE.

### Recruits

During the period that the potential officers were being trained, a number of volunteer recruits were enrolled for the Anti-Aircraft Unit. There was a general recruiting drive for volunteers throughout the country and apart from those who opted for AA at the recruiting stations the potential officers had asked their friends to join the AA or in the case of those who were already volunteers to transfer to the AA. The result was that the unit had a number of volunteers, perhaps fifty, who were undergoing basic training. These were also called out for training camp in August. They had been posted to the Light AA Battery (Bofors) which was also at McKee and they fired the Bofors guns at the practice camp.

### War

During the weeks that the practice camp was in progress international tension had reached a crisis; as strained relations between Germany and Poland over the Port of Danzig reached breaking point. Germany was warned that if they attempted to seize the city Poland would resist. Germany and Russia came to an understanding that neither would attack the other. On the other hand an Anglo-Polish pact was signed. On Friday, 1st September the Germans invaded Poland. The AA practice camp ended on Saturday, 2nd September and the regular troops, potential officers and volunteers returned to McKee Barracks. The potential officers were allowed to go home and told to report back on Sunday morning for instructions, but the other volunteers were retained in service. On Sunday the British Prime Minister, Mr. Chamberlain, speaking on the BBC formally declared war on Germany and France followed suit. The Second World War had begun. The potential officers reported to McKee Barracks where they were met by Lt. Banahan

who formally informed them that Poland, Britain and France were at war with Germany. They were told that they could go home and would receive calling out notices in a few days. The notices were received on 8th September and the potential officers reported for permanent service on that day.

The AA establishment was increased to 2 Medium Batteries, 4 Light Batteries, Bofors and a Searchlight Battery. We will, however, continue our story of the Medium Battery as it was the main truck of the AA organisation and return later to the branches of the Light and Searchlight Batteries.

In McKee Barracks, the potential officers course continued on full-time basis and terminated with a series of lectures by the Commanding Officer Capt. Maurice McCarthy who had returned from a course in England. Then four 3" Medium Guns were located initially in a field across the road from the barracks (now McKee Park) and later in the jumping paddock in the barracks. The 1 Medium Battery was commanded by Lt. John L. O'Brien and the other ranks were the regular troops of the original 1st Battery. The 2 Battery was commanded by Lt. T. M. Banahan and the other ranks were volunteers and a few regular NCOs (Sgt. W. Bonner, Cpl. D. Carey and acting Cpl. C. Walsh). Of the original class of twenty-one potential officers five had withdrawn at different stages for personal or domestic reasons, or to rejoin their original units. The remaining sixteen had been promoted corporal and now took part in the normal administration and training of the units. A potential NCOs course commenced and a number of the (ex PO) corporals acted as instructors. The four medium guns were in action positions and live ammunition and standby crews were available during the hours of daylight at all times including weekends. These constituted the only air defence that Dublin had at that time.

The remaining sixteen potential officers were commissioned 2 Lts on 16th November, and undertook all normal duties of junior officers, e.g. orderly officer, check parades, kit inspections and instruction on gunnery to the potential NCOs.

### Exemptions

In November 1939 it was not generally known, as it now is, that on 2nd September 1939 the army

comprised a total strength of 19,783 of whom 7,494 were regulars, 5,066 were A & B reservists and 7,222 were volunteers, nor was it generally known that the government was exceedingly worried about the possible disastrous effects war could have on the economy of the country, but there was still the hope that a way to peace would be found or that neutrality, if strictly adhered to, would avoid the necessity for enormous military expenditure. It was therefore decided in the interest of the economy to reduce government expenditure and the cabinet decided in December to reduce the strength of the army from 19,783 to 15,350 which figure was based on the number of troops required to garrison fixed positions. The easiest way to do this was to offer exemption from permanent service to the volunteers. The effect of this was that large numbers of volunteers opted to return to their civilian jobs, businesses or professions, or in the case of employees were instructed by their employers to apply for exemption. The effect of this on the AA units was a considerable reduction in the strength of the volunteers as many were exempted during the period December 1939 to April 1940. For example only five of the sixteen volunteer 2 Lts were still in service in April 1940. These were 2 Lts E. J. Barry, P. O'Brien, B. P. Lennon, P. Bhémisch and J. A. Ryan.

Many of the potential NCOs, mostly civil servants, were also exempted. Most of those officers and men who were still in service were transferred to other units. On 9th May 1940 two officers, 2 Lts Lennon and O'Brien plus twenty-five volunteers were transferred to Coast Defence Artillery at Fort Templebreedy, Cork Harbour. 2 Lt. E. Barry and Gnr T. O'Faolain were transferred to Fort Dunree on Lough Swilly, Co. Donegal and 2 Lt. P. Bhémisch was transferred to 4 Field Artillery Mullingar on the same date. On 10th May 1940 the only VF officer in the AA was 2 Lt. J. A. Ryan.



The above article are my own memories of many happy years I served with the unit, and I wish all the present officers, NCOs and men the very best and may they continue to achieve the excellent standards that they themselves have set.

E. Barry



# The 12-Pounder Battery

June 1941 to May 1942

By CAPT R. COOKE

ONCE, when things were more than usually slack in the office of the Director of Artillery, I asked Sgt. Pearce, at that time the sole survivor of the pre-Emergency Artillery Staff how they filled in the week before the Emergency began.

The relevant part of the reply was that Thursday was a recreational half holiday and that on Friday, if there was nothing unusual to be done, they drew up a new organisation for the Artillery Corps.

Whatever the reason for it was, a new organisation for the Artillery Corps would appear to have been drawn up in the summer of 1941, because on Friday, 13th June, Comdt. Maurice McCarthy, then commanding the Anti-Aircraft Brigade (or was it by then the Anti-Aircraft Battalion?) sent for me and told me that I was to travel on Saturday, 14th June 1941, to Spike Island and there to assume command of a new unit which would man all the light fixed artillery in the country except such as was safely in place in the fortified establishments in the South Coast Defences and the West Coast Defences.

Anything outside the forts was mine together with any other stray pieces of ordnance which might surface anywhere.

I pointed out that I was already under orders to proceed on Sunday to umpire field exercises in north Meath, Cavan and Monaghan and thereby obtained the postponement of exile until Monday, 16th June. I travelled to Cork by train and Fort Westmoreland by lunch, was met by Capt. D. Leonard, famous as a member of the pre-war Army jumping team, was introduced by him to the Commander of the South Coast defences, Major D. Collins, and told that I should have gone on to Fort Carlisle.

I had never been in those parts before but on arriving at Fort Carlisle I found old acquaintances who had gone to the Coast Defence Artillery during the 'phoney war' in 1939-40, when in fact the AA units were partially demobilised. It was that dispersal which sent the late Thomas O'Faolain to Forts Dunree and Lenan, a circumstance of which he not infrequently reminded his readers when as Terry O'Sullivan of the *Evening Press* in later years he was possibly the most widely read feature writer in Ireland.

Fort Carlisle was then commanded by Capt. J. H. Byrne, who was also Fire Commander, Cork Harbour, if my recollection is correct, but his second in command, Capt. M.

Sugrue, Lt. O'Broin and 2 Lt. Moroney were old acquaintances and I soon became acquainted with the remaining commissioned officer, 2 Lt. Con McFadden. In addition, 2 Lt. Hugh Maguire and 2 Lt. V Aherne arrived from the AA Brigade. They were to be section officers in the new unit. They, with Lt. M. Power, in Fort Duncannon and 2 Lt. Harry Carr at Rineanna constituted the officer corps of what I learned was to be called the 12-pounder battery.

There was a cadre of non-commissioned officers on a 12-pounder course in Fort Carlisle and those with the NCOs already on 12-pounder sites formed the NCOs of the unit. There were still some vacancies on the establishment for non-commissioned officers, notably a battery sergeant and battery quarter-master sergeant and those were to be picked from the available non-commissioned officers now attached to the Artillery Depot at Kildare.

I was extremely fortunate in getting CS James Cronin and CQMS Joseph Martin as my senior NCOs. Jimmy Cronin was a native of Skibbereen. He had been a solicitor's clerk before coming into the Army at its foundation or



12-pounder gun with crew in training, Sandycove 'Forty Foot', early 1940s. Note soldier in foreground with volunteer tunic: six buttons on back.



thereabouts and returned to that occupation eventually after an absence of twenty-five years or so. Luckily for me he was absolutely expert at the keeping of records, the compiling of registers, the furnishing of returns, the writing up of diaries and with the arrival of Cpl. Harris, the corporal clerk satisfied all the demands, reasonable and futile, of the upper echelons for information. Joe Martin was from the Longford/Leitrim border and had also come into the Army at its beginning. He was the opposite of the Army's idea of a QM. He was rigidly honest, decent, straightforward with a talent for getting on with other QMs, an invaluable qualification when dealing with the exigencies of the Army accounting system. Once, and once only, was I called upon to sign Army Form 18 and that was my own fault. I lent a copy of the Admiralty handbook of the Naval Service 12-pounder to the Marine Service, who, no doubt for strategic reasons had their instructional centre on the Curragh and, failing to retrieve the same, was mulcted by the Minister for Defence for the sum of 1/8d or approximately 8.5 new pence.

The 12-pounder course finished on Saturday, 21st June 1941. Pat O'Broin and I heard the news of the invasion of Russia on Sunday morning in the Cork Beg Hotel. It had closed down for the duration and the officers mess in Fort Carlisle had acquired the growing crops in the kitchen garden and we had gone out there to inspect them. We were invited by the caretaker to listen to the news on the hotel radio from which the dust cover was removed to facilitate reception.

We heard the news with relief. If Hitler was taking on the Russians we felt that the possibility of a German invasion had receded and unless Churchill got a rush of blood to the head or the submarine campaign really escalated, things were not as menacing as they had been.

At all events, I left Fort Carlisle on 23rd June 1941, with the officers and NCOs who had been on the 12-pounder course and despite a slight disagreement with a station master at Cobh as to the proper time of departure of the 9.30 train and assisted by a 'Gaisge' on the part of VF 206601, Cpl. Lynch at Glanmire, I arrived ultimately at Kildare with the same party as that with which I had left Fort Carlisle that morning.

Routine orders duly established

the 12-pounder battery with its Headquarters at Kildare and the deficiencies having been filled from the Artillery Depot at Kildare, we went about the business of manning the existing posts and establishing new ones.

I have long since forgotten what my establishment was but according to a nominal roll which I have preserved, I had, in addition to myself, four commissioned officers, a company sergeant, a company quartermaster sergeant, six sergeants, twenty-four corporals and 120 men, some regulars, some volunteer force reserve and the remainder Emergency men.

The unit's headquarters were in the Artillery Barracks, Kildare. It was probably the smallest unit headquarters in the Army. It consisted of one commissioned officer, one company sergeant, one CQMS, one corporal clerk and one technical storeman.

The posts manned by the battery were in three of the four commands, Eastern, Curragh and Southern and could be divided into two, those the primary function of which was to act as examination batteries and those which were intended to afford artillery support at what were considered to be likely 'drops' for aircraft or paratroops. The battery, strictly speaking, had no anti-aircraft function. It is expected to engage aircraft when coming in to land or on landing and to deal with armoured fighting vehicles.

2lb 2 ounces and some odd drachms of cordite M.D. which gave the shell an initial velocity of 2,240' seconds. I am relying on my memory for those details; I do not warrant their absolute accuracy.

A little variety was added to the assortment of 12-pounders by the fact that in some of them the rifling ran straight from the chamber for about 2½ feet before it started to twist.

Later I acquired two 6-pounders which were installed at the back of the Old Hibernian Military Schools to cover the open spaces of the Park beyond the fifteen acres. The story was that those guns had been salvaged from an abandoned naval vessel which had lain submerged for years at Bere Island and they looked as if the story was true. I do recollect that Capt. I. O. Collins of the Ordnance Corps (and the Co. Meath engineering staff) was rather apologetic about them when I demurred at taking them, saying that I could have my 'chaps' do the best they could with them. I think they had originally been manufactured by the Hotchkiss establishment; there was no instructional material of any kind available for them but eventually the indefatigable Mr. Flood, the librarian in the Department of Defence, turned up an Ordnance manual of the year 1905 or thereabouts which contained some descriptive detail and a diagram of the mechanism.

Fort Duncannon held also two

TABLE

Collinstown (now Dublin Airport)	1 NS	1 LS
Baldonnel	2 NS	
Rineanna (Shannon Airport)	2 NS	2 LS
Curragh	2 NS	
Duncannon	2 NS	
Dunmore East	1 NS	
Bull Wall	1 NS	
Sandycove	1 NS	

The 12-pounders were distributed as set out hereout. I should say perhaps that the letters 'NS' stand for 'Naval Service' indicating that they had been designed for use on naval vessels before the First World War, while the letters 'LS' indicate that they were designed as the close defence weapon for shore implacements, where they were later superseded by the twin-mounted 6-pounder.

The ammunition was 'separate'. The 12-pound shell was loaded first and rammed home to be followed by a brass cartridge case containing

Vickers machine guns and two Hotchkiss light machine guns. The former brought me to the threshold of a court martial. I returned the serial numbers of the Vickers guns on my monthly ordnance return as being held by me in Fort Duncannon. Some remote genius in Plans & Operations insisted that I did not have them and had made a series of false Ordnance returns because the Command QM denied the existence in his Command of Vickers guns bearing the serial numbers I had given. I was saved by the bell. It was discovered at the last moment that



Plans & Operations had been writing to the wrong Command QM; they thought Fort Duncannon was in the Western Command.

The administrative and logistic problems consequent upon the dispersal of the outpost caused endless trouble. The detachment at Fort Duncannon was attached for pay, rations and discipline to whatever 5 Brigade Infantry Battalion happened to be stationed in Baun James at any given time, while Lt. Power, in command of Fort Duncannon was responsible in some indefinite way and to an indeterminate extent for the marine service personnel who had charge of the minefields at Arthurstown and Ballyhack. When the Rineanna post was set up the Officer Commanding the Second Reconnaissance Squadron very kindly volunteered to take the detachment on for clothing as well as for pay, rations and discipline, only to find about twelve months later that not merely had he no authority to assume that particular burden but in some peculiar way he was not considered to be an accounting unit and should not have had a clothing ledger at all. It must have been cleared up eventually in a satisfactory manner because he wound up his military career as Colonel

William Keane, Director of the Air Corps.

On the other hand dispersment had its uses. I received a letter one day from the Headquarters, Curragh Command, written in a tone entirely foreign to that usually used by them on communicating with me. It read more like a petition. The Command OC, Col. McNally, had received a letter from the parish priest of Ram's Grange, a parish which included Fort Duncannon, saying that one of my men had begun to attend the local Church of Ireland services, alleging a desire to change his allegiance to that body and requesting Col. McNally to remove the man forthwith and thereby avert a grave scandal in the parish of Ram's Grange. When I enquired into the matter, I found that what he really wanted was a transfer to Dublin for reasons altogether unconnected with faith or morals, so I sent him to Rineanna.

Things were made even more difficult by the fact that I had no transport. The establishment allowed me one light lorry but I never succeeded in getting it, and was altogether dependent on the 5 Field Artillery Regiment for the occasional loan of a 'bug-chaser' to keep in touch with the outposts and

perform such vital tasks as bringing boots needing repairs from Sandycove to Kildare and returning them when the repairs had been done.

The last straw was the suggestion that I should instal two 4-inch naval guns to cover the deep water anchorage at Killybegs, Co. Donegal. Mercifully, someone must have had a free Friday because there was a reorganisation in the Spring of 1942 and the 12-pounder battery ceased to exist as of 13th May in that year.

Its short life from the military point of view had been placid. The examination batteries never had to use their 12-pounders. Occasionally, a careless skipper forgot to fly the correct flag entering Waterford Harbour but a burst of machine gun fire was invariably sufficient to make the vessel conform.

The NCOs and men were for the greater part posted to the Anti-Aircraft Battalion, a few to the Coast Defence Artillery, Southern Command and the remainder to the Depot and School of Artillery. Lts. Aherne, Carr and Maguire were posted to the Anti-Aircraft Battalion, Lt. Power to the Depot School of Artillery and I, having reached the dignity of three bars, became Commander of the Artillery Depot and in January 1943, staff officer to the Director of Artillery.



Complete searchlight detachment with OC Capt. Pat Finucane and Section Officer Paul Iviney, with searchlight lamp, 12-pounder gun, camouflage frame and billet in background.



# Anti-Aircraft Searchlights

By SGT. J. MADDEN

**S**EARCHLIGHTS were first introduced to the Defence Forces in 1939 where the first Searchlight Cadre was formed. The cadre was composed of regular army personnel drawn from various infantry units, and were billeted in Ceannt Barracks in the Curragh. The cadre who were now members of the Corps of Engineers under the command of Lt. J. N. Kilcullen did their Searchlight training in Hare Park. The equipment used in training was the Searchlight lamp; Mk III sound locator and a GOY lorry. The lorry was specially designed for Searchlight work. It had a crew compartment, a large generator and switchboard. After initial training in the Curragh the cadre moved to McKee Barracks in Dublin. The cadre was now augmented with members of the Volunteer Force and a Engineer Officer, Lt. M. J. McLoughlin who died tragically in the Glen of Imaal mine explosion in

September 1941 (see article "The Shadow of the Glen").

The cadre moved to Gormanston Camp for night exercises with Air Corps Aircraft and AA Artillery units. On completion of these exercises the process of transferring the cadre into the AA Artillery Corps was muted. World War II was declared in September 1939 and following De Valera's "call to arms" broadcast, thousands enlisted. Sufficient to say, many of these volunteers were posted to the AA Artillery to build up and man the gun and searchlight outposts. In 1940 six Searchlight outposts were set up around Dublin city:

1. Howth Summit
2. Bull Wall
3. Pidgeon House
4. Blackrock Park
5. Sandycove
6. Sorento Park, Dalkey.

In 1941, following the bombing of South Circular Road, a mobile out-

post operated at night in the Phoenix Park. The same year the unit moved to Ballsbridge and from there a mobile unit operated from Herbert Park, Donnybrook. In the early days of World War II invasion was preceded by heavy air raids and the first line of defence was the Searchlight and AA Gun batteries. Around the coast were what was known as "Lookout Posts" manned by personnel from Coast Watching Service. Their duty was to watch for and report anything seen or heard that might indicate an invasion or attack. These incidents were directly reported to Air Defence Command in Dublin Castle who were on a direct line to the Searchlight and Gun outposts. These reports were checked and where aircraft were involved the Gun and Searchlight outposts were alerted as follows:

"Air Raid Message Yellow" meant unidentified aircraft seen or



Mark III Sound Locator with crew, two listeners, sight reader and detachment commander, with the billet and sentry box in the background situated on the end of the Bull Wall, Dollymount.



heard in Fighter Zone.

"Air Raid Message Red" meant some aircraft coming into or approaching an Artillery Zone.

"Air Raid Message Green" all clear, alert over.

As Britain was under constant aerial bombardment, it was understandable that the sound of aircraft was constantly being reported to Air Defence Command, resulting in the Searchlight and Gun outposts being continually called into action stations day and night, which meant very little sleep or rest for the personnel. There were several isolated engagements with beligerant aircraft, but the most serious was the North Strand bombing on 31st May 1941, in which 36 people were killed and hundreds injured and left homeless. The Searchlight detachments in Blackrock Park had

the experience during the engagement of hearing shrapnel from bursting AA shells "pinking" on the railway lines close to the outpost.

The Searchlight outpost consisted of two NCOs and twelve men. The NCOs worked a 24-hour on/off schedule while the men operated a 24-hour on and 48-hour off system. A Searchlight detachment consisted of nine personnel. They were numbered as follows:

1. Detachment Commander.
2. & 3. Spotters, using reclined roating chairs with binoculars with AA sights affixed.
4. Lamp Controller on the guiding arm.
5. Lamp Attendant operating electrical fittings, main switches and beam adjustment.
6. Sight Readers on sound

locator.

7. & 8. Listening Members on sound locators.

9. Engine and generator operator.

Rations were delivered daily which were very often eagerly awaited. From 1944 onwards the danger of invasion seemed to recede, many of the personnel were granted exemption from the service for various reasons. In 1946 all Gun and Searchlight outposts had been vacated, troops and equipment returned to barracks and the outposts dismantled.

Demobilisation then took place in the old "Alma Mater" McKee Barracks and in mid-1946 there were scarcely enough personnel serving to maintain the guns and searchlights in their Storage Depot. It was like a large family breaking up with very many never to meet again. I left the army in 1945 and joined the Civil Service. I retired in 1983 with a total of forty-five years state service.



Sgt. Jimmy Madden, 1944.

*with compliments of*

## BIJUR

manufacturers of  
lubrication pumps  
and accessories,  
lubrications systems,  
metering units,  
control units,  
flow lines and  
junction blocks

**BIJUR**  
**Lubricating Ireland Ltd.**  
**Gort Road, Ennis,**  
**Co. Clare.**

Phone (065) 21543  
Telex 26820  
Fax (065) 20327



# Brief History of 2 Air Defence Battery

By COMDT. J. O'BRIEN

## Origin

THE origin of the 2 Air Defence Battery (FCA) (2 Anti-Aircraft Battery prior to 1986) lies in the 1959 re-organisation of the Permanent and Reserve Defence Forces. The popular title given to this re-organisation was 'Integration' and this succinctly describes the intention and effect of bringing the Forces together under common command and organisation. The newly formed 2 Battery (Dublin) and its comrade unit, the 3 Battery (Limerick), came together with the 1 Battery (Kildare - PDF) in the newly constituted 1 Anti-Aircraft Regiment with headquarters in Kildare (Magee) Barracks. The location of the batteries in Dublin and Limerick was influenced by the defence requirements of the major airfields.

The 4 Battery (Cork) was not formed until 1979, following disbandment of the Coastal Defence Artillery.

Under a later re-organisation of the Forces, most units reverted to structures somewhat comparable to the pre-1959 organisation. The Air Defence Regiment, however, remains fully integrated.

## Formation

The battery came into existence in October 1959 when ten officers

selected from FCA infantry units in and around Dublin came together in Griffith Barracks on transfer to the new unit, under Lt. Paud Holahan who had been given command of the fledgling team. Volunteers, NCOs and men were sought from other Dublin units to provide a nucleus of experience and skill before general recruitment was opened. Amongst those volunteers were Cpl. Michael Flood, now Battery Commander, Comdt. Larry Holmes who was Battery Adjutant.

## Training

In the initial years, firing practice was held during annual training camp, but for a period of ten years until the aerial target was acquired firing generally took place on a weekend in September. Between 1969-77 the battery varied the location of annual camp. Kilkenny, Limerick, Lahinch, Duncannon and Ballincollig, all received the battery most hospitably and we were most thankful to the units and personnel who facilitated this enjoyable nomadic interlude. The battery also took part in many deployments down through the years, to name but a few 'Operation Apple' at Baldonnel in 1985 and also the major weekend deployment at Shannon Airport organised in 1986?

by the 3 Battery who made a magnificent success of the operation. In the late 1970s a decision was taken that the batteries should continue as an entity for the annual firing practice, i.e. Regiment and from 1978 to 1981 the battery annual camp extended to three weeks. Since 1983 the annual camp has been confined to one week and this ensures a hectic programme to be carried out in Gormanston with the three batteries to fire. The batteries take it in turn each year to administer the week's training and this has proved successful and educational.

It is a tribute to all concerned, particularly Regimental Headquarters that this year 1989 time was found to mount a formal demonstration shoot and an exhibition of weapons and mementos of the regiment and its predecessors.

## Acknowledgement

Throughout the thirty years of its existence the battery has received the greatest co-operation and assistance from a multitude of sources. It would be difficult to list them all but particular mention must be made of the Air Corps (our friendly enemy) and our brother in the Artillery Corps, especially those in McKee Barracks.



Officers and CADRE staff 2 Ack Ack Battery on its establishment 1959.





**2 Ack Ack Bty, Griffith Bks, 1960.**



**Compt J. O'Brien 2 AD Bty receives his presentation on his retirement by Col. Dunne, January 1984.**



#### CADRE COMMANDERS

CAPT. C. O'HALLORAN  
CAPT. T. E. RYAN  
CAPT. S. B. CONDON  
CAPT. M. MacAOGÁIN  
CAPT. D. K. DOYLE

CAPT. E. BRESLIN  
CAPT. B. O'DONOVAN  
CAPT. K. HEALY  
CAPT. E. FOGARTY  
CAPT. C. RICHARDSON

#### BATTERY COMMANDERS

COMDT. PAUD HOLOHAN  
1959-1978  
COMDT. JOHN CLARKE  
1978-1981

COMDT. JOHN O'BRIEN  
1981-1984  
COMDT. MICK FLOOD  
1984-



## Top Money Market interest rates from ICC Money Manager.

ICC has introduced a whole range of very special Money Manager accounts that bring you **Higher Interest** than the Building Societies or the Associated Banks.

You select the Money Manager account that suits you best. Built-in flexibility means you can opt for long or short-term investment. For example:- Money Manager Demand account gives you instant access to your money, which is never more than a phone call away! Money Manager Monthly Income account provides a regular, on going income.

Get to know your ICC Money Manager investments for yourself by telephoning 01-720055 or contact ICC Money Manager at 32-34 Harcourt Street, Dublin 2.

All deposits with ICC are **State guaranteed.**

Industrial Credit Corporation plc





# Some Reflections on AA Development During the Period 1939-45

By COMDT. PHILIP R. EAGER

**I**N June 1939 while still a student I joined the Volunteer Reserve Force and was posted to the Anti-Aircraft Artillery Unit in McKee Barracks. There were two Medium AA batteries in McKee (equipped with 3" H.A. Mobile AA guns). the 1st Medium AA Battery was a Regular one and the 2 Medium AA Battery was composed of Volunteer Force gunners.

The initial training course consisted of three weeks training and firing practices at Gormanston Camp in August 1939. During this camp the Regulars plus the students of the 1 AA Potential Officers Course carried out a night shoot in co-operation with a battery of searchlights.

The Second World War started during the last week of the course and so all the Volunteer Force was called up on a permanent service - which was to last right up to May 1946.

Early in 1940 the AA unit went

through a period of rapid expansion which was speeded up by the arrival of a ship load of brand new modern 3.7" AA guns (some mobile and some for placing on static sites) and also new Bofors LA 40s (high rate firing automatic light AA weapons). They were purchased from the British Army and transferred to Ireland to assist (as far as possible) in the defence of the larger towns, ports and airports.

So rapid expansion and intensive training of all ranks was the order of the day in 1940. New officers were trained and commissioned and many potential NCO courses were completed.

So when the war really got rough towards the end of 1940 and air raids in England and N. Ireland became the order of the day and night the AA Battalion (as it was then called) was ready to occupy both gun and searchlight outposts in the Dublin, Cork and Shannon areas. In the Dublin area for

instance the following outposts were occupied and prepared for action (for the preservation of the neutrality we had opted for):

Ballyfermot (before the new housing was started).

Hibernian Schools in Phoenix Park.

Browns Barn, close to Baldonnel. Dalkey.

The Bull Wall.

Stillorgan.

Ringsend.

Clontarf.

Brackenstown, near Dublin

Airport.

Dublin Airport.

The Hill of Howth.

Shannon Airport was also supplied with an AA Defence Battery.

The duty officer in each battery and searchlight outpost had the full responsibility for engaging aircraft from the countries involved in the



1944, Clontarf, No. 4 AA Bty.



war once he had identified them as hostile. (He did not have to request permission from any higher authority.) The result was that, as the German/British/American air operations increased in 1941/42/43 and 44 we opened fire on several occasions on aircraft identified as belonging to the air forces already mentioned, in defence of our neutrality. The first case of opening fire occurred on St. Stephen's Day 1940 when a German Heinkel twin engined bomber plane was identified flying over the city from east to west. The 6 AA Battery located in Ballyfermot engaged the bomber until a flight of Gloster Gladiator fighters took off to engage – but the bomber entered large dense clouds and escaped. Shrapnel from the exploding 3.7" rounds fell on Clondalkin village. Other Allied and German aircraft were engaged by the batteries in Stillorgan, Ringsend, Clontarf and Dublin Airport in 1941/42/43. On the two nights that Belfast was heavily bombed by German aircraft (they flew up along the east coast and over Dublin) they were engaged by the battery of Bofors near Dublin Airport.

The most spectacular (and most tragic and serious) engagement took place during the early morning hours when a German bomber remained over the city for some time and dropped a 1,000 lb landmine on the North Strand area (killing 38 people). Most of the Dublin gun and searchlight outposts were in action that night.

Aircraft engaged during these



AA Battery, 1932, Gormanstown, Co. Louth.

years included a Sunderland flying boat, a Blenheim twin engined bomber, a Hawker Hurricane fighter and an American Flying Fortress bomber. This US bomber had lost its bearings and the crew thought that they were over France – fuel was running out so they decided to land at Collinstown, but not before it had been engaged by the 3.7" battery at Ballyfermot. This was in 1944 and as the centre of gravity of the war had moved to Eastern Europe the number of fly-over incidents declined almost to nil and the guns were to remain silent until future practice camps were held in Gormanston Camp.

From what I have written it must be noted that the officers, NCOs and gunners of the wartime AA Battalion were almost the only troops to open fire with full charge HE ammunition on several occasions between 1940 and 1944. It made for excitement and uncertainty and countered the long hours of waiting and loneliness and boredom associated with outpost duty of this nature. So may I conclude by paying a tribute to the Ack Ack gunners of 1939/45 era who were worthy forerunners of the many more to serve in the following years up to the present day.



AA Bty on Inspection, Clontarf 1944.



# The Shadow of the Glen

By LT. R. COFFEY

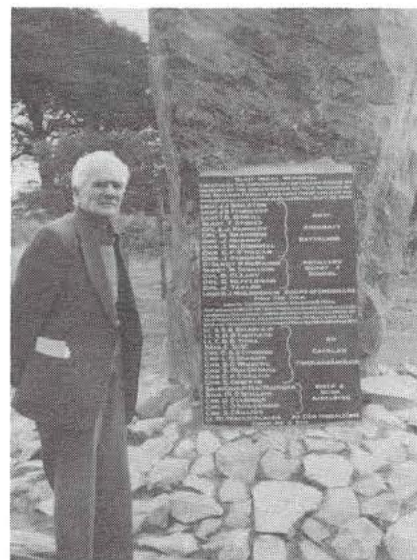
AT five minutes to three on a lovely afternoon of 16th September 1941, sixteen young men of the army drawn from the Artillery Anti-Aircraft Battalion and of the Corps of Engineers were blown into eternity. They were on a training course in the Glen of Imaal and their instructor, Lt. Michael McLoughlin, a Belfast man, was demonstrating just one of the techniques of the warfare of the time . . . how to mine an approach route by enemy tanks or carriers. The class of all ranks stood around him as he finished planting three mines and just as he was about to show the eager young gunners and engineers the final setting of the lure, two gunners had moved slightly to the rear of the group. At that moment the mine exploded. These two were among the survivors.

Against the desperate millions of Britain and Germany, against the background of the Battle of Britain,

the war in the Desert, the death by misadventure of sixteen young Irish soldiers in a lonely valley seemed very small indeed. What brings it all home was that they were our own, soldiers who died on Irish soil.

On 14th September 1986 a ten foot stone monument was unveiled by the Minister for the Environment, Mr. John Boland, in memory of the sixteen members of the Defence Forces who died in the premature explosion forty-five years ago. Senior members of the Defence Forces and relatives of those who died and survivors of the accident were among the attendance to give their approval of the unveiling of a memorial to their dead comrades. The attendance included Chief of Staff Lt.-Gen. T. O'Neill, QMG Maj.-Gen. J. J. Barry and GOC Curragh Command Brig.-Gen. C. J. McGuinn. The survivors who attended were Coy Sgt Pat McNamara Sgt. Richie Lennon, Cpl. Dan Byrne

and Gunner Eddie Douglas. The memorial was erected by the Anti-Aircraft Artillery Association whose members are drawn from those who served in the Anti-Aircraft Battalion. The monument itself bears the names of those who died on that fatal day back in 1941. They will always be remembered by their fellow comrades. May they rest in peace.



Sgt. Richie Lennon, survivor, at the Glen of Imaal Memorial, Sept. 1986.

## LIST OF NAMES INSCRIBED ON THE MONUMENT

### Anti-Aircraft Battalion

Lt. John J. Brierton  
Lt. John D. Fennessy  
Lt. Thomas O'Neill  
Sgt. Thomas Stokes  
Cpl. Edward J. Kennedy  
Cpl. William Shannon  
Gnr. James McDonnell  
Gnr. John Murray  
Gnr. P. O. Hagan  
Gnr. James Osborne

### Depot & School Artillery

C/S P. McMahon  
Sgt. Michael Scullion  
Cpl. Denis Cleary  
Cpl. Colm Heffernan  
Cpl. John Taylor

### Corps of Engineers

Lt. Michael McLoughlin

Colleagues and survivors of those who died in the 1941 mine explosion, assemble at McKee Barracks in Dublin to celebrate Mass in memory of their comrades on 16 September 1958.





# Unit History Summary 3 Air Defence Battery

By CAPT. P. O'BRIEN

## Establishment

IN October 1959 the long awaited integration of the FCA with the regular Army finally took place. After many months of intense speculation and rumour the 49th Infantry Battalion was disbanded and its members were separated. The engineer platoon became the

eager to become gunners, responded to the challenge with enthusiasm and dedication and were soon absorbing the many facets of gunnery.

The first shoot was held in the Glen of Imaal in July 1960. After all the 'dry practice' it was a tremendous thrill to see and hear the L60 in

years in the Glen this experience was added to and passed on to the new members who joined the battery.

## Development

There was always the hope that some day the gun barrels would fire to the sky and it finally happened in 1978 when the guns were deployed



The Officers, NCOs and Gunners of the 3 Air Defence Battery.

3 Fd Coy of Engineers and the majority form the 3rd Battery of the 1 Anti-Aircraft Regiment with the headquarters based in Magee Barracks, Kildare. The 1 Battery is a PDF Battery also based in Kildare and the 2 Battery FCA was formed in Dublin. A FCA Battery was established in 1987 and based on Spike Island when the Coastal Defence Artillery was disbanded.

Capt. Harry McCracken, R.I.P., led the pioneer training cadre of the 3 Battery which also included Lt. Tony Wall, BS Patrick Carlos, Sgt. Tim Flavin, BQMS Paddy Leo, Cpl. S. O'Leary, Cpl. R. Ringley, Cpl. B. Hannigan, Gnrs. P. McNamara, P. Synan and P. P. Murphy.

The Battery Organisation showed a Heavy Troop and a Light Troop equipped with 3.7" guns (Heavy Troop) and the Light Troop having L60 40mm Bofors. Early on, the 3.7 was recalled and training was concentrated on the L60 Bofors.

Artillery was an entirely new concept to infantrymen who up to now had fired nothing larger than an Energa grenade over a maximum distance of 200 yards. The men,

action in a ground role. With the low trajectory it was easy to follow the shells with their fiery tracer shooting to their targets. Much experience was gained from this first 'bleeding' and in the succeeding

on the air defence range at Gormanston to await the target drogue being towed (at a safe distance of 1,000 yards) by a Cessna aircraft of the Air Corps.

This was the first of many



The winners of the Inter Battery Falling Plates competition, 3 AD Battery, pictured with the Battery Comd. Comdt. V. McCarthy.





Lt.-Col. P. Nowlan presents Comdt. V. McCarthy with the regimental trophy won by the 3 AD Bty during annual camp at Gormanston, 1989.

Regimental shoots at Gormanston and needless to say there was always great rivalry between the batteries to put on a good display.

1980 saw the introduction of the General Purpose Machine Gun. This gun is also fired by the ADR in an AD role and on one occasion the 3 Battery shot down the Drogue

using the G.P.M.G. (which was fortunately rescued from the sea by the Air Corps).

The members of the battery take an active part in the various fund-raising efforts for local charities. In 1982 officers, NCOs and men of the battery pulled an L60 Bofor from Shannon to Limerick and collected £3,500.

In 1986 the 3rd Battery organised Exercise 'Sharad'. This was a regimental Air Defence deployment of Shannon Airport.

The deployment consisted of the 2nd, 3rd and 4th AD Batteries augmented by support units from S&T, M.P., COE, Medical and Signals.

This was the first occasion in which the three batteries were deployed on a regimental basis. As a learning exercise it was highly successful. The exercise was organised and commanded on the day by the Battery Commander of the 3, Comdt. V. McCarthy.

As we look back over the past twenty-five years we remember with pride the many ceremonial occasions in which the battery took part, most noteworthy perhaps, the Golden Jubilee celebrations in 1966, the parades on St. Patrick's Day, Guards of Honour and the stewarding at Limerick for the visit of Pope John Paul II.

We must remember too the officers, NCOs and men of the PDF who served the battery well from its formative years. Some unfortunately are now deceased, others who have retired still maintain their links with the battery.

The former Battery Commander Comdt. Liam Bourke (now deceased) forged a link with the 49th Battalion, having joined the FCA on the setting up of the 49th Battalion in 1946. Other links with the old 49th are Comdt. B. Kelly, CQMS V. Lyons, Sgt. M. O'Donnell, all of whom are still serving.

The present Battery Officers are as follows (FCA):

Battery Commander	Comdt. V. McCarthy (FCA)
Battery 2 IC	Capt. P. O'Brien (FCA)
Training	Capt. A. Thullier (FCA)
Light Troop Commander	Capt. M. Montgomery (FCA)
Section Officer	2 Lt. M. Burke FCA)
	R. O'Donovan (FCA)
Battery Sgt.	N. O'Donovan (FCA)

(PDF)

OC	Capt. D. Connolly
Bty Sgt	B. Gibney
BQMS	J. Hayes.

#### CADRE COMMANDERS

CAPT. E. McCracken  
1959-1964  
CAPT. J. Moroney  
1964-1968  
CAPT. M. Shannon  
1968-1975

CAPT. D. Hyland  
1975-1983  
CAPT. G. Hannon  
1983-1986  
CAPT. D. Connolly  
1986-

#### BATTERY COMMANDERS

CAPT. J. Meaney  
1959-1965  
CAPT. L. Bourke  
1969-1984

COMDT. L. Bourke  
1965-1969  
COMDT. V. McCarthy  
1984-





**3 AD Bty on Brigade Inspection, January 1972, Cpl. P. Mulqueeney, Bty. Sgt. P. Doyle, Capt. M. Shannon, BQMS D. Mahon, Sgt. P. MacNamara. Gnr. P. Simey, Cpls. S. Smith, P. Kelly, Gnrs. P. Hanley, C. Earls.**



**3 AD Soccer team unbeaten in 1966. Back row: Cpl. Cantellan, Gnrs O'Dwyer, Kennedy, Cpls McNamara, Callaghan, Gnr Nolan, Sgt. P. O'Brien (now Capt). Front row: Gnrs Thompson, Tiegh, Ahern, O'Shea, McCarthy.**



### **Gunner Paddy 'The Horse' Carmody**

Gunner Paddy Carmody, known to all as 'The Horse' is not only the father figure of the 3 AD Battery but one of the most genial and respected gunners of the Artillery Corps. Paddy joined the PDF in 1956, having spent five years with the 22nd Battalion (FCA) in his native Co. Clare. He trained under Col. Nial Fitzgerald of footballing fame and soldiered in such far-flung areas as the Equitation School ('I was sent up for three weeks and spent twelve years there') and the Congo, where he saw action in the famous Tunnel. ('It was nothing, smaller than the railway bridge on the Mallow road'.) He still regales the Cadre staff with his tales of the accidental shooting of a well-known Southern Command officer in the posterior, and of having to use bottles of lemonade in his helmet to wash and shave. His Coy Comd was General William Callaghan (Retd), and his P1 Comds were Col. Tommy Dunne, Comdt. Billy Kiely and Lt.-Col. Art Riordan (Retd). Paddy also served as a cook and still displays his talents on field days - his famous recipe for beef stew begins thus 'Get a cow . . .'

Paddy is one of the last in a great tradition of soldiering, who has enriched all who served with him.

Date of enlistment: 22nd November 1956; discharged July 1972; re-enlisted on 25th July 1972.

Units which Gunner Carmody served with: 12th Inf. Bn, 15½ years. Congo, 1961. Equitation School, Grooms course. IAA Regt, 27th October 1977.



## **BUS ÉIREANN**

### **COACH SERVICES TO DUBLIN**

**3 DEPARTURES DAILY FROM LIMERICK**

### **Great New Family Value!!**

#### **£20 Family Return**

*Valid for Return within 1 Month*

*No Booking Needed*

*No Restrictions on Day or time of Travel*

*This includes 1 or 2 adults and up to 3 children*

### **STILL GREAT VALUE!!**

#### **£8 MIDWEEK RETURN**

*Regular Fare £8 Single :: Monthly Return £10*

*Travel Tuesday, Wednesday or Thursday and return*

*Midweek within 1 Month*

### **WEEKDAY DEPARTURES**

**8.45 FROM PENNEYS 11.20 and 15.20 FROM LIMERICK STATION**

**Family Tickets are available on all our routes**

**For full details contact**

**ENQUIRIES LIMERICK STATION (061) 313333**

**For Special Group Rates and Coach Hire**

**Contact Bus Éireann Sales Office (061) 48777**

# **HI-LIFE TOOLS™**

**SPS INTERNATIONAL LIMITED**

**A Subsidiary of SPS Technologies**

**Shannon Industrial Estate  
Ireland**

**Telephone (061) 62177**

**Telex 720242 :: Cables HI-LIFE**

**Facsimile (061) 61626**



# Memory Lane – The Air Defence Regiment

By LT.-COL. C. O'HALLORAN (Retd)

**A**FTER the Emergency period the AA Battalion was disbanded and reorganised into four HAA Bty Cadres. The 1 and 2 were located in McKee Barracks, Dublin and the 3 and 4 in Ballincollig, Co. Cork. It was a huge reduction from the battalion which previously flourished in 1939-45. 1952 saw the disbandment of the cadres and the establishment of an AA Training Regiment under the late Lt.-Col. Arthur Dalton, the 2 I/C at that time was Comdt. E. Barry. Lt.-Col. Dalton's policy was to have as many officers and NCOs expertly trained and to this end he sought and obtained places on courses in the RA School of AA Artillery Manorbier.

Prior to the formation of training regiment Capt. Harry McCracken and I had attended a Light Anti-Aircraft Instructors Course in the RAF Regt School of AA Artillery in Watachet, a small Somerset town on the coast near Minehead (famous now for the trial of Jeremy Thorpe, the former Liberal leader). This school did not have 'foreign' students previously, so we got extra special treatment – they were determined we should know our stuff when the course terminated. We trained on Bofors 40mm with Skiffey Sights – simple open sights with an arrangement for putting on 'Aim off' and 'Direction to Aim off'.

On our arrival home we learned that the Army in its wisdom had purchased L60 Bofors in Sweden, with a complicated reflex sight and a manual computer. When the training regiment formed we had instructions to commence training immediately. Comdt. E. J. Barry instructed on all the HAA 3.7" guns with the Predictor AA No. 1 – he spent some time in England on an Air Defence Refresher Course. Meanwhile the 3 Mk 7 Radars had arrived and Comdt. P. Ferguson (Retd) ran an introductory course which included Lt. Tadhg O'Neill (present Chief of Staff) and other officers and students. Other courses in Manorbier followed, covering guns and instrument instructors and radar instructors.

From the outset course and course was run on every aspect of Air Defence until the officers, NCOs and gunners were fully qualified in all branches, so by 1959 the regi-

ment was in a position to expand to meet the demands of the reorganisation which came about in that year. The regiment now became the 1st AA Regiment with FCA Batteries in Dublin and Limerick which were 2 AA Bty and 3 AA Bty respectively and one Regular Bty in Kildare. The regiment had one unflinching tradition: 'That whatever the task, it was carried out – even under the most adverse conditions.'

The regiment gave demonstrations and presentations to the General Staff, the Military College and all officers courses run by the Artillery School on which there were AA subjects. While officers were posted in and out of the regiment a strong body of loyal well trained NCOs was built up and they remained the backbone of the regiment down through the years. While I could not mention all their names I will confine myself to the deceased, namely Sgt.-Major J. White, RQMS W. Rusk, BQMS Pender, Sgt. Furzey Canavan and Bty-Sgt. Christy Walsh. The FCA proved to be splendid units trained by small AA cadres provided by the 1st AA Regiment. These cadres and batteries were under command to the brigades in Dublin and Limerick and the Officer Commanding 1st AA Regiment was responsible for

training and unit efficiency.

Obstacles were overcome by hard work and in my opinion those cadres and FCA batteries has no equal in the 2nd Line Reserve under the command of the late Comdt. Paul Holohan of the 2 Battery and the late Comdt. Liam Burke of the 3 Battery. After many years at trudging to the Glen of Imaal when the Aerial Target Mugs (Martinets) ran out of flying time, a new aerial target system was obtained and we returned to Gormanston range to continue our annual firing practices. With the advent of the 4 Battery in Cork, the 1 AA Regiment now became the 1 AD Regiment distinguishing itself as the only regular unit with FCA playing an integral part and a vital, important one at that. My period as officer commanding the 1 AA Training Regiment was from the outset the most satisfactory appointment in my forty-two years career, and why not, when I had such loyal and technical efficient troops under my command. I would like to take this opportunity to wish all the officers, NCOs and gunners of the regiment every success in the coming years and I am certain that all the staff will maintain the excellent high standards that have been set since the formation of the AA Battery in 1931.



Lt.-Col. C. O'Halloran, former officer commanding AD Regiment.



# Artillery with a Difference

By RSM R. KEATING

ON 12th May 1954 I reported to Capt. J. J. Jones, the Adjutant of the 1 Anti-Aircraft Regiment in Magee Barracks, Kildare, to commence my training in 'Ack Ack' gunnery. At the outset I was a little apprehensive as I was at the time a Field Arty Cpl. with the 1 Field Arty Regt, stationed in Ballincollig, Co. Cork. However, when the training commenced on the 'conversion course' the theory of Air Defence Artillery and the operation of the Bofors guns had an appealing effect that still lives with me today. After two weeks of initial training I had decided my own destiny. I was at home in the Anti-Aircraft Regiment.

The Commanding Officer at the time was my ex-CO in Ballincollig, Lt.-Col. A. Datlon and the 2 I/C of the regiment was Comdt. E. Barry. The 'conversion course' itself was very professionally organised and maintained our interest throughout the duration which demanded a high degree of discipline and was constantly in pursuit of excellent standards. The guns that were in operation at that period were the 40mm Bofors, 3.7" HAA and the No. 3 Mk VII Radar set, which I am glad to state is well maintained today by Sgt. Brick in Magee Barracks, Kildare.

The firing in Gormanston range at the time was something we all

looked forward to with enthusiasm as some of the course had come from the Coastal Defence Artillery and other Field Regiments. As the course progressed with dedicated training we all became proficient in each individual gun and on completion were appointed to different batteries, and not long afterwards were promoted to Sgt.

Among the young officers we had at that time, to name but a few, and who are still serving, Lt.-Gen. T. O'Neill, Chief of Staff of the Defence Forces; Col. Tom Ryan, ADC to the President of Ireland; Lt.-Col. J. Hall, OC 2 Field Arty Regt; Col. Tony Wall, who was then training with one of the great Tipperary hurling teams and Col. M. McMahon, now Director of Artillery. I am extremely proud to say that I have served with the above officers and many is the good 'shoot' we had in Gormanston.

There were other officers of course who came from McKee Barracks and from the AA Cadres, Capt. P. McConnigal, who played soccer for Derry City and Capt. C. O'Halloran, who later became Commanding Officer of the regiment and I am glad to say is still a regular visitor to the barracks. The Sgt. Major at the time was P. Dwyer, who came from the Artillery School along with Bty Sgt. Jerry White. The RQMS was N. Rush



who was a character in his own right.

In the late fifties the aircraft which towed the drogue for AA firing practices was grounded as it had ended its 'flying hours'. During this period the regiment pinpointed targets for the Field Artillery in all big demonstrations in the Glen of Imaal in the Field role. By that time we also had the Bofors L70 which was power operated and had twice the fire power of the L60.

During the sixties we trained numerous platoons of recruits who turned into fine gunners. Others retired and were soon replaced. Our own NCOs were promoted into other units and carried with them the same professional attitude which is exemplified in their work. Men with such calibre as SM Devereux, 2 FAR, RQMS Hughes, AQ School, Curragh; Bty Sgt Fortune, Regt HQ 1 Bty.

Finally, on a personal note, I am proud to have been associated with the 1 Air Defence Regiment and to have served with all the officers, NCOs and gunners since 1954 and I know that with the present staff the regiment will continue to improve its expertise and maintain its fine traditions.

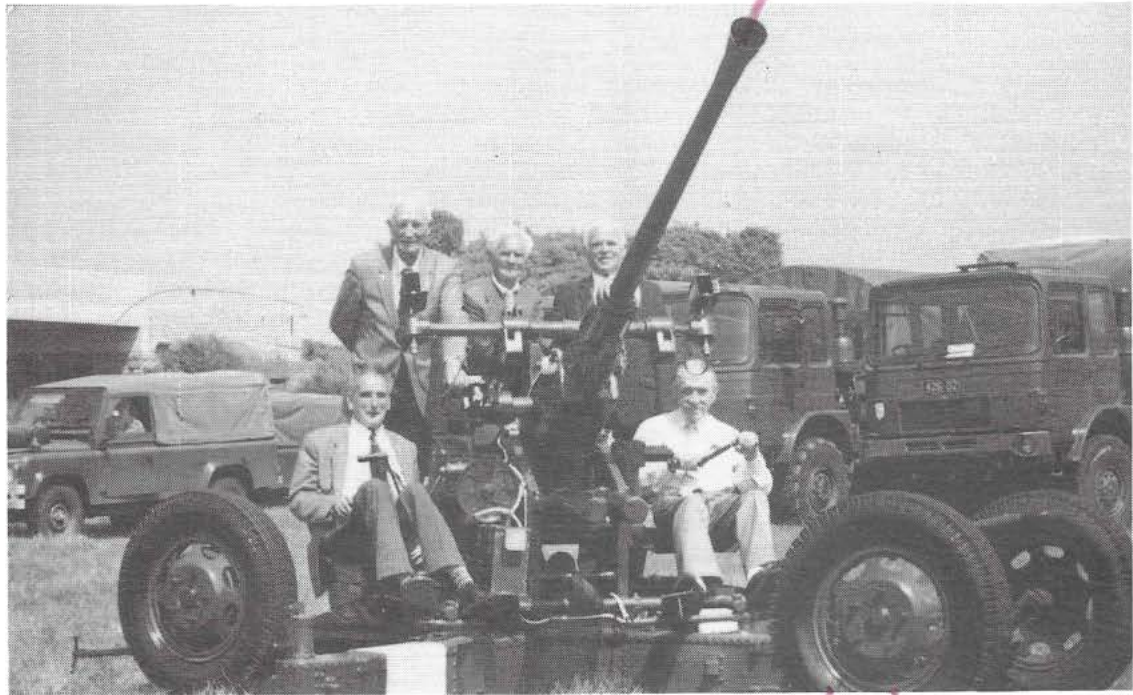


AA Regt Instructors course, Glen of Imaal, 29 April 1982.

Back row: Bty. Sgt. Fortune, Cpl. Byrne, Sgt. Gibney, A.Sgt. Parry, Cpl. O'Connell, Cpl. Berry, Cpl. Dooley, Sgt. Graham, Sgt. Brennan, Sgt. Major Keating.

Front row: Cpl. Forde, Cpl. Brereton, Cpl. Websdale, Cpl. Flynn, Comdt. de Brúir, Sgt. Power, Cpl. Maher, Sgt. Brereton.





Old gunners "take post".



3rd Inf Bn firing .5 machine gun in AD role.



Comdt. O'Connor making sure everything is in order for the regimental tug-o-war competition.



Surprise attack by an Air Corps Marchetti on ground positions.

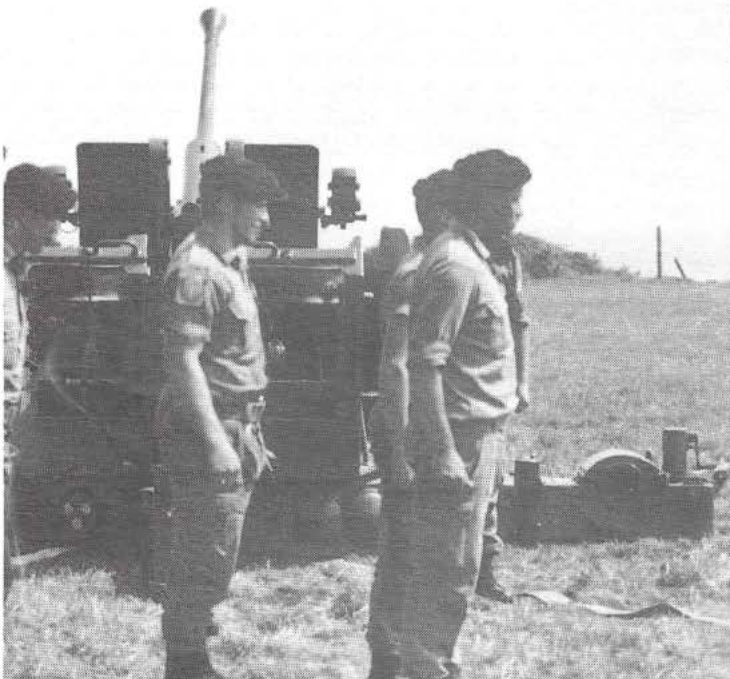




**Lt-Col. P. Nowlan presents the regimetal soccer trophy to Lt. J. Burke, 3 AD Bty in Gormanston, July 1989.**



**Sgt. Gould takes control of 4 AD Bty tug-o-war team, winners of the regimetal competition.**



**1 AD Bty receive the order "Detachment Rear."**



**Personnel of the 1 AD Bty at the air spectacular in Baldonnell in August 1989 with USAF A 10 Thunderbolt in background.**



**Bty. Sgt. Fortune acts as safety officer for L70 Bofors in action.**



**Sgt. Brick with the No. 3 Mk VII radar in Gormanston Air Defence display, July 1989.**



## 4 Air Defence Battery – Unit History

By CAPT. J. MURPHY

**T**HE Coastal Defence Artillery FCA was founded in 1959 and this unit was stationed in Cork Harbour, occupying Spike Island and Belmont Military Post. It constituted an important part of the CDA, firing the 9 inch and 6 inch guns on many occasions.

In 1979 the CDA was disbanded in Cork Harbour and this led to the birth of the 4 Anti-Aircraft Battery which comprised all FCA/CDA personnel serving at that particular time. Our new unit was given the onerous task of providing defence for the eastern half of the Southern Command area. The unit was stationed at Spike Island until 21st March 1985 when the island was transferred to the Department of Justice.

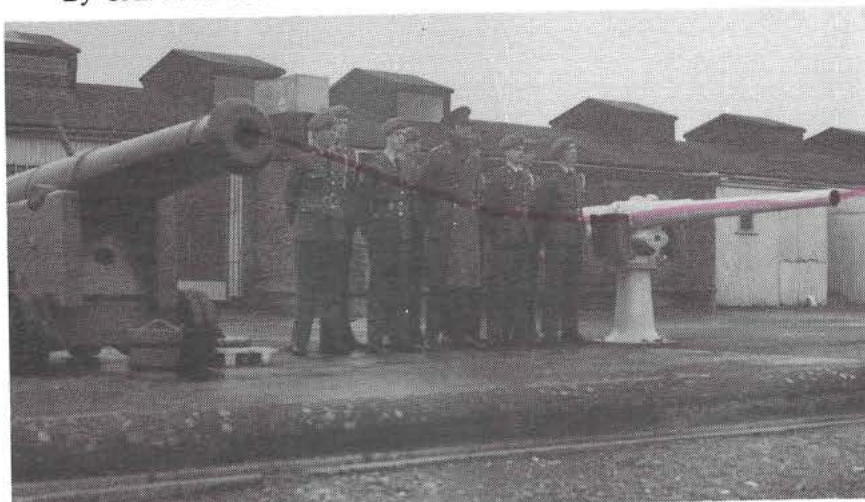
Our new headquarters is Belmont Military Post, located in the eastern sector of Cobh, affording an excellent and panoramic view of the harbour area.

The 4 Battery has grown in stature since its formation in 1979 and it is a tribute to the professionalism of its FCA personnel and training cadre that the unit has had such a smooth and rewarding transition from Coastal Defence Artillery to the more modern and complex Air Defence Artillery.

At present this unit boasts the largest number of FCA personnel of the three FCA batteries attached to the Air Defence Regiment. This fact is all the more significant when looked at in the context of the comparatively small catchment area of the unit. Over the years the unit has provided an ideal recruitment facility for the Naval Service and our ex-members must at this stage provide the bulk of the non-Dublin element of the service.

Over the ten years this sub unit has been established we have had considerable success in achieving a very high standard in Air Defence firing, having won the Air Defence Shield on no less than four occasions during annual training.

At present our training facilities are spread throughout the Cork area, encompassing Belmont, Collins Barracks and Murphy Barracks, Ballincollig. Our attendance at training parades and field days is testimony to the excellent dedication and interest of all ranks. During the period certain personnel deserve a special mention and I am hoping not



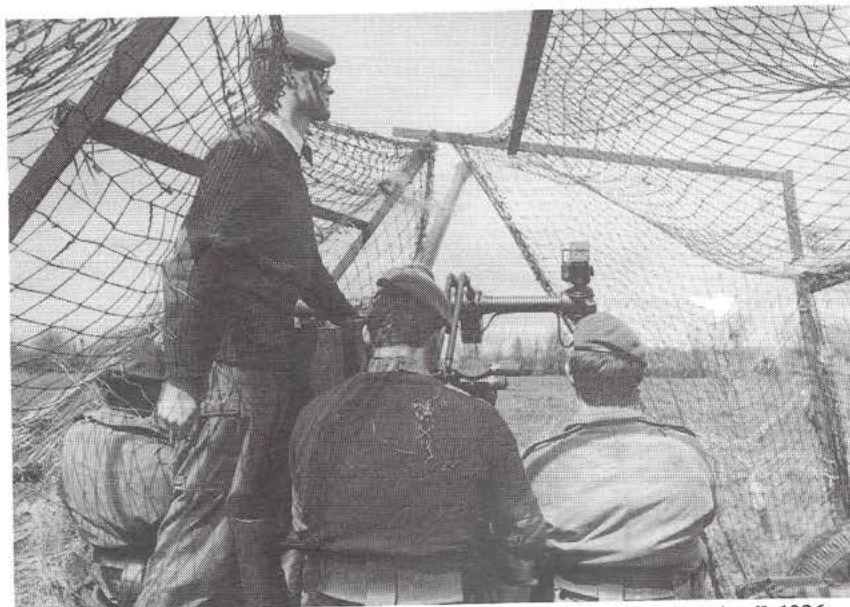
Handover of Spike Island to Department of Justice by Capt. Bourke, March 1985.

to offend their modesty by allowing their pen pictures to appear in this historic and very important publication.

**Sgt. Michael Gould, 4 AD Battery.**

Sgt. Michael Gould enlisted in the PDF in 1959. During his career he has served with CDA and 4 AD Battery. He was promoted to the rank of Sgt. in 1979. Mick was an

accomplished footballer having played at junior and senior level for Cork. He was also an accomplished cross-country runner having competed for the Southern Command in all army competitions on no fewer than five occasions. He is an enthusiastic supporter of Cobh Ramblers AFC and most Sundays can be found in soccer grounds the length and breadth of the country.



Members of the 4 Battery in action during Exercise Shannon, April 1986.

### CADRE COMMANDERS

CAPT. J. BUCKLEY  
1979-1983  
CAPT. V. BOURKE  
1983-1987

CAPT. J. MURPHY  
1987-

### BATTERY COMMANDERS

COMDT. J. STANDEN  
1979-1983

COMDT. D. MOYNIHAN  
1983-



# Irish Coastal Defence and Spike Island

By JOSEPH M. KEANE (Capt. 4 AD Bty)

IN response to a plea from the Editor and my training officer I volunteered in a moment of temporary insanity to provide some material which, with the Editor's permission, could occupy column space in the Air Defence Regiment magazine. Having had associations with Spike Island and Coastal Defence Artillery, I decided that I would attempt to present, in the form of a 'quasi-history', my own and others' recollections of Spike Island since 1938. Complete accuracy of detail is not claimed in what follows but I hope that the contents provide enjoyable reading for those who peruse these pages with a view to occupying time, and for those possessing more accurate information a stimulus to respond and enlarge on the story. In particular, I would wish to revive memories of those, both English and Irish, who may have been stationed in Spike and the other Coastal Defence installations.

1st September 1979 marked the end of an era in Spike for two reasons:

- 1) The desegregation of PDF and FCA elements of the Defence Forces in general and specifically the Spike Island unit of the Coastal Defence Artillery.
- 2) The passing to Naval Command control of the barracks situated on Spike Island.

From 1938 until 1979 Spike Island had served as headquarters of Coastal Defence Artillery (CDA). The headquarter unit, since 1959, had been an integrated PDF/FCA Battery. On 1st September 1979 the FCA element became the 4 AA Battery of the 1 AA Regiment, Kildare, whilst the PDF element, though remaining in Spike, were detached members of the IFAR Ballincollig and the Depot Artillery School, Kildare.

Irish Coastal Defence Artillery had its origins in political discussions which culminated with the handing over of the Treaty ports in 1938. The personnel who were to constitute the CDA were mainly recruited in January 1938 and received their basic training in Con-

nolly and Plunkett Barracks in the Curragh, the latter at that time being an artillery training barracks. The selection of the gunners as opposed to support staff, e.g. engineers, etc. was a simple exercise in that *all* recruits were lined up and sized off on the barrack square and essentially all those towards the 'tall' end of the line were designated as gunners of the CDA.

The military 'hand-over' of the South of Ireland Coastal Defences (SICD), which originally was intended to happen on 31st December 1938, began on 7th July 1938 with the arrival in Fort Westmoreland, Spike Island, of an advance party consisting of Capt. P. Wall, M. Vaughan, three NCOs and six gunners. The Officer Commanding SICD at that time was a Major Otten, his Irish successor was a Major Maher (the 'one-eyed' gunner) who assumed command of the CDA on 11th July 1938, when he arrived on Spike with the main body consisting of six officers, twenty-four NCOs and 113 men. In the case of Spike Island the military ceremony



British troops leaving Spike Island, 1938.





Spike Island, 1944.

took place at 18.00 hours approximately on the square to compliments from English and Irish guards of honour. Concurrently the forts at Carlisle, Templebreedy and Camden in Cork Harbour were handed into Irish control. The political ceremony took place some two hours later as Eamonn De Valera refrained from entering Spike Island until after the English garrison had departed. This ceremony involved the raising of the Irish flag on the main flagstaff on the north rampart of Fort Westmoreland. The Irish party in addition to Mr. De Valera consisted of Mr. Aiken, Minister for Defence; Mr. Rutledge, Minister for Justice; Mr. McEntee, Minister for Finance; Dr. Ryan, Minister for Agriculture and Mr. O'Traynor, Minister for Post and Telegraphs. The English garrison had by this time departed on the destroyer *Acasta* (on board the *Acasta* were Royal Engineers who were relocated at Bere Island until 29th September 1938) and the Innisfallen to a gun salute fired from four '18-pounder' field guns located near the 'Drill Shed'. These field guns had been specially transported into Spike for that purpose. It was not until 29th September 1938 that the forts Dunree and Lenane in Lough Swilly and Bere Island in Bantry Bay were handed over.

Many of the personnel present in Spike in 1938 continued to serve until the late seventies, the best known being Sgt.-Major Jimmy Cronin of sporting renown.

The structure of the CDA at that time was as follows:

- 1) HQ Battery stationed in Spike, which was armed with two 6" breech-loading guns.
  - 2) Carlisle also armed with a battery of 6" and smaller calibre guns plus a battery of the heavier 9.2" counter bombardment guns.
  - 3) Templebreedy armed with a battery of 9.2" counter bombardment guns.
  - 4) Camden, HQ Station of the CDA engineers.
  - 5) Bere Island armed with a battery of 6" guns.
  - 6) Dunree, similarly armed, and
  - 7) Lehanne armed with 9.2" guns.
- Each CDA station was equipped with searchlight facilities manned by engineer personnel in addition to artillery.

In the case of Spike Island, four ack-ack artillery pieces were put on location during the Emergency. The four 40m Bofors AA guns were located at the corners of the fort and were manned by personnel of the 3 and 4 AA Batteries, Kildare (many of whom were on the 1944 CDA FAI Cup team referred to above).

Spike had for a long time served both as a military and a penal settlement and the name given to the fort in 1968, viz. Fort Mitchell, was derived from John Mitchell's brief stay on the island whilst awaiting deportation. Perhaps some better informed reader might be able to settle the dispute as to the exact location of the 'real' John Mitchell cell, as there is ample evidence that the main magazine area under the southern rampart served as a prison block prior to its conversion into a

magazine for the ammunition of the SICD. As far as the public is concerned the John Mitchell cell is located in the prison block situated on the northern side of the square but this conflicts with my recollections of comments made when being conducted, as an FCA gunner, on a tour of Spike, including the main magazine, in 1964. The main magazine at that time housed the bulk of the CDA 6" ammunition plus a sizeable number of the Irish Navy's depth-charges and understandably civilians could not, for safety and other reasons, be permitted access to the magazine area in which I believe the John Mitchell cell to have been located.

The training of CDA gunners culminated each year with the annual range firing practices which were fired from Carlisle. The first of these shoots took place, as mentioned earlier, in September 1938, after which the remaining English instructors left.

A number of reasons contributed to the demise of the CDA, viz.:

- 1) The developments in combat aircraft and sea-borne vessels which rendered the concept of a fixed location battery obsolete.
- 2) The difficulty of providing training-purpose ammunition for the 6" gun.
- 3) Increased harbour traffic and the consequent difficulty of patrolling the harbour during annual range practices.
- 3) The non-availability of suitable target towing vessels, and



- 5) The lack of finance to the Defence Forces and in particular to harbour defence when the main defence commitment was one of internal security.

In effect the CDA had been in decline since 1954 or earlier as evidenced by the scrapping of the 9.2" batteries in 1954, the non-manning of Forts Shannon, Bere and Dunree since soon after the Emergency on 2nd June 1946, in fact, and only slightly later Templebreedy and Carlisle.

Fort Mitchell remained artificially alive in many ways due to:

- 1) The integration of the FCA and PDF in 1959 which permitted Spike to maintain a functional 6" battery.
- 2) The holding of FCA college camps in Spike until 1966 when the bridge joining Haulbowline to the mainland rendered Spike inaccessible for supplies or people in large numbers except at high tides.
- 3) The location in Spike of naval ammunition reserves plus ships' stores.
- 4) The withdrawal to Spike of most stores of the other CDA installations.
- 5) The relocation of the military prison in the early 70s from the Curragh to Spike.

After the final shoot in 1969, the FCA complement used the No. 1

gun in Spike to fire the 1" aiming rifle in 1970 and exposed the searchlights during 1971 under the supervision of Sgt. Mossy Doyle, one of which failed almost immediately. Since then the personnel in Spike, both FCA and PDF, did not function as a Coast Defence Unit. However, each year the Depot Artillery School, Kildare, sent its young officer course to Spike for a training visit to study the characteristics of the CDA guns as they differed from field artillery pieces in a number of ways. This annual visit was discontinued in 1979.

The garrison in Spike has rendered military honours on a number of occasions to visiting dignitaries. The first such gun salute, as earlier mentioned, was fired in 1938. The inauguration of the Republic of Ireland Act and commemoration of the Easter Rising were saluted in April 1949. The final gun salute was fired in 1963 in honour of a visiting British flotilla commanded by Vice-Admiral Hamilton.<sup>1</sup> In between many other gun salutes were fired, one being for the Italian training sail-vessel, *Amerigo-Vespucci*, in August 1958. Most of these salutes were fired using the four '12-pounder' guns on the southern rampart and fittingly manned by CDA personnel.

The final act began in 1977 with the transfer of all CDA ammunition

to Spike and in March 1979 the CDA ammunition consisting of 6" and 12-pounder shells was shipped to the North Atlantic for dumping. Around the same time the cordite propellant charges were burned on the shoreline in Spike and finally on 1st September 1979 the CDA passed into history. It is indeed regrettable that the military authorities did not see fit to permit this branch of the artillery the traditional stand-down shoot signifying the withdrawal from service of a particular artillery piece.

Remaining in the service, PDF and FCA, are but a small number of people who were involved in CDA shoots and I would wish that this article may have revived some happy memories for those. To a large number of ex-CDA who may read this article, I would ask you to enlarge on this rather sketchy outline of the life and death of the CDA. Incidentally, some further detail will be included in a later article of the Cobh-based FCA unit as it was an integral part of the CDA from 1959 until 1979.

2. Vice-Admiral Hamilton was aboard the *HMS Clyde*, the supply/repair vessel attached to the flotilla. This tradition is to be (was) revived in June 1984 when IFAR Ballincollig will salute a visiting USN training vessel commanding officer.

## OFFICERS COMMANDING THE ANTI-AIRCRAFT ARTILLERY REGIMENT

1931-46	—	Lt. M. McCARTHY
1946-53	—	(Disbanded into CADRES)
1953-59	—	Lt.-Col. A. DALTON
1959-60	—	Lt.-Col. J. S. NOLAN
1960-63	—	Lt.-Col. HERLIHY
1963-69	—	Lt.-Col. D. BURKE
1969-75	—	Lt.-Col. T. WALSH
1975-77	—	Lt.-Col. S. TIMMONS
1977-78	—	Lt.-Col. A. DONNELLY
1978-79	—	Lt.-Col. D. O'KEEFFE
1979-81	—	Lt.-Col. C. O'HALLORAN
1981-83	—	Lt.-Col. J. BUNYAN
1983-84	—	Lt.-Col. M. McMAHON
1984-88	—	Lt.-Col. K. DOYLE
1988-	—	Lt.-Col. P. F. NOWLAN



# 40mm Bofors Gun

By TERRY J. GANDER

**W**ITHOUT a doubt the 40mm Bofors Gun has been one of the most successful air defence weapons of the twentieth century. First actively marketed during the early 1930s, it is still in production today, albeit in new forms, and is set fair to remain in active service during the early part of the twenty-first century. It seems very likely that it will be one of the few modern weapons to remain active for a life span of 100 years.

## Early Days

The story of the Bofors Gun is a long and involved one but it owes its origins to a request made by the Swedish Navy in 1925. That request was for a fully automatic air defence weapon that could guarantee a one hit, one kill performance against aircraft targets. At that time the accepted calibre for automatic air defence weapons was 20mm, but the 20mm projectiles could not carry sufficient explosive payload to provide that one hit, one kill guarantee. AB Bofors design personnel therefore decided to double the proposed projectile size to 40mm and designed a gun around the enlarged calibre. In such an arbitrary manner, the 40mm Bofors Gun was born.

In 1928 the Swedish Navy provided AB Bofors with financial support to develop their 40mm design and the first prototype was ready by 1930. That prototype looked nothing like the Bofors Gun of today for the barrel was surrounded by a jacket containing recoil springs but the loading mechanism at the rear would have been familiar to many gunners of future generations.

It took two years of development before the Swedish Navy got their first gun. By then the design more closely resembled the Bofors Gun of today. The barrel was water-cooled and the rate of fire was 120 to 140 rounds a minute from a barrel 56 calibres long (usually referred to as L60).

## Sales Success

Although it was not immediately apparent at that time the new 40mm Bofors Gun fitted into an air defence bracket that was waiting to be filled. Heavy anti-aircraft guns could tackle high altitude aircraft targets and machine guns were on

hand to counter the low-flying aircraft. There was nothing to take on aircraft flying at altitudes up to around 3000 metres. The performance of the new 40mm Bofors Gun was such that it fitted into this altitude band precisely and it was not long before many military planning authorities became aware of the fact.

By 1934 the Swedish Navy had started to take delivery of their first few twin-barrel Bofors Guns and in that same year the gun was placed on a land carriage. That was the Model 1934 from which the Model 1936, in many ways still the definitive Bofors Gun, was further developed. For land service the gun was fitted with a single air-cooled barrel but water-cooled barrels continued to be produced for naval use. Many naval mountings were produced in twin-barrel form.

The Model 1936 was soon in great demand. Orders flowed into the AB Bofors factory at Karlskoga in ever-increasing numbers. The Netherlands were an early customer for they had the foresight to order twin-barrel naval weapons as early as 1933. Poland followed, then Austria, Argentina, Belgium, Yugoslavia, Norway, Finland, Greece, France, Egypt, Hungary, Portugal, China, Peru, Thailand, and so on. The United Kingdom was

to become one of the largest pre-war customers, for no fewer than 410 guns had been ordered by them before September 1939. Most of these guns were destined for land use.

Many of these early customers took out licences to produce Bofors Guns and ammunition in their own facilities. Belgium, Hungary, Poland, and Norway were soon manufacturing their own Model 1936 guns and such was the ever-increasing demand for Bofors Guns that Poland and Hungary were soon exporting 'their' Bofors Guns to supplement the ever-increasing output from the AB Bofors works at Karlskoga.

## The War Years

The events of September 1939 put an end to the tidy production and export arrangements of many nations, including neutral Sweden. That did not interrupt the flow of guns to the major belligerents. As the German armed forces overran Europe they took over many of the licensed Bofors Gun production lines, including those in Norway and Poland, and kept them in production for the needs of the German armed forces, especially for the Luftwaffe air defence batteries. The Hungarian production lines remained in being until 1945 and



40mm Bofors L60 guns in training during the early days.





40mm Bofors L70 gun in action, Gormanston, 5 July 1989.

were even used to churn out 40mm anti-tank guns.

By 1940 Bofors Gun production was well under way in the United Kingdom and it was not long before the United States started their own massive production lines. The Bofors Gun had failed to attract the American armed forces before 1939 but by 1940 that was seen to be a mistake. Despite having already started production of a Colt 37mm air defence gun with a tactical application similar to that of the Bofors Gun, the American military authorities (Army and Navy) overturned their earlier decision and began to manufacture Bofors Guns by the thousand for naval and land use.

Between them the United Kingdom and United States produced enough Bofors Guns (and ammunition) to equip not only their own armed forces but those of their Allies as well. By 1945 the Bofors Gun was a universal weapon to be found in every theatre of war, both on land and at sea. The sight of the Bofors barrel aiming skywards, the gun with its distinctive loading system and gun layers operating their cranked aiming levers, all combined to make the Bofors Gun a virtual symbol of the Allied war effort. Even the Soviet Union entered the Bofors Gun story by producing a virtual copy in 37mm calibre. In the Far East the Japanese attempted to produce their own copies but the

war ended before they were able to commence mass production.

#### Modifications

By 1945 the Bofors Gun had taken on new forms. The land carriage had been modified for transport in aircraft and gliders, multi-barrel naval mountings had been devised (one British naval mounting, the Mark 9, carried no fewer than six barrels) and new and more efficient fire control systems had been introduced. Improvements to naval mountings were many and various, including stabilised mountings and powered laying arrangements. Numerous alterations were made to guns, carriage and ammunition to simplify and speed up manufacture for mass production.

The United States produced a whole array of self-propelled mountings for Bofors Guns some of which, the M42 'Dusters', remain in service to this day with nations such as Austria, Greece and Taiwan. When the British Army landed in Normandy in June 1944 they took with them numerous Bofors Guns mounted on various self-propelled truck and tank chassis to provide mobile air cover for the advancing Allied armies.

#### Enter the L70

By 1945 the design staff of AB Bofors had been far-sighted enough to deduce that the next generation

of combat aircraft would prove to be too fast and evasive for the venerable Model 36. The result was a new gun, still based on the Model 36, but with a longer L70 barrel and a rate of fire increased to 300 rounds a minute. The laying system was also up-dated. In place of the two gun-layers with their familiar cranked handles, a single layer now used a joystick arrangement to aim the gun using a power control system. The ammunition was enlarged at the same time to improve performance on target. The end result was a new weapon system, the Bofors L70.

The Bofors L70 was as great a technical and sales success as the original L60 had been, but large numbers of the older L60 guns remained in use and continue to provide good service to this day.

In its turn the Bofors L70 underwent a gradual uprating of its capabilities and efficiency. Electronics entered the air defence scene and L70 were coupled to centralised air defence radars and other fire control enhancements. The point was eventually reached where all the various fire control elements such as a tracking radar, a laser rangefinder and other optronics could be mounted on the gun carriage itself. By that time, the late 1960s, proximity fuzes had been developed to the point where they could be accommodated in a 40mm projectile, so these too were added



to the Bofors L70 technical inventory.

The result was the BOFI, an air defence weapon that remains one of the most potent and efficient of all air defence gun systems available today. On the BOFI a tracking radar can find and track aircraft targets, a laser rangefinder can accurately determine target range and an optronic sight is provided. All these elements are coupled to an on-board computer to enable a BOFI gunner to efficiently engage fast and low-flying aircraft targets under virtually any conditions. The chances of a target kill are considerably enhanced by the use of Proximity-Fuzed High Explosive (PFHE) projectiles with their lethal payload of small tungsten pellets packed around the explosive payload.

### Trinity

From BOFI came TRINITY on which all the assets of BOFI are taken to a new generation. First revealed in 1984, TRINITY is the Bofors Gun taken to its virtual ultimate and is a true weapon system on which the gun, fire control and ammunition are combined to produce an air defence weapon system capable of engaging any air target at ranges up to 6000 metres, including guided missiles approaching head-on.

Virtually every aspect of the Bofors Gun has been improved and up-rated. The rear-mounted magazine holds up to 100 rounds, the rate of fire has been increased to 330 rounds a minute, the ammunition has been further increased in payload (and potency) and the proximity-fuzed rounds have been developed to the point where the fuze can be set to one of several operating modes (proximity, point impact, time, etc., or various combinations) as the round is actually fed into the chamber.

TRINITY fire control can be on- or off-carriage and includes video target tracking as well as laser rangefinding and tracking radar. Use can also be made of off-carriage fire control systems where they are available.

Such is the advanced state of the TRINITY fire control system that target engagements are virtually automatic and attacking targets can be engaged by individually-aimed shots that can be programmed to burst around the target in pre-determined patterns.

### The Future

TRINITY is being produced in naval and self-propelled forms but it is not the only development of the Bofors Gun currently in progress. The L70 Bofors Gun is to be used as an armoured vehicle weapon for the future Combat Vehicle 90 (CV-90), a new family of armoured vehicles to equip the Swedish Army in the 1990s and into the twenty-first century. For this application an Armour-Piercing Fin-Stabilised Discarding Sabot (APFSDS) projectile for use against armour has been developed. It is capable of defeating well over 110mm of armour.

For the combat vehicle installation the magazine, holding 24 rounds, is located under the gun. One of the rounds fired is a Multi-purpose Tracer (MPT) which, when fired against 'hard' targets, employs a pyrotechnic device to delay the ignition of its incendiary and high explosive payload until it has penetrated into the target's interior. The MPT round was originally developed for the L70 air defence gun.

Thus the new vehicle gun, TRINITY and BOFI are set to carry the Bofors Gun into the twenty-first century. But beneath their modern design enhancements and novel applications the old Model 1936 Bofors Gun can still be discerned in its original form. The designers who devised the Model 1936 produced a gun that is still good to this day.

All over the world there are still many veteran L60 and L70 guns in various guises that were so well made they will last for years yet. Many are still in good condition and capable of giving a good account of themselves if they have to. By equipping them with modern electronic-based fire control systems and powered mountings, modifying the gun mechanisms to increase the rate of fire, and using modern ammunition such as PFHE and MPT, even the venerable L60 Bofors Gun can be converted into an air defence weapon system capable of engaging modern aircraft targets with high anticipation of success. AB Bofors are offering to enhance old L60 and L70 guns to modern standards under the general programme name of Retro Tech.

Many armed forces have already taken the opportunity to spend some of their limited funding on such a course of action and thus now have in-service modern air defence weapons at a fraction of the cost of many of the more recent air defence systems that cost enormous amounts to procure and maintain. It is yet another example of the overall excellence of the basic 40mm Bofors Gun design.

---

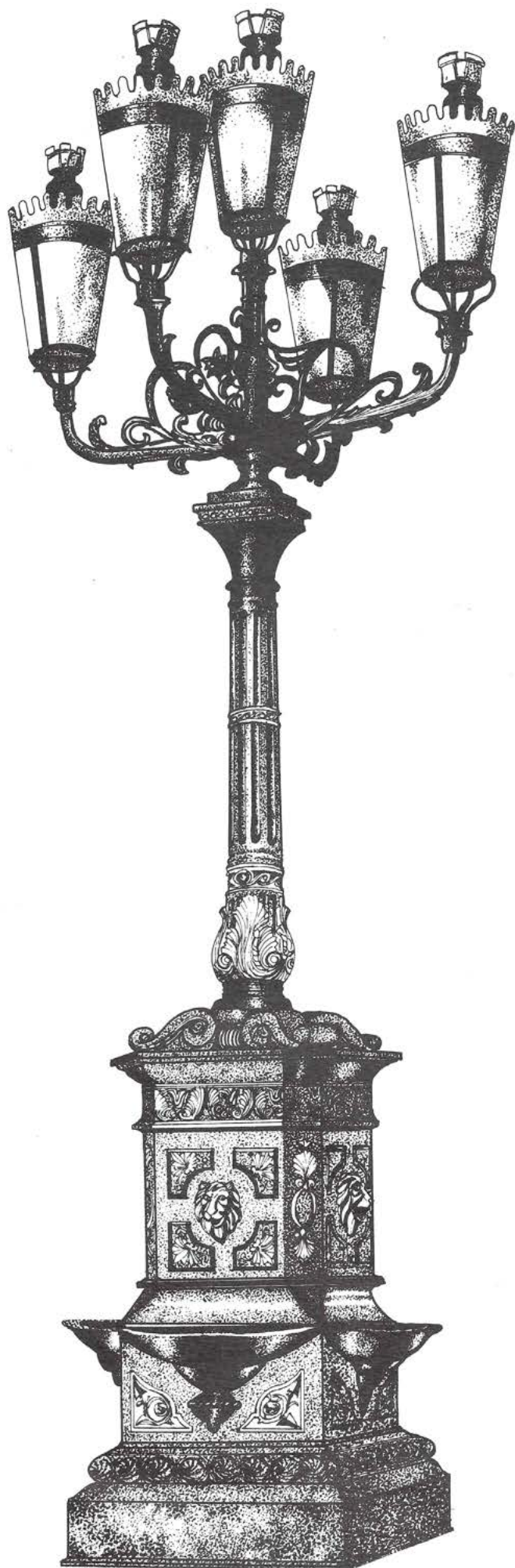
*Terry J. Gander is the author of the 40mm Bofors Gun published by Patrick Stephens Limited.*

---

**L60 Bofors being fired by 2 AD Bty, 5 July 1989.**







# ONE OF OUR EARLIEST CONVERTS

Originally lit by gas  
the Five Lamps\*  
were converted to  
electricity in the late  
1930s. Today the Five  
Lamps are illuminated  
by high pressure sodium  
lamps bringing to this  
century-old monument  
the most advanced  
lighting technology.

Electricity brings living to life.



**ELECTRICITY SUPPLY BOARD**  
BORD SOLÁTHAIR AN LEICTREACHAIS

\*The Five Lamps monument is one of  
Dublin's famous landmarks. This fine  
example of decorative cast iron was  
erected c.1870 as a memorial to a  
Galwegian, General Henry Hall.



# 1 Air Defence Regiment in the 80s

By LT. R. COFFEY

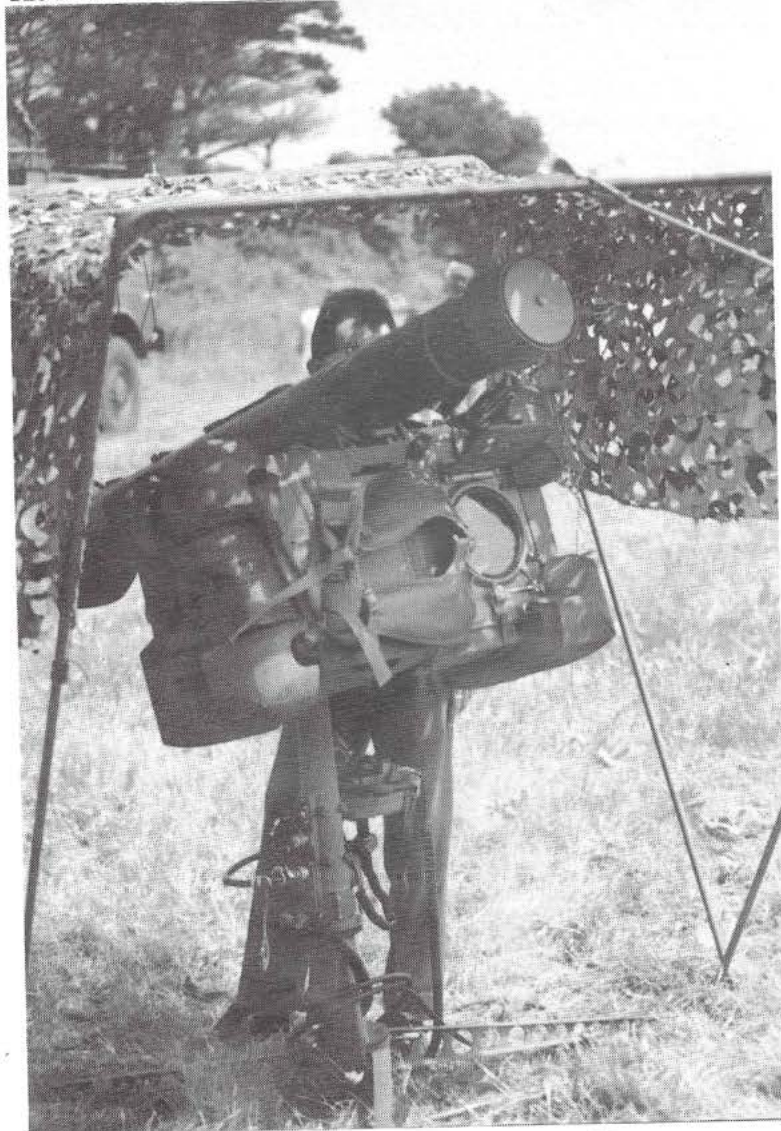
**T**HE 1 Air Defence Regiment in the 80s, while it maintains the same excellent standards of firing soldering, comradeship and esprit de corps, differs very much in its operational functions from what was in operation in its early days in 1931. The 1 AD Bty under the command of Capt. F. O'Higgins is an active operational unit, involved in various internal security exercises on a day to day basis. Training on the guns and equipment is carried out on a continual basis throughout the year, under the instruction of Bty. Sgt. Fortune and Lt. Ryan who is tasked with the job of supervising the training within the unit. Personnel are continually being trained on the 40 mm. Air Defence guns the L60 and L70 and our annual firing practices are carried out in Gormanston Camp with the assistance of the Air Corps. The introduction of highly sophisticated equipment in

recent years has resulted in a considerable increase in training requirements for Officers, NCOs and Gunners.

The Giraffe is one of the most sophisticated pieces of equipment in the Defence Forces today. Giraffe is a mobile search radar system which provides up to nine firing units with target data in the form of speed bearing and position. Its range is up to 40 kilometres, and is operated by four personnel. In recent years the regiment has also been equipped with a state of the art Surface to Air Missile system namely R.B.S. 70. The R.B.S. 70 is fully integrated with the Giraffe early warning system. The 1 AD Bty. now consists of a light troop of guns and a missile troop providing very effective low level air defence.

R.H.Q. and 1 AD Bty. were heavily involved in organising and participating in events during 1989

**The RBS 70 surface to air missile system.**



**The Giraffe mobile search radar.**

to celebrate the 30th anniversary of the integration of the regiment. In conjunction with the FCA ranks they organised a very successful Air Defence Demonstration at Gormanston AD Range on the 5th of July 1989. The 1 AD Bty also provided an Air Defence Display at the Air Spectacular in Baldonnel on the 13th of August 1989. This proved to be a highly interesting static display with approximately 20,000 spectators viewing the various equipment on display. The Bty also looks forward to participating in the Artillery Corp Day on 16th September 1989 being held in Magee Barracks, Kildare. The venue this year has specifically been selected to coincide with the 50th anniversary of the Barracks and the 30th anniversary of the Air Defence Regiment in its present form.

The Officers, NCOs and Gunners are proud to be associated in what has been achieved by the AD personnel since its foundation in 1931 and will continue to improve its expertise and maintain its fine tradition in the years to come.





Curragh Command 3<sup>★</sup> Course  
June - Aug 1988

The 1 Air Defence Regiment Three Star Course with Lt. R. Coffey, Pl Comd, Comdt. B. O'Connor, 2IC of the regiment, and Sgt. J. Brennan, Pl Sgt, on completion of course in August 1988.

#### ACKNOWLEDGEMENTS

I would like to take this opportunity to acknowledge my appreciation and gratitude to all the people who at various stages assisted me in compiling together this commemorative magazine to celebrate the thirtieth anniversary of the integration of the FCA with the PDF units. It would not be possible for me to mention everyone, however I must give special thanks to the following patrons who played very significant parts.

- ★Mrs. D. Dempsey, the typist in Magee Bks, Kildare, who had great patience in typing all the articles.
  - ★Mr. L. O'Keeffe, the switchboard operator who gave me great assistance in contacting various people.
  - ★Lt.-Col. E. Barry who provided me with accurate information of the early years.
  - ★Sgt. J. Madden for all his excellent assistance and looking up relevant information for me.
  - ★Capt. M. Smyth for his patience and guidance throughout the past six months.
  - ★Capt. V. Laing, in Military Archives, for his assistance in the initial stages.
  - ★Lt. J. Ryan who *relieved* me of all those duties to allow me to continue my research throughout the period.
- In conclusion we are all grateful to our advertisers who generously sponsored advertisements to cover the cost of production and a special thanks to Johnny Quinlan of the Leinster Leader who provided us with professional and extensive advice. On a personal note I feel privileged and honoured to be associated with this magazine and as the regiment itself passes this milestone I look forward with confidence to the next thirty years.

R. COFFEY, Lt. (Editor)

The views expressed in the articles in this magazine are those of the authors of the articles.

Editor: LT. RICHARD COFFEY

Copyright to Officer Commanding 1st Air Defence Regiment.

Printed by the Leinster Leader Ltd., Naas.





Lt.-Col. Nowlan congratulates Gnr. Martin in Gormanston for his performance in the all-Army rifle competition.



Gnr. Gorry, 1 AD Bty, training on the RBS 70, Gormanston, July 1989.



The 1 AD Bty falling plates team in action in Gormanston, July 1989.



The .303 rifle team from 1 Ad Bty, Kildare, in Gormanston range, July 1989.



Lt.-Col. Nowlan, Lt. Ryan and Comdt. O'Connor keep a watchful eye on the Drogue in Gormanston on 5 July 1989.



5 HMG being fired in the AD role by the 3rd Bn on 5 July 1989.