

Vote 20 - Garda Síochána

19. Analysis of the Cost and Usage of Air Support

Introduction

The Garda Air Support Unit (GASU) has been operational since September 1997. It operates a twin engine helicopter and a fixed wing aircraft out of Casement Aerodrome, Baldonnell. The unit is staffed by Gardaí who have responsibility for the operations of the unit, while the Air Corps are responsible for maintenance, hangarage, pilotage and flight safety which are governed by military regulations.

Audit Objectives and Scope

The purpose of the audit was to undertake an analysis of the cost and usage of the helicopter and fixed wing aircraft from September 1997 to December 2000. The key objectives of the audit were to:

- Examine the background to the purchase of both aircraft
- Establish and analyse the initial capital cost
- Establish and analyse the ongoing running costs of both the GASU and the Air Corps
- Establish and analyse the usage of the assets 1997 – 2000
- Compare actual costs and actual usage with the budgeted figures
- Identify the procedures employed to establish, analyse and maximize the effectiveness of the usage of the assets in support of Garda operations.

Background

Historically the Air Corps have provided air support to the Garda Síochána. From 1993 to 1995, the Air Corps flew an average of 680 hours per annum in support of Garda operations. This support was however limited to daylight hours and to favourable weather conditions due to the type of aircraft available. Tactical response by the Garda Síochána to serious crime was constrained by these limitations.

In May 1995, the Minister for Justice, Equality and Law Reform (the Minister) established an Inter-Departmental Working Group (“the Group”) to examine all aspects of air support for the Garda Síochána and to determine how best to provide the Force with the most effective air support. The Group comprised representatives of the Departments of Justice, Equality and Law Reform (Department of Justice), Defence and Finance, the Garda Síochána and two representatives from Aer Lingus (the latter to provide the necessary technical expertise).

In March 1996, the Group, in a report to the Minister entitled “Report on Air Support for the Garda Síochána” indicated that there were significant limitations in the existing arrangement with the Air Corps. These resulted from the lack of suitable aircraft to provide continuous airborne surveillance in all weather conditions and during the hours of darkness. The Group noted that 40% of indictable crimes and 48% of robbery, armed robbery and burglary occurred during the hours of darkness.

The Group concluded that:

- Air support was a vital resource for the Garda Síochána in implementing its strategies to combat crime particularly organised crime gangs, drug trafficking, paramilitary activity and serious mobile crime

- The capability to operate outside daylight hours and in unfavourable weather conditions was a crucial element of Garda tactical requirements and
- The most effective means of providing the Garda Síochána with such air support was to establish a dedicated air support unit with twenty-four hour capability.

Government Approval

The Group recommended the establishment of a dedicated Garda air support unit piloted by the Air Corps but with operational control and policing responsibility resting with the Garda Síochána. It concluded that the Unit should be set up with a helicopter and a fixed wing airplane. A single engine helicopter was recommended. The Group was undecided as to whether the fixed wing plane should be single or twin engine. It felt that decision could best be taken when determining the final tender specifications or possibly during the tender evaluation process.

The Group estimated the cost of operating the Unit from 1996 to 2000 at £3.79m *viz.* initial capital costs of acquisition for aircraft and mission equipment £2.62m with operating costs over five years of approximately £1.17m. The Group reported that the equivalent estimated cost of an independent unit operated by the Garda Síochána alone would be £5.69m *viz.* £3.62m for capital costs of acquisition, hangar and office accommodation and operating costs of approximately £2.07m.

The Air Corps had indicated it would be willing to provide air support with twenty-four hour capability if the appropriate aircraft were available and could provide back-up in terms of additional aircraft if operational needs so demanded.

The Minister, in a Memorandum to Government dated 17 April 1996, sought approval to establish a dedicated Garda Air Support Unit as recommended by the Group. The Minister for Defence fully supported the proposal and confirmed that the Air Corps would be available to operate the air support unit as recommended in the Report of the Inter-Departmental Group. The Minister for Finance had no objections in principle to the proposal, provided that the financial and staff resources of the Garda Síochána required to run the unit would be provided from existing agreed allocations for the Justice group of Votes.

On 23 April 1996, the Government approved the establishment of a dedicated Garda Air Support Unit as recommended by the Group. Approval was given for the purchase of two aircraft with twenty-four hour capability, namely one helicopter for observation/patrol duties at an estimated capital cost of £1.2m and one fixed-wing airplane for technical surveillance purposes at an estimated capital cost of £1.35m.

Purchase of Aircraft

A Technical Subgroup drawn from the Group and from the Air Corps prepared draft tender specifications for both aircraft. In light of these draft specifications, and previous consideration of Garda operational requirements, including the balance of safety and cost, the Group decided to seek tenders for both single and twin engine aircraft. The Group also took account of changed Garda operational requirements for increased offshore air support capability. The Garda authorities were advised, after tenders had been sought, that the Air Corps would not operate single engine aircraft at night, over urban areas or over water. It was also established that the majority of other Police Air Support Units in the U.K. and Europe were using twin engine aircraft and intended to phase out the use of single engine aircraft.

In view of the perceived requirement for sensitivity and secrecy regarding operations of the Garda Síochána

and the exacting nature of the technical specifications in the tender documentation, the Group decided that the proposed contracts fell within the ambit of the EU Supplies Directive 93/36/EEC permitting the use of a restricted tender procedure. On 18 July 1996 the Department of Justice invited tenders for both aircraft from a restricted list of manufacturers.

The tenders received for each aircraft were ranked according to tendered contract price. Five tenders were received for the fixed-wing airplane. The two lowest tenders were rejected because they were for a single engine airplane. The next lowest – a twin engine plane – was recommended at a contract price of £2, 382, 207 excluding VAT. Five of the tenders received for the supply and delivery of the helicopter were for a single engine design, with five others proposing twin engine craft. The lowest tender for a twin engine design (third lowest overall) was recommended at a contract price of £2, 025, 672 excluding VAT.

On 15 November 1996, the Department of Justice sought sanction from the Department of Finance to award the contracts to the recommended firms. The Department attributed the substantial increase in purchase price of each aircraft when compared to the original approved estimate to the

- subsequent decision to select twin engine aircraft
- reality of current market prices that emerged only on receipt of the tenders
- exclusion of any allowance for VAT in the original estimate of cost.

On 28 November 1996, the Department of Finance sanctioned expenditure of up to £5.56m including VAT for the establishment of a dedicated Garda Air Support Unit (GASU).

Separate contracts were entered into by the Minister in December 1996 for the supply of one equipped BN2T – 4S Defender 4000 Airplane at a cost of £2,882,470 including VAT and one equipped AS 355N Ecureuil Helicopter at a cost of £2,451,064 including VAT

The increase in the capital costs associated with the establishment of the Garda Air Support Unit are summarised in Table 19.

Table 19 Increase in costs of Garda Air Support Unit

	Fixed Wing £m	Helicopter £m	Ancillary £m	Total Cost £m
Government approved	1.35	1.20	.07	2.62
Department of Finance sanctioned				5.56
Final Contract Price	2.88	2.45	.33	5.66

Garda Air Support Unit

The stated purpose of the GASU according to its Mission Statement is to provide a patrol / response / surveillance capability, both overt and covert, in support of operational ground units of the Garda Síochána³.

The official operation of both aircraft commenced on 1 September 1997. A fully equipped building has been purpose-built at Casement Aerodrome and has been occupied by the Unit since 18 June 2000.

The GASU has a staff complement of four Sergeants and twelve Gardaí under the command of a Superintendent. Nine Air Corps pilots are assigned to the Unit: five pilots to the fixed-wing airplane and four

³An Garda Síochána (1997) HQ Directive 155/97

pilots to the helicopter.

Requests for the services of the GASU are made directly to the base at Baldonnell or via the Garda Communications Centre, Harcourt Square, Dublin. GASU staff monitor Garda Communications Channels and may deploy an aircraft to any incident that would benefit from GASU assistance. A purpose built computer system was installed in the GASU building to record and monitor all such operations carried out by the aircraft.

At present, the GASU operates an immediate response from 7am to 1am daily, with helicopter response times of 2 to 5 minutes to airborne and the fixed wing airplane 10 to 15 minutes to airborne. From 1am to 7 am, the Unit operates an on-call service with a 40-minute response time to airborne for both aircraft.

Garda Operational Costs

The Garda Síochána is responsible for the salaries and allowances, training and subsistence costs of the Gardai assigned to the GASU. These costs for the period September 1997 to December 2000 are shown in Table 20.

Table 20 Garda Staff Costs

Cost	1997⁴	1998	1999	2000
	£	£	£	£
Salaries	172,481	517,443	674,332	689,250
Training	-	6,000	9,800	2,790
Subsistence	10,175	9,037	13,721	9,789
Total	182,656	532,480	697,853	701,829

Air Corps Operational Costs

The Air Corps bear the costs of pilots, technical support, repairs and maintenance and fuel for both aircraft. These costs, for the period September 1997 to December 2000, provided by the Department of Defence, are shown in Table 21

Table 21 Air Corps Costs

Cost	1997	1998	1999	2000
	£	£	£	£
Pilots Salaries	141,121	244,523	303,347	310,793
Technical Support Salaries	119,898	505,320	622,933	542,467
Training	58,560	39,945	67,643	14,800
Repairs and Maintenance	61,230	679,101	510,210	559,089
Fuel	55,326	109,220	98,917	94,701
Total	434,135	1,538,164	1,603,050	1,521,850

It should be noted that there were significant variations between budgeted and actual expenditure in respect of the combined costs of repairs and maintenance and fuel over the years 1997-2000 as shown in Table 22.

⁴ From 1 September 1997 to 31 December 1997

Table 22 Total Air Corps Maintenance and Fuel Costs

Year	Budget⁵ £	Actual £
1997	125,000	116,556
1998	275,000	788,321
1999	275,000	609,127
2000	275,000	653,790
Total	1,100,000	2,167,794

Total Operational Costs

The operational costs of providing the Garda Air Support Unit over the years 1997-2000 are summarised in Table 23.

Table 23 Total Operational Expenditure

Cost	1997 £	1998 £	1999 £	2000 £	Total £
Garda Staff	182,656	532,480	697,853	701,829	2,114,818
Air Corps Staff	319,579	789,788	993,923	868,060	2,971,350
Maintenance	116,556	788,321	609,127	653,790	2,074,862
Total	618,791	2,110,589	2,300,903	2,223,679	7,253,962

GASU Operations

The unit supports Garda operations such as Crime Prevention Patrols, Intelligence Gathering, Anti-drug Operations and Traffic Management. A computer system installed in the GASU headquarters at Baldonnel records and monitors all GASU operations. Both flight details and task details are recorded. Information in respect of downtime, numbers of flights/tasks undertaken, hours flown and a breakdown of some outcomes are given in respect of each aircraft in Table 24 and Table 25.

Table 24 Airplane Flights, Tasks and Results

	1997	1998	1999	2000
Hours to be covered per annum ⁶	2,920	8,760	8,760	8,760
Downtime	513(18%)	1,681(19%)	2,688(31%)	3,202(37%)
Hours Available	2,407	7,079	6,072	5,558
Hours Flown	323(13%)	971(14%)	831(14%)	455(8%)
Average Hours Flown per Day	3.5	2.7	2.3	1.3
Flights/Tasks Undertaken	208	576	479	331
Direct Arrests	3	2	0	7
Assisted Arrests	2	16	10	0
Missing Persons Recovered	1	1	0	2
Vehicles Recovered	1	7	0	4
Property Recovered	£8,751,500	£4,936,200	£2,800,000	£9,500

⁵ Based on the estimate presented to Government on the basis of single engined aircraft and annual usage of approximately 1250 hours

⁶ Number of days per year by 24 hours.

Table 25 Helicopter Flights, Tasks and Results

	1997	1998	1999	2000
Hours to be covered per annum ⁷	2,920	8,760	8,760	8,760
Downtime	286(10%)	1,776(20%)	1,810(20%)	2,515(29%)
Hours Available	2,634	6,984	6,950	6,245
Hours Flown	376(14%)	930(13%)	884(13%)	763(12%)
Average Hours Flown per Day	4	2.5	2.4	2
Flights/Tasks Undertaken	512	1,277	1,295	1,163
Direct Arrests	8	79	114	134
Assisted Arrests	53	94	105	93
Missing Persons Recovered	3	5	4	8
Vehicles Recovered	45	90	62	52
Property Recovered	£221,000	£379,950	£1,333,750	£239,800

Down Time

The main reasons for downtime on both aircraft are Garda Equipment Failure, Mechanical Defect, Re-Fuelling, Servicing, Technical Equipment Failure, Weather Conditions and No Pilot available. The most significant downtime is caused by servicing needs of both aircraft, which has averaged 64 occurrences and 1220 hours for the airplane and 76 occurrences and 1479 hours for the Helicopter for the years 1999 and 2000.

Task Denials

Requests for assistance are reviewed by the Sergeant-in-charge of the GASU from an operations point of view and by the Air Corps from a safety point of view. It is not possible for the GASU to respond to all requests. A record is maintained of the number of task denials and the reasons for the denial. Table 26 gives details of the task denials for both Aircraft for each year.

Table 26 Task Denials

Reason	1997	1998	1999	2000	Totals
No Pilot	2	2	1	0	5
Servicing	4	5	14	15	38
Time Lapse	1	6	13	12	32
Task Inappropriate	5	23	24	19	71
On Standby	1	0	0	1	2
Weather Conditions	4	32	13	22	71
Area not Contained	1	2	8	9	20
Insufficient Information	2	3	12	10	27
Aircraft Mechanical Defect	0	4	5	6	15
Higher Priority Task	0	12	13	8	33
ATC ⁸ Refused Access	0	2	1	5	8
Incident Terminated	0	1	1	0	2
Garda Equipment Failure	0	1	1	2	4
Air Corps Directive 12/99 ⁹	0	0	14	18	32
Other	0	6	10	8	24
Total Tasks Denied	20	99	130	135	384
Total Tasks Undertaken	720	1853	1,774	1,494	5,841
Tasks Denied as % Tasks Undertaken	2.8%	5.3%	7.3%	9.0%	6.6%

⁷ Number of days per year by 24 hours.

⁸ Air Traffic Control

⁹ Directive on night flying pursuant to Air Accident Report.

Weather Conditions

The Department of Defence points out that all flying operations are subject to weather to some degree and, therefore, despite the Working Group's analysis of Garda requirements, the provision of continuous airborne surveillance in all weather conditions is not possible

Training and Safety

The Air Corps are responsible for the training of pilots assigned to the GASU while the Garda Síochána are responsible for the training of observers assigned to the Unit. Initial pilot and observer training took place prior to the official commencement of operations.

As a result of an air traffic incident over Co. Clare involving the helicopter on 12 May 1999, the Air Accident Investigation Unit of the Department of Public Enterprise carried out an investigation. Its report of the 26 August 1999 recommended *inter alia* that

- The Air Corps should suspend GASU helicopter night operations in rural areas with immediate effect until GASU pilots complete an effective programme of extra night flying. (SR 30 of 1999)
- The Air Corps should conduct an intensive course of night flying to achieve at least a minimum of 100 hours for each GASU helicopter pilot and those marked for GASU in 2000. This course should commence immediately, with a target date of completion by end of March 2000.

The need to provide adequate levels of training has given rise to disparate proposals

- The leasing of an AS355N helicopter recommended in the report of the Air Accident Investigation Unit of the Department of Public Enterprise
- Citation by the Minister for Justice of training of specialised Garda units as one of the arguments in favour of the purchase of a second Garda helicopter.
- An announcement by the Minister for Defence in February 2000 that an AS 355 helicopter was to be acquired for the Air Corps as soon as possible for the purpose of pilot training in connection with the operation of the GASU
- The Department of Justice raised the possibility of paying for Air Corps pilots to get night training abroad but this was not pursued because the Air Corps/Defence favoured purchasing or leasing a helicopter specifically for training.

In practice minimal use has been made of either existing aircraft for pilot or observer training. Only 104 flight hours have been recorded for pilot training. This represents less than 2% of hours flown and less than 0.3% of hours available. The hours used for observer training are less still totalling 17 over the 4-year period.

The Department of Justice has informed me that while the Gardai have offered to release the existing helicopter to the Air Corps for night training between 1 a.m. and 6 a.m., this offer has not been taken up because the hours were not suitable. The Air Corps advised the Department in June 2001 that neither the existing nor ordered helicopter could be used for night training as while both can be fitted with dual controls, they do not have dual instrumentation.

Second Helicopter

The Minister submitted a Memorandum to Government on 5 November 1998 seeking approval for the purchase of a second Helicopter for the GASU. Arguments advanced in favour of the proposal included

- making good downtime due to scheduled servicing of the first Helicopter estimated at up to 60 days a year.

- provision of air cover outside the Dublin Metropolitan Area
- provision of increased traffic control capability
- provision of training.

On 10 November 1998 the Government approved the acquisition of a second twin engine Helicopter with a 24 hour capability for the GASU at a total cost of approximately £2.54m. A tender competition under EU procurement regulations was held in January 1999. Four tenders were received from three companies including a tender for the supply of an AS 355 helicopter akin to that delivered in 1997. A Technical Committee that included a representative of the Air Corps and a Financial Committee reviewed the tenders. Both Committees recommended the purchase of an EC 135 Helicopter on the grounds that it was quieter and more versatile than the AS 355, cheaper to maintain and a more modern aircraft.

Department of Finance sanction and Government Contracts Committee approval was received in June 1999 for the purchase at a cost of £3.5m.

Air Corps and Garda representatives evaluated the proposed craft at the suppliers in August 1999 and following this evaluation the GASU Garda representatives assured the Department of Justice that there were no major difficulties with signing the contract.

A contract was signed on 6 August 1999 and a down payment of approximately £204,000 was made to the company. The contract stated that the Avionics and Mission Equipment were to be agreed by 6 September 1999 in order to assure delivery in March 2000.

This deadline was not met, as there was a difference of opinion between the Air Corps and the Garda Síochána on the need for the inclusion of certain features including an autopilot in the EC 135. The tender submitted had not included an autopilot although the specification document agreed at Technical Subcommittee in December 1998 provided for one. The company by letter in October 1999 stated that it had halted production work on the Garda EC 135 and that delivery would be in November 2000 if agreement could be reached on the avionics and the autopilot. The Report of the Air Accident Investigation Team had recommended that all future helicopters should be fitted with a Cockpit Voice Recorder (CVR) and a Flight Data Recorder (FDR). The Department of Justice informed the Department of Defence in November 1999 that the new Helicopter would be fitted for such equipment.

In December 1999 the Department of Defence wrote to the Department of Justice appending a document in which the General Officer Commanding (GOC) of the Air Corps set out his views on the purchase of the EC 135 in some detail. These included

- The EC 135 is not the most suitable aircraft for GASU operations on the basis of its single engine performance capability, the lack of flight evaluation, lower fuel endurance than other aircraft and it does not have the same range and radius of action as other aircraft in its class.
- The operation of two different Helicopters by the Garda Síochána poses difficulties in economy of scale from a maintenance and flying point of view.
- Training of pilots and maintenance staff will have to be duplicated.
- There will be inefficiencies and a need to hold two different sets of spare parts.
- Rostering of pilots and maintenance staff will be extremely difficult.

- It would duplicate the current difficulties being experienced of pilot ratings.
 - The purchase of the EC 135 should be discontinued in favour of a second AS 355.
- Notwithstanding these views the GOC concluded that the EC135 could complete the GASU mission. On this basis the Department of Defence accepted that it would be appropriate to proceed with the purchase of the EC135 fitted with an autopilot. A second payment for the helicopter of £2.096m was made in December 1999.

At a meeting in February 2000 most of the issues relating to the fitting of flight equipment to the Helicopter were resolved between the Garda Síochána and the Air Corps. The Department of Justice then sought a new delivery date from the supplier. The indications were that the Helicopter would be built by October 2000. It would then have to be fitted out with the Garda equipment. The Department confirmed to the company in March 2000 the specification of optional equipment, avionics and mission equipment to be fitted to the EC 135. The Department of Finance sanctioned an additional amount of £500,000 in May 2000 for the increased cost of the EC 135 due to the inclusion of an autopilot and digital avionics.

The EC 135 was delivered to a fitting out contractor in December 2000. It is expected that it will not now be delivered to the GASU before September 2001 at the earliest. The estimated cost to date of the EC 135 is £4m. The Garda Síochána and the Air Corps have not yet concluded an operation, servicing and hangaring agreement for the new craft.

Conclusions

- The decision to opt for twin engine craft was not taken until after tenders had been received which suggests that the requirement, arising from evolving safety concerns, may not have been properly researched before then. This decision led to a significant increase in costs over original estimates.
- Full coverage by helicopter has not been achieved since September 1999 due to failure to train for night flying. Overall, the integration of training and operational needs does not appear to have been managed effectively to-date.
- Operational costs, and, in particular, repairs, maintenance and fuel costs have been far in excess of what was envisaged.
- The Air Corps put forward serious cost and operational implications of having two different types of helicopter after the contract for the second helicopter was entered into.
- The second helicopter has not been delivered two years after a contract for its supply was signed. It is not possible to say if this delay was as a result of difficulties in agreeing the type of equipment to be fitted
- The Department of Justice and the Department of Defence have been unable to come to agreement on the role of the Air Corps in the operation of the new craft. The arrangements whereby the Air Corps would fly and maintain this craft are currently being reviewed by both Departments.
- Split responsibility for the operation of the unit has not been conducive to the effective and efficient delivery of the service and has impacted adversely on its financial management.

Vote 25 - Environment and Local Government

20. The Dublin Transportation Office Short Term Action Plan

Introduction

The Dublin Transportation Office (DTO) was established, as a corporate body, under the Local Government Services (Corporate Bodies) Act 1971 to co-ordinate and monitor the implementation of the Dublin Transportation Initiative strategy and to make recommendations for an implementation programme. The business of the Office is conducted by a Steering Committee which is representative of the land-use and transportation agencies in the Greater Dublin area and has a key role in overseeing the successful implementation of all aspects of the strategy. It does not have statutory powers to enforce delivery of programmes but depends on voluntary arrangements and consensus to pursue its mandate.

In September 1998, the DTO published a transportation review which concluded that, unless the imbalance between the use of private motor cars and alternative modes of transport¹⁰ in Dublin was addressed by immediate, short-term measures, the Greater Dublin area would experience a deterioration of travel conditions into the future.

The DTO estimated this imbalance to be of the order of 49,000 trips in the Greater Dublin Area, including 12,000 city centre trips, and set the target to transfer a significant proportion of this imbalance to alternative modes of transport.

In conjunction with this transportation review, and in association with the relevant agencies the DTO prepared a Short-Term Action Plan 1998-2000 ("the Plan") with the objective of addressing the deteriorating situation.

The Plan set out a series of co-ordinated actions required from several public sector agencies. The DTO's Steering Committee, in consultation with these agencies, set certain targets and set up an Action Plan Monitoring Committee ("the Monitoring Committee"), to monitor its implementation.

The role of co-ordinating/monitoring progress under the Plan vests in the DTO while direct responsibility for delivery of particular elements in the Plan vests in the various agencies – in particular, local authorities in the Dublin region and companies in the CIE group.

The Department of the Environment and Local Government ("Environment") provides the majority of traffic management funding for the DTO and 50% of its general administration budget¹¹. Local Authorities also contribute funds to traffic management in their own right.

The Plan proposed action in the following areas

- Bus
- Suburban Rail

¹⁰ Principally bus, train and cycling

¹¹ The balance of DTO administrative funding is provided by CIÉ and the local authorities (the four Dublin authorities –Dublin Corporation, South Dublin, Dún Laoghaire- Rathdown and Fingal County Councils and Kildare, Meath and Wicklow County Councils)