

INVERNESS-SHIRE CONSTABULARY

Police Helicopter Experiment

at

Kinloss

21st February - 20th March, 1968

REPORT

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Inspector M. J. Macleod

FACSIMILE

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INTRODUCTION

Today, it is an accepted fact that no group, society or nation, can afford to stand still. Indeed, it would be quite impossible to do so in most spheres of life. We must either slip backwards or stride forward and, when faced with these alternatives, man as an individual almost naturally elects to slip back a little but society propelled by some indefinable force, strives on forward unto the unknown. Thus we have come to expect that our work as Police Officers is in the midst of an ever changing society. It is in this "ever changing" and so called affluent society, that the Police Service stands faced with increasing crime and the challenge to change and improve its methods and still keep within the limits of its primary objectives of (a) Prevention of Crime, (b) Protection of life and property, and (c) the detection and punishment of offenders.

Authority in the form of the Home Office has established a Police Research and Development Branch to investigate new methods and equipment to assist in combating crime and increase the efficiency of the Service. This Branch is continually experimenting with new methods and equipment, all designed to keep the Service up to date with resources in its fight against crime.

Use of Helicopters

One of the ideas contemplated is the use of helicopters in the day to day work of the Police, but before this far sighted policy can come into effect, experiments in the use of such aircraft, have to be carried out. Helicopters are used for Police purposes in various countries abroad, but in so far as Great Britain is concerned, they have been used only on very rare and special occasions. It was considered that any experiment in this country should consist of four phases. The first phase involved the Metropolitan area and the counties of Berkshire, Dorset, Essex, Hampshire, Kent, Oxfordshire, Surrey, East Sussex, West Sussex and Wiltshire. The second phase involved the Midland counties of England and both phases appear to

have been a success. The third phase took place in the North of Scotland from 21st. February, 1968, to 20th. March, 1968, when it was expected that inclement weather conditions would be encountered. (This phase is discussed in fuller detail later on in this paper). The fourth and final phase is scheduled to take place in South Wales during June and July, 1968.

Purpose of the Experiment

The purpose of the experiment is to evaluate on a cost/effectiveness basis, the usefulness of helicopters in normal Police work, and the areas selected are representative. On the termination of the experiment the results are evaluated by Scientists of the Research Branch and on this evaluation depends the supply or otherwise of helicopters to the Police.

Types of Helicopters used

In the first two phases, two-seater Sioux helicopters supplied by the Ministry of Defence, were used and it is said that for the fourth (or South Wales) phase, Sioux helicopters will be used also. However, for the Scottish phase, it was considered that the size and range of the Sioux would not be suitable for the terrain, and consequently the larger and more powerful five-seater Scout helicopter was assigned.

THIRD (or SCOTTISH PHASE)

Area Selected

The area selected for the third phase of this very important experiment, comprised the Police Force areas of Inverness County, Scottish North Eastern Counties, Inverness Burgh and Ross and Sutherland. These areas were selected to assess the potential of helicopters in mountainous and snowy conditions and as being representative of rural districts.

Helicopters Used

Three five-seater Scout Helicopters from 10 Flight, Army Air Corps, complete with Pilots and maintenance crew were allotted. The

aircraft were thought to be more suitable for the area than the smaller Sioux which were used in the previous phases.

Pilots

The Pilots accompanying the helicopters were:-

Maj. M. TAYLOR, Lancashire Fusiliers, Flight Commander,
10 Flight, Army Air Corps.

Capt. G.R. JONES, Royal Corps of Transport, 10 Flight Army
Air Corps, and

Lieut. N. OVERY, 10 Flight, Army Air Corps.

Halfway through the phase, Lieut. OVERY was recalled on posting, and was replaced by Capt. R. MATTHEWS, Duke of Edinburgh's Regiment, and also of 10 Flight, Army Air Corps.

All Pilots had considerable experience both at home and abroad and mixed well both socially and professionally with members of the Police Service taking part.

Police Observers

A Police Officer from each Force participating, was supplied to act as an Observer. These Officers were expected to have an intimate knowledge of their own Force areas and have the ability to take appropriate Police action at any incident called to. They were,

Inspector Charles INGLIS, Scottish North-Eastern Counties,

Inspector Charles RHODEN, Ross and Sutherland,

Inspector Murdoch James MACLEOD, Inverness County, and

Sergeant Richard YOUNG, Inverness Burgh.

Accommodation

Accommodation for the Pilots and the Police Observers was provided at the Officers' Mess, Royal Air Force Station, Kinloss, and was of a very high standard. The helicopters were based at that Station and an Operations Room was provided at the hangar which housed the helicopters.

Operations Room

The Operations Room was manned by three Police Officers, viz:-

Sergeant P. MACINNES, Scottish North-Eastern Counties,
Constable A. W. ROSS, Inverness County, and
Constable R. W. MACLEOD, Ross and Sutherland,

and was operational from 0830 hours to 1800 hours daily.
Accommodation for these Officers was provided at the Sergeants' Mess,
Royal Air Force Station, Kinloss, and was of a very high standard
also.

Control Room/Information Room

The Force Information Room at Bucksburn (Headquarters, Scottish North-Eastern Counties Constabulary) was selected as the main Control for the experiment and all calls for helicopter assistance were channelled there. Superintendent A. FINDLAY, Scottish North Eastern Counties, was Police Liaison Officer and in overall charge. He determined priorities and from the operational angle, decided whether or not a helicopter could be supplied. From the aviation aspect, this authority was vested in Major TAYLOR, the Officer Commanding the helicopter unit.

Communications

Communication from the participating Forces to the main Control at Bucksburn was by radio, telex or telephone. Two outside telephone lines and an internal extension, were fitted in the Operations Room. Also fitted were three radio sets each on its own Force Frequency. (Inverness County and Inverness Burgh are on the same frequency). The helicopters, apart from having the civil and military radio sets operationally required, were fitted with a multi-channel set on which the frequency of the Forces concerned could be selected as required. Thus contact by radio could be made from the helicopter to base, (i.e. Operations Room) and to any of the fixed Stations and radio equipped cars of the participating forces. At all times base was in contact with the helicopter and in fact acted as a monitoring station when direct contact was being made from the helicopter to other stations.

Throughout the experiment, communications remained at a very high

standard and for this, great credit is due to the technicians of the Scottish Home and Health Department who installed and maintained the equipment.

Operational Area

The operational area was restricted to an area within a circle with a radius of 50 nautical miles from Kinloss, but as operationally required this radius was extended. The restriction was imposed simply for the purposes of the experiment and had little or no bearing on the endurance of the helicopters. Provided fuel was placed strategically at suitable depots, the only valid reason for imposing any restriction was from the maintenance viewpoint.

Operational Hours

Helicopters and crew were on call from first light to dusk (i.e. 8.30 a.m. to 6 p.m. daily). By agreement with the Ministry of Defence, helicopters were restricted to 30 hours flying time each, but as in the case of the operating radius, this was flexible, and could have been extended if necessary. This flying restriction included training hours. There was no night flying and flying for prolonged periods over water was not encouraged.

In this third phase 52 sorties were made, involving a flying time of 64 hours 15 minutes.

Familiarisation

The Police Observers and the Operations Room Staff, reported at the Royal Air Force Station, Kinloss, at 10 a.m. on Saturday, 17th. February, 1968, and after introductions, the Observers were duly initiated into the intricacies of helicopters. Personal equipment, consisting of flying overalls and appropriate headgear, all of which had previously been supplied, was donned and without much ado, each Observer was taken on a flight known officially as an "acclimatisation" flight. Personally this was my first encounter with a helicopter, and I must confess that the thought of flying in

one, filled me with a certain amount of apprehension. However, I had no cause to worry. This, my first flight in a helicopter, confirmed that I was not prone to air sickness, but it made me wonder if I, as the Observer, would ever be able to interpret the mass of verbiage coming across the helicopter radios. Fortunately as the experiment continued, the ears became attuned, and one was able to listen only to what was intended for the particular aircraft. Another matter which gave me concern was Map Reading. While it is a relatively simple matter to read a map and follow a route on the ground, it is an entirely different matter doing so in the air. One has less time to think and one has to be continually looking ahead and picking up landmarks. Again as the experiment progressed this concern decreased and I venture to suggest that I became reasonably competent.

Sunday, 18th. February, 1968, was again spent in acclimatisation flying but on this occasion was attended by T.V. publicity.

Classroom Instruction

The following two days were spent in the classroom and in the field. An introductory talk was given by the Co-ordinator, Chief Superintendent HUGH FRASER, from the Police Research and Development Branch, who spoke on the experiment and its aims. This was followed by a talk by the Helicopter Flight Commander, Major TAYLOR, who described the Scout helicopter, its potential uses and its limitations. Mr. James YOUNG and Mr. Norman BRUCE, both of the Communications Office of the Scottish Home and Health Department, explained the system of communications and emphasised the need for accuracy, clarity and brevity. Lieutenant N. OVERY explained the principles of navigation and Map Reading and pre-flight planning.

In the field, Captain G.R. JONES gave instruction in aircraft marshalling. This was said to be a most important aspect of an Observer's duty and is designed to assist a Pilot to land his aircraft where required. This duty can of course only be performed by the Observer if he is not airborne at the time.

Mr. Peter OSTLER, Police Research and Development Branch, explained the forms to be used in the experiment and the correct method of compiling them. His part in the experiment, is perhaps, the most important of all. It is his duty to make the evaluation on the information collated from the forms and it is his evaluation which decides the success or failure of the whole experiment.

Assisting in these talks and giving practical illustrations, were four of the Police Officers who had taken part in the experiment in the midland Counties of England. These Officers, who remained with us for the first week, accompanied the Police Observers in training flights, and their practical experience was of invaluable assistance.

Training Flights

A lengthy training flight was scheduled for the morning of Wednesday, 21st. February, 1968, and at 10.5 a.m. I was Observer in a Helicopter piloted by Captain G.R. JONES, en route from Kinloss via Fort Augustus and Grantown on Spey and return to base. When over Drumnadrochit, a radio message from base diverted us to the Bridge of Don area of Aberdeenshire, to search for a stolen landrover which had been used in a crime of theft by House Breaking. Contact was made with ground forces at Bridge of Don at 10.50 a.m. (a distance of 90 miles from Drumnadrochit) and a search was carried out between Bridge of Don and Huntly. This search however proved fruitless, but the area had to be searched and the use of a helicopter saved a considerable number of man hours and being expeditiously carried out, permitted the search to be carried out in another area more quickly. The landrover was subsequently found outwith the helicopter operating areas

Inauguration

The official inauguration of the third phase took place at 2.30 p.m. on Wednesday, 21st. February, 1968, with a press conference attended by the Chief Constables of the participating Forces and

various Local Authority Officials. The conference had barely commenced when a call for helicopter assistance was received. There had been a level-crossing accident near Cromdale, Morayshire, and a young boy had been killed. Unfortunately from the point of view of the experiment, the call arrived too late, but a helicopter was sent and proved to be of some assistance. The fact that we were not at the time fully operational in that we were some distance from base, prevented a speedier answer to the call.

It is interesting to note that the experiment in the Midlands of England also started off with a rail crash.

Sorties of Interest

Weather conditions especially during the first week of the experiment were ideal. There had been a heavy snowfall and it was expected that several calls for assistance would come from persons in isolated snowbound areas and also that Police assistance would be required. In this we were slightly disappointed - crime appeared to have diminished and calls of that nature were few. The fall in the crime rate was so apparent that some thought that the presence of helicopters in the areas was responsible. An interesting incident is credited to one of the helicopters - a helicopter was spotted flying over Dingwall by scrap dealers who were in the process of burning stolen copper. On seeing the helicopter it is said the thieves damped down the flames with sacking which itself then took fire. This fire was seen by certain citizens who, the following day when being interviewed by the Police, recollected the incident with the result that the thieves were traced and subsequently dealt with. All this took place outwith the knowledge of the helicopter crew.

A call for assistance was received from a Medical Practitioner in Aviemore, who had to visit a woman in an advanced state of pregnancy in Coignafearn, an isolated snowbound glen. This was duly carried out much to the appreciation of the doctor and the gratitude of the "expectant" father.

Ross-shire Police had a house broken into in an isolated area in Wester Ross and weather conditions precluded the use of conventional transport. A helicopter uplifted C.I.D. personnel at Dingwall and appropriate enquiries were carried out. While in the area an alleged theft of fuel oil was investigated. The use of the helicopter in these instances accelerated enquiries and saved many tedious hours of Police labour.

Late one evening, passing motorists reported to the Police at Newtonmore that "distress" signals were seen on a hill in the Dalwhinnie area. Blowing snow made conditions most difficult and it was practically impossible to have the area searched on foot. A helicopter satisfactorily carried out a search of the hill concerned during daylight in less than half an hour. This search would have taken many men several hours to carry out.

Flights were made to the ski-ing areas of the Cairngorms, especially during week-ends. The traffic flow was assessed and by being in radio contact with ground forces the helicopter Observer was in a position to re-allocate ground duty Officers as required, thus allowing for a freer movement of traffic. In other Force areas, sorties were made in connection with traffic observations, incidences of sheep worrying and aerial photography. There are however, three incidents which are worthy of special mention viz:-

(a) At 8.55 a.m. on 25th February, 1968, the Police at Forres requested the services of a helicopter to assist in searching the vast area of the dense Culbin Forest. A man aged 85 years, had been missing since the previous day when he was seen entering the Forest. Fifty Police and civilians were preparing to make a search and a helicopter was allocated. Within fifteen minutes the old man in an exhausted state, was spotted from the air. The helicopter landed close to him and he was conveyed to the nearest hospital. It is estimated that the use of a helicopter in this instance saved 200 man hours and possibly the man's life.

(b) Ben Nevis throughout any year, produces a number of accidents. It is probably the most popular climbing area in the British Isles, and numerous incidents on it call for Police action. A considerable number of Police man-hours is expended in each incident, and any form of equipment which can reduce the man hours involved, is desirable.

Two such incidents occurred during the course of the experiment. At 9.15 a.m. on 7th. March, 1968, the assistance of a helicopter was requested to search Ben Nevis for two climbers who had left the C.I.C. Hut, Ben Nevis, around 10 a.m. the previous day, to make a climb. As they had not returned by nightfall, it was feared some harm had befallen them, and a Police Search Party set off at daylight. A helicopter was required to supplement this party. In 45 minutes the helicopter was at Fort William where details were obtained and two well-known mountaineers were taken aboard. They were Mr. HAMISH MACINNES, Glencoe and Chief Technician John HINDE, R.A.F. Mountain Rescue Team, Kinloss. At 10.25 a.m. the aircraft was in the search area and a preliminary search was made with negative result. The Police Search Party was spotted and it was decided to land and equip it with a walkie-talkie set tuned to the aircraft frequency. A more concentrated search was then made and the two mountaineers were then spotted on the east face of the north east buttress of the Ben. They were making a most difficult descent and after they had been identified as the missing persons the ground party was informed. Flying time occupied (from Fort William) in this search was 40 minutes and this included diverting to the south east of the Ben to recall a further search party.

As can be deduced, the use of a helicopter in this instance, made a considerable saving in man hours

The second incident on Ben Nevis occurred on 16th. March, 1968, when a young man fell and sustained severe injury. He was in a most difficult part of the mountain and a rescue by foot could not possibly have been effected before nightfall. A helicopter left Kinloss at 6 p.m. and despite strong headwinds landed at Fort William at 6.55 p.m

There the position was explained to the Pilot and a local Police Officer (Constable Angus MACDONALD) replaced the Police Observer (Sergeant: R. YOUNG) as the latter was unfamiliar with the mountain. At 7.5 p.m. the helicopter landed close to the injured man at the 3,000 feet level. Low cloud and poor visibility prevented a take-off with the injured man till 7.30 p.m. By 7.45 p.m. the injured man was safely in hospital.

This was undoubtedly a rescue of note. Captain MATTHEWS, the Pilot, took his aircraft into a narrow and precipitous gully with great skill and then landed it on most difficult terrain. Had he delayed his take-off from the mountain he would most certainly have been forced to spend the night with the injured man, on the hill.

The use of a helicopter here, again is a fine example of how man-hours can be reduced and it is not practicable to assess the number of man-hours saved.

Visitation to Stations

The Chief Constable of Inverness-shire, wished to visit Police Stations at Glenelg, Broadford, Dunvegan, Uig, Portree, Ardsasar, Mallaig and Fort William. Normally a visitation such as this would entail two days at least. However on 15th. March, 1968, such visitation was carried out in a flying time of approximately three hours, a considerable saving of valuable time.

CONCLUSION

Above I have detailed instances which to me, clearly indicate the inestimable value of helicopters to the Police Service. It is not practicable in this paper, to detail all the instances in which a helicopter was used during the experiment, but in the Appendix hereto, I have given the instances in which I personally was involved. I was involved in 27 flights involving a flying time of 34 hours 40 minutes. Added to this I had the opportunity, which I accepted, of flying as an Observer in a Beaver fixed-wing aircraft used in the

Pilots and technicians. No doubt there would be a sufficiency of trained personnel available as a result of redundancy in the Armed Services, but this to my mind is not a firm enough proposition as it at all times depends on Service requirements.

Should it be decided on direct recruitment many further questions would arise. Would the personnel carry Police ranks? A Pilot would require a salary between £2,000 and £3,000 which would carry the rank of Superintendent. The technicians, who would require to be of the highest skill, would also have to be considered and given appropriate ranks carrying a salary which in most cases is in excess of that earned by the equivalent rank in the Police Service.

The problems in this regard, which beset the Planners, are indeed complex and it is apparent that numerous consultations will require to take place between Local Authorities, Service Authorities and the Research Branch, before a satisfactory solution is arrived at.

Bases

The question as to where, if helicopters are made available, they are to be based raises problems too. I would suggest that perhaps two flights might well serve the whole of Scotland - one flight in the South and one in the North. No good purpose would be served by basing the north helicopters anywhere south of Inverness. For the purposes of the experiment Kinloss was a reasonably suitable base - it had all the required facilities, but it seemed to me that to serve the northern area efficiently, the unit would require to be based either at Dalcross or at Evanton. Fortunately no landing strip is required. All that is necessary is hangarage and I am led to understand that both Dalcross and Evanton have such. It is terrain such as we have in the northern counties that in my opinion warrants the use of helicopters and consequently, if supplied, these helicopters to be used to the best advantage, require to be based at a convenient base in the north.

Visits

During the experiment, the Helicopter Base at Kinloss was

visited by Her Majesty's Chief Inspector of Constabulary, Her Majesty's Inspector of Constabulary, G.O.C., Scottish Command, The Air Officer Commanding Scotland, and members of the participating forces. All showed considerable interest and appeared suitably impressed.

Mr. Norman BUCHAN, Under Secretary of State for Scotland, paid a visit also. He appeared most interested, asked many questions and appeared to agree that helicopters had a most important part to play in the Police Service.

Personal Impressions

In concluding this paper perhaps it would be appropriate to make reference to the Officers and men of the Royal Air Force Station, Kinloss. They accepted with good grace the intrusion by the Police and Pilots on their domain, and throughout our stay, they made every effort to make life comfortable.

From a personal angle, I enjoyed the experiment immensely, and feel that the Police Service is on the threshold of great changes which will be advantageous to it. The new recruit to the Service has obviously an enlarged horizon, more opportunities to specialise, more fields to conquer and more variety in his every-day work. I am indeed grateful to the Chief Constable for affording me the opportunity of participating in an experiment unique in Scotland and which I feel confident will have favourable results.

The Castle,
INVERNESS. 15th April, 1968.

John A. Macleod
Inspector.

A P P E N D I X /

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<u>Date</u>	<u>Pilot</u>	<u>Observer</u>	<u>Operation</u>
1968			
Feb. 17th.	Lt. N.C. OVERY	Inspr M.J. MACLEOD	Acclimatisation Flight.
" 18th.	Capt. G.R. JONES		Acclimatisation Flight.
" 21st	Capt. G.R. JONES		Acclimatisation Flight - diverted to Bridge of Don - search for stolen landrover.
" 22nd.	Lt. N.C OVERY		Aviemore - conveyed Doctor MacDonald to Coignafearn on visitation to pregnant housewife.
" 24th.	Capt. G.R JONES		Part flight to Aviemore ski slopes - returned due to inclement weather.
" 24th.	Lt. N.C. OVERY		Flight to Aviemore W.R.E.N. rating on ski-slopes. Traffic observation at Aviemore.
" 25th.	Maj. M. TAYLOR		Search of Culbin Forest for missing man -successful.
" 25th.	Lt. N.C OVERY		Traffic observation at Aviemore and ski slopes.
" 29th.	Maj. M. TAYLOR		Practice forced landings in vicinity of airfield.
Mar. 1st.	Maj M. TAYLOR		Traffic observation at Aviemore and ski slopes - to Kingussie

A P P E N D I X (Cont.)

<u>Date</u>	<u>Pilot</u>	<u>Observer</u>	<u>Operation</u>
1968 Mar. 2nd.	Maj. M. TAYLOR	Inspr. M.J. MACLEOD	Traffic observ- ation at Aviemore and ski slopes - landed Kingussie.
" 3rd.	Lt. N.C. OVERY		Traffic observ- ation (Snowman Rally) at Boat of Garten and Aviemore.
" 6th.	Capt. R. MATTHEWS		Familiarisation flight to Inverness, Drumnadrochit, Kiltarlity, Beauly, Black Isle and Fort George.
" 7th.	Capt. R. MATTHEWS		To Ben Nevis - search for two missing climbers - successful.
" 8th.	Lt. N.C. OVERY		Traffic survey at Fochabers and Grantown-on-Spey.
" 8th.	Capt. R. MATTHEWS		Traffic observ- ation Aviemore.
" 9th.	Capt. R. MATTHEWS		Aircraft Air Test - Kinloss.
" 9th.	Capt. G.R. JONES		Aberlour re Sheep worrying - then to Ski slopes Aviemore re Grampian Ski Championships.
" 9th.	Capt. R. MATTHEWS		Part flight - engine fault - returned to base.
" 9th.	Capt. R. MATTHEWS		Aviemore and Badenoch area Traffic observ- ation - ski-ing championships.





