

Raynet — the helping hams

Without an efficient communication system through which to co-ordinate and control, even the most comprehensive accident and emergency procedure is useless. Here, George Forfai sings the praises of those generally unsung heroes, the radio amateurs who, working with the professionals, ensure that the message gets through

MANY HOSPITALS have a major accident procedure, usually a comprehensive account of what happens if the hospital suddenly receives unusual numbers of casualties because of a disaster, be it natural or man-made.

Apart from arrangements within the hospital, the document relates to the organisation of the emergency services at the scene of the disaster. Not only medical and nursing services but also police, fire, and ambulance.

Somewhere near the end there is usually a section on communications, usually provided through the police, fire and ambulance networks. However, in many cases a further service is available, Raynet, the Radio Amateurs' Emergency Network. Those concerned with the hospital side of major accident procedures will be concerned with the immediate problems of providing medical and nursing care and will leave the matter of providing communications to others. The important thing to them is that communications *must* be available no matter how they are provided.



But it is not all exercises. Far from it

Raynet is the public service facet of amateur radio. There are over 25,000 licensed operators, or radio hams, in the UK. About 3,600 of them belong to one of the 170 Raynet groups.

It all started in January 1953 when disastrous storms struck the east coast. The ensuing floods brought death and destruction and all communications, including telephones, government wireless stations, and utility services were closed down for days. Radio amateurs, ignoring the then terms of their licences, put their stations, skills, and communications experience at the disposal of the authorities. When Humber Radio went out of action for example, amateurs in Lincolnshire and Yorkshire maintained a continuous watch on the shipping frequencies and four times in a space of a few hours intercepted distress signals from ships at sea.

It had long been felt that there was a need for some formal organisation to enable amateur radio to be properly used on such occasions and out of the 1953 experience an idea crystallised and Raynet came into being. With Home Office approval, the terms of the radio amateur operating licence were amended and today amateur stations can legally operate under emergency or exercise conditions at the request of the police, the British Red Cross Society, the St John Ambulance Brigade and county or borough emergency planning officers.

To maintain maximum efficiency and operating capability, Raynet groups hold regular training sessions to test and confirm radio coverage. Exercises are held, often with the user services, to practice message handling under simulated emergency conditions.

But it is not all exercises. Far from it. Members are available for immediate call out, even from their day-to-day jobs. Perhaps the best known recent example was the West Midlands ambulancemen's strike in the winter of 1978, when the St John Ambulance Brigade provided a magnificent emergency service with Raynet's support.

From accounts in the national media, it seemed that they had just turned up out of the blue to give a hand. Nothing was further from the truth. West Midlands and neighbouring Raynet groups were alerted early in the evening of November 18, and within an hour and a half 17 mobile stations had converged on SJAB area headquarters, the necessary aerials had been erected, and a base station had become operational.

On full alert

Before the evening was out, all adjacent county groups had confirmed that they were on full alert and ready to assist. By midnight, communications traffic was being carried freely and without noticeable delay and the control room was already beginning to take on a routine and identity of its own.

Every ambulance was accompanied by a 'radiotail' enabling the St John duty officer to deploy his vehicles and staff to best advantage. The station was in continuous operation during the 18 days of the emergency. Over 7,000 messages were carried, 170 Raynet members were involved in one way or another, and over 1,000 ambulance cases were dealt with.

Less than a month later Cornwall's Raynet was in the news when 14 foot snow drifts, raging gales, and temperatures down to minus 12 degrees caused a complete traffic standstill

throughout the county with many farms, villages and hamlets completely cut off.

At the county emergency planning officer's request, Raynet set up a control station at County Hall in Truro and for five days provided the only radio communication available to coordinate emergency information from throughout the county. On this occasion over 40 Raynet stations were involved carrying well over 200 messages.

These are occasions when Raynet has hit the headlines. Over the years there has however been a continuous tradition of public service freely given, which has often gone unsung. Raynet groups have provided communications assistance during flood alert conditions, searches for missing children, fighting against forest and heath fires, the air disaster at Stockport and the Torrey Canyon disaster. They have assisted the police with the Derbyshire Cave Rescue Group when searching disused mine shafts. They have even assisted in the receiving operations for Vietnamese boat people at Morton Hall, near Lincoln.

A somewhat less dramatic operation is the setting up of stand-by stations at county shows and similar events, although even here there have been occasions when medical attention has been required, and has been quickly obtained through Raynet.

Latest addition

The very latest addition to its list of activities is made possible by a recent Home Office decision that during coastal oil pollution incidents Raynet may sail with county emergency planning staff to provide communications for them from boat to shore within a two-mile seaward limit.

Raynet is a completely voluntary organisation. The radio equipment is usually the property of individual members although many groups have base stations located, and ready for emergency use, in police stations, hospitals, county or borough emergency headquarters, Red Cross, and St John premises, etc.

The South East London Raynet Association has installations at Farnborough and Bromley Hospitals for their own use, and also an installation at Guy's Hospital which is intended for use as a control or relay station by any of the groups which comprise London Raynet.

The association also provides communications for the emergency planning officer of the London Borough of Southwark as part of the contingency planning for Thames flooding, and equipment costing around £1,000 has been installed by the borough for Raynet's use. All members carry identity cards and while in operation wear armbands. Vehicles carry the Raynet emblem. Mobile or hand held equipment can be provided either for working back to mobiles, for onward transmission to a base station, or direct to the base station itself, which is usually located at incident headquarters or control.

When coverage is required over a large geographical area amateur repeater stations are available which amplify and re-transmit signals from the lower power or poorly sited mobiles and portables to give the wider cover required, and indeed the Birmingham repeater was used very successfully for this purpose during the ambulance operations.

The system can be adapted to meet virtually any situation to provide either the only emergency communications channel available, or, as is more likely, an additional channel to assist the emergency services at times of great pressure, or simply to standby when a crisis is anticipated.

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RADIO AMATEURS' EMERGENCY NETWORK



Years of preparation are behind the organisation. There are endless practices and exercises to ensure the highest professional standards. Then, when the call comes, it is total commitment. There are no half-way measures as the West Midlands experience shows.

Yet all of this is a hobby. Raynet is just one aspect of the wide range of activities of amateur radio. Radio amateurs come from all walks of life, including the NHS. While it is true that some radio professionals and electronics experts are participants in the hobby, many have no connection with the subject whatsoever in any professional sense, although their standards of performance and expertise often equal those of professionals.

So that is Raynet. Its name is to be found tucked away somewhere among the plethora of paper which abounds in the NHS. Its activities often have a direct bearing on the work of the hospital service since there can be few emergencies of the kind it becomes involved in which do not result in someone requiring medical care and attention.

It is continually expanding and seeking to improve its performance. New groups are being formed. New base station sites or other facilities are being sought. Many hospitals have tower blocks in commanding positions over the local terrain, in terms of radio cover, which would be ideal for Raynet aerial installations and for emergency base stations. If hospitals ever receive requests for such assistance, perhaps those concerned will after reading this article be inclined to help.