



RAY~Link

Issue Twelve
October 1993

The Regular Newsletter of the Radio Amateurs' Emergency Network Ltd.

RAY~Link is published for the benefit of all members of the Network. It is posted to all controllers who are requested to assist in ensuring a wide circulation amongst the membership.

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- **Airborne 93** - Eastbourne & Wealden RAYNET provide cover at a five day air event in peak holiday time.
- **Exercise Folly** - West Midlands Emergency Planning tests their voluntary services in a major exercise.
- **Chairman's Jottings** - the latest from Geoff after his marathon envelope packing exercise.
- **CMX + Autex Equipment** - Jim, G1HUL has found a way of using these now surplus units for RAYNET.
- **Band Planning** - Paul Gaskell seeks your views on 70cm talk-through frequency pairings.
- **HF Mobile** - a 'kiss' aerial for static HF mobile by G3EKL.

Emergency:

Search for 13 year old Girl. Staffs RAYNET

At 19:45 hrs. on Thursday 2nd. September, Staffs. County Police alerted Staffs. CEPO to the fact that a 13year old girl had gone missing from her home near Biddulph, North Staffordshire, and that if she had not returned by next morning a search operation would be undertaken. CEPO contacted Staffs. Deputy County Controller G4LQT requesting RAYNET be placed on alert. (The County Controller was on holiday in Florence, and had to watch the proceedings on Sky News!) North Staffs, group controller initiated this at 20:37. On Friday 3rd. September the operation began, with operators crewing the CEPO Rapid Response vehicle, which is permanently equipped with 2m and 70cms., at Biddulph High School. A RAYNET liaison operator shadowed CEPO's Incident Officer throughout the operation, to provide constant communication.

Operators provided a radio link to the CEPO incident room near Stone and comms. with the search teams. Staffs. County Police insisted that all search teams, including the Bolton Mountain Rescue team, be accompanied by a RAYNET operator. While every team also contained regular or special police constables, the RAYNET operators handled much traffic on behalf of the police, whose own communications were hampered by the difficult terrain. The search area was on the Staffs./Cheshire border and the RAYNET team was greatly augmented by a large contingent from Cheshire RAYNET, led by G6IFA. Some twenty five operators were involved each day during the three day search.

The public response was enormous, over 1300 volunteers were deployed in one of the largest searches ever carried out by volunteers. CEPO said that it was very reassuring that if/when 'the wheel ever comes off again', he would have such professional and dedicated teams to call on. ◆

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Emergency Network Ltd.,

**Major
Event:**

**Airborne 93
Eastbourne & Wealden RAYNET**

**Major
Exercise:**

**Exercise 'Folly'.
West Midlands RAYNET**

RAYNET was asked by the projects organiser of Airborne 93 if it could help out with communications. This followed a contact between Alan Young, G6SDP, Controller of the Eastbourne and Wealden RAYNET Group and the Emergency Planning Officer, John Birney. The remit was to provide communications for the EPO, St. John Ambulance and to work with the RAF's Comms. team and the inshore RNLI lifeboat. The job with the RAF was to ensure that flight clearance was given for all the various flying activities which were scheduled, ranging from model aircraft through hot air balloons to helicopter flights. The RAF at the same time were putting on displays by the Red Arrows, and the Falcons free fall parachute team.

RAYNET had about two months to organise the communications for the five day event, from Thursday 5th. to Monday 9th. August. As all will know, August is not the easiest month to arrange for a large number of operators for a two day event, never mind a five day one! Like several other groups, Eastbourne and Wealden have a fully equipped caravan which is used as a mobile control unit. It is wired throughout with the CAIRO system, and has roof top aerials and a forty foot telescopic mast.

RAYNET was ready for all tasks at 10:00 hrs. on the Thursday morning, with both 2m and 70cms. being used, as well as cellphone and marine band VHF. Members taking part came from not only the Eastbourne and Wealden group, but from Hastings, Brighton and Hampshire. On the Friday the town was full of 200,000 people who had come to see the Red Arrows, and RAYNET had to deal with the first lost child. Fortunately it took only 20 minutes to reunite the child and the desperate parent. Over the next few days, four other children managed to loose their parents!

On the Sunday RAYNET provided communications for the Birdman competition, which was seen live on prime time television, and on the Monday evening, as well as its other duties, RAYNET provided fourteen operators to provide communications when the seafont was sealed off for a massive fireworks display which was watched by somewhere between 20,000 and 30,000 people.

Over the five days, 375 hours RAYNET hours were spent with two emergency calls, five lost children, and numerous first aid requests. ♦

Under the auspices of the West Midlands Fire Service Emergency Planning Department, an exercise, codenamed 'Folly' took place at Kingsbury Water Park, Warwickshire to test the ability of various voluntary organisations to work together in an emergency situation.

The scenario revolved around a camp site that was destroyed by a group of motor cyclists early in the morning leaving about a dozen casualties in various degrees of panic and distress. Initially the four wheeled drive clubs collected WRVS and RAYNET personnel from various parts of the West Midlands to simulate the task they may be called upon to perform in severe weather conditions, eg. snow in winter. The four wheelers then went away to have their own exercise.

The Women's Royal Voluntary Service practised catering for a large number of people, (approx. 130) and used the park setting to practice trench cooking in the open air as the weather was suitable for this.

Red Cross and St. John Ambulance Brigade first aid teams were faced with the difficult task of finding and treating casualties away from their vehicles and a communications failure was sprung upon them to test their ability to set up alternative contacts using RAYNET. In addition, the four wheel drive clubs came upon a number of casualties on a second site while they were having their own exercise and requested first aid help from the main site. This necessitated setting up a second radio control point and linking it to the main site.

No exercise of this kind would be realistic without the provision of casualties and the Casualty Makeup Association provided their usual high standard of 'injuries' to test the first aid skills of the Red Cross and St. John Ambulance teams.

The Search and Rescue Dog Association, which normally operates in upland or mountainous areas as part of the Mountain Rescue Service used its highly trained dogs to find 'bodies' by scent.

The exercise was highly successful, all the organisations involved learned a great deal, and it is hoped that the lessons learned will be carried forward into future activities. ♦

RAY~Link

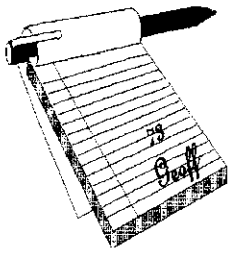
Your Network's Newsletter

December RAY-Link.

Items for the December RAY-Link should be in my hands by 20 November at the latest. Material on disk is especially welcome. My address is: 85 Eastwoodmains Road, Clarkston, Glasgow G76 7HG, Telephone: 041-620 1000, Fax: 041-638 0732. Packet: GM4SRL @ GB7SRL.

I look forward to seeing you at the AGM. Please introduce yourself to me.

73 Ronnie, GM4SRL



Chairman's Jottings

Gosh, what a hectic time!

I always knew that the preparation period for our first Annual General Meeting was going to be busy, but I hadn't guessed just how busy it would be.

Now, I can relax a little, having successfully completed the mail out of over 2,000 calling notices and agendas to members throughout the UK.

That only leaves the final briefing for the stewards, the talk-in station, the marshalls and tellers, talking to the University management about last minute arrangements, sorting out the publicity for train times, dealing with requests for accommodation,.... and that's only the jobs that I know are coming.

So I'm afraid that my jottings this issue may be a little disjointed!

First some changes in personnel.

Sadly Don Sunderland G6FHM who has looked after affairs in the West Midlands as ZC9 has felt it necessary to stand down from that task. Don and Norma as many of you will know have spent a great deal of time and energy recently in humanitarian relief work in war-torn parts of Europe, and we have all admired what they have been doing.

Now Don feels that he needs to rest a little, and who can blame him. Thanks Don for all your hard work.

The Zone 9 AGM will be held on 6th November, and the question of a successor will be on the agenda then. A hard act to follow!

Another hard act to follow will be Russ Needs G4NUG who has been leading the work of the Volunteer team on Training since its inception. Russ is changing his work pattern, and this means taking on a whole new lot of training - this time at the receiving end! We wish you well Russ, and thanks for all the hard and invaluable work. I know the rest of the team will miss you, but I know too that they will enjoy following the example and challenges you set for them.

And finally in this saga of changes, yet another valuable member of the team at the start of this year is to leave us. Row Watson, who as Company Secretary got us off to such a steady and sure start in January is leaving his full-time position in his practice, and so we shall be losing his services as Company Secretary. A short partnership, but I believe an effective and valuable one.

Questions.

Last time, I asked that members who had areas of difficulty or who wanted to ask questions should drop me a line at Bedford. Serves me right, I should have known better, 'cos many of you have done just that.

I hope that we shall have time to clear many of them up at the AGM, and perhaps in the next issue, I can spend a few more column inches on the more general ones.

73 for now....Hope see you at the AGM!

Geoff, G3SFG

Equipment:

RAYNET Use of Ex Council CMX (Autex) Equipment.

Jim, G1HUL, Leicester Group Controller.

As many controllers are doubtless aware, there are large quantities of redundant CMX terminals, printers and Autex 100/1600 units available to RAYNET, either for use by the groups under direction of the CEPO / REPO or donated directly to the groups.

The connection of these is fairly simple for the terminals, but if you wish to use the printer for journalling, things are a little more difficult. Apart from effective door-stops, the Autex 100 and 1600 units have little use!

In Leicestershire, we have successfully connected both the ZENTEC and CIFER terminals (the CIFER units come from the RGHQ's) to both a TNC and the Siemens & Mannesman Talley printers. The configuration will allow printer journalling of both sides of the 'QSO' and may be switched on and off as required.

A comprehensive document has been produced detailing how to set this up, including terminal & TNC software configurations and all wiring diagrams. If you are interested in a copy of this, please send an A5 SAE to:

Jim Andrews, G1HUL, Leicester RAYNET Group Controller, 49 Aberdale Road, West Knighton, Leicester, LE2 6GE

The document is also applicable to most types of 'dumb' terminal that are available on the surplus market, although some experimentation may be needed on the more unusual types. ♦

Editor's Note.

CMX was widely used in England and Wales, but was only installed in the Scottish Regions of Borders and Grampian.

Consultation:

**Frequencies and
Bandplan.**
Paul, G4MWO, ZC 10.

Technical:

An Idea for HF Mobile
Johnny, G3EJF and Jean, G3JZP,
Richmond Group.

Your views are sought! On hearing the latest news of the withdrawal of the 430-432 MHz Fylingdales restriction on 70 cms. in this part of the world, plus looking at this year's bandplan for the promoted fresh thoughts on in-band UHF repeater/talkthrough for national RAYNET.

The available width of the band now creates provision for using the wide 'continental' 7.6 MHz split, accessible these days on most synthesised mobiles/handportables either by keypress or a user-definable TX/RX split, with the added advantage that single aerial working can be possible using either an in-house built diplexer or a pair of Pye AE450F tunable cavities (or similar ex-commercial product).

In the suggested frequencies below, attention has been paid to avoiding as many of the bandplan-defined specialist areas as possible (although a brief perusal of the bandplans, particularly at VHF & UHF will indicate just how much coordination there isn't in IARU and how in reality bandplans are a case of acting after, rather than before the event.)

SUGGESTED RAYNET UHF TALK-THROUGH CHANNELS.

(Inputs low to prevent continental 'ring-round')

Channel	Input/Mobile TX	Output/Base TX
UA	431.850	439.450
UB	431.875	439.475
UC	431.900	439.500
UD	431.925	439.525
UE	431.950	439.550
UF	431.975	439.575

*(Some choice being available to
avoid FSTV Vision Carriers.)*

For those unfortunate to live within the 431/432
Charing Cross 'blackhole' we have:

UG	430.400	438.000
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Sorry about the single channel for those folks in the 431/432 area, but you are sandwiched between French repeater inputs and packet allocations. (You could try a 12.5 MHz offset, but not all rigs may do it.) ©

Editor's note.

If you have any thoughts on this, please contact Paul directly. Any further developments will be printed in future editions of RAY~Link.

During the recent COASTPLOD exercise, an attempt was made to work 3.5MHz. rear link skeds between mobile stations in the Lake District and G3EKL in North Yorkshire. Contact between the mobiles was OK but across the Pennines it was rather 'iffy' and would have been useless for reliable communications.

The lesson is that whilst HF loaded whips can give plenty of QSO's when the conditions are right, they are not the answer when RAYNET needs to use HF to work across mountainous country. Under these conditions we must have high angle of radiation sky wave, easily achieved with a horizontal antenna near the ground. If you're actually on the move obviously you have to make do with the whip but if you're in a spot for half an hour or so here's a set up we used on many WAB portable trips with low power home built SSB gear some 15 years ago, which has always worked a treat.

Make up a 3.5 MHz. dipole with thin insulated wire fed with a few feet of coax and drape it along a hedge, dry stone wall or whatever is available. If you can get the centre up to 10 or twelve feet that's an additional bonus, don't worry about the ends and don't worry about the antenna hanging slack between bushes. Because of the nearness to the ground the dipole will need to be several feet shorter than expected for resonance. It is almost omnidirectional and whilst it won't outperform an antenna on 50 foot masts it's a lot better than a short resonant whip and it only takes a few minutes to put up.

Improvise some sort of "cleft stick" and you can lift the antenna on to tree branches or other supports, and it should work even better. Groups in hilly country might make an interesting exercise out of trying this idea. ♦

Liaison:

CUMBRIA CONTACT.

Alex. Robinson, G6MGP, Cumbria CC asks that any groups intending to operate in Cumbria, or are operating on high ground where their signals are likely to find their way into Cumbria, should, wherever possible contact him beforehand. His details are:-

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16 Shaw Green,
Storth,
MILNTHORPE,
Cumbria, LA7 7JB

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Fax: (05395) 64465 - addressed to A. Robinson