## ESSEX REPEATER GROUP NEWSLETTER No. 2.

PROGRESS SO FAR.

The licence application has been passed to the Home Office, and has had

minor amendments incorperated.

Calculations have been made, and a coverage area predicted, this takes in Brentwood, Grays, Southend, Bishops Stortford, Halstead, Dunmow and part of Colchester.

A Pye 'On Frequency Repeater' has been obtained, thanks to John G3WCO; this has certain drawbacks for amateur repeater use, such as poor squelch, no modulator or demodulator, and has cavities for the wrong frequencies. However it is exceedingly well built, lends itself to modification, and is completely solid-state (5 watts output). In its original form, the unit converts to 21.4 Mc/s., provides gain, and then mixes up using one L. O. chain. A demodulator at21.4 Mc/s., and a frequency modulator at 23.4 Mc/s. are under construction. This scheme gives the 2 Mc/s. seperation. We may have to use 1.6 Mc/s. seperation as reccomended by the Wasaw I.A.R.U. Conference for 70 cm. repeaters. This matter is under dissussion.

Special techniques have to be used in the modulator, since the full 5 Kc/s. deviation must be produced at 23.4 (23.0) Mc/s. Experiments are being carried out with a loose lock modulator, and initial results are encourageing.

Since commercial antennas for 70 cm. are very costly, it has been decided to use our own design. It will be a vertical stack of co-axial dipoles built with two diameters of aluminium tubing. Help is needed with the construction of this monster, which will be about 20 ft. long, and have about 10 dB. gain.

IF YOU CAN HELP, PLEASE CONTACT BILL G4CUE.

The plan is to use one aerial and feeder, with aduplexer at thebottom. We still need a kind benefactor willing to donate about 100 ft. of low lossco-ax.

50 ohm such as UR74/RG17A or better. 1 inch Heliax would be ideal!!

The audio circuitry, and control logic is well under way, and is to be fitted in a seperate rack-mounting unit for screening purposes. the call-sign sender is complete and working, the master sequencer is almost completed. It is the policy to design the control circuitry so that any refinements are either available at the touch of a switch, or by simple modification. For example, the 'H.L.K.' as per GB3LO. will be available, but may not be provided initially.

E. R. G. STICKERS.

Some attractive circular stickers have been produced and you will find one enclosed with this newsletter, if you have paid your £1 subscription. Further stickers are available, to members only, at 25p. each from G4CUE.

FINANCE.

We now have 27 paid up members. These subscriptions will cover the cost of the high quality crystals we require, and very little else. We need more money topay for the Pye equipment, and other sundries that are certain to crop up. PLEASE PERSUADE ANY INTERESTED FRIENDS THAT E. R. G. IS A GOOD CAUSE. and well worth £1.00. Also to raise money we are holding a:-

JUNK SALE.

On Saturday 28th. of June, at St. Johns Hall, Vicarage Road, Chelmsford. As announced in Radcom., talk-in will be provided by G3WCO on 433.20, S20, S22, and 4 Meters. The sale will start at lpm. There will be a bring and buy stall, and an auction, choice being dependant on the type of goods and on the vendors wishes. E. R. G. will take 10% commission on all sales. Refreshments will be available. An alignment department will offer frequency power output and deviation measurement facilities. The repeater control unit should be operational by then and will be available for demonstration and comments on the operation are invited. A few trade stands will also be there. Why not dump the wife and kids in Chelmsford to do the shopping and rush off to the E.R.G. Junk Sale.

PARKINGS AVAILABLE

Help is required on the day to put up tables, man stands and to be general dogs bodies. Offers of help please to John Rollason G3WCO QTHR Chelmsford 52891.

E.R.G. Net

Suggested time 21.30 local time every Tuesday 145.55 Mc/s (S22) F3. Please come up and make your views known and keep in touch with progress.

73 B**ill** 

W.L. Pechey G4CUE Berkley Tye Green, Good Easter Chelmsford CM1 4SH