

sure that it is the end. I would also like to see a little bit less of the CQ DX, CQ DX — Ed.

GETTING THAT QSL!

Sir, The article on how to obtain QSL cards in 'Newcomers Forum' by Tony Bailey G3WPO (February issue), gave some excellent advice for anyone hunting those elusive bits of card. Might I add one small but vital point — always have the actual words "Confirming QSO" or "This is to confirm our QSO" printed on your own card, otherwise it will not qualify for many of the important international awards.

This could make all the difference as to whether you get a card in return or not.

DOUGLAS BYRNE G3KPO/GB3WM

RADIO YESTERDAY

Sir, The oscillators at both ends of the cross-channel link appear to be an example of Barkhausen-Kurz oscillators (cf. e.g. E.C.S. Megaw, Jour. I.E.E. 72.313.1933 or F.B. Llewellyn, Bell Lab. Rec. 13.354.1935). This type of oscillator employed a triode operating with grid held at a potential above that of the anode. The emitted electrons were oscillating in the space between cathode and anode for several periods before they were ultimately captured by the grid. The external resonant circuit was essential in maintaining the proper phase of oscillations, assuring that electrons with favourable phase of oscillations were kept in motion. The frequency was dictated by the dimension of the cathode-anode gap and depended on the grid voltage and on the tuning of the resonant circuit.

The front end of the receiver looks like a super-regenerative detector i.e. the receiving Barkhausen-Kurz oscillator has the build-up process of oscillation interrupted with a quenching frequency of 500 kHz. (cf. e.g. M. G. Scroggie, Wireless Eng. 13.581.1936). This mode of reception was very sensitive and fairly broadband, which took care of relatively low frequency stability, and yet required a fairly simple installation.

I have tried B-K oscillators in the early forties, using some ancient Telefunken valves of REN series and easily reached frequencies up to about 2 GHz, which were measured with Lecher wavemeter.

Your comment that this type of oscillator is related to klystron is right: the phasing and bunching of electrons in the process of oscillations have been later further developed in a reflex klystron.

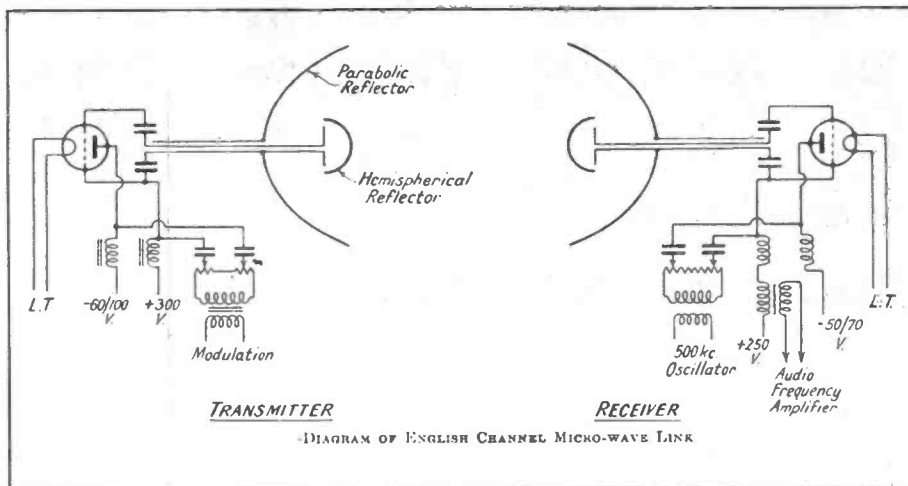
K V ETTINGER ex SP2HE

Thanks for your letter. For the benefit of readers who missed out on the January issue, I have included the simplified schematic of the 1934 17cms cross channel microwave link — Ed.

S-UNITS

Sir, Praise be to G3WPO for tackling the Great S-meter Myth. The S-code was intended as a subjective assessment made in the light of experience with given equipment.

Nowhere in the technical literature can I find a definition of an S-point. One might expect it to represent 6dB., but my KW2000E



manual says the meter represents 4dB. per S-point approximately. A peculiar figure to choose. Perhaps it just turned out that way rather than by design. Other receivers yield equally arbitrary figures.

Operators overdo S9 reports, not only during contests. I seldom give more than S8, reserving S9 for the amateur next door. After all, S6 "good signals" is pretty complimentary, but is sometimes taken as a slight on the recipient's personal potency.

The addition of an objective assessment onto what is by definition a subjective one makes nonsense. A report of "S9 plus 10dB." means less than the weatherman saying "It will be very hot plus 10°C". If pressed he might be able to give an actual figure in °C.

S-meters are useful for peaking a signal or making comparisons when, for example, the chap at the other end wants to compare performances of two antennas. An ungraduated meter would suffice. Maybe the designers of military receivers of the past were wise when they chose "magic eye" indicators instead of meters.

So to the crunch question, question 1 in the competition on page 62 of the January issue. This implies that there is a specific value ascribed to an S-point. Why isn't "nonsense" one of the possibilities? Can anyone find a definite figure quoted in the accepted literature? Bear in mind that once you define an S-point you also have to define the datum, e.g. S9 = so many microvolts at the aerial terminals. That leads on to aerial and feeder efficiency . . .

RAY BURGESS G3RXG

If no-one else is going to say it, then I shall. Let one S point = 6dB; Let 0dB = 0.5 microvolt PD across antenna socket. End of conversation — Ed.

TYPE APPROVAL

Sir, I have some points to make along the lines of the "changing the rules" letter sent in by Peter G6NSU. I understand that the main reason for amateur station logkeeping is to assist interference tracing by the radio interference service. Does this therefore mean that a typical commercial 2M "black box" is much more likely to cause interference than a commercial CB transceiver? Considering the price of the average 2M FM rig compared with the price

of the average CB rig I would have thought that the chance of the 2M FM rig going faulty and producing spurious transmissions was no greater than a CB rig developing a similar fault. The Home Office must think that commercial amateur equipment is very unreliable in terms of frequency of operation and spectral purity because an amateur must have an absorption wavemeter for checking these things. I assume that all CB transceivers are 100% reliable, otherwise the CB licence would have stated the need for a wavemeter. Perhaps the amateur licence rules on wavemeters were written when most amateur equipment was "home brew" which suggests to me that the licence is out of date.

The Home Office must also think that legal CB causes no TVI whatsoever, as a legal CB operator cannot be closed down as long as his equipment is OK but an amateur can be closed down for one month by the radio interference service on the basis of an interference complaint. Surely this is nothing short of "CRAZY".

Did the Home Office overlook these points when they drew up the CB licence or is it true as stated in G6NSU's letter that class B amateurs are "second class citizens with third class allocations". I have taken the RAE and was thinking about taking out a class B amateur licence but now I'm not so sure as it would seem from G6NSU's letter that 27MHz FM offers much greater working range than 2 metres ever can. Therefore I assume that in terms of DX, the class 'B' amateur licence has nothing to offer.

Surely there are a lot of amateur licence rules that need changing.

PS. I would be most interested in other readers comments. Thanks for an interesting new magazine.

P SHORT

Amateur radio gear does not have to meet specific type approval unlike just about every other kind of R/T equipment. You are supposed to have the necessary facilities to make sure that it doesn't interfere with other wireless telegraphy (sic) users. And it occasionally does.

Two metres has much to offer, DX wise. Trans equatorial propagation is just one, albeit rare, phenomenon. There are quite a few other modes of extended VHF propagation. The class B licence offers considerable scope for exploration, rather more than is possible with the HF bands. Worked anyone on 100GHz lately? — Ed.