

battery when the ignition is on. This Zener commences to conduct at 14V and progressively passes more current until at about 15V it is passing about 5A, bypassing the battery and effectively limiting the charge to the battery. I have used this method of regulation for a few years with total success. The bike in fact has had a dryfit battery for the last four

years and is still going strong, so the Zener does do its work. The only problem is that these diodes cost about £30 (including VAT and postage) and require a good heat sink, but totally outweigh the problems when you get into sophisticated circuitry. I also used the same Zener diode to protect my radios from overvoltage, having fitted one to a heat sink in a box between the power supply and the set, with a fuse between the Zener and the power supply. In this case only a small heatsink is required."

In respect of the hints on using portable power generators, GW4DYY wonders what is the 'petrol stabiliser' that NT0Z recommends. He suggested that after use of a PPG, a small amount should be added to keep the fuel from oxidising and gumming-up the carburettor. Is this something available only in the USA, or is it known here under some other, possibly proprietary, name?

Dr Dick Biddulph (formerly G8DPS but now with the brand new call M0CGN) adds to the 'Twelve Commandments' of PPG operation a thirteenth: "There is another rule which is regretful but necessary, viz: if using more than one generator, and one stops, investigate at once. A member of the Wimbledon Club waited a few minutes, then found the generator had gone walkabout! The insurance company was not best pleased!"

On the October topic of 'RF Voltage Probe', Dick writes: "Since only a qualitative

reading is necessary, I use an LED and a single-transistor amplifier as an indicator. The LED is attached to my spectacles by means of a small paper clip, so I don't have to take my eyes off the work to see if there is RF about. I use the same system for a continuity tester."

HERE & THERE

THE BBC2 TIMEWATCH programme 'The Spies Who Fooled Hitler' broadcast on 2 October 1999 was certainly watchable, though it suffered from the usual TV history-documentary drawback of using archival clips and stills that had no accurate relevance to the story, and some were misleading. But it did include a previously unseen clip from a 'home video' made by the late Ronnie Reed, G2RX. Ronnie was one of the first RSS/MI5 operators to supervise or take over the sending of cipher messages supposedly from German radio-agent transmitters (photo left and Fig 6) in the UK, but who in reality had been turned and were under the control of what became the XX ('Double Cross') Committee. I wonder if anyone knows where the full tape by G2RX can be seen? Two other amateurs, also no longer with us, shared this task: Russell Lee, G6GL, and Stan Riesen, G5SR. But the most annoying feature of the programme - at least to surviving former members of the wartime Radio Security Service - was the absence of any mention of that organisation which not only supplied the supervising operators but was responsible for intercepting the radio messages between the Abwehr outstations in France, Spain, Portugal etc and Germany. The Abwehr and the SD did their best to make this as tricky and difficult as possible. These intercepts were vital in monitoring the acceptance or otherwise of the deception plans and the 'chicken feed' disinformation transmitted from the UK, as well as providing a detailed study of the inner workings of the Abwehr. As usual, the programme assumed that Bletchley Park was responsible not only for decrypting the Abwehr traffic but apparently also plucking it out of the ether! Digging deeper into the true history might have shown that in 1939-40, BP were most reluctant to have anything to do with RSS Abwehr intercepts, that the original decryption of agent-traffic was made by RSS, and that Hugh Trevor Roper (Lord Dacre) was threatened with court-martial for distributing some of it!

New Scientist reports that NASA lost its \$125-million Mars Climate Orbiter space-craft as a result of a mistake that would shame a first-year physics student - failing to convert Imperial units to metric. The problem arose because propulsion people talk in pound-seconds of thrust and navigators talk in newton-seconds. No wonder one still hears that old saying: "Amateurs built the Ark - professionals the Titanic".

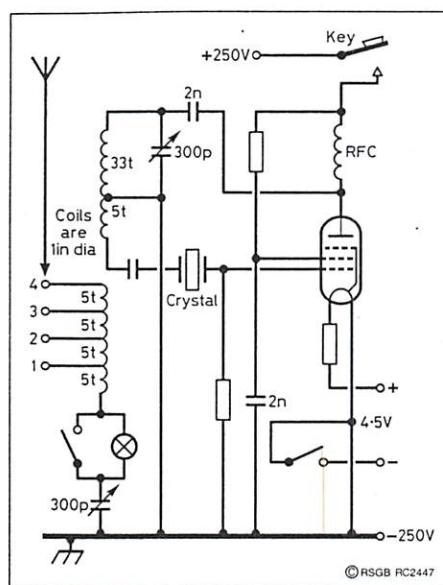
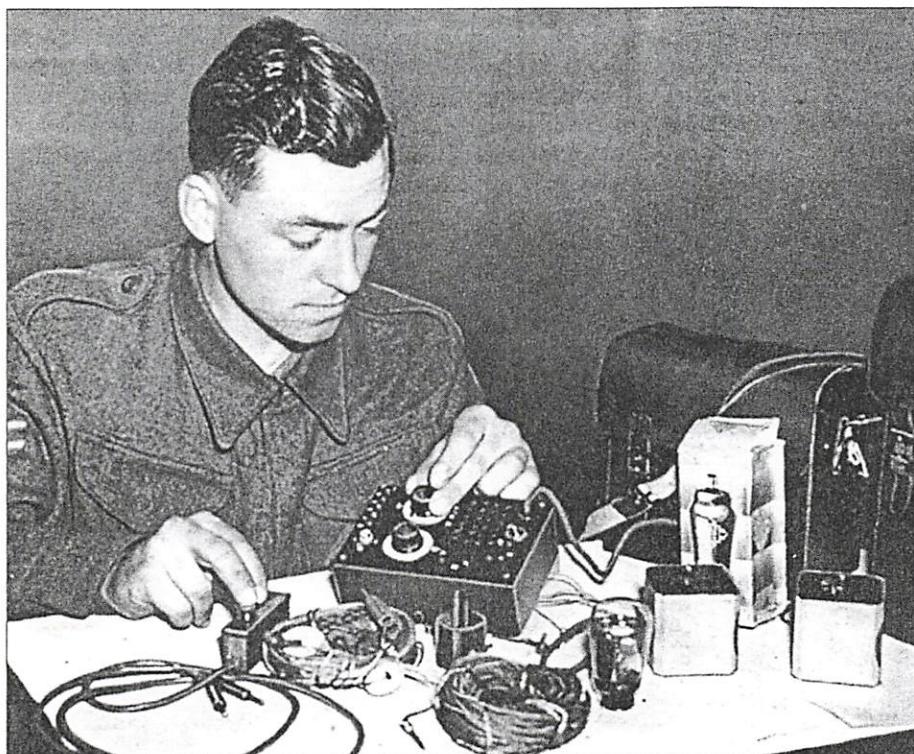


Fig 6: Circuit diagram of the German agent-radio (Afu) transmitter shown in the accompanying photograph and designed to be carried in a leather case slung over the shoulder, with the batteries in another. Antenna coupling coil taps allowed a rough match for different antenna lengths, the pilot bulb indicator lamp showing when tuned. Frequency range was 4 to 8.6MHz.



1940 photograph of a British NCO examining Afu equipment taken from a German radio-agent on a military reconnaissance mission. The three-man team landed on the south coast during 1940 to 'broadcast' intelligence back to the Abwehr control station near Hamburg, but were immediately arrested. In this case no attempt was made to 'turn' the team into double agents and all three were executed. Similar low-power battery transmitters were also used with 'straight' regenerative-detector receivers for two-way contact with Hamburg. The photograph was originally published in *Wireless World* in 1941.