



**2m band plan in Australia: all intervening spaces in diagram are available for simplex FM communication.**

example, between the VK3RTV team in Melbourne and the VK5RTV enthusiasts in Adelaide.

Back to voice-operated repeaters; because Australia enjoys a 4MHz spectrum for its 2m band there is room in it for two repeater services. The simplified diagram below of the VK bandplan for "Two" shows how these two services are fitted into the upper two megahertz of the band. What might be called Repeater Service No 1 provides outputs *high* while Repeater Service No 2 provides outputs *low*, both at the standard offset of 600kHz, between transmit and receive.

Channel numbering has been so simplified as to be readily identifiable even by a driver hassled by the heavy traffic of Sydney or Melbourne.

"QSY to 6750, old man," tells a listener to move his channel change switch to the repeater input frequency of 146.150 which provides 6750 from the repeater.

On 70cm - where 30MHz of space is available - repeater inputs are between 433.025 and 433.725MHz, with outputs 5MHz higher. Similar four-figure channel identification applies on "70" as on 2m. Simplex operation occurs in the wide remaining spaces of both bands.

Incidentally, these frequency parameters, widely used "east of Suez", should discourage even the most hardy of rig-modifiers from bringing transceivers into the UK with their duty-free luggage!

Also widely available east of Suez is the 6m band. Here too the Australians have developed a bandplan to incorporate repeaters, providing 16 channels from 53 to 53.357MHz, with inputs 600kHz low of outputs.

### Indicators Of Conditions

Apart from repeaters, Australia's, metre-wave bandplans place "DX"

low and "local" high. It will be noted from the diagram that beacons that provide an indication of propagation conditions are placed next to the DX segment.

Across the Tasman Sea VHF beacons operate in New Zealand. Their value as indicators of propagation conditions is recognised in Australia by the provision of a "window" just above 145MHz where these beacons, most of them more than a thousand miles distant, are of considerable value to the DX man sensing the 2m band's potential.

With the Australian DX segment on 2m band-planned to lie between 144 and 144.4MHz ("all narrow band modes") there are those who ask "Could there not be a similar segment on 'Six'?" For a long time the 6m band in Australia has extended only from 52 to 54MHz (as wide as the whole of the British 2m allocation!), available on a secondary basis. Negotiations are in train to allow operation in a DX window between 50 to 10.15MHz, if need be only to stations outside TV broadcast radii and perhaps with a 50W power level. The television proximity problem is a real one in Australia: the colourvision "Channel Nought's" upper video sideband extends almost to 50MHz.

If a DX window were to be granted at 6m it would enhance the opportunities for trans-Pacific contacts to be made. Some indication of what might be achievable was given in the March, 1983, edition of *Amateur Radio*, the official journal of the Wireless Institute of Australia (which is the Australians' "RSGB"). A masterly article from VK8GB recounted how in four years of observation from his station at Darwin he documented the characteristics of both the 6m and 2m bands at extreme propagation ranges, and was able to record the remarkable behaviour of trans-equatorial signals

at ranges of 5,000km. Try to imagine contacts on "Two" at QRBs in excess of 3,000 miles!

### That Antenna

To work the DX on the metre-waves you need a good antenna system - a point made more than once here. But sometimes there are "official objections" to large aerial structures.

Looking at the size of many of them in VK-land one came to the conclusion that what restrictions exist are interpreted liberally. One VK3 man described the situation to your correspondent in the following laconic terms:

"To get planning permission for an antenna in these parts you must leave a letter with your neighbours asking if they have any objections to what you propose. You also leave a placard outside your front gate for two weeks saying the same thing in letters half an inch high (they are provided by the council). No objections from the public? Then no objections from the council!"

### And Finally The "Ks"

It is an indication of the popularity of VHF/UHF in Australia that means have been found to enable the novice class operators - and there are thousands of them - to use the metre-waves. Originally, novice callsigns, characterised by "N" after the figure (eg, VK3NAA) were to be heard only in limited areas of the 10m, 15m and 80m bands. A recent development has been the creation of the new "K" callsign block (eg VK3KAA) which in effect communitizes the restricted licence with the novice licence. If as a novice ("N") you wish to operate the metre-waves you apply for a "K" ticket. And now already there are thousands of these, too, in Australia's nine widely dispersed callsign regions.

