Figure 1: MIR subsatellite track of orbit on which contacts were made

some VK stations waiting for MIR chatted with each other on the prime channel and missed MIR which moved to an adjacent clear channel.

In the northern hemisphere there were reports of chaotic pile-ups which from observations on earth appeared too much for the tired cosmonauts.

There were clear indications that MIR could have been silent for several days after working VK, before the next crew rest period enabled contacts with the United States and Europe.

If you worked either U1MIR or U2MIR the QSL information is via UW3AX, B. Stephanov, PO Box 679, Moscow 107207, USSR.

Mousa Manarov and Vladimir Titov with French cosmonaut Jean Loup Chretien returned to earth in December on board a Soyuz TM-6 space capsule. They were named Heroes of the Soviet Union after a record-breaking 366 days in orbit. And French President Francois Mitterrand bestowed on them the Legion of Honour, one of France's most prestigious awards.

Dr Valeri Poliakov U3MIR remained aboard MIR with Commander Alexander Volkov and Flight Engineer Alexander Serebrov who are scheduled for an extended stay. Valeri is expected to return to earth in the European Spring this year.

The MIR station will continue to operate on the amateur bands with future crew expected to use progressively the calll-signs U4MIR through to U0MIR. ar

REVIEW

FT736R Multiband Multimode Transceiver

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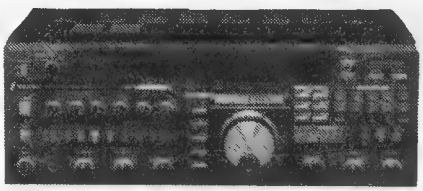
The FT736R is a rather large and in some ways daunting transceiver. Four VHF/UHF bands can be provided in the one case with all modes available. ATV on the 1296 MHz band is also possible with an adaptor. The standard basic transceiver comes with 144 MHz and 432 MHz as standard. Additional modules can be fitted for 52 MHz and 1296 MHz if so desired at extra cost.



Modes which are provided are SSB, CW and FM with a wide range of features and operating conveniences. Many of the features are the result of the advanced computer driven design whilst others are provided by circuitry. The receiver sports IF Shift and a Notch together with a noise blanker. The transmitter has a speech processor and VOX. Preamp switching is provided to control external preamps which you may desire to incorporate in your system. These are not incorporated or sold as accessories. On these bands any really serious operator will have one between the antenna and the large diameter hardline coaxial cable.

One hundred memories are provided plus call channels and a variety of other memory features. Extensive satellite features are provided which should be of interest to those who work the repeater in the sky. Terrestrial repeaters also have extensive features provided. This may seem an overkill but even with such a transceiver, it may sometimes be necessary to resort to the repeater.

An inbuilt power supply is provided. This power supply will support the transceiver with all four bands fitted. The power supply is a switching type and as a result of the circuitry used, can accommodate a wide range of input voltage. This could be quite handy if you live in an area with a wide range of supply voltage variation. Protection from supply voltage spikes is provided by VDR's.

Specified output is 25 watts on 144 MHz and 432 MHz and 10 watts on 52 MHz and 1296 MHz. Quite adequate to drive any of the popular external amplifiers for serious work. The review model easily met these specifications on all four bands.

The receivers on the four bands are of good sensitivity and whilst not measured, gave a good account of themselves on all four bands. On 432 and 1296 MHz dual gate GASFETS are used. These provide a low noise front end and with a masthead preamp would provide an outstanding receive system. In the transceiver, they are of course at the mercy of the coaxial cable that you put in front of them. For these bands only large diameter hardline really cuts the mustard.

The circuitry used on 52 and 144 MHz shows promise of good performance in the face of strong local signals. However, it was not possible to evaluate this feature objectively. No obvious evidence of such problems was evident.

Operation of the transceiver was simple. Some reference to the manual must be made as the range of features is so large. Indeed to make intelligent use of the capabilities of the transceiver would take a

considerable degree of familiarisation. So set aside some time to learn how to drive it after you take delivery.

The scope of the features and operating facilities is quite amazing. The control system is very sophisticated and really provides every conceivable feature.

Servicing the FT736R should be relatively straight-forward once you have got over the fright of viewing the circuits. Ideally you should leave this side of things to an expert as it is really a very complex and sophisticated piece of equipment. Bullnose pliers, a large screwdriver and the old scope soldering iron really have no place in servicing such equipment. All the boards are readily accessible and the front panel hinges to expose the processor and display circuitry.

On air the transceiver acquitted itself creditably although it was not possible to find a DX dogpile on six or some really weak and elusive DX on the other bands.

The transceiver is well packed and protected.

Minor annoyances were the lack of a microphone in the standard package as well as the lack of a DC lead. Both are available as accessories. However, their exclusion with such an otherwise well presented transceiver would seem to be an oversight. Yaesu still have some room to improve.

The connector used for 144 MHz was the familiar UHF type. The Type N would be preferable on this band and indeed would be welcome on 52 MHz as well. Both the 432 and 1296 MHz connectors were Type N. At VHF and UHF a constant impedance connector is essential for the serious work that the FT736R is capable of.

The only hard part about the FT736R is paying for it. The price must be viewed in perspective with what you get. No so long ago such a piece of equipment would have been inconceivable. We pay similar prices for other technological marvels. So dig deep and help populate the VHF and UHF bands. ar

the potential of radio communication, particularly in these areas, because he was a radio amateur using the callsign 8AC and a WIA member. However, the first main obstacle to the realisation of his dream was the ready availability of a regular power source. The accumulator, or car battery, needed regular re-charging and was prone to fail in times of crisis. One lucky day in 1926 Flynn met Alfred Traeger who listened to the problems and shortly after (1927) came up with a solution which led to the development of the now world famous pedal radio and the mechanical morse keyboard - both incredible pieces of ingenuity for their time.

At this point it may be pertinent to mention a few, just a few, of those radio amateurs who laid the groundwork for what would become the Australia-wide Royal Flying Doctor Service (RFDS):

1. Hudson (Later Sir Hudson) Fysh VK2EF (SK) of QANTAS, who discussed with Rev Flynn the possibility of an Outback Aerial & Medical Service (1921) and made concrete suggestions for its establishment.

2. Alfred Traeger VK5AX (SK) mentioned above.