

## Amateur Radio Operation during the Third Indian Antarctic Expedition 1983-'84

Ashutosh Singh<sup>1</sup>

The amateur radio station VU2IF/MM3 became operational from the ship '*Fmnpolans*' from 4-12-83 and operated till 9-1-84. Then it was taken to the base camp on the ice-shelf. From there the station operated with the callsign AT0A. From 1-3-84 to 30-3-84, the station was again operated from the ship.

From Goa to Antarctica and back, regular radiophone (SSB) contacts were maintained with radio amateurs in the following cities: Delhi, Bombay, Calcutta, Madras, Poona, Cochin, Trivandrum, Baroda, Ahmedabad, Jaipur, Jullendhar, Chandigarh, Coimbatore, Nagpur, Ranchi, Bangalore, Hyderabad, Madurai, Gandhinagar, Calicut, Kakinada, Mandya, Nagapattanam, Haripur, Lalpur, Mangalore, Trichur, etc.

Many QSP between the members of the expedition and their families in India were exchanged via amateur radio and several direct QSO were arranged. When direct path to India was not open QSPs were relayed via Africa North & South America. For example one day when ships SATCOM was out of order QSP to Delhi was relayed via Washington DC.

From the base camp, first radio-phone (SSB) contact was made with Switzerland on 10 Jan. 1984. First radio contact (Phone SSB) with India was made on 15 Jan. 1984. Thereafter, the following Indian cities were contacted on SSB-phone: Delhi, Bombay, Madras, Calcutta, Hyderabad, Cochin, Madurai, Poona, Trivandrum, Coimbatore, etc.

Following Antarctic stations were contacted on radio phone (SSB) Bellingshausen 4KIF, Mirnyy 4KIB, Molodyozhnaya 4KIA, Novolazarevskaya 4KID, Komsomolskaya 4KIK, McMurdo KC4 USX, Palmer KC4AAC East - German - Station Y83ANT, Sanae base, etc.

Contacts were also made with maritime-mobile stations in Antarctic waters, Carrebian Sea and the Indian Ocean.

The station VU2IF/MM3 & AT0A also made radio phone-SSB contacts with hundreds of amateur wireless stations in the following countries. Argentina, Australia, Andorra Is., Austria, Bolivia, Brazil, Bulgaria, Botswana, Canada, Chile, Columbia, Costa Rica, Czechoslovakia, Crozetgs, England, Finland, France, Germany, Grenada Is, Hong Kong, Hungary, Israel, Italy, Japan, Jordan, Luxemburg, Malaysia, Maldives Is, Mauritius, Mexico, Nepal, Newzealand, Norway, Parguay, Pakistan, Poland, Portugal, Romania, Reunion Is, Singapore, South-settard Is, South Africa, Soviet Union, Spain, Switzerland, Yugoslavia, Uruguay, Zambia, Thailand, etc.

The station regularly checked in Indian and International DX and emergency nets and once relayed medical traffic from Malaysia to India. Various time frequency signals and transmissions from various shortwave transmitters of AIR were monitored to study propagation conditions.

<sup>1</sup>Amateur Radio Association, New Delhi

Phone-patch traffic from various U. S. Antarctic Bases and operation of many Antarctic region stations were monitored to study their operating habits.

Aerial Survey of Wholthot Mountain was done in MI 8 helicopter to study VMF propagation in the area from the point of view of installing unmanned VHF repeater at a suitable location.

Radio traffic of the expedition on both HF and VHF was monitored to study the effectiveness of radio communication planning and performance of various radio equipments.

In all amateur Radio contacts, 100 watts R F power inverted-V (dipole) and Qubical Quad antenna were used.

#### **Abbreviations used**

- QSP — Message without charge
- QSO — Radio Contact
- SSB — Single Side Band
- DX — Long Distance