

# OTC PROVIDES VITAL LINKS WITH HOME FOR THE "MOON MEN"

OTC provides about 90% of the international communications links in the southern hemisphere which keep the astronauts in touch with mission control.

Voice, television, data and telemetry transmissions picked up through NASA tracking stations in Australia are relayed to the U.S.A. via OTC earth stations at Carnarvon and Moree or via OTC coaxial cable facilities. Signals picked up by Apollo Range Instrumented Aircraft — "flying tracking stations" used to fill in the gaps in the ground station network operating just north of Australia are relayed through OTC facilities, OTC radio stations at Doonside and Bringelly, N.S.W., provide the twoway link with the aircraft.

The signal beamed to earth from the Lunar Module was received by the CSIRO's Parkes radio telescope and by Department of Supply/NASA tracking stations at Honeysuckle Creek and Tidbinbilla. At the time of the momentous moonwalk, these were the only stations in the world in "line of sight" with the astronauts.

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A.R.I.A. AIRCRAFT

The signal was fed through the NASA switching centre at Canberra to the NASA control centre (specially installed for the Apollo 11 operation) in the OTC international terminal at Paddington, N.S.W. Here, the signal first became a discernible TV picture.

From Paddington, the picture went out two ways.

### **1. FOR AUSTRALIAN TELEVISION**

Via APO lines to the Australian Broadcasting Commission studios at Gore Hill, Sydney, for conversion to a 625-line TV picture suitable for Australian sets, then transmitted over the APO broadband network to Australian TV stations and so to your television receiver. Australian viewers actually saw the telecast a split second earlier than viewers throughout the rest of the world.

### 2. FOR WORLD TELEVISION

Simultaneously, the picture was fed by APO lines to the OTC satellite earth station at Moree, N.S.W., for transmission via the Pacific INTELSAT III satellite to the Apollo mission control centre at Houston, Texas. From there it was redistributed to U.S. television stations and to other countries throughout the world.

Throughout the mission, from the launch at Cape Kennedy, on July 16, telecasts and voice broadcasts of the proceedings were being received in Australia via the normal satellite and cable channels provided by OTC.





strides Australia has made in the field of international telecommunications in recent years:

The number of international telecommunications circuits provided by OTC for use by NASA for the Apollo II moon landing mission is more than Australia had available in total ten years ago.

The Apollo II telecommunications business is all being carried by existing commercial facilities without any disruption of normal international services.

Australia is one of the world's largest owners of commercial communications satellite earth stations - with 2 existing OTC earth stations, at Carnarvon, W.A. and Moree, N.S.W., and 2 more in construction and due to come into



OTC received a special citation from NASA for its part in the Apollo 8 mission. This states, in part: "The dedication and skill of the leaders and all personnel ... in maintaining reliable communications insured the success of the first manned lunar-orbit mission and



# AUSTRALIA-SPACE-AGE

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control throughout the mission. Diagrams overleaf show how OTC helped to make this TV news scoop of the century possible – and played a significant part, also, in channelling the vital flow of communications between the astronauts and ground businesses maintaining overseas communications. such as are in use all day, every day, by Australian Historic as this occasion was, for OTC engineers it was "all in the day's work". The services provided were

world. The telecast was seen live by viewers all around the the Lunar Module to stand on the surface of the moon. The world watched with bated breath as the Apollo II mission commander, Neil Armstrong, emerged from

Overseas Telecommunications Commission (Australia). and passed to the world through the facilities of The The picture was received by Australian tracking stations

operation later in 1969 at Ceduna,S.A. and Carnarvon, W.A.

Australia, represented by OTC, is a foundation member of the INTELSAT consortium, which owns and operates the world's commercial communication satellites.

Australia, represented by OTC, is a major shareholder in the world's largest submarine cable network with a 25% share in COMPAC and a 28% share in SEACOM.

### OTC SPEEDS YOUR WORDS ACROSS THE WORLD



made it possible for millions of people around the world to witness man's first venture into extraterrestrial space."



THE OVERSEAS TELECOMMUNICATIONS COMMISSION (AUSTRALIA)

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## HOW THE MAN-ON-THE-MOON TELECAST WAS BROUGHT TO YOUR SCREEN

