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COMMUNICATIONS

Postmaster-General's Department

On 11 March 1837 Edward J. Foster took the oath of office as Melbourne's first officially appointed Postmaster. Since then the Postmaster-General's Department in Victoria has progressed from a staff of one and a crude bark hut, to a large administration employing a staff of approximately 33,000 persons located throughout the State. The complexity of modern communications requires specialisation in activities, and, to meet these requirements, the Victorian Administration is divided into six major sectors : Postal Services Division, Engineering Division, Telecommunications Division, Personnel Branch, Supply Branch, and Finance and Accounting Branch. Each of these sectors is further divided for efficient functioning.

As well as postal, telephone, and telegraphic services, the Postmaster-General's Department also provides transmitting and other technical facilities for the national broadcasting and television services. The general supervision of broadcasting stations and television stations, however, is vested in the Australian Broadcasting Control Board under the *Broadcasting and Television Act* 1942–1956, while, under the same Act, the Australian Broadcasting Commission controls the activities of the National Broadcasting Service and National Television Service.

At 30 June 1973 there were 330 official and 1,316 non-official post offices, 836 country automatic telephone exchanges, 288 country manual exchanges, and 105 metropolitan automatic exchanges. These offices and installations ensure that Departmental services are within the reach of all but the most isolated homes.

Training

To maintain the operating staff at desirable levels, large numbers of trainees are recruited each year. A seven month training course for postal clerks-in-training concluded in January 1973, with 28 successful candidates. Classes were held at the Postal Training School in Melbourne, but approximately half of the training period was spent under actual working conditions at various post offices. A second course, which commenced in January 1973 and ended in July of that year, resulted in a further 27 successful candidates. In addition to these two courses, a special course was provided for Postal Officers, Grade III, which lasted four months. Nineteen candidates qualified.

In telecommunications, the five year course for technicians-in-training which has been conducted by the Department for many years, began to be

phased out early in 1971 in favour of two new four year courses—for telecommunications trainees and telecommunications tradesmen. In January 1973 there were some 660 technicians-in-training still completing courses. Approximately half this number were in their fourth year of training, and the remainder were completing their fifth and final year. Three courses for telecommunications trainees were held during 1972–73, one for first year students, one for second year students, and one for third year students. A total of approximately 470 students attended these three courses. During the four year course, trainees spend approximately two years at a technical college and the remaining time at Departmental training centres, or gaining practical experience at telephone exchanges or television transmitters. Candidates for this course are required to have reached fifth form standard in English, physics, and mathematics.

The four year course for telecommunications tradesmen involves approximately twenty months spent at a Departmental training centre, and the remainder of the time engaged in practical field work. About 180 first year students were trained during 1972–73, plus 200 second year students, and 200 third year students.

Training courses are also provided by the Department for trainee draftsmen and trainee technical officers. The traineeships are available to persons between the ages of 15 and 28, applicants being required to pass the subjects of English, mathematics, and physics or chemistry at fifth form level. A four year course is provided which includes day attendance at a technical college or institute, plus eight special unit courses provided at Departmental training centres. The following courses were provided in 1972–73, the number shown after each course indicating the number of trainees enrolled for that course. Trainee draftsman : communications and electronic 46, mechanical design 27, structural 7, surveying and cartography 6, and production—jig and tool design 2. Trainee technical officer : engineering 8, science 12, and building 7. Training for these courses is provided at a variety of technical institutes, colleges, and schools, including the Royal Melbourne Institute of Technology, Swinburne College of Technology, Collingwood Technical College, Footscray Institute of Technology, Box Hill Technical College, and Oakleigh Technical School.

A twelve month course for linemen-in-training commenced in June 1972 and was completed in May of the following year. Eighty candidates enrolled for this course. A second course for linemen-in-training was commenced in January 1973, when 120 candidates enrolled. In addition to these courses, specialised instruction on new techniques in the ever-changing field of electronics was provided for qualified officers. There was also a five month course provided for telegraphists, which all trainees completed successfully. Five year courses are also available for apprentice tradesmen in the following trades, where the number following each trade indicates the number of trainees engaged in the course during 1972–73 : motor mechanic 25, sheet metal worker 12, instrument maker 3, fitter and turner 45, carpenter 10, wood machinist 2, structural steel worker 12, electrical fitter and mechanic 67, signwriter 6, locksmith 2, frenchpolisher 2, panel beater 1, and electroplater 1.

The following information mainly describes the branches and divisions of the Postmaster-General's Department that are associated with services directly available to the public.

Post Offices Branch

During 1972–73 new official post office buildings were opened at Ringwood and Korumburra. Modern and attractive in appearance, yet strictly functional and planned to meet future needs, they provide facilities for the latest mail handling techniques as well as greatly improved amenities for staff.

S.A.L. (Surface Air Lifted) Service

This service, introduced in August 1971, provides an intermediate choice between overseas sea mail and air mail. Economy priced and available from all post offices, S.A.L. mail is particularly suited to small packets and parcels previously sent by sea mail. Delivery time is about a third of that for sea mail.

Stamps issued during 1972–73

On 2 August 1972 a set of rehabilitation stamps was issued to draw attention to the work of various organisations assisting the rehabilitation of physically and mentally disabled people. It was planned that the issue should remain on sale for approximately twelve months. There were three values —12c, 18c, and 24c. This issue was followed by the release of a single 7c stamp on 22 August to honour the centenary of the Overland Telegraph Line.

A set of four Olympic Games stamps made their appearance on 28 August 1972. There were three different 7c designs, featuring athletics, swimming, and rowing, and one 35c value, highlighting equestrian events.

The 200th anniversary of the circumnavigation of Antarctica by Captain James Cook was commemorated by the issue of two stamps on 13 September. The 7c featured a portrait of Captain Cook, and also depicted his sextant and compass, while the 35c showed the barque *Endeavour* and a map of Antarctica.

A single 7c stamp was issued on 16 October 1972 to acknowledge the tenth International Congress of Accountants, held in Sydney. This was followed by a set of seven stamps, released on 15 November, which illustrated various aspects of pioneer life in Australia of the mid-nineteenth century. The values issued were 5c, 10c, 15c, 40c, 50c, 60c, and 80c. The final stamp issue for 1972 was the Christmas set of two values—a 7c stamp depicting Jesus surrounded by children, and a 35c value featuring " Christ, the Light of the World ", in a symbolic design.

The first set of stamps to be released in 1973 was issued on 7 March. The set consisted of four 7c stamps publicising Australia's adoption of metric measurement, and featured the four aspects of the metric system most frequently encountered—length, mass, volume, and temperature.

On 4 April 1973 a 7c stamp was issued to commemorate the 25th anniversary of the World Health Organisation. This was followed on 16 May by a set of four 7c stamps featuring famous Australians. The Australians thus honoured were Dame Mary Gilmore, writer and poetess ; Sir Isaac Isaacs, first Australian-born Governor-General ; Marcus Clarke, author, who wrote the Australian classic *For the Term of his Natural Life*; and William Wentworth, explorer, writer, and statesman.

The final stamp issue for the financial year was the national development set (second series) released on 6 June 1973. There were four values. The 20c stamp depicted shipping, the 25c iron ore and steel, the 30c transporting cattle by road trains, and the 35c mapping the continent.

Philatelic centres in Victoria

At 30 June 1973 there were fifteen philatelic centres operating at official post offices in Victoria. At these centres it is possible to purchase the commemorative issues of Australia up to six months after their date of issue (subject to stocks not being exhausted before that time). Collectors can also obtain at these centres new postage stamp issues from the Australian Antarctic Territory, Norfolk Island, Cocos (Keeling) Island, Fiji, Western Samoa, Nauru, Christmas Island, and Papua New Guinea. In addition to the philatelic centres, " first day of issue " postmarker facilities are available at 155 post offices in Victoria.

Transport Branch

The Transport Branch of the Postal Services Division in 1972–73 had a fleet of 798 vehicles and a staff of 471 persons. This figure included 376 motor drivers who are employed largely on rostered shifts and who transport mails and clear public telephone coin boxes and street letter boxes throughout the metropolitan area. The Branch also provides a pool of sedan cars for authorised Departmental staff, and undertakes the movement of bulk equipment, stores, cables, and poles by semi-trailer or truck to specified locations.

In some areas, mails are conveyed by private contractors. There are 1,060 of these services in Victoria which operate over a total of 22.1 million kilometres, at a cost of $1.7m per annum. Most of the mail routes operated under private contract serve the more sparsely populated areas of the State.

The vehicles allotted to the Transport Branch form only a part of the total fleet of 4,571 vehicles belonging to the Department in Victoria. A large proportion of this total are vehicles allotted to the Engineering Division, and are stationed at various depots throughout the State. Many have been designed for specific duties, such as the conveyance of large drums of cable, lengthy telephone poles, or for use as mobile cranes. Others are fitted out as mobile workshops. In addition to these vehicles, the Engineering Division also employs 622 major mechanical aids, the majority of which are used for earthmoving activities. Well over 1,000 small mobile units are used for various special purposes.

Telecommunications services

These services are the joint responsibility of the Engineering Division and the Telecommunications Division. The Engineering Division provides and maintains the technical facilities for telephone and telegraph services and for the national radio and television networks. It allots frequencies, monitors transmissions, and issues licences for privately operated radio services. The Telecommunications Division makes telephone and telegraph facilities available to the public, orders new services, provides customer advice, issues telephone directories, and deals with other telecommunications administrative matters.

Telephone directories

The 1973 Alphabetical Directory was issued during May 1973. The cover design featured the 40th International Eucharistic Congress, which was held in Melbourne during February 1973. The Directory totalled 1,528 pages—72 more than the 1972 issue. 1,218,000 copies were printed, 60,000 copies more than in the preceding year.

The Classified Directory for 1972–73 featured a series of pictures illustrating various facets of the metal trades industry to commemorate the centenary of the Metal Trades Industry Association. The Directory contained 1,264 pages—96 more than the previous issue.

The set of nine country directories for Victoria depicted local fungi on their covers, and included the following varieties—Honey Fungus, Arching Earth-Star, Bricky-Top, Lewellin's Toadstool, Peppery Coral-Fungus, Chrome Parasol, Rainbow Fungi, Brown-Ears, and Large Buff Coral-Fungus.

Automatic telephone service

Steady progress is being maintained towards providing a totally automatic telephone network throughout the State. During 1972–73 several new automatic telephone exchanges were brought into service, the largest ones being at Keysborough, Bayswater, Seaford, Croydon, Echuca, and Mount Eliza.

Subscriber Trunk Dialling (S.T.D.)

Subscriber Trunk Dialling (S.T.D.) facilities which enable a telephone subscriber to dial direct to distant subscribers, without the assistance of a P.M.G. operator, have continued to expand rapidly. During 1972–73, 652 exchanges in Victoria provided 868,415 services with access to S.T.D. Some additional centres to which S.T.D. became available during this time include Mornington, Hamilton, Pakenham, Echuca, Keysborough, and Lorne.

Automatic Telex

Automatic Telex is basically similar to S.T.D., but the typewritten message from the teleprinter is communicated instead of the spoken word. During 1972–73 an additional 366 Telex services were connected, bringing the total services in operation to 2,642. Victorian Telex subscribers now have access to more than 10,774 services in Australia, and to some 100 countries overseas.

Datel service

There is now an increasing demand for facilities to transmit digital data for computers over telephone and telegraph lines. Known originally as "Data Transmission", the service is now called "Datel". Questions sent by teleprinter to the computer have to be converted to signals that can be "understood" by the computer. Similarly, answers have to be converted to a form that can be transmitted over the lines provided by the Department. This conversion is performed by a modulator/demodulator unit, known as a "Modem". The data can be sent over the telephone network, over private telephone or telegraph lines providing point to point circuits for the customer's exclusive use, or by means of the Telex network. All lines except those used in the Telex network are suitable for high transmission speeds. At 30 June 1973, 281 customers were using Datel services. During 1972–73, 240 Datel exchange lines and 737 Datel private lines were installed.

Radio communication systems

During 1972–73 a number of microwave radio systems, forming part of the broadband network in Victoria, were established by the Department in various parts of the State. During July 1972 a 24 channel system was

provided that linked Arthur's Seat and Tankerton. This replaced two single channel systems that previously served the two towns. During the same month a 960 channel system was brought into service between Melbourne and Geelong. A 24 channel system was brought into operation between Corryong and Towong in November, and during the same month a four channel system that had been operating between Lorne and Wye River was replaced by a new 24 channel system. The last radio bearer installation to be brought into operation during 1972 was a 300 channel system linking Bairnsdale and Orbost.

In January 1973 a 120 channel system commenced operation between Lorne and Anglesea. The following month saw the inauguration of a 24 channel system that linked Mt Nowa Nowa with Buchan. During May, four radio bearer systems were completed, each providing a single television channel link. These installations linked Melbourne and Launceston ; Mildura and Berri ; Swan Hill and Mildura ; and Mildura and Yatpool. The latter two radio bearer installations replaced an older system linking Swan Hill and Yatpool. The last major installation brought into service before 30 June 1973 was a 24 channel system linking Hunters Hill and Walwa. Four single channel radio bearer installations were completed during 1972–73. These provided microwave radio links between Matlock and Woods Point ; Morwell and Aberfeldy ; Dederang and Big Ben ; and Harrietville and Mt St Bernard.

Radio communications

All civil radio communications stations are licensed and controlled by the Radio Branch of the Engineering Division, where rigid technical standards for equipment design and performance are enforced by regular inspection, by monitoring, and by frequent transmission checks.

As a member of the International Telecommunications Union, the Postmaster-General's Department in Australia observes and checks all radio transmissions received in Australia. Results of these observations are forwarded to the International Frequency Registration Board in Geneva, Switzerland.

The Radio Branch investigates complaints from broadcast listeners and television viewers concerning interference to reception. On behalf of the Australian Department of Transport, its staff also inspects the radio installations aboard vessels in the ports of Melbourne and Geelong.

Statistics

VICTORIA—POST OFFICES: PERSONS EMPLOYED

Period	Number of post offices	Persons employed					
		Permanent	Temporary and exempt	Semi- and non-official postmasters and staffs	Mail contractors	Other (a)	Total
1968–69	1,900	18,081	9,124	2,159	898	782	31,044
1969–70	1,827	18,346	9,429	2,036	984	768	31,563
1970–71	1,759	19,240	9,338	1,930	899	694	32,101
1971–72	1,690	20,762	8,157	1,856	824	725	32,324
1972–73	1,646	21,059	8,548	1,820	914	725	33,066

(a) Includes telephone office-keepers and part-time temporary and exempt employees.

Particulars concerning the revenue and expenditure of the Postmaster-General's Department in Victoria for each of the years 1968–69 to 1972–73 are contained in the following table :

VICTORIA—POSTMASTER-GENERAL'S DEPARTMENT : REVENUE AND EXPENDITURE

($'000)

Particulars	1968–69	1969–70	1970–71	1971–72	1972–73
REVENUE					
Postal	42,639	45,607	51,138	57,873	61,525
Telephone	111,590	123,462	142,270	165,769	192,228
Telegraph	3,451	3,872	4,846	5,494	6,191
Proceeds of sales	1,802	2,100	2,222	2,122	2,279
Recoverable works	3,670	3,838	4,264	4,384	4,543
International services	126	118	15	191	136
Total	163,277	178,997	204,754	235,833	266,902
EXPENDITURE					
Salaries and wages	95,397	105,390	120,631	140,911	160,813
Material	46,801	50,986	47,957	53,474	52,877
Carriage of mails by contractors	2,894	2,927	2,999	2,961	2,797
Buildings and properties	9,052	9,539	10,901	6,667	8,944
Accommodation services	4,990	5,450	5,460	5,321	5,932
Other administrative	9,359	9,943	10,500	11,390	13,313
Total	168,493	184,235	198,447	220,724	244,676

The following table shows the total number and value of money orders and postal notes issued and paid in each of the five years 1968–69 to 1972–73 :

VICTORIA—MONEY ORDERS AND POSTAL ORDERS

Period	Money orders				Postal orders			
	Issued		Paid		Issued		Paid	
	Number	Value	Number	Value	Number	Value	Number	Value
	'000	$'000	'000	$'000	'000	$'000	'000	$'000
1968–69	2,166	47,189	2,086	46,767	3,543	6,925	3,495	6,484
1969–70	1,926	38,931	1,936	37,709	3,808	8,086	3,714	7,277
1970–71	1,487	33,454	1,481	33,004	4,158	11,007	3,888	9,597
1971–72	1,179	28,887	1,101	28,467	4,415	13,295	4,028	12,042
1972–73	1,034	28,727	1,006	28,009	4,422	13,832	4,021	12,487

Of the money orders issued in 1972–73, 916,046 for $27,423,946 were payable in Australia and 117,831 for $1,302,695 in other countries. The orders paid included 959,329 for $26,768,477 issued in Australia, and 46,387 for $1,240,166 in other countries.

VICTORIA—TELEPHONE SERVICES AT 30 JUNE

Particulars	1969	1970	1971	1972	1973
Telephone exchanges	1,353	1,312	1,274	1,253	1,229
Public telephones	7,463	7,505	7,610	7,585	7,635
Services in operation	770,162	824,227	864,044	896,615	948,344
Instruments connected	1,080,223	1,182,149	1,239,652	1,293,977	1,370,163
Instruments per 1,000 of population	319.2	343.3	353.9	365.0	380.6

VICTORIA—LETTERS, ETC., POSTED AND RECEIVED
('000)

Period	Letters, postcards, etc.	Registered articles (except parcels)	Newspapers and packets	Parcels (including those registered)
POSTED FOR DELIVERY WITHIN AUSTRALIA				
1968–69	575,773	2,307	100,878	5,473
1969–70	559,138	2,262	94,188	5,652
1970–71	640,991	2,145	85,800	5,777
1971–72	631,969	1,929	78,763	5,810
1972–73	646,581	1,724	91,676	5,970
DISPATCHED TO AND RECEIVED FROM PLACES OVERSEAS				
1968–69	91,724	1,171	14,372	734
1969–70	77,142	1,249	13,860	792
1970–71	86,076	1,326	14,846	899
1971–72	84,251	1,349	8,842	881
1972–73	80,198	1,301	9,218	950
TOTAL POSTED IN VICTORIA AND RECEIVED FROM OVERSEAS				
1968–69	667,497	3,478	115,250	6,207
1969–70	636,280	3,511	108,048	6,444
1970–71	727,067	3,471	100,646	6,676
1971–72	716,220	3,278	87,605	6,691
1972–73	726,779	3,025	100,894	6,920

VICTORIA—RADIO COMMUNICATION STATIONS AUTHORISED AT 30 JUNE

Class of station	1969	1970	1971	1972	1973
Transmitting and receiving—					
Fixed stations (a)—					
Aeronautical	4	4	4	..	..
Services with other countries	12	12	..	..	..
Other	226	262	277	260	302
Land stations (b)—					
Aeronautical	24	49	52	75	69
Base stations—					
Land mobile services	1,693	2,066	2,351	2,565	3,032
Harbour mobile services	23	31	37	37	45
Coast (c)	20	25	27	1	1
Limited coast	..	..	..	32	37
Repeater	..	..	..	40	41
Special experimental	153	169	159	138	137
Mobile stations (d)—					
Aeronautical	437	512	510	449	502
Land mobile services	20,225	25,005	27,447	29,592	33,015
Harbour mobile services	178	257	252	270	283
Radiodetermination	..	..	..	9	9
Radiotelephone subscribers service	..	..	..	159	87
Ships	728	914	989	1,088	1,284
Space services (e)	..	..	..	1	1
Amateur stations	1,785	1,925	1,966	1,989	2,012
Total transmitting and receiving	25,508	31,231	34,071	36,705	40,857
Receiving only—					
Fixed stations (a)	199	198	198	34	15
Mobile stations (d)	..	..	..	..	21
Grand total	25,707	31,429	34,269	36,739	40,893

(a) Stations established at fixed locations for communication with other stations similarly established.
(b) Stations established at fixed locations for communication with mobile stations.
(c) Land stations for communication with ocean-going vessels.
(d) Equipment installed in motor vehicles and harbour vessels.
(e) A radiocommunication service between earth stations and/or space stations.

Broadcast and television licences in force

The number of stations licensed for broadcasting and television, and the number of holders of broadcast listeners' and television viewers' licences in Victoria at 30 June 1969 to 1973 are shown in the following table :

VICTORIA—NUMBER OF BROADCASTING AND TELEVISION
LICENCES IN FORCE AT 30 JUNE

Class of licence	1969	1970	1971	1972	1973
Broadcasting station (*a*)	20	20	20	20	20
Television station (*b*)	9	9	9	9	9
Broadcast receiver	80,685	72,051	64,298	58,390	53,588
Television receiver	73,078	107,362	115,613	111,921	114,721
Combined broadcast and television receiver	647,814	675,457	690,464	699,652	722,583
Amateur	1,785	1,925	1,966	1,989	2,012

(*a*) Excluding eight broadcasting stations (including three shortwave) operated by the national broadcasting service in 1968–69 and 1969–70. From 1970–71 seven broadcasting stations (including two shortwave) have been excluded.
(*b*) Excluding eight television stations operated by the national television service.

Post Office Museum

Melbourne's first Post Office Museum was officially opened on 5 April 1974 by the Premier of Victoria. The opening marked the culmination of ten years of collection of suitable material for this purpose—material that includes old record books of the 1850s, early telegraph forms, and other similar papers found in the attics of many old country post offices, and a large section of the manually operated Central Exchange Switchboard, which had been inspected by Dr Alexander Graham Bell in August 1910 just before it had been brought into operation.

The exhibits are housed in an attractive old red brick building located at 90 Swan Street, South Richmond. This building was erected in 1905, and for sixty-seven years served as the local post office. It was replaced in 1972 by the new Richmond South Post Office, which is located diagonally opposite, in Lennox Street. A feature of the old building is the beautiful timbered ceiling, and the ornate centre roses.

In order to maintain interest in the Museum, it is proposed to vary the exhibits from time to time. The initial display is of a general nature, and includes a range of old pillar boxes, dating back to 1858 ; working examples of " Magneto ", " Common Battery ", and the early automatic " Step by Step " telephone systems ; old telephones dating back to the late 1880s ; early telegraph equipment, including a working model ; Victorian postage stamps of the 1850s ; early brass seals and postmarkers ; Samuel Calvert's bond for engraving and printing early Victorian postage stamps ; the contract for the takeover of the Victorian Telephone Exchange Company Ltd by the Victorian Government in 1887; and many other items.

Admission to the Museum is free. It remains open at varying times for all the days of the week—less Tuesdays, Saturdays, and public holidays.

History of Post Office in Victoria, 1961; Melbourne–Sydney Co-axial Cable, 1964; Postage stamps of Victoria, 1974

OVERSEAS TELECOMMUNICATIONS SERVICES
Operations

The Overseas Telecommunications Commission (Australia) was established by the *Overseas Telecommunications Act* 1946. The Commission is the authority responsible for the establishment, maintenance, and operation of telecommunication services between Australia and other countries, with ships at sea, and to and between the external Territories of the Commonwealth.

The Commission is a body corporate with perpetual succession and a common seal, and is directed by five commissioners who are appointed by the Governor-General.

Public message telegram, telephone, telex, phototelegram, and leased circuit services are provided to most countries and places throughout the world and television to those with access to satellite communication facilities. A switched data service is also available to some countries. These services are provided by cables, communication satellites, and high frequency radio.

With most other Commonwealth countries, the Commission is a member of the Commonwealth Telecommunications Organisation, the purpose of which is to promote the efficient exploitation and development of the Commonwealth external telecommunications system. It is a three-tier structure comprising the Commonwealth Conference on Telecommunications, the Commonwealth Telecommunications Council, and the Commonwealth Telecommunications Bureau. The Commonwealth Telecommunications Council is the continuing management body of the Organisation with the role of promoting the purpose of the Organisation and carrying out the policies agreed by Governments. The Commonwealth Telecommunications Bureau is the Secretariat for the Organisation and functions under the control and direction of the Council. The 1972 Commonwealth Telecommunications Conference reviewed the working of the Organisation and recommended new collaborative financial arrangements governing the use of the Commonwealth telecommunications systems.

During the year ended 31 March 1972 direct telephone satellite services were established with West Germany, Thailand, New Zealand, and Singapore, and to France and Switzerland via West Germany and Italy, respectively. As at 31 March 1972 a total of 385 telephone type circuits were being used for international services.

The COMPAC cable was utilised to maximum capacity during the year as was the SEACOM cable between Guam and Singapore—in the larger capacity Sydney–Guam section of SEACOM, where usage was increased for services to the Philippines and Papua New Guinea, some growth capacity was still available.

The high frequency radio stations continued to operate at capacity providing short haul connecting circuits, primarily to the Australian Territories, Nauru, Noumea, and the British Solomon Islands, and special facilities such as those for the National Aeronautics and Space Administration for services to the specially equipped aircraft used during each APOLLO mission and to the recovery ships in the " splash-down " areas.

The INTELSAT system comprises satellites located over the Atlantic, Pacific, and Indian oceans. At the beginning of 1974 these satellites were providing the equivalent of 4,918 circuits and on–demand television service between 86 earth stations located in 52 countries.

Engineering

At the Moree and Carnarvon standard earth stations re-arrangements were effected and additional equipment installed to enable operation with the INTELSAT IV series of satellites. Services through these stations were transferred to the Pacific Ocean INTELSAT IV satellite in February 1972. The Ceduna earth station continued to operate via an INTELSAT III satellite in the Indian Ocean. Also at Carnarvon, where one of the two earth stations is performing telemetry tracking and control (T.T. and C.) services for INTELSAT satellites, additional equipment is being installed to perform the monitoring services included under a separate contract.

A major project at the Madang cable station was the installation of a crossbar telephone exchange to improve the efficiency of the telephone services carried over the SEACOM cable system between Australia and Papua New Guinea. The availability of this telephone exchange in conjunction with the improved internal services to be provided between Madang and Port Moresby will extend high quality semi-automatic overseas telephone services to most parts of Papua New Guinea.

New radio transmitting and receiving stations at Norfolk Island were completed during the year and installation of equipment was commenced. The completion of this project will provide Norfolk Island with, for the first time, an international telephone service.

Commercial

A total of 68 international television programmes amounting to 3,687 paid minutes was received or transmitted during the year. Highlights included coverage of the APOLLO 15 moon landing, former President Nixon's visit to China, and international sporting events including Wimbledon tennis and world heavyweight boxing. The Melbourne Cup was transmitted for the first time to New Zealand.

Coastal stations

The Overseas Telecommunications Commission operates fourteen coastal radio stations at points around the Australian coast, three on the Papua New Guinea coast, and one at Norfolk Island. During the year ended 31 March 1972 the coastal radio service handled 6,345,837 paid words to ships and 4,212,574 words from ships. Ships' calls over the radiotelephone service extended over 143,687 paid minutes.

Radio communication stations

At 30 June 1972 there were 165,063 civil radio communication stations authorised for operation in Australia and its Territories. Of these, 6,368 were stations established at fixed locations, 13,809 were land stations which were established at fixed locations for communication with mobile stations, 138,339 were mobile stations, 7 were earth space stations, 18 were broadcasting stations located in Papua New Guinea, and 6,522 were amateur stations.

International telecommunication traffic

The following table shows particulars of overseas telecommunication traffic other than telegraphic between Australia and overseas countries for the years ended 31 March 1971 and 1972 :

AUSTRALIA—INTERNATIONAL TELECOMMUNICATION SERVICES OTHER
THAN TELEGRAPHIC SERVICES, YEARS ENDED 31 MARCH 1971 AND 1972

Service		Transmissions					
		From Australia		To Australia		Total	
		1971	1972	1971	1972	1971	1972
Telephone	paid minutes	5,754,134	7,205,822	6,369,815	7,089,960	12,123,949	14,295,782
Telex	paid minutes	3,608,420	4,238,247	3,301,077	4,108,174	6,909,497	8,346,421
Television programmes	paid minutes	1,952	2,058	2,580	1,809	4,532	3,867
Phototelegrams	pictures	1,759	1,020	2,760	1,816	4,519	2,836

Particulars of the volume of international telegraph services originating
and terminating in Australia during the years ended 31 March 1971 and
1972 are shown in the following table :

AUSTRALIA—INTERNATIONAL TELEGRAPH SERVICES,
YEARS ENDED 31 MARCH 1971 AND 1972
('000 words)

Class of traffic	Words transmitted					
	From Australia		To Australia		Total	
	1971	1972	1971	1972	1971	1972
Letter	30,205	30,004	26,553	24,684	56,758	54,688
Ordinary	28,841	27,528	26,851	25,344	55,692	52,872
Press	3,786	3,004	4,315	2,687	8,102	5,691
Greetings	1,607	1,689	1,731	1,919	3,338	3,607
Urgent	1,891	1,907	1,540	1,485	3,431	3,392
Other	574	731	1,697	1,995	2,271	2,726
Total	66,905	64,862	62,687	58,113	129,592	122,976