

Chapter 15 Transport and Communication

Key Points

- » Good transport and communication links are critical to the Territory's development, given the small size of the local market, relative isolation from major markets in southern Australia and the small and widely dispersed Territory population.
- » In 2005-06, the transport and communication sector accounted for 5.4 per cent of gross state product and represents about 6.9 per cent of total Territory employment.
- » Rail continues to grow as an important transport link between Darwin and Adelaide providing regular passenger services and carrying an increasing volume of freight. It also provides opportunities for regional development.
- » The Territory's road infrastructure continues to be improved, with flood mitigation a noteworthy focus.
- » A range of air industry operators continues to link Darwin with international, interstate and intrastate destinations in terms of passenger transfer and freight.
- » Improvements in access to information and communication technology to the large percentage of Territorians living in remote areas remains a priority.

Transport and communication industries are critical drivers of economic growth. Transport and communication represented 5.4 per cent of the Territory's gross state product (GSP) in 2005-06.

Of particular importance to the Territory economy are the roles of long-distance and interstate freight transportation and remote telecommunications infrastructure, given the Territory's size, remoteness and widely dispersed population.

The four major segments of the Territory's transport sector are road, rail, sea and air. All modes fulfil key roles in moving goods and people to, from and through the Territory. The rail link continues to emerge as an increasingly important factor in growing export activity through the Port of Darwin due to its capability to haul large volumes of mineral ore. Continued improvements in the scale and scope of facilities offered at Darwin's port is important to realising the full potential of Darwin to develop as a regional transport and logistics hub, more closely linking Australia with markets in Asia.

Table 15.1: Transport and Communication as a Proportion of GSP and GDP, 2005-06

	Transport %	Communication %	Total %
New South Wales	3.7	2.4	6.1
Victoria	3.6	3.0	6.6
Queensland	4.1	2.0	6.1
South Australia	3.8	2.2	6.0
Western Australia	3.7	1.9	5.6
Tasmania	3.8	2.1	5.9
Northern Territory	3.4	2.0	5.4
Australian Capital Territory	2.1	2.3	4.4
Australia	3.7	2.4	6.1

Source: ABS 5220.0

Transport

Transport-related activity accounted for about \$415 million or 3.4 per cent of Territory GSP in 2005-06 and accounts for about 5.0 per cent of total Territory employment.

Rail During 2005-06, the total freight transported by rail was 663 000 tonnes, an increase of 18 per cent from 2004-05. The capability of rail to carry large volumes of mineral ore over long distances continues to be evident in the Territory. More than 500 000 tonnes of manganese ore was hauled from the Bootu Creek mine (near Tennant Creek) to Darwin between May 2006 and May 2007 as the first year of a five year contract in which up to 650 000 tonnes will be transported annually. From mid-2007, about 1.5 million tonnes of iron ore will be hauled annually to Darwin for export to China from the Frances Creek mine (near Pine Creek), which has reported total resources in excess of 9 million tonnes. Assessment of the carriage of gold-bearing ore from mining operations in the Adelaide River region to the Union Reef gold processing plant near Pine Creek continues. Overall rail capacity was increased in early 2006, with the introduction of wagons capable of carrying road fuel tankers, and again in July 2006 with the acquisition of low-deck wagons on which containers can be double stacked. Increased utilisation of rail by the Australian Defence Force (ADF) began in early 2007. The operator, FreightLink, expects total tonnage for 2006-07 to be nearly double that of the previous year. In early 2008, the ADF expects to have rolling stock available to carry heavy equipment, including Abrams tanks, to and from Darwin.

Currently, rail freight is dominated by domestic product, although import and export volumes are growing steadily. A Darwin-Melbourne (via Adelaide) freight service introduced in 2005 to streamline movement of freight between the two cities continues to contribute to the dominance of the central corridor in freight movements into and out of the Territory. In linking southern markets with the international market, the railway has the capacity to move large quantities of bulk commodities between Darwin and Adelaide in less time than by sea.

In 2006, the Ghan passenger train service consisted of a twice weekly return trip from Adelaide to Darwin, with scheduled stops of several hours duration at Alice Springs and Katherine. About 63 000 passengers were carried. In 2005, the operator, Great Southern Railway, offered an additional weekly service between Adelaide and Alice Springs during May, June and July. During that year, 74 000 passengers were carried.

Sea The Darwin Port Corporation is the body responsible for the Territory's most diverse port operation, the Port of Darwin, with facilities to handle freight for domestic and international markets, cruise ships, and to serve as a hub for offshore oil exploration supply and the railway. A major private operator within Darwin harbour is ConocoPhillips, which has liquefied natural gas (LNG) processing and ship-loading facilities at Wickham Point through which about 3 million tonnes of LNG have been shipped annually to Japan since early 2006. In other areas of the Territory, a number of private ports service coastal mining communities directly for supplies and mineral exports, including Bing Bong near Borroloola (Xstrata's McArthur River Mine), Alyangula on Groote Eylandt (Groote Eylandt Mining Company), and Nhulunbuy in East Arnhem Land (Alcan Gove mine and alumina refinery).

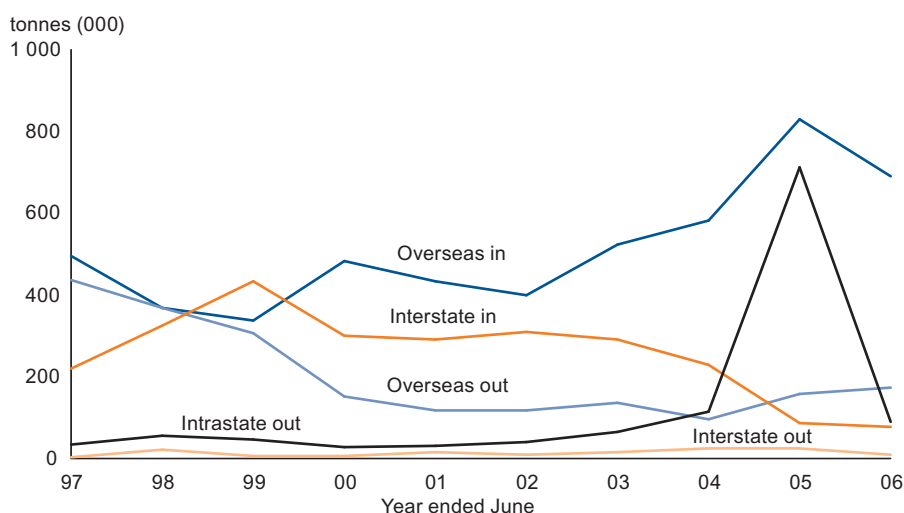
In 2005-06, total cargo tonnage through the Port of Darwin returned to 2002-03 and 2003-04 levels with a decrease of 43 per cent to 1.08 million tonnes. In 2004-05, the total cargo tonnage was substantially higher at 1.9 million tonnes. This was largely due to the shipment of about 600 000 tonnes of armour rock shipped from Darwin

for the construction of the Bayu-Undan sub-sea gas pipeline. The 2 per cent decline in the total number of vessels calling at Darwin Port Corporation facilities during 2005-06 comprised a 9 per cent decrease in the number of non-trading vessels, offsetting the 24 per cent increase in the number of trading vessels.

The total tonnage of cargo imported through the Port of Darwin during 2005-06 (over 800 000 tonnes) was almost three times the total tonnage exported (Chart 15.1). Over the same period, overseas imports accounted for 86 per cent of total imports, of which 74 per cent were petroleum products. Other significant imports included cement clinker and metal products. Overseas exports accounted for 63 per cent of total exports, of which 35 per cent comprised livestock and 40 per cent manganese ore. Livestock accounted for 37 per cent of the total tonnage exported.

In 2006, cruise ship visits increased by 33 per cent to a total of 44 visits, but passenger numbers decreased by 5 per cent to about 10 500 passengers. Tourism NT expects the number of cruise ship visits to increase to 46 in 2007. Construction of a new cruise ship terminal adjacent to Fort Hill Wharf is planned for 2007.

Chart 15.1: Trade Through Port of Darwin



Note: The large increase in 'Intrastate out' in 2004-05 was armour rock used for the construction of the Bayu-Undan sub-sea gas pipeline

Source: Department of Planning and Infrastructure, Darwin Port Corporation 2005-06 Annual Report

For the past few years, regular international shipping services to and from Darwin have been provided by Swire Shipping (fortnightly Singapore-Dili-Darwin service), Hai Win Shipping (monthly Shanghai-Darwin service) and Perkins Shipping (fortnightly Singapore-Dili-Darwin service).

The current capacity and frequency of shipping services to and from Darwin to maximise the railway's potential is due to increase, with national freight forwarder Northline and international forwarder Mitra Intertrans Forwarding forming an alliance in late 2006.

This alliance will provide customers with an integrated transport service between Australia and Indonesia, through the Port of Darwin, to reduce shipping lead time between Indonesia and Sydney or Melbourne.

In addition to its capacity to handle 250 000 standard containers (TEU) per year, facilities at the East Arm port include a bulk liquids terminal, intermodal freight-handling facilities, and pipelines and equipment for oil transfer. Completion of the bulk material handling facility, travelling gantry shiploader and supporting infrastructure is expected during 2007.

Road The Territory is served by three national highways which provide links to Queensland (Barkly Highway), South Australia (Stuart Highway) and Western Australia (Victoria Highway). The national highway network is the backbone of the road network system across the Territory and provides the only sealed road link between the Territory and the rest of Australia.

The Territory road network consists of more than 36 000 kilometres of road. About 22 000 kilometres are managed by the Territory Government including 12 per cent classified as national highways, 19 per cent as arterial roads and 69 per cent as secondary or local roads. The remaining approximately 14 000 kilometres of roads primarily for distributing traffic within local areas, are administrated by local governments.

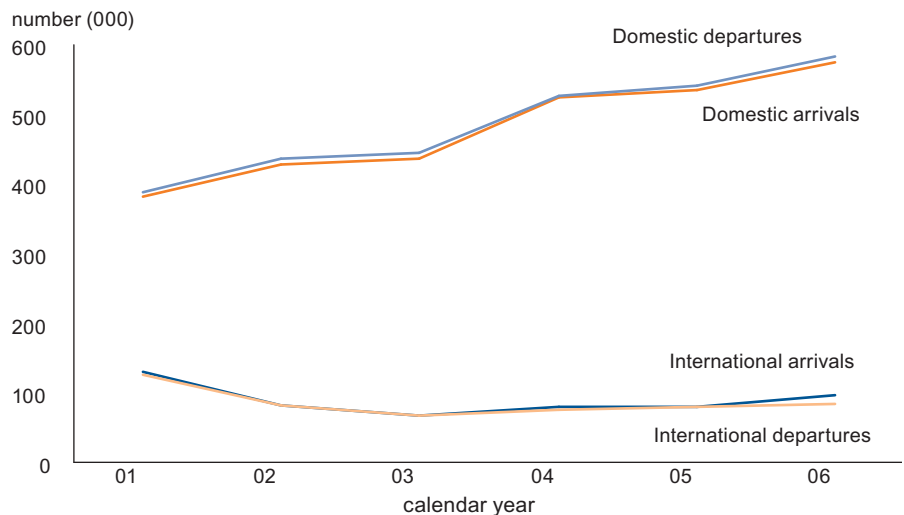
All three levels of government are responsible for developing and maintaining the road networks in the Northern Territory. AusLink is the Australian Government funding program designed to allocate funding to the land transport network. In 2006-07, AusLink expenditure on roads in the Territory is estimated at \$33 million. Along with maintenance and widening activities, this includes major works to overcome flooding problems on the Victoria and Stuart highways, including bridge works. Upgrading of 'blackspots' locations on roads servicing the pastoral, tourism and mining industries and improving access for remote communities is also being conducted.

In 2006-07, Northern Territory Government expenditure on roads will be approximately \$60 million. Improvement of roads, such as the continuation of sealing the Red Centre Way (including the Mereenie loop) and Litchfield loop roads, remains a priority.

Air Urban centres in the Territory with air transport facilities for regular public passenger and freight movement include Darwin (international airport), Alice Springs, Tennant Creek, Gove (owned and maintained by Alcan) and Groote Eylandt (owned and maintained by GEMCO). The Yulara tourist resort near Uluru is serviced by Connellan Airport. During 2005-06, the combined number of aircraft movements at Darwin, Alice Springs and Tennant Creek airports totalled 96 500, an increase of 4 per cent from 2004-05. Darwin accounted for 74 per cent of the 2005-06 total.

Historically, similar numbers of international passengers have entered and exited Australia through Darwin. In 2006, the number of international arrivals was slightly higher than international departures, perhaps due in part to the availability of lower fares from Singapore making travel to Darwin more attractive for budget travellers coming through Asia (Chart 15.2). In 2006, excluding transit passengers, about 670 000 passengers arrived in and about 668 000 departed from Darwin. The proportion of international passengers in both groups was 14 per cent and 13 per cent respectively. The total number of international arrivals in 2006 increased by 19 per cent to 95 900, and the total number of domestic arrivals increased by 7 per cent to 583 800 over the same period.

Chart 15.2: Airline Passenger Numbers, Darwin



Source: Darwin Airport

International Operators

In 2007, seven airlines operated regular international services to and from Darwin:

- Qantas (Denpasar and Mumbai);
- Garuda (Denpasar);
- Tiger Airways (Singapore);
- Royal Brunei (Brunei);
- Qantas - Jetstar (Singapore);
- Merpati Nusantara (Kupang);
- Air North (Dili); and

In 2006, Qantas provided 36 per cent of total international capacity into Darwin, followed by Tiger Airways.

Occasional charter service flights also bring tourists directly from Japan to Alice Springs to visit Uluru, including six new flights carrying up to 268 passengers per flight from August 2006.

Interstate Operators

In 2007, five airlines operated regular interstate services to and from Darwin:

- Qantas (which accounted for 80 per cent of total interstate capacity);
- Jetstar;
- Virgin Blue;
- Skywest; and
- Airnorth.

Intrastate Operators

Four airlines operate regular services within the Territory:

- Qantas (Darwin, Nhulunbuy, Alice Springs and Yulara);
- Airnorth (Darwin, Gove, Groote Eylandt and Maningrida);
- Tiwi Travel (Darwin, Melville Island and Bathurst Island); and
- Vincent Air (Darwin and Groote Eylandt).

Air freight to remote communities is also important for the delivery of perishables, household items and mail. Several firms also provide air charter services in the Territory.

Communications

The communications industry accounted for about \$241 million or 2 per cent of Territory GSP in 2005-06 and accounts for about 1 per cent of total Territory employment.

Technological developments have reduced the isolation faced by many Territorians, particularly those living in remote localities. Increased access to information technology infrastructure has enabled the delivery of a wider range of mainstream services to remote areas and innovations in service delivery. Despite significant investment and ongoing improvement, the gap between the Territory and other jurisdictions in access and capability to deliver information and communication technology (ICT) based services remains large, particularly in remote areas.

Remote Access

Remote areas in the Territory have benefited from increased access to telecommunications services, however the low volume of network traffic and lack of competition means that unit costs for electronic services remain high.

In 2005, the Australian Government announced the Connect Australia program, a \$1.1 billion package aimed at improving remote and regional telecommunications within Australia. The four components of the program were focused on the delivery of equitable broadband services, rolling out broadband networks to carry applications aimed at improving delivery of health, education and other essential services, extending terrestrial mobile phone coverage, and delivery of vital communication services to remote Indigenous communities. The Territory Government continues to liaise with the Australian Government to ensure the specific needs of the Territory are addressed. Particular developments that address these needs are broadband and mobile access in remote areas and a second fibre-optic cable from Adelaide to Darwin to improve wholesale telecommunications competition. In 2007, the scale and scope of the broadband delivery component of Connect Australia was extended when the Australian Government announced the Australian Broadband Guarantee. This program aims to ensure all Australians are able to access broadband services regardless of where they live. Benefits to the large proportion of the Territory population living in remote areas will emerge over the coming years.

The Territory has 46 locations with access to terrestrial mobile telephony, of which 42 are located in remote communities. Mobile phones are the product of choice for telephony in remote Indigenous communities. Along with voice communication, the technology offers an alternative to traditional computer-based internet services for government and the private sector to deliver services. In 2006, Telstra launched the NextG mobile network which makes broadband mobile connectivity available to 49 Territory locations, 41 of them in remote areas.

Northern Territory Government

Telstra was contracted as the Territory Government telecommunications service provider for five years from June 2005. Under that contract, bandwidth has increased, resulting in improved response times for services such as data transfer, intranet and internet services. The increased bandwidth will allow a digital data telephone service to be rolled out during 2007-08 to replace ageing PABX systems, and video-conferencing facilities are also being established in some agencies. During 2006, in Darwin, a new 150-staff national call centre began operations and an existing 100-staff call centre was expanded as part of an estimated \$65 million worth of industry and community development initiatives included in the contract. Further, Telstra's National Indigenous Directorate, which coordinates the delivery of telecommunications services to remote Indigenous communities nationally, was opened in Darwin in August 2005. The Government's Local Area Network (LAN) was

also moved from the current service provider to Telstra in 2006, which is expected to deliver a cost saving to Government of about \$4 million over four years.

Two significant Department of Employment, Education and Training (DEET) programs continue to provide improved ICT service delivery access and use in schools:

- Learning and Technology in Schools (LATIS) delivers high volume bandwidth ICT services to 155 Territory schools, 54 of these via satellite; and
- Interactive Distance Learning (IDL), which has replaced the two-way radio from the School of the Air, is using satellite technology to deliver interactive specialist tuition to 200 remote homesteads, schools and training centres in the Territory. The technology is now used for secondary school tuition, but in the future may be applied to training needs, including vocational education and training.

Both programs will progressively move to terrestrial services, where appropriate, under the Telstra contract.

Television Darwin is served by the ABC, SBS, Channel Nine and Southern Cross Television (SCTV – formerly Channel 7) networks. Additionally, iTV64 broadcasts tourist-oriented information in Darwin via the free-to-air and pay television networks. Other major centres receive a combination of Imparja, SCTV, Central Queensland Satellite Television (Channel 10), the ABC and SBS. Austar pay television is available via direct cable in Darwin and via satellite in Alice Springs and other parts of the Territory.

Standard definition digital free to air television broadcasts are available in Darwin, Batchelor, Katherine and Alice Springs. SBS and ABC television transmit high definition digital broadcasts as well as standard definition channels, namely ABC National, ABC2 and the SBS service of news services from around the world. In April 2006, ACMA (the Australian Communications and Media Authority) announced that a third commercial television network licence would be issued for Darwin. A joint venture company comprising Southern Cross Broadcasting (7) and Channel Nine Darwin were the successful bidders. The new digital only channel will begin broadcasting by 31 December 2007.

Radio Darwin, Alice Springs and other urban centres in the Territory are serviced by a number of radio stations, including the ABC, commercial and community-based stations. Operations such as the Top End Aboriginal Bush Broadcasting Association (TEABBA) and the Central Australian Aboriginal Media Association (CAAMA) link more than 30 Indigenous community radio stations using broadcasting equipment provided by the Australian Government under the Remote Indigenous Broadcasting Services (RIBS) program, formerly known as the Broadcasting in Remote Aboriginal Communities Scheme (BRACS). The Australian Government policy framework for transition to digital radio was announced in September 2005, although no firm date has been set for transition in the Territory.

Outlook

Transport Activities related to all modes of the transport industry in the Territory show no sign of slowing. The operator of the railway is expecting to transport almost twice the amount of freight this year than last year. Much of that increase will be bulk minerals exported to Asia through improved handling facilities at the Port of Darwin. Increasing numbers of visits by passenger cruise ships and plans by Tiger Airways and Qantas to increase their passenger capacity into and out of the Territory are reflections of business optimism for potential growth in tourism in the Territory. In February 2007,

Tiger Airways announced plans to commence a domestic service from late 2007, initially operating five A320 planes with plans to grow to 30 planes over time. In March, Tiger Airways Australia was incorporated in the Northern Territory. While headquarters for Tiger Airways Australia, operational bases and routes are yet to be decided, Darwin is expected to feature as it provides the most viable airport to link Tiger's domestic services to Singapore and beyond, via the existing four times per week Darwin-Singapore service. Continued improvement such as flood mitigation will provide positive benefits to businesses and tourists reliant on the Territory's large network of roads.

Communications

Activities by Government aimed at improving access to information and communication technology to the large percentage of Territorians living in remote areas will remain a priority into the future.