

Chapter 13

Transport

Hong Kong's transport system is modern and efficient, with a wide range of affordable, comfortable and safe travel options. It can easily be ranked among the best in the world.

The Government provides an efficient transport infrastructure to meet the challenges of population growth and continuous development. It encourages the use of public transport by ensuring quality service. It also manages road use to reduce congestion and promote safety, and supports special measures to protect the environment in places used by public transport.

Rail is the backbone of the public transport system. The MTR Corporation Limited (MTRCL) was formed following the merger of the Mass Transit Railway (MTR) and Kowloon-Canton Railway (KCR) in December 2007.

Railway projects progressed smoothly in 2009. Services on the Tseung Kwan O Line extension to LOHAS Park Station started in July, while services along the Kowloon Southern Link connecting the East and West Rail Lines at Hung Hom Station commenced in August.

Progress was also made in the development of road networks. The last section of Route 8 between Tsing Yi and Cheung Sha Wan was open to traffic in December.

The feasibility report on the Hong Kong–Zhuhai–Macao Bridge (HZMB) was approved by the Central Government in October. The cost of the bridge will be financed partly by the Mainland, Hong Kong and Macao governments and partly through bank loans. Construction of the bridge commenced in December and is expected to be completed by 2016.

Implementation of the Intelligent Transport Systems Strategy continued during the year. Two new services, Public Transport Enquiry Service and Road Traffic Information Service, were launched on the internet in 2009 for the general public to access free of charge. The Journey Time Indication System, already in operation on Hong Kong Island, will be expanded to Kowloon in 2010.

In aviation, the passenger and cargo throughput at the Hong Kong International Airport were 44.97 million and 3.35 million tonnes respectively, while air services arrangements with aviation partners continued to be liberalised during the year.

Administrative Framework

The Transport and Housing Bureau of the Government Secretariat, headed by the Secretary for Transport and Housing, is responsible for, among other matters, the formulation of policies on matters relating to Hong Kong's internal and external transport, including land transport, maritime transport and logistics, and air services. The bureau is supported by the Civil Aviation Department, the Highways Department, the Marine Department and the Transport Department.

Transport Strategy and Policy Objectives

The Government helps provide a safe, efficient, reliable and environmentally friendly transport system that meets the economic, social and recreational needs of the community, and is capable of supporting sustainable development in Hong Kong. It does this by:

- expanding and improving the transport infrastructure in a timely manner;
- improving the quality and co-ordination of public transport services; and
- managing road use to reduce congestion and promote safety.

The Government also ensures these objectives are environmentally sustainable by searching and supporting environmental improvement measures adopted in transport-related areas.

It has drawn up long-term transport strategies that ensure a safe, efficient and reliable transport system based on the recommendations of the Third Comprehensive Transport Study. Meanwhile, the transport objectives, promulgated in a plan entitled 'Hong Kong Moving Ahead: A Transport Strategy for the Future' include:

- better integration of transport and land use planning;
- better use of railways as the backbone of the passenger transport system;
- better public transport services and facilities;

- better use of advanced technologies in transport management; and
- better environmental protection.

Railway Development and Railway Development Strategy 2000

Railways are safe, efficient, reliable, comfortable and environmentally friendly mass carriers. They play a key role in Hong Kong's transport systems strategy and the Government gives high priority to railway development. The Railway Development Strategy 2000, which provides a blueprint for the next phase of railway development, includes a number of new railway schemes to meet Hong Kong's increasing transport needs in a sustainable manner over the next two decades.

Hong Kong's railway development has progressed rapidly during the past few years. About \$100 billion has been invested in eight railway projects. They are:

- the Tseung Kwan O Line (commissioned in August 2002);
- the West Rail Line (commissioned in December 2003);
- the East Rail Line Tsim Sha Tsui Extension (commissioned in October 2004);
- the Ma On Shan Line (commissioned in December 2004);
- the Disneyland Resort Line (commissioned in August 2005);
- the extension of the East Rail Line to Lok Ma Chau (commissioned in August 2007);
- the LOHAS Park Station of Tseung Kwan O Line (commissioned in July 2009);
and
- the Kowloon Southern Link (commissioned in August 2009).

The West Island Line commenced construction in 2009.

In addition, the Shatin to Central Link, the Kwun Tong Line Extension, the South Island Line (East), the Hong Kong section of the Guangzhou–Shenzhen–Hong Kong Express Rail Link and the Northern Link and the Hong Kong–Shenzhen Western Express Line are in the planning stage while the South Island Line (West) and North Hong Kong Island Line are under review.

Transport Infrastructure

Road Network

Hong Kong has 2 050 kilometres of roads and 1 276 road structures, 16 road tunnels (including the three immersed-tube cross-harbour tunnels) and five major cable supported bridges.

Major projects completed during the year included:

- Route 8 (between Tsing Yi and Cheung Sha Wan section): a dual three-lane carriage way linking Tsing Yi and Kowloon was commissioned in December 2009. The whole strategic road link offers a direct route between Hong Kong International Airport and the Northeast New Territories.
- Tung Chung Road between Lung Tseng Tau and Cheung Sha: the existing single-lane road has been upgraded to a single two-lane road to meet traffic demand and to improve road safety.

Tunnels

The Government owns 11 road tunnels. They are the Cross-Harbour, Lion Rock, Aberdeen, Kai Tak, Shing Mun, Tseung Kwan O, Cheung Tsing, Tai Wai, Sha Tin Height, Eagle's Nest and Nam Wan tunnels.

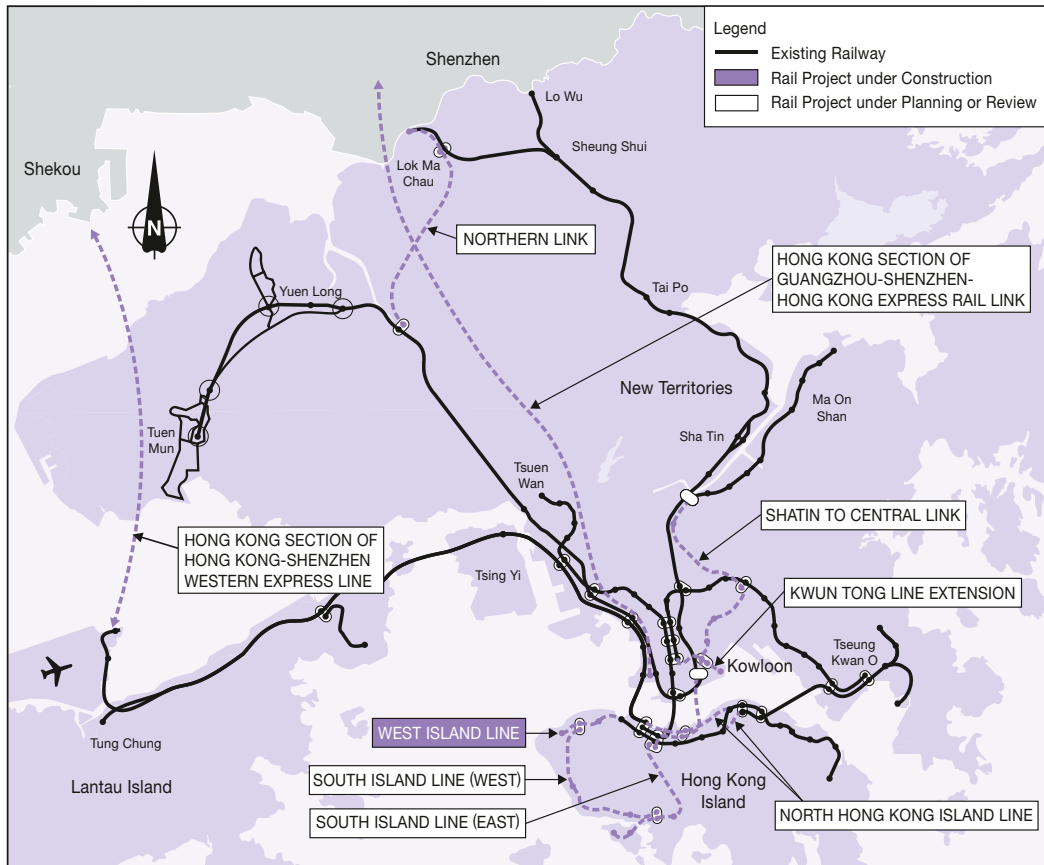
The last four tunnels are located in the Tsing Sha Control Area while Cheung Tsing Tunnel is located in the Tsing Ma Control Area. All 11 tunnels are managed and operated by private companies under management contracts. Use of the Kai Tak Tunnel, Cheung Tsing Tunnel and Nam Wan Tunnel is free of charge. Tolls for the rest are provided for in their governing legislation.

Four other tunnels are operated by private companies under 'Build, Operate and Transfer' arrangements. They are the Eastern Harbour Crossing, Tate's Cairn Tunnel, Western Harbour Crossing and Tai Lam Tunnel.

There is also a private tunnel, the Discovery Bay Tunnel Link, which was built by Discovery Bay Road Tunnel Company Limited. This is operated and maintained by the company, and is open only to vehicles taking goods to Discovery Bay, or providing services to residents there.

Rail Network

Railways are a vital part of Hong Kong's transport network and are essential to its continuous economic, social and land development. They account for about 35 per cent of daily public transport passenger travel and about 62 per cent of land-based cross-boundary passenger trips to the Mainland. They are being extended to various parts of Hong Kong. The map below shows the existing railway network, one railway project under construction and the indicative alignments of the eight railway projects in the planning stage or under review.



Railway Projects under Construction

The West Island Line is an extension of the existing Island Line from Sheung Wan to Kennedy Town, with two intermediate stations at Sai Ying Pun and at University. Construction of the project started in July 2009 for completion by 2014.

Railway Projects in the Planning Stage

The Shatin-to-Central Link will extend the Ma On Shan Rail Line to link with the West Rail Line at Hung Hom via Diamond Hill and Southeast Kowloon. It will also extend the East Rail Line across the harbour to Hong Kong Island. The Government has entrusted the design works to the MTRCL. Public consultation on the link is going on in parallel with the design work.

The Kwun Tong Line Extension will extend the existing Kwun Tong Line from Yau Ma Tei to Whampoa with one intermediate station at Ho Man Tin. The railway scheme was gazetted under the Railways Ordinance in November 2009 to enable construction to be completed by 2015.

The South Island Line (East) will be a medium capacity railway line running between Admiralty and South Horizons with three intermediate stations at Ocean Park, Wong Chuk Hang and Lei Tung Estate. The railway scheme was gazetted under the Railways Ordinance in July 2009 to enable construction to commence in 2011 for completion by 2015.

The Hong Kong section of the Guangzhou–Shenzhen–Hong Kong Express Rail Link is a 26-kilometre long underground railway providing a new terminus at West Kowloon with a link to the boundary at Huanggang to connect with the Mainland section. Trains will be able to run through a 26-kilometre-long tunnel at a maximum speed of 200 kilometres per hour. Upon completion, the journey time between Guangzhou and Hong Kong by train will be reduced from 100 minutes to about 50 minutes. Passengers from Hong Kong will take only four hours to arrive at Changsha and Xiamen, five hours to Wuhan and Fuzhou, and eight and 10 hours to Shanghai and Beijing without changing trains.

The railway scheme was first gazetted in November 2008, with amendments gazetted in April 2009 and authorisation by Chief Executive in Council in October 2009. Construction is expected to start in 2010 for completion by 2015.

Since the adoption of a ‘Dedicated Corridor’ option for the Express Rail Link, the Northern Link has become a separate project. It will connect the West Rail Line at Kam Sheung Road to the boundary-crossing point at Lok Ma Chau. Together with the Lok Ma Chau Spur Line of the East Rail Line, the Northern Link will form a strategic corridor connecting the West Rail and the East Rail Lines. The Government is reviewing the proposal.

The Chief Executive announced in his 2007-08 Policy Address an initiative to foster closer Hong Kong-Shenzhen Airport Co-operation and to study the feasibility and economic benefits of establishing the Hong Kong-Shenzhen Western Express Line (formerly the Hong Kong-Shenzhen Airport Rail Link), to capitalise on the synergy of their complementary flight networks. The joint preliminary study of the rail link proposal, commissioned by the governments of both sides, was completed in 2008. In August 2009, they signed a co-operation agreement on the next steps of the project.

Road Projects under Construction

Major road projects under construction include:

- A Central-Wan Chai Bypass and Island Eastern Corridor Link: to form part of an east-west strategic route along the northern shore of Hong Kong Island to alleviate traffic congestion there. It is a 4.5-kilometre-long dual three-lane trunk road with a 3.7-kilometre-long tunnel. Construction started in July and is being carried out within the Central Reclamation Phase III area. Work on the other sections of the carriageway began in December and is going on in stages. The carriageway is scheduled for completion by 2017.
- Reconstruction of Tuen Mun Road: the aim of this project is to bring the expressway’s dual three-lane carriageway up to current standards and to

provide it with hard shoulder lanes wherever practicable. The project is scheduled for completion by 2014. Work on widening the Tuen Mun Road Town Centre section is scheduled for completion by end of 2013.

- Widening of Tuen Mun Road at Tsing Tin Interchange: this project involves widening Tuen Mun Road by about 240 metres for a dual three-lane for motorised vehicles, installing noise barriers, laying low noise road surfacing, and completing associated works. Construction started in mid-2008 for completion by early 2010.
- Widening of Tolo Highway between Island House Interchange and Tai Hang: this project entails widening the existing dual three-lane carriageway there to a dual four-lane carriageway. Construction of the section between Island House Interchange and Ma Wo commenced in August 2009 for completion in 2013, while construction of the section between Ma Wo and Tai Hang is scheduled to start in early 2010 for completion by the end of 2013.

Road Projects in the Planning Stage

A number of road construction and road improvement projects are being planned to enhance Hong Kong's existing road network:

- The Tuen Mun–Chek Lap Kok Link and Tuen Mun Western Bypass: examination of the sites for this project is continuing and a preliminary design for it is being created. The Tuen Mun–Chek Lap Kok Link project involves building a dual two-lane road to connect Kong Sham Western Highway to the HZMB Hong Kong Boundary Crossing where cross-border facilities are located, the Hong Kong International Airport and Lantau to meet the anticipated traffic demand of the Northwest New Territories and Lantau after 2016. The new road will strengthen Hong Kong's logistics development and provide an alternative route to the airport.
- The Hong Kong Link Road: a study of the project is progressing and a preliminary design for the road link is being created. The dual three-lane road is 12-kilometre long and comprises a sea viaduct, tunnel and an at-grade road. It will link the HZMB Main Bridge to the Hong Kong Boundary Crossing Facilities where the cross-boundary facilities are located.
- The Central-Kowloon Route: a preliminary design for this route is being produced. The proposed 4.7-kilometre-long dual three-lane route, with 3.9 kilometres of tunnel, will connect West Kowloon to the proposed Kai Tai Development and the road network in Kowloon Bay.
- Trunk Road T2: the project is being studied and a preliminary design for the trunk road is being created. The proposed trunk road is a 3.6-kilometre-long dual two-lane carriageway. It will connect the Central-Kowloon Route where the Kai Tak Development is located to the Tseung Kwan O–Lam Tin Tunnel at the Cha Kwo Ling waterfront.
- The Tseung Kwan O–Lam Tin Tunnel and the Cross Bay Link: work on the preliminary designs for these two facilities started in March. The plan is for

an additional external land route to be built to connect Tseung Kwan O to Kowloon. The Cross Bay Link as it is called is expected to relieve the anticipated traffic congestion at the Tseung Kwan O town centre. The Tseung Kwan O–Lam Tin Tunnel is a dual two-lane carriageway of about 3 kilometres in length. It will connect Tseung Kwan O to Trunk Road T2 at Cha Kwo Ling. The Cross Bay Link is a dual two-lane carriageway that will link the two parts of Junk Bay.

- **Fanling Highway:** a detailed design for the widening of Fanling Highway between Tai Hang and the Wo Hop Shek Interchange is being prepared. This section of the Fanling Highway will be widened to turn the dual three-lane carriageway there into a dual four-lane carriageway with hard shoulders.
- **Trunk Road T4:** is a dual two-lane carriageway that will connect Sha Tin Road to Trunk Road T3 and Shing Mun Tunnel Road, to be used as a bypass to Tai Po Road (Sha Tin Section) and other distributor roads originating from Sha Tin Town Centre. After opening the whole of Route 8 at end of 2009, the Government started monitoring Sha Tin District's traffic conditions to draw up a programme to cater to the long-term traffic flow there.
- **Hiram's Highway:** improvements to the highway will be carried out in two stages: Stage 1 covers the section between Hiram's Villas and Marina Cove and Stage 2 covers the area between Marina Cove and Sai Kung Town Centre. The road alignment plan formulated under Stage 1 has been finalised. For Stage 2, a study is under way to explore options for improving road safety and tackling traffic congestion with as little damage to the environment as possible.
- **Bus-Bus Interchanges:** a detailed design for bus-bus interchanges along Tuen Mun Road in Siu Lam is being created. This project calls for two bus-bus Interchanges to be built – one for Tuen Mun bound buses and the other for Kowloon bound buses plying Tuen Mun Road. Construction is scheduled to start in mid-2010 for completion by 2013.

Tsing Ma Control Area

The Tsing Ma Control Area is a 21-kilometre expressway network comprising Tsing Kwai Highway, Cheung Tsing Tunnel, Cheung Tsing Highway, the North-West Tsing Yi Interchange, Tsing Yi North Coastal Road, Lantau Link, Ting Kau Bridge, part of the North Lantau Highway and Ma Wan Road. The control area is managed by a private contractor.

The Lantau Link imposes a 'one-way' toll which means that vehicles travelling to Lantau on a return trip makes only one payment covering the journey to and from Lantau or Ma Wan. The double toll ranges from \$20 to \$80 for different types of vehicles. An average of 54 947 vehicles per day used the Lantau Link in 2009.

Tsing Sha Control Area

The Tsing Sha Control Area connects the Tsing Ma Control Area in the west to Tai Po Road in Sha Tin. It covers a 13-kilometre Tsing Sha Highway connecting Sha

Tin, West Kowloon and Tsing Yi. Stage One of Tsing Sha Highway (Cheung Sha Wan to Sha Tin Section) was opened to traffic in March 2008. An average of 23 658 vehicles used the main trunk of the road section each day in 2009. Stage Two (Tsing Yi to Cheung Sha Wan Section) was opened to traffic in December 2009.

The Control Area is connected to Sha Tin by a series of three tunnels: the Eagle's Nest Tunnel, Sha Tin Heights Tunnel and Tai Wai Tunnel. Toll for all classes of vehicles travelling through this group of tunnels is \$8. The area's other tunnel is the Nam Wan Tunnel located at Tsing Yi. This tunnel is toll-free.

There is also a 1.6-kilometre bridge in the Control Area that connects Stonecutters Island to Tsing Yi. Called Stonecutters Bridge, it spans Rambler Channel and is toll-free.

Public Transport

Hong Kong's transport system is modern, efficient and provides affordable, comfortable and safe travel on a wide choice of carriers.

Railways

Railways account for about 35 per cent of all trips made on public transport each day. Hong Kong's railways are run by the MTR Corporation Limited (MTRCL), a public listed company of which the Government is the biggest shareholder.

The MTR system comprises:

- Kwun Tong Line (Tiu Keng Leng–Yau Ma Tei);
- Tsuen Wan Line (Tsuen Wan–Central);
- Island Line (Chai Wan–Sheung Wan);
- Tung Chung Line (Hong Kong–Tung Chung);
- Tseung Kwan O Line (Po Lam/LOHAS Park–North Point);
- East Rail Line (Hung Hom–Lo Wu/Lok Ma Chau);
- West Rail Line (Tuen Mun–Hung Hom);
- Ma On Shan Line (Wu Kai Sha–Tai Wai); and
- Disneyland Resort Line (Sunny Bay–Disneyland Resort).

There are over 80 stations along the 175-kilometre network. The MTRCL also operates a 35.3-kilometre Airport Express Line. The entire system carries an average of 3.8 million passengers per weekday.

Apart from the heavy rail systems, MTRCL operates the 36.2-kilometre Light Rail network which has 68 stops in the Northwestern part of the New Territories. The Light Rail carries about 385 000 passengers daily. Light Rail feeder bus services are also operated to provide rail passengers with a more comprehensive service network.

In addition, MTRCL provides inter-city through-train services from Hong Kong to cities in Guangdong, Shanghai and Beijing.

Tramway

Electric trams have been running on Hong Kong Island since 1904. Hongkong Tramways Limited runs six routes on 13 kilometres of double tracks along the northern shore of Hong Kong Island between Kennedy Town and Shau Kei Wan, and about three kilometres of single track around Happy Valley.

The company's 164 trams, including two open-balcony trams for tourists and private hire and one special maintenance tram, make up the world's largest fleet of double-deck trams in operation. The tramway records a daily average of 231 000 passenger trips.

Peak Tram

Hong Kong's other tramway is a cable-hauled funicular railway operated by the Peak Tramways Company Limited from Central (Garden Road) to the Peak. The 1.4-kilometre line began operation in 1888 and was modernised in 1989. The Peak Tram records an average of 13 300 passenger trips a day, made mostly by tourists and local sightseers.

Other Road-based Passenger Transport

The other road-based passenger transport modes — mainly franchised buses, public light buses, taxis and residents' services of non-franchised buses — account for 60 per cent of all public transport journeys.

Franchised Buses

Franchised buses are the largest road-based carriers and account for about 34 per cent of the total daily public transport volume. Bus services in Kowloon and the New Territories are largely provided by the Kowloon Motor Bus Company (1933) Limited (KMB). At year-end, the company operated 317 bus routes in Kowloon and the New Territories and 60 cross-harbour routes on its own. It also operated 29 and 21 cross-harbour routes jointly with New World First Bus Services Limited (NWFB) and Citybus Limited (CTB) respectively.

At year-end, the company had a licensed fleet of 3 879 buses, of which 3 700 were air-conditioned and 1 925 were wheelchair-accessible. KMB recorded 965 million passenger trips (a daily average of 2.64 million passenger trips) covering 321 million kilometres of roads during the year.

Bus services on Hong Kong Island are provided by NWFB and CTB. At year-end, NWFB was operating 52 bus routes on Hong Kong Island, eight in Kowloon and Tseung Kwan O and 33 cross-harbour routes, 29 of which were run jointly with KMB. It had a licensed fleet of 705 air-conditioned buses, of which 564 were wheelchair-accessible.

NWFB recorded 172 million passenger trips (a daily average of 470 900 passenger trips) covering 48.78 million kilometres of roads.

CTB operates two bus networks under two franchises. One of the franchises covers 62 bus routes on Hong Kong Island, one bus route in the New Territories and 29 cross-harbour routes, 21 of which are operated jointly with KMB. Another franchise covers a network of 18 routes plying between the urban areas and North Lantau or the airport.

At year-end, CTB had a licensed fleet of 931 air-conditioned buses, of which 287 were wheelchair-accessible. The company recorded 208 million passenger trips (a daily average of 570 000 passenger trips) covering 82.01 million kilometres of road.

The Long Win Bus Company Limited provides services between the New Territories and Lantau Island and the airport. The company made 28.2 million passenger trips (a daily average of 77 200 passenger trips) covering 28.1 million kilometres of roads in 2009. At year-end, 167 air-conditioned buses were serving a total of 19 routes of which 165 were wheelchair-accessible.

The New Lantau Bus Company (1973) Limited mainly provides bus services on Lantau Island. The company recorded 18 million passenger trips (a daily average of 49 400 passenger trips) which covered 6.3 million kilometres of road. It ran 23 routes with a licensed fleet of 104 vehicles.

Different forms of fare concessions were provided by the franchised bus companies during the year. For example, all franchised bus companies offered concessionary fares for children aged under 12 and elderly passengers on all routes (except recreational routes operated by CTB).

Bus-Bus Interchange schemes are implemented to encourage more efficient use of resources and limited road space, and to provide more choice for passengers. Fare discounts are offered to passengers when interchanging between designated bus routes. At year-end, a total of 237 bus-to-bus interchange schemes were in operation, involving about 400 routes.

Non-franchised Buses

Non-franchised bus services play a supplementary role in the public transport system. They relieve heavy demand on regular public transport services primarily during peak hours, fill the gaps which cannot be met by regular public transport services and provide tailor-made services to specific groups of passengers. They mainly serve tourists, groups of residents, employees and students. At year-end, there were 7 066 registered non-franchised buses of which 6 968 were in operation.

Based on the recommendations of the Transport Advisory Committee's review of the licensing and regulatory framework for non-franchised bus operation completed in July 2004, the Government continued to implement measures to improve the regulation of non-franchised bus operation in 2009. The measures aim at co-ordinating the change in non-franchised bus services with demand; strengthening control over non-franchised bus operation; and enhancing the effectiveness and efficiency of enforcement actions.

Public Light Buses

Hong Kong's public light buses (PLBs) are licensed to carry a maximum of 16 passengers. At year-end, there were 4 350 PLBs.

There are two types of PLBs — green and red. Green minibuses provide scheduled services with fixed routes, fares, vehicle allocation and timetables as stipulated by the Transport Department. During the year, there were 2 977 green minibuses operating 353 routes, which recorded a daily average of 1 461 600 passenger trips. Red minibuses are not required to operate on fixed routes or timetables. They may set their own fares but are subject to certain restrictions on their operating areas. There were 1 373 red minibuses in operation and they recorded a daily average of 390 100 passenger trips during the year.

To strengthen communication among passengers, the trade and the Government, the Transport Department publishes a PLB Newsletter regularly. As regards road safety, seven workshops were held for the operators and PLB drivers in 2009 to remind trade members and drivers about the importance of driving safety. 'Project Safe-ride', a joint road safety project run by the trade, the Police and the department, was launched in mid-March 2008 in the Kowloon East Police District. It was extended to the whole territory in November 2008. Passengers can call the Police 24-hour hotline to complain about speeding and improper driving behaviour of PLB drivers.

Taxis

At year-end, there were 15 250 red urban taxis, 2 838 green New Territories taxis and 50 blue Lantau taxis in Hong Kong, carrying about 960 000 passengers per day.

To improve the operating environment for taxis, the Transport Department has extended a temporary arrangement, which was first introduced in May 2003, to January 31, 2011. This allows taxis to pick up and set down passengers during peak hours and 7 am-to-7 pm restricted zones on roads with speed limits of less than 70 kilometres per hour. At year-end, there were over 250 designated taxi pick-up/drop-off points and taxi drop-off points. The department will continue to provide taxi pick-up/drop-off facilities at suitable locations.

The department and the Quality Taxi Services Steering Committee continued to implement schemes to improve the quality of taxi service. These included updating the information on the light emitting diode display panels and providing additional taxi information plates at appropriate taxi stands. It also published and distributed 40 000 free copies of every issue of Taxi Newsletters to taxi drivers, and distributed leaflets at the Hong Kong International Airport, Hong Kong Disneyland and Lok Ma Chau Control Point to provide useful information on taxi services to taxi drivers, passengers and tourists.

In addition, the department has stepped up its promotional and educational efforts to encourage the charging and paying of taxi fares according to meters.

Ferries

Ferries provide essential transport links to outlying islands where no land transport alternatives are available. They also provide an alternative transport service to and from the inner harbour and other areas in Hong Kong.

At year-end, one ferry operator provided two cross-harbour franchised passenger ferry services and 13 ferry operators provided 23 licensed passenger ferry services to outlying islands, new towns and the inner-harbour. These franchised/licensed services were supplemented by 73 'kaito' or small boats routes, which provide services to relatively remote parts of Hong Kong. Ferries recorded a daily average of about 74 000 passenger trips within the harbour and about 64 000 passenger trips to and from the outlying islands.

Transport Management

Effective transport management is essential for the orderly and safe operation of the transport system. The Government's regulatory powers are provided under the Road Traffic Ordinance. Every effort is made to improve the efficiency and effectiveness of transport management through the use of modern technology in a variety of areas.

Licensing

At year-end, there were 1 736 623 licensed drivers, 577 794 licensed private vehicles and 6 276 government vehicles. There were 393 812 licensed private cars, of which 28 432 were new vehicles registered during the year. Registered goods vehicles numbered 114 003, of which 72 505 were light goods vehicles, 38 387 medium goods vehicles and 3 111 heavy goods vehicles. On average, there were 3 293 new learner-drivers per month.

Driver Improvement Scheme

To promote road safety and make drivers more law abiding through better understanding of good driving behaviour and attitude, the Transport Department launched a Driver Improvement Scheme in September 2002 and designated a number of driving schools to provide the driving improvement course. To further enhance road safety, persons falling within the specified two categories are required to attend the course on a mandatory basis starting from February 2009 in accordance with the Road Traffic Ordinance and Road Traffic (Driving-offence Points) Ordinance. The categories are offenders who have been convicted of serious traffic offences and who have accumulated 10 Driving Offence Points within two years. From September 2002 to December 2009, about 22 800 drivers attended the course, among whom about 1 200 drivers were required to attend the course on a mandatory basis. About 80 per cent of the drivers who attended the course did not incur new driving-offence points for six months after the course.

Vehicle Examination

Vehicles are examined routinely to ensure they are safe, roadworthy and properly maintained. All public service vehicles, goods vehicles exceeding 1.9 tonnes, and trailers must undergo annual inspections. In 2009, some 188 000 vehicles were

examined at the four government vehicle examination centres. In addition, 3 500 spot checks were carried out on franchised buses to confirm their safety, roadworthiness and service standards. Private cars over six years old and light goods vehicles not exceeding 1.9 tonnes are inspected annually at 22 designated car testing centres run by the private sector. These centres carried out 234 000 vehicle examinations.

Two chassis dynamometers have been installed in the Kowloon Bay Vehicle Examination Centre to carry out random checks on smoke emissions from diesel vehicles.

All vehicles imported into Hong Kong must be examined to make sure they meet statutory requirements before they can be registered and licensed. In 2009, of 436 vehicle types approved, 426 went through a simplified procedure that involved examining sample vehicles of the same model.

Electronic payment facilities are now available at all vehicle examination centres, providing additional convenience for users. Vehicle Appointment Status Display Systems have been installed at the New Kowloon Bay Vehicle Examination Centre, the Kowloon Bay Vehicle Examination Centre and the To Kwa Wan Vehicle Examination Centre, informing people of available booking dates. The booking information is also available on the Internet.

Intelligent Transport Systems

Closed circuit television (CCTV) cameras are installed at heavy traffic spots to monitor conditions at these places so that drivers can avoid them if possible. There are 217 cameras installed in the urban areas and the new towns and 185 cameras operating on major highways. More CCTV cameras are being installed to further enhance traffic surveillance and information dissemination. The project started in January 2008 and is scheduled for completion by the end of 2010.

Images captured by CCTV cameras at 120 strategic locations were shown to the public on the Internet and their mobile phones. Site installation to increase the number of the strategic locations is under way.

Mobile CCTV cameras were deployed to transmit real-time traffic images to Emergency Transport Co-ordination Centre during major planned events and emergency incidents to facilitate prompt response to relieve traffic congestion.

A Computerised Area Traffic Control (ATC) system is connected to the traffic signalling system in a district, enabling better control of changing conditions on the road. ATC systems are now in operation in the urban areas and in the new towns at Tsuen Wan, Kwai Tsing, Sha Tin, Ma On Shan, Tai Po, North District, Tuen Mun and Yuen Long and will be expanded to Tseung Kwan O by end 2011.

At year-end, 1 763 traffic signals at road junctions were in operation, 1 627 of which were linked to ATC systems.

Conventional traffic signals are being replaced by light emitting diode traffic signals for environmental reasons and cost savings. The replacement works on Hong

Kong Island started in February 2009 and is scheduled for completion by mid-2010. The replacement works for Kowloon is under way and is expected to be completed in the first quarter of 2011 and works for the New Territories will start in September 2010. The whole replacement project is expected to be completed by the autumn of 2012.

To facilitate traffic monitoring and incident management, traffic control and surveillance (TCS) facilities, such as CCTV, emergency telephones and lane signals, are provided in all tunnels. To enhance operational efficiency further, more TCS facilities such as variable message signs, variable speed limit signs and automatic incident detection systems have been installed, or are being retrofitted in some tunnels. The Tsing Ma Control Area, Tsing Sha Control Area and Kong Sham Western Highway are also equipped with TCS facilities.

Five speed map panels will be installed in the New Territories to provide motorists with information about congestion levels along alternative routes and estimated journey time information on a map-type display. The project is scheduled for completion by mid-2012.

Automatic Toll Collection

Automatic toll collection (autotoll) systems were first installed at the Cross-Harbour Tunnel and Aberdeen Tunnel in August 1993, and subsequently in all tunnels and at the Lantau Link. The systems allow motorists with tags on their vehicles to drive through designated toll booths without having to stop to pay. Since October 1998, these autotoll systems have been unified so that a subscriber needs only one tag to use all tunnels and toll roads fitted with the system. About 50 per cent of motorists used autotoll when passing through the tunnels and toll roads in 2009.

Parking

On-street parking is provided where there is a parking demand and where traffic conditions permit. At year-end, Hong Kong had about 17 900 parking spaces with electronic parking meters in operation. These parking spaces are managed and operated by a private operator under a contract with the Government.

The Government owns 14 multi-storey car parks plus the Sheung Shui Park-and-Ride Public Car Park and an open-air car park near the Lantau Link View Point, together providing about 7 900 parking spaces. They are run by two private operators under government contracts.

In addition to government car parks, off-street public parking is provided by the Airport Authority at the Hong Kong International Airport, the Housing Department and The Link REIT in some public housing estates, and the private sector in multi-storey commercial/residential buildings and open-air public car parks. Park-and-ride facilities are operated by MTRCL at Choi Hung Station on the Kwun Tong Line, at Hong Kong, Kowloon and Tsing Yi Stations on the Airport Express, Hung Hom Station on the East Rail Line, Kam Sheung Road Station on the West Rail Line, and at some commercial car parks located near Olympic Station on the Tung Chung Line

and Hang Hau Station on the Tseung Kwan O Line. In all, there are 203 000 off-street public parking spaces (excluding those in Government car parks).

Road Safety

Traffic accidents involving death and injury fell by 1.8 per cent in 2009. There were 14 316 traffic accidents, of which 1 943 were serious and 126 were fatal. This compares with 14 332 accidents in 2008, of which 2 004 were serious and 138 were fatal.

In-depth investigations were carried out at 100 traffic accident blackspots to identify common accident causes. Remedial measures were recommended for 84 of these locations.

Since the enactment of the 'Road Traffic Legislation (Amendment) Ordinance 2008', there have been requests from the public for heavier penalties to be imposed on drink driving and dangerous driving offenders to enable sentences handed down by the court to better reflect the seriousness of these offences. In response, the Government is drawing up legislative proposals for stricter penalties for drink driving and dangerous driving in three ways: (a) introducing a scale of penalties according to different levels of blood alcohol concentration; (b) introducing a new offence of 'dangerous driving causing grievous bodily harm'; and (c) bringing in 'drink driving as an aggravating factor in all dangerous driving offences'.

The Government's road safety strategy during the year centred around a campaign called 'Zero Accidents on the Road, Hong Kong's Goal' which carried the theme '3C Responsible Drivers', appealing to drivers to exercise due 'Care' on the road; show 'Concern' for the safety and rights of other road users; and to make a 'Commitment' to being a responsible driver. The Government also continued carrying out other ongoing campaigns on anti-drink driving, safe cycling and pedestrian safety.

Public Transport and Environment

Government's planning for public transport infrastructure projects is based on sustainable development principles. It strives for the best possible integration of land use, transport and environmental planning. It is also the Government's policy to give priority to railways which it sees as the backbone of the passenger transport system. Eight new railway lines, or extensions of existing lines, were commissioned between 2002 and 2009.

Less reliance on road-based transport will alleviate the pressure on transport systems and, in turn, lessen the impact on the environment. At the same time, the rationalisation of bus routes and bus stops and the introduction of pedestrian schemes will continue. These will help reduce the adverse effect of vehicle emissions and noise pollution.

Since late 1998, about 4 300 daily bus trips have been eliminated from the busy traffic corridors of Hong Kong Island's northern shore through service cancellation, frequency reduction, route truncation and route amalgamation. On Nathan Road in

Kowloon, about 1 700 daily bus trips have been eliminated since August 2002, enhancing the efficiency of bus operations along that busy road. Bus stops have also been rationalised to reduce the number of stops along busy corridors.

The environmental impact of new transport projects, during both their construction and operation phases, is also carefully monitored. Environmental mitigation measures are implemented where necessary to reduce this impact.

To make it easier for people to make their way through busy and congested roads, pedestrian schemes have been introduced to reduce congestion in a number of streets. These schemes are in operation in Central, Wan Chai, Causeway Bay, North Point, the Peak, Stanley, Tsim Sha Tsui, Jordan, Mong Kok, Sham Shui Po, Yuen Long and Sheung Shui. They have been well received by the public, and more will be introduced, including the shared surface construction on the section of Lockhart Road between Cannon Street and East Point Road, traffic calming measures on the sections of Saigon Street between Shanghai Street and Parkes Street, Parkes Street between Jordan Road and Nanking Street, and Yu Chau Street between Yen Chow Street and Nam Cheong Street. Detailed studies are also being conducted for improvements to pedestrian environment, urban design, streetscape and landscape in Mong Kok, Causeway Bay and Yuen Long areas.

Franchised bus companies have been purchasing buses with environmentally friendly engines that meet the European emission standards (known as Euro engines) since 1993. About 93 per cent of franchised buses are equipped with Euro engines while the remaining buses have all been retrofitted with catalytic converters. To help improve the environment, the franchised bus companies have been deploying buses with Euro II or more environmentally friendly engines on routes along Yee Wo Street in Causeway Bay, the busiest shopping area on Hong Kong Island. The Government is working with the companies to deploy cleaner vehicles along other busy corridors.

The franchised bus companies and the Government have also been working to improve the overall quality of public transport interchanges to make them more user-friendly for passengers. Electronic route information panels and customer service centres have been set up at some interchanges. Other improvements included refurbishing some of the interchanges and their ventilation systems.

Since August 2001, all newly registered taxis have been required to run on Liquefied Petroleum Gas (LPG) to meet stricter emission standards to reduce air pollution. Incentive schemes to encourage the early replacement of diesel light buses with LPG or electricity-driven vehicles were implemented between August 2002 and December 2005. Almost all taxis and 61 per cent of PLBs have switched to LPG.

An incentive scheme was also introduced in April 2007 to encourage replacement of Pre-Euro and Euro I commercial vehicles with more environmentally friendly ones to comply with prevailing emission standards. By year-end, about 13 400 applications had been approved under the scheme. A reduction in first registration tax was also offered to new buyers of cars that run on petrol instead of diesel. A total of 10 700 applications to join the scheme were processed during the year.

Cross-boundary Traffic

Overall Cross-boundary Traffic

Cross-boundary vehicular traffic decreased by 4 per cent in 2009 compared with the previous year, averaging 40 400 vehicles a day whereas the total cross-boundary passenger traffic by rail, road and ferry increased by about 0.8 per cent, reaching 530 900 passengers a day.

Rail Services to Lo Wu and Lok Ma Chau

Lo Wu, one of the two rail boundary crossings into the Mainland, operates between 6.30 am and midnight every day. It handled an average of 238 900 passengers daily during the year, and more than 387 200 on feast days.

The other rail boundary crossing into the Mainland is the MTR East Rail Line extension to Lok Ma Chau which operates between 6.30 am and 10.30 pm daily. Passengers can reach this crossing either by rail or local public transport. In 2009, the crossing at the Lok Ma Chau Spur Line handled an average of about 35 700 passengers daily, and more than 58 400 on festive days, plus a daily average of about 30 200 passengers arriving at the crossing by public transport.

Road Crossings

There are four road crossings between Hong Kong and the Mainland: Lok Ma Chau, Man Kam To, Sha Tau Kok and Shenzhen Bay. The Lok Ma Chau crossing operates round-the-clock for goods and passenger vehicles. The Man Kam To and Shenzhen Bay Port crossings are opened daily to goods and passenger vehicles from 7 am to 10 pm and from 6.30 am to midnight respectively. The Sha Tau Kok crossing operates daily from 7 am, and the closing time was extended from 8 pm to 10 pm since July 1, 2009.

The daily average number of vehicle trips recorded at Lok Ma Chau, Man Kam To, Sha Tau Kok and Shenzhen Bay crossings during the year were 25 500, 5 200, 2 200 and 7 500 respectively.

The daily average numbers of cross-boundary travellers who used the Lok Ma Chau, Man Kam To, Sha Tau Kok and Shenzhen Bay crossings were 93 900, 6 000, 6 400 and 46 200 respectively. These travellers crossed the boundary mainly by coaches, while travellers crossing the boundary via the Lok Ma Chau crossing may also choose to take the shuttle buses that ply between Huanggang in Shenzhen and the public transport interchange at San Tin; and travellers crossing the boundary via the Shenzhen Bay crossing may choose to use local public transport services to the Shenzhen Bay Port.

In 2009, about 79 400 passengers took the cross-boundary coaches provided by some 120 companies, while 26 900 and 24 500 passengers took the shuttle buses at Lok Ma Chau and the local public transports to Shenzhen Bay Port each day respectively.

A trial scheme for taxis and green minibuses to operate at the Lok Ma Chau Control Point between midnight and 6.30 am was introduced in March 2003. The

starting time for vehicles to start operating was advanced from midnight to 11 pm in January 2005. During those hours, northbound passengers may take taxis and green minibuses to travel directly to the control point from where they may cross the boundary in shuttle buses, while southbound passengers may board taxis and green minibuses at the control point after immigration clearance.

New Boundary Crossings under Construction or Planning

To meet the continuous growth in cross-boundary traffic, new road and rail crossings have been planned in co-ordination with the Mainland authorities.

The proposed Hong Kong-Zhuhai-Macao Bridge (HZMB) will link Hong Kong directly to the Pearl River West. The Central Government approved the project's feasibility study in October 2009. Construction of the Main Bridge commenced in December 2009. Work on the design and construction of the Hong Kong Boundary Crossing Facilities are being carried out to coincide with the commissioning of the Main Bridge in 2016.

The Northern Link will connect the West Rail Line at Kam Sheung Road to the boundary crossing point at Lok Ma Chau. Together with the Lok Ma Chau Spur Line of the East Rail Line, the Northern Link will be a strategic corridor connecting the West Rail and the East Rail Lines in the Northern New Territories.

The Guangzhou-Shenzhen-Hong Kong Express Rail Link will reduce the rail travel time between Guangzhou and Hong Kong. It will also link Hong Kong to Beijing and other major Mainland cities via the Beijing-Guangzhou Passenger Line and the Hangzhou-Fuzhou-Shenzhen Passenger Line. It also will connect Hong Kong to cities in the Pan-Pearl River Delta via the Rapid Transit System now under development in the Mainland. Construction is expected to commence in 2010 for completion in 2015.

The proposed Liantang/Heung Yuen Wai Boundary Control Point (BCP), by connecting with the Eastern Corridor in Shenzhen, will provide efficient access to the eastern part of Guangdong, Fujian and Jiangxi Provinces via Shenzhen-Huizhou and Shenzhen-Shantou expressways. This will significantly shorten the distance between Hong Kong and Shenzhen and the nearby provinces and greatly facilitate future regional co-operation and development.

It will also help redistribute the cross-boundary traffic among the existing boundary crossings in the eastern part of the territories (Man Kam To and Sha Tau Kok BCPs). A study of the Hong Kong Boundary Control Point at Heung Yuen Wai and its connecting road to Fanling Highway is being carried out and a preliminary design for the facility is being prepared.

Cross Boundary Ferries

Cross-boundary ferry services to about 13 Mainland ports and Macao are provided by eight operators at the Hong Kong-Macao Ferry Terminal in Sheung Wan, the China Ferry Terminal in Tsim Sha Tsui and the Tuen Mun Ferry Terminal. The number of cross-boundary travellers using these services to travel to and from

Mainland ports totalled 4.4 million, and the number to and from Macao was 17.5 million in 2009.

The Port

In 2009 Hong Kong handled a total of 21.04 million 20-foot Equivalent Unit of containers (TEUs), maintaining its status as the largest container port serving southern China and one of the busiest in the world.

Some 411 270 vessels arrived in and departed from Hong Kong during the year, carrying 243 million tonnes of cargo and about 24 million passengers. Most of these passengers commuted on a highly efficient fleet of high-speed ferries, including jetfoils and catamarans, to and from Macao and ports on the Mainland, making Hong Kong a port with one of the world's largest number of high-speed craft.

Hong Kong is a modern, well equipped deep-water port serving two main types of maritime transport — large ocean-going vessels from all parts of the world and smaller, coastal and river trade vessels from the Pearl River. Hong Kong is the focal point of all maritime trading activities in the region.

On an average day there are around 90 ocean-going vessels working in the port; nearly 470 river-trade vessels entering or leaving the port; and many river ferries and local craft working in, or passing through, the harbour. Ship turnaround performance is among the best in the world: container ships at terminals are routinely turned around in about 10 hours.

Port Development

Container handling facilities are a key part of the infrastructure of the logistics sector, one of the four pillar industries of Hong Kong. The nine container terminals at Kwai Chung–Tsing Yi area have 24 berths with a total handling capacity of over 19 million TEUs per year.

Competition between the container terminals and alternative modes of container handling motivates the operators to improve their efficiency and quality of service. The investment in upgrading equipment and systems in the terminals at Kwai Chung–Tsing Yi over the past few years has enabled the port to enhance its productivity, as well as to handle the world's largest container ships.

The container port is vital, not only to Hong Kong, but also to southern China, an area with robust external trade growth. Almost 70 per cent of container traffic handled by Hong Kong is related to southern China.

Strategic Planning

The 'Study on Hong Kong Port — Master Plan 2020', completed in 2004, recommended a package of immediate and long-term initiatives to increase the port's competitiveness. Following its recommendations, the Government commissioned a study on port cargo forecasts, which estimated that the port's container throughput would continue to grow in the years ahead. An ecology study on a site on Northwest Lantau was also completed to assess its environmental

suitability for building a container terminal. Taking into account the findings of both studies, the Government is now actively studying the feasibility of developing a new container terminal at an alternative site at Southwest Tsing Yi.

To strengthen Hong Kong's position as a regional hub port in the Asia-Pacific region, the Government is taking forward a project to dredge the Kwai Tsing Container Port Basin and its approach to allow the new generation of ultra-large container ships to call at the port in all tide conditions.

Hong Kong Port Development Council

In Hong Kong, all container terminal facilities are financed, developed, owned and operated by the private sector. The Government's role is to undertake long-term strategic planning for port facilities and to provide the necessary supporting infrastructure, such as roads and channels to the terminals.

The Hong Kong Port Development Council (PDC), chaired by the Secretary for Transport and Housing, is a high-level advisory body comprising key players in the industry and senior government officials. The PDC advises the Government on port development strategies and port facility planning to meet future demands. It also assists the Government in promoting Hong Kong as a regional hub port and a leading container port in the world.

A Port Development Advisory Group, formed under the PDC, assists the council in examining port cargo forecasts and assessing port development needs in the light of changing demand, port capacity, productivity, performance and competition, in Hong Kong and the region.

Hong Kong Maritime Industry Council

The Hong Kong Maritime Industry Council (MIC) is a high-level advisory body chaired by the Secretary for Transport and Housing, and is made up of key players in the industry and senior government officials. It advises the Government on the formulation of measures and initiatives to develop further Hong Kong's maritime industry. It also assists the Government in promoting Hong Kong's maritime services and Hong Kong's status as an international maritime centre.

There are two task forces under the MIC: the Human Resources Task Force handles education, training and manpower supply issues, while the Maritime Services Task Force deals with promoting the industry and strengthening its competitiveness.

The MIC also launched, in addition to the Hong Kong Maritime Scholarship Scheme, an Academic Collaboration Scheme between the University of Hong Kong and the Dalian Maritime University, which enhances their law graduates' knowledge of maritime law.

Maritime Industry

Some 90 international shipping lines offer ocean liner services in Hong Kong, with about 400 sailings weekly to over 500 destinations around the world. In addition, there are about 700 shipping-related companies operating in Hong Kong,

providing a great variety of quality maritime services, ranging from ship agency and management, ship owning and operation, ship broking, marine insurance to inland water transport.

Other related services such as legal services, arbitration, ship financing, ship registration and ship surveying are also available. Hong Kong is the world's eighth largest maritime centre. Its ship owners own, manage or operate more than 1 500 vessels, or over eight per cent of the world's merchant fleet in terms of deadweight tonnage.

Some of the world's largest and oldest shipping companies are based in Hong Kong providing professional services not only to Hong Kong-registered ships but also to ships calling here. Other international maritime service providers have also set up offices in Hong Kong, providing various supplies and support services including ship maintenance and repair, bunkering, ship replenishment, waste disposal, information technology and communication services, auditing and tax advisory services, and training services. The shipping and maritime sectors contribute significantly to Hong Kong's economy and the job market.

Hong Kong is proactive in negotiating double taxation relief arrangements covering shipping income with its trading partners. It has so far succeeded in making such arrangements with 15 tax administrations, including the Mainland, Belgium, Denmark, Germany, Luxembourg, the Netherlands, New Zealand, Norway, the Republic of Korea, Singapore, Sri Lanka, Thailand, the United Kingdom, the United States and Vietnam.

Port Administration

The Marine Department administers the port. Its principal task is to ensure safety of navigation and efficiency of shipping activities in Hong Kong waters. This is achieved through comprehensive traffic management, harbour patrols, vessel traffic services, provision of mooring buoys and strict enforcement of rules and standards of the major international maritime conventions.

The department liaises closely with shipping and commercial organisations through a number of advisory and consultative committees. Through these channels, users and operators of port facilities can advise the Government on port administration matters. The Port Operations Committee advises on all matters related to efficient operation of the port, the Pilotage Advisory Committee on all matters related to pilotage services, and the Port Area Security Advisory Committee on port security.

In addition, the Local Vessels Advisory Committee deals with matters related to local vessels, while the Shipping Consultative Committee advises on the operation of the Hong Kong Shipping Register (HKSR) and Hong Kong's participation in the International Maritime Organisation.

The department's website (www.mardep.gov.hk) provides a wide range of information on the port and the HKSR, such as Marine Department notices and details of the department's services and facilities.

Special features include the application of Really Simple Syndication to publish frequently updated Hong Kong Merchant Shipping Notices, Hong Kong Merchant Shipping Information Notes and Marine Accident Investigation Reports; the Hong Kong Shipping Directory in which Hong Kong-based marine services companies are listed; real-time movements of ocean-going vessels and river-trade cargo vessels in port; examination schedules for seafarers; verification of Port Clearance Permits issued and port and maritime statistics providing the latest monthly and quarterly statistics on vessel arrivals, cargo and container throughput.

The Marine Department eBusiness System, which provides a one-stop solution to simplify and speed up the submission and processing of port formalities, offers comprehensive e-Business services such as online submission of applications, auto-approval for online application, self printing of permits/certificates, online payment via auto-pay and online enquiry for application status.

Vessel Traffic Management

The Marine Department's Vessel Traffic Centre monitors and regulates the movements of vessels using the Vessel Traffic Service through a computer-aided radar network, VHF radios and a database information system, which together provide full surveillance of all navigable waters in Hong Kong.

Harbour Patrol and Local Control Station

The Harbour Patrol Section operates a fleet of 20 patrol launches and provides on-site support for the Vessel Traffic Centre. Apart from responding to maritime emergencies, the patrol launches help enforce marine legislation and maintain port and shipping safety.

The Marine Department's local traffic control station at Kwai Chung Container Terminal 8 operates round-the-clock. Equipped with a dedicated patrol launch, the station provides navigational assistance to vessels in the vicinity of the Kwai Chung-Tsing Yi container port area.

Carriage of Dangerous Goods

The Marine Department conducts random shipboard inspections of vessels in Hong Kong waters in accordance with international and local standards. The dangerous goods legislation is being revised to conform to the new requirements of the International Maritime Dangerous Goods Code.

Pilotage Service

Pilotage is compulsory in Hong Kong waters for vessels of 3 000 gross tonnage and above, oil tankers of 1 000 gross tonnage and above, and all gas carriers.

The Director of Marine is the pilotage authority, who regulates and monitors pilotage services with the assistance of the Pilotage Advisory Committee. The committee's membership covers a wide spectrum of port users and shipping interests. Pilotage services are provided round-the-clock throughout the year by a commercial company.

Local Vessels

In 2009, 14 121 local vessels — including passenger, cargo, fishing and pleasure vessels — were licensed in Hong Kong to provide a variety of efficient services for the port and the community. To improve the licensing and management of these vessels, the new Merchant Shipping (Local Vessels) Ordinance was enacted and came into force in January 2007.

Hydrographic Service

The Hydrographic Office carries out hydrographic surveys and produces nautical charts and publications in Chinese and English. It also produces Electronic Navigational Charts. It issues Notices to Mariners for updating the charts once every two weeks, and also provides real-time information about tides, tidal stream and Ma Wan transit tidal window predictions through the Internet (www.hydro.gov.hk).

Planning, Development and Port Security

The Marine Department provides professional advice on the planning of projects that affects the port and marine traffic, and promulgates in Marine Department Notices the details of marine works. The department's statistical unit compiles and analyses maritime and port statistics on vessel movements and container throughput, and publishes them periodically on the department's website (www.mardep.gov.hk/en/publication/portstat.html).

All the designated port facilities in Hong Kong comply fully with the International Ship and Port Facility Security Code of the International Maritime Organisation. The department administers the implementation of the code, including monitoring the training and qualifications of the port facilities' security personnel, security exercises and drills conducted at the port facilities and carrying out annual audits of port facility security arrangements.

Marine Industrial Safety

The Marine Department enforces safety requirements on works carried out on board vessels including cargo handling, ship repair and marine construction under the Shipping and Port Control (Works) Regulation and Merchant Shipping (Local Vessels)(Works) Regulation. Its Marine Industrial Safety Section conducts safety checks on works carried out on board vessels and promotes safe working practices and regulations for frontline workers.

Port Services and Facilities

Mainland and Macao Ferry Services

The Marine Department operates two cross-boundary ferry terminals: the Hong Kong–Macao Ferry Terminal with 12 berths and the China Ferry Terminal with 13 berths. The Hong Kong–Macao Ferry Terminal operates round-the-clock. The China Ferry Terminal is open daily from 7 am to midnight. The Tuen Mun Ferry Terminal, operated by a tenant under a tenancy agreement, opened for service on November 3, 2006. It has three berths and operates daily from 7 am to 10 pm. The department

controls and regulates the use of these three cross-boundary ferry terminals under the Shipping and Port Control (Ferry Terminals) Regulations.

Immigration and Quarantine Services

Immigration and quarantine services are available at the Western Quarantine and Immigration Anchorage and the Eastern Quarantine and Immigration Anchorage. Shipping agents may apply for immigration and quarantine services, including advance clearance, for ships.

The Tuen Mun Immigration Anchorage operates round-the-clock for river-trade vessels plying between Hong Kong and Pearl River Delta ports. Pre-arrival clearance has been extended to all Mainland river- and coastal-trade vessels. Operators of such vessels may submit pre-arrival clearance applications to the Immigration Department's Harbour Control Section.

Mooring Buoys

The Marine Department provides a total of 29 mooring buoys for ship operation, including 19 Class 'A' buoys for vessels of up to 183 metres long and 10 class 'B' buoys for vessels of up to 137 metres long. In late 2009, owing to low utilisation and after consulting the industry, the number of Class 'A' and 'B' buoys were reduced to 13 and four respectively. Buoy bookings may be made through the Vessel Traffic Centre.

Bunkering and Potable Water Supply

Bunkering is readily available at commercial wharves and oil terminals or from a large fleet of private bunkering barges. Bunker supplies meet the latest requirements under Annex VI of the International Convention for the Prevention of Pollution from Ships (also known as the MARPOL Convention). Fresh water can also be supplied alongside berths or from a fleet of private water boats.

Local Vessels Safety Certification Service

The Local Vessels Safety Section provides survey and certification services for local vessels to make sure they comply with safety and pollution prevention requirements. Under the Merchant Shipping (Local Vessels) Ordinance implemented in 2007, the plan approval and ship survey work for certain types of local vessels may be carried out by recognised authorities, organisations or professionals authorised by the Marine Department.

Public Cargo Working Areas

The Marine Department manages eight public cargo working areas, which are opened to cargo operators for loading and unloading cargo onto and from barges and coasters. The combined length of berths in these working areas is about 6 670 metres.

Collection of Marine Refuse and Waste

The Marine Department's contractors collect domestic refuse from both ocean-going vessels and local vessels. Sewage and oily chemical waste are collected from ships by registered collectors. The collected sewage is taken to the sewage treatment

facility in the harbour for disposal, and the oily chemical waste is shipped to the Chemical Waste Treatment Centre on Tsing Yi Island for treatment.

Combating Oil Pollution

The Marine Department maintains a maritime oil spill response plan to ensure a timely and effective response to oil spills in Hong Kong waters.

The department has a co-operation arrangement with the port administration of Guangdong, Macao and Shenzhen, under which they adopt the Regional Maritime Oil Spill from Ship Response Plan for the Pearl River Estuary as the action guide for regional co-operation on response to major maritime oil spills from ships.

In November 2009, the department's Pollution Control Unit organised a large-scale, oil spill clean-up drill to test the preparedness of the government departments concerned and local oil companies in handling major oil spills from ships.

Shipping

Hong Kong Shipping Register

The Hong Kong Shipping Register, administered by the Marine Department, is regarded highly as a world-class register providing excellent services. For seven consecutive years, the register has maintained its status as a quality flag under the US Coast Guard's QUALSHIP 21 Scheme.

The Hong Kong Shipping Register continued to attract quality ships in 2009. The total gross tonnage of ships registered in Hong Kong was close to 45 million, making the Hong Kong Shipping Register one of the top five shipping registers in the world.

To maintain high standards, the department conducts a Pre-registration Quality Control (PRQC) assessment of ships intending to join the register and implements a Flag State Quality Control (FSQC) System to ensure ships on the register comply with international standards. During the year, the department's surveyors carried out a total of 10 PRQC inspections and made 45 FSQC visits to ships and related companies.

As a result of these quality control measures, the Port State Control detention rate of Hong Kong-registered ships remained well below the world average, which enabled the Hong Kong flag to maintain its position among the top performance flags in the white list established by both the Paris and Tokyo Memorandums of Understanding of Port State Control.

Marine Accident Investigations

The Marine Department's Marine Accident Investigation and Shipping Security Policy Branch (MAISSPB) investigate all marine accidents involving vessels in Hong Kong waters. The department also investigates all serious accidents outside Hong Kong involving Hong Kong-registered ships. The purpose of the investigation is to identify the root causes of the accidents to prevent them from happening again.

Investigation reports of all serious accidents are posted on the department's website and copies are made available to the public on request to promote maritime safety.

Depending on the seriousness of the accident and public interest, a public inquiry by a Marine Court may be ordered by the Chief Executive. In the case of an accident involving a licensed pilot, a Board of Investigation may be ordered by the Director of Marine. In 2009, the MAISSPB investigated 12 serious accidents.

Seafarers

The Marine Department's Shipping Registry and Seafarers Branch supervises the registration, employment, competence, discipline, health, safety and welfare of Hong Kong seafarers, as well as seafarers working on board Hong Kong-registered ships. During the year, some 24 500 seafarers of different nationalities served on board Hong Kong-registered ocean-going ships. About 1 500 officers and ratings served on high-speed passenger vessels plying within the Pearl River Delta Region.

The Sea-going Training Incentive Scheme, launched in July 2004, was very successful in attracting local graduates to join the maritime profession to meet the manpower demand of the maritime industry in Hong Kong. The scheme provides financial incentives to attract local graduates to take up sea-going cadetship training. By year-end, 121 cadets had joined the training scheme. The sharp increase in applicants for the related programmes in training institutes and universities in the past two years reflects young people's interest in the profession.

Participation in International Shipping Activities

International Maritime Organisation

The Hong Kong Government, under the name 'Hong Kong, China', is an associate member of the International Maritime Organisation (IMO) and has a permanent representative in London. The Hong Kong maritime industry is consulted on, and kept well informed about, all issues discussed at IMO meetings that may affect Hong Kong. In 2009, Hong Kong Government officials attended a total of 23 IMO meetings. Topics discussed included enhancing maritime safety and security, measures to reduce marine pollution, matters related to maritime laws, seafarers' training and certification of standards, facilitation of international maritime traffic, and other maritime matters.

In May 2009, Hong Kong hosted an IMO International Conference on the Safe and Environmentally Sound Recycling of Ships. The conference, the first ever held in Asia by the IMO, was attended by representatives from 64 IMO member States and a number of inter-governmental organisations and non-governmental organisations. The conference adopted the 'Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009'.

International Conference

The Regional Co-operation Agreement on Combating Piracy and Armed Robbery against Ships in Asia, Information Sharing Centre Capacity Building Workshop was held between November 4 and 6.

Port State Control

Hong Kong is a member of the Memorandum of Understanding on Port State Control (PSC) in the Asia-Pacific Region. The Marine Department participated actively in its various activities including leading the Technical Co-operation Advisory Group and as a member of other five working groups.

The department's PSC officers are well known for their professionalism and impartiality in conducting ship inspections. In 2009, the department continued to conduct daily PSC inspections, even at weekends whenever practicable. The officers conducted 700 inspections on ocean-going vessels, or 15 per cent of all ocean-going vessels that visited Hong Kong. About four per cent of ships inspected were detained because of serious deficiencies that needed immediate attention.

Maritime Search and Rescue

The Marine Department's Maritime Rescue Co-ordination Centre (MRCC) co-ordinates search and rescue operations for serious incidents in Hong Kong waters and within a large part of the South China Sea, covering some 450 000 square nautical miles of sea.

The centre is manned round-the-clock by professional staff and equipped with modern communications equipment. It is also aided by a shore-based Global Maritime Distress and Safety System.

In 2009, the centre handled 235 marine-related emergencies, 63 of which involved search and rescue operations. A total of 94 people were rescued.

In recognition of its expertise, the Hong Kong MRCC was chosen as a member of the International Maritime Organisation/International Civil Aviation Organisation Joint Working Group for Harmonisation of Maritime and Aeronautical Search and Rescue.

Government Fleet and Dockyard

Government Fleet

The government fleet, with over 700 vessels of different types and sizes, including 117 major mechanised vessels and large-type high speed craft, serves 14 government departments such as the Hong Kong Police Force, the Customs and Excise Department and the Fire Services Department. Some of the user departments manage their specially-built vessels. The Government Fleet Division of the Marine Department controls and manages 75 vessels, of which 45 are provided with manning by the department. These include patrol launches, conveyance launches, pontoons and some specialised vessels, such as hydrographic survey launches and explosives carriers. These vessels either support the department's own port operations or serve other departments that do not have their own fleets.

Since 1999, the department had been awarding contracts to private operators to provide conveyance launches, tugboats and other marine transport services for the department. At present, it has 24 contracted vessels.

Government Dockyard

The Government Dockyard, managed by the Government Fleet Division, is responsible for the design, procurement and maintenance of all government vessels. It occupies a site of 9.8 hectares on Stonecutters Island and has a protected water basin of 8.3 hectares as one of the operational bases of the Marine Department. For repair and maintenance of vessels, the dockyard has 12 covered docking and repair sheds and over 22 open-yard docking cradle spaces, supported by a ship-lift system and three ship-hoists capable of dry docking vessels of up to 750 tonnes.

During the year, 69 new vessels, costing \$170 million, were built for the Government and 14 new shipbuilding contracts, worth \$10 million, were awarded to shipbuilders in Hong Kong and overseas. The total expenditure in maintaining the Government Dockyard systems and Government fleet is near to \$410 million.

Marine Facilities

The Civil Engineering and Development Department is responsible for the planning, design and construction of public marine facilities including piers, beacons, offshore helipads, breakwaters, seawalls, navigation channels and anchorage areas. In 2009, the department continued the planning and design of a new public landing facility at Lei Yue Mun, and commenced construction of a new slipway at Tai O. The department also completed building the Sai Kung New Public Pier.

Hong Kong is one of the world's busiest ports, and the department plays an important role in keeping the port running smoothly. As the maintenance authority for all civil engineering marine works, the department carries out maintenance work on ferry piers and other public and government marine facilities, as well as maintenance dredging of the harbour and some major river channels. The department currently maintains 506 hectares of typhoon shelters, seven kilometres of quay at public cargo working areas, 123 kilometres of seawalls and breakwaters, 314 public piers and landing steps, 96 dolphins (mooring structures), 14 100 hectares of fairways and 3 590 hectares of anchorage areas. The department also ensures that regular maintenance dredging of the harbour and some major river channels are carried out.

International Transport and Logistics Hub

Logistics is an important sector of the economy, accounting for five per cent of Hong Kong's Gross Domestic Product. Given its strategic location, world class infrastructure and business-friendly environment, Hong Kong has long established itself as a preferred transport and logistics hub in Asia. It is also the world's busiest international air cargo centre and one of the world's busiest container ports. These achievements are attributed to the operators of the services and facilities — the investors and the efficient workforce, as well as the constructive partnership and co-operation between the private and public sectors.

Efficient, reliable and well connected, Hong Kong's airport and seaport are vital to the territory's logistics industry. The airport handles an average of about 64 000 tonnes of cargo every week. A new air cargo terminal is being planned and would be available in 2013 to provide additional capacity to meet anticipated demand from growth.

Hong Kong is also home to the most productive and efficient container terminals and to the biggest private terminal operators in the world. A comprehensive network of container line services connects the port of Hong Kong with over 500 destinations across the globe. Coupled with its round-the-clock operation, the nine container terminals at Kwai Chung-Tsing Yi provide a total handling capacity of more than 19 million TEUs per year.

Development of Hong Kong Logistics Industry

The Government is committed to maintaining and strengthening Hong Kong as Asia's preferred international transport and logistics hub. It provides the necessary infrastructure and environment for Hong Kong's logistics sector to grow. It also promotes closer co-operation with the Mainland, in particular, the Pearl River Delta region to achieve synergies in logistics development.

The Hong Kong Logistics Development Council, chaired by the Secretary for Transport and Housing, provides a forum for the private and public sectors to foster logistics development to strengthen Hong Kong's position as the leading logistics hub in Asia. Five project groups have been set up under the council to develop and implement work programmes for physical infrastructure, information connectivity, human resource development, support for small and medium enterprises, and marketing and promotion.

To enhance the competitiveness of Hong Kong's trucking sector and the logistics industry in general, the Government sponsored a pilot project on the development of an On-Board Trucker Information System (OBTIS). OBTIS is an information and communications technology platform, which helps enhance efficiency in fleet management and connectivity between truckers and stakeholders along the supply chain. The first phase involving testing the system's basic features in 50 trucks was completed in 2008. A full exercise, involving 500 trucks, is now in progress.

To ensure that employees of the logistics sector are kept abreast of new technology for and development of the trade, the council jointly organised training programmes, workshops and forums with industry associations for logistics practitioners. It also sponsored a number of events for the sharing of experience by stakeholders.

With the support of the council, the Government continued to provide sites for port back-up and logistics uses in Hong Kong, particularly in the vicinity of container terminals. In his 2009-2010 Policy Address, the Chief Executive announced Government's plan to facilitate the development of a logistics cluster in the Kwai Tsing area. Several pieces of permanent sites have been identified for the purpose and will be released on lease terms conducive to the anchoring of third party logistics players and leading brands.

Civil Aviation

Hong Kong is a major international and regional aviation centre. The Hong Kong International Airport (HKIA) is one of the busiest in the world. At year-end, there were 93 airlines providing about 5 100 weekly scheduled services between Hong Kong and more than 145 cities worldwide. In addition, an average of about 115 charter flights was made to and from HKIA each week.

Air Traffic in 2009

The global financial crisis had an adverse impact on air traffic in 2009. As a result, the total number of passengers passing through the airport during the year was 44.97 million, a drop of 4.62 per cent over 2008. The airport handled 3.35 million tonnes of cargo, a drop of 7.6 per cent over 2008. The number of flights to and from Hong Kong was 279 429, a drop of 7.2 per cent over 2008.

Hong Kong's total imports, exports and re-exports carried by air accounted for 39.1 per cent, 33.5 per cent and 31 per cent respectively in value terms in 2009.

Home Market Expansion

The Mainland, particularly the Pearl River Delta (PRD), is a major source of growth for Hong Kong. HKIA constantly enhances its multi-modal connectivity with the PRD to cater for the increasing traffic.

A new SkyPier for ferries serving PRD ports entered service in December 2009. The 16 500-square-metre SkyPier, eight times the size of the temporary facility, is linked to HKIA's passenger terminals by an automated people mover. As at December 2009, SkyPier operated 80 daily ferry trips to and from eight ports in the PRD and Macao, namely Nansha, Shenzhen's Shekou and Fuyong, Dongguan's Humen, Zhongshan, Zhuhai's Jiuzhou and Macao's Maritime Ferry Terminal and Taipa.

With an average number of 400 daily trips, HKIA's Mainland coach service reaches 90 PRD destinations. In 2009, the network was expanded to include Yangjiang and Zhanjiang to the west and Shantou and Chaozhou to the east. During the year, the Mainland limousine network was extended to Dongguan and the number of limousines serving HKIA grew from 100 to 142.

Airport Services

The HK\$4.5 billion facility and capacity enhancement programme for the airfield and Terminal 1 (T1) made good progress during the year and will be completed in phases by 2011. The North Satellite Concourse, opened in December 2009, provides 10 additional bridge-served stands for narrow-bodied aircraft. This new facility will enable about 98 per cent of passengers to embark and disembark flights at HKIA using bridge-served parking bays. With the installation of new security screening channels and the reconfiguration of the Departures Immigration halls in T1, passengers now undergo baggage security inspection before proceeding to immigration clearance. These changes boost security screening capacity by 40 per cent and increase efficiency. The enhancement programme also upgrades the Transfer and Arrivals areas to streamline passenger flow and improve service quality, including the addition of airline and ferry transfer counters as well as security

screening channels. All improvements to the Arrivals Immigration Hall are scheduled for completion in early 2011.

Preparation for Growth

To maintain HKIA's competitiveness, the Airport Authority (AA) has a three-tier planning process, comprising an annual budget, a rolling five-year plan, and a 20-year plan that is updated every five years. During the year, the AA worked on the HKIA Master Plan 2030, a 20-year blueprint comprising updated air traffic forecasts, capacity requirements, development plans and growth strategies. The *HKIA Master Plan 2030* study will also review the airport's layout and land use policy, including the environmental and engineering feasibility of building a third runway.

Air Services

Under the specific authorisation of the Central Government, the Hong Kong Special Administrative Region Government continues to negotiate and conclude bilateral air services agreements with aviation partners to provide the legal framework for scheduled air services between Hong Kong and other places. At present, there are a total of 61 such agreements.

The Government also reviews the traffic rights arrangements with its partners to expand Hong Kong's aviation network and to allow more competition in the market. In 2009, the Government expanded traffic arrangements with 10 aviation partners.

During the year, the Air Transport Licensing Authority (ATLA) granted nine new licences: five to Cathay Pacific Airways and four to Hong Kong Dragon Airlines. The Procedural Guide on ATLA's procedures for processing licence applications is available at: www.thb.gov.hk/eng/boards/transport/air/atla_procedural_guide.pdf.

Cathay Pacific Airways (CPA) took delivery of five Boeing B777-300ER passenger aircraft, four Boeing 747-400ERF freighters and one Boeing 747-400 BCF freighter during the year, bringing its fleet size to 126 aircraft. By the end of the year, CPA operated scheduled services to 59 destinations worldwide, with the addition of cargo services to Houston and Miami, and passenger services to Jeddah.

Hong Kong Dragon Airlines (HDA) continued to focus on regional routes. The airline launched scheduled passenger air services to Guangzhou during the year. By the end of the year, HDA was operating scheduled services to 26 destinations, including 15 cities in the Mainland with its fleet of 30 passenger aircrafts.

Air Hong Kong focused on its all-cargo services in Asia. The airline operated scheduled services to 11 destinations.

Hong Kong Express Airways (HKE) continued to develop regional scheduled air services. By the end of the year, HKE operated scheduled services to 11 destinations in the Mainland, Japan and Southeast Asia with its five aircraft.

Hong Kong Airlines (CRK) restructured its network with its alliance airline HKE. By the end of the year, CRK operated scheduled services to seven destinations in Asia.

Regarding non-Hong Kong airlines, 13 airlines commenced scheduled services to Hong Kong in 2009, three operating passenger services and 10 operating all-cargo services. For passenger services, Kingfisher Airlines launched its services between Mumbai and Hong Kong in September. In October, Zest Airways commenced services between Clark and Hong Kong and in December, Air Pacific launched its services between Nadi and Hong Kong.

For all-cargo services, Grandstar Cargo International Airlines of the Mainland and PT Cardig Air of Indonesia commenced services in February; Cargolux Italia of Italy and Deccan Cargo and Express Logistics of India in June; AeroLogic of Germany and D.E.T.A. Air of Kazakhstan in July; Cargoitalia of Italy, Jade Cargo International of the Mainland and TNT Airways of Belgium in September; and ACG Air Cargo of Germany in November.

Regarding the development of helicopter services in Hong Kong, the expansion works of the cross-boundary heliport at the Hong Kong – Macao Ferry Terminal were completed in September. The Government has also reserved a site at the Kai Tak Development Area for another cross-boundary heliport. As for domestic helicopter services, the Government has, after consulting the industry and other stakeholders, allowed commercial helicopters to share the use of the Wan Chai Temporary Heliport with the Government Flying Service pending the completion of the permanent government heliport near the Hong Kong Convention and Exhibition Centre.

Updating of Aviation Legislation

To implement the latest international standards and applicable international practices in relation to airworthiness, aircraft equipment, safety management, data preservation and personnel licensing, the Air Navigation (Hong Kong) Order 1995 was amended in 2008 and the amendments took effect from January 2009.

Air Traffic Control

The air traffic control system continued to operate smoothly during the year. It handled 280 500 movements at HKIA and 141 361 over-flights, including traffic to and from Macao, representing a slight reduction of 7.28 and 8.64 per cent over 2008 respectively. The average daily flight movements at HKIA was 768. Despite the global economic downturn, continuous efforts were made by the Civil Aviation Department (CAD) to enhance the airspace and flight procedures design that contributed to the increase in the runway capacity from 56 to 58 flight movements per hour during the year.

CAD also successfully implemented a set of new arrival air routes in October to facilitate air traffic coming to Hong Kong through the western part of the Hong Kong Flight Information Region. With the rationalisation of air traffic operations, the commissioning of these new air routes is expected to shorten air journey distances by more than 10 million kilometres, or 12 000 hours in flight time per year.

Aircraft Operation and Airworthiness

CAD, the Civil Aviation Administration of China and the Macao Civil Aviation Authority signed a Co-operation Arrangement on Mutual Acceptance of Certificates

of Airworthiness on May 13 in Macao. The arrangement will shorten the time required in the transfer of aircraft registration within the region.

Aviation Security

The CAD hosted the sixth steering committee meeting of the International Civil Aviation Organisation (ICAO) Co-operative Aviation Security Programme — Asia Pacific and an aviation security seminar in April held to foster closer co-operation in aviation security in the Asia Pacific Region. The seminar was attended by representatives of ICAO, civil aviation authorities, airport authorities and airlines in the region.

ICAO Safety Oversight Audit

The ICAO conducted a safety oversight audit on Hong Kong's aviation system from February 26 to March 6. During the audit, the safety level of aviation activities and safety management capabilities of Hong Kong in respect of personnel licensing, operation and airworthiness of aircraft, aerodrome operations, air navigation services and accident investigation, were assessed. Hong Kong achieved an overall score of 94.47 per cent in the effective implementation of a safety oversight system, showing it had continued to maintain a highly effective aviation safety oversight system for civil aviation activities in Hong Kong.

Enhancing Aviation Services

The CAD is pressing on with the replacement of its existing air traffic control (ATC) system and the development of a new headquarters on Airport Island to enhance operational efficiency and to support the aviation sector's long-term growth. The tendering arrangement for replacing the ATC system is under way while the construction works of the headquarters commenced on May 20.

Websites

Transport and Housing Bureau: www.thb.gov.hk

Transport Department: www.td.gov.hk

Highways Department: www.hyd.gov.hk

Marine Department: www.mardep.gov.hk

Civil Aviation Department: www.cad.gov.hk

Airport Authority Hong Kong: www.hkairport.com