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**TRANSPORT**



## Transport

### Roads and Bridges

Macao has 340.3 kilometres of roads and highways, including 189.4 kilometres on the Macao peninsula; 85.8 kilometres on Taipa Island and Cotai; 44.7 kilometres on Coloane; 1.9 kilometres in New Urban Zone Area A and the bridge connected with New Urban Zone Area A; 8.7 kilometres in the Zhuhai-Macao border crossing area on the Artificial Island of the Hong Kong-Zhuhai-Macao Bridge; 4.6 kilometres in the campus of the University of Macau (including the cross-river tunnel); and 1.5 kilometres in the Macao border crossing area and related extension zones of the Hengqin checkpoint.

Three bridges and a strip of reclaimed land link the Macao peninsula with Taipa island and Coloane island. Opened to traffic in October 1974, the Nobre de Carvalho Bridge (also known as the Macao-Taipa Bridge) is 2.5 kilometres long. The 4.4-kilometre Friendship Bridge was completed in April 1994. The 2.1-kilometre Sai Van (West Bay) Bridge was completed in December 2004 and opened to traffic in January 2005. In addition, the 800-metre Lotus Flower Bridge was completed in December 1999 and opened to traffic in March 2000. Linking the reclaimed area between Taipa and Coloane with Zhuhai City's Hengqin island and connected to the Guangzhou-Zhuhai Expressway, this bridge is the second land route between Macao and its neighbouring cities.

Macao has 453.4 kilometres of roads for motor vehicles. This figure includes 201.9 kilometres on the Macao peninsula; 145.6 kilometres on Taipa island and Cotai; 65.3 kilometres on Coloane island; five kilometres on Nobre de Carvalho Bridge; 10.2 kilometres on the Friendship Bridge; 4.2 kilometres on the Sai Van Bridge; 1.6 kilometres on the Lotus Flower Bridge; 3.7 kilometres in New Urban Zone Area A and the bridge connected with New Urban Zone Area A; and 15.9 kilometres in the Zhuhai-Macao border crossing area on the Artificial Island of the Hong Kong-Zhuhai-Macao Bridge. There are also 14 kilometres of roads of the University of Macau (including the cross-river tunnel) and three kilometres in the Macao border crossing area and related extension zones of the Hengqin checkpoint.

### Public Transport

Macao has a well-established public transport network connecting the Macao peninsula and the two islands. A variety of vehicles, including buses, taxis and light rail transit, are available for local residents and tourists.

### Public Bus Service

Public bus service in Macao is currently operated by two bus companies: Transportes Urbanos de Macau, S.A.R.L. (Transmac) and Sociedade de Transportes Colectivos de Macau, S.A. (TCM).

At the end of 2020, there were 1,000 buses in service, including 228 minibuses, 135 medium-sized buses and 637 large buses, on 85 routes. In 2020, a total of 166,422,166 passengers were served, representing a decrease of 27.31 percent over the 2019 figure, covering a total distance of 44.71 million kilometres, representing a decrease of 11.04 percent over the 2019 figure.

The Government signed the amendment to the concession contract regarding the Public Service of Road Mass Transport for the first and fourth tender sections and the amendment to the concession contract regarding the Public Service of Road Mass Transport for the third tender section with Transportes Urbanos de Macau, S.A.R.L. (Transmac) and Sociedade de Transportes Colectivos de Macau, S.A. (TCM), respectively, on 11 September 2020. The two companies provide bus services under the new contracts starting from 1 January 2021, for a period of six years.

### **Sociedade de Transportes Colectivos de Macau, S.A.**

Sociedade de Transportes Colectivos de Macau, S.A. (TCM) (previously known as Companhia de Transporte de Passageiros entre Macau e as Ilhas) originally provided maritime passenger transportation services between Macao and the two islands. During the 1950s, it acquired several bus companies that served residents of Taipa and Coloane, and began to operate public buses. In 1986, Companhia de Transporte de Passageiros entre Macau e as Ilhas was restructured as TCM and became fully responsible for all public buses serving Macao and its islands.

In September 2012, the TCM took the lead in introducing the first new energy-saving and environmentally friendly CNG natural-gas bus in Macao. Currently, there are 69 natural-gas buses in total, accounting for 14 percent of the company's total fleet. In future, it will continue introducing new models and environmentally friendly buses in accordance with the slogan: "Shaping Eco-Cities for an Inclusive Green Economy".

There are 57 bus routes offered by the TCM, including: seven night routes, accounting for about 65 percent of all bus routes in Macao. These 57 routes are operated by more than 500 vehicles, serving over 330,000 passengers on average per day, covering an average total distance of 70,000 kilometres each day.

### **Transportes Urbanos de Macau, S.A.R.L. (Transmac)**

Transportes Urbanos de Macau, S.A.R.L. (Transmac) was previously known as Companhia de Autocarros Fok Lei. Founded in 1952, it was restructured and changed its name to Transportes Urbanos de Macau in July 1988. It is the largest bus company in Macao. The company introduced the ISO Quality Management System in 2004 for overall management, making it the first franchised bus company in Macao to pass the ISO 9001:2015 Quality Management System.

Transmac has around 1,100 employees and a fleet of 422 buses that serve 34 bus routes covering Macao, Taipa and Coloane islands. During 2020, 78,734,315 passengers were carried and 21.60 million kilometres covered.

To keep in line with the Government's environmental protection policies, Transmac introduced the first extended range electric bus in Macao in 2018.

In 2019, Transmac introduced the Advanced Driver Assistance Systems (ADAS), Speed Limit Indicator (SLI) and Collision Avoidance System of Mobileye to improve the safety of vehicular traffic.

## **Light Rail Transit (LRT) system**

### **Macao Light Rapid Transit Corporation Limited**

The Government established the Macao Light Rapid Transit Corporation Limited in accordance with By-law No. 8/2019. Macao Light Rapid Transit Corporation Limited is mainly responsible for building and maintaining the infrastructure and facilities necessary for the operations of the Light Rapid Transit system, as well as the LRT operation management and provision of passenger services. Other extended services include advertising and commercial services. The company is committed to supporting the Government's public transportation policy, thereby elevating people's quality of life and convenience in commuting.

The Macao LRT Taipa line is 9.3 kilometres long, with 11 stations, covering the major residential areas, old districts, and tourist spots of downtown Taipa, linking Macao's three major ports of entry by sea, land and air. The Taipa line officially commenced operations in December 2019. The company provided free services during the first two months of operation, with a peak of 33,000 passengers being served on average per day. Since then, about 1,100 to 2,200 passengers were served on average per day.

## **Taxis**

At the end of 2020, Macao had 1,587 licensed black taxis and 200 special taxis. There were 23,510 licensed taxi drivers.

## **Traffic Management**

### **Transport Bureau**

The Transport Bureau was established in May 2008. It is responsible for: studying, planning, promoting and implementing the Government's road transport policies; pursuing road improvements; regulation of vehicles; as well as installing, maintaining and improving transportation and pedestrian infrastructure.

## **Vehicle Statistics**

At the end of 2020, there were 244,110 vehicles on Macao's roads, including 125,406 motorcycles, 111,369 light vehicles and 7,263 heavy vehicles. During the year, 12,380 new vehicles were registered, 0.84 percent less than in 2019. Of these, 7,115 were motorcycles and 5,028 were cars.

## **Traffic Monitoring**

Traffic management and monitoring are essential for ensuring the safe and orderly operation of the transport system. The Government has installed closed circuit TV (CCTV) and radar speed monitoring systems to monitor traffic conditions on the Macao-Taipa Bridge and main roads.



The system includes 48 video cameras and 20 speed monitoring systems on and near the Friendship Bridge, 111 video cameras and 21 speed monitoring systems on and near the Sai Van Bridge and surroundings, and 14 video cameras and four speed monitoring systems on and near the Ponte Governador Nobre de Carvalho. Also, 579 video cameras, 60 speed monitoring radar units, and a comprehensive system of 89 monitors at road junctions to detect vehicles jumping red lights and 19 monitors to detect illegal parking have been installed in various locations. On the Macao artificial island of Hong Kong-Zhuhai-Macao Bridge, 57 video cameras have been installed.

According to the Public Security Police, during 2020, the monitoring systems identified 14,858 cases of speeding on highways, 1,022 cases of speeding along the bridge, 3,424 cases of jumping red lights, and 14,381 cases of illegal parking.

## Parking

As at 31 December 2020, Macao had 57 public car parks, which together provided 24,715 parking spaces for light vehicles, 727 spaces for heavy vehicles, and 17,275 spaces for motorcycles.

Public Car Parks in Macao	
Name of car park	Available parking spaces
Pak Lane Car Park	507 light vehicles
Pak Tou Car Park	211 light vehicles
Pak Lai Car Park	355 light vehicles
Pak Lik Car Park	417 light vehicles
Pak Lok Car Park	411 light vehicles, 300 motorcycles
Pak Vai Car Park	502 light vehicles
Pak Kai Car Park	208 light vehicles
Pak Wai Car Park	1,019 light vehicles
Pak Keng Car Park	161 light vehicles
Alameda Dr. Carlos d'Assumpcao Car Park	720 light vehicles
Pak Wu Car Park	644 light vehicles, 196 motorcycles
Pak Kong Car Park	287 light vehicles, 35 heavy vehicles
Sewage Treatment Plant Car Park	276 light vehicles, 452 heavy vehicles

(Cont.)

Public Car Parks in Macao	
Name of car park	Available parking spaces
Vasco da Gama Garden Car Park	171 light vehicles, 113 motorcycles
Iao Hon Park Multi-Storey Car Park	406 light vehicles, 404 motorcycles
Art Garden Car Park	351 light vehicles, 446 motorcycles
Ferreira do Amaral Roundabout Car Park	247 light vehicles, 580 motorcycles
Ho Yin Garden Car Park	415 light vehicles, 542 motorcycles
Malaca Street Car Park	215 light vehicles, 563 motorcycles
S. Lourenco Market Car Park	60 light vehicles, 74 motorcycles
Estrada Flor de Lotus Heavy Vehicle Car Park	240 heavy vehicles
Macao Science Center Car Park	415 light vehicles, 413 motorcycles
Lido Car Park	62 light vehicles, 24 motorcycles
Transport Bureau Car Park	148 light vehicles, 178 motorcycles
Cheng Choi Building Car Park	304 light vehicles, 518 motorcycles
Mong Sin Block Car Park	133 light vehicles, 236 motorcycles
Almirante Sergio Road Car Park	155 light vehicles, 106 motorcycles
Fai Fu Building Car Park	215 light vehicles, 194 motorcycles
Flor de Lotus Road Car Park	416 light vehicles, 512 motorcycles
Tranquilidade Road Car Park	58 light vehicles, 93 motorcycles
Parque Central da Taipa Car Park	1,343 light vehicles, 1,384 motorcycles
The Taipa Temporary Ferry Terminal Car Park	740 light vehicles, 196 motorcycles
Edificio Mong In Car Park	143 light vehicles, 242 motorcycles
Edificio do Lago Car Park	678 light vehicles, 1,132 motorcycles
Edificio Koi Nga Public Car Park	307 light vehicles, 366 motorcycles
Edificio Ip Heng Public Car Park	389 light vehicles, 606 motorcycles
Edificio Cheng Chong Public Car Park	244 light vehicles, 386 motorcycles

(Cont.)

Public Car Parks in Macao	
Name of car park	Available parking spaces
Edificio Lok Kuan Public Car Park	362 light vehicles, 550 motorcycles
Rua da Ponte Negra Public Car Park	95 light vehicles, 80 motorcycles
Fai Yat Building Public Car Park	259 light vehicles, 228 motorcycles
Cheng Chun Building Car Park	54 light vehicles, 38 motorcycles
Cheng I Building Car Park	283 light vehicles, 286 motorcycles
Iat Seng Building Car Park	292 light vehicles, 315 motorcycles
Chun Shu Mei Car Park	197 light vehicles, 197 motorcycles
Vala Das Borboletas Car Park	369 light vehicles, 165 motorcycles
Iat Fai Building Car Park	59 light vehicles, 132 motorcycles
Alameda da Harmoniai Car Park	209 light vehicles, 146 motorcycles
Rua da Bacia Sul Car Park	306 light vehicles, 214 motorcycles
Fai Ieng Building Car Park	121 light vehicles, 107 motorcycles
Hong Kong-Zhuhai-Macao Bridge Checkpoint Building (West) Car Park	3,089 light vehicles, 2,054 motorcycles
Hong Kong-Zhuhai-Macao Bridge Checkpoint Building (East) Car Park (beyond Macao border)	3,000 light vehicles
Patane Municipal Market Complex Car Park	116 light vehicles, 194 motorcycles
New Wholesale Market Car Park	230 light vehicles, 198 motorcycles
Cheng Tou Building Car Park	80 light vehicles, 83 motorcycles
Border Gate Sports Complex Car Park	788 light vehicles, 800 motorcycles
Bairro da Ilha Verde Building Car Park	1,427 light vehicles, 1,628 motorcycles
Joao Lecaros Car Park	46 light vehicles, 56 motorcycles

As at 31 December 2020, there were 8,015 parking meters for light vehicles, of which 215 were one-hour parking meters, 5,982 were two-hour parking meters and 1,818 were four-hour parking meters. There were 1,793 non-metered parking spaces. There were 2,923 parking meters



for motorcycles, of which 1,729 were two-hour parking meters and 1,194 were four-hour parking meters. There were 29,681 non-metered parking spaces for motorcycles.

## Road Safety

According to statistics provided by the Public Security Police, 10,194 traffic accidents occurred in Macao during 2020, resulting in 3,589 injuries and five fatalities.

The Transport Bureau launched a “Road Signs Online Quiz”, which aimed at increasing residents’ knowledge of road signs and awareness regarding abiding the law. In addition, the Transport Bureau, the Public Security Police, and the Legal Affairs Bureau continued co-organising the Safe Driving Programme 2020, with “Respecting Others on Roads and Putting Safety First” as the activity slogan.

A Road Safety promotional campaign held in 2020 was jointly organised by the Transport Bureau, Public Security Police, the Legal Affairs Bureau and the Education and Youth Affairs Bureau. It publicised the importance of obeying traffic regulations, to strengthen the understanding of laws and sense of road safety among local residents, and thus reduce the number of traffic accidents.

The Transport Bureau and the Traffic Department of the Public Security Police held workshops and talks related to road safety in schools, community centres, non-governmental organisations and private organisations, with the aim of reinforcing residents’ understanding of road safety through long-term education efforts.

During 2020, a total of 23 schools and organisations participated in the road safety seminars and workshops co-organised by the Transport Bureau and Traffic Department; 6,249 people participated.

## Prevention and Control of the Pandemic and Work to Support the Industry

To accord with the Government’s anti-pandemic work, buses, taxis, light rail and related management companies are required to strengthen the cleaning and disinfection of public vehicles and stations, thereby protecting industry employees.

To mitigate the impact of the pandemic on the taxi industry, the Transport Bureau opened the West Car Park of the Hong Kong-Zhuhai-Macao Bridge, for taxis to park for free, from 5 February to 30 September 2020, benefiting over 16,000 taxis. The Government also waived the special administrative charges on land transport for 2020. Refunded special administrative charges to taxi drivers included:

Types	Administrative charges
Taxi-driving licence	Issue (including annual fee)
	Annual fee, renewal or change
Taxi meters	Inspection

Validities of all valid taxi permits or licences were extended by six months, while the validities of current taxis were extended by six months.

## Cross-border Traffic

### Cross-border Land Routes

Four land routes link Macao and mainland China: the Border Gate, the Zhuhai-Macao Cross-border Industrial Zone, the Hong Kong-Zhuhai-Macao Bridge checkpoint, and the Macao border crossing area of Hengqin checkpoint (which commenced operations at 3 pm on 18 August 2020, while the Cotai checkpoint suspended operations at the same time).

During 2020, there were 5,913,820 visitor arrivals by land, representing a decrease of 79.81 percent from the previous year's figure.

Of these, 3,861,306 entered via the Border Gate; tourists from mainland China and Hong Kong represented 91.3 percent and seven percent of the total, respectively.

There were 5,510,234 visitors who arrived via Hong Kong-Zhuhai-Macao Bridge checkpoint; tourists from mainland China and Hong Kong accounted for 26.7 percent and 64.4 percent of this total, respectively.

The number of visitors who arrived via the Macao border crossing area of Hengqin checkpoint was 669,670, while 8,580 arrived via the Zhuhai-Macao Cross-border Industrial Zone.

During the year, there were 12,527,268 arrivals of Macao residents via the Border Gate, 760,282 via Hong Kong-Zhuhai-Macao Bridge checkpoint, 609,310 via the Macao border crossing area of Hengqin checkpoint and 334,147 via Zhuhai-Macao Cross-border Industrial Zone.

### Cross-Border Marine Transportation Services

The Outer Harbour Ferry Terminal, Taipa Ferry Terminal and Inner Harbour Ferry Terminal provide cross-border transportation services for passengers travelling between Macao and Hong Kong and mainland China. Scheduled passenger ferries to Hong Kong and mainland China are operated by the Shun Tak China Travel — Companhia de Gestao de Embarcacoes (Macao), Limitada; Far East Hydrofoil Company; Hong Kong-Macau Hydrofoil Company; Shun Tak – China Travel Macau Ferries Limited; Yuet Tung Shipping Company; and Cotai Waterjets (Macao) Limited.

Due to the COVID-19 pandemic, the cross-border ferry services between Macao and Hong Kong and between Macao and mainland China were suspended from January to March 2020; some cross-border ferry services between Macao and mainland China resumed from August to September of the same year; by the end of 2020, the cross-border ferry services between Macao and Hong Kong had not yet resumed.

### Outer Harbour Ferry Terminal

The Outer Harbour Ferry Terminal, which commenced operations in 1993, is one of Macao's most important checkpoints. The terminal provides maritime passenger transportation services between Macao and various places including Sheung Wan, Tsim Sha Tsui, Tuen Mun and Hong Kong International Airport in Hong Kong, and Fuyong and Shekou in Shenzhen. Moreover, it also provides helicopter transportation services between Macao and Hong Kong or Shenzhen.

The terminal has a total floor area of 65,000 square metres, and provides 14 berths and a helicopter pad on its rooftop. The main building is a three-storey building, with the first floor as arrival floor, the second as departure floor and the third as food and beverage, shopping and passenger waiting area.

### **Taipa Ferry Terminal**

The Taipa Ferry Terminal commenced operation in June 2017. It occupies 200,000 square metres, with 16 berths, three multi-functional berths for ferries and a helicopter pad on its rooftop. The Terminal provides maritime passenger transportation services between Macao and various places including Sheung Wan, Tsim Sha Tsui, Tuen Mun and Hong Kong International Airport in Hong Kong, Fuyong and Shekou in Shenzhen, and Humen in Dongguan, to provide leisure cruise services, with the ground floor as the arrival floor, the first as the departure floor and a food square in the west of the ground floor.

### **Inner Harbour Ferry Terminal**

The Inner Harbour Ferry Terminal, which commenced operation in 2008, has two berths, providing maritime passenger transportation services between Inner Harbour Ferry Terminal and Wanzai in Zhuhai. The ground floor is the arrival floor and the first floor is the departure floor. The maritime passenger transportation services between Macao and Wanzai in Zhuhai were suspended on 17 January 2016, and resumed on 23 January 2020.

### **Maritime Passenger and Cargo Transportation**

During 2020, there were 6,531 scheduled ferry sailings between Macao and Hong Kong, and 14,851 scheduled ferry sailings between Macao and mainland China.

During 2020, 426,298 passengers arrived in Macao by sea, representing a decrease of 93.2 percent compared with the 2019 figure. Of these, 218,111 entered Macao via the Outer Harbour Ferry Terminal, 11,592 via the Inner Harbour Ferry Terminal, and 196,595 via the Taipa Ferry Terminal.

In 2020, 83,324 containers, holding 121,403 TEUs (twenty-foot equivalent units) were shipped into and out of Macao by sea, representing decreases of 8.14 percent and 8.75 percent, respectively, on the 2019 figures.

Yuet Tung Shipping Company Limited and Macau Cruise Development Company Limited commenced operating regular sightseeing maritime routes at the Inner Harbour Ferry Terminal on 25 September 2018 and 1 October 2019, respectively; Shun Tak China Travel Ship Management (Macao) Limited commenced operating charter services of Macao Aquatic Trek at Taipa Ferry Terminal and Coloane Pier on 23 October 2018, and on 6 May 2019 received approval to utilise the Macau Fisherman's Wharf as a spot to pick up and set down passengers. Shun Tak China Travel Ship Management (Macao) Limited began operating regular sightseeing maritime routes at Taipa Ferry Terminal and Coloane Pier on 8 December 2018, and received approval to modify this route to become a ferry service between Taipa Ferry Terminal and Coloane Pier and the Interchange at Macau Fisherman's Wharf.

Due to the COVID-19 pandemic, the Macao Aquatic Trek was suspended from February to May 2020; it resumed services in June.

2020 Sightseeing Maritime Routes		
	No. of Sails	No. of Passengers
January 2020	78	1,450
February 2020	0	0
March 2020	0	0
April 2020	0	0
May 2020	0	0
June 2020	35	1,007
July 2020	243	12,061
August 2020	241	13,493
September 2020	188	11,130
October 2020	130	2,783
November 2020	102	1,578
December 2020	84	667

## Cross-Border Helicopter Services

Helicopters are the most convenient way to travel between Macao and Hong Kong and between Macao and Shenzhen. A Hong Kong-Macao helicopter passenger transportation service was inaugurated in 1990. A Shenzhen-Macao helicopter passenger transportation service was launched in 2002. Operated by East Asia Airlines, the service reduced the travelling time between Hong Kong and Macao to only 15 minutes. There are 40 and six daily helicopter flights between Macao and Hong Kong and between Macao and Shenzhen, respectively. The helicopter service operates from 10 am to 11 pm. To keep in line with the Government's anti-pandemic policies, the helicopter services between Macao and Hong Kong and between Macao and Shenzhen have been suspended since 5 February 2020, to reduce the risk of community spread of COVID-19.

## Ports

### Outer Harbour

The Outer Harbour is located on the east coast of the Macao peninsula, which is primarily the Outer

Harbour Ferry Terminal and designated for scheduled high-speed ferries between Macao and Hong Kong and Shenzhen. Its watercourse is 120 metres wide and 4.4 metres deep.

## Inner Harbour

Located on the west coast of the Macao peninsula, the Inner Harbour has many piers for loading and discharging cargo, plus Pier 11A, the ferry terminal, used by passenger ferries licensed by the Marine and Water Bureau. The South Sampan Pier between Piers 8 and 9 is used by crewmembers of ships berthed in the Inner Harbour who hold Macao SAR Resident Identity Cards, or Portuguese Citizen Cards, or are authorised to land and depart by the relevant government authority. The South Sampan Pier also allows vessels travelling to and from Wanzai, Zhuhai, to berth; these carry flowers and flower farmers, and arrivals are processed through a customs inspection point.

To accord with the pandemic prevention and control work, the services of the North Sampan Pier were suspended from midnight on 11 April 2020.

The Macao Channel (commonly known as the Inner Harbour's approach channel) is 60 metres wide, and its fairway is 55 metres wide and 3.5 metres deep.

## Taipa

The Taipa Ferry Terminal is situated on the north-eastern tip of Taipa island, and is exclusively for scheduled high-speed ferries shuttling between Macao and Hong Kong, and between Macao and the Pearl River Delta area. Its fairway is 120 metres wide and 4.4 metres deep.

## Ka Ho Harbour

Located on the northeast shore of Coloane island, Ka Ho Harbour consists of the Fuel Oil Terminal, Cement Terminal, Ka Ho Container Port, and Power Plant Terminal. Its approach channel is 75 metres wide and 4.4 metres deep.

## Ka Ho Container Wharf and Fuel Oil Terminal

Phase One of Ka Ho Container Wharf commenced operations in December 1991. With a total construction area of 49,524 square metres, it includes a container wharf, container yard and warehouses. At present, it has two berths, of 135 metres and 171.4 metres in length; a 10,428-square-metre cargo working area; a 23,828-square-metre container yard; and 2,850 square metres of cargo warehousing space. The terminal's annual handling capacity is 100,000 TEUs.

In 2020, Ka Ho Harbour handled 6,065 inbound TEUs (twenty-foot equivalent units) and 6,070 outbound TEUs; both figures include re-exports.

The Fuel Oil Terminal commenced operation in June 1995. It can store a wide variety of fuel oil imported into Macao, and can simultaneously load and unload two fuel-carrying vessels. It has 14 storage tanks with a combined capacity of 86,000 cubic metres.

## **Marine and Water Bureau**

The Marine and Water Bureau was created through a restructuring of the former Maritime Administration, and is under the Secretariat for Transport and Public Works of the MSAR Government. It is a public department with administrative autonomy, and is responsible for exercising maritime authority, promoting the development of maritime activities, and coordinating water resources management and water supply.

To promote and assist economic development of the fishery sector, in 2007 the Government promulgated By-law No. 3/2007 to establish the Fisheries Development and Support Fund. The Fisheries Development and Support Fund started to receive applications on 30 April 2007. The loans approved by the end of 2020 totalled around 78.77 million patacas.

To accord with the anti-pandemic work, the Marine and Water Bureau implemented a series of related measures and work. Regarding the maritime passenger transportation, the Marine and Water Bureau designated part of the Taipa Ferry Terminal as a Government medical surveillance site and COVID-19 regular nucleic acid testing collection station; implemented remuneration waivers spanning a total of 11 months (from February to December 2020) for the Outer Harbour and Taipa Ferry Terminal grant recipients; and resumed services of some of the routes starting from the second half of 2020, and strengthened cleaning and disinfection of the public facilities in the ferry terminals and the ferries.

Regarding the fishery sector, the Government required fishermen returning to Macao after midnight on 29 April 2020 to undergo quarantine on fishing vessels or in designated hotels for 14 days. Fishermen who returned to Macao beforehand were required to take a nucleic acid test. When the fishing moratorium ended, non-local fishermen were prohibited from entering Macao when their fishing vessels re-entered the port, after previously leaving. Crew members must hold a certificate of negative result for COVID-19 nucleic acid test, and provide an electronic tracking record of the fishing boat.

Crew members who have been to medium to high risk areas are subject to quarantine for 14 days, and can only enter Macao through the South Sampan Pier. Fishing vessels are not allowed to berth at Inner Harbour piers other than those designated for loading and unloading fish (including Piers 5B2, 28, 31A and 33). The Marine and Water Bureau extended the annual inspection period of the fishing vessels, and expedited approval of the emergency assistance applications that the Fisheries Development and Support Fund had received, in order to relieve the burden of fishermen.

Regarding the water supply, households and commercial enterprises were exempt from water bills from March to May and May to July, respectively.

## **Ships**

### **Maritime Registration**

By law, all vessels engaged in economic activities – including freighters, passenger vessels, fishing boats and auxiliary boats – must be registered with the Marine and Water Bureau and the Commercial and Movable Goods Registry. The registration procedures are designed to verify conformity with official requirements concerning technology, safety and environmental protection.



Maritime registration is a prerequisite for vessels seeking commercial registration. There were 267 registered vessels at the end of 2020, including one that was newly registered during the year.

In addition, maritime and commercial registration is required for vessels over 2.5 metres in length that are used for non-profit-making purposes, such as water sports, fishing or recreational activities. These include ocean-going, coastal, inshore, channel and river pleasure boats. There were 60 registered vessels in this category at the end of 2020, including four new registrations.

## Seafarer Registration

According to the law, Macao residents aged 18 or above may apply for seafarer registration with the Marine and Water Bureau. All Macao residents who wish to conduct professional maritime activities on commercial vessels, auxiliary boats or fishing boats are required to register with the Marine and Water Bureau beforehand. At the end of 2020, a total of 54 people held seafarer's books issued by the Marine and Water Bureau.

## Maritime Training School

The Maritime Training School is Macao's only nautical education institution. Its principal objectives are to provide theoretical and practical training in maritime subjects and harbour management, as well as related scientific knowledge.

Most of the training school's students are staff members from the Marine and Water Bureau, Macao Customs Service, Fire Service and Public Security Police Force, as well as sailors, fishermen and nautical athletes in Macao. The training school also provides after-school and summer vacation activities for youngsters.

## Government Dockyard

The Government Dockyard is a department under the Marine and Water Bureau. As well as shipbuilding and ship repairs, it is responsible for maintaining and repairing government vehicles, verifying their status and inspecting them, handling newly purchased vehicles, as well as making and installing vehicle identification plates. At present, most of the vessels built and repaired at the Government Dockyard belong to the Marine and Water Bureau and Macao Customs Service.

In 2020, the Government Dockyard built seven new vessels – two 19-metre tugboats, two small rescue ships, one 11-metre hydrographic vessel, one nine-metre hydrographic vessel and one 38-metre beacon vessel for the Marine and Water Bureau. It also carried out 179 vessel maintenance projects, 143 of which were completed. The shipyard carried out 1,712 projects concerning examination, maintenance and repair of 1,833 vessels.

## Civil Aviation

### Civil Aviation Authority

The Civil Aviation Authority was founded on 4 February 1991, in accordance with Decree-Law

No. 10/91/M dated 4 February 1991. It is constituted as a public institution under the Secretariat for Transport and Public Works, and it enjoys autonomy over administration, finances and property. It is responsible for directing, controlling and monitoring all civil aviation activities in Macao, and the operations of all aircraft registered in Macao.

## Aviation Service

To implement its “Open Skies” policy, the Government has adopted a series of measures to enhance Macao’s civil aviation infrastructure network. Every effort has been made to attract additional investment from domestic and foreign airlines, to promote the use of Macau International Airport, and to enhance the development of passenger and cargo transportation.

To increase cooperation with the international aviation community, the Government will continue to forge new air services agreements with countries around the world. By 31 December 2020, Macao had initialled air services agreements with 50 nations and regions, 41 of which had been officially signed.

Signatories of Air Services Agreements with Macao	
Nation	Signing date
Brazil	15/07/1994
Finland	09/09/1994
Austria	04/11/1994
Belgium	16/11/1994
The Netherlands	16/11/1994
Luxembourg	14/12/1994
New Zealand	09/03/1995
Portugal	31/08/1995
Switzerland	05/09/1995
Singapore	27/10/1995
Malaysia	31/10/1995
Thailand	01/11/1995
United States	03/07/1996

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Signatories of Air Services Agreements with Macao	
Vietnam	07/08/1996
Germany	05/09/1996
DPR Korea	08/12/1996
Denmark	11/12/1996
Sweden	11/12/1996
Norway	11/12/1996
South Korea	03/04/1997
The Philippines	18/07/1997
India	11/02/1998
Nepal	19/02/1998
South Africa	04/04/1998
Brunei	24/05/1998
United Arab Emirates	06/12/1998
Russia	21/01/1999
Myanmar	12/03/1999
Australia	24/08/1999
Poland	22/10/1999
Pakistan	15/11/2000
Czech Republic	25/09/2001
Cambodia	12/12/2001
United Kingdom	19/01/2004
Iceland	13/07/2004

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Signatories of Air Services Agreements with Macao	
Maldives	16/01/2006
France	23/05/2006
Sri Lanka	08/06/2006
Mongolia	27/06/2006
Japan	10/02/2010
Laos	25/06/2013
Oman	Initialled
Indonesia	Initialled
Israel	Initialled
Greece	Initialled
Slovakia	Initialled
Cape Verde	Initialled
Chile	Initialled
Turkey	Initialled
Qatar	Initialled

**Other agreements:**

The MSAR Government has signed the following agreement on aviation with the Portuguese Government:

Agreement	Signing date
Protocol on Cooperation in Civil Aviation Between the Portuguese Republic and the Macao Special Administrative Region of the People's Republic of China	9 September 2002

The MSAR Government has signed the following multilateral agreements with the European Union:

Agreement	Signing date
Agreement between the Government of the Macao Special Administrative Region of the People's Republic of China and the European Union on Certain Aspects of Air Services	23 November 2013

As at 31 December 2020, three airlines were registered in Macao and providing flight services: Air Macau, Sky Shuttle and Macau Jet International.

The fleets and scheduled flight services of the three companies were as follows:

Airline	Fleet	Destinations
Air Macau	6 x Airbus A320 4 x Airbus A320neo 10 x Airbus A321 1 x Airbus A321neo	Shanghai (Pudong, Hongqiao), Beijing (capital, Daxing), Hangzhou, Xiamen, Nanjing, Ningbo, Chengdu, Nanning, Hefei, Chongqing, Taiyuan, Tianjin, Zhengzhou, Guiyang, Changzhou, Qingdao, Jieyang Chaoshan, Wenzhou, Taipei, Kaohsiung, Bangkok, Da Nang, Hanoi, Seoul, Tokyo, Osaka, Fukuoka, Da Nang, and Hanoi.
Sky Shuttle (Helicopter service)	4 x Agusta AW139	Hong Kong, Shenzhen
Macau Jet International (Commercial Charter Services)	1 x Dassault Falcon 2000LX	Global destinations

The numbers of pilots licensed by the Civil Aviation Authority, as at 31 December 2020, were:

Airline	Number of licensed pilots
Civil Aviation Authority	0
Air Macau Company Limited	234
Sky Shuttle	17
Macau Jet International (Commercial Charter Services)	4
<b>Total</b>	<b>255</b>

Macao International Airport is located at the eastern end of Taipa island and neighbouring waters. The terminal building was constructed on a rock-cut platform at Ponta da Cabrita, while the apron was built on reclaimed land. East of the apron, the air-traffic control building, control tower and ancillary fire station are on Kia Kiong Islet. The runway is on an artificial island linked to the apron by two taxiway bridges.

The main fire station is on the runway island, next to the oblique taxiway. The airport is within easy reach of the Macao peninsula, the Outer Harbour and Zhuhai via motorway, the Friendship Bridge and the Lotus Flower Bridge. Commuting time from each of these points is less than 20 minutes.

Macao International Airport handled 1,173,230 passengers during 2020, 87.8 percent less than in 2019. Its cargo volume was 33,347 tonnes, representing a decrease of 21 percent. A total of 16,962 flights took off or landed, representing a decrease of 78 percent.

The number of private and commercial air charters decreased from 2,694 in 2019 to 453 in 2020, representing a decrease of 83 percent.

During 2020, 436,440 visitors arrived via the airport.

## **Air Traffic Control**

Since it opened in 1995, the airport's air traffic control system has followed the International Civil Aviation Organization standards, to ensure service efficiency and flight safety. Air traffic control facilities include secondary surveillance radar, ground radar and the Automatic Terminal System. Telecommunications facilities include AMHS, while air-ground communications facilities include a UHF radio station, and navigation facilities include a Doppler VHF omnidirectional radio range (DVOR) apparatus and Instrument Landing System.

The zone with Macao's air traffic control service is classified as Category-C under International Civil Aviation Organization (ICAO) standards. The keyhole-shaped air traffic zone is centred on Macao International Airport. It extends up to an altitude of 3,000 feet and a radius of five nautical miles. The western boundary is a straight line parallel to and three nautical miles from the runway. To the south, the zone forms a rectangle five nautical miles wide and extending southwards for 10 nautical miles.

Macao's air traffic zone lies between the Hong Kong and Guangzhou flight information zones. All aircraft, including helicopters entering Macao airspace, are supervised by the airport control tower. Arriving and departing aircraft can land or take off from both the southern and northern approaches. The mainland China authorities control air traffic to the north of Macao's air zone, while traffic to the south is controlled by the Civil Aviation Department of Hong Kong. Since traffic in the Pearl River Delta airspace is busy and complex, the air-traffic control authorities of Macao, mainland China and Hong Kong must work closely to ensure the safety and efficiency of air traffic control in Macao and the neighbouring air zones.

## **Aircraft Noise**

Macao International Airport was constructed offshore and far from residential communities,



avoiding the need to install soundproofing. However, to protect Zhuhai from noise pollution caused by northbound flights taking off from the runway, aircraft are not allowed to pass the 231-degree radial line of Zhuhai's Jiuzhou omni-directional beacon station.

## Aviation Security

Under Decree-Law No. 36/94/M issued on 18 July 1994 and ICAO regulations, the security systems of civil aviation are intended to ensure the safety, normal operations and efficiency of international civil aviation activities in Macao. Security measures and procedures are essential to protect passengers, crew, airport staff and the public, as well as ensuring the normal, uninterrupted operations of aircraft, facilities and equipment.

Responsibility for Macao civil aviation security is distributed among the Civil Aviation Authority, the Unitary Police Service, the Macao Customs Service, the Public Security Police, the Judiciary Police, the Macau International Airport, the SEMAC Security Company employed by the Airport, aviation companies and other airport departments.

The airport security company is responsible for implementing the security measures and procedures formulated by the airport operator, and ensuring that the security measures and procedures comply with the security requirements of aviation in Macao and the International Civil Aviation Organization (ICAO) standards and recommendations. Besides, the company provides professional training, certified security inspectors and advanced security equipment to perform security checks on passengers, baggage and cargo.

## Macau International Airport Company

Macau International Airport Company (CAM) has been appointed by the Government to operate Macau International Airport. It was responsible for the airport's construction, and it is now responsible for its operation. The Government approved the company's application in 2001 to extend its franchise by a further 25 years, to 2039.





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RICO DE MACAU NO POSTO



S04 前往橫琴

Para HENGQIN  
To HENGQIN

S03 前往橫琴

Para HENGQIN  
To HENGQIN

The new Hengqin Port







The new Hengqin Port is another 24-hour checkpoint that adopts the “Joint Inspection and One-Time Release” principle to customs clearance, following the Hong Kong-Zhuhai-Macao Bridge Zhuhai-Macao port. The new checkpoint facility will not only facilitate movement of people and of goods between Guangdong and Macao, but also makes it easier for Macao citizens to work, invest or live in Hengqin. These activities will help forge ties between Macao and Zhuhai in social, livelihood and economic aspects.