# **TRANSPORT**



# **Transport**

# **Roads and Bridges**

Macao has 361.8 kilometres of roads and highways, including 190.1 kilometres on the Macao peninsula; 94.5 kilometres on Taipa and Cotai; 45.2 kilometres on Coloane; 8.1 kilometres in New Urban Zone Area A and the bridge connected with New Urban Zone Area A; 11.0 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 2.8 kilometres in the Macao border crossing area and related extension zones of the Hengqin checkpoint.

Four 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. The 3.1-kilometre Macao Bridge was completed in July 2024 and opened to traffic in October 2024. 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 the Guangdong-Macao Intensive Cooperation Zone in Hengqin and connected to the Guangzhou-Zhuhai Expressway, this bridge is the second land route between Macao and its neighbouring cities.

Macao has 489.7 kilometres of roads for motor vehicles. This figure includes 205.5 kilometres on the Macao peninsula; 156.7 kilometres on Taipa island and Cotai; 69.4 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; 6.8 kilometres on the Macao Bridge; 1.6 kilometres on the Lotus Flower Bridge; 10.9 kilometres in New Urban Zone Area A and the bridge connected with New Urban Zone Area; and 19.4 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 4.1 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 2024, there were 1,007 buses in service – 101 minibuses, 416 medium-sized buses and 490 large buses, on 86 routes. In 2024, a total of 227 million passengers were served, representing an increase of 6.15 percent over the 2023 figure, covering a total distance of 53.13

million kilometres, representing an increase of 4.78 percent over the 2023 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. 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) has been providing public services since the 1950s. In 1974, the Nobre de Carvalho Bridge connecting Macao and Taipa was opened to traffic, starting a new chapter in the development of public transportation in Macao. With 50 years of history, TCM is one of the two bus companies approved by the MSAR Government and the only second-tier enterprise under the state-owned Nam Kwong (Company) Limited, which is headquartered in Macao.

TCM operates 58 of the MSAR Government's Section III public bus routes, accounting for about 64 percent of routes operated in Macao, with 330,000 passengers served per day and an average total distance of 75,000 kilometres covered each day.

In recent years, TCM has invested in the phased introduction of 469 extended-range new energy buses, actively promoting the development of green public transport. The proportion of green vehicles has risen from 12 percent in 2021 to 95 percent in 2024, actively supporting the implementation of the MSAR Government's Second Five-Year Plan and the development of a low-carbon city. TCM is committed to building a safe public transport system, with 98 percent of its current fleet equipped with an intelligent on-board safety management system.

TCM actively supports the MSAR Government's various transport policies, and has made significant contributions to Macao's public transportation. In 2024, TCM was awarded the Industrial and Commercial Merit Medals by the MSAR Government.

# 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. In 2024, the company obtained ISO/IEC 27001:2022 Information Security Management System certification, to fully safeguard the integrity, confidentiality, and availability of information. In 2022, Transmac received the Industry and Commerce Merit award from the MSAR Government.

Transmac has around 1,080 employees and a fleet of over 400 buses that serve 43 bus routes including 38 regular routes, four special routes, and one free route, covering Macao, Taipa and Coloane islands. During 2024, about 190 million passengers were carried and about 25,700,000

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. By the end of 2024, Transmac had fully transitioned its operational fleet to new energy vehicles, with traditional diesel buses completely phased out of the public transport network.

## **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 officially commenced operation in December 2019. The line has 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. In December 2023, the Taipa line was extended to the Barra Station on the Macao Peninsula via the lower level of the Sai Van Bridge, increasing the total number of stations to 12 and extending the line length to 12.5 kilometres.

In November 2024, the LRT Seac Pai Van line opened. Spanning 1.6 kilometres and connecting two stations, it created the first LRT interchange on the Taipa line, extending the LRT service to the Seac Pai Van community. In December 2024, the LRT Hengqin line opened. Approximately 2.2 kilometres long, and with two stations, this line extended the LRT network to the Hengqin Port connecting Macao and Hengqin, providing Macao residents and tourists with a new transport option for accessing Hengqin Port and marking the integration of Macao's public transport network with the Greater Bay Area.

The LRT Taipa line has a service frequency of approximately every five minutes to 10.5 minutes, while the Seac Pai Van and Hengqin lines run approximately every 6 minutes. The entire LRT system operates from 06:30 to 23:15 on Mondays to Thursdays, and from 06:30 to 23:59 on Fridays, Saturdays, Sundays and public holidays. In 2024, the LRT provided a total of approximately 129,000 train services, carrying over 5.37 million passengers.

#### **Taxis**

At the end of 2024, Macao had 1,385 licensed black taxis and 300 special taxis. There were 7,754 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 2024, there were 253,182 vehicles on Macao's roads, including 126,656 motorcycles, 119,698 light vehicles and 6,828 heavy vehicles. During the year, 12,900 new vehicles were registered, representing an increase of 7.73 percent compared to 2023. Of these, 5,095 were motorcycles and 7,352 were light vehicles.

# **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 bridges and main roads.

The system includes 51 video cameras and 11 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 18 video cameras and four speed monitoring systems on and near the Ponte Governador Nobre de Carvalho. Also, there are 1,008 video cameras and 121 speed monitoring systems; a comprehensive system of 89 monitors at road junctions to detect speeding, vehicles jumping red lights and driving in contravention of road markings; as well as 22 monitors to detect illegal parking, installed in various locations. On the Macao artificial island of Hong Kong-Zhuhai-Macao Bridge, 66 video cameras have been installed.

According to the Public Security Police, during 2024 the monitoring systems identified 12,781 cases of speeding on roads, 1,541 cases of speeding over bridges, 4,529 cases of jumping red lights, and 18,573 cases of illegal parking.

# **Parking**

As at 31 December 2024, Macao had 70 public car parks, which together provided 27,395 parking spaces for light vehicles, 827 spaces for heavy vehicles, and 19,533 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

Public Car Parks in Macao		
Name of car park	Available parking spaces	
Pak Lik Car Park	417 light vehicles	
Pak Lok Car Park	411 light vehicles, 300 motorcycles	
Pak Vai Car Park	515 light vehicles, 120 motorcycles	
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	
Nam Wan (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	
Vasco da Gama Garden Car Park	250 light vehicles, 218 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	245 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, 231 motorcycles	
Almirante Sergio Road Car Park	155 light vehicles, 106 motorcycles	

Public Car Parks in Macao		
Name of car park	Available parking spaces	
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, 1,379 motorcycles	
The Taipa Temporary Ferry Terminal Car Park	740 light vehicles, 196 motorcycles	
Edifício Mong In Car Park	143 light vehicles, 237 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	
Edifício 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	

Public Car Parks in Macao		
Name of car park	Available parking spaces	
Hong Kong-Zhuhai-Macao Bridge Checkpoint Building (East) Car Park	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	
Qingmao Checkpoint Public Car Park	158 light vehicles, 207 motorcycles	
Mong Tak Building Car Park	476 light vehicles, 280 motorcycles	
Edifício Toi Fai Car Park	105 light vehicles, 119 motorcycles	
Mong-Há Sports Centre Car Park	264 light vehicles, 212 motorcycles	
A-Ma Transport Interchange Car Park	201 light vehicles, 403 motorcycles	
A-Ma Transport Interchange Heavy Vehicle Car Park	27 heavy vehicles	
Estrada Governador Albano de Oliveira Heavy Vehicle Car Park	58 heavy vehicles	
Rotunda Da Concordia Car Park	198 light vehicles, 104 motorcycles	
Macao Cultural Centre Car Park	135 light vehicles, 34 motorcycles	
Estrada Governador Albano de Oliveira Public Outdoor Car Park	61 light vehicles, 10 motorcycles	
Macau Union Hospital Public Car Park	590 light vehicles, 480 motorcycles	
Public Health Specialist Building Public Car Park	55 light vehicles, 75 motorcycles	
Avenida do Nordeste Government Housing for Senior Citizens Public Car Park	345 light vehicles, 134 motorcycles	

As at 31 December 2024, there were 7,491 parking meters for light vehicles, of which 194 were one-hour parking meters, 5,519 were two-hour parking meters and 1,778 were four-hour parking meters. There were 923 non-metered parking spaces. There were 2,958 parking meters for motorcycles, of which 1,668 were two-hour parking meters and 1,290 were four-hour parking meters. There were 28,899 non-metered parking spaces for motorcycles.

# **Road Safety**

According to statistics provided by the Public Security Police Force, 15,510 traffic accidents occurred in Macao during 2024, resulting in 5,341 injuries and five fatalities.

The Transport Bureau and law enforcement departments continued promoting the importance of compliance with traffic regulations, thus strengthening the understanding of laws and sense of road safety among local residents. Workshops and talks about road safety were also held in schools, community centres, non-governmental organisations and private organisations, to strengthen the understanding of road safety among local residents. In addition, they utilised various channels such as WeChat public accounts, websites, bus advertisements, newspaper advertisements, and television information programmes to promote traffic safety. Through long-term education, the Transport Bureau aims to enhance road safety awareness among residents and jointly create a safe traffic environment.

In 2024, 124 events promoting traffic safety and knowledge were held for schools, community organisations, the transportation sector, and other institutions, with a total of 11,412 participants.

# **Cross-boundary Traffic**

# **Cross-boundary Land Routes**

Five land routes link Macao and the Chinese mainland: the Border Gate, the Zhuhai-Macao Cross-boundary Industrial Zone, Qingmao, the Hong Kong-Zhuhai-Macao Bridge (Zhuhai-Macao port) checkpoint, and the Macao boundary crossing area of Hengqin.

In 2024, the numbers of arrivals of Macao residents via the Border Gate, Hong Kong-Zhuhai-Macao Bridge (Zhuhai-Macao port), Macao border crossing area of Hengqin checkpoint, Zhuhai-Macao Cross-boundary Industrial Zone and Qingmao checkpoint were 21,676,880, 3,049,585, 2,713,647, 72,843 and 9,047,402, respectively.

During 2024, there were 27,769,490 visitor arrivals by land, representing an increase of 23.8 percent from the previous year's figure.

Of these visitors, 13,489,670 entered via the Border Gate; tourists from the Chinese mainland and Hong Kong represented 90 percent and 7.1 percent of the total, respectively.

There were 1,977,207 visitors who arrived via Hong Kong-Zhuhai-Macao Bridge (Zhuhai-Macao port) checkpoint; tourists from the Chinese mainland and Hong Kong accounted for 91 percent and 5.9 percent of this total, respectively.

There were 6,791,511 visitors who arrived via Hong Kong-Zhuhai-Macao Bridge (Hong Kong-Macao port) checkpoint; tourists from the Chinese mainland and Hong Kong accounted for 31.7 percent and 56.8 percent of this total, respectively.

The number of visitors who arrived via the Macao checkpoint of Hengqin Port was 4,123,549, while 11,462 arrived via the Zhuhai-Macao Cross-boundary Industrial Zone.

There were 1,376,091 visitors who arrived via the Qingmao Checkpoint; tourists from the Chinese mainland and Hong Kong accounted for 88.2 percent and 4.6 percent of this total, respectively.

# **Cross-boundary Marine Transportation Services**

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

## **Outer Harbour Ferry Terminal**

The Outer Harbour Ferry Terminal commenced operations in 1993. 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. The terminal provides maritime passenger transportation services between Macao and various places including Sheung Wan, Kowloon and Hong Kong International Airport in Hong Kong, Fuyong and Shekou in Shenzhen, and Jiuzhou Port in Zhuhai. Moreover, it also provides helicopter transportation services between Macao and Hong Kong, and between Macao and Shenzhen.

Additionally, on 15 December 2023, the ferry route between the Macau Outer Harbour Ferry Terminal and the SkyPier at Hong Kong International Airport resumed. From 1 January 2025, this route operates every Wednesday, with two return sailings daily. The Outer Harbour Ferry Terminal routes to China Ferry Terminal (Kowloon), Hong Kong; Shenzhen Airport (Fuyong) Ferry Terminal; and Jiuzhou Port, Zhuhai are still suspended.

# **Taipa Ferry Terminal**

The Taipa Ferry Terminal commenced operation in June 2017, with a total floor area of 200,000 square metres, 16 berths, three multi-functional berths for ferries and a helicopter pad on its rooftop. The ground floor and first floor serve as the arrival floor and departure floor, respectively, with a food square in the west of the ground floor. The terminal provides maritime passenger transportation services between Macao and various places including Sheung Wan, Hong Kong; Fuyong and Shekou,

Shenzhen; Guishan Island Port, Zhuhai; and Zhongshan Passenger Port, to provide leisure cruise services. Routes to Kowloon, Tuen Mun, Hong Kong International Airport, Humen in Dongguan, and Jiuzhou Port, Zhuhai are still suspended.

#### **Inner Harbour Ferry Terminal**

The Inner Harbour Ferry Terminal, which commenced operation in 2008, has a total floor area of 1,200 square metres and two berths. The ground floor is the arrival hall and the first floor is the departure hall. The terminal provides maritime passenger transportation services between Inner Harbour Ferry Terminal and Wanzai in Zhuhai.

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

In 2024, there were a total of 36,412 ferry sailings between Hong Kong and Macao, and 43,189 ferry sailings between the Chinese mainland and Macao.

During 2024, the numbers of arrivals of Macao residents via the Outer Harbour Ferry Terminal, Inner Harbour Ferry Terminal and Taipa Ferry Terminal were 215,763, 291,190 and 116,881, respectively. Regarding visitor arrivals, 4,096,289 passengers arrived in Macao by sea, representing an increase of 10.71 percent compared with the 2023 figure. Of these, 1,455,394 entered Macao via the Outer Harbour Ferry Terminal, 240,493 via the Inner Harbour Ferry Terminal, and 2,400,402 via the Taipa Ferry Terminal.

In 2024, 84,915 containers, holding 125,932 TEUs (twenty-foot equivalent units) were shipped into and out of Macao by sea, representing decreases of 12.26 percent and 12.74 percent, respectively, from the 2023 figures.

Yuet Tung Shipping Company Limited and Macau Cruise Development Company Limited commenced operating regular sightseeing maritime routes at the Inner Harbour Ferry Terminal in September 2018 and October 2019, respectively. Macau Cruise Development Company Limited added the Inner Harbour Ferry Terminal for passenger embarkation and disembarkation from November 2024.

Shun Tak China Travel Ship Management (Macau) Limited commenced operating Macao Aquatic Trek charter services at Taipa Ferry Terminal and Coloane Pier in December 2018, and from 1 July 2021 began utilising Barra Pier, followed by Outer Harbour Ferry Terminal from November 2024 for passenger embarkation and disembarkation. On 15 July 2023, Yuet Tung Shipping Co. launched a new ferry route between the Taipa Ferry Terminal and Guishan Island in Zhuhai, offering a new island travel option for residents and tourists.

Cotai Waterjets (Macau) Limited began offering sightseeing tours departing from and returning to the Taipa Ferry Terminal from January 2024. It also provides special firework display cruises on designated holidays.

In 2024, there were 2,202 Macao Aquatic Trek charter services, with a total of 9,864 passengers.

2024 Aquatic Trek services		
	No. of Sails	No. of Passengers
January 2024	170	541
February 2024	163	1,069
March 2024	206	885
April 2024	201	998
May 2024	205	743
June 2024	173	631
July 2024	183	422
August 2024	199	739
September 2024	184	569
October 2024	203	1,264
November 2024	156	915
December 2024	159	1,088

# **Cross-boundary 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. The Shenzhen-Macao helicopter passenger transportation service was launched in 2002.

# **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 Pearl River Delta. 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 Inner Harbour South Sampan Pier between Piers 8 and 9 is used by crewmembers of ships berthed in the Inner Harbour to land and depart. The use of the North Sampan Pier has been suspended from 1 March 2021.

The Macao 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 2024, Ka Ho Harbour handled 20,848 inbound TEUs (twenty-foot equivalent units) and 20,447 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 2024 totalled around 91.70 million patacas.

#### **Maritime Area Management**

To implement the specific provisions regarding use of marine areas management outlined in the Maritime Area Management Framework Law, and to establish the regulations for marine area use management, through research and by referencing legislative experiences in the Chinese mainland and Portugal, the Marine and Water Bureau has proposed a legislative framework for the Law on Use of Maritime Areas, consulted the Central People's Government and completed a public consultation in the first half of 2024. The bureau will continue to actively follow up regarding the legislative process of the Law on Use of Maritime Areas.

The Marine and Water Bureau commissioned a professional Chinese mainland research institution to complete a study on the Marine Zoning Based on Functions of the Macao Special Administrative Region and Planning of Maritime Areas of the Macao Special Administrative Region. A consultation document was prepared to gather public opinion, and a public consultation was completed in the first half of 2024.

The MSAR Government promulgated the Executive Order No. 106/2024 - Marine Zoning Based on Functions of the Macao Special Administrative Region on 24 June 2024; it came into effect on 1 July 2024. The Marine and Water Bureau will strengthen its supervision of maritime projects and strictly ensure they all comply with the marine functional zoning, to guarantee its effective implementation.

Also, the Planning of Maritime Areas of the Macao Special Administrative Region has been uploaded to the Marine and Water Bureau's website. The bureau will regularly monitor progress with implementation and review the contents of the plan, to ensure the rational management, protection, and utilisation of the maritime area.

As part of the implementation of the Agreement on Maritime Cooperation in Guangdong-Hong Kong-Macao Greater Bay Area, China Maritime Safety Administration of the Ministry of Transport and the Marine and Water Bureau signed the Arrangement for Cooperation in Smart Maritime Management between Guangdong and Macao in 2022. Under this arrangement, the Guangdong Maritime Safety Administration and the Marine and Water Bureau collaborated on developing the Smart Maritime System (Macao Edition), to enhance maritime management and service capabilities within the Greater Bay Area.

After collaborative development and nearly a year of trial operations, the Smart Maritime System (Macao Edition) was officially launched in October 2024, marking a significant breakthrough in the information-based collaboration in maritime vessel management between Guangdong and Macao, which further enhances Macao's maritime regulatory capabilities, effectively safeguards navigation safety in Macao and surrounding waters, and optimises cross-boundary vessel safety management within the Greater Bay Area.

Given the complex and busy maritime environment of Macao's waters, sharing nautical chart mapping and tidal information is crucial for maintaining maritime safety between Guangdong and Macao.

In October 2024, China Maritime Safety Administration of the Ministry of Transport and the Marine and Water Bureau signed the Cooperation Arrangement on Nautical Chart Production,

Exchanges, and Publication. This established a liaison mechanism based upon existing collaborative efforts, to deepen cooperation in nautical chart production, publication and updates for waters near the Pearl River Delta, and further promote technical support and collaboration in chart production, data exchanges, surveying technology exchanges and personnel training, thereby enhancing the overall efficiency and quality of nautical chart production and more effectively providing high-quality navigational safety for the Guangdong-Hong Kong-Macao Greater Bay Area.

## **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 243 registered vessels at the end of 2024.

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 69 registered vessels in this category at the end of 2024, including nine that were newly registered.

# **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 2024, 44 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: provide cultural and professional training in maritime and port activities, organise training activities within the scope of the Marine and Water Bureau's responsibilities, and promote scientific knowledge related to maritime, port, and oceanic matters.

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 activities for youngsters and students.

During 2024, the school held 22 training courses, for a total of 710 trainees.

#### **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 2024, the Government Dockyard carried out 265 vessel maintenance projects, 223 of which were completed. The shipyard carried out 1,783 projects concerning examination, maintenance and repair of 1,838 vehicles.

#### 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.

As at 31 December 2024, 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	

Signatories of Air Services Agreements with Macao	
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
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

Signatories of Air Services Agreements with Macao	
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
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

As at 31 December 2024, two airlines were registered in Macao and providing flight services: Air Macao Company and Sky Shuttle.

Airline	Fleet	Destinations
Air Macao Co, Ltd	6 x Airbus A320 4 x Airbus A320neo 8 x Airbus A321 4 x Airbus A321neo	Shanghai (Pudong, Hongqiao), Beijing (Capital, Daxing), Hangzhou, Xiamen, Nanjing, Ningbo, Chengdu, Nanning, Chongqing, Taiyuan, Tianjin, Zhengzhou, Changzhou, Qingdao, Fuzhou, Wenzhou, Nantong, Guiyang, Wuhan, Wuxi, Taipei, Taichung, Kaohsiung, Tokyo, Osaka, Hanoi, Da Nang, Singapore, Bangkok (Suvarnabhumi, Don Mueang), Seoul, Jakarta and Kuala Lumpur.
Sky Shuttle (Helicopter service)	2 x Agusta AW139	Hong Kong and Shenzhen

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

The numbers of pilots licensed by the Civil Aviation Authority, as at 31 December 2024, were:

Airline	Number of licensed pilots
Air Macau Company Limited	186
Sky Shuttle	8
Total	194

Macau 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.

Macau International Airport handled 7.64 million passengers during 2024, 48 percent more than in 2023. Its cargo volume was 108,000 tonnes, representing an increase of 69 percent. Over 59,000 flights took off or landed, representing an increase of 41 percent.

The number of private and commercial air charters increased from 813 in 2023 to 937 in 2024, representing an increase of 15 percent.

#### 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 Macau 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 the Chinese mainland 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, the Chinese mainland 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

Macau 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**

To optimise the regulatory framework for civil aviation security, By-law No. 16/2022 – "Air Transport Facilitation and Civil Aviation Security Systems" and Executive Order No. 68/2023 – "Macao Special Administrative Region Civil Aviation Security Programme (MCASP)" were promulgated. Additionally, several aviation notices were issued, including technical requirements, standards, measures, and procedures, to ensure that civil aviation operations are protected from unlawful interference. Various aviation industry operators also developed their own security programmes in accordance with the related laws and regulations to ensure civil aviation is safeguarded from unlawful interference.

# **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.



















The Hengqin Line of the Macao Light Rapid Transit commenced operations in December 2024. This project is a key initiative under the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area, enhancing connectivity between Macao and mainland cities as well as the high-speed railway network. The main structure comprises viaducts, an underwater tunnel, and two stations along a route approximately 2.2 kilometres in length, of which around 900 metres is tunnel section. The stations are Lotus Station, adjacent to the existing Lotus Station on the Taipa Line, and Hengqin Station, located on the lower basement level of the Hengqin Port.