

= Aviation in Indonesia =

Aviation in Indonesia serves as a critical means of connecting the thousands of islands throughout the archipelago . Indonesia is the largest archipelagic country in the world , extending 5 @, @ 120 kilometres (3 @, @ 181 mi) from east to west and 1 @, @ 760 kilometres (1 @, @ 094 mi) from north to south , comprising 13 @, @ 466 islands , with 922 of those permanently inhabited . With an estimated population of over 255 million people ? making it the world 's fourth @-@ most @-@ populous country ? and also due to the growth of the middle @-@ class and the advent of low @-@ cost carriers in the recent decade , Indonesia is widely regarded as an emerging market for air travel in the region . Between 2009 and 2014 , the number of Indonesian air passengers increased from 27 @, @ 421 @, @ 235 to 94 @, @ 504 @, @ 086 , an increase of over threefold .

However , safety issues continue to be a persistent problem in Indonesian aviation . Several accidents have given Indonesia 's air transport system the reputation of the least safe in the world . Indonesian aviation faces numerous challenges , including poorly maintained , outdated , and often overwhelmed infrastructure , the factor of human error , bad weather , haze problems caused by plantation fires , and volcanic ash spewed by numerous area volcanoes that disrupts air transportation .

In Indonesia , there are 22 commercial scheduled airlines that carry more than 30 passengers , and 32 commercial scheduled airlines that transport 30 or less passengers , as well as chartered airlines . Garuda Indonesia is the flag carrier of Indonesia .

The Indonesian Air Force has 34 @, @ 930 personnel equipped with 224 aircraft , among them 110 combat aircraft . The Indonesian Air Force possesses and operates numerous military air bases and military airstrips across the archipelago .

The International Air Transport Association (IATA) has predicted that Indonesia will become the world 's sixth largest air travel market by 2034 . Around 270 million passengers are predicted to fly from and within Indonesia by 2034 .

= = Air transit policy = =

As a large country spanning over three timezones , Indonesia possesses a vast airspace . However , Indonesia is not a participant of the International Air Services Transit Agreement (IASTA) , therefore both Indonesian airspace and airports are closed for foreign commercial airlines ' freedoms of the air , unless there were bilateral transit agreements negotiated with other countries . Indonesia and Australia for example , signed a bilateral agreement relating to air service on 7 February 2013 . According to this agreement , each nations grants to the other party the right to fly across its territory without landing , and the right to make stops in its territory for non @-@ traffic purposes (1st and 2nd freedom) , and the rights for designated airlines to operate services .

Indonesia is the largest aviation market in the Association of Southeast Asian Nations (ASEAN) . However , Indonesia is not yet a full member of the ASEAN open sky agreement , which plans to lift regional flying restrictions throughout Southeast Asia on member country airlines by the end of 2015 or early 2016 . Indonesia is considering opening up only five of its international airports under this policy ; they are Jakarta , Medan , Bali , Surabaya and Makassar . To date , Indonesia has agreed to open access to Jakarta , yet , Indonesia remains opposed to opening up its secondary cities . Currently Indonesia adopt limitations for foreign airlines to operate in Indonesia . This rather protectionist stance was meant to protect Indonesian aviation business against competitors , particularly from Singapore and Malaysia . Basically , this stance is stemmed from a systematic imbalance between ASEAN nations ; as a large nation , Indonesia is able to offer hundreds of access points , while other fellow ASEAN members may offer far less points of access . Singapore for example has only one point of access , while Malaysia may offer two or three access points . This systematic imbalance for exchange of traffic rights has led Indonesian carriers to lobby their government to refrain from entering into multilateral agreement on ASEAN Single Aviation Market .

Access to foreign carriers on domestic routes is disallowed , while international flights will be subject to bilateral agreements . To get around this policy , in order to operate within Indonesia ,

foreign airlines first have to own and operate an Indonesian @-@ based airline . An example of this practice is Indonesia AirAsia , a branch of Malaysian AirAsia ; it previously operated as local airline Awair in 2004 , before changed to Indonesia AirAsia in 2005 .

= = History = =

= = = Colonial era = = =

Aviation service was pioneered in the early 20th century in colonial Dutch East Indies . On 1 October 1924 , KLM started its first intercontinental flight , connecting Amsterdam to Batavia (now Jakarta) in a Fokker F @-@ VII airplane . By September 1929 KLM had started regularly scheduled service between Amsterdam and Batavia . The route connected Amsterdam to Marseille , Rome , Brindisi , Athens , Merza Matruh , Cairo , Gaza , Baghdad , Bushire , Lingeh , Ojask , Gwadar , Karachi , Jodhpur , Allahabad , Calcutta , Akyab , Rangoon , Bangkok , Alor Star , Medan , Palembang , and Batavia , and extended to Bandung . Until the outbreak of the Second World War , this was the world 's longest @-@ distance scheduled service .

The Koninklijke Nederlandsch @-@ Indische Luchtvaart Maatschappij (KNILM) ? the airline of the former Dutch East Indies ? was established on 16 July 1928 . Its first regular operations were between Batavia ? Bandung , and Batavia ? Semarang , starting on 1 November 1928 . The inaugural ceremony was held at Cililitan airport in Batavia (now Halim Perdanakusuma International Airport) . The Batavia @-@ Semarang flight was later extended to Surabaya . Gradually , the services were expanded to include other islands in the archipelago , namely Palembang and Medan in Sumatra , Balikpapan and Tarakan in Kalimantan , and Denpasar in Bali . Immediately before the Pacific War , KNILM also created a network in the east of the East Indies archipelago , serving towns such as Ambon . For this purpose , amphibious aircraft such as the Sikorsky S @-@ 42 and S @-@ 43 and the Grumman G @-@ 21 seaplanes were used , due to the lack of airstrip facilities in the region .

As early as 1930 , KNILM began its first international flight to Singapore . In June 1937 , several cities in the Dutch East Indies were visited by Amelia Earhart during her attempted circumnavigation . From Singapore , Earhart flew to Bandung , Surabaya , and Kupang before continuing her journey to Darwin , Australia . On 3 July 1938 , KNILM began operations to Sydney , stopping at Darwin , Cloncurry , and Charleville . KNILM did not fly to the Netherlands , as the Amsterdam @-@ Batavia weekly service was operated by KLM .

During the Japanese attack of the Dutch East Indies , KNILM was utilized for evacuation flights and transport of troops . KNILM could not operate in East Indies because of World War II and the ensuing Indonesian war for independence , and disbanded completely on 1 August 1947 . Its remaining assets were transferred to KLM , which created the KLM Interinsulair Bedrijf (Interinsular Service) .

= = = Republic era = = =

The Republic of Indonesia declared its independence on 17 August 1945 and the war of independence ensued . After enduring five years of war and securing recognition of Indonesian Independence in late 1949 , the aviation service reopened for business . The KLM Interinsulair Bedrijf was nationalized by the Indonesian government in December 1949 as Garuda Indonesia , the national airline of the republic , and began to operate air services in the Indonesian archipelago .

In the early years of the Indonesian Republic , Garuda Indonesia dominated the air transport service in the country , connecting major cities in the archipelago . In 1956 , the Garuda Indonesia operated its first hajj flight to Mecca with Convair aircraft , carrying 40 Indonesian pilgrims . In 1963 , the airline launched flights to Hong Kong . By the mid 1960s , the airline took delivery of its first Douglas DC @-@ 8 and grew beyond the Asian market , beginning scheduled flights to Amsterdam

and Frankfurt via Colombo , Bombay , and Prague . Rome and Paris became the airline 's third and fourth European destinations , with flights stopping in Bombay and Cairo to refuel . Flights to the People 's Republic of China began that same year , with service to Canton via Phnom Penh .

In 1962 , the government @-@ owned Merpati Nusantara Airlines was established to serve penerbangan perintis (pioneer flights) with small aircraft to connect remote locations in the archipelago . The airline however , ceased its operations in February 2014 and subsequently filed for bankruptcy .

In 1969 , Indonesia 's private aviation service began to grow with the establishment of Mandala Airlines , followed by Bouraq in 1970 . These two airlines directly competed against the government @-@ owned Garuda Indonesia and Merpati Nusantara airlines , and survived until the 2000s . The Bouraq ceased its operations in 2005 . Mandala was bought by Singapore @-@ based Tigerair Group in 2012 , but Tigerair Mandala ceased its operation in 2014 .

In 2000 , the Indonesian government announced the aviation deregulation policy , which makes it easier to acquire a permit to establish a new airline company . The policy was meant to stimulate air transportation investments and increase air @-@ travel business in the country , as well as to serve and stimulate tourism industry in the region . As a result , many new airlines began to spring up in Indonesia , among them Lion Air (est . 1999) , Sriwijaya Air (est . 2003) , Adam Air (operating from 2002 to 2008) , and Batavia Air (operating from 2002 to 2013) . The deregulation also spurred the low @-@ cost carrier service in Indonesia . Previously , air travel service was dominated by well @-@ established airlines such as Garuda Indonesia and Merpati .

Due to poor government control and supervision , however , aviation service deregulation provoked price wars among low @-@ cost carriers , resulting in fierce commercial competition at the expense of poor maintenance and service breakdown . Consequently , throughout the 2000s , the number of Indonesian aviation accidents and incidents spiked tremendously . The most notable aviation accidents that occurred during this period were Lion Air Flight 538 in Surakarta (30 November 2004 , killing 25) and the Adam Air Flight 574 crash into the Makassar Strait (1 January 2007 , killing 107) . The aviation safety records in Indonesia continued to plummet in a series of flight accidents , including Garuda Indonesia Flight 421 emergency landing on the Bengawan Solo River (16 January 2002 , killing 1 stewardess) , and Garuda Indonesia Flight 200 in Yogyakarta (7 March 2007 , killing 21) .

In June 2007 , the European Union banned Garuda Indonesia , along with all other Indonesian airlines , from flying into any European country due to poor safety records . The ban on Garuda Indonesia was lifted in July 2009 .

By the 2010s , the condition of Indonesian aviation began to improve compared to the previous decade . The air travel incident rate in 2010 also dropped by 40 % compared to 2009 . Nevertheless , several accidents occurred in the ensuing period .

The most significant current problems in Indonesian aviation are poor development and maintenance of air transportation infrastructure , especially in remote areas . Other significant problems include overcapacity ; the massive surge of air travelers in recent years , prompted by the growth of low @-@ cost carrier passengers , has put intense stress on the aging airport infrastructure in Indonesia .

= = Airports = =

Indonesia possesses 673 airports in 2013 , ranging from grand international airports to modest unpaved airstrips on remote islands or inland interior areas located throughout the archipelago . In November 2011 , Indonesia had more than 230 conventional airports , most of them operated by Transportation Ministry technical operation units and state @-@ owned PT Angkasa Pura I & II . Major airports are managed by Angkasa Pura ; Angkasa Pura I operates 13 airports in Eastern Indonesia , while Angkasa Pura II operates 13 airports in Western Indonesia . After the 2000 aviation deregulation , Indonesian airports endured a surge of passengers , especially catalyzed by the advent of low @-@ cost carriers . According to the Indonesian Transportation Ministry , 9 of the 13 airports managed by PT Angkasa Pura I have exceeded their passenger capacity .

Jakarta 's Soekarno ? Hatta International Airport serves as the country 's main air transportation hub as well as the nation 's busiest . Since 2010 , it has become the busiest airport in Southeast Asia , surpassing Suvarnabhumi and Changi airports . In May 2014 , it became the eighth busiest airport in the world with 62 @.@ 1 million passengers . It is also the busiest airport in the Southern Hemisphere . In October 2015 , the airport is named as Asia 's largest megahub , and ranked the 17th most @-@ connected airport in the world .

Next to Soekarno @-@ Hatta , the top five busiest airports in Indonesia which serve as the nation 's regional hubs are Juanda (Surabaya) , Ngurah Rai (Bali) , Sultan Hasanuddin (Makassar) , and Kuala Namu (Medan) .

The surge of air travellers , catalyzed by low @-@ cost carriers and the rise of air @-@ transport demands among Indonesia 's rising middle class , has put intense stress on Indonesia 's aging airports . Nevertheless , there has been some efforts to improve and upgrade airport facilities , such as the construction of Medan 's brand @-@ new Kuala Namu Airport to replace the overwhelmed , aging , and accident @-@ prone Polonia Airport . Other newly built airports include Lombok Airport , replacing the old Selaparang Airport in Lombok ; and Minangkabau Airport , replacing the old Tabin Airport in Padang . Existing airports that have undergone massive expansion and upgrades include Ngurah Rai Airport in Bali , Juanda Airport in Surabaya , and Sultan Hasanuddin Airport in Makassar . There are plans to build a second Bali airport in Kubu Tambahan near Singaraja , northern Bali , a new larger airport in Kulon Progo near Yogyakarta to replace the crowded and overwhelmed Adisutjipto Airport , and a new airport in Kertajati , Majalengka , to replace Bandung 's Husein Sastranegara Airport and also to serve the vicinity of Cirebon . To improve transportation interconnectivity , the government plans to build railways connecting airports all over Indonesia with nearby city centers . Currently , only Kuala Namu and Adisutjipto airports have a railway connection to the city center , while airport railways are currently under construction in Soekarno ? Hatta and Minangkabau airports .

Airports ? with paved runways

Airports ? with unpaved runways

Heliports

= = Airlines = =

In Indonesia , there are 22 commercial scheduled airlines with flights carrying than 30 passengers (AOC 121) , and 32 airlines that only operate flights with fewer than 30 passengers (AOC 135) . Some notable Indonesian airlines , among others , include :

Garuda Indonesia , the government @-@ owned flag carrier of Indonesia .

Citilink , the low @-@ cost carrier subsidiary of Garuda Indonesia group .

Lion Air , currently the largest private low @-@ cost carrier airline in Indonesia .

Batik Air , the premium subsidiary of Lion Air group .

Wings Air , the regional short @-@ haul subsidiary of Lion Air group , connecting towns and small regional airports .

Sriwijaya Air , currently the largest medium service carrier in Indonesia , also the country 's third largest carrier .

NAM Air , regional short @-@ haul subsidiary of Sriwijaya Air , also using " Medium Service " concept .

Indonesia AirAsia , the Indonesian branch of Malaysian @-@ based AirAsia .

Express Air , a medium service airline . Mostly serving cities in eastern and central Indonesia , but also have several routes in western Indonesia .

Kalstar , a medium service regional airline serving towns and small regional airports with small aircraft . Mainly serving Kalimantan (Indonesian Borneo) .

Trigana Air , a medium service regional airline serving towns and small regional airports with small aircraft . Mainly serving eastern and central Indonesia .

TransNusa Air Services , a medium service regional airline serving towns and small regional airports with small aircraft . Mainly serving Nusa Tenggara routes .

Susi Air , regional airline serving towns and small regional airports with small aircraft . Started as a chartered cargo airline carrying fresh seafood from Pangandaran to Jakarta , owned by Susi Pudjiastuti .

In mid 2015 , Lion Air rules Indonesia 's domestic air travel market share by 41 @. @ 6 percent , while Garuda Indonesia came in second with 23 @. @ 5 percent share . Sriwijaya Air came in third with a market share of 10 @. @ 4 percent , followed by Garuda 's low @- @ cost subsidiary Citilink (8 @. @ 9 percent) and Lion Air 's short @- @ haul subsidiary Wings Air (4 @. @ 7 percent) . Indonesia AirAsia , a unit of the Malaysian budget airline , had a 4 @. @ 4 percent market share .

Overall , Indonesian domestic air travel business is overwhelmingly ruled by two groups ; Lion Air group and Garuda Indonesia group . By mid 2015 , Lion Air group accounted for 43 @. @ 17 percent of market share , while Garuda Indonesia group had a 37 @. @ 08 percent market share .

= = Military and government = =

The Indonesian Air Force has 34 @, @ 930 personnel , equipped with 224 aircraft , among them 110 are combat aircraft . The inventory includes Su @- @ 27 and Su @- @ 30 as the main fighters supplemented by F @- @ 16 Fighting Falcons . Major military transportation aircraft include Lockheed L @- @ 100 @- @ 30 Hercules , CN @- @ 235 , and Puma helicopter .

The Indonesian Air Force possess and operate numerous military airbases and military airstrips across the archipelago . The notable ones are Halim Perdana Kusuma Airbase in Jakarta , serving Indonesia 's VVIP , where Indonesian Presidential Aircraft stationed . While airforce bases such as Iswahyudi Air Force Base in Madiun , Abdulrachman Saleh in Malang , Sultan Hasanuddin in Makassar , Supadio in Pontianak , and SSK II in Pekanbaru , are especially vital for regional air defense . Since 2014 , Indonesian Airforce also had upgrading its military airbase in Ranai , Natuna islands , and increasing its presence in South China Sea region .

= = Aircraft industry = =

PT . Industri Pesawat Terbang Nurtanio was officially established in Bandung in 1976 as a state @- @ owned aircraft manufacturer company . It was expanded from a research and industrial facility under the auspices of the Indonesian Air Force , namely Lembaga Industri Penerbangan Nurtanio (LIPNUR) . Dr. BJ . Habibie was appointed as the President Director , and he has developed the company capability as an aircraft manufacturer .

In 1985 the company 's name changed to Industri Pesawat Terbang Nusantara (IPTN) . In 2000 the company assumed its new name as Indonesian Aerospace (IAe) (Indonesian : PT . Dirgantara Indonesia (DI)) . Its notable product is CN @- @ 235 civil , military , and maritime version (joint development with CASA Spain) .

The Indonesian aircraft manufacture industry took the hardest hit during 1997 Asian financial crisis . Many of its projects , such as N @- @ 250 were discontinued for a certain period due to financial constraints . Nevertheless , other projects such as N @- @ 219 are being restarted and continued to be developed .

= = Incidents and accidents = =