



Vietnam Market for

Airport and Ground Support Equipment, Air Traffic Management Systems, and Aircraft Landing Parts

By U.S. Commercial Service – Vietnam
March 2012

Overview

	2010	2011	2012(estimated)
<i>Airport and Ground Support Equipment</i>			
Total Market Size	23	27	32
Total Local Production	0	0	0
Total Exports	0	0	0
Total Imports	23	27	32
Imports from the U.S.	8	11	14
<i>Air Traffic Management Equipment</i>			
Total Market Size	18	22	26
Total Local Production	0	0	0
Total Exports	0	0	0
Total Imports	18	22	26
Imports from the U.S.	8	12	15
<i>Engines, Engine Parts and Aircraft Parts</i>			
Total Market Size	200	250	295
Total Local Production	0	0	0
Total Exports	0	0	0
Total Imports	200	250	295
Imports from the U.S.	180	200	240

The above statistics are in US\$ millions excluding aircraft and are based on U.S. Census Bureau records and industry estimates.

Aviation is one of the top priority sectors for development by the Government of Vietnam as it plays a critical role in the country's national economic growth. The aviation sector is overseen and managed by the Civil Aviation Administration of Vietnam (CAAV), which reports to Vietnam Ministry of Transport.

According to the CAAV, Vietnam's overall aviation market in 2011 grew by 13% for passenger transportation and 30% for cargo transportation. In 2011, 23.7 million passengers went through the country's airports, a year-on-year increase of about 12.3% percent with 16.6 million carried by Vietnamese carriers, a year-on-year rise of 13.6% against 2010. In the meantime, the total throughput of air cargo was about 600,000 tons in 2011, up by 30% over 2011.

There are 41 foreign passenger airlines and 11 cargo airlines with regularly scheduled flights to and from Vietnam. The country currently operates a network of 22 major civil airports including three major international airports: Noi Bai Airport in the north (Hanoi), Da Nang in the center and Tan Son Nhat in the south (Ho Chi Minh City) and six planned international airports (Can Tho, Chu Lai, Da Lat, Hai Phong, Hue and Nha Trang). The Tan Son Nhat airport, with a new capacity of about 17 million passengers per year including a new terminal which became

operational in September 2007, is the largest airport in the country, handling about 70 percent of the country's international passenger traffic.

Major Airlines in Vietnam

At present, Vietnam Airlines (VNA), Vietnam Aviation Service Company (VASCO), and Jetstar Pacific Airlines (JPA) are the three major air carriers in Vietnam.

Vietnam Airlines (VNA) and VASCO: VNA, the national flag carrier of Vietnam, was established as a state enterprise in April 1993 under the Civil Aviation Authority of Vietnam (CAAV). Vietnam Airlines Corporation was subsequently formed in 1996, after bringing together 20 service companies in the aviation sector. The company was then separated from CAAV and is now overseen by a seven-seat management board, members of which are directly appointed by the Prime Minister. As of January 2011, VNA operates a fleet of 69 airplanes with an average age of 6.9 years.

Vietnam Air Service Company (VASCO) was established by government directive in 1987, and is a fully-owned subsidiary of Vietnam Airlines, the national carrier. It is headquartered in Ho Chi Minh City, operating scheduled flights from its base at Tan Son Nhat International Airport to the south of the country. It also conducts charter flights, medical evacuations, SAR operations, oil platforms flights, and other aviation services.

Vietnam Airlines expanded domestic and international networks significantly in 2010, with seven international and four domestic routes launched to push up its daily flights to 320 from 225. The SkyTeam member airline transported 12.3 million passengers for its domestic and international flights compared to just over 9.34 million last year, up 33.7 percent.

The airline ordered four Boeing 787-8 aircraft in 2005 to be delivered beginning in 2009 and ten Airbus A321-200s in 2004 for delivery between 2006 and 2009. Subsequently, it ordered 12 additional Boeing 787-8 aircraft in late 2007, as well as 10 A-350s and 10 A-321s. In 2010 the airline changed its Boeing 787-8 order to the 787-9 model and expects to receive its aircrafts starting from 2015. The airline has replaced all ATR72-200s with ATR72-500s and received more modern planes to expand its fleet to 69 at present. The airline is expected to reach 104 and 150 modern aircraft in 2015 and 2020, respectively.

Today Vietnam Airlines' network extends to 20 cities throughout the country and 43 international destinations. In 2006, after being awarded the IATA Operational Safety Audit (IOSA) certificate, a safety standard set by Aviation Quality Services (AQS), Vietnam Airlines joined the International Air Transport Association (IATA) as an official member. Vietnam Airlines, together with the Vietnam Aircraft Leasing Company (VALC) of which Vietnam Airlines was an initiator and founder, signed a purchase order of 12 Boeing B787s, 10 Airbus A350-900, 20 Airbus A321 and 5 ATR72-500 aircraft in 2007. June 2010, Vietnam Airlines joined SkyTeam and code shared with most SkyTeam members.

Jetstar Pacific Airlines: Jetstar Pacific Airlines (JPA) is the second largest air carrier in Vietnam, having started operations in 1992 with VNA as the major shareholder (86.5 percent). It is the first joint stock airline formed in Vietnam following changes in the law to allow foreign investment in the country's airlines. In 2005, it narrowly escaped closure due to inability to pay its debts and continuous loss-making operations. By a decision of the Prime Minister, all of VNA's shares in the company were then transferred to the Ministry of Finance (MoF) and thereafter to the State Capital Investment Corporation (SCIC), a state-owned company under MoF, for business and ownership restructuring.

On April 26, 2007, Australian airline Qantas acquired a 27 percent stake in JPA for \$50 million and became JPA's strategic partner. After this restructuring, SCIC continued to hold a 62 percent stake, Qantas 27 percent, Saigon Tourist Holding Corporation 7.53 percent, while the remainder is held by Tradevico (a company under the Ministry of Transport). In February 21, 2012, with approval from the Prime Minister, VNA became the largest shareholder of JPA by acquiring a 69.93 percent stake. VNA is followed by Qantas Group which maintained its 27 percent stake. VNA is expected to sell a further 3% stake to Qantas to bring the ownership of this Australian group at JPA to 30% in line with a deal signed between SCIC and Qantas Group in Hanoi in April 2007.

JPA currently operates five (5) Boeing 737 - 400 aircraft and two Airbus 320 -200 aircraft, and is moving to eight (8) more Airbus A320-200 aircraft in order to expand its network with more domestic and international flights into South East Asia. JPA's existing Vietnamese domestic network includes Ho Chi Minh City, Hanoi, Da Nang, Hue, Vinh, Hai Phong and Nha Trang. It is expected to add up to 15 Airbus aircraft by 2014 and the JPA's network will cover most countries in Asia.

Vietjet Air: In November 2007, the Vietnamese Prime Minister approved the establishment of the first wholly private airline in the country, Vietjet Aviation Joint Stock Company (Vietjet Air) with initial chartered capital of about \$37.5 million. The founders and major shareholders of this company include T&C Holding, Sovico Group, HD Bank, and a number of aviation professionals. As of its launch in December 2011, Vietjet Air became the second private airline to offer domestic service in Vietnam, as well as the fifth airline overall to offer civil domestic flights, along with VNA, JPA, Air Mekong and Vietnam Air Service Company (VASCO). In its initial plan, Hanoi-based Vietjet Air stated its intention to offer flights to HCMC and Da Nang, gradually expanding its network to include other Asian countries, such as Singapore, China, Thailand, Korea and Japan.

Vietnam Aircraft Leasing Company: In December 2007, Vietnam Aircraft Leasing Company (VALC) was established with initial charter capital of \$40 million by a group of major state owned enterprises including the Bank for Investment and Development of Vietnam (BIDV – 20 percent), Vietnam Airlines Corporation (23 percent), Petrovietnam (17 percent), Vinashin (11 percent), and Phong Phu Corporation (8 percent). VALC's main business lines include aircraft leasing, air taxi services, airport operation, and other aviation services. In particular, the company plans to participate in the development of the Cam Ranh, Phu Quoc and Long Thanh Airport projects. One of the main reasons for the establishment of VALC is that VNA is facing funding problems in expanding its fleet and VALC is expected to help VNA overcome these challenges.

VALC started operations in December 2007 by signing a \$1.48-billion contract with Boeing to purchase eight B787-8 Airliners for delivery beginning 2016. The order was subsequently changed to B787-9s. The company's original intention was to lease these aircrafts to Vietnam Airlines upon receipt of the delivery. However, it has subsequently decided to take delivery of the aircrafts, then immediately sell them to a U.S. leasing company which will then lease the aircrafts to VNA, in essence, taking the aircrafts off of VALC's balance sheet. In December 2007, VALC continued to sign a contract with Airbus to purchase 10 Airbus A321-200 and leased out to Vietnam Airlines for 12 years. In December 2010, VALC signed a contract with International Aero Engines AG (IAE) to buy 20 V2500 Select One engines for the 10 Airbus A321-200 aircrafts. Prior to the V2500 engines contract, VALC also spent more than \$100 million to purchase five ATR72-500, all five aircrafts have been delivered successful by December 31, 2010. VALC plans to raise its charter capital to \$1 billion by 2025.

Indochina Airlines: Indochina Airlines is the second private airline established in Vietnam. Indochina Airline sold its first tickets on November 12, 2008 and launched its first commercial flight from Tan Son Nhat Int'l Airport in Ho Chi Minh City to Noi Bai Int'l Airport in Hanoi and Da Nang Int'l Airport on November 25, 2008. As of November 2008, the airline has 2 leased Boeing 737-800 aircraft. In December 2009, this airline closed its business after losing money heavily and could not afford to cover its daily operation costs. Due to the financial problems, the airline's last remaining aircraft has been returned on November 25, 2009. Indochina Airlines officially declared bankruptcy on December 15, 2009, and its license was revoked by the Ministry of Transport in December 2011.

Air Mekong: In November 2008, the Vietnamese Prime Minister approved the establishment of Air Mekong with initial chartered capital of about \$36 million.

Mekong Aviation Joint Stock Company (Air Mekong) operates scheduled passenger flights from its base at Phu Quoc Airport and secondary hubs at Noi Bai International Airport and Tan Son Nhat International Airport. Headquartered in Phu Quoc, Kiên Giang Province, its flight operations were launched on 9 October 2010. This is the third private-owned airline of Vietnam, after Indochina Airlines (defunct as of 2009), and VietJet AirAsia (previously known as VietJet Air). Air Mekong leased four Bombardier CRJ 900 aircrafts from SkyWest Airlines, each equipped with 90 seats in both business and economy classes.

Other Foreign Airlines: There are approximately 52 passenger and cargo airlines from 22 countries operating scheduled international flights to Vietnam. Industry experts expect that about another 30 air carriers will enter the Vietnam market over the next ten years.

Air Traffic Management

Vietnam's flight information region (FIR) is divided into two areas, namely Hanoi and Ho Chi Minh City. Vietnam Air Navigation Service Corporation (VANSCORP) with over 2,500 employees is the state-owned monopoly providing air traffic services to all flights in Vietnam's FIR.

Northern Region Air Traffic Services (NORATS), VANSCORP's subsidiary, covers FIR Hanoi and Southern Region Air Traffic Services (SORATS), is in charge of HCMC. In total, VANSCORP has two area control centers (located in Hanoi and HCMC), three approach control centers (in Hanoi, Da Nang and HCMC), 17 airport air traffic control towers, six radar stations, 16 satellite stations, 40 beacons, 20 VHF stations, and several digital microwave links. In addition, VANSCORP has three other subsidiaries including Middle Region Air Traffic Services (MORATS), Air Traffic Coordination Center (ATCOC), and Air Traffic Technical Services Center (ATTECH).

Aircraft Maintenance Facilities of VNA

In January 2009, two major commercial maintenance subsidiaries, the A75 in HCMC and the A76 in Hanoi, merged into the Vietnam Airlines Engineering Company Ltd. (VAECO Ltd) with chartered capital of about \$20 million and headquarters in Noi Bai Airport, Hanoi.

The company focuses on performing both daily and periodic maintenance checks according to JAR/VAR-145 standards. Its Ho Chi Minh City facility mainly focuses on Boeing aircrafts while the facility in Hanoi specializes in Airbus airliners. At present, the Ho Chi Minh City and Hanoi facilities can carry out maintenance services at the following levels: F70 and ATR72 (Dcheck), A310/A320/A321 (Ccheck), B767 and Airbus A330 (Acheck), and B777 (2Ccheck).

There are currently no production facilities in Vietnam for aircraft and aircraft parts. VNA seeks to establish a joint venture with a foreign company to provide aircraft maintenance, repair, and overhaul services to VNA's fleet and other international carriers.

Best Products/Services

CAAV estimates that Vietnam would require about \$15 billion in investment to achieve its development plan for the aviation sector by 2020. Of this, \$8 billion will be needed mainly for aircraft fleet expansion, \$5 billion for constructing and upgrading airports and the remaining \$2 billion for airport operation and air traffic management.

According to the International Air Transport Association (IATA), by 2014, Vietnam will become the world's third fastest-growing market for international passengers and freight, and the second-fastest in the number of domestic passengers.

Airport Development

At present, the government budget can only meet about 20 percent of the total investment required for airport development. Raising sufficient funds for this development is an immense challenge for Vietnam now and in the future. The plan for the period 2005 – 2010 called for investment of more than \$1.3 billion in airport modernization and expansion and rehabilitation in order to accomplish an efficient network of 20 airports in operation including projects such as Noi Bai (second terminal), Na San, Dong Hoi, Cam Ranh, Chu Lai, Lien Khuong, Con Dao, Phu Quoc (International), Can Tho, Ca Mau, and Rach Gia. However, some projects have been delayed due to financial difficulties, including Noi Bai (Terminal II) and Phu Quoc. Funded by Japanese ODA, the Noi Bai's second terminal project is planned to be built in April 2011 and completed in 2013. During the period 2010 – 2020, several other airports will be constructed or upgraded including Long Thanh (International), Chu Lai (Cargo), Cat Bi (Hai Phong), Quang Ninh (International), Lao Cai, and Cao Bang. The lion's share of the investment in airport projects is expected to come from Official Development Assistance (ODA) loans from foreign governments such as Japan as well as financing from the private sector.

In particular, Long Thanh International Airport (LTIA), which is planned to be Vietnam's largest international airport, is scheduled to be constructed in 2015 and become operational by 2020. The airport, which will be located around 43km from Ho Chi Minh City, is expected, when it reaches its full capacity by 2035, to serve 90 percent of international and 20 percent of domestic flights, diverting a major chunk of passenger traffic from Tan Son Nhat International Airport in Ho Chi Minh City. With an estimated investment of more than US\$10 billion and covering more than 5,000 hectares, LTIA is expected to serve 100 million passengers and 5 million tons of cargo per year at its full capacity. Funding for the airport construction is expected to come from Government bonds, ODA and private sources. Government capital and ODA will be used for airport infrastructure construction and private funding will be sought to build passenger terminals.

In addition, to develop new airport projects, the Vietnamese Ministry of Planning and Investment (MPI) has submitted proposals to the Prime Minister to seek foreign direct investment. If approved, foreign investors will be allowed to develop these projects under the form of Build-Operate-Transfer (BOT), BT (Build-Transfer), Build-Operate-Own (BOO), or Public-Private Partnership (PPP). While promising, these initiatives will take time to develop.

On 9 November 2010 the Government of Vietnam introduced legislation to create a legal framework for the introduction of Public Private Partnerships (PPP) in Vietnam. The

“Regulations on Pilot Investment Under the Form of Public Private Partnerships” (“PPP Regulations”) became effective on 15 January 2011 and formed the basis upon which investment in a pilot program for PPP projects is introduced in various sectors from infrastructure to the provision of public services.

The recently-established Airports Corporation of Vietnam (ACV) is charged with the operations and developments of airports throughout the country. The ACV, headquartered at Tan Son Nhat International Airport, was officially established on February 18, 2012 from the merging of Northern Airports Corporation, Middle Airports Corporation and Southern Airports Corporation.

U.S. Trade and Development Agency has been active in Vietnam, recently funding feasibility studies for Da Nang International Terminal and Chu Lai cargo airport expansion.

Air Traffic Management

In mid-2008, Vietnam took a decisive step to develop and modernize its air traffic management system. Faced with rising passenger traffic, domestically and internationally, the Vietnamese Government moved to re-organize its national air traffic management (ATM) system. The core component of this was the establishment of the Vietnam Air Navigation Services Corporation (VANSCORP), restructuring the existing Vietnam Air Traffic Management (VATM) body under the Civil Aviation Administration of Vietnam (CAAV).

Vietnam Air Navigation Service Corporation (VANSCORP) will spend over \$67 million on its 46 new and ongoing air traffic management projects. Funding for these projects comes mainly from VANSCORP’s own budget accumulated from its business activities. Key upcoming projects to be undertaken by VANSCORP, which are expected to go to operation from 2011 to 2013, include: ACC/Hanoi Project, Domestic Airport Air Traffic Management (ATM) Towers (for the following airports: Dien Bien Phu, Vinh, Phu Bai, Phu Cat, Dong Hoi, Chu Lai, Pleiku, Can Tho, Phu Quoc, Con Dao, Buon Ma Thuot), Noi Bai and Tan Son Nhat International ATC Towers, Aeronautical Information Service Automation System and Provision of Flight Inspection Service.

In 2009, Viet Nam Air Navigation Services Corporation (VANSCORP) was awarded an IATA’s (International Air Transport Association) Eagle Award for most improved Air Navigation Service Provider.

Air Fleet Development

According to its development plan to 2020, VNA plans to invest more than \$8 billion in expanding and upgrading its aircraft fleet as well as other related facilities. Funding for aircraft fleet expansion mainly comes from the VNA and government budget and bond sales, as well as foreign commercial loans with sovereign guarantees.

Vietnam Airlines currently operates a fleet of 69 airplanes and is planning to expand its fleet to 104 by 2015 and 150 by 2020. Jetstar Pacific, Air Mekong and Viet Jet Air currently operate seven, four, and one aircrafts and are planning to expand their fleets to 15, 12, and three by 2014, respectively.

Maintenance, Repair and Overhaul (MRO) Services

Market demand for MRO services is expected to increase significantly as there are currently limited local MRO capabilities in Vietnam and all five existing air operators, namely Vietnam Airlines, Jetstar Pacific, VASCO, Air Mekong and Viet Jet Air, are planning to expand their fleets considerably in coming years.

Due to its current limited MRO capabilities, Vietnam Airlines sends its aircraft for maintenance and overhaul to Air France, AMECO of China, China Airlines, Evergreen Aviation Technologies, GAMECO, Hong Kong Aircraft Engineering Co., Lufthansa AERO, MTU Maintenance Hanover, Royal Brunei Airlines, Safe Air of New Zealand, or TAT Industries of France whereas Vietnam Airline's maintenance subsidiary, Vietnam Airlines Engineering Company Ltd. (VAECO Ltd.) focuses on performing daily and periodical maintenance checks according to JAR/VAR-145 standards. VAECO's HCMC facility mainly services Boeing aircraft while its Hanoi facility does Airbus airplanes. At present, VAECO can carry out maintenance services at the following levels: F70 and ATR72 (D-Check), A310/A320/321 (C-Check), B676 and Airbus A330 (A-Check), and B777 (2C-Check). Vietnam Airlines also receives technical and maintenance assistance from Region Air of Singapore and Park Aviation of Ireland. As part of its development plan, Vietnam Airlines seeks to establish a joint venture with a foreign firm to provide aircraft MRO services to Vietnam Airlines's fleet and other international air carriers'.

Meanwhile, Jetstar Pacific, Air Mekong and Viet Jet Air do not own any maintenance facilities whereas Jetstar Pacific can conduct A-Checks on their airplanes in house. However, C-checks have to be done abroad and Singapore Technologies is one of their key providers of maintenance services, spare parts and training of Vietnamese engineers.

Opportunities

American companies are highly respected in Vietnam as the world's leading equipment manufacturers and service providers in the aviation sector in terms of advanced technologies, quality, and professionalism. In the above airport projects, American companies will find significant opportunities for providing architectural, engineering and construction services, and construction management services for airports and terminals. In addition, over the last few years American firms have sold a considerable amount of airport ground support equipment, equipment for passenger terminals, air traffic management systems, security equipment, telecommunication systems, software, aircraft parts, training services, as well as aircraft maintenance and engine overhaul services.

Web Resources

Information relating to aviation and airport projects can be found at the following sites:

Ministry of Transport (MOT)
www.mot.gov.vn

Civil Aviation Administration of Vietnam (CAAV)
www.caav.gov.vn

Vietnam Airlines
www.vietnamairlines.com.vn

Further information can be obtained from the U.S. Commercial Service in Hanoi and Ho Chi Minh City via the following addresses and website:

Ha Anh, Commercial Specialist
U.S. Commercial Service – U.S. Embassy in Hanoi
E-mail: Ha.Anh@trade.gov

Huynh Triet, Commercial Specialist
U.S. Commercial Service – U.S. Consulate in Ho Chi Minh City
E-mail: Triet.Huynh@trade.gov
Website: www.buyusa.gov/vietnam