



#### **BUILDING THE FUTURE TOGETHER**

# Boeing in Africa

Africa is among the most promising markets in terms of economic and business growth. Graced by vast natural resources and a young population, the opportunity for growth of the African aerospace industry is significant. Boeing commercial airplanes have formed the backbone of Africa's fleet for over 75 years. Boeing has more than 60 airline customers operating around 500 Boeing airplanes throughout Africa.

With a defense legacy that dates back to World War II, when Boeing heritage company Douglas Aircraft established an aircraft maintenance facility in Ethiopia, Boeing continues to serve its African defense customers.

Currently, Boeing has an office in Johannesburg, South Africa, with plans to open an office in Ethiopia. Boeing field service representatives are based with commercial customers across the African continent.

# **OUR COMMITMENT AND PARTNERSHIP**



**70%** 

of the in-service commercial fleet across Africa is represented by Boeing



1,170

new airplanes will be needed by African carriers over the next 20 years



27

Boeing employees in Africa



\$40M

generated by suppliers in Africa



36

Boeing helicopters on order in Egypt and Morocco



3

African countries operate Insitu ScanEagle systems

## **INVESTMENTS**

Boeing investments and partnerships in Africa help grow the local aerospace sector, creating jobs, tackling climate change challenges and driving innovation to help each country achieve its national aspirations.



2

Joint ventures with Ethiopian Airlines to manufacture insulation blankets and wire bundles



2001

Boeing and Safran formed a joint venture in Morocco to manufacture wire bundles and harnesses



2023

Boeing and Roundtable on Sustainable Biomaterials release roadmap on SAF production in Africa

### COMMUNITY ENGAGEMENT

Boeing community engagement activities provide systemic improvement in education and economic empowerment, feeding Africa's talent pipeline, with a significant focus on science, technology, engineering and mathematics (STEM) education, entrepreneurship and female empowerment.



\$22M+

Boeing community investment in Africa since 2008



62,000+

Ethiopian girls educated through the Link Community Development program



70+

humanitarian flights delivering aid to Africa through nonprofit partners

## **BOEING IN AFRICA**

# **Boeing Commercial Airplanes**

With a legacy of nearly eight decades in Africa, Boeing plays a vital role in the continent's aviation industry. This relationship continues to strengthen as Boeing aircraft, including the 787 Dreamliner and 737 MAX, power the growth of the African cities fleet.

With the increasing rates of urbanization and a growing middle-class population, Africa is forecast to see strong traffic and airplane demand growth in the next two decades. Boeing forecasts that African carriers will require 1,170 new jet aircraft deliveries over the next 20 years, with over 70% of projected deliveries to be single-aisle airplanes.

In October 2019, Boeing and Ethiopian Airlines signed a strategic memorandum of understanding (MOU) to help position Ethiopia as Africa's aviation hub. This agreement position Ethiopia as Africa's aviation hub. This agreement includes four areas of partnership: industrial development, advanced aviation training, educational partnership and leadership development. Boeing also signed an MOU to help Air Tanzania advance safety, improve strategic planning and develop leadership capabilities of aviation talent in the country. In August 2024, Boeing and the Federal Ministry of Aviation and Aerospace Development of Microria signed an MoU to strengthen the country's aviation. Nigeria signed an MoU to strengthen the country's aviation sector. Boeing will provide planning workshops, training, technical support and assessments to Nigerian airlines.

In March 2024, Boeing and Ethiopian Airlines announced an agreement to purchase eight 777-9 passenger airplanes and the potential for up to 12 additional jets. The order positions the carrier as the first 777X customer in Africa and builds on its landmark 2023 order for 11 787 Dreamliner and 20 737 MAX airplanes to modernize and grow its fleet.

In 2023, Boeing delivered the first 767 Freighter to Africa. The freighter provides Air Tanzania with dedicated air freight reighter provides Air Fanzania with dedicated air freight capacity to serve the country's growing exports and imports. Air Algérie signed an MOU for two 737-800 Boeing Converted Freighters in 2023 to meet increasing cargo demand in the region, in addition to a new order for eight 737-9 airplanes.

The governments of Morocco, Egypt and South Africa rely on Boeing Business Jets and specially configured 747s and 737s.

#### Services

Airlines in Africa utilize Boeing services offerings, including spare parts programs to support and maintain the fleets, training solutions for airline personnel and modification services to enhance passenger experience. Digital solutions such as Boeing Maintenance Performance Toolbox, Airplane Health Management, crew management solutions, and a broad range of flight deck and operations solutions provide African airlines with real-time access to maintenance, flight, and aircraft performance information to optimize efficiency and lower fleet

# Boeing Defense, Space & Security

The Royal Moroccan Air Force (RMAF) currently operates three CH-47D Chinook helicopters. Morocco has 24 AH-64E Apache helicopters on order, with the contract signed with the Ministry of Defense in 2023.

Egypt operates 18 CH-47D Chinook helicopters. In 2023, the U.S. Army awarded Boeing a contract to produce 12 new CH-47F Chinooks for the Egyptian Air Force. Egypt also operates 43 AH-64D Apache and will replace 25 helicopters with the remanufactured AH-64E model to benefit from its advanced capabilities.

The Boeing defense presence in Africa also includes the Insitu ScanEagle: Cameroon, Kenya and Tunisia operate these long-endurance, low-altitude uncrewed aerial vehicles for reconnaissance missions.

# **Industrial Partnerships**

Boeing works with suppliers in Ethiopia, Morocco, and South Africa, with partnerships valued at approximately \$40 million.

Boeing and Safran formed a joint venture, Morocco Aero Technical Interconnect Systems Aerospace, to manufacture wire bundles and harnesses. In 2023 Boeing signed a memorandum of agreement with Morocco to provide technical assistance, training, and equipment to the RMAF to establish a metrology lab and composite repair capability. Boeing also supports sourcing and engineering to establish an advanced manufacturing research center in Morocco.

In 2008, Boeing expanded its wire harness procurement in Africa by working with Ethiopian Airlines to establish a new manufacturing facility at the airline's base in Addis Ababa. Additionally, Ethiopian Airlines also produces thermo-acoustic insulation blankets for certain configurations of the 737 MAX through a joint venture with an Italian Boeing supplier, Geven-SkyTecno, at the airline's maintenance, repair, and overhaul facility in Ethiopia.

#### COMMERCIAL FLEET

Algeria: Air Algérie: 32 737s; Tassili Airlines: 7 737s Angola: TAAG Angola Airlines: 9 737s, 8 777s

Burkina Faso: Liza Transport International:

Angola: TAAG Ang.
Burkina Faso: Liza Transport Inn...

Transport Inn...

Cameroon: Comisi-Cr. 2 737s

Cabo Verde: Cabo Verde Alvines: 3 757-200s

Chad: Alc Coop; 1 737

Congo: Canadian Airways Congo: 1 737,

1 MD-80; Trans Air Congo: 5 737s

Congo (Democratic Republic): Air Force: 1 737,

1 DO-8; Gomair: 2 737s; Serve: 8 1.5 727s,

1 DO-8; Gomair: 2 737s; Serve: 2 DO-8s

Diplocut: An Dipocit: 1 727, 1 737s, 7 737s;

Begtp: EGYPTAR: 23 737s, 6 777s, 7 737s;

Metgy: 7 737s, Alexandria Aldines: 3 737s;

Equatorial Guinea: CEIBA Intercontinental: 3 737s, 1 767, 1 777

1 767, 1 777 Ethiopia: Ethiopian Airlines: 30 737s, 3 767s, 20 777s, 29 787s, 20 737-8s, 1 737-800BCF Ghana: Air Ghana: 1 737 Kenya: African Express Airways: 1 DC-9-30, 1 MD-90: Astral Aivation: 1 727, 2 747s, 1 767 1 DC-9-30, Fanjel Airvays: 2 737s, Kenya Airways: 2 737s, 9 787s, Multiple Solutions: 1 737, Safe

scar: 1 737: Tsaradia

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1 737 Malawi: Malawi Airlines: 1 737 Mali: Sky Mali: 1 737 Mauritania: Mauritania Airlines: 3 737s, 1 737-8

Boeing has worked with the Council for Scientific and Industrial Research (CSIR) in South Africa to develop a titanium road map and research opportunities to incorporate titanium powder into manufacturing processes and aerospace products.

Boeing also inaugurated the first worldwide Ka-band antenna system and tracking facility at the CSIR Satellite Applications Centre.

## Sustainability

Boeing works with partners to research, develop and commercialize new sources of sustainable aviation fuel

Boeing, South African Airways (SAA), Roundtable on Sustainable Biomaterials (RSB), Sunchem SA and SkyNRG developed biofuel from a tobacco plant. In 2016, SAA and Mango celebrated Africa's first passenger flights using sustainable biofuel.

In 2023, Boeing and RSB released a study highlighting the potential for producing SAF in Sub-Saharan Africa, and exploring the opportunity for SAF to drive a just energy transition in Africa while generating jobs. In Ethiopia, brassica carinata (Ethiopian mustard) was identified as a promising potential feedstock to produce biofuels while also addressing both food and energy demand. In South Africa, the study found that there is a huge potential to use invasive alien plants for SAF production.

production.

Throughout the continent, Boeing works to align science, technology, engineering and mathematics (STEM) education with sustainability. Boeing and Ethiopian Airlines developed a training course focused on aviation sustainability for the Ethiopian Aviation University in Addis Ababa. In 2022-2023, Boeing and Amideast launched STEM for Sustainability educational programs in Egypt and Morocco. In 2023, Boeing and Junior Achievement (JA) Africa inaugurated a two-year Boeing Sustainability Program in Senegal. These initiatives help address climate change challenges head-on by equipping African youth with the skills and knowledge necessary to promote sustainable practices from an early age.

## Community Investment

Since 2008, Boeing has partnered with over 40 organizations in Africa and invested over \$22 million to support systemic improvements in education.

Boeing, its airline customers and nonprofit organizations collaborate through the Humanitarian Delivery Flight Program to deliver medicine, medical equipment and educational materials to people in need. Over 70 humanitarian flights to Africa have been completed.

The strategic partnership between Boeing and JA Africa empowers 5,000 young people in Africa and supports programs in Senegal, Tanzania, Ghana, Mauritania, Nigeria, Sudan, Madagascar and the Democratic Republic of the Congo. The programs equip young people in Africa with entrepreneurial and problemsolving skills, empowering them to develop business solutions to drive economic transformation and tackle challenges associated with climate change.

#### Other community partnerships:

- Ethiopia: STEM School a joint educational program of Boeing, Ethiopian Airlines and ThinkYoung designed to foster youth pursuit of higher education in STEM, with a focus on aviation. The program also includes a training course for teachers.
- Ethiopia: Boeing supports Addis Ababa Institute of Technology.
- Ethiopia: Partnership with Link Community Development to educate young girls.
- Ethiopia, Nigeria and Tanzania: Pathways to Space a new educational program co-organized by Boeing and Future African Space Explorer's STEM Academy (FASESA) to kindle interest in space careers among the youth in Africa.
- Ethiopia, Kenya, Rwanda, Tanzania: ThinkYoung Coding Schools where students, 60% of whom are girls, obtain advanced digital skills.
- North Africa: Boeing opened STEM Centers in Egypt and Algeria that have become local hubs for youth education. Annual STEM event for teenagers in Casablanca (Morocco).
- Kenya: 13-year partnership with Digital Data Divide to support online delivery of the Work-Study Program.
- Tanzania: Partnership with Hand in Hand training farmers, especially women, in the Kilimanjaro region.
- Ivory Coast: Partnership with Léo Lagrange supporting the most vulnerable groups in society.
- South Africa: Partnership with Ubuntu Pathways,

9 787s
Mozambique: Linhas Aéreas de
Mozambique: 2737s
Mogeria: Ano Contractors: 4 737s; Alf Force:
1 737; Alf Peace: 13 737s, 3 777s; Alfied Air
1 737; Alf Peace: 13 737s, 3 777s; Almed Air
1 737; Alf Air Alf 1 71 735; Azmen Air;
Cargo 4 737s; Aff Air 1 71 735; Azmen Air;
Touch Avaiton Services: 1 727; JedAir;
T37; Max Air; 6 737s, 3 747s, 2 787s
Reunion: Air Austral: 1 737s, 3 747rs, 2 787s
Revanda: Rwandaff: 6 737s
Senegal: Government: 1 727; Groupe
Tannair; 2 737s

South Africa: Partnership with Ubuntu Pathways, including education and career training programs.

orocco: Royal Air Marce: 32 737s, 1767.
787s
South Africa: Air Grossw: 1767: Airlica Charler Airline: 2 737s; Air Force: 1737, 9 DC-3s, Fogarbhique: 2 737s
South Africa: 2 737s; Air Force: 1737, 9 DC-3s, Fogarbhique: 2 737s
Airlica: 1737s, 3 737s
Airlica: 1737s, 3 737s
Airlica: 1737s, 3 737s
Airlica: 1737s, 1737s
Airlica: 1737s
Airlica:

MAX Fogo: ASKY: 13 737s Funisia: Express Air Cargo: 3 737s; Tunisair: 7 737s Jganda: Grand Air: 1 737; Zone 4 International:

Trzr Zimbabwe: Air Zimbabwe: 1 767, 1 737, 2 777s; Flyafrica: 3 737s

A HISTORY OF PARTNERSHIP

Ethiopian Airlines begins service with five C-47 Skytrains from Boeing heritage company Douglas Aircraft

1958

South Africa Airways becomes the continent's first carrier to order the 707

South African Arways becomes first African carrier to operate a 747

Ethiopian Airlines, launch customer for the 767, sets a world distance record for commercial twin-engine jets



Boeing launches the first worldwide Ka-band antenna system and tracking facility in South Africa



Ethiopian Airlines becomes the first African airline to order the 787 Dreamliner



Boeing partners with 43 Air School to offer a pilot training program in South Africa

RwandAir launches the Boeing Sky Interior on its 737-800



Kenya Airways becomes the first East African airline to operate the 777-300ER



Mauritania Airlines takes delivery of the first 737-8 by an African airline



Ethiopian Airlines orders five 777Fs and signs an MOU to purchase five 777-8Fs



Air Tanzania takes the first African delivery of a 767F

Ethiopian Airlines orders 31 Boeing airplanes Boeing signs a memorandum of agreement with Morocco to support and grow the local aerospace industry

Ethiopian Airlines - first 777X customer in Africa