

THE **A**viator

Your number one source of aviation news in Africa

APRIL 2022

AFRICA

*The Slow Death of
South African
Airways*



**NEW DATES
ANNOUNCED**

In association with
Rwanda Civil Aviation Authority
and RwandAir



AVIATION AFRICA

12th - 13th September 2022

Radisson Blu Hotel &
Convention Centre,
Kigali, Rwanda

DRIVING REVIVAL AS RECOVERY STRATEGIES TAKE FLIGHT

Where we go from here – shaping the future for aviation in the wake of the coronavirus crisis

To find out more please contact Mark Brown:

T: + 44 (0) 1702 530 000 | **M:** + 44 (0) 7889 100 987

E: mark.brown@aviationafrica.aero

www.aviationafrica.aero

OFFICIALLY SUPPORTED BY:

GOLD SPONSOR:

SILVER SPONSORS:

DELEGATE BAG SPONSOR:

BRONZE SPONSOR:

SUPPORTING SPONSORS:

Follow us:



Entebbe Airways

FROM THE PEARL



AVIATION



LOGISTICS



TOUR

"With proven experience and trusted partners"



Entebbe International Airport: Office No. PTB.SF.1152nd Floor - Passenger Terminal Building
Dubai Office: M19, DNATA FLC, Dubai Airport Free Zone

Contact:

+256 393 515 148, +256 774 590 637 (Uganda)

+254 712 712 806 (Kenya)

+27 787 676 866 (South Africa)

Entebbe International Airport Direct line +256 312-352 000 - Ext: 3072

Email:

admin@entebbearways.com

ops-ebb@entebbearways.com

Social Media:

www.entebbearways.com

[entebbearways](https://www.facebook.com/entebbearways)

[entebbearways](https://www.instagram.com/entebbearways)

[entebbearways](https://www.twitter.com/entebbearways)



EDITOR IN CHIEF

Ssemawere Oscar
Email: chairman@theaviator.co.ug

MANAGING EDITOR

Katumba Tyson Tommy
Email: katatumba@theaviator.co.ug

EDITORIAL & PHOTOGRAPHIC CONSULTANTS

Ssemawere Oscar, Katatumba Tyson, Daniel Bakalanguddu, Vincent M. Mupenzi

AFRICA CORRESPONDENTS

Harriet James - East Africa
Mupenzi V. Mwesigye - East Africa

DESIGN & LAYOUT

Daniel Bakalanguddu
mulungi@theaviator.co.ug

CREDITS

- AFRAA
- The AFRAA Report
- IATA
- Textron Aviation
- Captain Koki
- World Defence Show

Comics

Marvin Lincoln
kafumamarvin@gmail.com

Advertising and Editorial Enquiries

+256 393 515 148
+256 776 788 579

info@theaviator.co.ug
www.theaviator.co.ug

The Aviator Africa
@theaviatorafrika
@aviatorafrika
The Aviator Africa

THE Aviator AFRICA



Contents

AIRWAYS:

The slow death of South African Airways **P: 12 to 17**



AIRCRAFT:

Cessna SkyCourier: the game changer **P: 19 to 21**



PILOT:

Captain Irene Koki Mutungi's piloting journey **P: 23 to 25**



DEFENCE:

World Defense Show concludes first edition with SAR29.7 billion in deals **P: 26 & 27**



TECHNOLOGY:

A tribute to Antonov an -225 Mriya **P: 43 to 46**



AIRPORTS:

Top 10 world's largest airports by land area **P: 51 to 53**



Tribute to Africa's celebrated airline CEO Tewolde Gebre Mariam

Retiring after 37 years of service

The long serving CEO of Africa's largest airline Ethiopian Airlines has stepped down, citing ill health. Starting at the firm in 1985, he became CEO in 2011. He leaves behind a strong legacy, the envy of other African airlines who struggle to match Ethiopian's operational efficiency.

Tewolde was in charge of the continent's leading airline, with 130 aircraft covering 120 destinations worldwide. Tewolde GebreMariam is a towering figure of African aviation, dragging Ethiopian Airlines through a profound modernisation process, and running the state-backed company profitably, in comparison to many continental peers.

"I pay tribute to the work of a man who has led Africa's largest airline for over 11 years", says Abdérahmane Berte, head of the African Airlines Association (AFRAA).

"Under his leadership Ethiopian Airlines became the largest African airline. A position maintained for many years", he says. "For the sake of history I

also note the important role of Ethiopian Airlines as one of the founding companies of AFRAA."

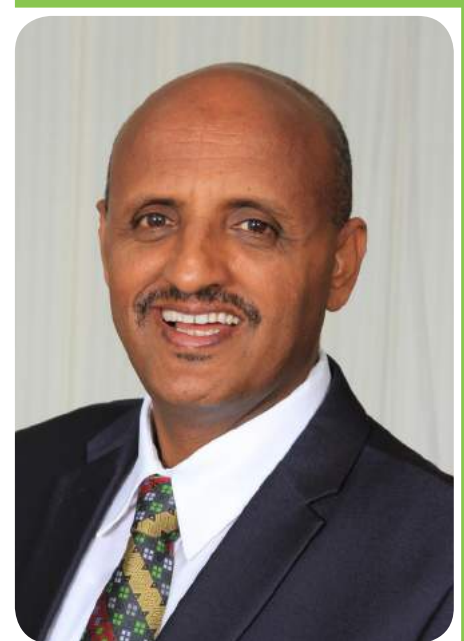
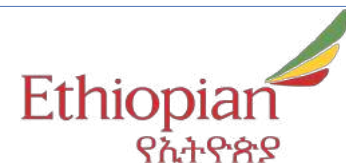
Ethiopian Airlines tripled its fleet under Tewolde Gebre Mariam's watch, from around 40 when he took over as CEO in 2011, to over 120 today.

Turnover also grew from \$1.3bn in 2011 to \$3.9bn in 2019-2020. And Ethiopian's Addis Ababa hub now flies to 120 destinations, compared to 80 in 2010.

While the Covid-19 pandemic has had a huge impact, kicking a billion dollar hole in the budget, Ethiopian Airlines managed to be operationally flexible, refitting several passenger planes into cargo carriers, the fruit of a long-started diversification exercise.

Ethiopian Airlines was the continent's fifth largest carrier, after South African Airways, Egyptair, Royal Air Maroc and Kenya Airways. But post pandemic, thanks to this agility — and the decline of other carriers — it finds itself Africa's biggest as measured by turnover in our exclusive ranking of Africa's Top 500 Companies.

"Ato Tewolde was a game



**Former CEO Ethiopian Airways
Tewolde Gebre Mariam**

changer in African aviation. He bumped Ethiopian Airlines into the new century with a solid and steady hand, expanding the airline in terms of scope and profits beyond what was thought possible in Africa", says one African aviation expert who asks not to be named. "His agility was apparent in Ethiopian's stunning quick turn once the pandemic decimated passenger traffic by quickly converting passenger aircraft to freighters, earning the awe and admiration of business leaders worldwide. Honestly his handling of ET during Covid was spectacular."

"I have already retired due to ill-health & the resignation I submitted to the gov't was accepted", Tewolde told Ethiopia Check.

Source: The Africa Report

IN THE NEWS

EgyptAir to resume flights to Moscow on Saturday 9th April 2022:

EgyptAir will resume its daily direct flights to Russia starting on Saturday, Association of Tours Operators Russia (ATOR) announced on Thursday.

EgyptAir will resume its daily direct flights to Russia starting on Saturday, Association of Tours Operators Russia (ATOR) announced on Thursday.

According to the statement by ATOR, EgyptAir's booking system stated that the flights will depart Cairo International Air at 9:30am local time and will arrive at Moscow's Domodedovo airport at 03:55pm. The 5 hour and 25 minute flight will be on board a Boeing 737-800.

The statement also noted that a one-way flight from Moscow to Cairo will cost USD 447.

ATOR said that Egypt's national air carrier suspended its flights to Russia in early March due to "problems

with insurance," but those problems have been resolved as the Egyptian Ministry of Finance acted as a guarantor for the insurance of EgyptAir's aircraft.

Last week, Egypt's parliament approved a law that allows the finance minister to provide EgyptAir with an insurance guarantee covering risks including wars or hijacking that flights to Russia might face.

EgyptAir has a daily flight from Cairo International Airport to Domodedovo airport starting on 11 April on board a Boeing 737 with a cost of \$411 for the one-way trip.

The trip will depart Cairo International airport at 9:30am local time and will land at



Domodedovo airport at 3:55pm. The first direct flight by Russian airlines Aeroflot arrived in Cairo International Airport from the Russian city Sochi. It also reported that Russian airline "Russia", which is a subsidiary of Aeroflot, will launch in April flights from Sochi to 17 foreign destinations, including Cairo. Ria Novosti added that the airline will launch daily flights to Cairo on domestically produced Superjet aircraft.

Due to the Russia-Ukraine war, two Russian airlines – Aeroflot and Ural Airlines – have recently suspended flights temporarily to and from Egypt and several other countries due to the "circumstances that prevent the performance of flights."

On Monday, Russia announced it decided to lift coronavirus restrictions on 9 April on flights to 25 countries including Egypt. According to the Russian embassy in Cairo, El-Najari and Docguzova discussed the possibility of using the Russian Mir payment system in Egypt to enable electronic payment between the two countries.

According to Russian Ambassador to Egypt Georgy Borisenko, about 125,000 Russian tourists visited Egypt during the first two weeks of 2022 and that 700,000 Russian tourists visited Egypt in 2021.

Source: [Ahram Online](#)





Angola and Mozambique benefit from ICAO iPack for Public Health Corridors

HEALTH

Angola and Mozambique have become the first countries in the world to benefit from ICAO's Public Health Corridor implementation package, which is one of the array of pandemic recovery tools provided by ICAO to national governments.

Composed of guidance material, expert support, training and other resources, the Public Health Corridor 'iPack' is informed by the latest recommendations issued by the ICAO

Council Aviation Recovery Task Force (CART), as well as by the guidance developed by ICAO, the World Health Organization (WHO) and other contributors to ICAO's 'Manual on COVID-19 Cross-Border Risk Management - Third Edition' (Doc 10152).

"This iPack enables States to improve their preparedness and responses to public health events, and more specifically to take steps to establish defined travel corridors between specific destinations which have full

health and safety measures implemented", emphasized Juan Carlos Salazar, ICAO Secretary General.

"It also aids countries' efforts to determine a multi-layer pandemic risk management strategy in accordance with current mutual recognition and global harmonisation objectives, and to keep their PHC planning, approaches and outcomes continuously updated."

Source: ICAO

Former Uganda Airlines CEO to sue Government for Billions

Cornwell Muleya the Chief Executive Officer of Uganda National Airlines Company Limited (UNACL) has written to the airline chairman Board of directors and permanent secretary Ministry of works threatening to sue them over what he calls unlawful suspension and termination of his employment contract.

Muleya was fired in February this year by works and transport minister, Gen. Edward Katumba Wamala, on the orders of President Yoweri Kaguta Museveni to pave way for investigations into allegations of financial mismanagement, collusion, and nepotism in staff

recruitment among other issues. Muleya in his letter of intention to sue dated 28th march 2022, through his lawyers of Muwema and Company advocates, says he shouldn't have been suspended and terminated without following proper procedures of the law. "The then chairman of the board issued our client with a notice of leave of absence dated 29th April 2021. This decision followed a communication from the Hon. Minister, MOWT citing an alleged letter from H.E The President of Uganda about various allegations of mismanagement of the company", the lawyers noted adding that Muleya was



"never furnished with the particulars and nature of his offence which contravened regulation 1(11) (a) of the disciplinary code under schedule 1 of the Employment Act, 2006"

Muleya is now seeking compensation of up to Shs3.5Billion as terminal benefits and damages he has suffered as result of the unlawful dismissal from work. He also wants to be reinstated as the Chief Executive Officer of the company and an unconditional apology for the material inconvenience, reputational damage and loss he suffered.

Credit: Micheal Ntezza

BREAKING: A B737 China Eastern Airlines aircraft Crashes with 132 on board

Reports of a China Eastern Airlines aircraft with 132 people on board crashed in mountains in south China on Monday while on a flight from the city of Kunming to Guangzhou, China's Civil Aviation Administration of China (CAAC) said.

CAAC has issued a statement regarding the crash. It confirms the flight MU5735 has crashed and there are total 132 souls on board. 9 crew and 123 members. CAAC has initiated its protocols and special units are going to the crash site. @FatIII Aviation on Twitter posted a video of footage circulating online showing part of the plane skin on ground. From the font & colour, it resembles the underside of the RHS wing.



Uganda's Bar aviation signs for a bell 412epi



Bell Textron Inc. announced a signed purchase agreement with BAR Aviation for a Bell 412EPi to support 24/7 medical evacuation missions and the new development of oil and gas projects in Uganda.

"We are privileged to provide BAR Aviation with exceptional

Bell products to service and complement their successful aerial operations," said Lynette Loosen, regional sales manager, Africa and the Middle East, Bell. "The Bell 412 has proven its capabilities and fit for purpose to BAR Aviation and the company is growing its Bell 412 fleet in East Africa."

IATA names Qatar Airways as 78th AGM host

The International Air Transport Association (IATA) announced that the 78th Annual General Meeting (AGM) and World Air Transport Summit will take place 19-21 June 2022 in Doha, Qatar, hosted by Qatar Airways. This will be the second time that the global gathering of aviation's top leaders will be held in Qatar; the first being in 2014.

Originally, the 78th IATA Annual General Meeting and World Air Transport Summit were planned for the same dates in Shanghai, People's Republic of China, hosted by China Eastern Airlines. The decision to change the venue reflects continuing COVID-19 related restrictions on travel to China.

IATA announces first industry-developed passenger CO2 calculation methodology



22 March 2022 (Geneva, Switzerland) – The International Air Transport Association (IATA) announced the launch of the IATA Recommended Practice Per-Passenger CO2 Calculation Methodology.

IATA's Methodology, using verified airline operational data, provides the most accurate calculation methodology for the industry to quantify CO2 emissions per passenger for

a specific flight.

As travelers, corporate travel managers, and travel agents are increasingly demanding precise flight CO2 emission information, an accurate and standardized calculation methodology is critical. This is particularly true in the corporate sector where such calculations are needed to underpin voluntary emissions reductions targets.

AviaDev relocates to Cape Town for 2022 edition

Madagascar's strong tourism potential and geographical positioning are among the assets that allowed it to be selected as the host of AviaDev Africa for the 2022 edition. This aeronautical event allows participants to create new air routes from or to a country, but also to develop new collaborations with other airports or to attract new airlines.

"Despite the very best efforts of the Ravinala Airports team, manager of Antananarivo and Nosy Be airports and host of the event, the combination of continued uncertainty of the total reopening of the Malagasy borders, restrictions on flight frequencies alongside heavy health protocols required by Madagascar have impacted us to be able to deliver an event that would meet the high standards expected of AviaDev events." said Jon Howell, CEO and Founder

of AviaDev.

However, AviaDev is delighted to announce that AviaDev will now take place 29 June-1 July in Cape Town, South Africa,

hosted by WESGRO and the Cape Town Air Access team.

Registration is now open at www.aviationdevelop.com/africa



Scan to subscribe to **The Aviator Africa newsletter** or log onto www.theaviator.co.ug/subscribe



EXHIBIT

AT AERO SOUTH AFRICA TODAY!

AERO SOUTH AFRICA IS PROUD TO WELCOME BOSE AS AN EXHIBITOR FOR THE 2022 EDITION OF THE SHOW.

Bose Corporation was founded in 1964 by Dr. Amar G. Bose, a professor of electrical engineering at the Massachusetts Institute of Technology. In 1978, Dr. Bose began research on what would become the world's first active noise cancelling headset. Bose innovations have spanned decades and industries, creating, and transforming categories in audio and beyond.

What to expect at the Bose stand:

Join us at AERO South Africa, we look forward to presenting you our products and technologies or providing you with support and assistance.

#BoseA20 #BoseAviation #BoseProFlight

The Bose logo is displayed in a bold, italicized, black sans-serif font. It is centered within a white rectangular area that is part of a larger graphic element.The Bose Aviation logo consists of the word "AVIATION" in a bold, white, sans-serif font, centered within a solid black rectangular bar. This bar is positioned at the bottom of a white rectangular area that is part of a larger graphic element.

AVIATION

For more information visit their website
www.boseaviation-EMEA.aero



VENU

w



7 - 9 JULY 2022

WONDERBOOM NATIONAL AIRPORT PRETORIA

www.aerosouthafrica.com

AFRICA'S LEADING SHOW FOR GENERAL AVIATION

BOOK YOUR STAND TODAY!

CONTACT FOR EXHIBITION SPACE

Annelie Reynolds - Show Director
Annelie.Reynolds@za.messefrankfurt.com
+27 83 308 1251

SPONSOR



PARTNERS



MEDIA PARTNERS



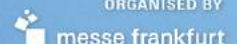
ENDORSED BY



IN CO-OPERATION WITH



ORGANISED BY



THE SLOW DEATH OF SOUTH AFRICAN AIRWAYS



By Vincent M. Mupenzi
v.mupenzi@theaviator.co.ug

South African Airways (SAA) is the National flag carrier airline of South Africa. Founded on 1st February 1934, the airline is headquartered in Airways Park at O. R. Tambo International Airport in Johannesburg.

Founded after the acquisition of Union Airways by the South African government, the airline was initially overseen and controlled by South African Railways and Harbours Administration. The carrier

is wholly-owned by the South African government and operates an extensive network of services throughout Africa and international services to North America, South America, Asia, Australia and Europe.

In 1997 SAA changed its name, image and aircraft livery and introduced online ticketing services. In 2006, SAA was split from Transnet, its parent company, to operate as an independent airline.

SAA owns Mango, a low-cost domestic airline, and has established links with Airlink and South African Express. It is a member of the Star Alliance. The carrier joined Star Alliance on 10th April 2006, making it the first African carrier to sign with one of the three major airline alliances of Star Alliance, SkyTeam and Oneworld.

Erewhile

On 10 November 1945, the airline introduced its first intercontinental service, the 3-day Springbok Service, operated by the Avro York, which was routed Palmietfontein–Nairobi–Khartoum–Cairo–Castel Benito–Hurn Bournemouth. The flight took 3 days to complete and overnight stops were made at Nairobi, and Cairo with the flying time around 33 to 34 hours. A weekly service was initially flown, but this later increased to 6 times weekly due to high passenger demand. The Douglas DC-4 Sky master debuted with SAA in May 1946 between Johannesburg and Cape Town, which coincided with the introduction of the Douglas DC-3 on the Johannesburg–Durban route.

Due to international opposition to apartheid during the 1980s, SAA's offices were attacked and gutted by firebombs and the crowd tried to prevent firefighters from putting out the blaze. In Harare, Zimbabwe, its offices were badly damaged after protesters went on a rampage.

The US Comprehensive Anti-Apartheid Act of 1986 passed by the senate as amended on August 15th 1986 banned all flights by South African-owned carriers, including SAA. The act required the Secretary to terminate the 1947 air services agreement between South Africa and the United States.

The Secretary for Transportation upon termination of such agreement, would prohibit any aircraft of a foreign air carrier owned by South Africa or by South African nationals from engaging in air transportation with respect to the United States. The act further required the Secretary of Transportation to prohibit the takeoff and landing in South Africa of any aircraft by an air carrier owned or controlled by a U.S. national or U.S. Corporation. In 1987, SAA's services to Perth and Sydney



in Australia were ended, in light of the Australian Government's opposition to apartheid.

During 1992, SAA began flights to Miami with a Cape Town to Miami International Airport nonstop Boeing 747-400 route, and re-entered Australia, flying nonstop to Perth with a same-day return "shuttle" service to Sydney. That year also saw code sharing agreements with American Airlines and Air Tanzania. There were nonstop flights to Bangkok and Singapore; the latter was discontinued by 1996. The airline Alliance, a partnership between SAA, Uganda Airlines and Air Tanzania, also began. SAA greeted its passengers in four different languages during domestic flights: English, Zulu, Afrikaans and Sotho, while passengers on international flights were also greeted in the destination's language.

Re-invention, Rebranding & Restructuring

In 1997, SAA replaced the Springbok emblem and the old national colors of orange, white and blue with a new livery based upon the new national flag, with a sun motif. The airline's name on its aircraft retained the Afrikaans name Suid-

Afrikaanse Lugdiens.

As a symbol of the new rainbow nation following the release of Nelson Mandela, one of SAA's 747-300s, named Ndizani (registration ZS-SAJ), was painted in bright colors. This special-liveried 747-300 transported South African athletes to the 1996 Summer Olympics in Atlanta. The airline started online ticket sales and formed an alliance with SA Airlink and SA Express.

The government of South Africa led by President Nelson Mandela in 1998 appointed Mr. Coleman Andrews, former chairman and CEO of World Airways headquartered in Peachtree City, Georgia, USA. He was credited with rescuing World Airways from the brink of bankruptcy earlier in the decade.

Mr. Coleman was hired by Transnet, the state-owned parent company, to remedy the problem of dwindling passengers, which Transnet's market research had revealed was caused by "failure to fly on time, unfriendly and minimally-trained staff, poor food and SAA fares being 12–25% above its competitors.



The American was tasked to lead as CEO the complex, challenging, and controversial turnaround of South African Airways, a then global company with 10,500 employees and operations in 34 countries. Coleman's arrival saw a comprehensive and controversial overhaul of the airline, changing the management of SAA. While he was CEO, the market value of South African Airways increased from R1.5 billion to R7.0 billion. During his first 18 months as CEO, South African Airways' market value increased fivefold.

Later in 2002, South African Airways made a successful bid for a 49% stake in Air Tanzania. The move highlighted SAA's wish to gain a foothold in eastern Africa. The bid was worth \$20 million, and was SAA's first acquisition of a foreign airline. The merger failed in 2006, when new SAA management felt that the arrangement was fruitless. In March 2004, South African Airways announced its application to join Star Alliance. The airline alliance accepted its application in June, with SAA joining as a full member in April 2006.

On 6 June 2006, the codeshare agreement between South African Airways and Delta Air Lines was terminated because of the airlines' memberships in rival alliances (Star Alliance and SkyTeam respectively).

In May 2007, SAA launched an 18-month comprehensive restructuring programs which were aimed at making the airline profitable. According to then-CEO Khaya Ngqula, this came largely after "uncompetitive ownership and aircraft lease costs, excessive head count and fuel price volatility".

The restructuring program involved the spin-off of businesses into seven subsidiaries, thereby allowing SAA to



concentrate on its core business of passenger and cargo transport; grounding SAA's Boeing 747-400 fleet; rationalizing international routes (Paris was dropped altogether); the axing of 30% of the airline's managers; among other reductions. This was expected to save the airline R2.7 billion (US\$378.2 million). By June 2009, R2.5 billion had been saved.

Down at heel

In January 2015, SAA announced plans to end its non-stop services to Beijing and Mumbai. Services to China were replaced by Star Alliance partner Air China with a flight to Beijing. In June 2015, the acting CEO stated that London, Hong Kong, Munich, Frankfurt and Perth were the only profitable long-haul routes; all others were loss-making.

In that same year of 2015, the number of staff members far exceeded what was required to run the airline in an Ernst & Young report to the government. In the report, 48 of the largest contracts awarded by SAA showed that 28 of them, or 60%, were improperly negotiated, poorly contracted or weakly managed.

In September 2017, SAA began reducing its fleet and expected to cut 23% of its flights. Standard Chartered Bank was the first bank in June 2017 to call-in its SAA loan. The South African government provided R2.2 billion to settle the debt. Citibank was the second bank to refuse extending the loan facility.

On 5 December 2019, the Government of South Africa announced that SAA would enter into bankruptcy protection, as the airline had not turned a profit since 2011 and had run out of money. In January 2020, South African Airways announced that it would suspend several routes, e.g. to Munich in order to reduce its financial struggle.

In April 2020, following a request for further emergency financing due to the COVID-19 pandemic, the South African government announced that it would stop funding the airline with immediate effect. The airline then announced plans to lay-off all remaining staff by the end of the month, sparking fears that SAA was on the brink of liquidation.

As of 1 May 2020, all SAA staff members were on unpaid leave of absence, including those who were reporting for duty, with no pay for the 4,708 remaining workforce. Unaudited financial statements presented in a draft report showed SAA made losses of almost R16Bn in the last 3 years. South African Airways on the 02nd of August 2021 issued an operations update on its official website that the COVID-19 pandemic necessitated that all SAA operated flights (domestic and regional) be suspended until 30 September 2021 and that all SAA operated International flights be suspended until further notice. The temporary suspension of operations also meant that SAA would not be reachable to provide support through voice or email channels but advised clients to continue transacting on their website or contact their nearest travel agents.



Consistent Turbulence

It was reported in South African local media on Tuesday October 12, 2021 that the South African Cabin Crew Association (SACCA) and the National Union of Metal Workers Association (NUMSA) held a picket outside the SAA offices in Kempton Park protesting unfair working conditions and the structure of SAA's management.

NUMSA spokesperson Phakamile Hlubi Majola said that after a long process of business rescue and not being in the air, more than 3000 members had lost their jobs at the airline. She noted that the cut in benefits and salary reductions were imposed on workers and that some of the working conditions were inhumane. Majola further reiterated that workers who came on shift at six in the morning after having woken up at 4 am to go and do a full flight would have no lunch break, no meal allowance because they didn't get paid, and would also not be allowed to eat on the plane, conditions which she noted were inhumane.



Protests and Pickets

On the 1st of March 2022, the South African Cabin Crew Association (SACCA) president Zazi Nsibanyoni-Anyiam led a protest at the Public Enterprises Department in Pretoria over alleged corruption and Job losses at SAA. She said over 200 SAA staff members will no longer be employed by end of March and asked the public Enterprises Department to intervene. The SACCA president elicited the ire at the CEO that if he was interested in the new SAA, he should be interested in inclusive decision making. "You cannot make decisions without the workers and the people that are on the ground that are making SAA succeed" Zazi said.

In her address during the protest, the SACCA president Zazi Nsibanyoni-Anyiam emphasized

that members wanted the previous conditions of employment back and all agreements and variations re-instated. She noted that there had been a state of sweat and tears for many years to get to where they had gone to in terms of their variations and their agreements.

The SACCA president emphasized that all that employees wanted was to be treated normally by having a normal medical aid, which would help in making their lives better every year. She highlighted a flawed recruitment and selection process which upended all the successes that would otherwise have been registered at SAA.

Ray of hope

South African Airways Interim CEO Mr. Thomas Kgokolo is hugely optimistic that the airline's doldrums has come to an end and the future for SAA is bright. Kgokolo believes that there is a profound feeling of enthusiasm within Team SAA as they prepare for takeoff, with a common purpose of rebuilding and sustaining a profitable airline that once again takes a leadership role among local, continental, and international airlines. This enthusiasm however remains to be seen given the airline's turbulent past.



10TH AVIATION STAKEHOLDERS CONVENTION



8 - 10 May 2022 | Nairobi, Kenya
Emara Ole Sereni Hotel

AFRAA 10TH AVIATION STAKEHOLDERS CONVENTION

“Beyond the Crisis”

Coming in **May 2022!**

The event is being hosted in collaboration with **Kenya Airways**.

The Convention will build on the momentum to rebuild a more resilient and sustainable travel ecosystem in Africa. It is critical that all stakeholders put their weight behind the aviation sector in order for us to create the much needed enabling environment for air transport business to thrive and contribute to the continent's sustainable rapid development.

Why attend?

- Gain valuable insights from industry leaders on how to enhance business in the evolving market.
- Discover how to leverage on new technology the smart and cost-effective way.
- Deliver customers centric service, increase operational efficiency and reduce cost through smart strategies.
- High value networking, one-to-one business discussion and exhibitions all in one place.
- Benefit from in-depth knowledge in a specific area through the Master Class sessions.

Sponsorship and Exhibition Opportunities

The Convention provides excellent brand visibility and marketing opportunity through sponsorship and exhibition.

For more information on the option available, please contact:

Ms. Maureen Kahonge, Email: mkahonge@afraa.org, Tel: +254 725 500470

Registration

For registration and information about the event, please visit the website: <https://cvent.me/EzRxlM>

CESSNA SKYCOURIER:



The game changer

By Oscar Ssemawere
chairman@aviator.co.ug

The Textron Cessna SkyCourier is an American utility aircraft designed and built by Textron Aviation Inc. to match FedEx Express requirements. It was launched on November 28, 2017 and made its maiden flight on May 17 2020 from beech field in Wichita, Kansas and type certified by FAA on March 11, 2022.

The SkyCourier is a twin-turboprop, high-wing aircraft, available with a 19-passenger accommodation, or in a cargo variant sized for three LD3s. The non-pressurized design is built from aluminum and is equipped with Pratt & Whitney Canada PT6A engines and fixed landing gear. The 19,000 lb. (8,600 kg) MTOW airplane can cruise up to 210 kn (390 km/h), with a range of 386 nmi (715 km) with 19 passengers.

The Cessna SkyCourier offers a combination of performance and lower operating costs for air freight, passenger and special mission operations. In addition to the freighter version, there is a 19 passenger variant of the

SkyCourier that includes separate crew and passenger entries for smooth boarding, as well as large cabin windows for natural light and views. Both configurations offer single-point pressure refueling to enable faster turnarounds.

The aircraft is powered by two wing-mounted Pratt & Whitney PT6A-65SC turboprop engines and features the McCauley Propeller C779, a heavy-duty and reliable 110-inch aluminum four blade propeller, which is full feathering with reversible pitch, designed to enhance the performance of the aircraft while hauling large loads. The SkyCourier is operated with Garmin G1000 NXi avionics. The aircraft features a large door and a flat floor cabin, and the freighter version can hold up to three LD3 shipping containers with an impressive 6,000 pounds of payload capability.

Inaugural flight & FAA Certification.

Initial ground testing that included checking the fuel system, engines, avionics interfaces and electrical systems was completed by March 2020 and maiden flight was completed on May 17, 2020. Operating from Beech

Factory Airport for a 2-hour and 15-minute flight, the three SkyCourier aircraft accumulated more than 2,100 hours throughout the flight test program. The SkyCourier made its first public appearance at the EAA Air Venture in Oshkosh in 2021 and after realization of 2,100 hours of flight tests, the Federal Aviation Administration type certification was finally granted on March 11, 2022. President and CEO, Textron Aviation Mr. Ron Draper

acknowledged that achieving FAA certification for the Cessna SkyCourier demonstrates the expertise and hard work of the employees, as well as Textron Aviation's continued investment in providing solutions for customers. Mr. Draper emphasized that the clean sheet design brings to the segment what customers need: the ability to load, fly, unload and repeat with low operating costs and maximum cabin flexibility and efficiency.



CESSNA SKYCOURIER

FREIGHTER CONFIGURATION



FREIGHTER



Meet the all-new CESSNA SKYCOURIER aircraft. A single pilot, twin-engine, high-wing, large utility turboprop designed for performance, reliability, low-cost maintenance and return on investment. With a heavy payload capability and large cabin volume, you can carry more cargo and execute more operations day after day with maximum efficiency. The *Cessna SkyCourier* turboprop is a highly effective aircraft for freight operators.

Let it start working hard for you.

More Space. More Cargo.

With cabin dimensions capable of loading three LD3 containers—you're able to fully utilize the *Cessna SkyCourier* turboprop's 6,000 lb payload capacity.

Ice and Rain Protection

Featuring heated glass windshields, optional wing and propeller de-ice boots and optional weather radar, the *Cessna SkyCourier* turboprop provides exceptional weather capability and reliable service even during the winter months.

Easy Loading

The large cargo door facilitates fast and simple loading of large freight, including palletized and containerized items, so you're in the air faster. An optional cargo floor roller system speeds up loading operations by allowing large items to be rolled fore and aft.

EXTERIOR

Wingspan	72 ft 3 in	22.02 m
Length	55 ft 1 in	16.80 m
Height	20 ft 8 in	6.30 m

INTERIOR

Cabin Height	5 ft 11 in	1.80 m
Cabin Width	6 ft 5 in	1.96 m
Cabin Length	23 ft 4 in	7.11 m

WEIGHTS

Max Takeoff Weight	19,000 lb	8,618 kg
Basic Operating Weight*	11,200 lb	5,080 kg
Useful Load	7,870 lb	3,570 kg
Payload	6,000 lb	2,722 kg

POWERPLANT

Manufacturer	Pratt & Whitney Canada	
Model	PT6A-65SC	
Power Output	1,110 shp	

PERFORMANCE

Max Cruise Speed	210 ktas	389 km/h
Max Range	940 nm	1,741 km
Takeoff Distance	2,700 ft	823 m
Max Operating Altitude	25,000 ft	7,620 m

Performance data is based on standard conditions with zero wind. Field performance assumes a level, hard- surface, dry runway, sea level, 15°C at MTOW. Range is based on a ferry mission at LRC with NBAA IFR reserves (with 100 nm alternate).

*Typically equipped with weather radar, FIKI, TCAS I options and 1 pilot.



Scan to subscribe to **The Aviator Africa** newsletter or log onto www.theaviator.co.ug/subscribe

CESSNA SKYCOURIER

PASSENGER CONFIGURATION



Passenger



Meet the all-new CESSNA SKYCOURIER aircraft. A single-pilot capable, twin-engine, high-wing, large utility turboprop designed for performance, reliability, low-cost maintenance and impressive return on investment. With a large payload and room for up to 19 passengers, you can execute more operations day after day with maximum efficiency. Fly your business higher with the Cessna SkyCourier turboprop.

Let it start working hard for you.

Efficient Operations

Single point refueling, ground service bus, and a flight deck with faster, brighter, high definition displays featuring the GARMIN G1000 NXi avionics suite, are just a few features proven to optimize your crew's operations.

Modern Passenger Amenities

Up to 19 passengers can board seamlessly with fold-down entry stairs leading to an extra-wide passenger door. With extra legroom and baggage space, USB charging points and a large window at every row, your passengers can relax and recharge.

Outstanding Economics

The Cessna SkyCourier aircraft was designed for high reliability and low-cost operations. With a low cost per seat mile, the Cessna SkyCourier aircraft provides a remarkably low cost of transportation for a turboprop of its class.

EXTERIOR

Wingspan	72 ft 3 in	22.02 m
Length	55 ft 1 in	16.80 m
Height	20 ft 8 in	6.30 m

INTERIOR

Cabin Height	5 ft 11 in	1.80 m
Cabin Width	6 ft 2 in	1.88 m
Cabin Length	23 ft 4 in	7.11 m

MAX PASSENGERS

19

WEIGHTS

Max Takeoff Weight	19,000 lb	8,618 kg
Basic Operating Weight*	12,725 lb	5,772 kg
Useful Load	6,345 lb	2,878 kg

POWERPLANT

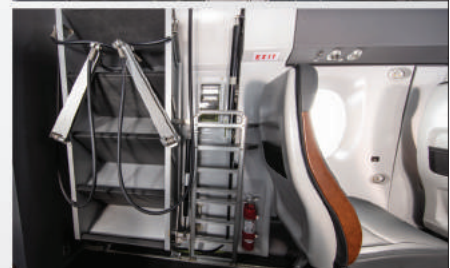
Manufacturer	Pratt & Whitney Canada	
Model	PT6A-65SC	
Power Output	1,110 shp	

PERFORMANCE

Max Cruise Speed	210 ktas	389 km/h
Max Range	920 nm	1,704 km
Takeoff Field Length	3,660 ft	1,116 m
Max Operating Altitude	25,000 ft	7,620 m

Performance data is based on standard conditions with zero wind. Field performance assumes a level, hard-surface, dry runway, sea level, 15°C at MTOW. Range is based on a ferry mission at LRC with NBAA IFR reserves (with 100 nm alternate).

*Typically equipped with weather radar, FIKI, TCAS II, TAWS A options and 2 pilots.



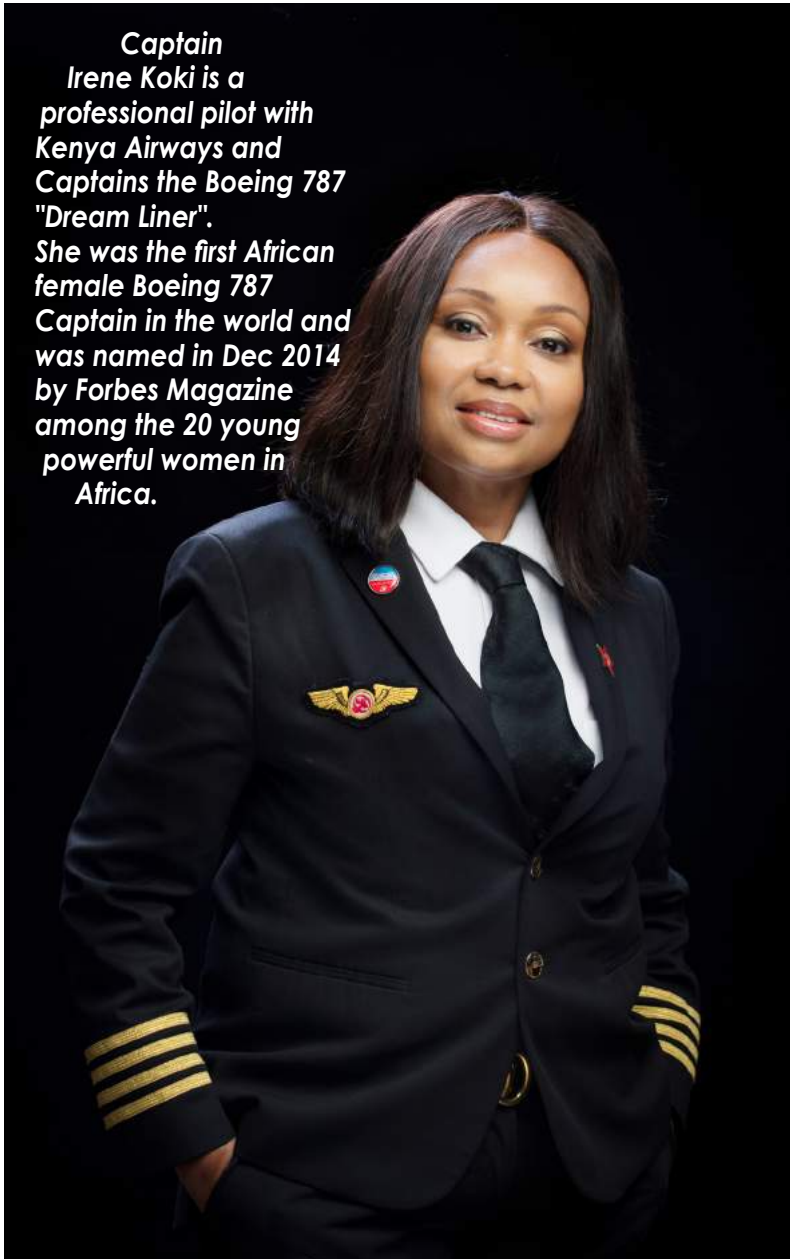
Scan to subscribe to **The Aviator Africa** newsletter or log onto www.theaviator.co.ug/subscribe

Q&A:

By Harriet James

Captain Irene Koki Mutungi's piloting journey

Captain Irene Koki is a professional pilot with Kenya Airways and Captains the Boeing 787 "Dream Liner". She was the first African female Boeing 787 Captain in the world and was named in Dec 2014 by Forbes Magazine among the 20 young powerful women in Africa.

**Captain Irene Koki Mutungi****Qn: What inspired you to be a pilot?**

Ans: My father was a pilot. I flew with him a lot as a child hence my interest in flying. He was my inspiration. After high school, I remember as we waited for results most parents would send their kids to do computer packages as they waited for their results. I asked to do my Private pilot's license at Wilson airport. My dad was completely against it since I also pointed out that I desired to continue with it as a career. It took his friend Capt. Ririani who owns the Kenya School of flying to convince him to let me do it. I have one brother and he was not interested in flying. Just like every career you find a way to balance your work and family life. Everyone is unique and finds what works for them.

Qn: Briefly describe how your journey has been to now where you are.

Ans: I did my PPL (Private Pilots License) at the Kenya School of Flying and then proceeded to Crabtree Aviation in Oklahoma, USA where I did my commercial license and instrument rating. I then returned to Kenya and converted my license. I did a short six month stint in general aviation flying at Wilson airport before joining Kenya Airways. There, I worked my way up the ranks starting as a cadet, second officer, first officer then captain. I flew the Fokker 50, B737, B767 and B787.

Qn: When were you promoted to 787 captain?

Ans: I transitioned to the B787 in 2014 when I was promoted to be the captain. The Dreamliner is the most sophisticated commercial airliner on the market right now. Compared to other aircrafts, a lot of workload is minimized due to technological innovations. As much as I love

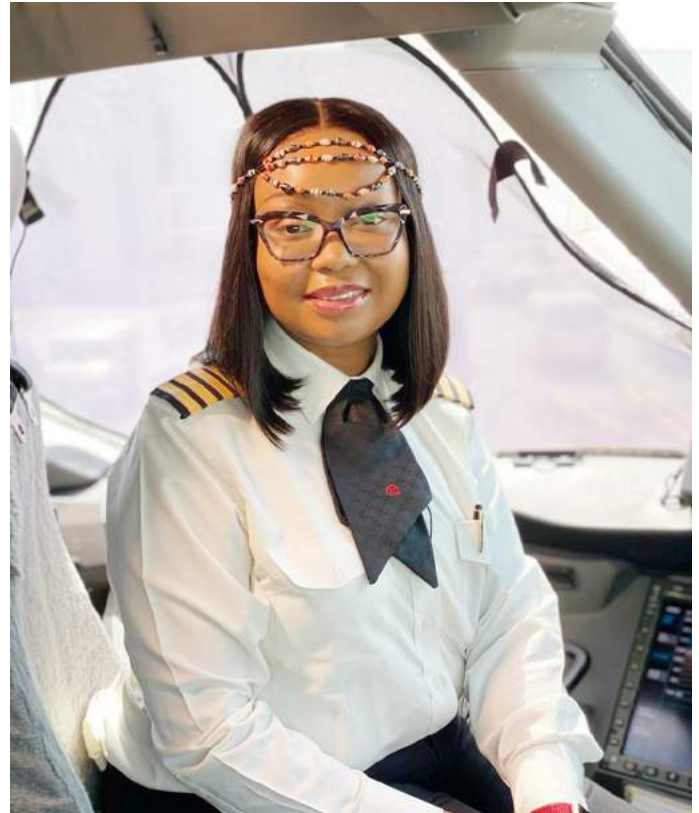
flying the Dreamliner, I have a soft spot for the B767 maybe because I flew it the longest.

Qn: What are the main challenges facing women in aviation?

Ans: The main challenges are mostly to do with stereotypes. When people assume you can't do something before giving you a chance. I initially had to keep proving myself alongside the men. I guess it came with being the first female pilot at the airline. With time and with female pilot numbers going up worldwide, it is now not a big deal being flown by a woman.

Qn: According to International Air Transport Association statistics, women hold relatively few CEO, COO or CFO roles at the world's top 100 airlines. What are some of the reasons that hinder women from attaining such positions?

Ans: I think the door to fly has been opened to female pilots, but entry into the C-suite is still an unspoken preserve for men. We have very capable and qualified women to take up these positions and I hope that we will see the numbers rise in the future. I definitely would also like to be a part of those women I speak about in the C- suite when



I decide to reduce my flying duties. Having a female leader in management positions is key for inclusive decision-making. I think more subsidies and scholarships should be made available to women when it comes to training. Airlines should offer positions to qualified female pilots more readily as part of their inclusivity programs. In addition, they should have female pilots as pivots for their projects to bring awareness to the general public. When people see the female pilots, it will garner a degree of interest.

Qn: How has working with Kenya Airways assisted you to realize your goals?

Ans: Like the saying goes, there is power in numbers. At Kenya Airways alone, there are about 30 female pilots. Flying is about a particular skill set and not gender based. I could say when I was on my own all eyes we're on me. Now it's another day at work and it does not matter the gender that flies you. There needs to be more inclusion and incentives like subsidized training to encourage women to join the industry from the government and airlines. Awareness drives at schools where actual female pilots go and speak about their career would also help.

Qn: How did the pandemic affect your work?

Ans: The pandemic was an unfortunate and unexpected period. We stayed home without flying for over six months which is the longest time at a go that I have stayed at home. The upside is I got to bond with my children and family more. I had to help with homeschooling which helped me to realize how patient teachers are as that was quite a challenge. I have two sons, the younger one wants to be a pilot, let's see what happens since kids often change their minds.

Qn: How do you feel about the accolades that you have received?

Ans: My accolades and awards mostly have to do with being a pioneer in my field. I'm grateful and hope they have impacted or inspired some young person to want to follow in my footsteps.

Qn: Which are your favorite routes to fly?

Ans: I love flying to the U.S., Europe and the Far East. I get to experience the extremely busy airspaces and adverse weather, which is a challenge I like to take on.



The airspace in Africa is not as busy and we don't have extreme weather like hurricanes, snowstorms, etc. Apart from that, most destinations are great and I get to see different cultures, try their cuisine and sightsee. In short, it's like a paid holiday.

Qn: What would be your message to young women considering a career in aviation?

Ans: This is one of those industries with diverse career opportunities. There are various options like flying, engineering, accounting, marketing, name it. It has been challenging, fulfilling and lucrative. I would definitely encourage more young women to consider careers in the aviation industry.

WORLD DEFENSE SHOW

concludes first edition with SAR29.7 billion in deals

By Daniel Bakalanguddé
mulungidaniels@gmail.com

Following four trade days that brought together 600 defense and security exhibitors from 42 countries, World Defense Show concluded its first edition recording SAR29.7bn in deals. Founded by the General Authority for Military Industries (GAMI), the world's first show focused on defense interoperability received 80 military delegations, 65,000 visits and representation from 85 countries from east to west.

H.E Ahmad Al-Ohali, Governor of GAMI said: "From its first edition, World Defense Show established itself as one of the top defense and security shows in the world, which reflects the Kingdom's position as a global driver of collaboration, innovation and business opportunities. The networking, knowledge sharing and commercial relationships established through the World Defense Show platform will spur a new era of investment and growth for Saudi Arabia's defense and security industry bringing us closer to achieving our target of localizing more than 50% of the Kingdom's military expenditure by 2030."



"We thank all exhibitors, visitors and partners for being part of this promising journey and we look forward to bolstering ties with them in the coming period, while we prepare for the show's second edition set to take place between 3rd and 6th of March 2024," Al-Ohali added.

As the regulator, enabler and licensor of Saudi Arabia's defense sector, GAMI worked with partners to review contracts announced at the show, with detailed evaluation of technical specifications in line with international standards, ensuring spending efficiency and operational readiness.

The 2022 edition of World Defense Show was packed with industry-leading networking programs and demonstrations. From creating business opportunities through the "Meet the buyer" program to thought-provoking programs such as International Women in Defense and Future Talent, the show paved the way for further collaboration, sector growth and human capital development.



ADVERTISE WITH US

THE Aviator AFRICA



MEDIA PARTNERS



We reach your target audience

Entebbe International Airport, 2nd Floor Passenger Terminal Building, P. O. BOX 6715, Kampala, Uganda

+256 393 515 148, +256 776 788 579

@aviatorafrika

www.theaviatorafrika.co.ug

advertising@theaviator.co.ug

The Aviator Africa

@theaviatorafrika

The Aviator Africa

The World's Largest **BONEYARD**



The Davis-Monthan Air Force Boneyard

By Vincent M. Mupenzi
Vincentmm311@gmail.com

An aircraft boneyard otherwise known as an aircraft graveyard is a storage area for aircraft that are retired from service. Commercial airliners and military aircraft have limited lifespans. Whereas some aircraft are temporarily removed from flying status, and must be stored in an environment that is conducive for preservation, others are kept as spare parts for re-use for flying aircraft. Eventually, as airframes wear out and economics change, aircraft are either stored temporarily or removed permanently from service and scrapped at a storage facility known as a “Boneyard”

The 309th Aerospace Maintenance and Regeneration





Group (309th AMARG), often called The Boneyard, is a United States Air Force aircraft and missile storage and maintenance facility in Tucson, Arizona, located on Davis–Monthan Air Force Base. The Boneyard takes care of over 4,000 aircraft making it the largest aircraft storage and preservation facility in the world. The 309th AMARG was originally meant to store excess Department of Defense and Coast Guard aircraft, but has in recent years been designated the sole repository of out of service aircraft from all branches of the US government.

The arid climate and alkali soil of the region makes the 309th AMARG an ideal location for storing aircraft. The very low humidity in the 10%-20% range in the air that would corrode metal, meager rainfall of 11" annually, hard alkaline soil, and high altitude of 2,550 feet all allow the aircraft to be naturally preserved for cannibalization or possible reuse. Furthermore, the surface is hard so that the aircraft do not sink into the ground. There's also

pretty much no chance of extreme weather like tornadoes making the environment ideal aircraft storage facility.

During the space race, when the pace of technological innovation was its highest, the Boneyard inventory began to swell. Then when the Vietnam War called for bigger and better aircraft, the number in the Boneyard grew even higher. By the time the war was winding down in 1973, there were over 6000 aircraft being stored in the Boneyard, which is the highest it's ever been.

The slightly over 4000 aircraft currently sitting there are in various stages of their reclamation process. And it's predicted that the number of aircraft in the Boneyard could shrink to just 1000 in the next 20 years. It is widely believed that 40 years down the line, there might not even be any aircraft in the Boneyard at all.

Aviation enthusiasts travel from all over the world just to visit the Boneyard. As you would expect, the Boneyard is an extremely popular destination for tourists. The chance to get up close and personal with some of the most iconic military aircraft of all time is a rare one.

Other notable boneyards outside USA include the Alice Springs Airport located in the Northern Territory of Australia, the Canadian Forces Detachment Mountain View located in Ontario, Canada, the Enschede Airport Twente located in Overijssel, Netherlands, and Teruel Airport located in the Teruel Province of Spain known under the commercial name Plataforma Aeroportuaria-Teruel. Although these boneyards are significant, none matches the Davis–Monthan Air Force Base in Tucson Arizona, USA.



E2 PROFIT HUNTER

For a different world

- Rightsize your fleet
- Match capacity with demand
- Rebuild business profitability
- Achieve true sustainability

#E2ProfitHunter
E2ProfitHunter.com



 **EMBRAER**

CHALLENGE.
CREATE.
OUTPERFORM.

Turbulence: Causes Explained



By Maximillian Philberth Kalukamisa
mphilberth@gmail.com

Turbulence in flight is the phenomenon involving irregular, annoying and unpredictable motion of the airplane causing it to fly in undesired attitude, altitude and direction. If this situation is severe and uncontrolled, airplanes will lose control, cause injuries to passengers, crews and damage airplane structure.

CAUSES OF TURBULENCE

Turbulence on the airplane is caused by various factors which include;

Thermal heating on the earth's surface by solar radiation. The sun warms the air making it less dense and rises vertically into the atmosphere. The rising air mixes up with the air above leading to a turbulent air flow/wind. Turbulent wind cause airplanes to shake back and forth altering the flight path.

Wake or Vortex that trails from the wing tips of the larger heavier and low speed airplane causes turbulent air which poses a danger to lighter airplanes following it. To minimize the effect of wake turbulence, the air traffic controllers (ATC) allow enough time for the vortex to dissipate by appropriate separation between air traffic during landing and take-off

Solid terrain, such as tall buildings and trees near the approach and take-off cause wind to change direction and speed creating vortices near the ground. These vortices impact turbulence to airplanes in the take-off and approach. This is called mechanical turbulence.

Mountain ranges cause wind flowing perpendicular to it oscillate like a wave and can result in turbulence up to the lower stratosphere (the second layer of the atmosphere). Such waves pose a great turbulence danger to airplane approaching the mountain from the leeward side.

Thunderstorms are associated with up and down movements of air currents, which cause turbulence when the aircraft enters them. The turbulence associated with thunderstorms exists

even outside the storm up to 50 miles in the vicinity of the storm. Pilots alter headings to avoid storms.

WAYS AIRPLANE PILOTS DEAL WITH TURBULENCE

Turbulence can be scariest to passengers but it's not dangerous at all and it's not considered a safety issue to the aircraft operation, rather it's a convenient issue.

If turbulence happens or expected in any phase of flight, pilots are professional and are checked to deal with it in the following ways;

Use of seat belts

To avoid passengers being shaken back and forth or hit their head, seat belts should be on at all times during flight. It's very important to keep your seat belt on even when the seat belt sign is off. However, pilots will always turn on the seat belt sign when turbulence is expected.



If turbulence gets worse, the captain will make an announcement to the cabin crews through the Public Address (PA) to take their seats, and put on seat belts.

Analyzing SIGMET chart

Pilots analyze SIGMET (significant Meteorological information) reports to plan and prepare for necessary actions in case they encounter hazards like turbulence. SIGMET features Jet stream, thunderstorm, heavy clouds, turbulence reports and Icing.

Use of Weather Radar

Weather Radar is capable of detecting precipitation

and thunderstorm clouds, as they are associated with turbulence. Pilots use weather radar and coordinate with ATC to avert away from thunderstorms and heavy clouds.

PIREP

PIREP is a pilot report of the preceding aircraft to the following pilots flying in particular airspace. When pilots encounter turbulence, they report its intensity, location, time, altitude and aircraft type so that the following pilots can adjust altitude or track to avoid it. Pilots may ask clearance from the ATC to climb or descend in order to avoid reported or experienced turbulence.

Radio Transmission Frequency (RTF) and TCAS Display monitoring

Traffic Alert and Collision Avoidance System (TCAS) display and designated RTF monitoring help awareness and control relative distance to nearby airplanes in order to avoid encountering wake vortices of succeeding airplanes in the airspace.

Lift-off before and land beyond technique

When an ATC gives a wake turbulence caution to pilot taking off or landing behind a larger aircraft, pilot will be alert and avoid wake turbulence.

On final approach and behind larger aircraft, the pilot stays at or above the larger aircraft final approach path and aim to land beyond its touch down point.



aircraft into the wind.

Mountain Wave Avoidance

When pilots expect to encounter turbulence when flying in mountainous areas, normally plan to fly at least 50% higher than the height of the mountain peak to provide adequate margin of safety and recovery if strong turbulence is encountered.

Also pilots approach mountain ranges at 45o angle, in order to make an immediate escape turn if severe turbulence is encountered, as well as avoiding the leeward side of the mountain ranges where strong downdraft may prevail.

Penetrating the turbulence

It might not be possible for pilots to avoid flying in turbulence such as areas around equator or areas with tall buildings that disturbs wind and in the hot afternoon day with marked inversion. Do not worry! Pilots are trained to professionally bring you safe and comfortable flight. In such instances pilots establish and maintain engine power settings to obtain and fly turbulence penetration speed, maintain level flight until the airplane gets out of turbulence.

PASSENGERS DO NOT HAVE TO WORRY ABOUT TURBULENCE

Passengers are advised to remain calm and fasten their seat belts any moment the seat belt sign is on or instructed so by the cabin crew. Fastening seat belts minimizes chances of injury during severe turbulence.

Also have faith in your pilots because they are highly skilled, expertly trained and equipped with modern technology to fly through or avoid turbulence.



DID YOU KNOW!

Interesting aviation facts

KLM Royal Dutch Airlines established in 1919, is the world's oldest airline. 80% of the Population has as Fear of Flying

Only 5% of the World's Population Have Been on an Airplane
Tom Stuker is The World's Most Frequent Flyer

The wing-span of the A380 is longer than the aircraft itself. Wingspan is 80m, the length is 72.7m
The internet and online check-in were first introduced by Alaska Airlines in 1999.

Total electricity capacity of a 747-8 can power up to 480,000 32inch flat screen TVs.

The winglets on an Airbus A330-200 are the same height as the world's tallest man (2.4m).

The world-wide 747 fleet has logged more than 78 billion kilometers, equivalent to 101,500 trips to the moon and back.





Uganda Air Cargo Corporation

Do you need air charter services?



We are committed to Serving the World through excellent Air Cargo and Passenger Charters .

Our services include:

-  **Business and Tourist charters**
-  **VIP Charters**
-  **Medical Evacuation flights**
-  **Humanitarian/ Relief Charter Flights**
-  **Cargo charter flights**

P. O. Box 343 Entebbe International Airport, Main terminal building

Tel: +256 312 266 625

Email: sales@ugandaircargo.com | Website: www.ugandaircargo.com



FARNBOROUGH
INTERNATIONAL

AIRSHOW

18-22 JULY 2022

**PIONEER
THE FUTURE**



A pilot's Journey of Resilience

By Harriet James

Alice Stevens Wanjiku's rise to the top



Qn: What inspired you to join the aviation industry?

Ans: I've always loved flying since I was young. At the age of ten, I would collect aircraft memoirs and sometimes build aircraft models.

Qn: How was your journey like as compared to where you are?

Ans: I grew up in different parts of the world. From my upcountry in Murang'a, I went to a boarding school in Uthaya, thereafter I relocated to Switzerland and then

Kenya after four years. After high school, I joined aviation training institution and that's when I started learning about air fares and ticketing, travels and tourism. I also did cabin crew courses and eventually went into cargo handling and later advanced into cargo handling consultancy. In addition, I also did dangerous goods regulations. Aviation is a very expensive career especially when it comes to flying. I had to look for other ways to go about it.

Qn: Which airline was your first and how did your journey advance in it?



Ans: The only airline I have worked for is Kenya Airways. I joined as a cabin crew in February 2008 and while working there, I trained and discovered my desire to be a pilot.

Qn: What are some of the things that people learn as cabin crew?

Ans: You will have to learn aviation first aid, firefighting and how to talk to passengers on board such as unruly passengers. You also need to learn how to handle emergencies and passenger evacuations as well as handling people with reduced mobility, mothers with children as well as deportees.

Qn: What was your favourite and worst moments as a cabin crew?

Ans: Favorite moment was enjoying working with my colleagues and the worst was being away from home. Is there such a thing as balance when it comes to women in the industry?

Yes, most of it is mental balance. You must know why you are doing this and that's what will sustain you.

Qn: Which destination was your favorite?

Ans: Thailand Bangkok. I love the culture, food and how they respect people. They are very welcoming and

humble.

Qn: What drove you to aspire to being a pilot and what was the state of women in the industry at that time?

Ans: There were very few women who were flying by the time I joined the industry. I just got an awakening that I needed to reach my full potential and that I needed to take my career a notch higher. I decided to talk to a number of people mostly women who mentored me into aviation through offering encouragement whenever needed. I was also supported by men who believe in assisting women which propelled me to join a flying school in Wilson in 2009.

Qn: How has the journey of studying piloting been so far?

Ans: One must be financially stable to do piloting which is one of the reasons that toughened my journey. I was financially ill prepared but had to fight for my passion. Another thing was balancing work and my daughter who's now 19 years old. My daughter was my priority then.

Qn: At what point did you feel the need to start Red Baron Aviation School?

Ans: I was looking for hours while flying. I would go to schools and tell them that I would do some work for them in exchange of a salary which would go to my training hours. Starting Baron Aviation had always been my passion only that I didn't know how to go about it. My main reason and goal was to assist young people and guide them in how to go about the aviation industry. I wanted to start the school earlier like in 2014 but the difficult processes of starting a school made me wait a bit. I learnt a lot of things working and learning in these institutions and added to my learning a number of courses like safety and quality management systems and that is where I learnt how the regulators work and how one can be licensed or registered to open a school.

I left Kenya Airways in October 2020 but I had started the school in 2019 November and that's when we were going through the registration, inspections and all the nitty gritty. By March 2020 that's when the lockdown came and there is nothing much we could do. I was also financially drained because of the school training in January 2021. We had to cease operations due to the

April lockdown until the country opened up again. When it was opened, some students managed to come back while others were not able to return due to finances. We're still continuing with the few that managed to return and some are on their last bit in their courses. I started with one student, then they became two but the main challenge was the economy at that time which taught me to be patient in the process.

Qn: What's the challenging bit of having such a school?

Ans: Students want to join the school but we're unable to offer all the courses. At the moment for instance, we are doing flying and engineering or flight dispatch. We are not yet at the pilot training level because we started small. We are currently doing airport operations, cabin crew, tourism and travel and at some point we also do Chinese language training. Growth takes time and we hope by the next ten years we'll have all relevant courses. Another challenge is that when the pandemic started, the industry was hit very hard and people are scared to even work in the industry.

Qn: What last word can you give anyone who intends to join the industry?

Ans: Aviation is a very good industry to join but one must be responsible. Aviation is the only way to go for anyone that loves flying.





RED BARON AVIATION TRAINING INSTITUTE
"Greatness Achieved Through Excellence"



About Us

As an Aviation Training Institute, we seek to reflect the best of quality training in Aviation & Tourism and Travel as well as enhance the prestige of the Aviation & Hospitality Industry. Our goal is to be a truly 21st century, global aviation training institute, challenging and changing the established conventions of aviation & tourism education. It is the Africa's Finest training and development for Aviation Management - The Only Company Operation all over Kenya in this field, with the largest network institutions spread across the country.

Airport Ground Operation Course

The number of aircraft and airports is increasing rapidly in Kenya as Kenya is facing a shortage of well-skilled ground staff. There is a huge demand for ground staff who can deal with the functioning at the airport. It is a certification course related to the safety and comfort of passengers in the airport including checking, providing information, assisting disabled passengers, and selling tickets.

We offer a 6 months course to all interested in starting a career in aviation.

Cabin Crew Training Courses

Our accredited Cabin Crew training programs allow for skills development, knowledge and practical training that will equip you to become an efficient Cabin Crew Member, for both national and international airlines.

Our Cabin Crew students are introduced to airlines, airports and different aircraft types which are used in the industry, expanding their general knowledge and understanding of the Aviation World to which they will soon be a part of. To most the sky is the limit... Only to a few who have the passion and love for aviation, the sky is only the beginning of a fun filled adventure. Being a Cabin Crew Member is not a job, it is a life style.

NB: We are Offering 25% off (per term) for the next 3 months if you come with this flier (For Cabin Crew Training Courses Only).

Travel and Tourism Management Courses

Our programs offer complete exposure to students to give proper insight of Travel and Tourism Industry. Our students gain valuable experience from on-field activities, industrial visits and internships. Our course extends learning with experiential trainings and study tours. Through our programs, students are accessed to a host of international certifications from industry giants. The course helps to gain managerial skills, enhance communication, and equips with principles required in Travel and Tourism sector. We impart complete training to young minds and make them efficient for Travel and Tourism Industry.

"Greatness Achieved Through Excellence"

 Wilson Airport, Hanger No. 17A
 P.O. Box 72077-00200, Nairobi
 +254713270950

 Email: info@redbaronaviation.co.ke
 www.redbaronaviation.co.ke

Fees Structure and Requirements

Course Title	Course Level	Duration	Examining Body	Fees	Enrollment
1. Air Cargo Introductory	Diploma	6 MONTHS	IATA	50,000 PER TERM	On-going
2. Air Cargo Rating and Marketing	Diploma	6 MONTHS	IATA	50,000 PER TERM	On-going
3. Airport Operations & Flight Dispatch	Diploma	6 MONTHS	IATA	75,000 PER TERM	On-going
4. Cabin Crew Duties	Diploma	6 MONTHS	IATA	75,000 PER TERM	On-going
5. Travel & Tourism	Diploma	6 MONTHS	IATA	50,000 PER TERM	On-going
6. Aviation First AID	Certificate	4 DAYS	RED BARON	7,000 PER COURSE	On-going
7. GROUND OPERATIONS	Diploma	6 MONTHS	IATA	50,000 PER TERM	On-going

ADMISSION REQUIREMENTS

1. ADMISSION FEE OF KSH. 3,000/=
2. AGE 17 YEARS AND ABOVE
3. KCSE RESULTS SLIP
4. SCHOOL LEAVING CERTIFICATE
5. STUDENTS ID KSH. 500/=
6. 2 PASSPORT SIZE PHOTOS
7. COPY OF NATIONAL ID OR PASSPORT
8. MEDICAL CHECK-UP
9. DULY FILLED ADMISSION FORM
10. UNIFORM KSHS. 15,000/=
11. AVIATION FIRST AID KSH. 7,000/=
12. AIRCRAFT AND AIRSIDE VISIT 1500/-



We are offering;



*(per term)
for the next 3 Months
if you come with this flier.
(For Cabin Crew Training
Courses Only)*

NB: 1 TERM IS 3 MONTHS





A TRIBUTE TO THE ANTONOV AN -225 MIRIYA

By Vincent M. Mupenzi
v.mupenzi@theaviator.co.ug

An engineering
marvel of our
time, Dec 1988
Feb 2022

“**S**trive for perfection in everything you do. Take the best that exists and make it better. When it does not exist, design it.” **Sir Henry Royce.**

The Antonov An-225 was a strategic airlift cargo aircraft designed by the Antonov Design Bureau in the Ukrainian SSR within the Soviet Union during the 1980s.

It has been the world's largest and heaviest cargo aircraft ever built. With a wing span of 64.4 m (211 ft. 3 in) and a maximum take-off weight of 250,000 kg (550,000 lbs.), the AN-225 was the largest propeller driven aircraft to ever

enter production. Powered by six turbo fan engines, it had a maximum payload weight of 250 tonnes which could be carried inside or on its back. The An-225 boasted the largest wingspan of any airplane in operational service. The Mirya took its first flight on 21 December in 1988 and had been in service ever since.

The Antonov attracted the attention of millions around the world landing on six continents carrying foodstuffs, military equipment, oil and gas machinery and relief supplies all over the world. It was the first operator to offer the AN-124-100



'Ruslan' to the commercial market.
Record breaker

No aircraft in the history of aviation has ever broken or attempted to break aviation world records like the Antonov An-225. Prior to her demise, the Antonov An-225 "Mriya" held multiple records which included; heaviest aircraft ever built, and largest wingspan of any aircraft in operational service. On August 11, 2009, the AN-225 carried the heaviest single piece in the history of aviation. A generator and loading frame weighing a total of 187,600 kg (413,587 lbs) was transported from Frankfurt-Germany, to Yerevan in Armenia. The transportation found its way into the Guinness World Records.

On 11 June 2010, the An-225 carried the world's longest piece of air cargo, two 42.1 m (138 ft.) test wind turbine blades from Tianjin, China, to Skrydstrup, Denmark. No single aircraft would occupy the minds of transporters than the Mirya when oversized cargo needed to be moved anywhere in the world. From Buran spacecraft, chimney duct, battle tanks, cars and generators to wind turbines, the An-225 was capable of carrying just about any cargo anyone would think of.



Final flights

Spire Aviation, which provides global flight tracking data powered by satellites, monitored the final flights of the An-225. On February 2nd 2022, UR-82060 flew from Tianjin Binhai International Airport, China, through Russia and into Manas International Airport, Kyrgyzstan.

The aircraft didn't rest there for so long as on February 4th, it was westbound again. It performed flight ADB3120 from Manas International at 19:51 KGT, carrying PPE. It landed at Billund Airport, Denmark at 23:26 CET the same day following 8 hours and 34 minutes of journey time and a distance of 2,559 NM (4,740 km).

UR-82060 then left Billund at 14:25 CET on February 5th. That Saturday, it landed at Ukraine's Hostomel Airport at 17:30 EET. Flight ADB320F saw a duration of 2 hours





and 5 minutes and covered a distance of 814 NM (1,507 km). This flight would be the last time that the legend would hit the skies as it would sit at Hostemel until the Russian airstrike dismembered it during the Russian military invasion in Ukraine.

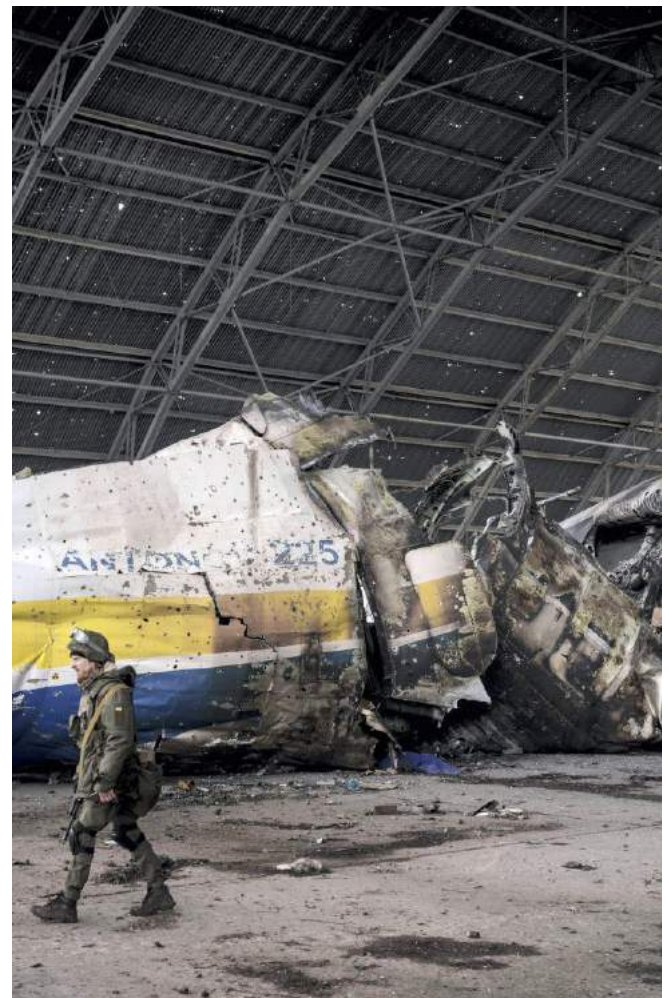
A head turner

The Antonov An-225 was popular with aviation enthusiasts, who frequently visited various airports worldwide to view in awe its scheduled arrivals and departures. Its smouldering wreck hugely hurt the aviation community especially because it served humanity during its various assignments with zeal and determination bringing the much needed cargo closer and quicker to those in need. As we mourn and remember this aviation masterpiece, the aviation world remains optimistic and hopeful that when the time is right, this engineering marvel will be rebuilt and probably break more aviation records again.

Lasting Legacy

The Antonov An-225 was the heaviest and longest operational aircraft to ever enter production. It was produced by the Antonov Serial Production Plant while Ukraine was part of the Soviet Union and flew for the first time on December 21st, 1988. A serial record-breaker, only one unit of its kind was produced.

The last services of the An-225 Mriya being critical supply missions is symbolic of the aircraft's service to mankind over the years. It has been a revolutionary force with its groundbreaking efforts to serve humanity and will be remembered as an icon in the aviation industry.



GIGANTIC

How they FLY

By Vincent M. Mupenzi
v.mupenzi@theaviator.co.ug

The Antonov An-225 Mriya was the most massive airplane in the world before it was destroyed during the outbreak of the 2022 Russian invasion of Ukraine. It had a maximum takeoff weight of 1.4 million lbs (6.4 million kgs) and it could reach speeds of up to 530 mph (850 km/h). But the Mriya was far from the only plane of this size in service.

The Lockheed C-5 Galaxy and Boeing Dream lifter both possess maximum takeoff weights nearing 1 million lbs (454,000 kgs) each. Planes of this size like any other aircraft must carefully balance four physical forces of thrust, lift, drag and weight to achieve and maintain flight. Once in the air, they transport people, tanks, smaller planes and even spacecraft across the planet.

In examining how these four physical forces affect a plane's ability to fly, one must first understand that for a plane to maintain flight, the sum of its thrust and lift must exceed its weight and drag.

Thrust refers to the forward force of a plane usually generated by its engines. Lift is the upward force generated by the difference in the air pressure and speed above and below a plane's wings. This is why most planes need to build up speed along a runway to create fast-moving air across the wings before takeoff.

Drag on the other hand refers to the resistance a plane meets while in flight. It's most commonly caused by air



particles. This is why the fastest commercial and military-grade planes operate at such high altitudes because air is thinner there which means less drag. When it comes to weight, the last main force in play during a plane's flight, it took a significant technological breakthrough with the introduction of turbojet engines to allow plane designs to transform. The modern turbojet engine as we know it was invented by Frank Whittle.

His first patent for the design in 1930 already featured compressors one of the key components that allow a turbojet engine to generate such a substantial amount of thrust. It wasn't until 1941 that the first turbojet engine-powered plane took flight. A turbojet engine has three main components. 1. Compressor, 2. Turbine and 3.



Engine.

Air is drawn into the engine through the inlet, then compressed and heated by the compressor in the combustion chamber, fuel is ignited heating and expanding the air. Some of the energy generated by the hot gas is extracted by the turbine and used to drive the compressor while the rest is released through the exhaust nozzle, resulting in thrust and lots of it. For large aircraft, this was absolutely essential. Larger planes would often utilize four or more of these turbojet engines to generate thrust.

While engineers initially saw this breakthrough as a way to design and build exponentially faster planes than ever before, they quickly realized that these engines also made larger heavier planes possible. But first, additional design considerations had to be made. One such

consideration was the plane's wings. As designers sought to create planes that could reach transonic or even supersonic speeds, they looked at re-imagining wings in order to minimize drag and maximize lift.

In 1935, German engineer Dr. Adolf Busemann proposed the idea of the swept wing at the Volta Conference. He suggested that by having a plane's wings "sweep" at an angle instead of being fixed to the fuselage at the right angle, the amount of drag experienced by a plane would decrease significantly. Even though he was initially laughed at, his idea would later revolutionize aircraft design.

This began with a revision to the Boeing B-47 Stratojet one of the first planes designed to fly fast and high. It featured the first ever swept wing design. The An-225 also famously had the same design but it didn't end there.



It also had larger wings and a wingspan of 290ft (88M) to aid in generating lift. Larger aircraft like the An-225 also featured vast amounts of cargo space both in volume and in weight. Aside from being spacious, the interiors of these aircraft also featured pressurized cabins, which allowed everyone on board to freely roam and work without requiring an oxygen mask.

While these aircraft were initially designed to transport military cargo, seeing so many people on board the massive planes gave the private sector an idea that would change the aviation world. With Boeing 707 already in use as the first successful commercial jetliner, Boeing was commissioned by Pan Am to design and construct an even larger jetliner.

It would be two and a half times bigger than the 707 and the additional seats would bring the average cost of a plane ticket down by 30% placing long-haul travel within reach of more people, Boeing succeeded. By 1970, it introduced the iconic Boeing 747 and the rest is aeronautical history.

Balancing the four physical forces of thrust, Lift, drag and weight has therefore enabled gigantic planes to achieve and maintain flight, thereby moving both people and goods across all corners of the world no matter the size and/or weight.



TOP 10 WORLD'S LARGEST AIRPORTS BY LAND AREA

Airports are the most common gateway to get from one country to another. Here are the largest airports that can accommodate thousands of travellers and land hundreds of airplanes daily.

1 King Fahd International Airport (DMM)



King Fahd International Airport (DMM)
(Also known as Damman International Airport)
City: Dammam
Country: Saudi Arabia
Year Opened: 1999
Land Area: - 776 km² (299.61 mi²)

2 Denver International Airport (DEN)



Denver International Airport (DEN)
(Also known as DIA Airport)
City: Denver
Country: CO United States
Year Opened: 1995
Land Area: 135.7 km² (53.09 mi²)

3 Dallas Fort Worth International Airport



Dallas Fort Worth International Airport (DFW)
(Also known as DFW Airport)
City: Dallas
Country: TX United States
Year Opened: 1973
Land Area: 69.6 km² (26.88 mi²)

4 Orlando International Airport (MCO)



Orlando International Airport (MCO)
 (Also known as Orlando Airport)
 City: Orlando
 Country: FL United States
 Year Opened: 1981
 Land Area: 53.8 km² (20.78 mi²)

5 Washington Dulles International Airport (IAD)



Washington Dulles International Airport (IAD)
 (Also known as Dulles Airport)
 City: Washington DC
 Country: United States
 Year Opened: 1962
 Land Area: 48.6 km² (18.75 mi²)

6 Beijing Daxing International Airport (PKX)



Beijing Daxing International Airport (PKX)
 (It has been nicknamed "The Starfish")
 City: Daxing (Between Beijing & Guangyang, Langfang (Hebei))
 Country: China
 Year Opened: 2019
 Land Area: 46.6 km² (18 mi²)

7 George Bush Intercontinental Airport (IAH)

George Bush Intercontinental Airport (IAH)
 (Originally named Houston Intercontinental Airport)
 City: Houston
 Country: TX United States
 Year Opened: 1969
 Land Area: 44.5 km² (17.19 mi²)

8 Shanghai Pudong International Airport (PVG)

Shanghai Pudong International Airport (PVG)
 (Also known as Shanghai Airport)
 City: Shanghai
 Country: China
 Year Opened: 1999
 Land Area: 39.9 km² (15.4 mi²)

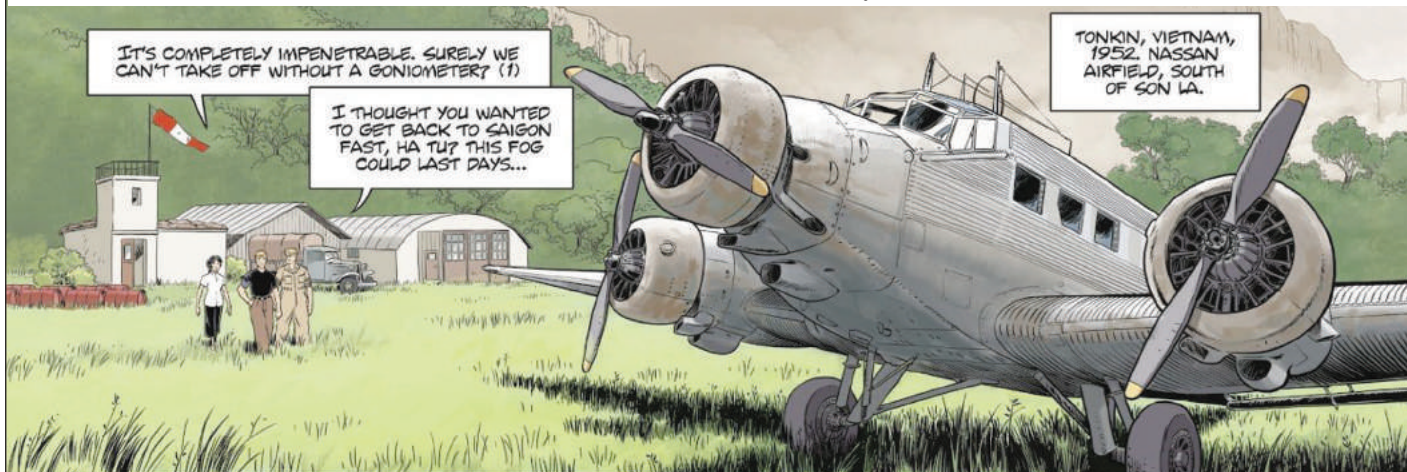
9 Cairo International Airport (CAI)

9. Cairo International Airport (CAI)
 (Also known as Cairo Airport)
 City: Heliopolis
 Country: Egypt
 Year Opened: 1963
 Land Area: 36.3 km² (14 mi²)

10 Suvarnabhumi International Airport (BKK)

10. Suvarnabhumi International Airport (BKK)
 (Also known as unofficially as Bangkok Airport)
 City: Bangkok
 Country: Thailand
 Year Opened: 2006
 Land Area: 32.4 km² (12.51 mi²)

Mission Aviation in Africa



IT'S COMPLETELY IMPENETRABLE. SURELY WE CAN'T TAKE OFF WITHOUT A GONIOMETER? (1)

I THOUGHT YOU WANTED TO GET BACK TO SAIGON FAST, HA TU? THIS FOG COULD LAST DAYS...

TONKIN, VIETNAM, 1952. NASSAN AIRFIELD, SOUTH OF SON LA.



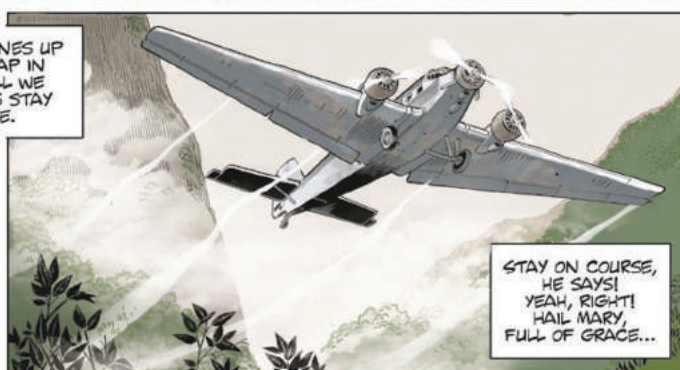
BUT WITH ALL THESE MOUNTAINS... ISN'T IT DANGEROUS?!



A LOT SAFER THAN LANDING!

THAT'S TRUE.

THE RUNWAY LINES UP WITH THAT GAP IN THE HILLS. ALL WE HAVE TO DO IS STAY ON COURSE.



STAY ON COURSE, HE SAYS! YEAH, RIGHT! HAIL MARY, FULL OF GRACE...



SHE ASLEEP?

I GUESS IT'S ALL BEEN TOO MUCH FOR HER.



AND YOU, COMMANDER?

GOING OVER SO MANY THINGS IN MY HEAD: THE DURANDS, MY DAD, THE WHITE HMONG, ALL THE HORRIFIC THINGS WE'VE HAD TO DO IN THIS WAR. (2)

(1) A RADIO TRACKING DEVICE ALLOWING A PLANE TO BE PILOTTED FROM THE GROUND. NASSAN AIRFIELD DIDN'T HAVE ONE AT THE TIME.
 (2) SEE VOLUMES 7, 8, AND 9 OF TRAMP.



MY GOD! I SOMETIMES WONDER IF ANY OF IT MAKES SENSE!

HEY, DON'T START THAT! HAVE A SLUG OF HOOCH.

THAT KIND OF THINKING WILL DRIVE YOU CRAZY, YANN.



I'VE STOPPED WONDERING. I'VE SEEN AND BEEN THROUGH TOO MUCH!



SO THEY CALL YOU "HARD KNOCK"...

HOW OLD ARE YOU, TANGUY?



GUESS YOU'RE WONDERING WHY THE HELL I'M HERE, HUH?

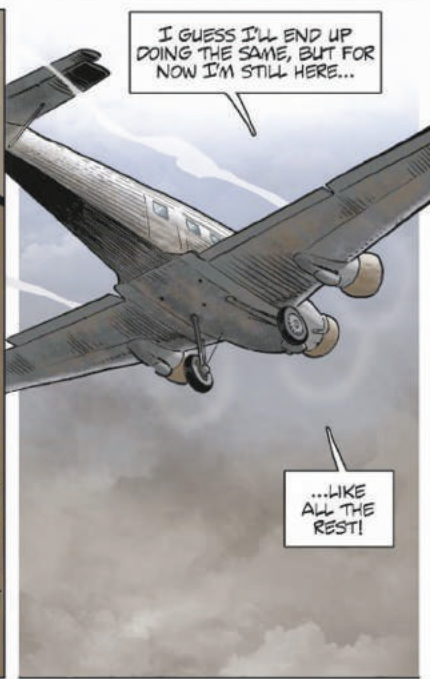


YOU'RE RIGHT. YOU GOTTA BE NUTS TO WANNA FLY INTO TONKIN RIGHT NOW.



ONE OF OUR GUYS IS ALWAYS SMASHING INTO A MOUNTAIN SOMEWHERE. OFTEN A GOOD PAL

SO YOU JUST GET BLITZED AND REMEMBER THE GOOD TIMES YOU HAD TOGETHER!



I GUESS I'LL END UP DOING THE SAME, BUT FOR NOW I'M STILL HERE...

...LIKE ALL THE REST!



A FEW WEEKS LATER, ABOARD THE THABOR. CAPTAIN YANN CALEC IS PREPARING FOR HIS LAST TOUR OF DUTY BEFORE RETURNING HOME...



THE NEW STEALTH FIGHTER JET

NGAD'S 6th Generation Stealth fighter that could change everything

N GAD Future Air Superiority Fighter Program on Track – The U.S. NGAD 6th-generation fighter just got a shot in the arm. President Joe Biden's recent defense budget proposal is promising research and development funds for the newfangled warplane. This largesse could help the U.S. Air Force and Navy vault ahead of the Chinese and Russians. The Next-Generation Air Dominance program will produce the follow-on airplane to the F-22 the F/A-18 E/F and if early reports are accurate, the resulting fighter could become the king of the skies.

NGAD: Another Round of Funding In-Store

The FY23 defense budget proposal from the White House has pledged \$9 billion for Air Force research and development, testing, and evaluation. NGAD's

Air Force Secretary Frank Kendall

“NGAD must be more than just the next crewed fighter jet. It's a program that will include a crewed platform teamed with much less expensive autonomous un-crewed combat aircraft, employing a distributed, tailorable mix of sensors, weapons, and other mission equipment operating as a team or formation”



aspirations that if true should result in an airplane unprecedented in its scope and innovation.

Artist Rendering Reminds Some of the YF-23

An image released by the Air Force shows a triangular-shaped warplane without a vertical tail. This design lends itself to internal weapons storage that should make it nuclear-capable with battlefield tactical nuclear weapons or nuclear-tipped cruise missiles. It has a resemblance to the YF-23 Black Widow II, which lost the competition to the F-22 for the last Air Force search for a stealth air superiority fighter.

Aerial Commander Leads "Family of Systems"

One exciting aspect of the NGAD is that it is supposed to be a "general in the air" that could lead autonomous stealth drones in a loyal wingman concept and feed targeting data to other airplanes such as the F-35 and F-22. The "general in the air" would be expected to have next-generation electronic warfare capabilities as well. The Air Force and Navy are calling this a "family of systems."

"NGAD must be more than just the next crewed fighter jet. It's a program that will include a crewed platform teamed with much less expensive autonomous un-crewed combat aircraft, employing a distributed, tailorable mix of sensors, weapons, and other mission equipment operating as a team or formation," Air Force Secretary Frank Kendall said.

Kendall also explained how the NGAD is part of his "seven

line item is in this earmark and will get an undisclosed amount of funding. The Navy has its own NGAD program – a 6th-generation fighter to replace the F/A-18E/F Super Hornet (called F/A-XX). The defense budget proposal awarded research and development dollars for this project too, although the amount is classified for the third year in a row.

Beyond a Prototype?

The NGAD program is likely at this point more than a concept. There are reports that the Air Force has already built a flying prototype and took it on a test hop in September of 2020. Although details of the airplane are top secret.

Indeed, the prototype is likely more of a technology testbed and is not close to being a finished product. So far there are artist renderings and command





operational imperatives" road map for the future of the Air Force. The NGAD, under this construct, is imperative for meeting the challenges of emerging threats from the Chinese and Russians. The ability to carry hypersonic missiles, for example, would fall under this rubric.

Make Sure It Passes Congressional Scrutiny
Kendall's cheerleading will be necessary for the NGAD to keep its funding. The defense budget proposal has to wind its way through Congress for the FY23 National Defense Authorization Act and appropriation process. Kendall may have to give more details about NGAD in his unclassified and public testimony on Capitol Hill. But NGAD, since it is advancing beyond prototype to ground testing, is likely assured of enough funding to make it a breakthrough program in the coming years.

Credit: Brent M. Eastwood, (PhD) 1945's Defense and National Security Editor



NuMaxCinemas

Powered by

THE **Aviator**
AFRICA

TOM CRUISE
TOP GUN
MAVERICK

in Dolby Cinema, **Large Format** AND **IMAX**

ONLY IN THEATRES
MAY 2022

SKYDANCE

PG-13

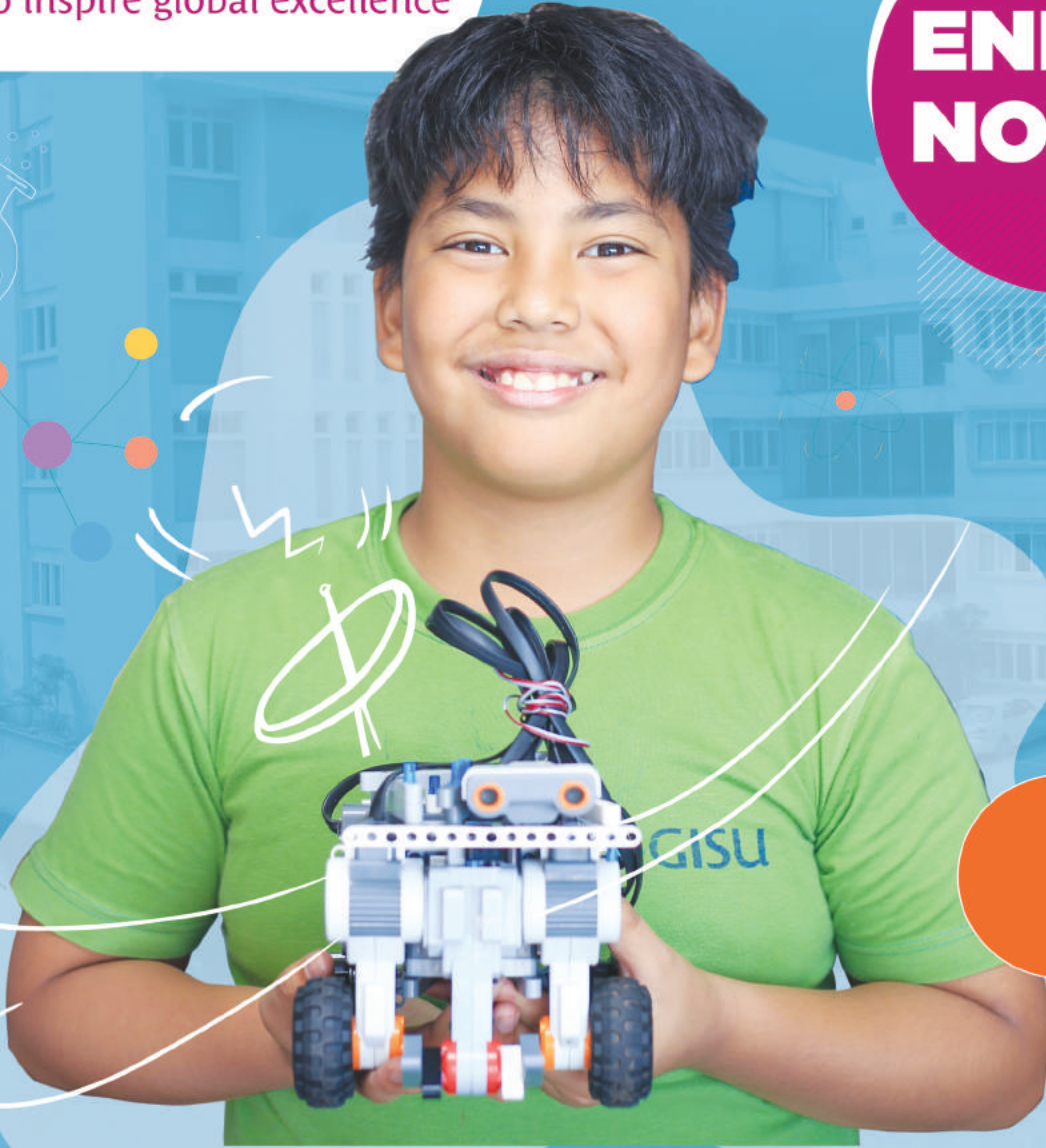
TopGunMovie.com #TopGun



GALAXY
INTERNATIONAL
SCHOOL UGANDA

Educating to inspire global excellence

**ENROL
NOW**



EDUCATING

future achievers

Cambridge Assessment
International Education
Cambridge International School

CIS WE ARE AN
ACCREDITED
SCHOOL



ipc International
Primary
Curriculum

ieyc



IELTS
Registration Centre

**FOR INQUIRIES
CONTACT**

+256 781468000

P.O. Box 11119, Kampala/Uganda
Plot 1077, Lubowa Estate, Entebbe Road

www.gisu.ac.ug

admissions@gisu.ac.ug



GalaxyInternationalSchoolUganda