



CONFLICT OBSERVATORY  
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# Foreign Facilitators of Weapons Fueling Sudan's Civil War

Trend Report

October 2024





# Scope and Methodology

This report was led by researcher Justin Lynch as part of the Sudan Conflict Observatory (SCO) with the financial support of the Bureau of Conflict and Stabilization Operations, United States Department of State. This report does not necessarily represent the views of the United States Government. We refer to the “Research Team” throughout the report to acknowledge not all SCO partners participated in the analysis.

This report is based only on publicly available information and is not intended to provide a comprehensive picture of all foreign support to the Sudanese warring parties. Flights originating in the United Arab Emirates (UAE) and Iran were chosen because each country is reported to be a significant foreign facilitator of the Sudanese Rapid Support Forces (RSF) or the Sudanese Armed Forces (SAF), respectively. The report complements other investigations of foreign involvement in Sudan's war, including a [study by Amnesty International on foreign weapons identified in Sudan](#) and [research by Human Rights Watch on new weapons that both sides of the war have obtained](#). This report complements previous research by analyzing transportation networks that the UAE and Iran almost certainly use to facilitate weapons shipments to Sudan's warring parties. A more systematic and persistent investigation—specifically, analysis of the broader transportation network and its ownership—could help expose other foreign facilitation of weapons.

Data were gathered from open sources accessible through the internet and then analyzed and synthesized by project researchers. PlanetScope™, MAXAR™ satellite imagery, and Automatic Dependent Surveillance-Broadcast (ADS-B) signals from commercially available flight tracking programs were used to corroborate flight traffic. Aircraft equipped with ADS-B can broadcast their position and other sensor data, providing real-time information to air traffic control and other ADS-B-equipped aircraft unless turned off. Incomplete ADS-B tracks may indicate operators deliberately disabled their transmitter or that the aircraft flew into areas with limited coverage.

- For assessments that flights were "conducted," there are either 1) satellite imagery of an aircraft and corresponding ADS-B signals locating the plane at or very close to the specific location or 2) ADS-B signals that identified the plane at a specific location.
- For assessments that flights were "almost certainly" conducted, there are satellite imagery of an aircraft and extrapolated flight paths from ADS-B data that place the corresponding aircraft at the specific location. This assessment matches the confidence interval defined in [U.S. Intelligence Community Directive 203](#) that outlines analytic standards. "Almost certainly" is the highest probability standard.

Inquiries about this report can be submitted via: <https://contactus.conflictobservatory.org/>

This report has been reviewed and endorsed for publication by the Peer Review Board of the Conflict Observatory. The Peer Review Board is an independent, external board of experts aimed at ensuring the accuracy and integrity of Conflict Observatory publications.



# Summary

On July 12, 2024, the United Nations (UN) Security Council [issued a press statement](#) that “called on all UN Member States to refrain from external interference which foments conflict and instability and instead to support mediation efforts for a durable peace.” Similarly, on September 11, 2024, the UN Security Council unanimously [extended](#) the arms embargo on Darfur, which has been in place [since](#) 2004.

Based on publicly available information, the research team has concluded with near certainty that:

- The UAE has facilitated weapons to the RSF via Aéroport International Maréchal Idriss Deby in Amdjarass, Chad, between June 2023 and May 2024, when the research period ended.
- Iran has facilitated weapons to the SAF via flights from an aircraft registered as EP-FAB to Port Sudan New International Airport between December 2023 and July 2024, when the research period ended.

The research team uses the definition of near certainty found in [U.S. Intelligence Community Directive 203](#), which outlines analytic standards. Near certainty is defined as 95 to 99 percent likely, which is the highest analytical confidence assessment available.

For analysis on the UAE’s weapons facilitation to the RSF, see slides 4–23.

For analysis on Iranian weapons facilitation to the SAF, see slides 24–45.



# UAE Weapons Facilitation to RSF

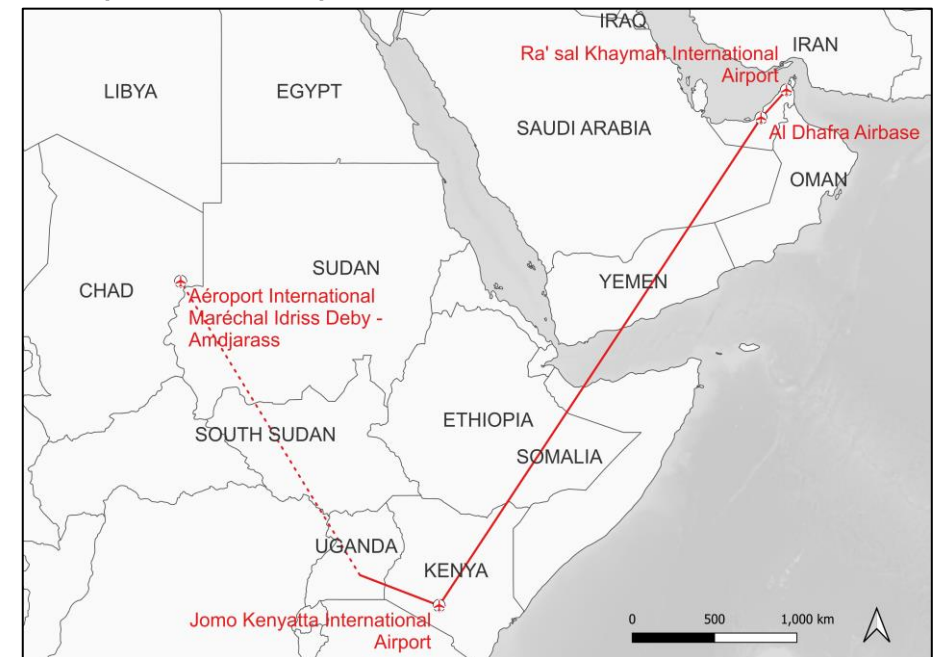


# Summary of UAE Weapons Facilitation to RSF

The research team is nearly certain that the UAE has facilitated weapons to the RSF via Aéroport International Maréchal Idriss Deby in Amdjarass, Chad, between June 2023 and May 2024. This conclusion is based on the following:

- The research team is nearly certain of the identification of seven flights by four cargo planes from the UAE to Amdjarass.
- Three of these four planes have a history of weapons trafficking in violation of a UN arms embargo. These three planes were part of an Emirati airbridge to support Khalifa Haftar in Libya and violated a Security Council arms embargo according to UN investigators. Details are explained on slides 9–23.
- 35 unidentified cargo flights to Amdjarass Airport have occurred since June 2023.
  - 26 of these flights were before September 2023. Previous open-source reports have identified some of these flights.
  - Nine flights since September 2023 could not be matched to a specific aircraft.
- Geospatial observation of the Amdjarass Airport suggests military activity.
- Discounted alternative explanations.

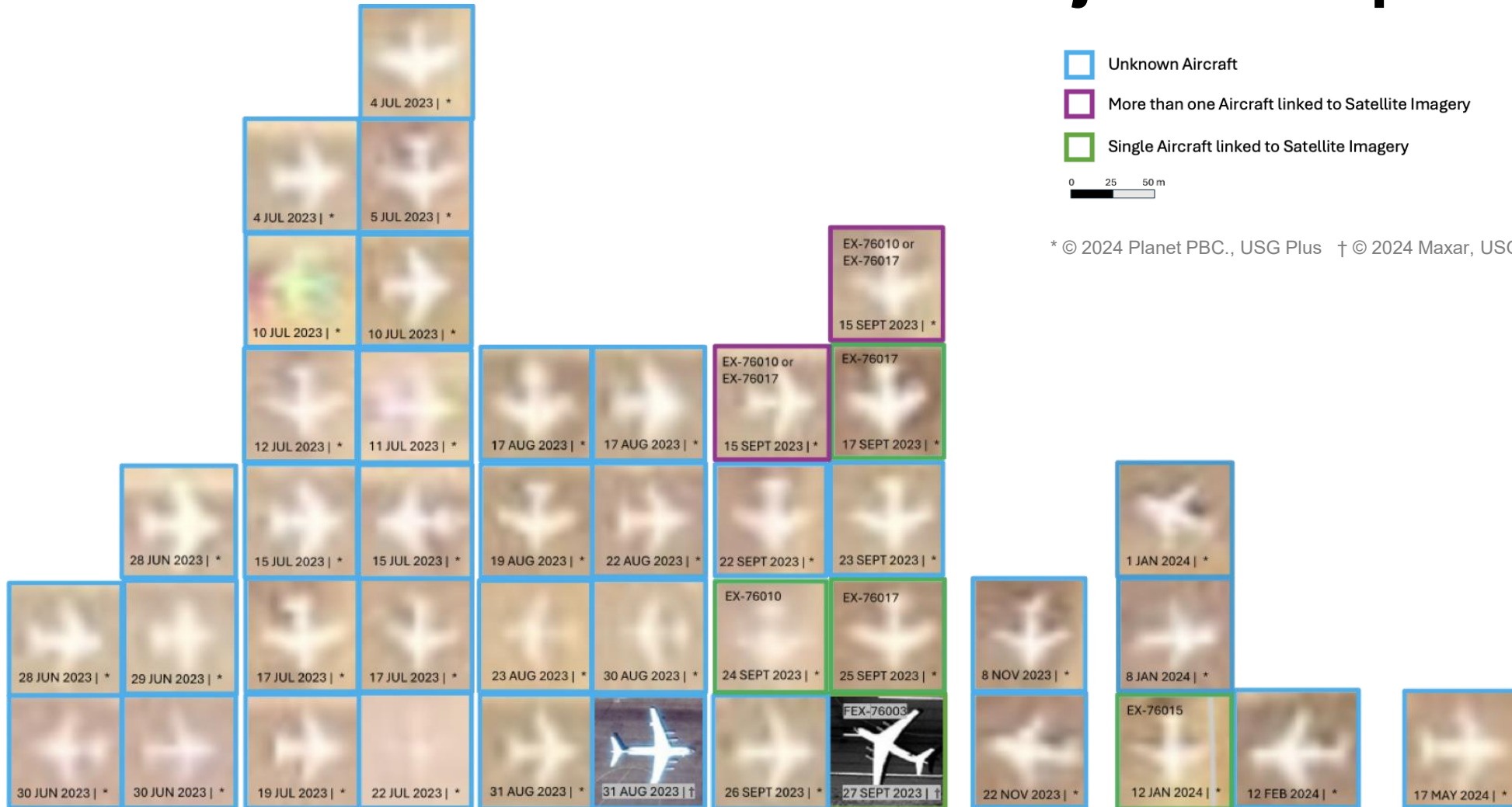
Suspected Weapons Path from the UAE to Sudan







# Timeline and Count of Il-76s at Amdjarass Airport





# Aéroport International Maréchal Idriss Deby

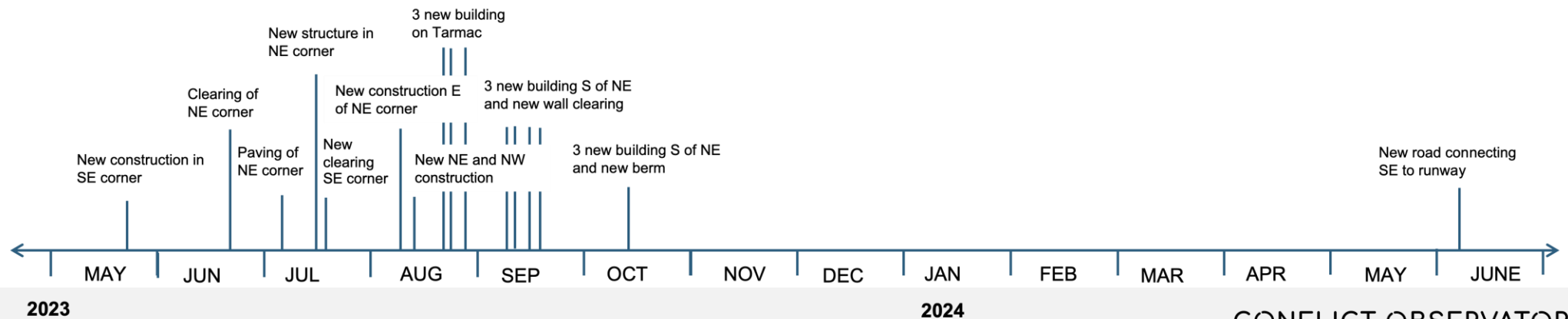
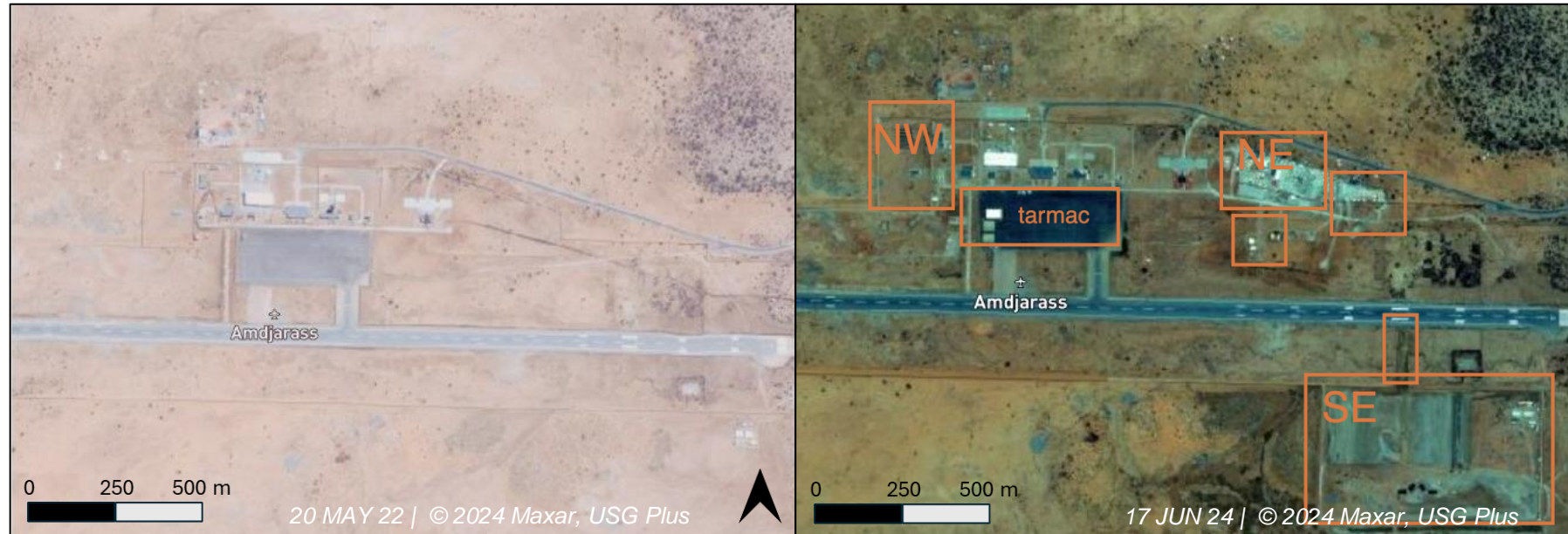
Aéroport International Maréchal Idriss Deby is located in Amdjarass, Chad. The UN Panel of Experts [found](#) that allegations of the UAE's support to the RSF via Amdjarass were "credible" [2]. Analysis by the research team concurs with that assessment and adds specific details of the continued airlift.

This conclusion is based on:

- Media reports citing diplomats and open-source analysis as evidence that the UAE has used the airport as a waypoint to facilitate weapons to the RSF [1].
- Evidence of military construction at the airport observed through satellite imagery, including the construction of aircraft hangars and berms.
- Protests from the local Zaghawa community in Amdjarass arguing against the UAE's use of the airport [3].
- A \$1.5 billion loan provided from the UAE to Chad just before the rapid expansion of the airport, which provides geopolitical supporting evidence of the airlift and arms facilitation [4].
- Absent evidence of a significant local humanitarian crisis and a lack of significant Sudanese refugees in the area casts significant doubt on the UAE's claims that the airport construction is only for a hospital [5].
- Absent evidence of military operations from the airport by the Chadian government or allied nations against armed groups in the country or in the North Africa region that would explain alternative theories of military construction and weapons supplies.



# Timeline of Construction at Amdjarass Airport







# Illushin-76 EX-76015 Background and Observations

EX-76015 is an Illushin-76 operated by the Kyrgyzstan-based New Way Cargo Airlines. The aircraft is based in Ra'sal-Khaymah, UAE [6].

- EX-76015 was previously identified by the UN Panel of Experts on Libya as part of an airlift supporting General Khalifa Haftar's Libyan National Army forces in violation of a Security Council arms embargo [9]. This pattern shows that the plane has a history of weapons trafficking that violates UN Security Council resolutions.

The research team identified:

- One flight that EX-76015 almost certainly conducted from the Al Dhafra Airbase runway in Abu Dhabi, UAE, to Aéroport International Maréchal Idriss Deby in Amdjarass, Chad. This conclusion is based on satellite imagery and analysis of ADS-B signals.



Image of Illushin-76 with tail number EX-76015. Credit: @MenchOSINT



# EX-76015 Visit to Amdjarass

Amdjarass | Chad | 15.973403, 22.771255 | 12 JAN 24 0908Z

Analysis conducted by the research team almost certainly locates EX-76015 at Aéroport International Maréchal Idriss Deby in Amdjarass, Chad, on January 12, 2024.

- Analysis of ADS-B signals and satellite imagery by the research team tracks the aircraft's trips from the Al Dhafra Airbase runway in Abu Dhabi, UAE, to Amdjarass, Chad, and back.
- For the methodology of this analysis, see slide 18.



# Illushin-76 EX-76003 Background and Observations

EX-76003 is an Illushin-76 operated by the Kyrgyzstan-based Fly Sky Airlines and is based out of the UAE [10].

- The UN Panel of Experts on Libya found that EX-76003 was part of an airlift supporting General Khalifa Haftar's Libyan National Army forces in violation of a Security Council arms embargo [13]. This shows that the plane has a history of weapons trafficking that is in violation of UN Security Council resolutions.

The research team identified:

- One flight that EX-76003 almost certainly conducted from the Al Dhafra Airbase runway in Abu Dhabi, UAE, to Aéroport International Maréchal Idriss Deby in Amdjarass, Chad, on September 27, 2023. This analysis used satellite imagery and analysis of ADS-B signals.
- 19 EX-76003 journeys observed by flight trackers conducted to Amdjarass before September 27, 2023, using ADS-B signals [14].



Image of Illushin-76 with tail number EX-76003. Credit: Nanjo\_Rippile/Jetphotos





# EX-76003 Visit to Amdjarass on September 27, 2023

Amdjarass | Chad | 15.973403, 22.771255 | 27 SEPT 23 1208Z

Analysis conducted by the research team almost certainly locates EX-76003 at Aéroport International Maréchal Idriss Deby in Amdjarass, Chad, on September 27, 2023.

Analysis of ADS-B signals and satellite imagery by the research team tracks the aircraft's trip from the Al Dhafra Airbase runway in Abu Dhabi, UAE, to Amdjarass, Chad, and back.

For methodology of this analysis, see slide 19.

EX-76003 likely landing at Aéroport International Maréchal Idriss Deby



0 50 100 m





# EX-76010 Background and Observations

EX-76010 is an Illushin-76 operated by New Way Cargo Airlines and is based in Ra'sal-Khaymah, UAE [15].

- The UN Panel of Experts on Libya found that EX-76010 was part of an airlift that violated a Security Council arms embargo [17]. This pattern shows that the plane has a history of weapons trafficking that is in violation of UN Security Council resolutions.

The research team identified:

- Two flights that EX-76010 almost certainly conducted from the Al Dhafra Airbase runway in Abu Dhabi, UAE, to Aéroport International Maréchal Idriss Deby in Amdjarass, Chad. This conclusion is based on satellite imagery and analysis of ADS-B signals.



Image of Illushin-76 with tail number 76010. Credit: Jet photos/Ulik Zhakypov





# EX-76010 Visit to Amdjarass on September 24, 2023

Amdjarass | Chad | 15.973403, 22.771255 | 24 SEPT 23 0849Z

Analysis conducted by the research team almost certainly locates EX-76010 at Aéroport International Maréchal Idriss Deby in Amdjarass, Chad, on September 15 and 24, 2023.

- Analysis of ADS-B signals and satellite imagery by the research team tracks the aircraft's trip from the Al Dhafra Airbase runway in Abu Dhabi, UAE, to Amdjarass, Chad, and back on September 24, 2023.
- For supporting data of this analysis, see slide 20.
- For information on EX-76010's trip on September 15, 2023, see slides 17 and 23.





# EX-76017 Background and Observations

EX-76017 is an Illushin-76 operated by the Kyrgyzstan-based Fly Sky Airlines. The aircraft is based in Ra'sal-Khaymah, UAE [18].

The research team identified:

- Three flights that EX-76017 almost certainly conducted from the UAE to Aéroport International Maréchal Idriss Deby in Amdjarass, Chad. This conclusion is based on satellite imagery and analysis of ADS-B signals.



Image of Illushin-76 with tail number 76017. Credit: Jet photos/Savas Binici

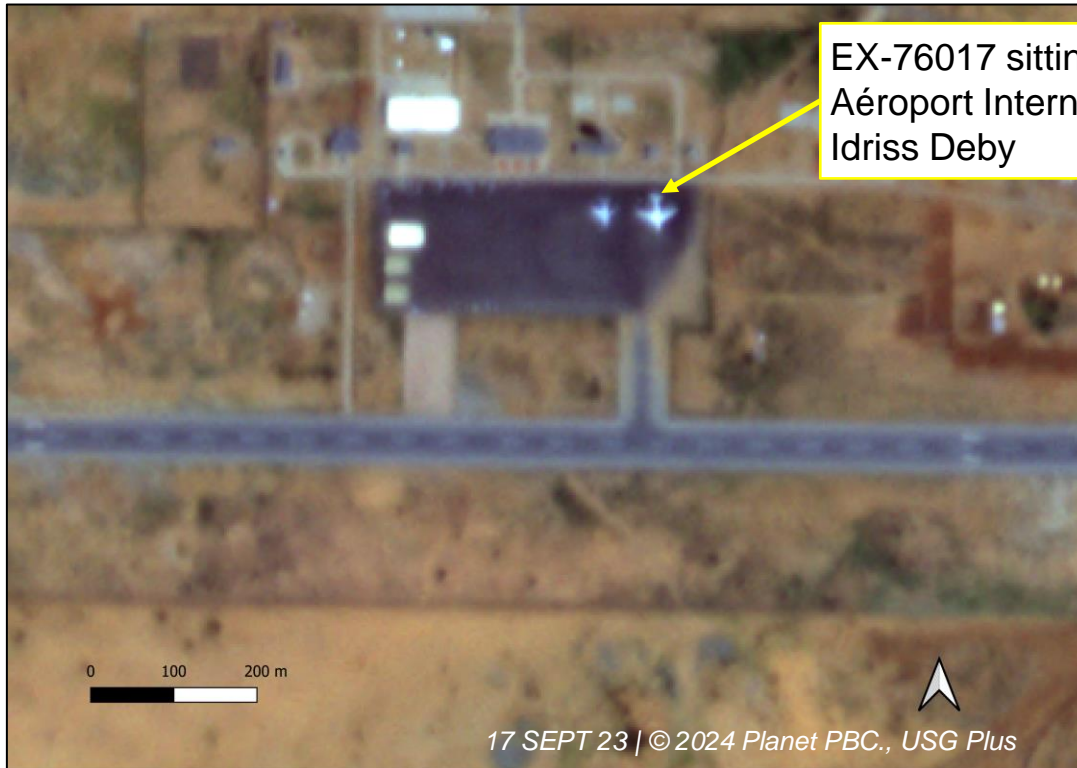




# EX-76017 Visits to Amdjarass on September 17 and 25, 2023

Amdjarass | Chad | 15.973403, 22.771255 | 17 SEPT 23 0811Z

Amdjarass | Chad | 15.973403, 22.771255 | 25 SEPT 23 0811Z



EX-76017 sitting on runway of  
Aéroport International Maréchal  
Idriss Deby

17 SEPT 23 | © 2024 Planet PBC., USG Plus



25 SEPT 23 | © 2024 Planet PBC., USG Plus

Analysis conducted by the research team almost certainly locates EX-76017 at Aéroport International Maréchal Idriss Deby in Amdjarass, Chad, on September 17 and 25, 2023. Analysis of ADS-B signals and satellite imagery tracks the aircraft's trips from the UAE to Amdjarass, Chad, and back.

For supporting data of this analysis see slides 21–22.



# EX-76010 and EX-76017 Visits to Amdjarass on September 15, 2023

The research team almost certainly locates EX-76010 and EX-76017 at Aéroport International Maréchal Idriss Deby in Amdjarass, Chad, on September 15, 2023.

- Analysis of ADS-B signals and satellite imagery by the research team tracks these aircraft's trips from the UAE to Amdjarass, Chad, and back.
- For supporting data of this analysis see slide 23.

Amdjarass | Chad | 15.973403, 22.771255 | 15 SEPT 23 0806Z





# Supporting Data for January 11-12 Trip of EX-76015

## EX-76015 - New Way Cargo Airlines - Ilyushin Il-76

- **11 Jan 2024, 2053Z** - [departs](#) from Al Dhafra Airbase runway in Abu Dhabi, UAE.
- **12 Jan 2024, 0302Z** - [arrives](#) at Jomo Kenyatta International Airport in Nairobi, Kenya.
- **12 Jan 2024, 0442Z** - [departs](#) Jomo Kenyatta International Airport.
- **12 Jan 2024, 0647Z** - ADS-B signal [ceases](#) over northeast DRC consistent with a flight path towards Amdjarass, Chad.
- **12 Jan 2024, 0908Z** - Medium resolution imagery of Aéroport International Maréchal Idriss Deby in Amdjarass, Chad captures an aircraft with dimensions consistent with an Ilyushin Il-76\*.
- **12 Jan 2024, 1413Z** - ADS-B signal [appears](#) over northeast DRC consistent with a flight path from Amdjarass.
- **12 Jan 2024, 1620Z** - [arrives](#) at Jomo Kenyatta International Airport in Nairobi, Kenya.
- **12 Jan 2024, 1731Z** - [departs](#) Jomo Kenyatta International Airport in Nairobi, Kenya.
- **12 Jan 2024, 2316Z** - [arrives](#) at Al Dhafra Airbase runway in Abu Dhabi, UAE.

\*All other IL-76 aircraft flying over East and Central Africa are accounted for during this period, adding additional confidence.





# Supporting Data for September 27-29 Trip of EX-76003

## EX-76003 - Fly Sky Airlines - Ilyushin Il-76TD\*

- **27 Sept 2023, 0031Z** - [departs](#) from Al Dhafra Airbase runway in Abu Dhabi, UAE.
- **27 Sept 2023, 0602Z** - [arrives](#) at Jomo Kenyatta International Airport in Nairobi, Kenya.
- **27 Sept 2023, 0754Z** - [departs](#) Jomo Kenyatta International Airport.
- **27 Sept 2023, 0817Z** - ADS-B signal [ceases](#) shortly after take-off consistent with a flight path towards Amdjarass, Chad.
- **27 Sept 2023, 0847Z** - ADS-B reception is briefly [captured](#) flying over Kampala, Uganda, and is lost again at 0851Z.
- **27 Sept 2023, 1208Z** - High resolution imagery of Aéroport International Maréchal Idriss Deby in Amdjarass, Chad captures an aircraft with dimensions consistent with an Ilyushin Il-76TD landing and traveling to tarmac.
- **27 Sept 2023, 1931Z** - ADS-B signal [appears](#) over Kampala, Uganda consistent with a flight path from Amdjarass.
- **27 Sept 2023, 2018Z** - [arrives](#) in Nairobi, Kenya.
- **27 Sept 2023, 2228Z** - [departs](#) Nairobi, Kenya consistent with a flight path towards the UAE.
- **29 Sept 2024, 2125Z** - [Identified](#) in UAE suggesting that it flew there from Nairobi.

\*This trip was first identified by [Gerjon](#), an open-source flight tracker, and verified by the research team.



# Supporting Data for September 23-25 Trip of EX-76010

## EX-76010 - New Way Cargo Airlines - Ilyushin Il-76\*

- **23 Sept 2023, 1935Z** - [departs](#) from Al Dhafra Airbase runway in Abu Dhabi, UAE.
- **24 Sept 2023, 0114Z** - [arrives](#) at Jomo Kenyatta International Airport in Nairobi, Kenya.
- **24 Sept 2023, 0317Z** - [departs](#) Jomo Kenyatta International Airport.
- **24 Sept 2023, 0500Z** - ADS-B signal [ceases](#) over northeast DRC consistent with a flight path towards Amdjarass, Chad.
- **24 Sept 2023, 0849Z** - Medium resolution imagery of Aéroport International Maréchal Idriss Deby in Amdjarass, Chad captures an aircraft with dimensions consistent with an Ilyushin Il-76TD. All other Il-76 in East and Central Africa are accounted for.
- **24 Sept 2023, 1653Z** - ADS-B signal [appears](#) over northeast DRC consistent with a flight path from Amdjarass.
- **24 Sept 2023, 1841Z** - [arrives](#) at Jomo Kenyatta International Airport in Nairobi, Kenya.
- **25 Sept 2024, 0120Z** - [arrives](#) at Al Dhafra Airbase runway in Abu Dhabi, UAE.

\*This trip was first identified by [Gerjon](#), an open-source flight tracker, and verified by the research team.



# Supporting Data for September 16-18 Trip of EX-76017

## EX-76017 Fly Sky Airlines - Ilyushin Il-76TD\*

- 16 Sept 2023, 1729Z - [departs](#) the UAE.
- 16 Sept 2023, 2021Z - [arrives](#) at Jomo Kenyatta International Airport in Nairobi, Kenya.
- 17 Sept 2023, 0220Z - [departs](#) Jomo Kenyatta International Airport.
- 17 Sept 2023, 0239Z - ADS-B signal [ceases](#) over western Kenya consistent with a flight path towards Amdjarass, Chad.
- 17 Sept 2023, 0811Z - Medium resolution imagery of Aéroport International Maréchal Idriss Deby in Amdjarass, Chad captures an aircraft with dimensions consistent with an Ilyushin Il-76TD. All other Il-76 in East and Central Africa are accounted for.
- 17 Sept 2023, 1156Z - ADS-B signal [appears](#) over Uganda consistent with a flight path from Amdjarass.
- 17 Sept 2023, 1246Z - [arrives](#) at Jomo Kenyatta International Airport in Nairobi, Kenya.
- 17 Sept 2023, 1830Z - [departs](#) Nairobi, Kenya consistent with a flight path toward the UAE.
- 18 Sept 2023, 0019Z - [arrives](#) in the UAE.

\*This trip was first identified by [Gerjon](#), an open-source flight tracker, and verified by the research team.

Notes: Before December 1, 2023, EX-76017 was [registered](#) as UR-FSE and UR-EAB. During this trip, EX-76017 flew under the registration UR-EAB.



# Supporting Data for September 24-25 Trip of EX-76017

## EX-76017 Fly Sky Airlines - Ilyushin Il-76TD\*

- **24 Sept 2023, 1930Z** - approximate [departure](#) from the UAE.
- **25 Sept 2023, 0045Z** - [arrives](#) at Jomo Kenyatta International Airport in Nairobi, Kenya.
- **25 Sept 2023, 0241Z** - [departs](#) Jomo Kenyatta International Airport.
- **25 Sept 2023, 0305Z** - ADS-B signal [ceases](#) over western Kenya consistent with a flight path towards Amdjarass, Chad.
- **25 Sept 2023, 0811Z** - Medium resolution imagery of Aéroport International Maréchal Idriss Deby in Amdjarass, Chad captures an aircraft with dimensions consistent with an Ilyushin Il-76TD. All other Il-76 in East and Central Africa are accounted for.
- **25 Sept 2023, 1205Z** - ADS-B signal [appears](#) over Uganda consistent with a flight path from Amdjarass.
- **25 Sept 2023, 1253Z** - [arrives](#) at Jomo Kenyatta International Airport in Nairobi, Kenya.
- **25 Sept 2023, 1418Z** - [departs](#) Jomo Kenyatta International Airport in Nairobi, Kenya towards the UAE.
- **25 Sept 2023, 1930Z** - approximate [arrival](#) in the UAE.

\*This trip was first identified by [Gerjon](#), an open source flight tracker, and verified by the research team.

Notes: Before December 1, 2023, EX-76017 was [registered](#) as UR-FSE and UR-EAB. During this trip, EX-76017 flew under the registration UR-EAB.



# Supporting Data for September 14-16 Flight Paths of EX-76017 and EX-76010

## EX-76017 Fly Sky Airlines - Ilyushin Il-76TD\*

- **14 Sept 2023, 1809Z** - [tracked](#) departing the UAE.
- **14 Sept 2023, 2053Z** - [arrives](#) at Jomo Kenyatta International Airport in Nairobi, Kenya
- **15 Sept 2023, 0224Z** - [departs](#) Jomo Kenyatta International Airport.
- **15 Sept 2023, 0317Z** - ADS-B signal [ceases](#) over Uganda consistent with a flight path towards Amdjarass, Chad.
- **15 Sept 2023, 0806Z** - Medium resolution imagery of Aéroport International Maréchal Idriss Deby in Amdjarass, Chad captures two aircraft with dimensions consistent with an Ilyushin Il-76TD.
- **15 Sept 2023, 2250Z** - ADS-B signal [appears](#) over Uganda consistent with a flight path from Amdjarass.
- **15 Sept 2023, 2337Z** - [arrives](#) at Jomo Kenyatta International Airport in Nairobi, Kenya.
- **16 Sept 2023, 1729Z** - seen [flying](#) out of the UAE, indicating the September 15 trip landed in the UAE.

\*Some trip details first identified by [Gerjon](#), an open source flight tracker, and verified by the research team.

Notes: Before December 1, 2023, EX-76017 was [registered](#) as UR-FSE and UR-EAB. During this trip, EX-76017 flew under the registration UR-EAB.

## EX-76010 New Way Cargo Airlines - Ilyushin Il-76TD\*

- **14 Sept 2023, 1710Z** - [departs](#) Al Dhafra Airbase runway in Abu Dhabi, UAE.
- **14 Sept 2023, 2229Z** - [arrives](#) at Jomo Kenyatta International Airport in Nairobi, Kenya.
- **15 Sept 2023, 0200Z** - [departs](#) Jomo Kenyatta International Airport.
- **15 Sept 2023, 0413Z** - ADS-B signal [ceases](#) over CAR consistent with a flight path towards Amdjarass, Chad.
- **15 Sept 2023, 0806Z** - Medium resolution imagery of Aéroport International Maréchal Idriss Deby in Amdjarass, Chad captures two aircraft with dimensions consistent with an Ilyushin Il-76TD.
- **15 Sept 2023, 1022Z** - ADS-B signal [appears](#) over northeast DRC consistent with a flight path from Amdjarass.
- **15 Sept 2023, 1233Z** - [arrives](#) at Jomo Kenyatta International Airport in Nairobi, Kenya.
- **15 Sept 2023, 1422Z** - [departs](#) Jomo Kenyatta International Airport in Nairobi, Kenya.
- **16 Sept 2023, 1941Z** - [arrives](#) in Abu Dhabi, UAE.

\*This trip was first identified by [Gerjon](#), an open source flight tracker, and verified by the research team.





# Iranian Weapons Facilitation to the SAF



# Summary of Iranian Weapons Facilitation to SAF

The research team is nearly certain that Iran facilitated weapons to the SAF via flights by EP-FAB to Port Sudan New International Airport between December 2023 and July 2024. This conclusion is based on the following:

- Identification of seven flights by EP-FAB from Tehran to Port Sudan and back.
- Two additional flights that EP-FAB almost certainly conducted to Port Sudan.
- Four of the seven flights of EP-FAB ended their journey in Tehran at the Islamic Republic of Iran Air Force (IRIAF) apron of the Mehrabad Airport, suggesting potential military cargo. The other three journeys did not have publicly available ADS-B signals of the aircraft landing.
- Previous history of EP-FAB facilitating weapons shipments from the Iranian government.
- Increase of observed Iranian weapons identified on the battlefield since EP-FAB began its flights to Port Sudan.
- SAF control of the Port Sudan airport.
- Discounted alternative explanations; specifically, how new Iranian weapons were obtained by SAF.



# EP-FAB Background and Observations

EP-FAB is a 747-200 operated by Qeshm Fars Air.

- There are few 747-200 aircraft still operational, making them easier to identify through satellite imagery [20].

Qeshm Fars Air is sanctioned by the U.S. Department of the Treasury for delivering weapons shipments to the Islamic Revolutionary Guard Corps-Qods Force (IRGC-QF) in Syria [21].

- EP-FAB is identified in these sanctions as property of Qeshm Fars Air and is also subject to sanctions [22].
- EP-FAB specializes in delivering large equipment. It can unload cargo from its nose. This is observed in some of EP-FAB's trips to Port Sudan.



Image of EP-FAB Credit: Jet Photos/ Yunhyeok Choi



# Iranian Airports Used During EP-FAB Trips to Sudan

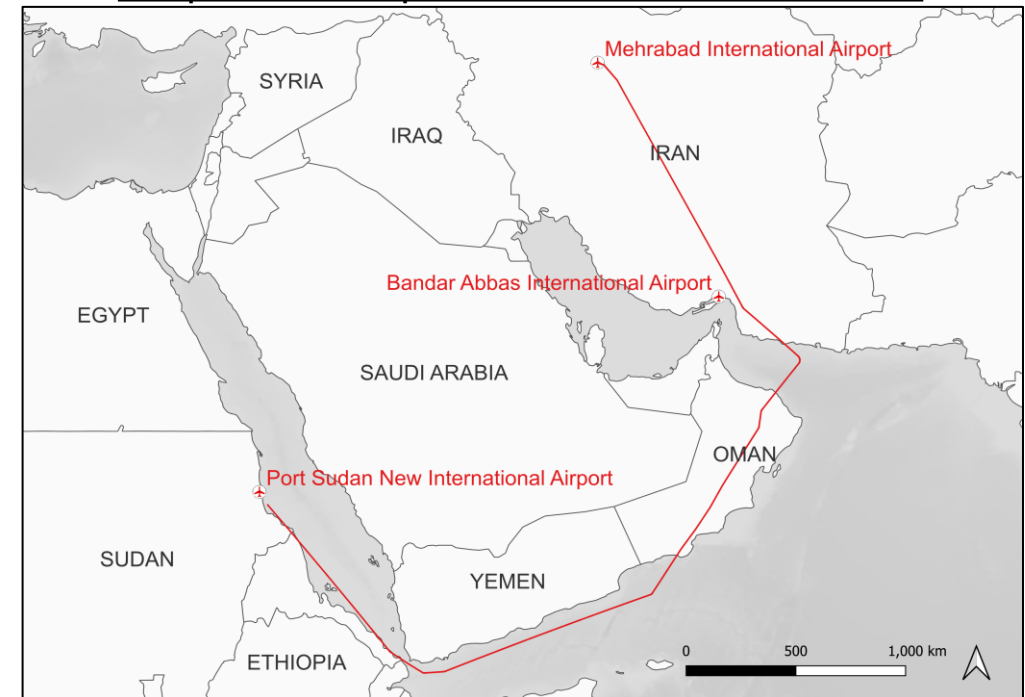
All EP-FAB journeys began at Mehrabad Airport and continued to Bandar Abbas Airport in Iran. EP-FAB then traveled to Port Sudan around the coast of Oman and Yemen.

- Six out of the seven flights traveled directly from Port Sudan to Mehrabad Airport. The remaining flight stopped in Bandar Abbas before flying onwards to Mehrabad airport.

Mehrabad and Bandar Abbas Airports are both important locations for the Iranian military and suggest EP-FAB carried military cargo.

- Mehrabad Airport is a dual civilian and military airport in Tehran, Iran [23]. Mehrabad hosts the 1st Tactical Airbase. The Airbase also includes Iranian Aircraft Industries, which specializes in maintenance and overhaul of helicopters and aircraft [24].
- Bandar Abbas Airport is a dual civilian and military airport in Bandar Abbas, Iran. Bandar Abbas is a key site for Iranian drone use and naval activity [25].

## Suspected Weapons Path from Iran to Sudan



*Note: The ADS-B data above is taken from the July 25, 2024 trip of EP-FAB and is similar to previous trips the aircraft has taken to Port Sudan.*





# Layout of the Mehrabad International Airport

Tehran | Iran | 35.6902, 51.32796 | 03 APRIL 24

Four EP-FAB flights returned from Port Sudan to Mehrabad and taxied to the Islamic Republic of Iran Air Force (IRIAF) apron. The other three flights turned off ADS-B signals before landing, a tactic that suggests deliberate obfuscation and military activity because it is not observed for civilian flights.

## Flights that taxied to IRIAF apron

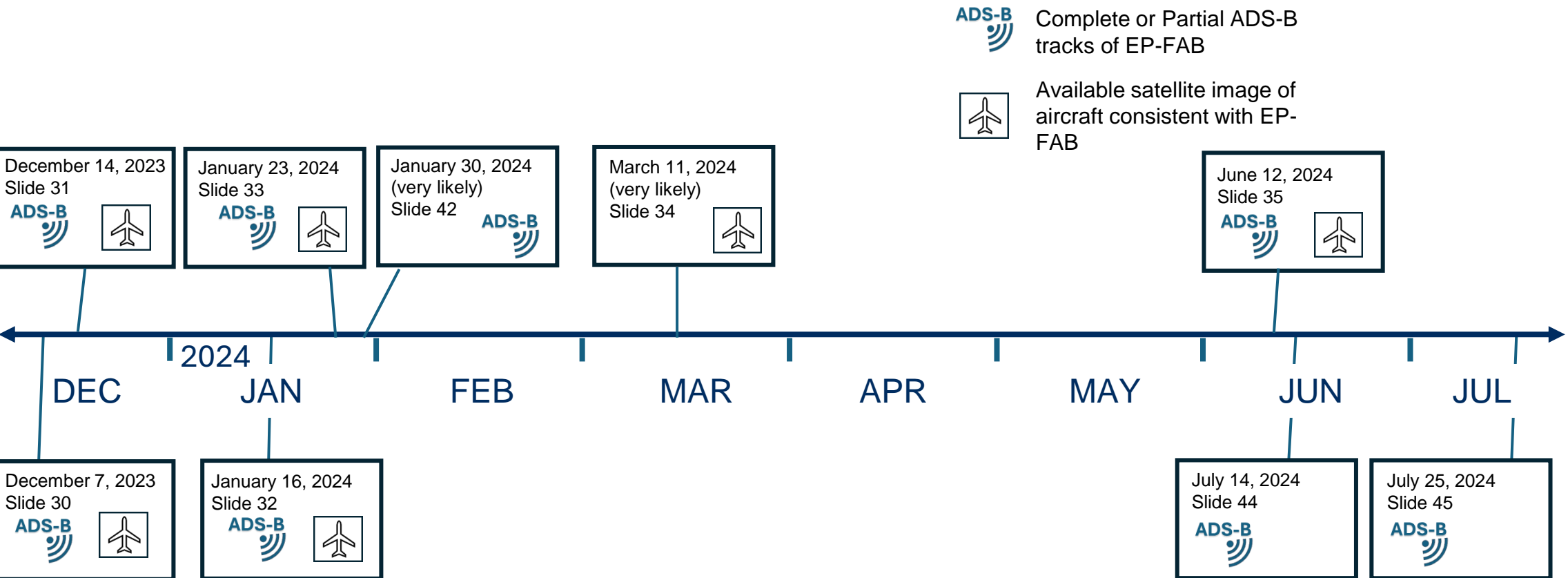
1. December 14, 2023 (see slide 31)
2. June 12, 2024 (see slide 35)
3. July 14, 2024 (see slide 44)
4. July 25, 2024 (see slide 45)







# Timeline of EP-FAB Trips to Port of Sudan



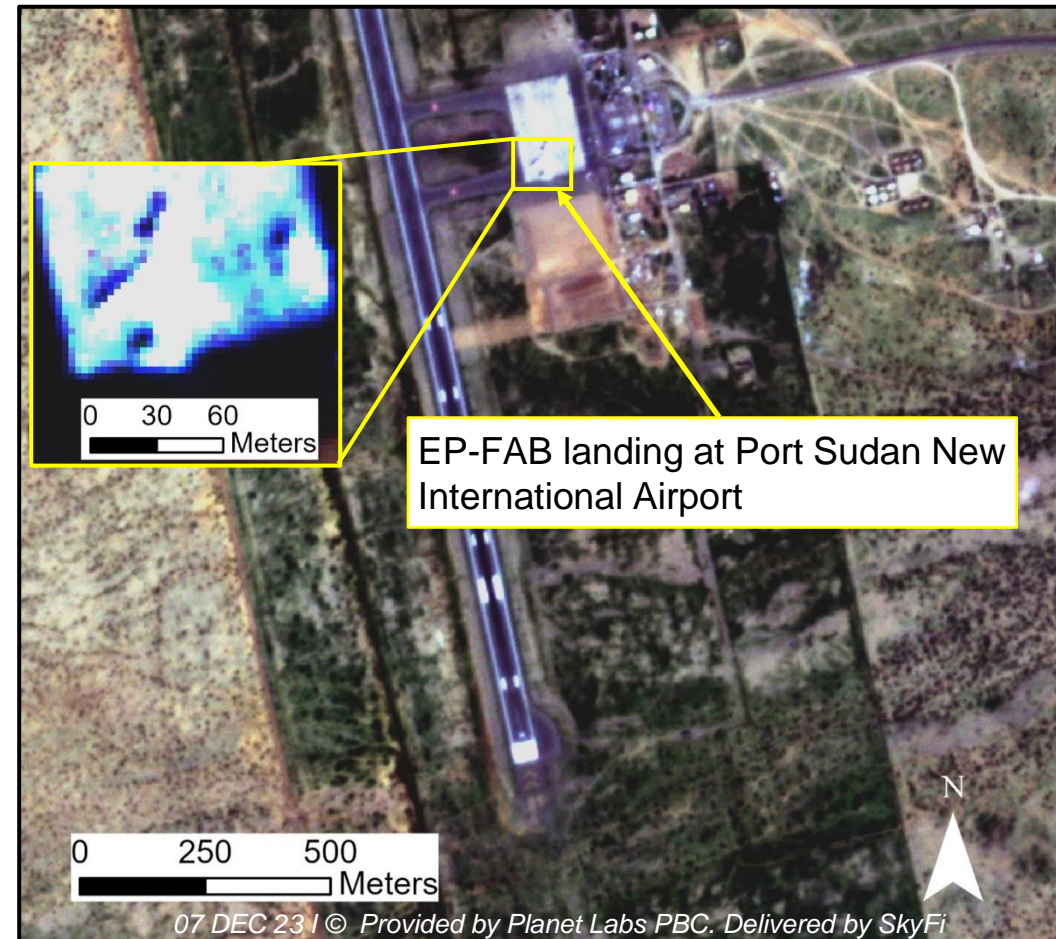


# EP-FAB Visit to Port Sudan on December 7, 2023

Port Sudan | Sudan | 19.43361, 37.23417 | 07 DEC 23 0757Z

Analysis conducted by the research team locates EP-FAB at Port Sudan New International Airport on December 7, 2023.

- Analysis of ADS-B signals and satellite imagery by the research team tracks the aircraft's trip from Mehrabad Airport in Tehran, Iran, to Port Sudan, Sudan, and back.
- For methodology of this analysis see slide 38.



*Note: The image has been enhanced to make aircraft more easily identifiable.*



# EP-FAB Visit to Port Sudan on December 14, 2023

Analysis conducted by the research team locates EP-FAB at Port Sudan New International Airport on December 14, 2023.

- Analysis of ADS-B signals and satellite imagery by the research team tracks the aircraft's trip from Mehrabad Airport in Tehran, Iran, to Port Sudan, Sudan, and back.
- For methodology of this analysis see slide 39.

Port Sudan | Sudan | 19.43361, 37.23417 | 14 DEC 23 0759Z



*Note: The darker areas represent shadows, and the map has been enhanced to make the runway and aircraft more easily identifiable.*





# EP-FAB Visit to Port Sudan on January 16, 2024

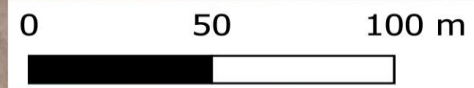
Port Sudan | Sudan | 19.43361, 37.23417 | 16 JAN 24 0829Z

Analysis conducted by the research team locates EP-FAB at Port Sudan New International Airport on January 16, 2024.

Analysis of ADS-B signals and satellite imagery by the research team tracks the aircraft's trip from Mehrabad Airport in Tehran, Iran, to Port Sudan, Sudan, and back.

For methodology of this analysis see slide 40.

EP-FAB at Port Sudan New International Airport







# EP-FAB Visit to Port Sudan on January 23, 2024

Port Sudan | Sudan | 19.43361, 37.23417 | 23 JAN 24 1103Z

Analysis conducted by the research team locates EP-FAB at Port Sudan New International Airport on January 23, 2024.

Analysis of ADS-B signals and satellite imagery by the research team tracks the aircraft's trip from Mehrabad Airport in Tehran, Iran to Port Sudan, Sudan, and back.

For methodology of this analysis see slide 41.

EP-FAB at Port Sudan New International Airport



0 75 150 m







# Very Likely EP-FAB Visit on March 11, 2024

Port Sudan | Sudan | 19.43361, 37.23417 | 11 MAR 24 0809Z

Analysis conducted by the research team locates a 747-200, almost certainly EP-FAB, at Port Sudan New International Airport on March 11, 2024. No ADS-B signals are publicly available. Still, we assess the March 11, 2024 trip was almost certainly EP-FAB after analyzing flights of the [few](#) other 747-200 aircraft in operation, the similar paint scheme of the photographed plane and EP-FAB, and EP-FAB's previous flights highlighted in this report.

747-200 at Port Sudan New International Airport



0 50 100 m





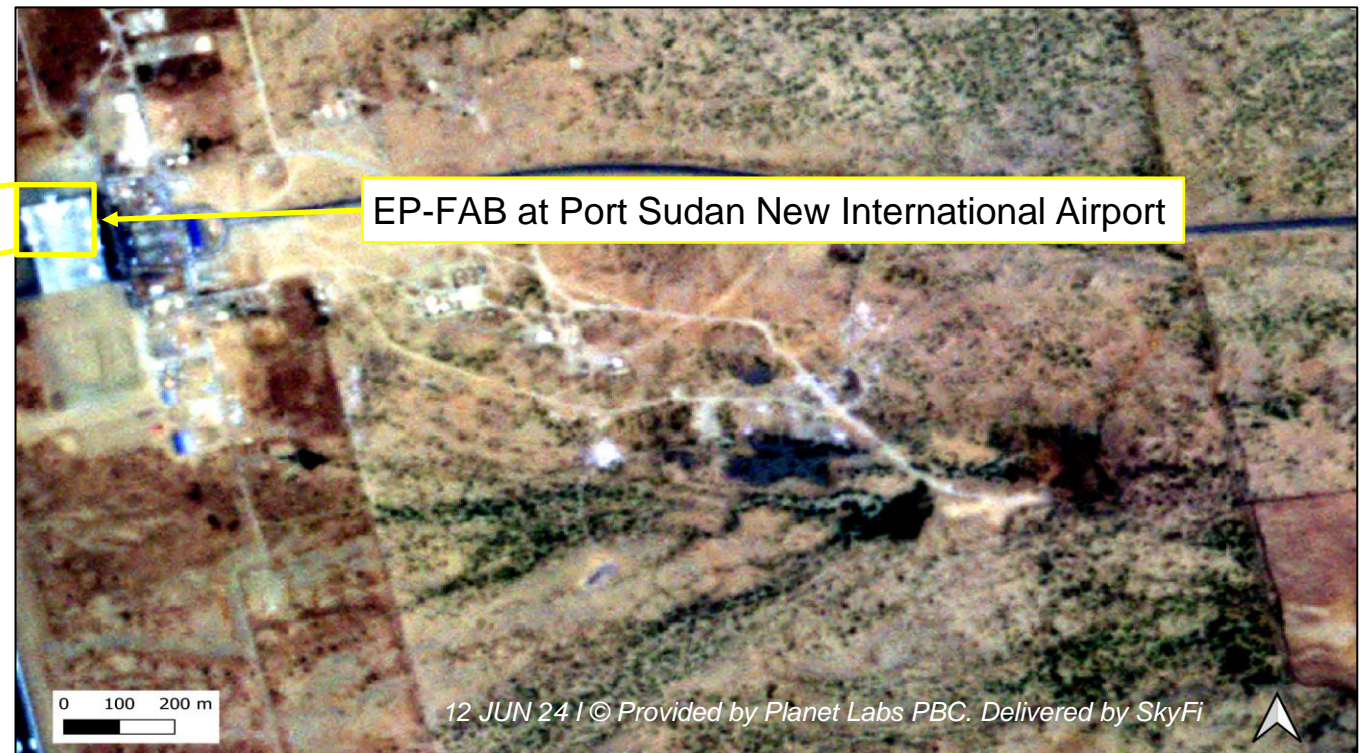


# EP-FAB Visit to Port Sudan on June 12, 2024

Analysis conducted by the research team locates EP-FAB at Port Sudan New International Airport on June 12, 2024.

- Analysis of ADS-B signals and satellite imagery by the research team tracks the aircraft's trip from Mehrabad Airport in Tehran, Iran to Port Sudan, Sudan, and back.
- For methodology of this analysis see slide 43.

Port Sudan | Sudan | 19.43361, 37.23417 | 12 JUN 24 0813Z





# Iranian Weapons in Sudan Since EP-FAB Flights

The research team is nearly certain that EP-FAB facilitated weapons to SAF in part because since flights began in December 2023 Iranian weapons have been identified on the battlefield. Before December 2023, there are not reports of Iranian weapons spotted on the battlefield. Iranian weapons identified since December 2023 include:

- A Mohajer-6 drone shot down on January 6, 2024 in Khartoum [26].
- A Mohajer-6 UAV and ground control station identified January 9, 2024 [27].
- A single-payload UAV similar to Iranian variants used in Yemen shot down around July 9, 2024 [28].
- Significant numbers of Iranian artillery (some of which are potentially from older shipments, see reference 29).

The research team could not establish alternative explanations for how new Iranian weapons appeared on the battlefield. An example is the single payload UAV similar to Iranian variants used in Yemen. This was not in SAF's storage before 2016.



Image of a Mohajer-6 shot down by RSF on January 6, 2024 Credit: Sudan War Monitor





# Iranian Weapons Identified in Sudan

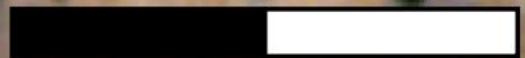
Wadi Seidna | Sudan | 15.810662, 32.499271 | 09 JAN 24 1403Z

This image captures an Iranian Mohajer-6 UAV and corresponding ground control station at the SAF airbase in Wadi Seidna on January 9, 2023. The UAV and ground control station fit the exact dimensions of the Mohajer-6 series [30].

Mohajer-6 UAV

Mohajer-6 Ground Control Station

0 75 150







# Supporting Data for December 7 Trip of EP-FAB

## EP-FAB - Fars Air Qeshm - Boeing 747-200

- **06 December 2023, 1910Z** - [departs](#) Mehrabad Airport in Tehran, Iran.
- **06 December 2023, 2032Z** - [lands](#) Bandar Abbas Airport, Bandar Abbas, Iran.
- **07 December 2023, 0757Z** - High-resolution imagery of Port Sudan International Airport captures an aircraft with dimensions consistent with an 747-200.
- **07 December 2023, 0929Z** - ADS-B [recorded](#) departing Port Sudan. Signal ceases at 0932.
- **07 December 2023, 1433Z** - ADS-B signal [recorded](#) off coast of Oman.
- **07 December 2023, 1534Z** - [lands](#) Bandar Abbas Airport, Bandar Abbas, Iran.
- **07 December 2023, 1652Z** - [departs](#) Bandar Abbas Airport, Bandar Abbas, Iran.
- **07 December 2023, 1825Z** - [recorded](#) on the ground in Tehran. Likely landing at Mehrabad Airport in Tehran, Iran.



# Supporting Data for December 14 Trip of EP-FAB

## EP-FAB - Fars Air Qeshm - Boeing 747-200

- **13 December 2023, 2025Z** - [departs](#) Mehrabad Airport in Tehran, Iran.
- **13 December 2023, 2253Z** - [lands](#) Bandar Abbas Airport, Bandar Abbas, Iran.
- **14 December 2023, 0016Z** - [departs](#) Bandar Abbas Airport, Bandar Abbas, Iran.
- **14 December 2023, 0113Z** - [signal ceases](#) flying over Oman.
- **14 December 2023, 0454Z** - [briefly recorded](#) flying over Djibouti.
- **14 December 2023, 0759Z** - High-resolution imagery of Port Sudan International Airport captures an aircraft with dimensions consistent with a 747-200.
- **14 December 2023, 1302Z** - [briefly recorded](#) flying over Djibouti.
- **14 December 2023, 1727Z** - [identified](#) entering Iranian airspace.
- **14 December 2023, 1912Z** - [lands](#) at Mehrabad Airport in Tehran, Iran and taxis to military base.



# Supporting Data for January 16 Trip of EP-FAB

## EP-FAB - Fars Air Qeshm - Boeing 747-200

- **15 January 2024, 2013Z** - [departs](#) Mehrabad Airport in Tehran, Iran, ADS-B signal ceases.
- **16 January 2024, 0100Z** - [departs](#) Bandar Abbas Airport, Bandar Abbas, Iran.
- **16 January 2024, 0227Z** - ADS-B signal [ends](#) flying around the coast of Oman.
- **16 January 2024, 0504Z** - ADS-B signal briefly [appears](#) flying over Djibouti, towards Port Sudan.
- **16 January 2024, 0829Z** - High resolution imagery of Port Sudan International Airport captures an aircraft with dimensions consistent with an 747-200.
- **16 January 2024, 1104Z** - ADS-B signal [appears](#) over Djibouti consistent with a flight path from Port Sudan. Signal ceases 23 minutes later.
- **16 January 2024, 1525Z** - ADS-B signal is [regained](#) over Iran.
- **16 January 2024, 1615Z** - ADS-B signal [ceases](#) near central Iran. EP-FAB presumably lands at Mehrabad Airport in Tehran.



# Supporting Data for January 23 Trip of EP-FAB

## EP-FAB - Fars Air Qeshm - Boeing 747-200

- **22 January 2024, 2020Z** - [departs](#) Mehrabad Airport in Tehran, Iran, ADS-B signal ceases.
- **22 January 2024, 2138Z** - [lands](#) at Bandar Abbas Airport, Bandar Abbas, Iran.
- **23 January 2024, 0114Z** - [departs](#) Bandar Abbas Airport, Bandar Abbas, Iran. ADS-B signal ceases leaving Iran.
- **23 January 2024, 0209Z** - briefly [recorded](#) near coast of Oman.
- **23 January 2024, 1103Z** - High resolution imagery of Port Sudan International Airport captures an aircraft with dimensions consistent with an 747-200.
- **23 January 2024, 1206Z** - briefly [recorded](#) near Port Sudan.
- **23 January 2024, 1648Z** - briefly [recorded](#) near coast of Oman.
- **23 January 2024, 1720Z** - [enters](#) Iranian airspace towards Tehran.
- **23 January 2024, 1915Z** - signal [ceases](#) near central Iran. Presumably lands at Mehrabad Airport in Tehran.





# Supporting Data for January 30 Very Likely Trip of EP-FAB

## EP-FAB - Fars Air Qeshm - Boeing 747-200

- 30 January 2024, 2001Z - [departs](#) Mehrabad Airport in Tehran, Iran, ADS-B signal ceases.
- 30 January 2024, 2118Z - [lands](#) at Bandar Abbas Airport, Bandar Abbas, Iran.
- 30 January 2024, 0042Z - [departs](#) Bandar Abbas Airport, Bandar Abbas, Iran. ADS-B signal ceases leaving Oman.
- 30 January 2024, 0704Z - satellite imagery is cloudy, obscuring Port Sudan Airport.
- 30 January 2024, 1612Z - [recorded](#) near coast of Oman and enters Iran.
- 30 January 2024, 1821Z - [lands](#) at Mehrabad Airport in Tehran and taxis to military base.



# Supporting Data for June 12 Trip of EP-FAB

## EP-FAB - Fars Air Qeshm - Boeing 747-200

- **11 June 2024, 2033Z** - [departs](#) Mehrabad International Airport in Tehran, Iran, ADS-B signal ceases.
- **11 June 2024, 2241Z** - [arrives](#) Bandar Abbas International Airport, Bandar Abbas, Iran.
- **12 June 2024, 0139Z** - [departs](#) Bandar Abbas International Airport, Bandar Abbas, Iran.
- **12 June 2024, 0600Z** - [arrives](#) Port Sudan New International Airport, Port Sudan, Sudan.
- **12 June 2024, 0813Z** - Medium-resolution imagery of Port Sudan International Airport captures an aircraft with dimensions consistent with an 747-200.
- **12 June 2024, 1104Z** - [departs](#) Port Sudan New International Airport, Port Sudan, Sudan.
- **12 June 2024, 1547Z** - [arrives](#) Mehrabad International Airport in Tehran, Iran and taxis to military base.



# Supporting Data for July 14 Trip of EP-FAB

## EP-FAB - Fars Air Qeshm - Boeing 747-200

- **13 July 2024, 1932Z** - [departs](#) Mehrabad International Airport in Tehran, Iran, ADS-B signal ceases.
- **13 July 2024, 2208Z** - [arrives](#) Bandar Abbas International Airport, Bandar Abbas, Iran.
- **14 July 2024, 0126Z** - [departs](#) Bandar Abbas International Airport, Bandar Abbas, Iran.
- **14 July 2024, 0528Z** - [signal ceases near Port Sudan](#), Sudan.
- **14 July 2024, 0830Z** - [departs](#) Port Sudan New International Airport, Port Sudan, Sudan.
- **14 July 2024, 1436Z** - [arrives](#) Mehrabad International Airport in Tehran, taxis to military base.

\*Although no photos were available at the time of EP-FAB's landing at the time publication, we locate it at Port Sudan because of ADS-B signals at departure.



# Supporting Data for July 25 Trip of EP-FAB

## EP-FAB - Fars Air Qeshm - Boeing 747-200

- **24 July 2024, 1927Z** - [departs](#) Mehrabad International Airport in Tehran, Iran, ADS-B signal ceases.
- **24 July 2024, 2252Z** - [arrives](#) Bandar Abbas International Airport, Bandar Abbas, Iran.
- **25 July 2024, 0220Z** - [departs](#) Bandar Abbas International Airport, Bandar Abbas, Iran.
- **25 July 2024, 0542Z** - [signal ceases](#) over Eritrea flying towards Port Sudan.
- **25 July 2024, 0800Z** - No imagery is available that would show EP-FAB in Port Sudan.
- **25 July 2024, 1101Z** - [departs](#) Port Sudan New International Airport, Port Sudan, Sudan.
- **25 July 2024, 1643Z** - [arrives](#) Mehrabad International Airport in Tehran, taxis to military base.

\*Although no photos were available at the time of EP-FAB's landing, we locate it at Port Sudan because of ADS-B signals at departure.





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