#### COMPLETE PORTFOLIO FOR DEFENSE & SECURITY



## COMPLETE PORTFOLIO FOR DEFENSE & SECURITY

### WORLDWIDE PRESENCE

EMBRAER WAS BORN DEFENSE

HIGHLIGHTS

BUSINESS UNITS

CAPABILITIES IN THE FIVE DOMAINS

### AIR

- 11 / C-390 MILLENNIUM
- 16 A-29 SUPER TUCANO
- SPECIAL MISSIONS
- AIRCRAFT MODERNIZATION
- AIR TRAFFIC MANAGEMENT AND CONTROL
- LAND
- RADAR & LAND SYSTEMS
- / BORDER SURVEILLANCE SYSTEMS

### SEA

- | ARKHE INTEGRATED SYSTEMS
- ÁGUAS AZUIS

### SPACE **36** INTEGRATED SPACE SYSTEMS

CYBER

# **EMBRAER DEFENSE & SECURITY**

WORLDWIDE PRESENCE

# 1,400+ 100+ 60+

AIRCRAFT DELIVERED RADARS IN SERVICE

GOVERNMENTS AND ARMED FORCES 16 OFFICES

24 WAREHOUSES

9 OWNED SERVICE CENTERS

71 AUTHORIZED SERVICE CENTERS

110+ FIELD SUPPORT REPRESENTATIVES

• 75+ FLIGHT SIMULATORS

· ◇ 🚔 🖟 🏽 💿 🔹 🖡 😌 😌 👘 🚼 😄 🖶 😳 😰 😳 🗋 👄 🖆 🚳 🖨 😳 🚭 🜑 🌑 🌑 🗶 💿 🖆 🌑 😓 🚱 🖨 🚱 🖉 🚱 👘 🚱 🖉

## **EMBRAER WAS BORN DEFENSE**

**EMBRAER WAS BORN DEFENSE** as a successful strategic plan by the Brazilian Government. The company has more than 55 years old and is recognized globally for the quality of its products and services.

Privatized in 1994 and listed on the New York Stock Exchange, Embraer is a global leader in solutions for Defense and Space, offering an integrated portfolio from aircraft to complex systems of border control.



CLICK HERE TO LEARN MORE ABOUT OUR SERVICES AND PRODUCTS

## HIGHLIGHTS

### THE LARGEST BRAZILIAN **EXPORTER** OF HIGH VALUE-ADDED PRODUCTS

Embraer's contribution to Brazilian exports in the last ten years was over USD 40 BILLION.

### **OUR PEOPLE**

Embraer employs over

21.000+

people, of which more than 19 thousand are in Brazil. Over 2,300 employees work in joint ventures and subsidiaries.

#### **PEE - Engineering Specialization Program**

Professional master's degree in Aeronautical Engineering, given in loco at Embraer's facilities and in partnership with ITA, Technological Institute of Aeronautics.

World-class Engineering professionals

Over 1,400 have master's degrees, PhDs or postgraduate qualifications.

Patents registered in 7 different countries.

# HIGHLIGHTS

1

### RESEARCH AND DEVELOPMENT

More than USD

invested in R&D and CAPEX in 2023 (7,8% of revenue).

# <sup>Over</sup> 5,500

people are dedicated to research and development.

### CORE CAPABILITIES TECHNOLOGICAL DOMAIN

-

- World class engineering
- Key domain technologies
- Project management
- Customer support
- Lean development

- Process & efficiency management
- Custom made solutions
- Product life cycle management
- Complex systems integration

💊 BACKTO MENU

COMMERCIAL AVIATION



EVE AIR MOBILITY



#### *EMBRAER DEFENSE & SECURITY SUBSIDIARY COMPANIES*

BACKTO MENU

#### [] atech

Atech develops systems for civil and military air traffic control and management, Defense & Security, simulators, logistics and asset management, among others.

LEARN MORE: ATECH.COM.BR

)) VISIONA Space Technology

Visiona integrates space systems and develops satellites, remote sensing products and services, satellite telecommunications and SAR aerial surveys in the X and P Bands.

LEARN MORE: VISIONAESPACIAL.COM

## **CAPABILITIES IN THE FIVE DOMAINS**

## AIR | LAND | SEA | SPACE | CYBER

BACK TO MENI



Embraer is one of the largest aircraft manufacturers in the world and offers a complete portfolio of Defense & Security aircraft, including the new generation military multi-mission transport aircraft, C-390 Millennium, and the light attack aircraft A-29 Super Tucano, leader in its segment. In addition, Embraer offers surveillance aircraft, aircraft for special missions such as Medevac, training, flight inspection, authorities transport, aircraft modernization programs, air traffic management and control systems.

## UNBEATABLE COMBINATION

THE NEW GENERATION MILITARY MULTI-MISSION TRANSPORT AIRCRAFT C-390 MILLENNIUM is the answer to the 21st-century demands, with unrivaled mobility and operational flexibility in a single platform. C-390 Millennium provides optimal fleet performance, generated by a cost-effective combination of high availability and productivity.

C-390 Millennium also incorporates the latest communication system providing ultimate digital situation awareness and interoperability with other platforms and allies.

RAPID RECONFIGURATION AND THE LATEST TECHNOLOGY **OPERATIONAL EFFICIENCY AND LOW LIFE-CYCLE COSTS**  SPEED IN THE AIR AND FASTER TURNAROUNDS

DOWNLOAD THE C-390 MILLENNIUM BROCHURE

#### **REFUELING POD**

Quick reconfiguration to a tactical tanker aircraft, capable of air-refueling both fixed wing and helicopters with up to 400 US gal/min



Hot Weather, High Altitude and Cold Weather operations

#### DUAL CERTIFICATION

Combining the efforts of both civil and military airworthiness authorities



EO/IR

Sensor

State-of-the-art

Electro-Optical

Modern structural design. Strong and durable airframe

> REFUELING PROBE

Allows the C-390 to be refueled in flight

#### **AVIONICS**

Fully interactive and CNS/ ATM compliant delivers intuitive Human Machine Interfaces, enhancing productivity and safety

#### SECURE proc COMMUNICATION

Link-16 BU3, secure radio V/UHF, tactical and real video datalink and JREAP-A and C allowing complete interoperability

#### FLY-BY-WIRE

Latest generation flight control system

#### SATCOM GS AND GWS

Latest generation of secure satellite communication

#### SELF PROTECTION SUITE

A complete self-protection suite (SPS) increases survivability levels with detection and countermeasures with 360° coverage

#### CARGO RAMP

Loading and unloading ramp equipped with the market's most advanced cargo handling and aerial delivery system

#### SEMI-PREPARED AND DAMAGED AIRFIELD OPERATION

Worst Semi-Prepared and Damaged Runway from MIL-B-8866B LANDING GEAR

Designed to operate on low resistance airfields (CBR-4), brake-by-wire, wheel-by-wheel



## THE MOST COMPREHENSIVE FLEXIBILITY

C-390 is capable of transporting a maximum of 50,706 Ib (23,000 kg) of distributed loads and a maximum concentrated load of 57,320 lb (26,000 kg).

### ONE AIRCRAFT, MANY CAPABILITIES





#### **MISSION MODULES**

- AERIAL ASSAULT
- AERIAL RESUPPLY

SPECIAL OPERATIONS
 MEDICAL EVACUATION

AERIAL FIREFIGHTING
 SEARCH AND RESCUE

HUMANITARIAN AID
 AIR-TO-AIR REFUELING

🔶 BACK TO MENU

## **C-390 MILLENNIUM** THE MOST COMPREHENSIVE FLEXIBILITY

PARATROOPERS

Capacity for 64 fully equipped paratroopers or 80 troops

#### SEMI-PREPARED RUNWAYS

Worst Semi-Prepared and Damaged Runway from MIL-B-8866B

#### LIGHT AND HEAVY VEHICLES

Capacity for 3 to 4 light vehicles or 1 to 2 heavy vehicles

THE MOST COMPREHENSIVE FLEXIBILITY

#### PALLETS

Capacity for 7x 463L pallets or 24x CDS 48"x48" packages

### HELICOPTERS

Capacity for one Black Hawk or similar size helicopter

#### **MEDEVAC STRETCHERS**

Capacity for 74 litters with 8 attendants or 50 litters and 36 pax

# **A-29 SUPER TUCANO**

### **IF IT'S PROVEN WHERE** IT MATTERS...

Meet the aircraft that has just achieved 580,000 flight hours globally, the A-29 Super Tucano. It offers three different solutions on a single platform - light attack, armed reconnaissance, and tactical training - and the flexibility to change between them to meet your operational needs. It all adds up to real cost-effective versatility.

## ...IT'S THE A-29 SUPER TUCANO.





**RAPID RECONFIGURATION** AND THE LATEST TECHNOLOGY

**OPERATIONAL EFFICIENCY** AND LOW LIFE-CYCLE COSTS

**SPEED IN THE AIR AND** FASTER TURNAROUNDS

**DOWNLOAD THE A-29 SUPER TUCANO BROCHL** 



# **A-29 SUPER TUCANO**

#### COMBAT PROVEN

**ALWAYS** 

High Level of

Excellent tactical

flying qualities

availability and

constantly updated

**HIGHLY MANEUVERABLE** AND CONTROLABLE

RFADY

Liable and precise with dozens of thousands of combat hours

#### LOW OPERATIONAL FOOTPRINT

Low visual, audible. thermal signatures and low logistics footprint

EXTREMELY **RUGGED PLATFORM** Designed to

operate from

forward air bases

ARMORED

for protecting the cockpit and engine, resistant 0.5" and 7.62 mm munitions

#### **OPERATIONAL** AFFORDABLE

The most costeffetive of the category

#### **5 PYLONS**

Capable of receiving extra fuel tanks, weaponry and different types of pods

#### CERTIFIED

by the USAF Military Airworthiness Authority

#### SELF PROTECTION SYSTEM

CHAFF & FLARE, MAWS, RWR, and Self-Sealing enhance the survivability when facing threats

ACCURATE TARGETING SYSTEM

with optimal targetweapon matching

**BUILT-IN MACHINE GUN** 

Over 1000 round/min

📥 BACK TO MENI

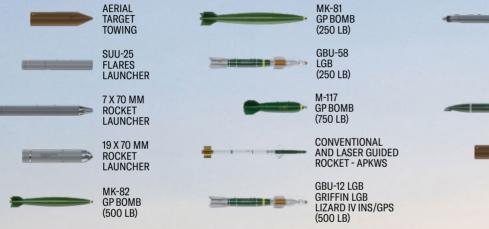
## **A-29 SUPER TUCANO**

THREE-IN-ONE AIRCRAFT

LIGHT ATTACK AIRCRAFT ARMED RECONNAISSANCE AIRCRAFT TACTICAL TRAINER AIRCRAFT

# A-29 SUPER TUCANO

#### **EXTERNAL STORES**





#### **CHARACTERISTICS**





#### MODERN COCKPIT OUTSTANDING MISSION SITUATIONAL AWARENESS

The A-29 Super Tucano's cockpit design reduces the pilot's workload and provides maximum situational awareness. Excellent accessibility, ergonomics, and an advanced human machine interface that allows the crew to focus on mission outcomes.



MEDEVAC

# **SPECIAL MISSIONS**

AMBULANCE

Ì

0

MEDIC .

In addition to Defense & Security products and services, Embraer also produces commercial and executive aircraft and offers customized solutions that use these aircraft platforms and meet military needs such as transport of authorities, flight inspection, pilot training and medical evacuation. All the comprehensive portfolio of aircraft produced by Embraer is available for use in special missions, with tailor-made solutions developed for each client's needs.

## **SPECIAL MISSIONS**

#### SPECIAL TRANSPORTATION

Combining technology, reliability and safety with a decade-long tradition of providing aircraft for the transport of authorities and large delegations, Embraer offers the ideal solution for any mission – from short-range flights to long trips with large commissions.



60 to 146-seat



PRAETOR FAMILY up to 12 passengers



PHENOM FAMILY up to 11 occupants

### MEDEVAC **Medical** Evacuation

#### PHENOM 300MED: AN UNRIVALED MEDEVAC SOLUTION

The Phenom 300MED — based on the best-selling light jet for thirteen years in a row — is the finest, most comprehensive Medevac solution available today. Created in partnership with Umlaut and Aerolite, the Phenom 300MED features best-in-class cabin altitude, the fastest speed and longest range in its category, high mission flexibility, plus low operating cost and the best residual value in its class.



## **SPECIAL MISSIONS**

### MEPT MULTI-ENGINE PILOT TRAINING

The Phenom 100 MEPT is a capable platform to support all multiengine pilot training tasks with the following enhanced capabilities:

- Single-pilot workload philosophy
- Low operating costs
- Designed for high utilization and availability
- Observer seat
- Military communication
- Quick access recorder to retrieve flight data



### FLIGHT INSPECTIONS SYSTEMS

State-of-the-art platform able to perform flight inspection tasks in the following modes:

Site Evaluation

Surveillance

- Test inspection
- Periodic inspection
- Commissioning inspection

It offers fly-by-wire and the most advanced flight control system, which increases mission efficiency and reduces pilots' workload.



## AIRCRAFT MODERNIZATION

Embraer Defense & Security performs aircraft modernization to exchange existing systems and avionics for updated versions, whether for aircraft of its manufacture or other brands, extending their useful life and adapting them to the contemporary requirements of the missions they must perform and new regulations.

#### E-99M

Airborne Early Warning and Control aircraft (AEW&C) manufactured by Embraer have been updated after two decades of operation and more than 30,000 flight hours.



### A-1M

A fighter manufactured by the AMX International Consortium, of which Embraer was a part, it incorporated new technologies such as the HUD, HOTAS, MFD and RWR, in addition to new navigation systems, weapons, oxygen generation and electronic countermeasures.

## AIRCRAFT MODERNIZATION

### **A-4**

The A-4 Skyhawk aircraft of the Brazilian Navy, produced by McDonnell Douglas, was manufactured in 1977 and received new cockpits and a comprehensive process of systems modernization.

### F-5M

Produced by Northrop, the F5 aircraft have been in operation by the Brazilian Air Force since 1975. It received new weapons and equipment for BVR combat (Beyond Visual Range), as well as new software and other engineering improvements, bringing a vast transfer of technology in military software development with a high level of complexity. AIR TRAFFIC MANAGEMENT AND CONTROL

### atech

## MAKRON

Makron is comprised of modularized and customizable systems that allow the ANSPs to control and optimize flights from takeoff to landing, gate-to-gate, offering maximum safety, reliability and efficiency in the use of resources.

- Compliance with international standards and with ICAO regulations
- Flight Plan Management
- Training & Simulation
- Information Processing and Exchange
- Meteorological Information Repository
- Air Traffic Control

BACK TO MENU



# **AIR TRAFFIC MANAGEMENT**



OF AIRSPACE SERVED BY DECEA IN BRAZIL USING ATECH SYSTEMS

### 1.6 MILLION

**ANNUAL AIR MOVEMENTS**  **5 ACC CENTERS** 

(AREA CONTROL CENTER)

## **25 APP CENTERS**

(APPROACH CONTROL) AND A FLOW MANAGEMENT **CENTER (ATFM), IN ADDITION TO OTHER SUPPORT** SYSTEMS (AMHS, OPMET, ETC)



**CENTRAL FLOW MANAGEMENT CENTER (SKYFLOW)** 



VENEZUELA

**ENROUTE AND APPROACH CENTER (SAGITARIO)** 





ATC BRAZIL SIMULATION CENTER



ATC BRAZIL CENTER



ATFM BRAZIL CENTER



ATEM CENTER INDIA

27

Embraer's Radar and Land Systems solutions guarantee the protection of critical assets, creating layers of surveillance from the surface to medium heights and from very short to medium range, including air traffic management. In addition, Embraer develops Command and Control Centers and integrates all the systems it creates, both with each other and with legacy actuators, with total flexibility for the customer to personalize the solutions according to their specific needs, in a modular and scalable way.

# **RADAR & LAND SYSTEMS**

## **PROTECTING NATIONAL ASSETS AND SOVEREIGNTY**

### **TECHNOLOGICAL INTEGRATION AND AUTONOMY.**

COMPREHENSIVE, LOW-RISK, AND SCALABLE RADARS & LAND SYSTEMS SOLUTIONS for territorial monitoring and protection, including Border Surveillance, Air Defense and ATC. Embraer offers proven, precise, reliable, and cost-effective solutions.

From portable radars to mobile shelters for diverse applications, such as ISR, communications and command & control, as well as COMINT sensors, C2 and C4I software, Embraer develops fully integrated and customizable solutions to meet each customer's specific needs, giving them complete autonomy and operational flexibility.

**DOWNLOAD THE RADARS & LAND SYSTEMS BROCHURE** 

## **RADAR & LAND SYSTEMS**

#### ISR-M RADAR AND LONG RANGE EOIR INTEGRATED

Intelligence, Surveillance and Reconnaissance LOW ALTITUDE AIR DEFENSE • Anti-Aircraft Artillery

VSHORAD

Application

integration

MANPADS easy

Operation Center

COAAE

#### ACCESS NODE TACTICAL COMMUNICATION VEHICLE

VEHICLE
Multiple communication technologies integrated on a single network
High throughput
Support to Soldiers, Vehicles and Fixed Stations

#### M60 LOW ALTITUDE AIR DEFEE

3D Radar Range 60 km (32NM) Integrated IFF

#### M20 SURFACE SURVEILLANCE

SALITTICE CO.

Range 20 km (light vehicle) Fixed, Mobile and Transportable Versions

#### M200 VIGILANTE MEDIUM RANGE AIR DEFENSE SURVEILLANCE AND EARLY WARNING

3D Radar
 Active Electronically Scan
 Range 200 km (108NM)
 Integrated IFF

COMINT ESM STATION

 Radio Comm. Direction finding & Monitoring
 HF, VHF and UHF
 20 MHZ (HF) and 80 MHZ (V/UHF)
 Modular wideband digital receiver
 AOA technology

#### M200 MULTI-MISSION & COUNTER-BATTERY MID RANGE AIR DEFENSE

200 km range (108NM)
 Integrated IFF
 Multimode, simultaneous
 Weapon system guidance

#### MOBILE C2 CENTER MOBILE COMMAND AND CONTROL

Network, VoIP and Video Conferencing IT features Access to Tactical and Strategic networks Brigade level and Unit level



# **BORDER SURVEILLANCE SYSTEMS**

## SUCCESS EXPERIENCE

SISFRON is one of the largest military programs in the world and aims to protect Brazil's borders - an extent of 16,886 kilometers (10,492 miles) between the country and ten neighbors. It was born with the purpose of strengthening the presence of the State on the terrestrial border strip, which encompasses ten states and 27% of the nation's territory. An important mission with which Embraer was entrusted by the Brazilian Army, becoming responsible for SISFRON's deployment and integration. This challenging program showcases Embraer's strength and capacity to act in the protection and defense of an entire country.

SISFRON

EXÉRCITO BRASILE



**6,500+** REQUIREMENTS CONTRACTED, INTEGRATION AND SAFETY



Embraer develops a complete product suite specialized for embedded solutions, enabling different tactical missions at sea through full integration of vessel systems and sensors, providing broad situational awareness of the tactical scenario and efficient decision-making. Our solutions allow the Armed Forces to evolve their physical and logical infrastructure, adding new elements such as radars, cameras and legacy systems. They also enable the efficient and timely process of a large volume of data with the highest level of cybersecurity. Atech, a subsidiary of Embraer, is responsible for developing the sea systems offered by the company.

# **ARKHE INTEGRATED SYSTEMS**





### **ARKHE INTELLIGENCE SYSTEMS**

#### INTELLIGENCE EMPOWERING

Arkhe Intelligence solutions were developed to address one of the significant challenges in current Armed Forces operations: the efficient and timely processing of large volumes of data. Arkhe Intelligence solutions make ingestion, processing, analysis and presentation of data, transforming information into knowledge.

### **ARKHE COMMAND & CONTROL**

## INTEGRATED PLANNING, SURVEILLANCE AND ACTION WITHIN THE CHAIN OF COMMAND

In order to enhance the user's decision-making capability, Arkhe Command & Control offers a range of solutions for planning, surveillance and monitoring the execution of a diverse set of missions. Acting in an integrated way, these solutions bring different sources of information to be used to compose situational awareness. With a flexible and scalable structure, it allows customers to evolve their physical and logical infrastructure, adding to the system new elements such as radars, cameras and legacy systems.

### **ARKHE MISSION & COMBAT**

#### TOTAL CONTROL OF AIR AND SEA TACTICAL MISSIONS

Arkhe Mission & Combat is the product suite specialized for embedded solutions, effectively enabling different tactical missions in the air and at sea through complete integration with aircraft and vessel systems and sensors. The solutions provide a set of functionalities that allow the operator to conduct missions considering all its states: Planning, Execution and Debriefing. The integration of systems and sensors provides ample situational awareness of the tactical scenario, enabling effective and efficient decision-making.

# ÁGUAS AZUIS

## NAVAL TECHNOLOGY



Embraer and its subsidiary Atech are partners of the Águas Azuis, responsible for building the most modern and innovative naval project ever carried out in Latin America, the Tamandaré Class Frigates. The four vessels have the latest technology available in global shipbuilding to help the Brazilian Navy guarantee the national territory's sovereignty and protect the country's natural wealth.

#### TECHNOLOGY & DEVELOPMENT

thyssenkrupp

[ atech



Dock tests of the Tamandaré Frigate - F200, in Itajaí (Santa Catarina - Brazil)

BACK TO MENU

## NAVAL TECHNOLOGY



*JERÔNIMO DE ALBUQUERQUE F201 FRIGATE* 



#### **CUNHA MOREIRA F202** FRIGATE

Start September 2024

Launch August 2026



4m draft

15.95m maximum beam

#### **MARIZ E BARROS F203** FRIGATE



Start March 2026

Launch November 2027



3.500 tons of displacement





Embraer integrates space systems and develops satellites, remote sensing products and services, satellite telecommunications and SAR aerial surveys in the X and P Bands. The company operates in this segment through its subsidiary company Visiona Space Technology.

# **INTEGRATED SPACE SYSTEMS**



### VCUB

VCUB1 is the first Earth Observation and Data Collection satellite fully designed in Brazil and demonstrates Visiona's ability to create high-performance space systems.

VCUB1 has a scalable architecture that makes it capable of carrying out missions from 3U to 27U+, and its dual payload capability will be able to collect images and communication data simultaneously.

### SGDC

The Geostationary Defense and Strategic Communications Satellite (SGDC, Satélite Geoestacionário de Defesa e Comunicações Estratégicas) is a program by the Brazilian Federal Government with the goal of promoting internet service coverage across 100% of Brazilian territory as part of the National Broadband Plan, providing digital inclusion to all Brazilians long with secure, sovereign means for the Brazilian government to maintain its strategic communications.

### **AIRBORNE REMOTE SENSING**

The interferometric synthetic aperture radar in the X and P Bands guarantees the delivery of geographic information of high added value and high costbenefit for different applications.

> X/P RADAR X & P BANDS X-BAND

> > P-BAND (under the forest canopy.

# **INTEGRATED SPACE SYSTEMS**







### **ORBITAL REMOTE SENSING**

Working as a space system integrator, we are the official distributor of some of the world's key satellite operators, with access to a virtual constellation of Earth observation sensors and digital elevation models with different precision levels, as well as the best application technologies. Comprised of 22 optic sensors and 7 radar sensors, the constellation can offer integrated remote sensor products with high revisiting and image generation rates. These sensors with complementary characteristics represent the global state-of-the-art, capable of achieving 30-cm resolutions and making up Brazil's most comprehensive collection of high-resolution images.

### WEBVIS PLATFORM

The WebVis Platform provides users with access to on-demand remote sensor images, including the most recent satellite images with the highest spatial resolutions in the world. By subscribing to this service, users will have access to images collected by a variety of sensors with different resolutions and from different providers. Users may also choose between streaming and downloading images according to their needs.



Embraer operates in cybersecurity through its subsidiary Atech, a leading company in Latin America with decades of experience. Atech has high capabilities in systems' life cycles, applying leading-edge knowledge in developing solutions of different sizes and segments, helping companies to promote the transformation of their businesses worldwide.

**CYBER** 

## **ADVANCED CYBER SERVICES**

HIGH TECHNOLOGY INVESTIGATION, CYBER INTELLIGENCE MONITORING AND DEFENSE

### **INFRASTRUCTURE AND APPLICATIONS MONITORING & PROTECTION**

PERIMETER / NETWORK / DEVICE / DATA / APPLICATION PROTECTION, RESILIENCE, SPECIALIZED SERVICES AND TRAINING BACKTO MENU



embraerds.com

Follow us at: 🛍 😏 🎯 🕑