



DEFENCE AND SPACE
Military Air Systems

C295 MPA

The Versatile
Maritime Hunter

AIRBUS



C295 MPA

The Versatile Maritime Hunter

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OPTIMUM PLATFORM FOR MARITIME MISSIONS

The Airbus version of Maritime Patrol Aircraft (MPA), based on the proven C295 platform, is already in operation and provides a reliable and affordable solution for the 21st Century Anti-Submarine Warfare needs.

The C295 MPA is an aircraft capable of performing persistent ISR, Anti-Submarine and Anti-Surface Warfare missions. At its heart is a Next Generation Fully Integrated Tactical System (FITS). It also now features New Avionics with the most modern technology available, compliant with current and forthcoming civil and military requirements.

The C295 MPA detects, tracks and classifies underwater contacts using a combination of active and passive sonics, including multistatic capability, and a Magnetic Anomaly Detector (MAD).

In addition, the C295 MPA can carry out overland and electronic surveillance, with a high-performance radar, ESM / ELINT, COMINT and IMINT sensors.

Even for Homeland Security Protection, with continuously evolving threats such as terrorism, piracy and illegal trafficking, the C295 MPA represents a true multi-role aircraft capable of being adapted to future needs.

STATE-OF-THE-ART MISSION SYSTEM

The C295 MPA has a powerful multi-sensor system, including the easy-to-operate Fully Integrated Tactical System (FITS), all at a fraction of the operational cost of older legacy MPAs developed during the cold war, such as P-3 Orion or Atlantique.

The C295 MPA may act in communications, command and control (C3) applications, creating a net interoperable with other air, sea and ground platforms with secure encrypted communications.



EXCEEDING MISSION REQUIREMENTS

- New generation MPA proven and in operation today
- Long endurance: Over 10 hours on task
- High maneuverability (3g capable) and excellent low-level flying capabilities
- Wide rear ramp for deployment of SAR life rafts, emergency equipment and special forces operations
- Observer bubble windows with excellent visual coverage
- Low support requirements resulting in a high availability and reduced Life Cycle Cost (LCC)
- Flexible cabin layout for other secondary roles such as personnel transport or aeromedical evacuation



Photo © Jorge Guardia

21 COUNTRIES **29** OPERATORS
155 MISSION AIRCRAFT

FITS IS **THE LEADING TACTICAL SYSTEM**
 ORDERED IN

101 AIRCRAFT

AS THE CORE TO SUCCESSFULLY PERFORM ISR OPERATIONS



AIRBUS, **THE UNDISPUTED LEADER** IN THE MEDIUM SIZE MPA / MSA MARKET

Airbus is the market leader in the medium size Maritime Surveillance and Patrol aircraft market, accumulating over 30 years of experience in mission system integration, with 155 aircraft ordered in 21 countries with 29 different operators.

Airbus has developed a complete family of solutions, which includes the C295 MPA / MSA, the CN235 MSA, the C212 MSA and P-3s mission system upgrade programmes, with the Fully Integrated Tactical System (FITS) as a common element.

Airbus is not only the aircraft manufacturer but also responsible for system integration and overall programme management, providing one single point of contact during the whole life cycle of the aircraft.

C295 MPA / MSA

PORTUGUESE AIR FORCE
 CHILEAN NAVY
 OMAN AIR FORCE
 BRAZILIAN AIR FORCE
 SAUDI ARABIA PSS
 CANADA AIR FORCE
 UNITED ARAB EMIRATES AF
 IRISH AIR CORPS
 NATIONAL AIR FORCE OF ANGOLA

CN235 MSA

IRISH AIR CORPS
 SPANISH MARITIME SAFETY
 SPANISH MIN. OF INTERIOR
 SPANISH AIR FORCE SAR
 US COAST GUARD
 COLOMBIAN NAVY
 ECUADOR NAVY
 MEXICAN NAVY

P-3

SPANISH AIR FORCE
 BRAZILIAN AIR FORCE

C212 MSA

MEXICAN NAVY



The new FITS includes two 24" HD Touchscreens that allow a more intuitive operation and provide a better situational awareness thanks to its larger display area

FULLY INTEGRATED TACTICAL SYSTEM (FITS) **MODULAR, FLEXIBLE AND INTUITIVE**

FITS, the tactical system developed by Airbus, integrates, displays and controls in real time a complete suite of sensors, interfacing with the weapon control system and the aircraft's navigation and communication systems.

FITS Multifunctional Consoles (MFCs) are aimed to reduce the operator workload and provide redundant access to system and sensors functionalities. Any mission sensor can be operated from any of the MFCs.

FITS is extensively in operation demonstrating its maturity and capability to perform efficiently ISR and ASW/ASuW missions.



C295 NEW AVIONICS

The C295 MPA is fitted with state-of-the-art flight deck that combines **advanced HMI** with **ease of operation** to reduce pilot workload and facilitate rapid access to flight planning and aircraft systems information. The FITS **Tactical Situation Window** and **EO/IR video** are also displayed on the centre avionics screens, giving the pilots optimum tactical **situational awareness**.

The C295 MPA can be optionally equipped with an Enhanced Vision System and a Head Up Display (HUD) to enhance pilots' situational and terrain awareness, especially in tactical operations, low-visibility landings and low-level flights.

NEXT GENERATION FITS

The next generation FITS makes it easier than ever for mission operators. The new dual-screen consoles provide two large 24" high-definition displays, which greatly enhance the situational awareness, providing an independent tactical picture on each display and sensor windows simultaneously.

The new look & feel adds a tactile interface for an intuitive operation

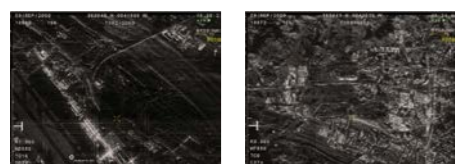
with touchscreen controls that provides new features like the graphical creation and edition of search patterns. The latest FITS software incorporates improved tables, charts, windows and track management, shortcuts and an improved contextual menu, as well as a new widget bar that allows the operators to quickly access important navigation and sensor data.

The tactical and console processors have also been upgraded, being now faster and more powerful, resulting in shorter start-up and booting times, reduced mission data up/download times and higher reliability rates.



COMPREHENSIVE SENSOR SUITE

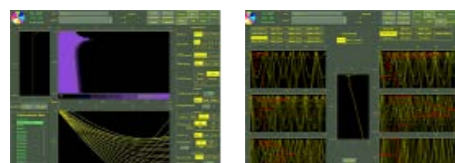
The C295 MPA / MSA mission system includes a comprehensive suite of sensors, tactical communications, weapons and self protections systems.



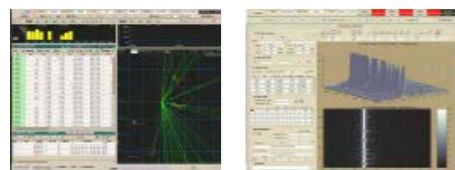
Radar SAR mode



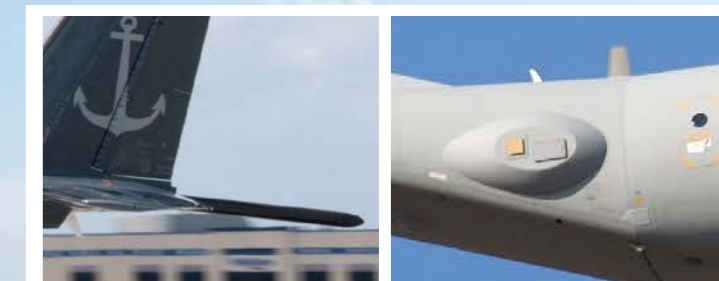
EO/IR video



Sonobuoy processing
acoustic system



ELINT



MARITIME AND OVERLAND SENSORS

- 360° Multi-mode Surveillance Radar, with SAR, ISAR, GMTI and IFF interrogator
- EO/IR turret, with HD TV and IR cameras, laser illuminator, rangefinder and designator
- Automatic Identification System (AIS)
- Direction Finder (DF)
- Electronic Support Measures/ Electronic Intelligence (ESM/ ELINT)
- Communications Intelligence (COMINT)

ANTI-SUBMARINE WARFARE SENSORS

- Acoustic System, active/passive/multi-statism processing of 16/32 channels
- Magnetic Anomaly Detector (MAD)

SONOBUOY / WEAPONRY MANAGEMENT

- Store Management System for sonobuoys and weaponry configuration and management
- Torpedoes
- Missiles
- Depth Charges and mines

COMMUNICATIONS AND INTEROPERABILITY

- Tactical Data Links: Link 11, Link 16, Link Y and national specific systems
- Multi Band Communications, via HF, V/UHF
- Wide Band Data Link (WBDL) in Line of Sight for HD video transmission to Ground Troops
- Beyond Line of Sight SATCOM communications for data, audio and video transmission with Inmarsat, Iridium and High Bandwidth Ku-Ka Band Networks

FULL FLEXIBILITY TO INTEGRATE DIFFERENT SENSORS AND EQUIPMENT





Available with a complete suite of survivability equipment

ONE PLATFORM FOR ALL MILITARY TRANSPORT AND ISR MISSIONS

The C295 MPA versatility enables to fulfill different missions, such as Military Transport, Maritime Surveillance, ISR, Anti Submarine Warfare (ASW) and Signals Intelligence (SIGINT).

The operator benefits from the use of a common aircraft fleet by important synergies, advantages and savings: Commonality on logistic supply chain and support equipment, shared flight crews and maintenance personnel, and common training are some of them.



PROVEN MILITARY FEATURES

The C295 MPA is fitted with a complete set of self-protection equipment, which is already in service in hostile environments and intra-theater combat scenarios: Cockpit Armour, Radar Warning Receiver (RWR), Missile Approach Warning System (MAWS) and Laser Warning Receiver (LWR).

Other military features available are:

- Cockpit fully compatible with the use of Night Vision Goggles (NVG)
- In-flight refuelling system
- Directional Infra-Red Countermeasures (DIRCM)
- Infra-Red Suppressor System (IRSS)
- Light Machine-Guns Kit (12.7 mm)

MULTI-PURPOSE STORE STATIONS

The C295 MPA provides up to 6 under-wing store stations for the installation of:

- Torpedoes, anti-surface missiles and depth charges and mines
- Electronic Counter Measures (ECM) pods
- Search lights
- Laser guided rockets, missiles and bombs





C295 MPA THE SUBMARINE HUNTER

C295 MPA is well prepared to perform Maritime Patrol, ASW and ASuW operations thanks to its comprehensive mission equipment:

- █ EO/IR Turret with high definition cameras
 Multi-Mode maritime search radar and IFF interrogator
 Automatic Identification System (AIS)
 Direction finder
 Bubble windows
 ESM / ELINT
 COMINT (Optional)
- █ Acoustic system and sonobuoys
 Magnetic Anomaly Detector (MAD)
- █ Store management system
 Torpedoes, missiles, depth charges and mines
 Self-protection suite
- █ Tactical Data Links (Link 11 / Link 16 / Link Y)
 SATCOM (Inmarsat, Iridium or Ku-Ka Band)



ASW MISSION PERFORMANCE

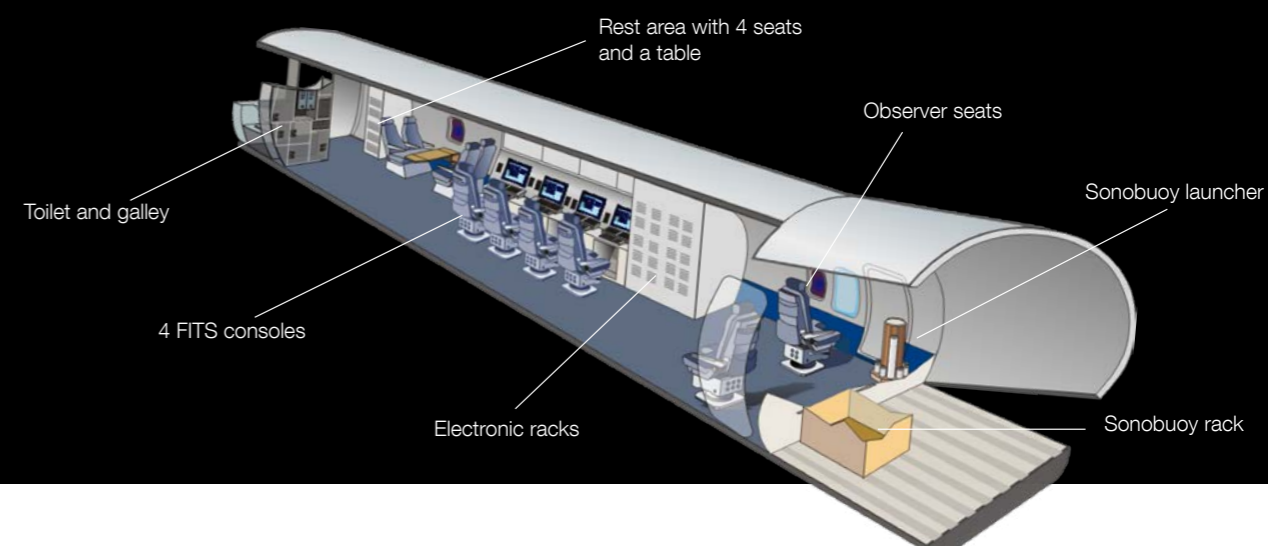
- █ 8h 30 min at a 200 nm radius
- █ 6h 30 min at a 400 nm radius
- █ 2h 30 min at a 800 nm radius

Max Mission Endurance: +10 Hours
 Max Range: 2000 nm / 3705 km

Parameters:

- C295 MPA armed with 2 torpedoes, 4 FITS operators and 2 additional mission crew
- ISA, SL
- Patrol altitude 5000 ft
- 45 min reserves at FL50

INTERNAL CONFIGURATION





Mixed MSA and transport configurations

- Passenger transport
- MEDEVAC
- Cargo transport

C295 MSA PERSISTENT MARITIME SURVEILLANCE

C295 MSA provides the longest endurance in a turboprop aircraft with an excellent surveillance capability:

- EO/IR Turret with High Definition Cameras
- Multi-mode maritime search radar
- Automatic Identification System (AIS)
- Direction finder
- Bubble windows
- SAR kit launcher
- ESM / ELINT (optional)
- Maritime pollution control (optional)
- LIDAR (optional)
- Self-protection suite (optional)
- Light machine-guns kit (12.7mm) (optional)
- Tactical data links (Link 11/Link 16/Link Y)
- SATCOM (Inmarsat, Iridium or Ku-Ka Band)
- Wide band data link (optional)



MSA MISSION PERFORMANCE

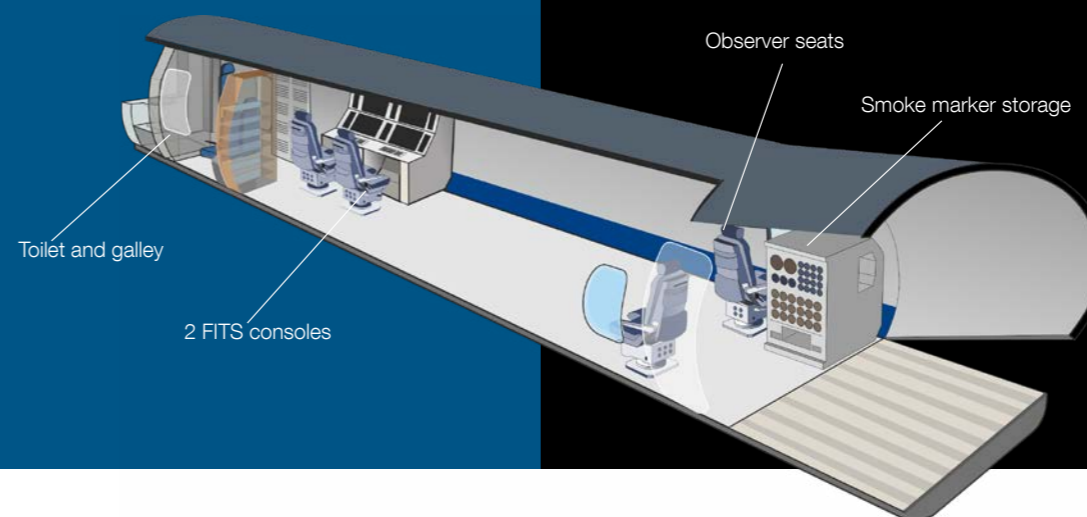
- 9h 30 min at a 200 nm radius
- 7h 30 min at a 400 nm radius
- 3h 30 min at a 800 nm radius

Max mission endurance: +11 Hours
Max range: 2350 nm / 4352 km

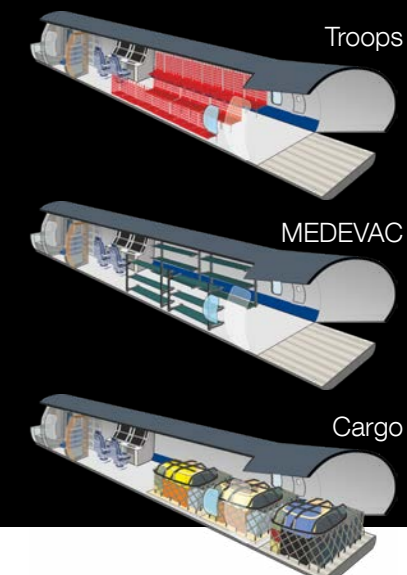
Parameters:

- C295 MSA with 2 FITS operators and 2 observers
- ISA, SL
- Patrol altitude 5000 ft
- 45 min reserves at FL50

INTERNAL CONFIGURATIONS



MIXED CONFIGURATIONS





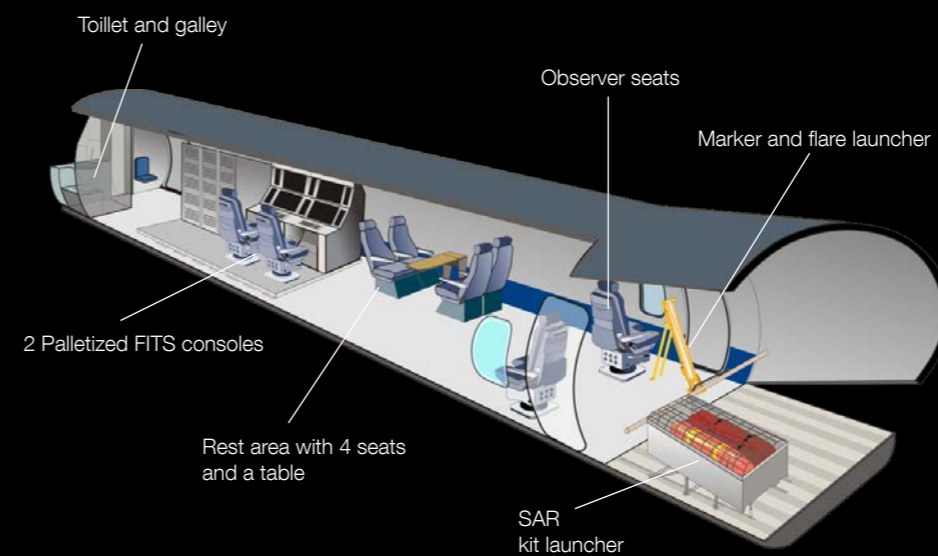
THE TRUE ISR AND TRANSPORT MULTI-ROLE

C295 Palletized MSA offers an unmatched versatility thanks to its long cabin and its rear ramp. The palletized roll-on/roll-off mission system provides a true multi-role capability, being able to be rapidly reconfigured to an airlifter role offering different cabin configurations:

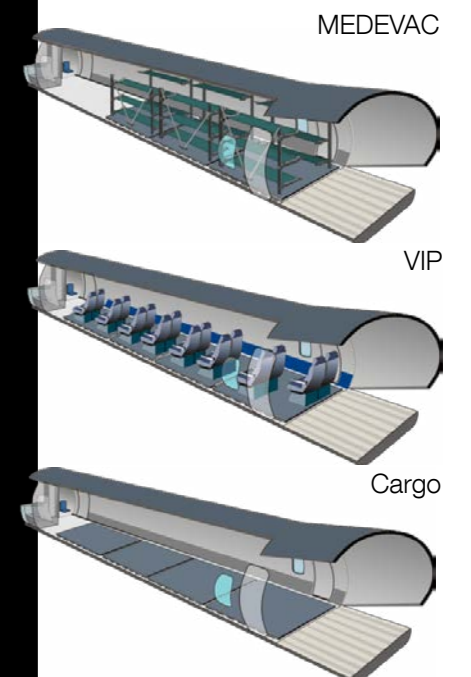
- Pure Maritime Surveillance Aircraft (MSA)
- Mixed MSA and transport configurations
- Fully reconfigurable to pure transport roles

MARITIME SURVEILLANCE WITH PALLETIZED MISSION SYSTEM

The Palletized Mission System, combined with the easily removable observer seats and rest area allow a rapid reconfiguration of the cabin to other roles.



PALLETIZED TRANSPORT CONFIGURATIONS





Mission monitoring and control from the MSC with real-time tactical data and video

MISSION SIMULATOR TACTICAL AIRCREW TRAINER (TAT)

The Tactical Aircrew Trainer (TAT) replicates on ground the FITS mission system on board the aircraft:

- Operator stations including:
 - One station for the instructor
 - One cockpit simulator for mission procedures
- Simulates the operative scenarios and targets
- Mission sensors simulation: radar, IFF, visual and ESM
- Aircraft navigation simulation



MISSION SUPPORT CENTRE (MSC)

The needed complement to the airborne segment:

MISSION PLANNING

Preparation of preflight mission data such as maps, mission flight patterns, navigational aids, classification and database.

EXPLOITATION

Processing, in-flight and post-flight analysis and interpretation of data collected, report creation, mission dynamic reconstruction including navigation data, images and tactical data. For the analysis of the specific sensors (i.e. ESM / ELINT, acoustic system), the MSC includes special dedicated applications and specific workstations.

ARCHIVING

Data recording, storage and management. Database and libraries creation.

DISSEMINATION

To create a common situational awareness and for tactical data exchange and access, the MSC is connectable and compatible with any data link application. The MSC is adaptable to any communication mean and can provide transmission between the ground segment and the aircraft, depending on the customer network.

MISSION MONITORING

The MSC provides tools to monitor the mission like tracking of the aircraft position, reception of Tactical Elements, Images and Video in real time from the MSC for mission re-planning and one voice / audio channel between the aircraft and the MSC sent and received simultaneously by different IP channels.

PORTABLE MSC

The system includes a laptop that provides similar functionalities to the MSC, allowing the planning and analysis of the missions on deployments out of the main base.



MATURE IN-SERVICE SUPPORT

Our Services organization provides worldwide support to more than 800 transport aircraft in service in 50 countries with more than 100 operators.

The support requirements of the C295 have been considered since its design phase. This, together with our extensive experience provides optimized support features, reducing downtimes and cost.

We offer material provisioning and repair services tailored to our customer needs. We also offer performance based solutions as DCare, providing contractual guaranteed availability under a Pay By The Hour concept.

The aircraft is quickly returned into service after maintenance tasks. This, combined with a reduced fuel consumption, results in extremely low operating costs for the C295.



Our training centre is located in Seville, Spain and offers a full range of training courses, products and services to support the operation of all aircraft in the most efficient and safe way.

It is equipped with advanced systems for all types of trainees, including two C295 Level D Full Flight Simulator (Thales and Rockwell Collins) that accumulates over 32,000 flight hours.



MAINTENANCE PROGRAMME

Developed under a condition preventive maintenance concept, it provides the following benefits:

- Extended inspections intervals
- Improved aircraft maintainability
- High mission reliability rates (>95%)

TECHNICAL PUBLICATIONS

An up to date electronic database of technical manuals and operating instructions accessible online and via CD is available.

We provide timely revisions or changes for modifications, Service Bulletins (SS BB), or Airworthiness Directives (AD) that impact our publications.

SPECIFICATIONS AND DIMENSIONS

Dimensions

Overall length (with MAD)	26.89 m	88 ft 3 in
Overall height	8.66 m	28 ft 5 in
Wing span	27.59 m	90 ft 6 in
Cabin length (ramp excluded)	12.69 m	41 ft 8 in
Cabin height	1.90 m	6 ft 3 in
Cabin width	2.70 m	8 ft 10 in

Weights

Maximum Take Off Weight	23 200 kg	51 150 lb
Maximum Landing Weight	23 200 kg	51 150 lb
Maximum payload (*)	9000 kg	19 850 lb
Usable fuel capacity	7500 l	1980 USG

Performance

Maximum cruise speed	480 km/h	260 kts
Normal operating altitude	7620 m	25 000 ft
Equivalent cabin altitude	2400 m	8000 ft
Ferry range	5750 km	3100 nm
Take off run (ISA, S/L, 21 000 kg)	670 m	2200 ft
Landing roll (ISA, S/L, 20 700 kg)	320 m	1050 ft

Power plant

Engines: 2 Pratt & Whitney Canada PW127G of 2645 shp each

Propeller: 6-Blade Hamilton Sunstrand HS568F

*Performance figures correspond to green aircraft





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Reference: TMMP0003/01/2023

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