



**L 410 UVP-E20 AIRCRAFT**

# Basic Aircraft Characteristics

The all-metal, high-wing, turboprop commuter, L 410 UVP-E20, is powered by two GE H80-200 engines and AV-725 propellers. The aircraft, in its standard version, is intended for short-haul transport of up to 19 passengers and cargo from remote and undeveloped areas to major cities. Depending on its equipment, it is suitable for various missions. Since 1969, more than 1,200 aircraft in the L 410 series have been produced. Currently, there are over 350 aircraft in more than 50 countries all over the world in operation. The L 410 UVP-E20 is the latest and most advanced model in this famous aircraft series.

## Aircraft advantages

- Ability to land and to take off on short runways (STOL capabilities)
- Durable, retractable landing gear enables take-off and landing on unpaved strips, including: rain-soaked grass, sand, snow or airfields with slush (minimum airstrip strength of 6 kg/sg.cm (85 psi) needed)
- Tough and durable structure which enables operation in severe conditions
- Remarkable hot and high performance
- Ability to operate under extreme climatic conditions, ranging from  $\pm 50^{\circ}\text{C}$
- Outstanding versatility with a number of quick change conversion kits, increasing aircraft utility
- Easy handling and low operating and maintenance costs
- The most spacious passenger compartment in the commuter category
- Low noise level in the passenger cabin
- Excellent safety record and reliable operation
- Attractive price value ratio and excellent dispatch reliability
- Short delivery time



# Aircraft Utilization

## Customers

The L 410 aircraft is operated by private airlines as well as governmental institutions, non-governmental organizations, air forces and aero clubs around the world.

The spacious, oval fuselage, with almost 18 m<sup>3</sup> of passenger cabin volume, provides the highest standard of passenger comfort as well as maximum versatility and opportunity for utilization of the aircraft for a number of different applications and special missions. The aircraft is produced in following variants:

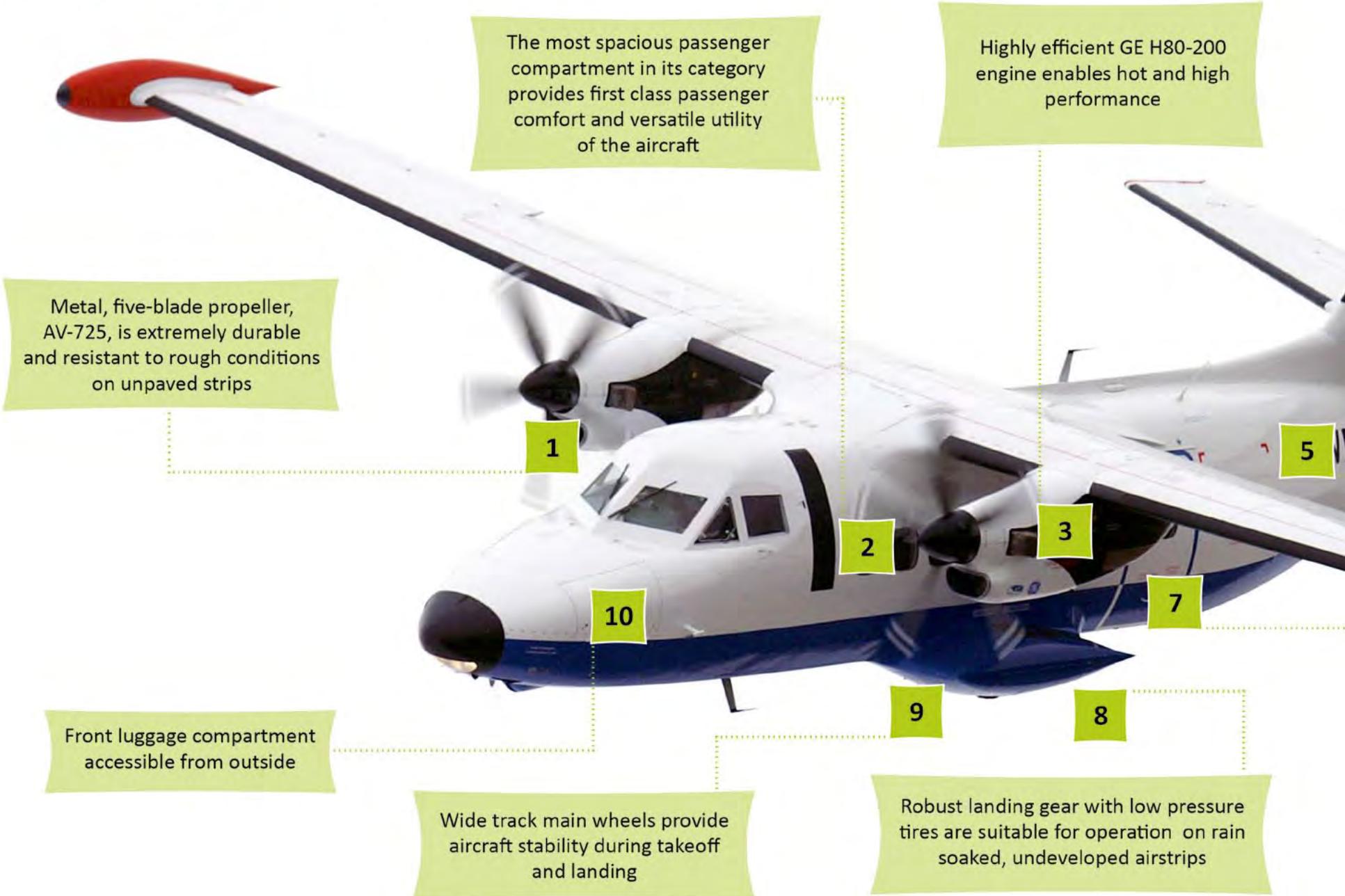
- Standard commuter
- Cargo
- VIP
- Air ambulance / Medivac
- Sky diving
- Photogrammetric Scanning
- Maritime, patrol and surveillance



The versatility of the L 410 UVP-E20 is increased by a number of quick change kits which can easily transform the aircraft from a passenger version to an air ambulance, cargo or sky diving version. The following conversion kits are available:

- Cargo (payload 1700 kg)
- Ambulance and medivac
- Foldable seats for quick change to combination cargo/passenger
- Sky diving

# L 410 UVP-E20 Features



The most spacious passenger compartment in its category provides first class passenger comfort and versatile utility of the aircraft

Highly efficient GE H80-200 engine enables hot and high performance

Metal, five-blade propeller, AV-725, is extremely durable and resistant to rough conditions on unpaved strips

Front luggage compartment accessible from outside

Wide track main wheels provide aircraft stability during takeoff and landing

Robust landing gear with low pressure tires are suitable for operation on rain soaked, undeveloped airstrips



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Durable, all-metal construction and aircraft systems enable operation in extreme climatic conditions ranging from -50°C up to + 50°C

Variable rear luggage compartment accessible from inside

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Besides the standard passenger and cargo door, it is possible to install sliding or roll doors

Wing tip tanks enable 1 500 km (810 NM) of range

### Certificates

The aircraft has been certified in the Commuter Category by EASA and FAA (FAR 23 Regulation Amendment 41).



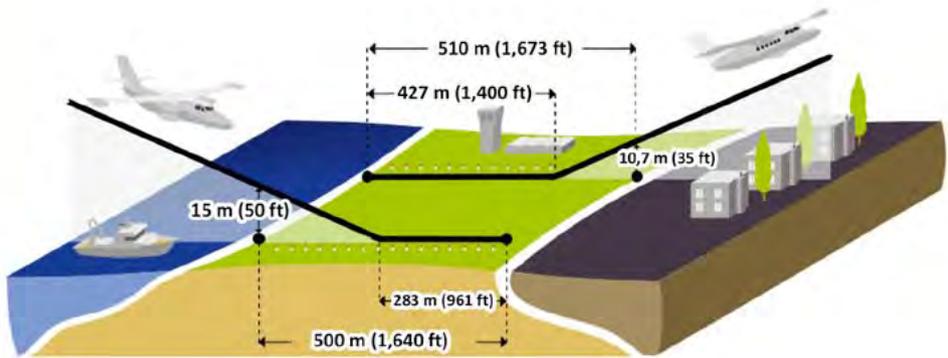
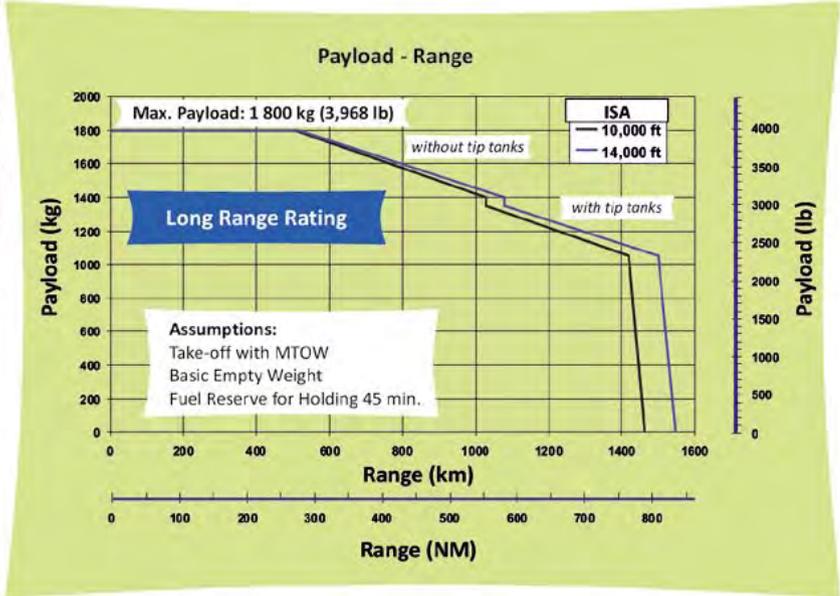
Standard equipment includes:  
de-icing system, heating, ventilation and cargo door

Available on request:  
single point refuelling system, air-conditioning, tail surface lighting

# Performance



Performance				
Max. Cruise Speed	405	km/hr TAS	219	KTAS
Max. Range (ISA, FL140, fuel reserve for 45 min)	1 500	km	810	NM
Max. Endurance	5,1	h		
Max. Operating Altitude	4 200	m	14 000	ft
Single Engine Service Ceiling (ISA, 95 % MTOW, climb rate 50 fpm)	4 755	m	15 600	ft
Both Engines Service Ceiling (ISA, 95 % MTOW, climb rate 100 fpm)	8 382	m	27 500	ft
Fuel Consumption	240	kg/hr	77	gal/hr
<b>Climb Rate:</b>				
Both Engines Service (ISA, SL, MTOW)	8,5	m/s	1 673	fpm
Single Engine Service (ISA, SL, MTOW)	1,8	m/s	354	fpm
<b>Take-off Distance to 35 ft:</b>				
ISA, SL, MTOW	510	m	1 673	ft
ISA+15°C, SL, MTOW	547	m	1 795	ft
<b>Landing Distance over 50 ft:</b>				
ISA, SL, MLDW	500	m	1 640	ft
ISA+15°C, SL, MLDW	520	m	1 706	ft



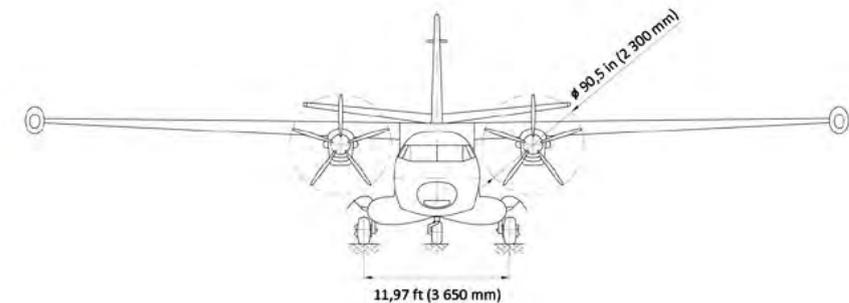
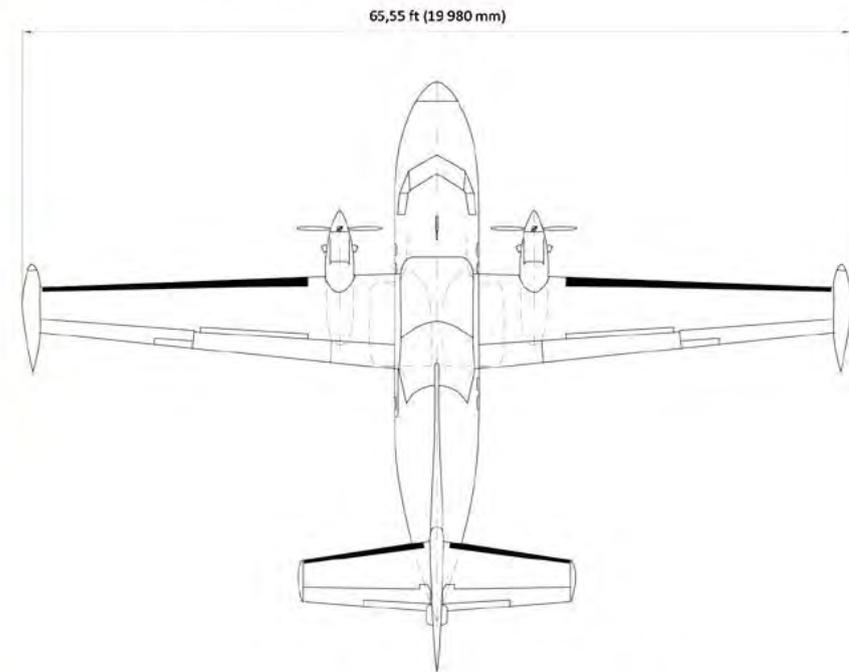
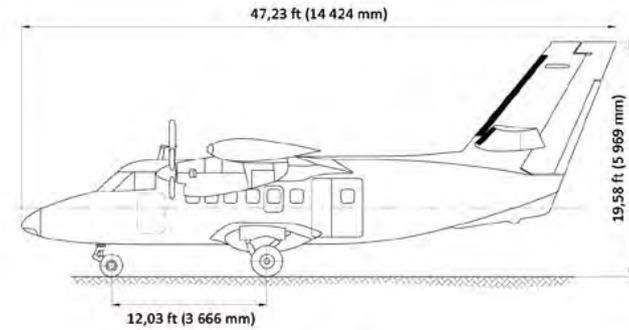
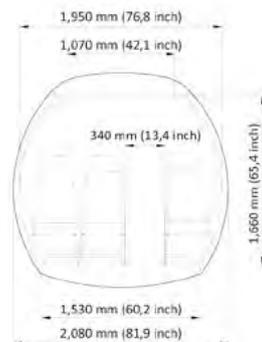
# Weights and Dimensions

## Weights

Max. Take-off Weight (MTOW)	6 600	kg	14 550	lb
Max. Landing Weight (MLDW)	6 400	kg	14 109	lb
Max. Zero Fuel Weight (MZFW)	6 000	kg	13 228	lb
Max. Payload	1 800	kg	3 968	lb
Max. Fuel Weight (with tip tanks)	1 300	kg	2 866	lb

## Dimensions

Passenger Cabin Volume	17,9	m <sup>3</sup>	632	cu.ft
Passenger Door	0,8 x 1,46	m	2,6 x 4,8	ft
Cargo Door	1,25 x 1,46	m	4,1 x 4,8	ft
Seats Pitch	0,76	m	30	inch
Luggage Compartment Volume	1,47	m <sup>3</sup>	51,9	cu.ft



# Power Plant

## Engines

The efficient and reliable GE H80-200 engine continues the long remarkable history of the M601 engine's durable operation under the most rigorous conditions all over the world. The two shaft, reverse-flow turboprop engine, with free turbine, has low fuel consumption and low-cost maintenance, which makes the engine highly competitive and extremely cost effective.

- Model: GE H80-200
- Producer: GE Aviation Czech s.r.o.
- Max. take-off performance: 597 kW/ 800 SHP
- Max. continuous performance : 522 kW / 700 SHP
- TBO: 3600 FH / 6600 FC
- Dry engine weight: 201 kg
- Without HSI (hot section inspection)



## Propellers

Metal double-action highly efficient AV-725 propellers are extremely durable and resistant to rough conditions on unpaved airstrips. Propellers are equipped with a system of automatic and manual feathering.



- Model: AV-725
- Producer: Avia Propeller s.r.o.
- Number of blades: 5
- Diameter: 2,3 m (7,5 ft)
- Clockwise rotation
- High propulsion efficiency
- Reverse-thrust setting
- TBO: 3600 FH / 6600 FC
- Weight: 88 kg (207 lb)
- Low noise level
- Possibility to transport blades separately

# Avionics and Instrumentation

The L 410 UVP-E20 aircraft is equipped with innovated avionics and instrumentation from Garmin, Universal and Honeywell to provide the highest level of safety and comfort. It is fully equipped for IFR flights.

## Standard equipment

- Semi-glass cockpit – 2 primary flight displays EFIS from Universal
- Garmin GPS/Comm/Nav Systems (GTN 750 and GTN 650) – enhanced multi-function display with touch screen interface
- Garmin GWX 70 Weather Radar - advanced radar with a new solid-state transmitter design
- TAWS – terrain avoidance warning system is integrated in GTN 750
- L3 Communication Trilogly ESI-2000 Electronic Standby Instrument - combines attitude, altitude, airspeed, slip/skid and optional heading data into a single digital display

## Optional equipment

- TCASII - Garmin GTS 8000 with dual GTX 3000 Transponders, corresponding to the latest European regulations for TCAS change Chapter 7.1
- Autopilot - KFC 325
- High Frequency Transceiver - KHF 1050



The newly incorporated equipment widely enhances a safe level of operation and further adds to the cut down on maintenance and fuel costs.

# Versatile Aircraft Utilization

## STANDARD VERSION FOR 19 PASSENGERS

This version offers front (100 kg) and rear (150 kg) luggage compartments accessible from the passenger cabin. Standard equipment includes as basic chemical toilet in the rear of the aircraft. We offer a wide choice of upholstery fabrics including leather.



### Additional equipment available on request includes:

- Service tables
- Attendant foldable seat
- 32" LCD monitor
- DVD player
- Headphones
- Variable luggage compartment
- High-standard chemical toilet
- Air conditioning

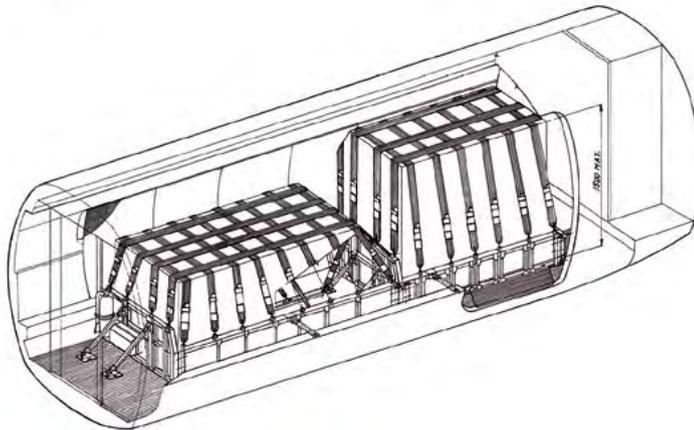


19 seats

# Quick Change Kits

## CARGO VERSION

The cargo version enables the transportation of up to 1 700 kg which can be stored in 4 m x 1,08 m x 1,5 m (13 ft x 3,54 ft x 4,92 ft) pallets equipped with nets and belts to secure the cargo.



Cargo pallets

Cargo door



## SKY DIVING VERSION

The sky diving version is equipped with foldable seats, with fastening belts for 18 paratroopers, a wide roll-up door, external footboard for a photographer and signalling lights.



# Quick Change Kits

## EXTENDABLE CARGO MODULE

The standard passenger version offers the possibility to enlarge the rear luggage compartment by removing the last two or four seats as follows:

- 17 passengers plus extra 215 kg of cargo (in total 365 kg in rear luggage compartment)
- 15 passengers plus extra 330 kg of cargo (in total 480 kg in rear luggage compartment)

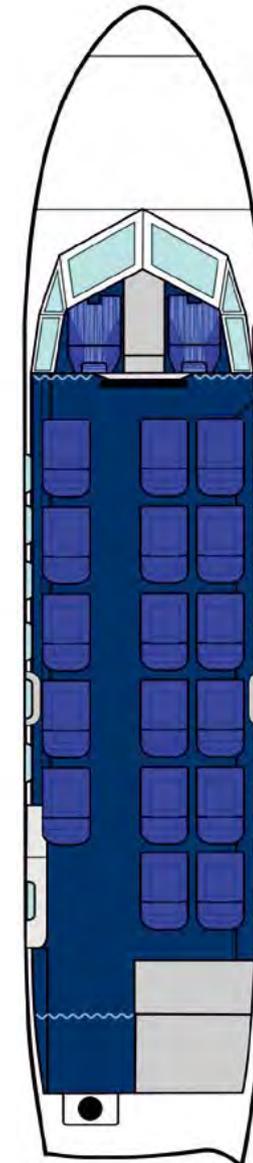


## FOLDABLE SEATS

A kit with foldable, light weight seats (weighing up to 20 kg less than the standard seats) enables easy conversion from passenger to the cargo version and vice versa. The cargo is fixed to the floor with a net system.



15 seats



17 seats

## ... Suitable for Special Purposes

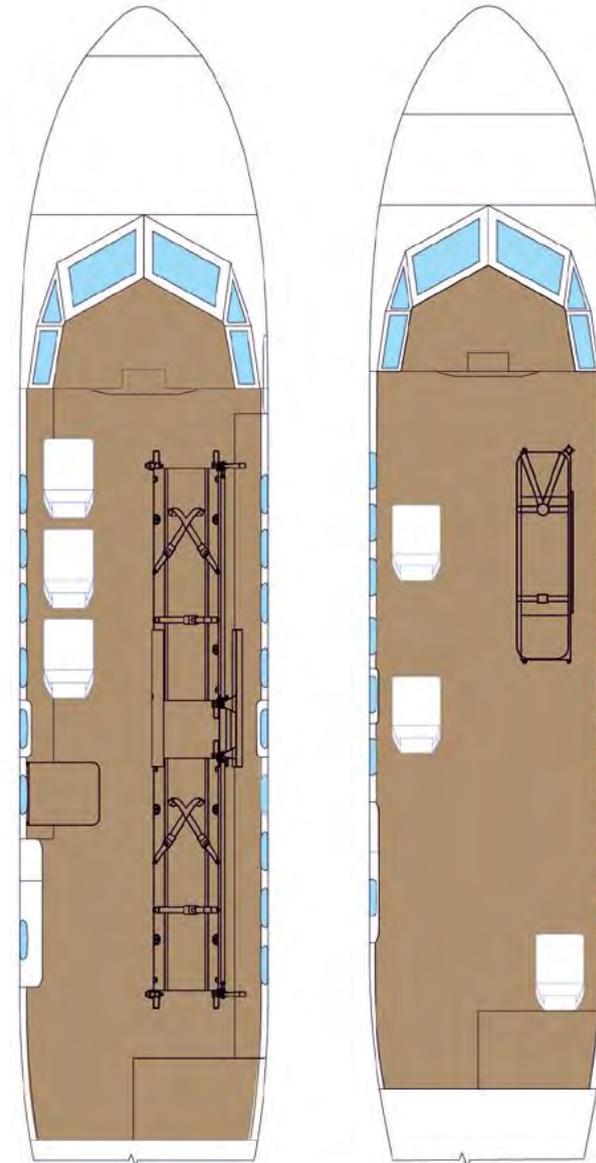
### BASIC AIR AMBULANCE

The interior of the aircraft is equipped with six stretchers (with belts) and collapsible table with seats for a Doctor and two accompanying staff.



### FAST PROFESSIONAL MEDICAL AID

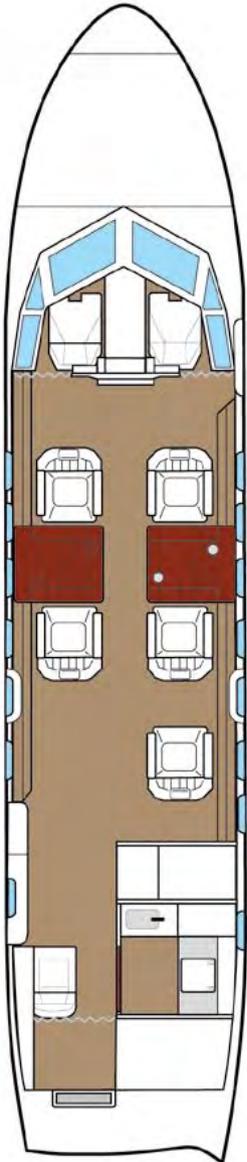
The version provides for the transportation of one bed-ridden patient, who needs immediate medical care, and up to four passengers. It also offers special medical accessories i. e. operating table, oxygen system, lighting, storage drawer cabinet, and seating for a Doctor accompanying staff.



# Single Purpose Version

## VIP PASSANGER VERSION

The luxuriously designed interior has a wide choice of equipment such as VIP seating, galley, audio-video devides and high-standard bathroom which creates an aircraft that fulfils the customer's individual requirements.



# Single Purpose Versions

## PHOTOGRAMMETRIC SCANNING, MARITIME, SURVEILLANCE AND PATROL VERSION (MPA VERSION)

In the photogrammetric scanning version, a special camera and bubble windows are installed.

The MPA version can be utilized for a wide range of special missions such as search and rescue operations, natural/industrial disaster management, monitoring borders and coast lines, fishery protection, oil pollution, chemical dumping detection or management of shipping. The MPA version is individually configured, according to the deployment of aircraft for specific missions and allows a wide range of functions such as: detection, search, recording and observation. It can be equipped with special devices and sensors which enable analysed data to be displayed on digital maps and to be processed and transmitted on-line directly to a ground station through a satellite link.



SLAR



Special SW for data analysis and display / presentation



Among the frequently used equipment and devices are search radar, SLAR, EO/IR sensor, special digital cameras, scanners and bubble windows.

# Maintenance

We carry out the whole range of maintenance services through our maintenance organization, approved in accordance with Regulation (EC) No. 2042/2003 and Annex II (Part 145).

## We offer the following services:

- Periodical maintenance
- Revision R1 - R3 every 4 800 FH or after 10 years
- Modifications, upgrades and modernization
- Aircraft conversions from L 410 UVP-E to L 410 UVP-E20
- New paint schemes upon customer's request
- Field and in-house repairs



# Technical Support and Services

## Our product support team offers:

- Aircraft technician's assistance during the initial phase of operation [all personnel are certified in accordance with Regulation (EC) No. 2042/2003 and Annex III (Part 66)]
- Assistance with repairs, including structural analysis and analysis of technological procedures for repairs
- Delivery of special servicing and testing equipment needed for aircraft maintenance
- Delivery of operational documentation
- Assistance with ferry flights or provision of ferry flights
- On-site factory personnel to provide customer assistance for operating the aircraft
- Technical consultations and/or specific assistance relating to aircraft inspections, repairs, and other services
- Regular Bulletin Service
- Type rating training of pilots and aircraft engineers by the training organization in the Czech Republic, which is approved by EASA Part 147
- Delivery of original and certified spare parts
- Route and economy analysis



