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/sq.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 ±50°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 m³ 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

1. Metal, five-blade propeller, AV-725, is extremely durable and resistant to rough conditions on unpaved strips.
2. The most spacious passenger compartment in its category provides first-class passenger comfort and versatile utility of the aircraft.
3. Highly efficient GE H80-200 engine enables hot and high performance.
4. Front luggage compartment accessible from outside.
5. Wide track main wheels provide aircraft stability during takeoff and landing.
6. Robust landing gear with low pressure tires are suitable for operation on rain soaked, undeveloped airstrips.
Durable, all-metal construction and aircraft systems enable operation in extreme climatic conditions ranging from -50°C up to +50°C.

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

<table>
<thead>
<tr>
<th>Performance</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Max. Cruise Speed</td>
<td>405</td>
<td>km/hr TAS</td>
</tr>
<tr>
<td>Max. Range (ISA, FL140, fuel reserve for 45 min)</td>
<td>1 500</td>
<td>km</td>
</tr>
<tr>
<td>Max. Endurance</td>
<td>5.1</td>
<td>h</td>
</tr>
<tr>
<td>Max. Operating Altitude</td>
<td>4 200</td>
<td>m</td>
</tr>
<tr>
<td>Single Engine Service Ceiling (ISA, 95 % MTOW, climb rate 50 fpm)</td>
<td>4 755</td>
<td>m</td>
</tr>
<tr>
<td>Both Engines Service Ceiling (ISA, 95 % MTOW, climb rate 100 fpm)</td>
<td>8 382</td>
<td>m</td>
</tr>
<tr>
<td>Fuel Consumption</td>
<td>240</td>
<td>kg/hr</td>
</tr>
<tr>
<td><strong>Climb Rate:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both Engines Service (ISA, SL, MTOW)</td>
<td>8.5</td>
<td>m/s</td>
</tr>
<tr>
<td>Single Engine Service (ISA, SL, MTOW)</td>
<td>1.8</td>
<td>m/s</td>
</tr>
<tr>
<td><strong>Take-off Distance to 35 ft:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISA, SL, MTOW</td>
<td>510</td>
<td>m</td>
</tr>
<tr>
<td>ISA+15°C, SL, MTOW</td>
<td>547</td>
<td>m</td>
</tr>
<tr>
<td><strong>Landing Distance over 50 ft:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISA, SL, MLDW</td>
<td>500</td>
<td>m</td>
</tr>
<tr>
<td>ISA+15°C, SL, MLDW</td>
<td>520</td>
<td>m</td>
</tr>
</tbody>
</table>

### Payload - Range

- **Max. Payload:** 1 800 kg (3,968 lb)
- **Long Range Rating:**
  - **Assumptions:** Take-off with MTOW, Basic Empty Weight, Fuel Reserve for Holding 45 min.
  - **Range:** 15 m (50 ft)
  - **Payload:** 200 kg (440 lb)
  - **Range (NM):** 510 m (1,673 ft)
  - **Payload:** 1 200 kg (2,646 lb)
  - **Range (NM):** 427 m (1,400 ft)

- **Without tip tanks:**
  - **Range:** 1 600 km (862 NM)
  - **Payload:** 1 800 kg (3,968 lb)

- **With tip tanks:**
  - **Range:** 1 700 km (927 NM)
  - **Payload:** 1 800 kg (3,968 lb)
# Weights and Dimensions

## Weights

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Take-off Weight (MTOW)</td>
<td>6,600</td>
<td>kg</td>
</tr>
<tr>
<td>Max. Landing Weight (MLDW)</td>
<td>6,400</td>
<td>kg</td>
</tr>
<tr>
<td>Max. Zero Fuel Weight (MZFW)</td>
<td>6,000</td>
<td>kg</td>
</tr>
<tr>
<td>Max. Payload</td>
<td>1,800</td>
<td>kg</td>
</tr>
<tr>
<td>Max. Fuel Weight (with tip tanks)</td>
<td>1,300</td>
<td>kg</td>
</tr>
</tbody>
</table>

## Dimensions

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Cabin Volume</td>
<td>17,9</td>
<td>m³</td>
</tr>
<tr>
<td>Passenger Door</td>
<td>0,8 x 1,46</td>
<td>m</td>
</tr>
<tr>
<td>Cargo Door</td>
<td>1,25 x 1,46</td>
<td>m</td>
</tr>
<tr>
<td>Seats Pitch</td>
<td>0,76</td>
<td>m</td>
</tr>
<tr>
<td>Luggage Compartment Volume</td>
<td>1,47</td>
<td>m³</td>
</tr>
</tbody>
</table>

1,050 mm (41.3 inch)  
1,070 mm (42.1 inch)  
1,480 mm (58.3 inch)  
2,080 mm (82.3 inch)  
1,510 mm (59.5 inch)  
1,560 mm (61.4 inch)  

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 Trilogy ESI-2000 Electronic Standby Instrument - combines attitude, altitude, airspeed, slip/skid and optional heading data into a single digital display

**Optional equipment**
- TCAS II - Garmin GTS 8000 with dual GTX 3000 Transponders, corresponding to the latest European regulations for TCAS change Chapter 7.1
- Autopilot - KFC 32S
- 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 a 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
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.

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.
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 devices and high-standard bathroom which creates an aircraft that fulfils the customer's individual requirements.
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.

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
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