L 410 UVP-E20
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 1,100 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 ± 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 version
- Cargo version
- VIP passenger version
- Flying ambulance version or life saving version
- Skydiving version
- Photogrammetric version
- Maritime, patrol and surveillance version

Versatility of the aircraft is enabled by a number of quick change conversion kits, which can easily transform the aircraft from a passenger version to a flying ambulance, cargo or skydiving version. The following quick change conversion kits are available:

- Cargo quick change conversion kit (payload 1700 kg)
- Ambulance and fast medical aid quick change conversion kit
- Foldable seats quick change conversion kit enabling easy conversion from the passenger version to the cargo version without the necessity of complete removing of the seats
- Skydiving quick change conversion kit
L 410 UVP-E20 Features

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

2. The metal, five-blade propeller, AV-725, is extremely durable and resistant to rough conditions on unpaved strips.

3. Front luggage compartment accessible from outside.

4. Wide track main wheels provide aircraft stability during takeoff and landing.

5. The highly efficient GE H80-200 engine enables hot and high performance.

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 to +50°C.

Variable rear luggage compartment accessible from inside.

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

Wingtip tanks enable 1500 km (810 NM) of range.

Certificates

The aircraft has been certified in the commuter category by EASA according to FAR 23 Regulation, Amendment 34, in many countries all over the world.

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

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

<table>
<thead>
<tr>
<th>Performance</th>
<th>Value_1</th>
<th>Value_2</th>
<th>Value_3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Cruise Speed (km/hr TAS)</td>
<td>405</td>
<td>219</td>
<td></td>
</tr>
<tr>
<td>Max. Range (ISA, FL140, fuel reserve for 45 min) (km)</td>
<td>1500</td>
<td>810</td>
<td>NM</td>
</tr>
<tr>
<td>Max. Endurance (h)</td>
<td>5.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Altitude (m)</td>
<td>4200</td>
<td>14000</td>
<td>ft</td>
</tr>
<tr>
<td>Single Engine Service Ceiling (ISA, 95 % MTOW, climb rate 50 fpm) (m)</td>
<td>4755</td>
<td>15600</td>
<td>ft</td>
</tr>
<tr>
<td>Both Engines Service Ceiling (ISA, 95 % MTOW, climb rate 100 fpm) (m)</td>
<td>8382</td>
<td>27500</td>
<td>ft</td>
</tr>
<tr>
<td>Fuel consumption (kg/hr)</td>
<td>240</td>
<td>77</td>
<td>gal/hr</td>
</tr>
<tr>
<td>Climb rate:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both Engines Service (ISA, SL, MTOW) (m/s)</td>
<td>8.5</td>
<td>1673</td>
<td>fpm</td>
</tr>
<tr>
<td>Single Engine Service (ISA, SL, MTOW) (m/s)</td>
<td>1.8</td>
<td>354</td>
<td>fpm</td>
</tr>
<tr>
<td>Take-off Distance to 35 ft:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISA, SL, MTOW</td>
<td>510</td>
<td>1673</td>
<td>ft</td>
</tr>
<tr>
<td>ISA+15°C, SL, MTOW</td>
<td>547</td>
<td>1795</td>
<td>ft</td>
</tr>
<tr>
<td>Landing Distance over 50 ft:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISA, SL, MLDW</td>
<td>500</td>
<td>1640</td>
<td>ft</td>
</tr>
<tr>
<td>ISA+15°C, SL, MLDW</td>
<td>520</td>
<td>1706</td>
<td>ft</td>
</tr>
</tbody>
</table>

**Payload - Range**

- **Max. Payload:** 1800 kg (3968 lb)
- **Assumptions:**
  - Take-off with MTOW
  - Basic Empty Weight
  - Fuel Reserve for Holding 45 min.

**Long Range Rating**

- Without tip tanks
- With tip tanks

**Graph**

- 510 m (1673 ft)
- 427 m (1400 ft)
- 283 m (961 ft)
- 500 m (1640 ft)
- 15 m (50 ft)
- 19.7 m (65 ft)
Weights and Dimensions

Weights

<table>
<thead>
<tr>
<th></th>
<th>Max. Take-off Weight (MTOW)</th>
<th>6,600 kg</th>
<th>14,550 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Max. Landing Weight (MLDW)</td>
<td>6,400 kg</td>
<td>14,109 lb</td>
</tr>
<tr>
<td></td>
<td>Max. Zero Fuel Weight (MZFW)</td>
<td>6,000 kg</td>
<td>13,228 lb</td>
</tr>
<tr>
<td></td>
<td>Max. Payload</td>
<td>1,800 kg</td>
<td>3,968 lb</td>
</tr>
<tr>
<td></td>
<td>Max. Fuel Weight (with tip tanks)</td>
<td>1,300 kg</td>
<td>2,866 lb</td>
</tr>
</tbody>
</table>

Dimensions

<table>
<thead>
<tr>
<th></th>
<th>Passenger Cabin Volume</th>
<th>17,9 m³</th>
<th>632 cu.ft</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Passenger Door</td>
<td>0,8 x 1,46 m</td>
<td>2,6 x 4,8 ft</td>
</tr>
<tr>
<td></td>
<td>Cargo Door</td>
<td>1,25 x 1,46 m</td>
<td>4,1 x 4,8 ft</td>
</tr>
<tr>
<td></td>
<td>Seats Pitch</td>
<td>0,76 m</td>
<td>30 inch</td>
</tr>
<tr>
<td></td>
<td>Luggage Compartment Volume</td>
<td>1,47 m³</td>
<td>51,9 cu.ft</td>
</tr>
</tbody>
</table>
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 aircraft is equipped with famous brand avionics and instrumentation from Universal, Garmin and Honeywell to provide the highest level of safety and comfort. The aircraft is equipped for IFR flights.

**Standard equipment**
- Semi-Glass Cockpit (EFI-890R)
- Garmin GPS (GNS 430W)
- EGPWS (MARK VI)
- Weather radar (RDR 2000)

**Optional equipment**
- TCAS II (CAS 67A)
- Autopilot (KFC 325)
- High Frequency Transceiver HF (KHF 1050)
Versatile Aircraft Utilization

STANDARD VERSION FOR 19 PASSENGERS

This version offers front (for 100 kg of cargo) and rear (for 150 kg of cargo) luggage compartment accessible from the passenger cabin. Standard equipment includes an emergency chemical toilet in the back of the aircraft. We offer a wide choice of fabrics, including leather upholstery.

On request are available

- Service tables
- Attendants foldable seat
- LCD monitor (32")
- DVD player
- Headphones for each seat
- Variable luggage compartment
- Comfortable chemical toilet
- Air-conditioning
CARGO VERSION

The cargo version enables transport of up to 1 700 kg of cargo, which can be stored in 4 x 1.08 x 1.5 m (13 x 3.54 x 4.92 ft) boxes equipped with nets and fastening belts for the fixing of goods.

SKYDIVING VERSION

The skydiving 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 Conversion Kits

EXTENDABLE CARGO MODUL

The standard passenger version offers the possibility to enlarge the rear luggage compartment 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, lightweight seats enables easy conversion from the passenger version to the cargo version and vice versa. Foldable seats weigh up to 20 kg less than the standard passenger version. The cargo is fixed to the floor with a net system.
... Suitable for Special Missions

SIMPLE FLYING AMBULANCE
The interior of the aircraft is equipped with six stretchers, with fastening belts, as well as a collapsible table with a doctor’s seat and two other seats for accompanying staff.

PROFESIONAL FAST MEDICAL AID
The aircraft in fast medical aid version provides the transportation of one bed-ridden person who needs immediate medical care and three or four sitting passengers. This version offers special medical accessories; surgery table, oxygen, lamps, etc., storage drawer cabinet, one doctor’s seat and seats for accompanying staff.
One Purpose Versions

VIP PASSANGER VERSION

Luxury designed interior and a wide choice of appropriate equipment, such as, comfortable VIP passenger seats, galley, audio-video devices or comfortable lavatory create a solution which reflects the customers distinct personality and needs.
One Purpose Versions

PHOTOGRAFMETRIC, MARITIME, SURVEILLANCE AND PATROL VERSION (MPA VERSION)

In photogrammetric version, a special camera and bubble windows are installed with an additional, internal fuel tank.

MPA version can be utilized for a wide range of special missions, such as, search and rescue operations, natural/industrial disaster management, monitoring and tracking of borders and coast, fishing resources protection, oil pollution protection, chemical dumping detection or management of ship traffic. MPA version equipment is configured individually, according to the deployment of aircraft for specific missions and allows a wide range of detection, search, recording and observation functions. It can be equipped with special devices and sensors, enabling analyzed data to display on digital maps, to process and to transmit on-line through satellite connection directly to the ground station.

Among frequently used equipment and devices are, for example, search radar, SLAR, FLIR, 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 services as follows:

- Periodical maintenance
- Revision R1, R2, R3 every 4 800 FH or after 10 years
- Modifications, upgrades and modernization of the aircraft
- Aircraft conversions from L 410 UVP-E to L 410 UVP-E20
- New paint upon customer’s request
- Field and in-house aircraft damage repairs
Technical Support and Services

Our product support team offers:

- Aircraft technician’s assistance during the initial phase of operation (personnel 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 cross flights or provision of cross flights
- Delegation of factory specialist to provide customer assistance for aircraft operation
- Technical consultations and/or specific assistance related to aircraft inspections, repairs, and other services
- Regular Bulletin Service
- Type Rating Training of pilots and aircraft engineers in EASA Part 147 approved Training Organization in the Czech Republic
- Delivery of original and certified spare parts
- Route and economic analysis