

*EV-55* **OUTBACK**



Reliable    Versatile  
Efficient



## Operational Versatility

The Outback does not compromise this feature. The biggest cross-section in its category offers the largest cabin volume for passenger and together with comfortable seats, provides the highest level of passenger comfort.

Alternatively the cabin can be packed with cargo from the floor to the ceiling through the super wide doors.



## Reliability and Safety

Two PT6A-21 turboprop engines together with robust aluminum primary structure offer an excellent solution in terms of reliability and safety. Be confident, the aircraft will serve reliably through all 30,000 flight hours.



## High Productivity

The Outback gives an operator a strong and productive asset – a real money maker. High speed together with spacious cabin means much higher productivity than obsolete piston twins or even single turboprop aircraft.





## **Wide Range of Operational Conditions**

Exceptional operational capabilities even in hot and high altitude conditions, long range or short take-off and landing distances. Robust landing gear with large tires allows operation on grass or rain soaked unpaved airfields. Reliable and proven de-icing system provides safety in freezing conditions where many other aircraft often face serious problems.



## **Inexpensive and Easy Maintenance**

All-metal design makes repair easy. All key system components are easily accessible through large openings. You don't need stairs or ladders to access hydraulic or electrical components - all put close together in the aircraft nose or in the landing gear nacelles.



## **SmartDeck Advanced Avionics Suite**

SmartDeck is an integrated cockpit avionics system designed by CMC Electronics which provides unprecedented situational awareness to make flying intuitive, easier and safer even for an experienced professional pilot.



# EV-55 Features



## Efficient Fowler flaps

## De-icing system

Flight in known icing conditions.  
Rubber de-icing boots on wing and tail units leading edges.  
Heated propeller blades and windshield.

## Roomy aft baggage compartment

Volume of 95 cu.ft (2.7m³).  
Max. baggage weight of 551 lbs (250kg).

## Entry & cargo doors

Three-part entry and cargo doors.  
Lower part of doors equipped with steps for easy passenger boarding.  
Doors height of 53.9 in (1.37 m).  
Cargo door width of 49.2 in (1.25 m).

## Central fuelling point

Easy fuelling from the ground.  
Total fuel tanks capacity of 515 U.S. gall (1,950 liters).

## Turboprop engines

Proven P&WC PT6A-21,  
T/O power of 536 SHP each,  
TBO 3,600 hours.

## Landing gear

Retractable for high speed,  
sturdy design allowing  
operation from unpaved RWYs.

## Spacious pax/cargo cabin

9/14 comfortable seats.  
Volume of 334 cu.ft (9.47m³).  
Three separate sections with dividers  
for cargo transportation.

## Propeller

4-blade, constant speed,  
full feathering, quiet, reversible  
for short landing distance.

## Large cabin windows

## Advanced cockpit

Dual PFDs and MFD, synthetic  
vision feature provides  
great situation awareness.  
Digital autopilot as a standard.  
Certified for single pilot operation.

## Weather radar antenna

## Front baggage compartment

Volume of 18 cu.ft (0.5 m³).  
Max. baggage weight of 220 lbs (100kg).  
Access doors on both sides.

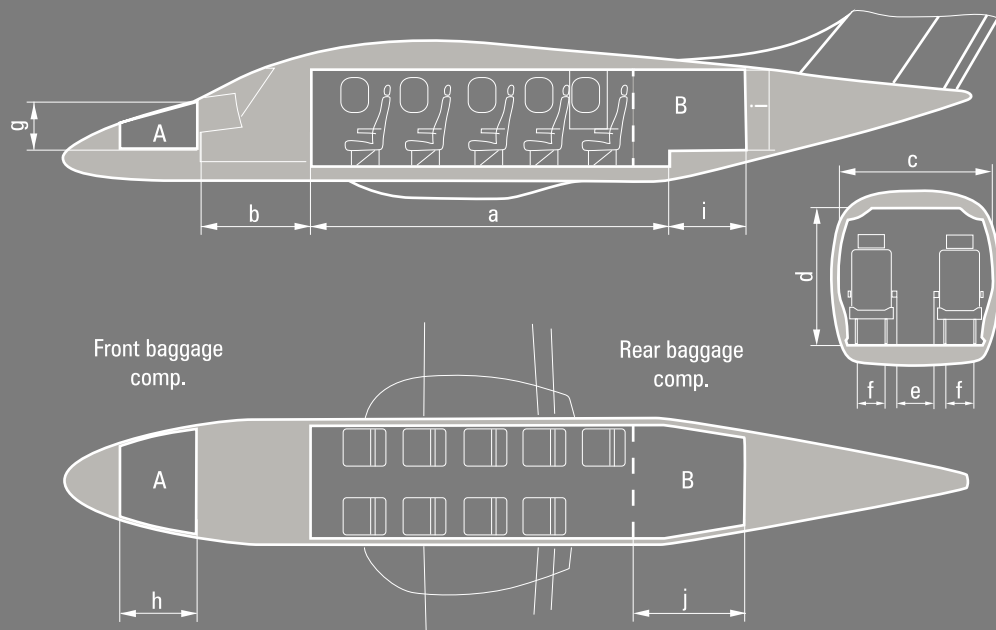
## Crew doors



# Passenger Version



Passenger version of aircraft interior provides high comfort for nine passengers. Each passenger sits next to a large window on an individual comfortable seat. There is a plenty of legroom, even for tall people, provided by 33 in (84 cm) pitch between the seats. Airplane cabin is equipped with an efficient ventilation (on-ground as well) and heating system with air conditioning as an option. All nine passengers with their baggage can be quickly transported up to distance of 800 nm (1,480 km). Airplane cabin is so roomy and 63.4 in (1.61 m) wide that even 14 passengers will travel comfortably. This option is applicable for operators in countries where it is allowed by local operating rules.



### Interior dimensions:

Size	a	b	c	d	e	f	g	h	i	j
in	197.5	62	63.4	54	15.9	12.6	26.4	43.8	45.7	63.8
mm	5,020	1,575	1,610	1,370	403	320	670	1,113	1,160	1,620

A: Front compartment - 18 cu.ft (0.5 m<sup>3</sup>)  
Max. 221 lbs (100 kg)

B: Rear compartment - 95 cu.ft (2.7 m<sup>3</sup>)  
Max. 551 lbs (250 kg)



# Cargo Version



The EV-55 Outback is a true workhorse when it comes to cargo transportation. Cargo can be transported as separate packages or stacked on pallets or in cargo containers. Through the large cargo door it can be loaded by hand or by forklift for pallets or large objects. The rugged cabin floor can be equipped with a roller system for ease of loading and unloading and the tie down system secures loads during flight. The unique wide range of CG loading between 8-35% MAC allows operators maximum flexibility when transporting cargoes of variable density.

### Max. cargo weight

Total: 3,915 lb / 1,776 kg

Zone A: 1,553 lbs / 700 kg

Zone B: 2,866 lbs / 1,300 kg

Zone C: 1,036 lbs / 470 kg

Rear baggage comp.: 551 lbs / 250 kg

Front baggage comp.: 221 lbs / 100 kg

### Max. floor loading

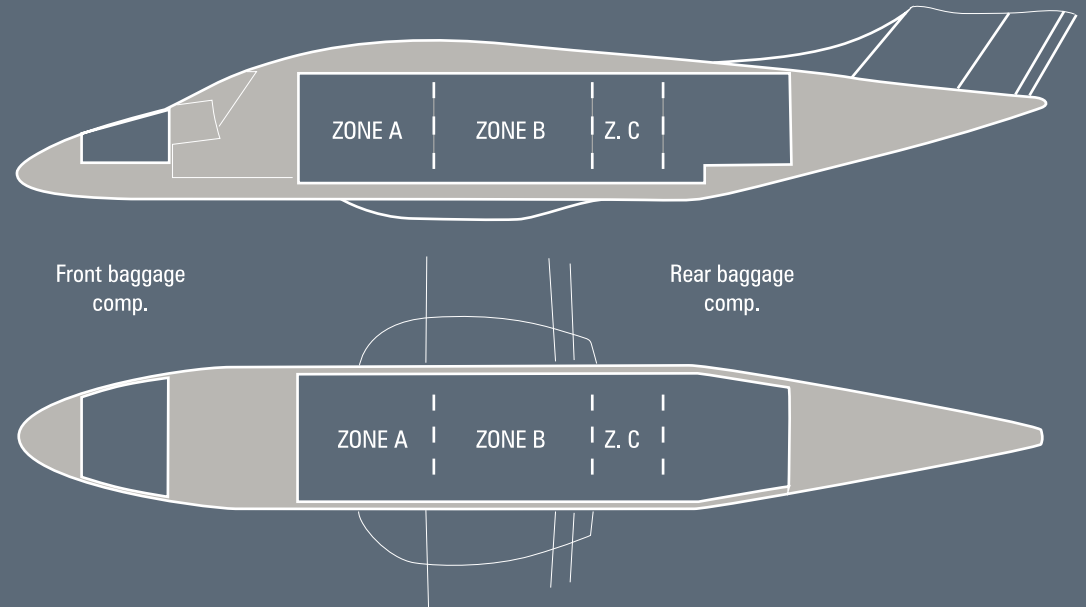
102 lb/sq.ft / 500 kg/m<sup>2</sup>

### Available cargo space

Main cabin: 334 cu.ft / 9.47 m<sup>3</sup>

Rear baggage comp.: 95 cu.ft / 2.7 m<sup>3</sup>

Front baggage comp.: 18 cu.ft / 0.5 m<sup>3</sup>



### Cargo door dimension

Height: 54 in / 1,370 mm

Width: 49.2 in / 1,250 mm

### Tie down system

Dividing nets

Tie down straps

Tie down nets

4 floor tracks

### Optional equipment

5th floor track

Roller system





# Combi Version

The Outback is a versatile aircraft for passengers or cargo which allows us to offer a combi variant for even more flexibility. Cargo can be loaded into the front zones of the aircraft then after the quick installation of a barrier net or bulkhead a further 3 or 5 passenger seats can be fitted in the rear of the aircraft. The whole operation is simple and fast.

**Number of passengers:** 3 - 5

## Max. cargo weight

Zone A: 1,553 lbs / 700 kg

Zone B1: 2,202 lbs / 1,000 kg

Rear baggage comp.: 551 lbs / 250 kg

Front baggage comp.: 221 lbs / 100 kg

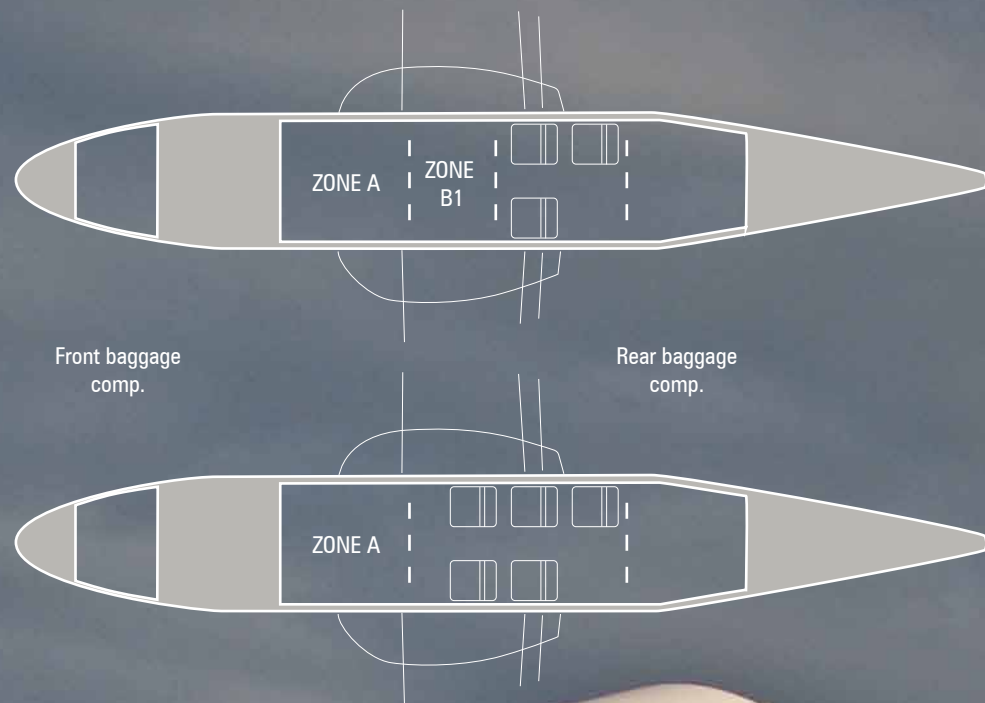
## Available cargo space

Zone A: 106 cu.ft / 3.0 m<sup>3</sup>

Zone B1: 64 cu.ft / 1.8 m<sup>3</sup>

Rear baggage comp.: 95 cu.ft / 2.7 m<sup>3</sup>

Front baggage comp.: 18 cu.ft / 0.5 m<sup>3</sup>



# ...and more versions

## Parachute Operation

The EV-55 design makes it ideal for parachute operations. It can climb easily to an altitude of 10,000 ft in just 6 minutes. The standard entry doors can be replaced with a roll-up door and the high wing design together with the T-type tail unit make jumping from the aircraft safe and comfortable.

## Special Missions

From the outset the EV-55 is designed to be sturdy and reliable, capable of operating from short strips whether it is desert, tundra or mountain regions. Aircraft can be instrumented with necessary equipment thanks to high payload and two optional 300 A generators.

## Medivac

The EV-55 is fast enough to transport patients from remote areas and airfields to hospitals to receive the necessary treatment in time.

## Search and Rescue / Aerial Mapping

The aircraft has the ability to carry the necessary rescue equipment and instrumentation including externally mounted stabilized sensors and high resolution cameras.

## Amphibious

Operation versatility is a key feature and the EV-55 with installed amphibious floats goes even further. The aircraft can be operated from the river or sea and still it can land on conventional airstrips. The EV-55 can fly with 2,000 lb (907 kg) of cargo for 400 nm (740 km) at speed of more than 170 knots.





# Avionics Suite

by CMC Electronics

## Synthetic Vision

The SmartDeck Synthetic Vision feature helps augment the pilot’s situational awareness by providing critical flight details and helpful navigation aids. The level of detail and planning that has gone into SmartDeck Synthetic Vision is unmatched. Geographic features are intuitive, dynamic, clear and logical.



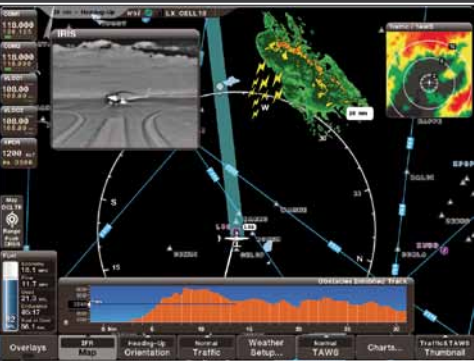
## Navigation Made Easy

With a WAAS capable GPS and a digital autopilot, SmartDeck provides automated lateral and vertical guidance and maintains precise holds - freeing the pilot to focus on primary flight functions. Paper charts are a thing of the past with the integration of electronic charts in SmartDeck.



## Complete Weather Picture

Regardless of conditions outside the cockpit, datalink weather and lightning system provide a complete weather picture.



## Aircraft Systems Integrated

SmartDeck is deeply integrated into aircraft systems. Engine and fuel data, hydraulic system data or even ventilation and heating system data is displayed on MFD



# Technical Specification

## Engine

Max. take-off power	Pratt & Whitney PT6A-21
Propeller	2x 536 SHP 2x 400 kW AVIA AV-844, 4-blade, constant speed, reversible

## Weights and loadings

Max. take-off weight	10,140 lbs	4,600 kg
Max. landing weight	10,140 lbs	4,600 kg
Basic empty weight (cargo version)	5,725 lbs	2,597 kg
Basic empty weight (pax version)	5,860 lbs	2,658 kg
Maximum payload (cargo version)	3,915 lbs	1,776 kg
Max. baggage weight - rear comp.	551 lbs	250 kg
Max. baggage weight - front comp.	221 lbs	100 kg
Maximum usable fuel	510 U.S. gal	1,930 litres

## Dimensions - external

Length	47.47 ft	14.35 m
Height	15.28 ft	4.66 m
Wing span	52.82 ft	16.10 m
HTU span	15.75 ft	4.80 m
Wheel base	13.68 ft	4.17 m
Wheel track	9.58 ft	2.92 m
Main wheel tire	8.50 - 10 in	
Nose wheel tire (dual tire)	5.00 - 5 in	





## Dimensions - internal

### Passenger cabin

Length (excluding cockpit)	197.6 in	5.02 m
Width	63.4 in	1.61 m
Height	54 in	1.37 m
Volume (excluding baggage compartments)	334 cu.ft	9.47 m <sup>3</sup>

### Baggage compartment volume

Rear (aft of PAX cabin)	95 cu.ft	2.7 m <sup>3</sup>
Front	18 cu.ft	0.5 m <sup>3</sup>

### Entry door

Width - passenger part	28 in	0.71 m
Width - fully opened	49.2 in	1.25 m
Height	54 in	1.37 m

### Crew door

Width - maximum	32.5 in	0.825 m
Height	48.6 in	1.235 m

### Emergency exit

Width	21.5 in	0.545 m
Height	32.7 in	0.831 m

## Certification basis

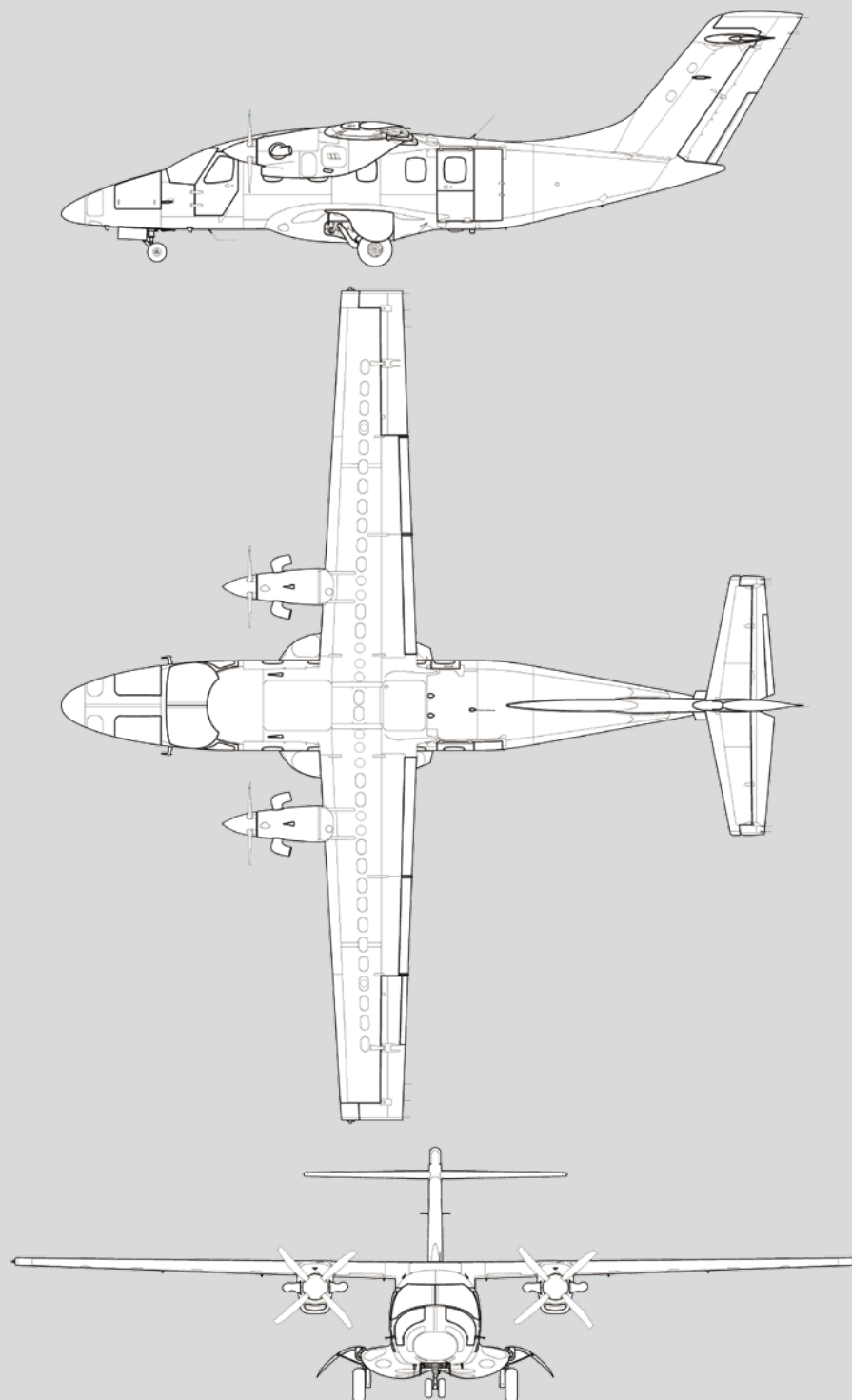
Certification basis is EASA CS-23 / U.S. FAA FAR Part 23 (Amdt. 23-55), including day, night, VFR, IFR, and flight into known icing conditions.

## Maintenance system

Maintenance system without required airframe TBO.  
Periodic inspection interval: 200 FH and annual inspection.

## Service life

Airframe service life is 30,000 FH.  
Engine TBO is 3,600 FH (hot section inspection at 1,800 FH).  
Landing gear TBO is 15,000 FH or cycles.



# Performance





### Speed (at MTOW)

Max. level speed (FL 100, TAS)	220 kts	408 km/h
Stall speed, 0° flaps (EAS)	77 kts	143 km/h
Stall speed, 38° flaps (EAS)	64 kts	118 km/h

### Range (10,000 ft; 30-min. reserve)

Maximum cruise power	1,219 nm	2,258 km
Long range cruise	1,415 nm	2,620 km

### Climb performance (MTOW, SL, ISA)

Both engines operative	1,673 fpm	8.5 m/s
One engine inoperative	453 fpm	2.3 m/s

### Maximum altitude (MTOW, ISA)

Both engines operative	24,000 ft	7,315 m
One engine inoperative	15,420 ft	4,700 m

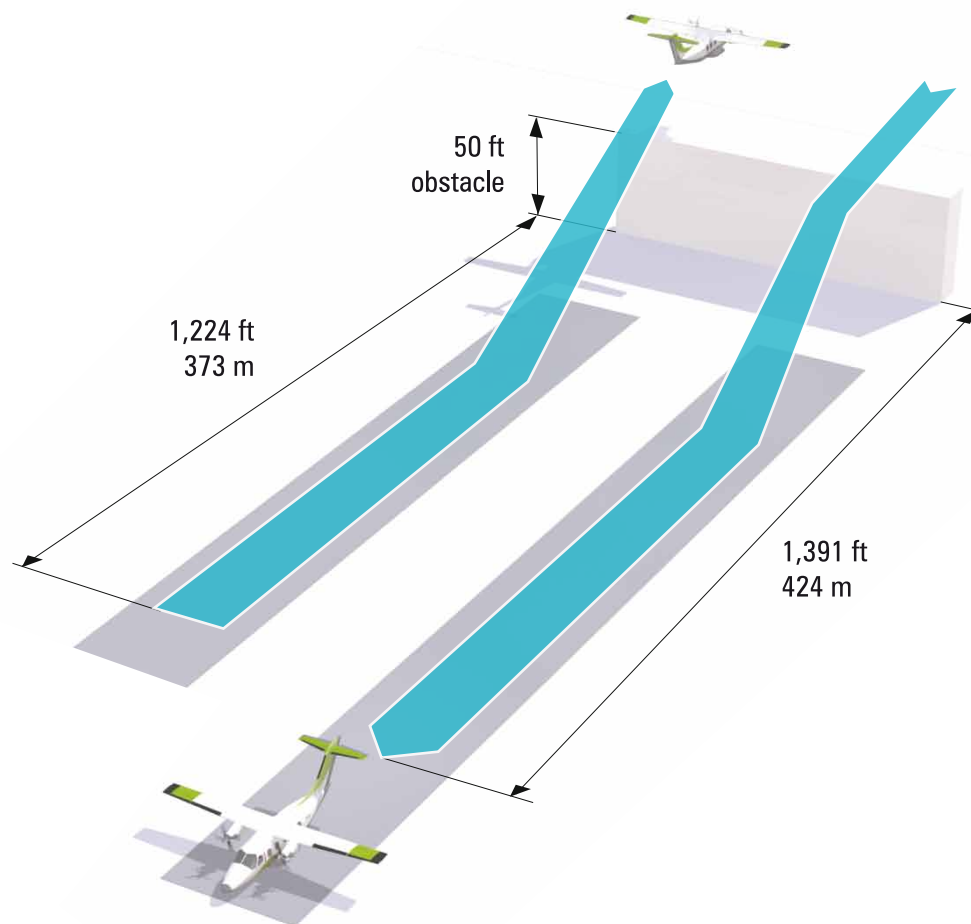
### Take-off performance (MTOW) - standard procedures

Ground run - ISA, H = 0 ft (SL)	1,122 ft	342 m
Total distance over 50 ft obstacle - ISA, H = 0 ft (SL)	1,378 ft	420 m
Ground run - ISA+20°C, H = 6,562 ft	1,624 ft	495 m
Total distance over 50 ft obstacle - ISA+20°C, H = 6,562 ft	2,000 ft	610 m

### Landing performance (MLW) - standard procedures

Ground run - ISA, H = 0 ft (SL)	1,014 ft	309 m
Total distance over 50 ft obstacle - ISA, H = 0 ft (SL)	1,673 ft	510 m
Ground run - ISA+20°C, H = 6,562 ft	1,394 ft	425 m
Total distance over 50 ft obstacle - ISA+20°C, H = 6,562 ft	2,133 ft	650 m

### Take-off and landing performance (STOL procedures)



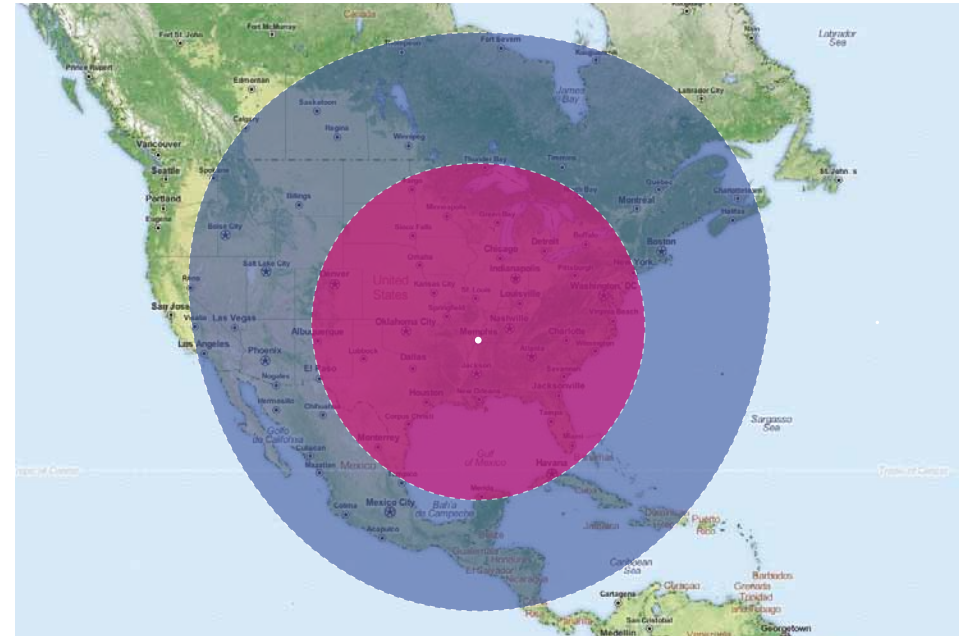
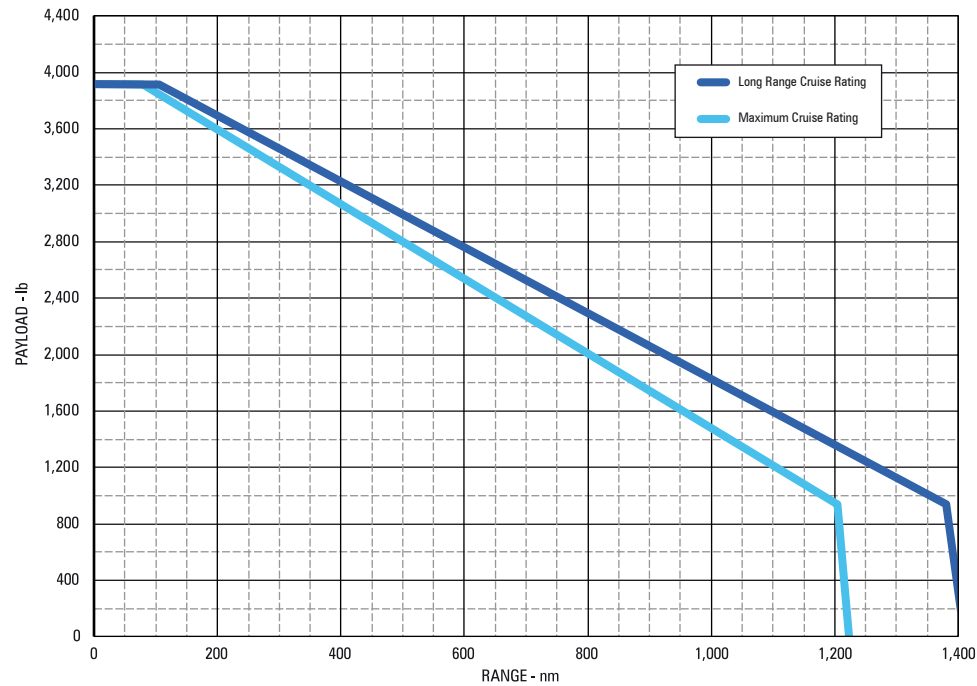
# Payload-Range





# PAYLOAD - RANGE

ISA Conditions, FL 100, Fuel Reserve for 30 min.



2,000 lb payload - 800 nm @ 220 kts, maximum cruise rating

900 lb payload - 1,370 nm @ 180 kts, long range cruise



All the information in this document is subject to change without a notice.

# EV-55 OUTBACK

This project was carried out with the support from the financial means of state budget through the Ministry of Industry and Trade of the Czech Republic.

Excited? See more about the EV-55 Outback at [WWW.EVEKTOR.COM](http://WWW.EVEKTOR.COM)



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