Detailed Product Presentation

August 2005

Table of Contents


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GROB
sp

The vision for the Utility Jet Project

- Identified a market niche not well served – turboprop flexibility in a jet
- To exploit leading technologies for customer benefit
- To provide high utility capability
- To achieve excellent range / payload capability
- A quantum price / performance advantage

The World's First Utility Jet

Superior Capability

- Flies further than other light business jets
- Superior short field performance
- Large cabin for passengers and cargo
- Modern and reliable systems

Maximum Flexibility

- Superior range/payload capability
- Single pilot capable
- Quick change cabin configuration
- Can access unimproved runways

Presentation Overview

1. Superior Performance
2. Cabin
3. Aircraft Structure
4. State of the art systems
5. Certification
6. Company background
7. Manufacturing and Design
8. Customer Support
9. Comparisons

1. Superior performance

Aircraft Specifications

Product definition*

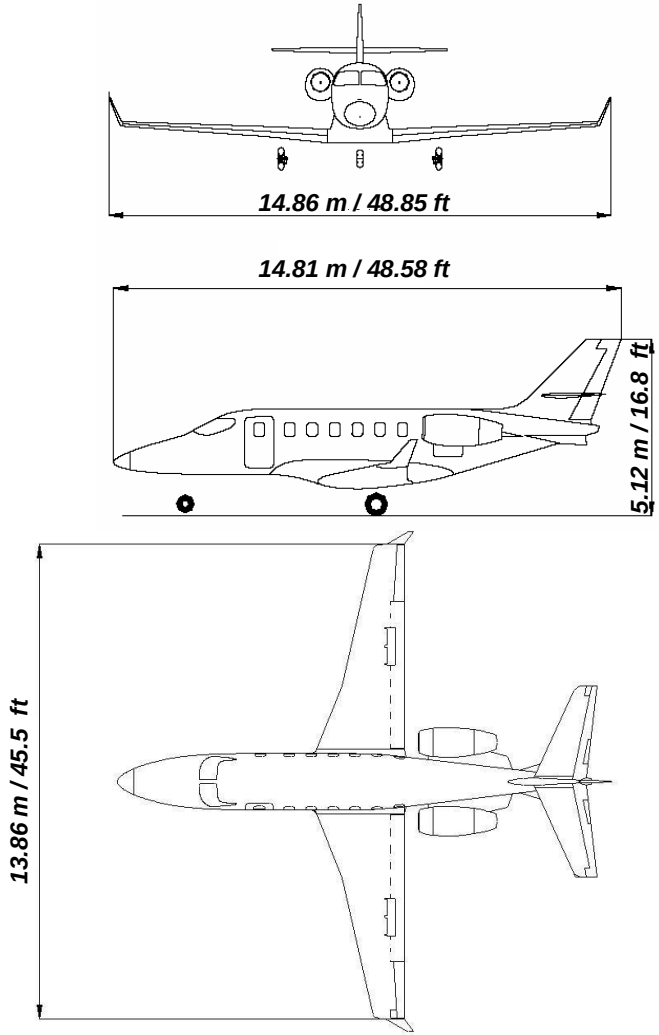
- MTOW of 13,890 lbs (6300kg)
- Aircraft Dimensions:
  - Length - 48.6 ft.
  - Wing Span – 48.8 ft.
  - Height – 16.8 ft.
- 2 Williams FJ44-3A turbofan engines
- Honeywell integrated avionics
- An all composite, carbon fibre airframe
- Reinforced undercarriage
- 8 – 9 Passenger capability

**As of August 15, 2005 - subject to final confirmation*

Aircraft Description

Key Aircraft and Operating Data*

Performance Specifications	Value
Max Operating Speed SL to 8000ft (VMO)	260 KCAS
Max Operating Speed 8000ft to 28440ft (VMO)	272 KCAS
Max operating Mach number (MMO)	0.7
Stalling speed, MLW, forward CG, Landing configuration (VSO)	77 KCAS
Max Cruise, ISA, 33000 ft	407 KTAS
Rate of climb, AEO**, ISA, Sea Level, MTOW	4360 ft/min
Rate of climb, OEI***, ISA, Sea Level, MTOW	1260 ft/min
Balanced Field Length	3000 ft
Landing distance from 50 ft (ISA, SL, Flaps 40°, MLW)	2950 ft
Maximum range, 1 pilot + 6 passengers (ISA, 41000 ft, NBAA IFR reserves, 100 nm)	1800 nm
Maximum Operating altitude	41 000ft



* *Estimates subject to final confirmation*
** *All Engines Operative*
*** *One Engine Inoperative*

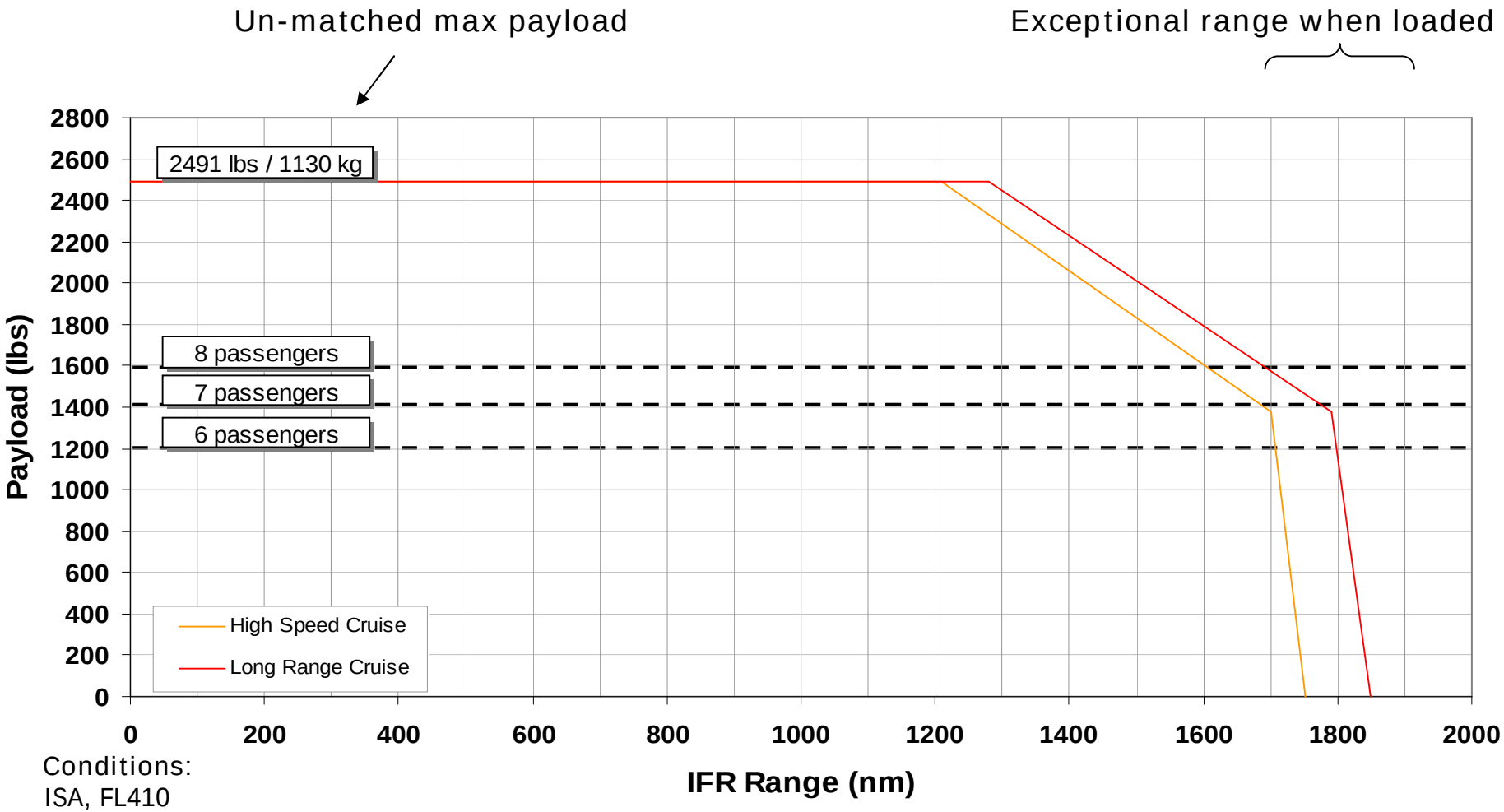
Range and Payload

- Loaded with 7 persons (6 pax + 1 crew) range is 1800 NM
- Maximum range of 1850 NM
- At a full payload of 2491 lbs (1130 kg), aircraft range still exceeds 1200 NM

Payload Specifications	Payload Weight (lbs / kg)	IFR Range* (nm / km)
Ferry range	0	1850 / 3426
Six Passengers + One Crew, Max Fuel	1200 / 544	1800 / 3334
Pax Seats Full (8 Pax + 1 Crew, available fuel)	1600 / 725	1670 / 3093
Max Payload with available fuel (MTOW)	2491 / 1130	1280 / 2371

**Specifications as of August 15, 2005 – subject to final revision*

Range and Payload



Conditions:
ISA, FL410
Reserve: 847 lbs Fuel (100nm)
Single Pilot: 200lbs (91kg)
Each passenger: 200 lbs (91kg)

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Range and Payload – Central Europe

Assumptions
Range is 1,800nm (3334km) with zero wind
Configuration: 6 Passengers and 1 pilot
All systems normal, anti-ice OFF
ISA Conditions, IFR reserve 100nm alternate

The information shown in this map is for discussion purposes only

GROB sp UTILITY JET

Range and Payload – North America

Assumptions
Range is 1,800nm (3334km) with zero wind
Configuration: 6 Passengers and 1 pilot
All systems normal, anti-ice OFF
ISA Conditions, IFR reserve 100nm alternate

The information shown in this map is for discussion purposes only

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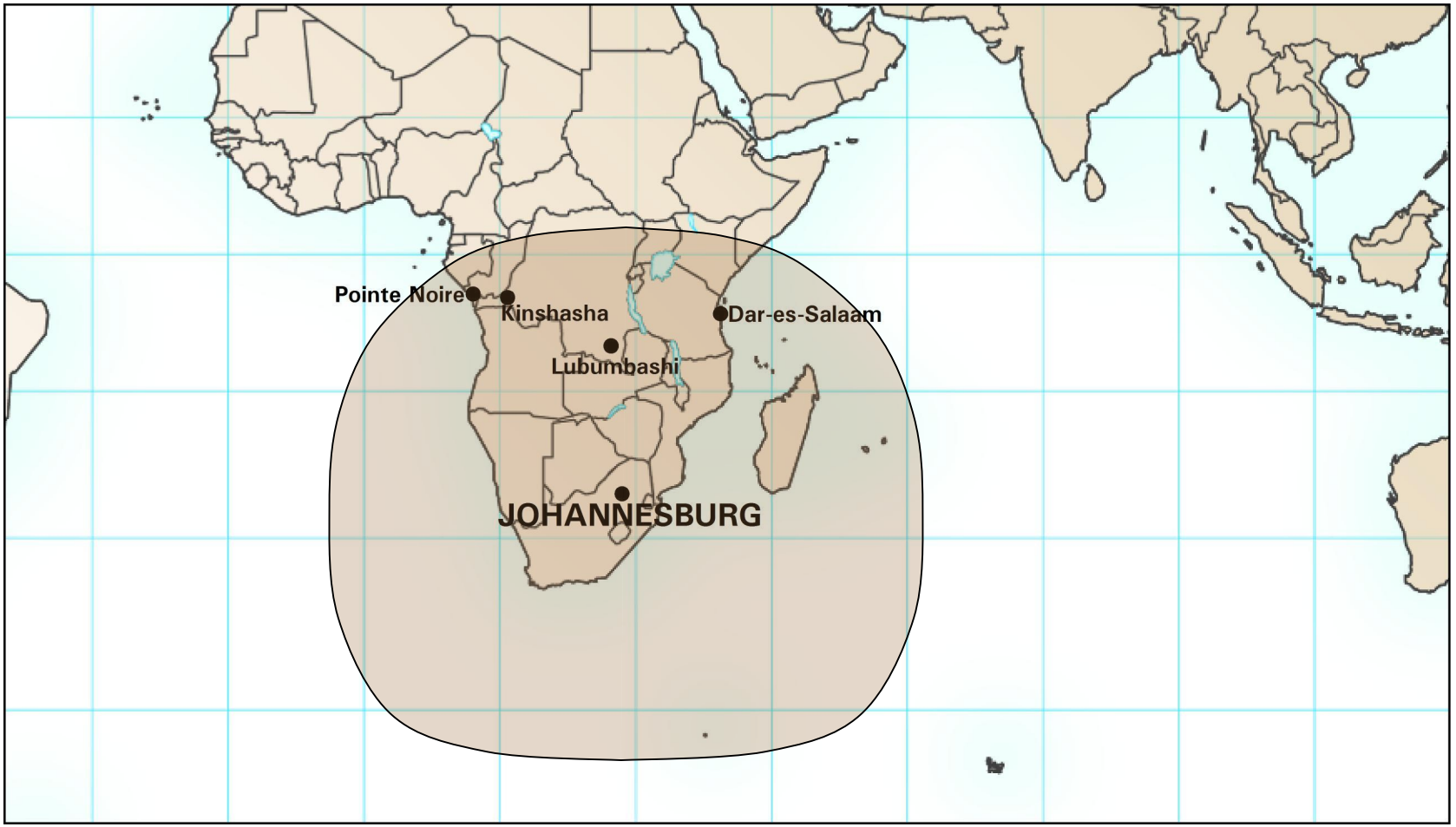
Range and Payload – South Africa



Assumptions
Range is 1,800nm (3334km) with zero wind
Configuration: 6 Passengers and 1 pilot
All systems normal, anti-ice OFF
ISA Conditions, IFR reserve 100nm alternate

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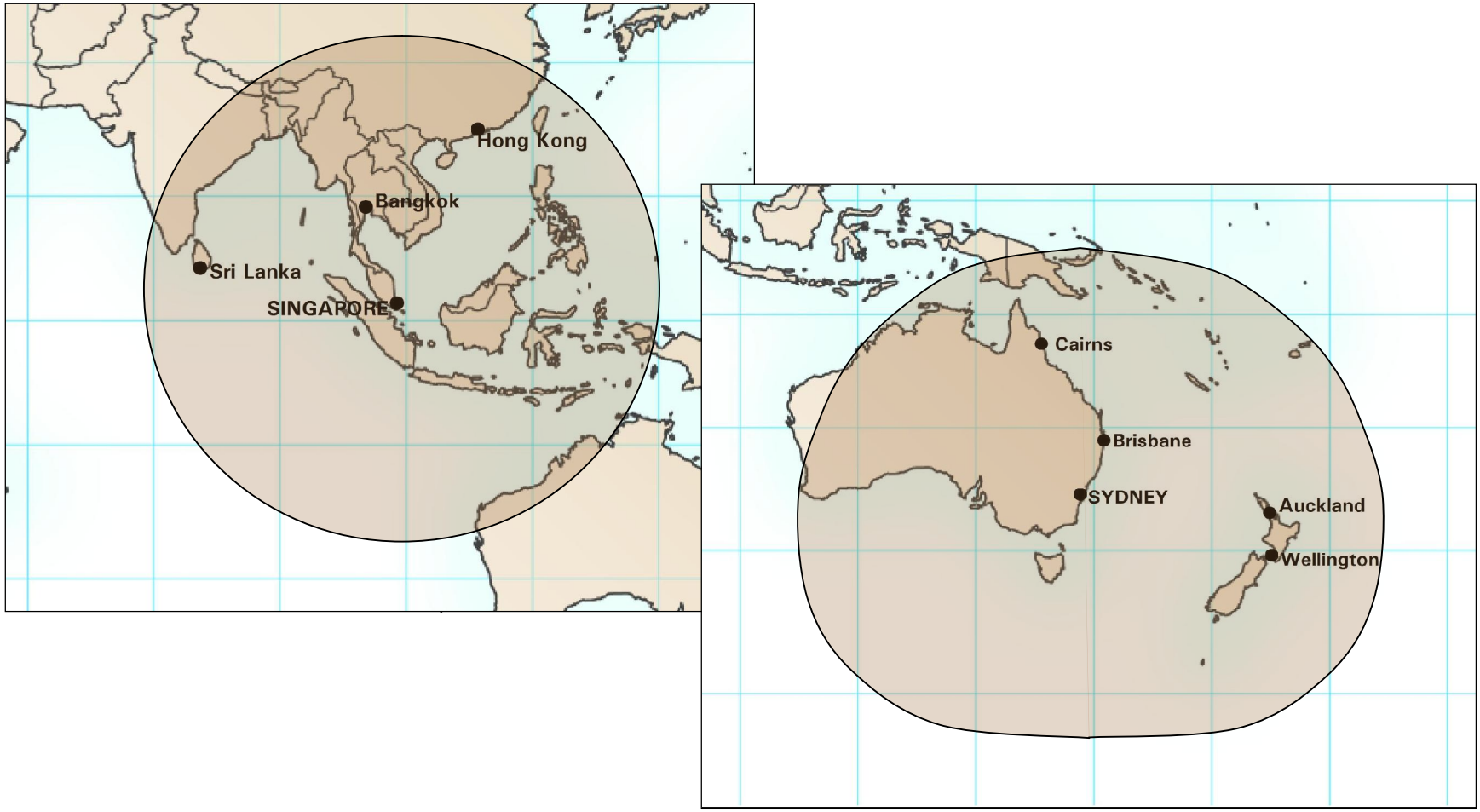
Range and Payload – SE Asia and Australia



Assumptions
Range is 1,800nm (3334km) with zero wind
Configuration: 6 Passengers and 1 pilot
All systems normal, anti-ice OFF
ISA Conditions, IFR reserve 100nm alternate

The information shown in these maps is for discussion purposes only

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Range and Payload – Middle East

Assumptions
Range is 1,800nm (3334km) with zero wind
Configuration: 6 Passengers and 1 pilot
All systems normal, anti-ice OFF
ISA Conditions, IFR reserve 100nm alternate

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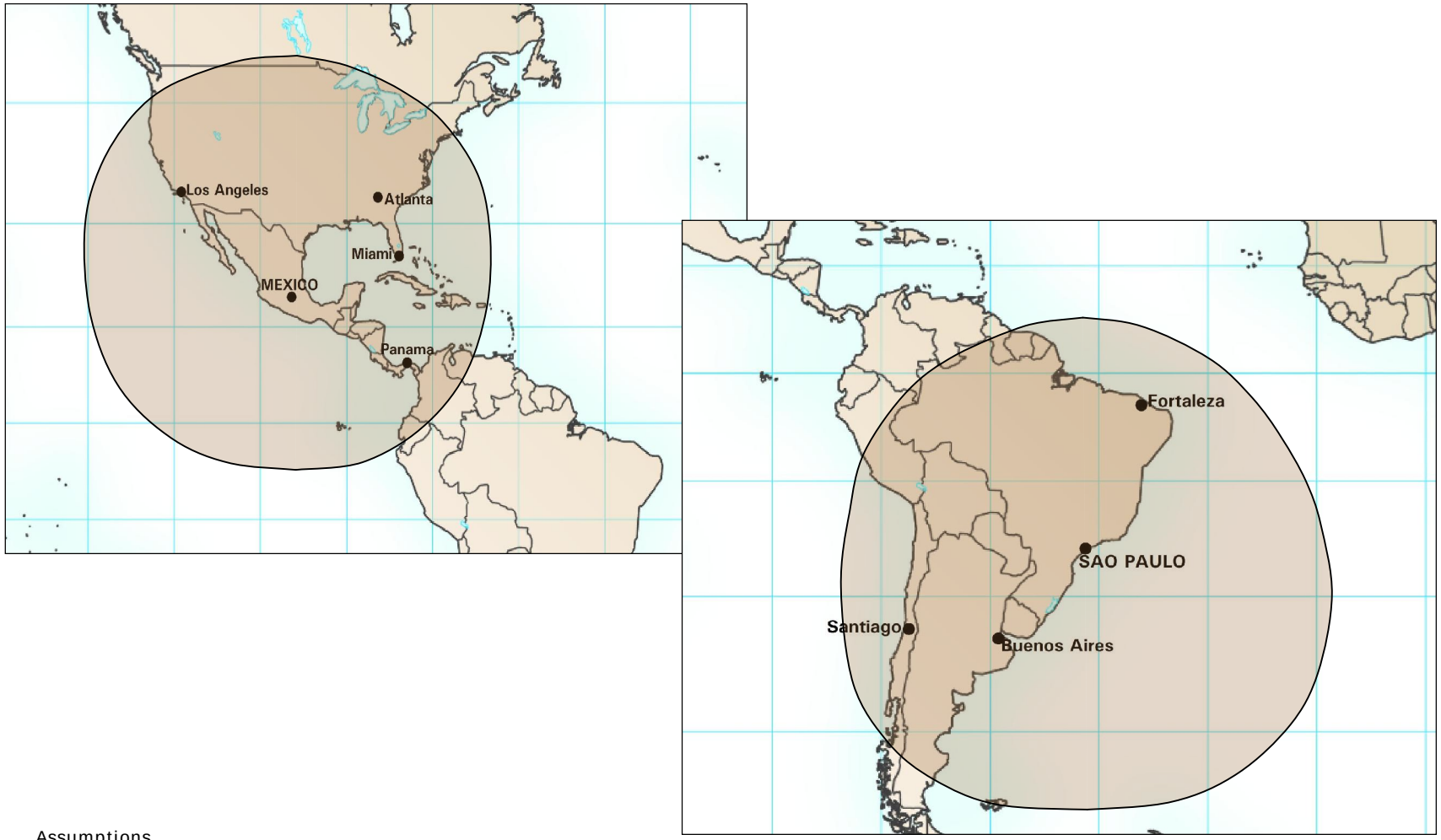
Range and Payload – Central and South America



Assumptions
Range is 1,800nm (3334km) with zero wind
Configuration: 6 Passengers and 1 pilot
All systems normal, anti-ice OFF
ISA Conditions, IFR reserve 100nm alternate

The information shown in these maps is for discussion purposes only

GROB sp UTILITY JET

Short Field Capability

- The SP^n has the best field performance:
  - Similar take-off & landing performance to turboprops
  - Better than the best jet competitor
- Un-matched performance translates into lower risks

Key performance figures		Value
Climb rates (MTOW):	- all engines ON - one engine OFF	4360 ft/min 1260 ft/min
Time to FL370 (MTOW)		13 min
Distances:	- Balance field length - Landing distance	3000 ft 2950 ft
Speeds (MLW):	- V_{REF} - Stalling speed	100 kt 77 kt

More flexibility in difficult airports and better mission performance

Access to more airports

Slowest speeds among light jets

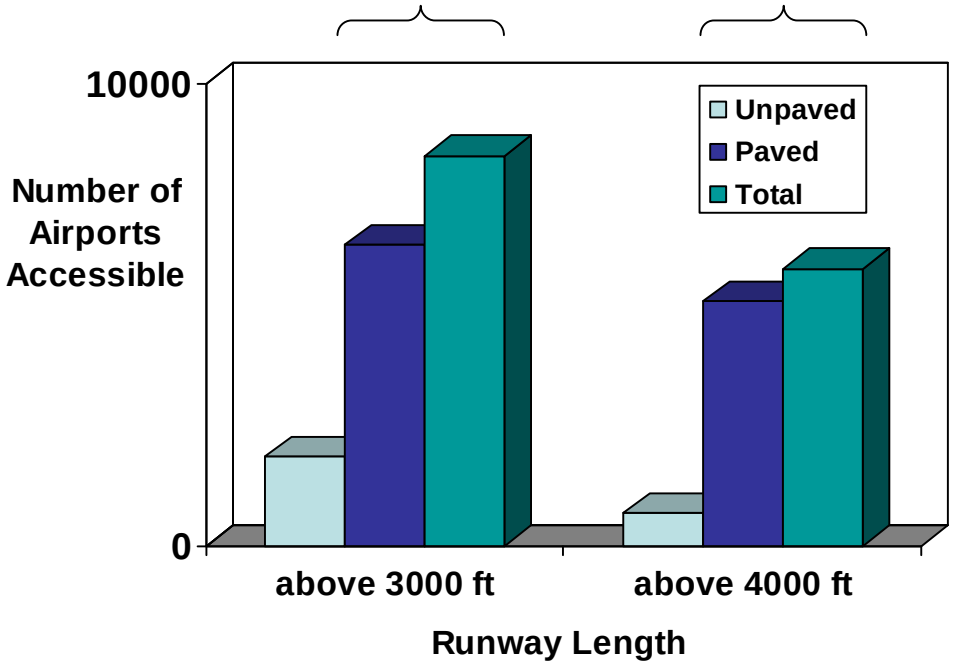
Specifications as of August 15, 2005 – subject to final revision

GROB sp^n UTILITY JET

Airfield Access

- Exceptional takeoff and landing performance
- Un-improved runway capability
- Maximum takeoff and landing altitude of 8500ft

Most other jets



Access to up to 25% more airports than the best jet competitor

Access to more airports than its main turboprop competitor

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Other Performance Qualities

- The SP^n has good cruise performance:
  - Max cruise speed of 407 kts
  - Maximum ceiling of 41,000 ft
- The SP^n offers superior customer value:
  - Fewer stops
  - Less time wasted in commuting
  - Less trade-off on weight

More flexibility and quicker trips

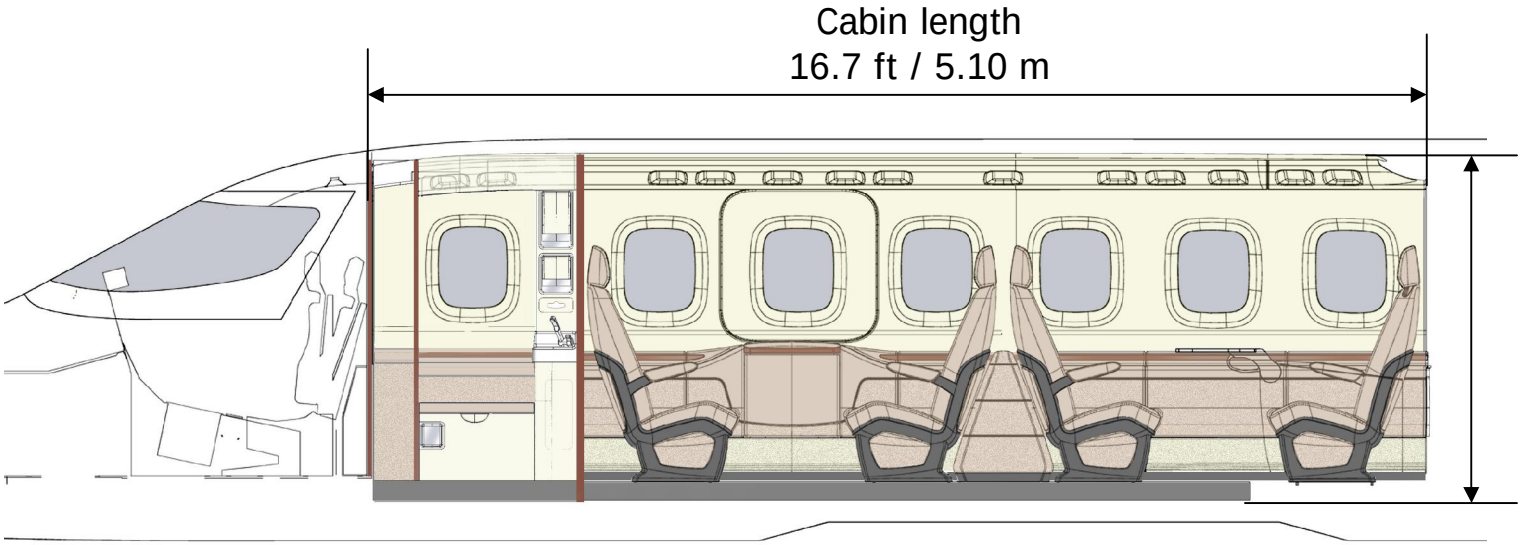
Key performance figures	Value
Maximum operating altitude	41,000 ft
Maximum operating Mach number M_{MO}	0.70
Maximum Cruise Speed (FL330, ISA)	407 kt

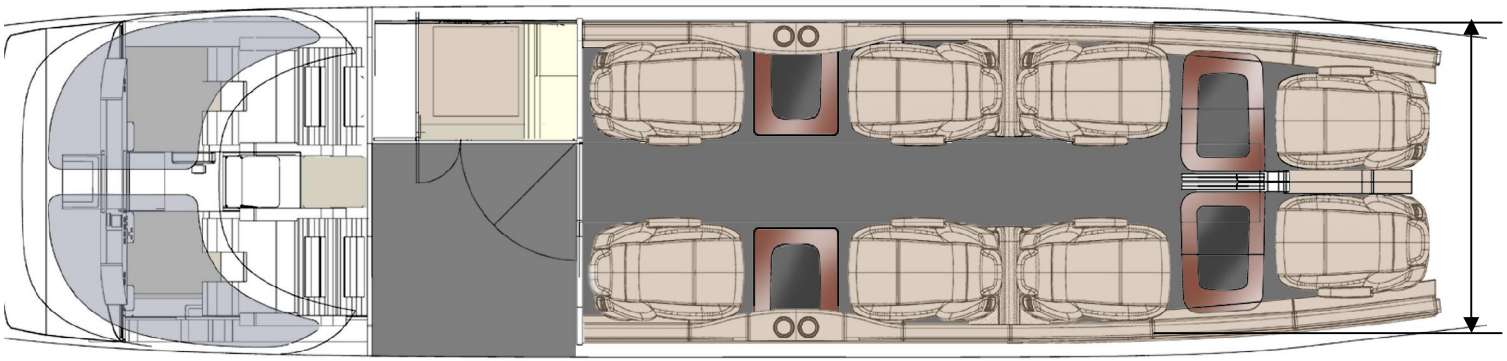
Specifications as of August 15, 2005 – subject to final revision

2. Cabin

General Cabin View

Internal Cabin Dimensions





Cabin Volume: 405 cu.ft / 11.5 m^3

General Cabin Characteristics

Designed for space and comfort

- Biggest cabin volume in light jet category: 405 ft^3 / 11.47 m^3
- Unique cabin cross section providing comfortable headspace
- 5.4 ft / 1.64 m cabin height
- Double club seating capable
- Elegant but robust materials
- Specified cabin noise level at long range cruise: 56 dbSIL (76 dbA)

Key Cabin Features

GROB spn UTILITY JET

Passenger Seats

Engineered for convenience and quick-removal

- Large underseat storage drawer
- Extremely light seat structure
- Special mechanism for removal in 30 sec
- Mounted on rails to allow multiple configurations

Key design features

- Comfortable leather-covered seats
- Designed specially for the GROB SP^{n}
- Inspired by the high-class car SUV designs
- Full carbon fiber structure
  → best ergonomics
  → high strength: 21G forward, 15G down

GROB sp^{n} UTILITY JET

Cabin Console Tables

Dual forward console tables

- Elegantly integrated in the sideledge layout
- Designed for office and relaxation
- Provided with individual glas holders

Dual aft console tables

- Innovative design for best use of cabin volume and more stability
- Includes compartment for bottle storage
- Special mechanism for quick removal

Forward console table

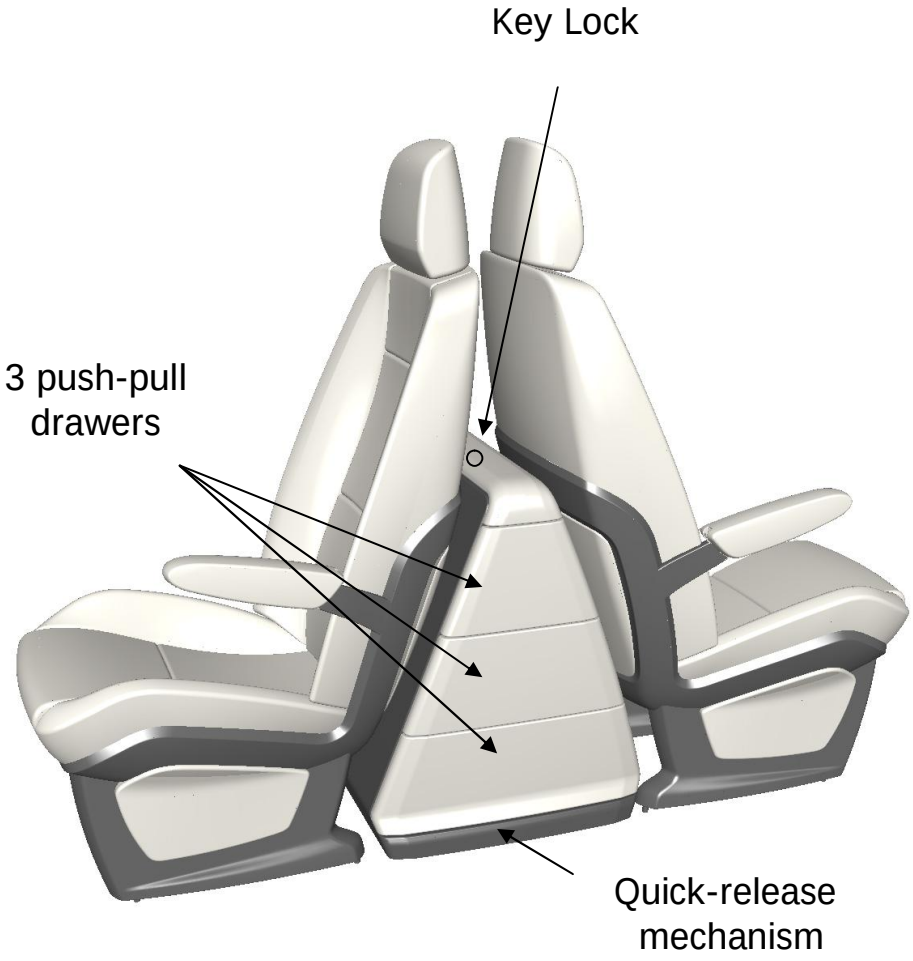
Mid Cabin Cabinets

Key features

- q Fully integrated in the cabin layout and design
- q Best use of cabin volume
- q Key lock for on-the-ground safety
- q Multiple storage capabilities:
  - Glasses / Cans
  - Termos / Hot water
  - Miscelleaneous / Entertainment

Designed for quick removal

- q Mounted on rails to allow multiple configurations
- q Special mechanism for removal in 30 sec



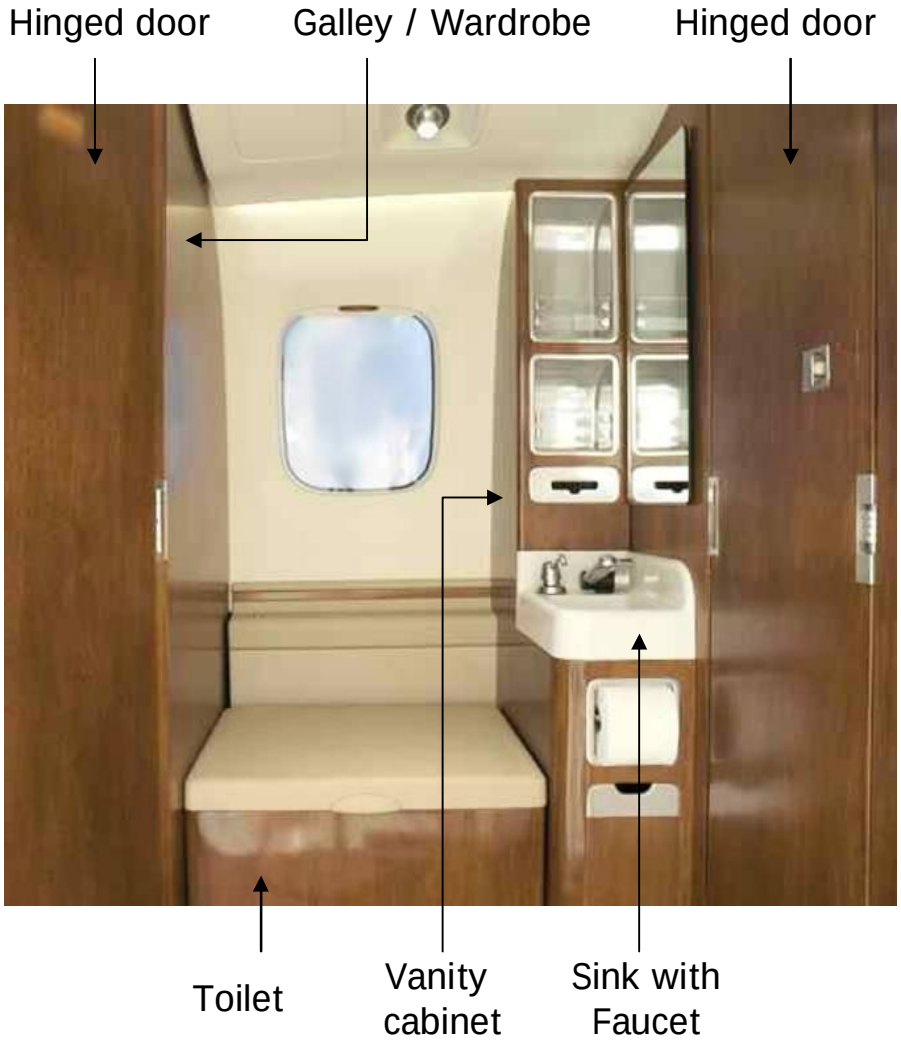
Forward Toilet

Key features

- q Full toilet
- q Lavatory with sink and multiple storages
- q Galley or wardrobe
- q Direct and indirect lighting

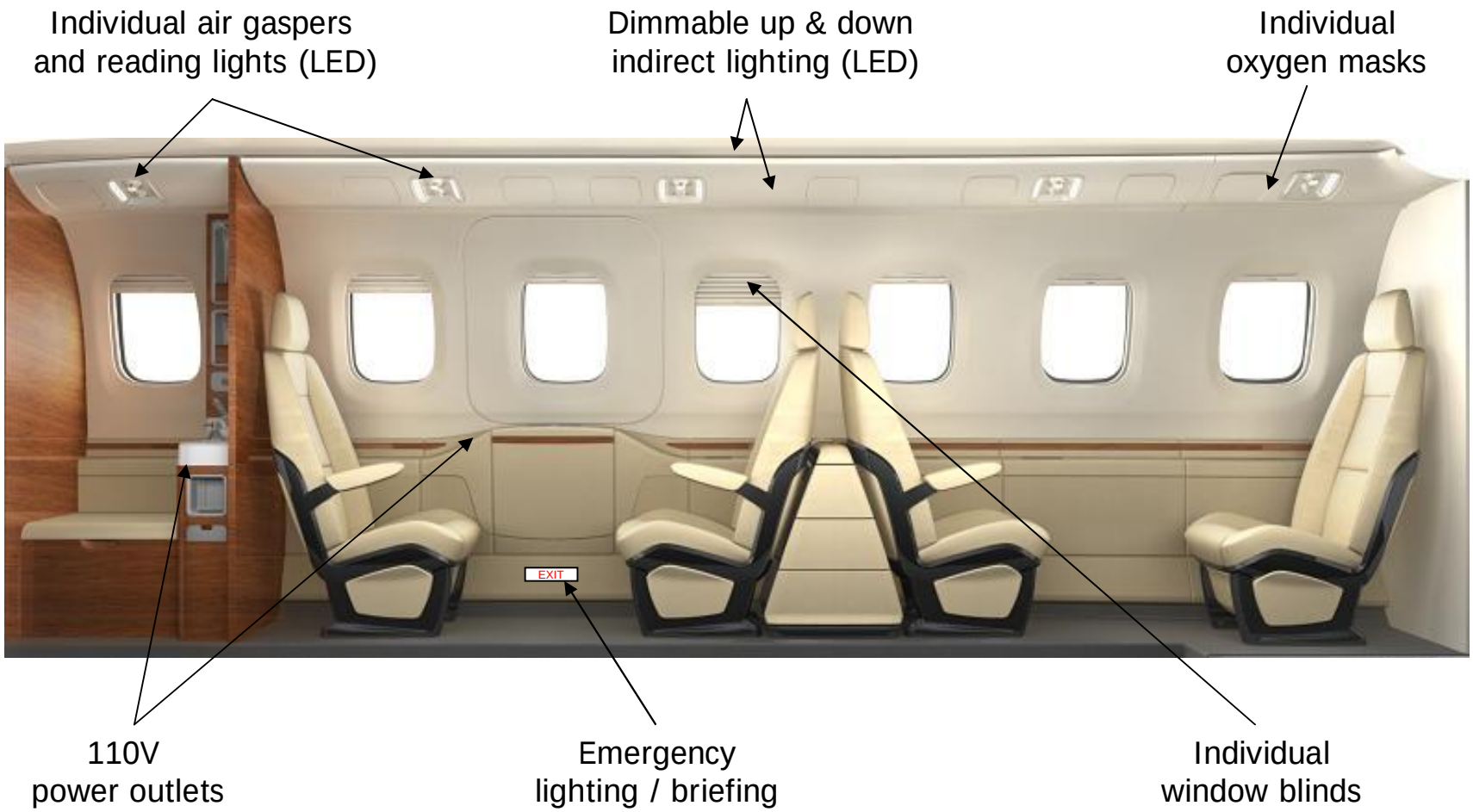
Designed for convenience and versatility

- q Fully isolated from cabin and cockpit by hinged doors
- q Easily removable for use of space as cargo
- q Elegant finish although resistant material



Forward toilet module

Standard Cabin Systems



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Optional Cabin Features

Office and Entertainment

- Satcom with dual handset (cabin and cockpit)
- Audio system with CD player and individual headsets
- Video system with DVD player and individual 8-inch plug-in monitors
- Airshow system with worldwide/regional maps and flight information

8.4‘ plug-in monitor

Galley and Galley equipment

- Full galley in lieu of forward toilet
- High temperature oven
- Microwave
- Coffee maker

Espresso machine

Interior flexibility

Standard configuration

Quick removal – plug and play concept means removal of seats in ½ hour

50/50 cargo split configuration

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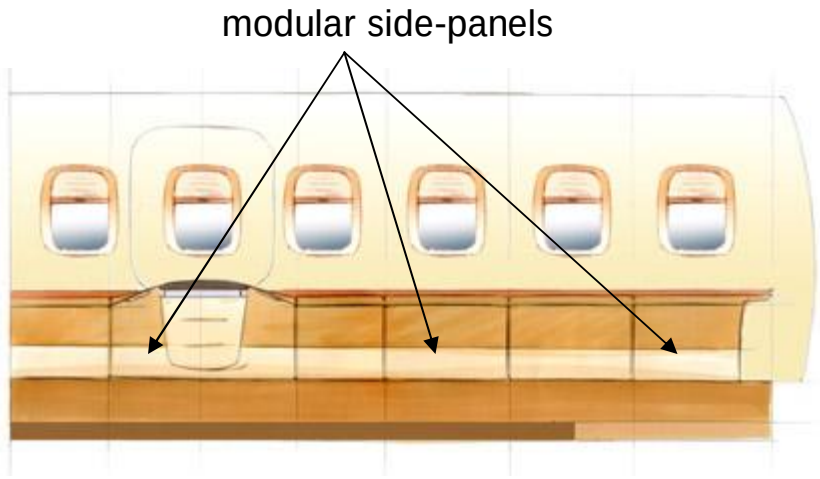
Easy Loading and Modularity

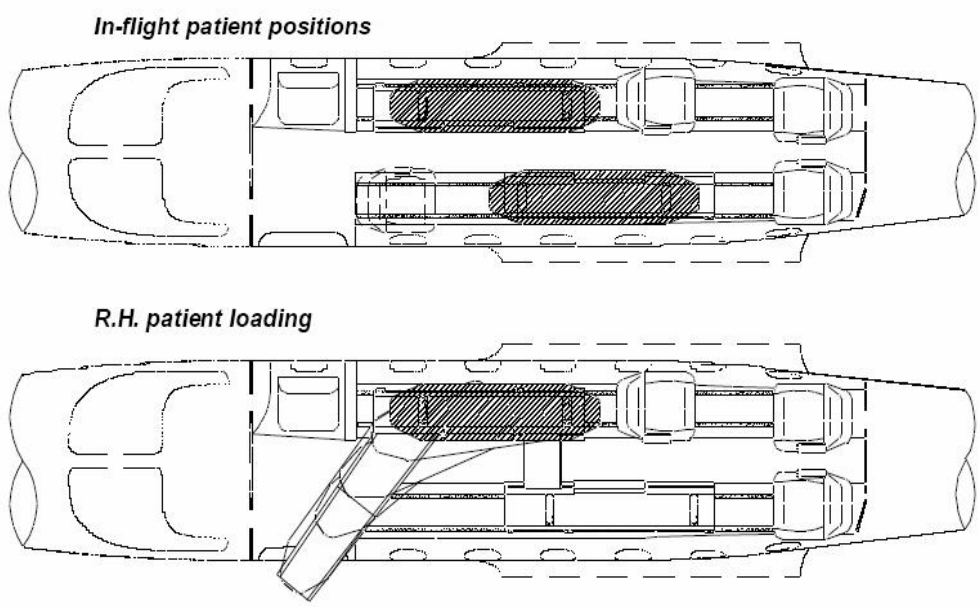
Main Features

- Large door for ease of loading: 54 x 33 inch (137 x 84 cm)
- Removable and modular sideliner for cargo application
- Cabin net and strapping to secure the equipment transported

Possible Applications

- Quick change of cabin configurations
- Air Ambulance
- Dual configurations (cargo-pax combo)
- Pallet loading

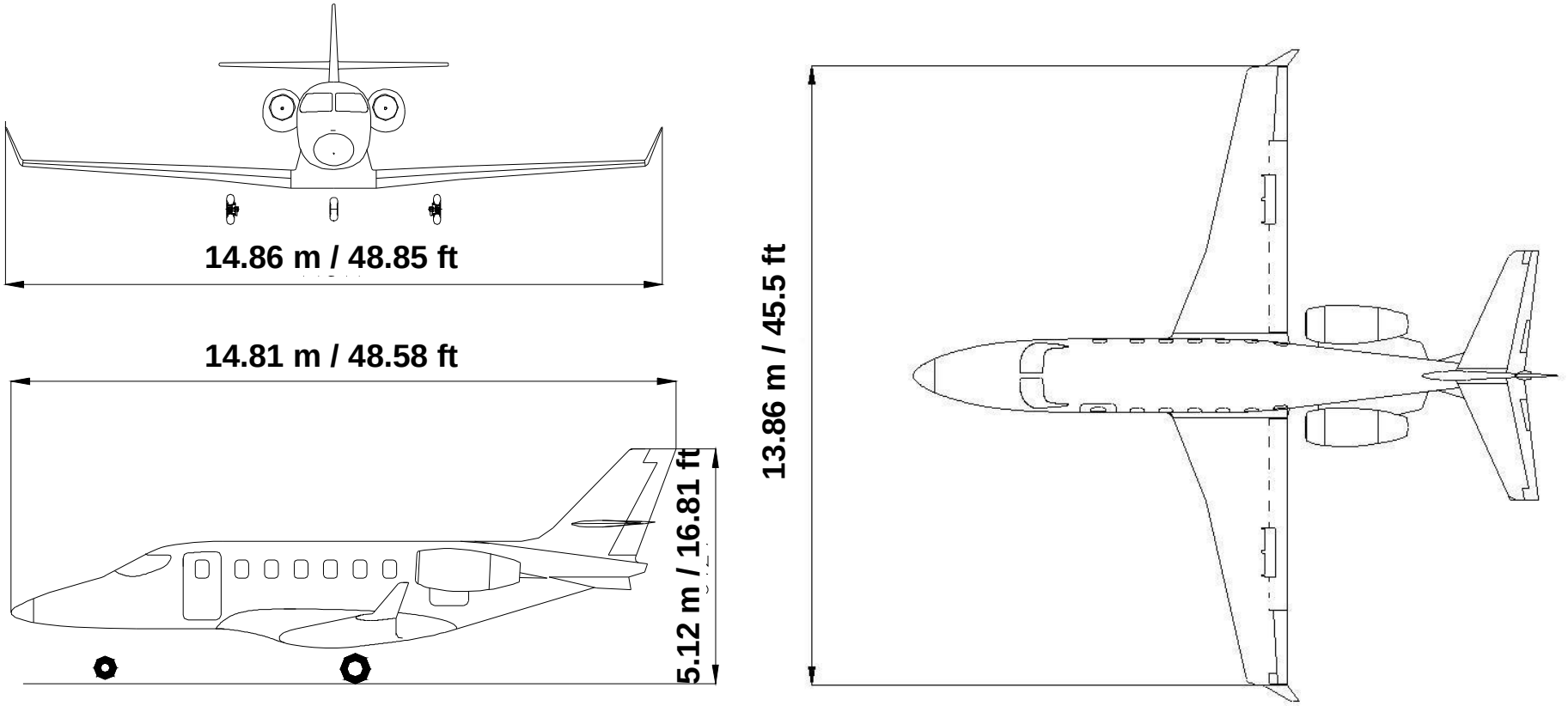




Air Ambulance configuration

3. Aircraft Structure: an unbeatable advantage

Aircraft Structure – General Dimensions



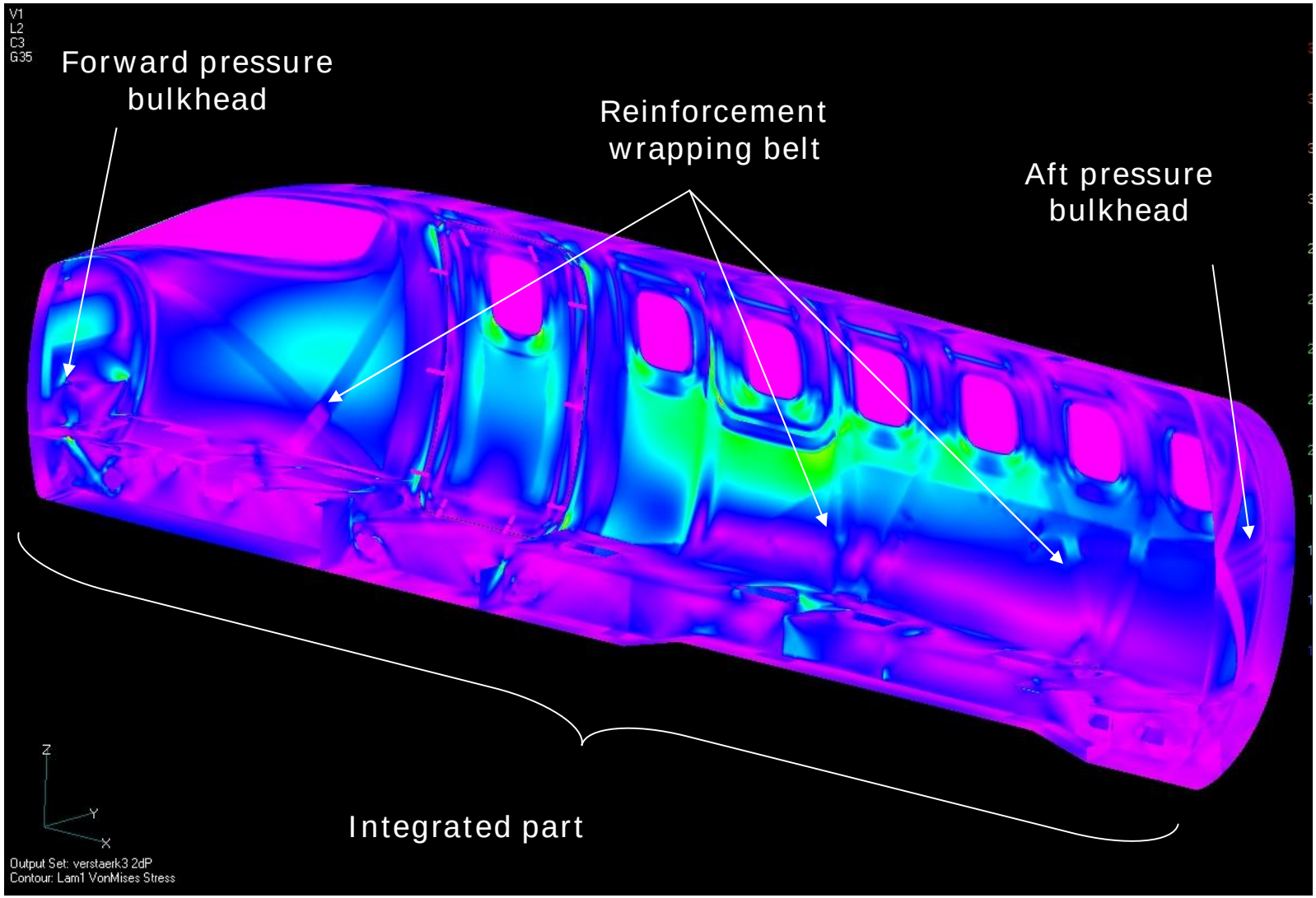
Aircraft 3 views
(approximate dimensions)

Structure Advantages

Optimized design

- Lighter structure
- Integrated parts:
  - Fuselage and vertical fin
  - Wing
  - Horizontal stabilizer
- No rivets/bolts or extra attachment structure
- Focus on aerodynamics and stress resistance rather than on manufacturing
- Simple field repair
- No fatigue limitation and no corrosion

Key Structural Features



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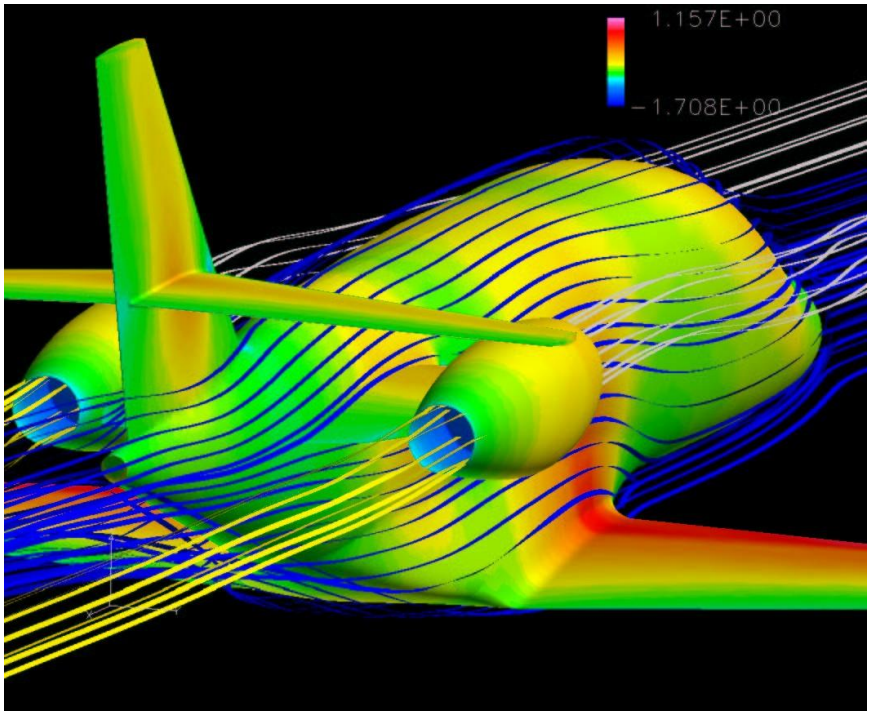
Aerodynamics

Optimized aerodynamics

- Modern supercritical airfoil
- Efficient Fowler flap system
- Exceptional surface quality
- Delta fins for enhanced stability at low speed
- Winglet to minimize the induced drag

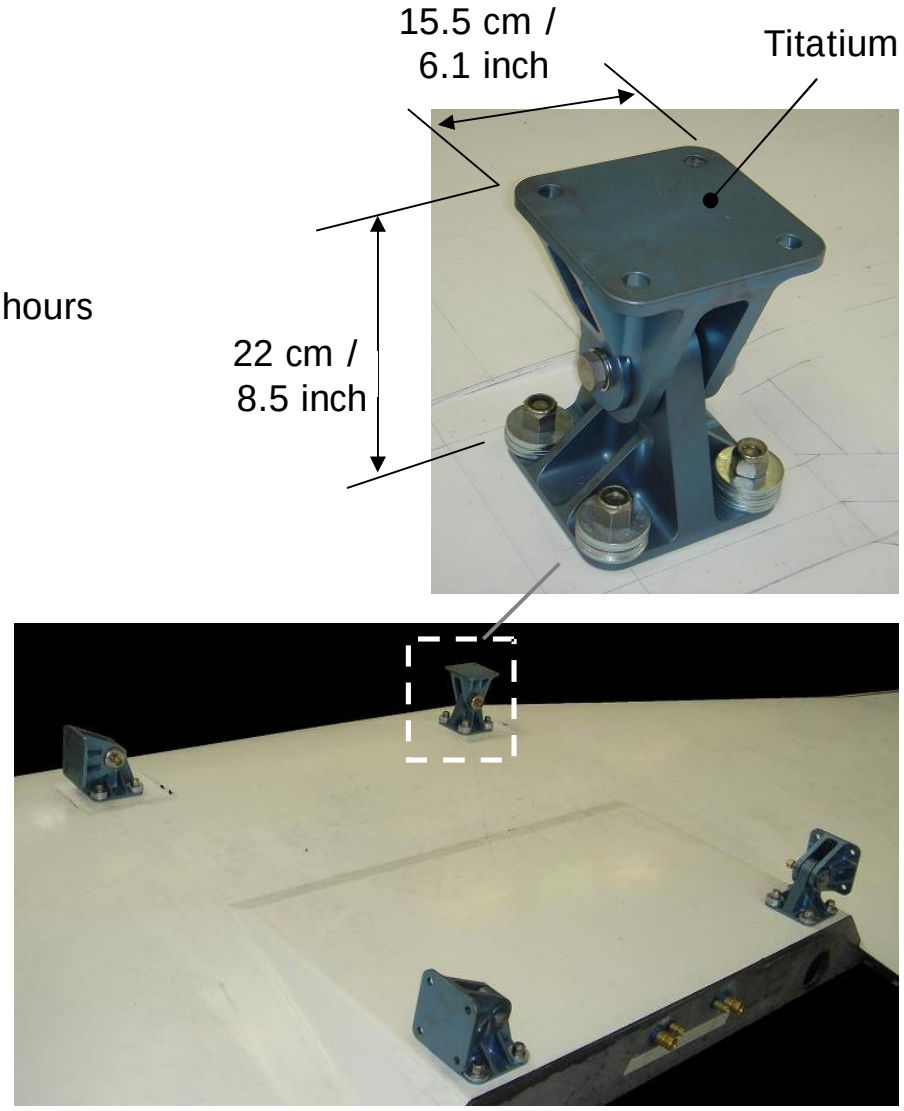


Aerodynamic model

Wing Attachment

Simple mounting concept

- Removal/re-installation of wing on fuselage in 12 hours
- 4 titanium-made fixations
- Each mount can hold up to 10 tons
- No risk of corrosion



Wing fixation

Doors & Windows

Entrance door

- Extra large door: 54 x 33 inch (137 x 84 cm)
- Comfortable for passenger boarding
- Designed for easy loading:
  - Luggage / Cargo
  - Air ambulance

Windows

- Large windshield designed for optimal pilot vision
- Large cabin windows for best passenger comfort
  - 14 windows, including 2 in entrance area
  - Dimensions: 15.4 x 12.2 inch (39 x 31 cm)

Door opening

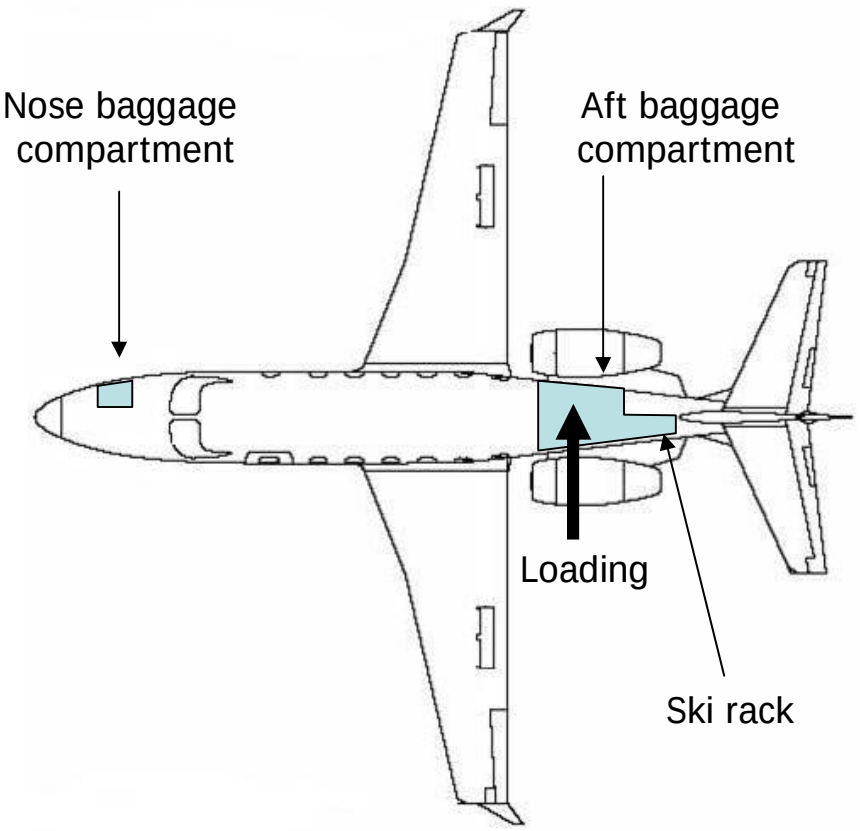
Baggage Compartment

Description

- Total volume: 34 cu ft (0.96 m^3)
- Below left hand engine: 32 cu ft (0.91 m^3)
  - Main baggage compartment
  - Includes a ski rack
- Right hand side of nose cone: 2 cu ft (0.05 m^3)
  - Designed for fly-away kit and pilot‘s equipment

Aft baggage door

- Size: 18 x 29 inch (46 x 73 cm)
- Easy access to full volume of baggage compartment



Exterior baggage compartments

4. State-of-the-art systems

Honeywell Integrated Avionics

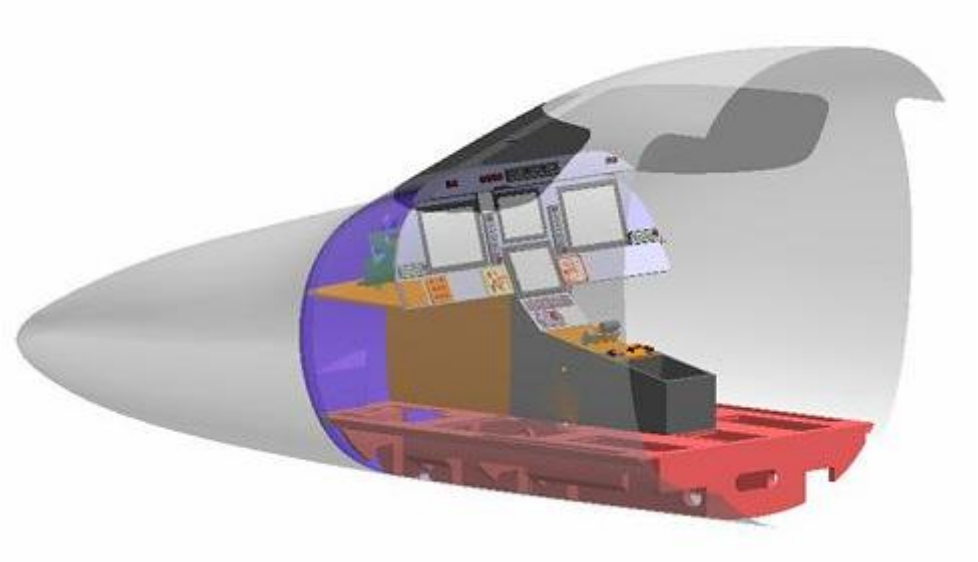
Honeywell Integrated Avionics

Cockpit Approach

- Spacious design uses area efficiently
- Low workload philosophy
- Design for single or dual pilot operation

Key Advantages of the APEX System

- Latest technology based on large aircraft heritage
- Easy ergonomic presentation
- Dark cockpit philosophy



Cockpit integration

Honeywell Integrated Avionics

Key Features

- Two 15’ PFD’s and two 10’ MFD’s
- Color weather radar
- Dual Flight Management System entry units (FMS)
- Dual integrated Global Positioning System units (GPS)
- Dual channel Air Data/Attitude and Heading Reference System (ADAHRS)
- Enhanced Ground Proximity Warning System with windshear alert (EGPWS)
- Traffic Collision Alert System (TCAS II with Change 7)
- Emergency Locator Transmitter (ELT)

Left primary flight display

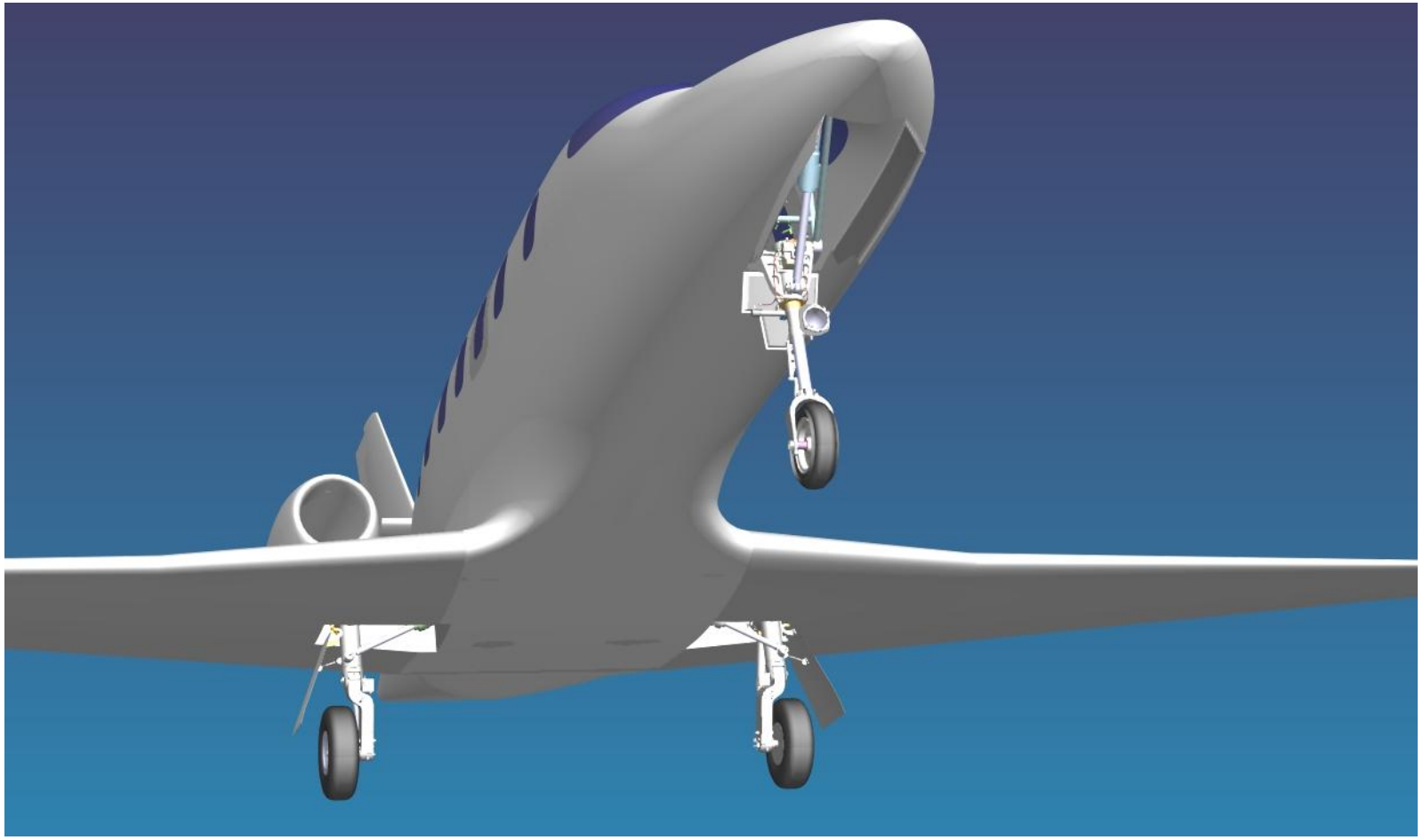
Cockpit design

The Williams FJ44-3A Engine

The Williams FJ44-3A Engine

- Proven manufacturer – over 2000 engines delivered
- Solid customer support – 7 times #1 in Pro Pilot survey
- Selected by leading Light Jet manufacturers
- 2800 lbs of thrust – excellent thrust/weight ratio
- Extremely low in-flight shutdown rate history
- Low operating economics
- Full Authority Digital Engine Control (FADEC)
- Long time between overhaul: 4000 hours (TBO)

Landing Gear System



Landing Gear System : Built for Robustness

Un-improved runways capabilities

- Large wheels and tires adapted to rough fields
  - Main tires: 24 x 7.7 inch (61 x 19.5 cm)
  - Low tire pressure: 94 psi (6.5 bars)
- Large fuselage/ground clearance:
  - Fuselage is 43 inch (1.1 m) above the ground*
  - Reduces ground effect
  - Increases distance from debris projections
- Protection on control surfaces
- Optional nose guard to divert debris

Right hand landing gear

** below the entrance door. Belly clearance is 80 cm (31.5 inch)*

Landing Gear System

Other features

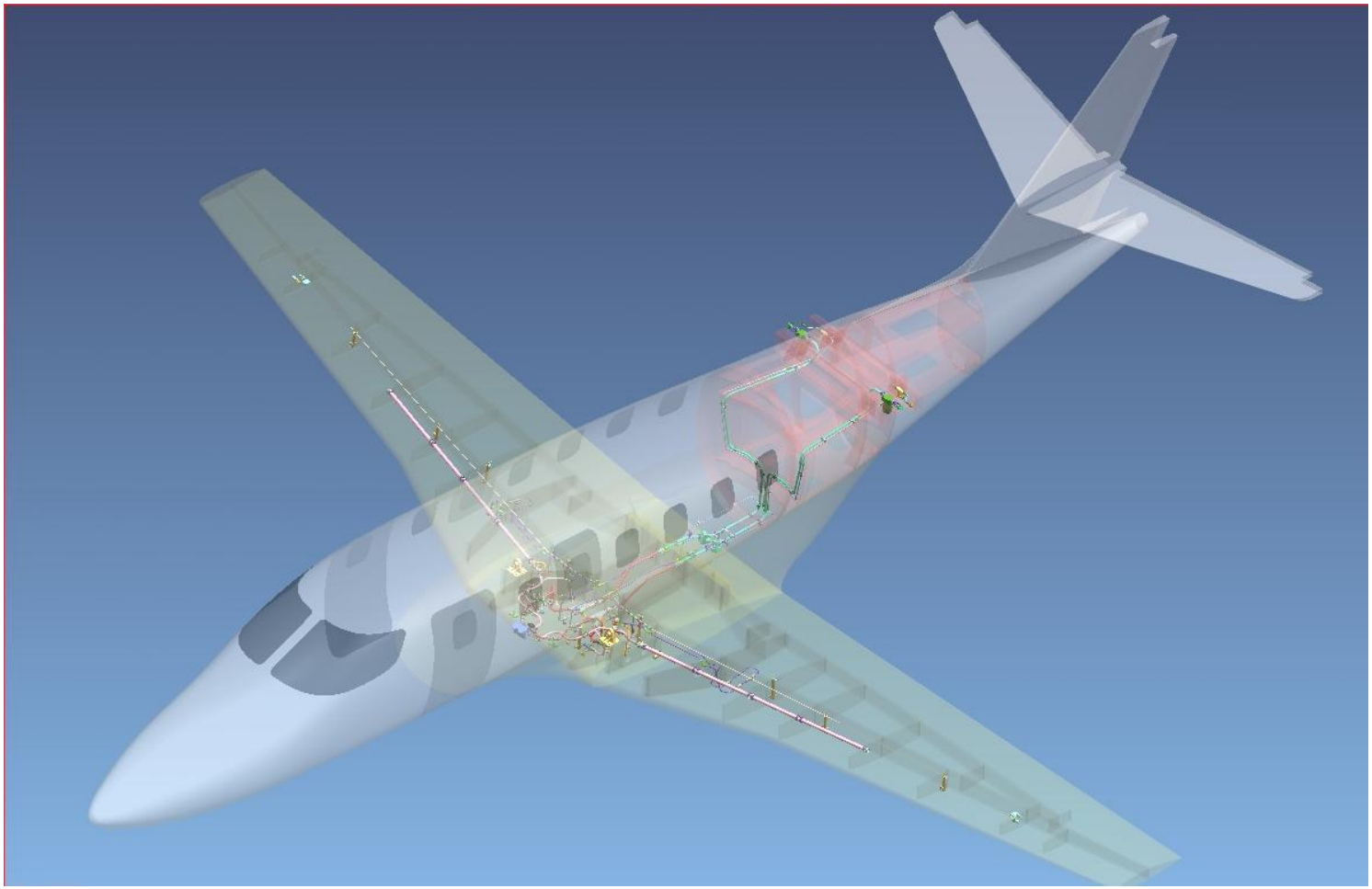
- Carbon brakes from ABSC *
- Anti-skid system from ABSC *
- System integrated with Honeywell avionics system
- 3 levels of steering capabilities:
  - +/- 10° steering angle at high speed taxing (> 10 kt)
  - +/- 60° steering angle at low speed (≤ 10 kt)
  - +/- 90° steering angle for towing

Carbon brake

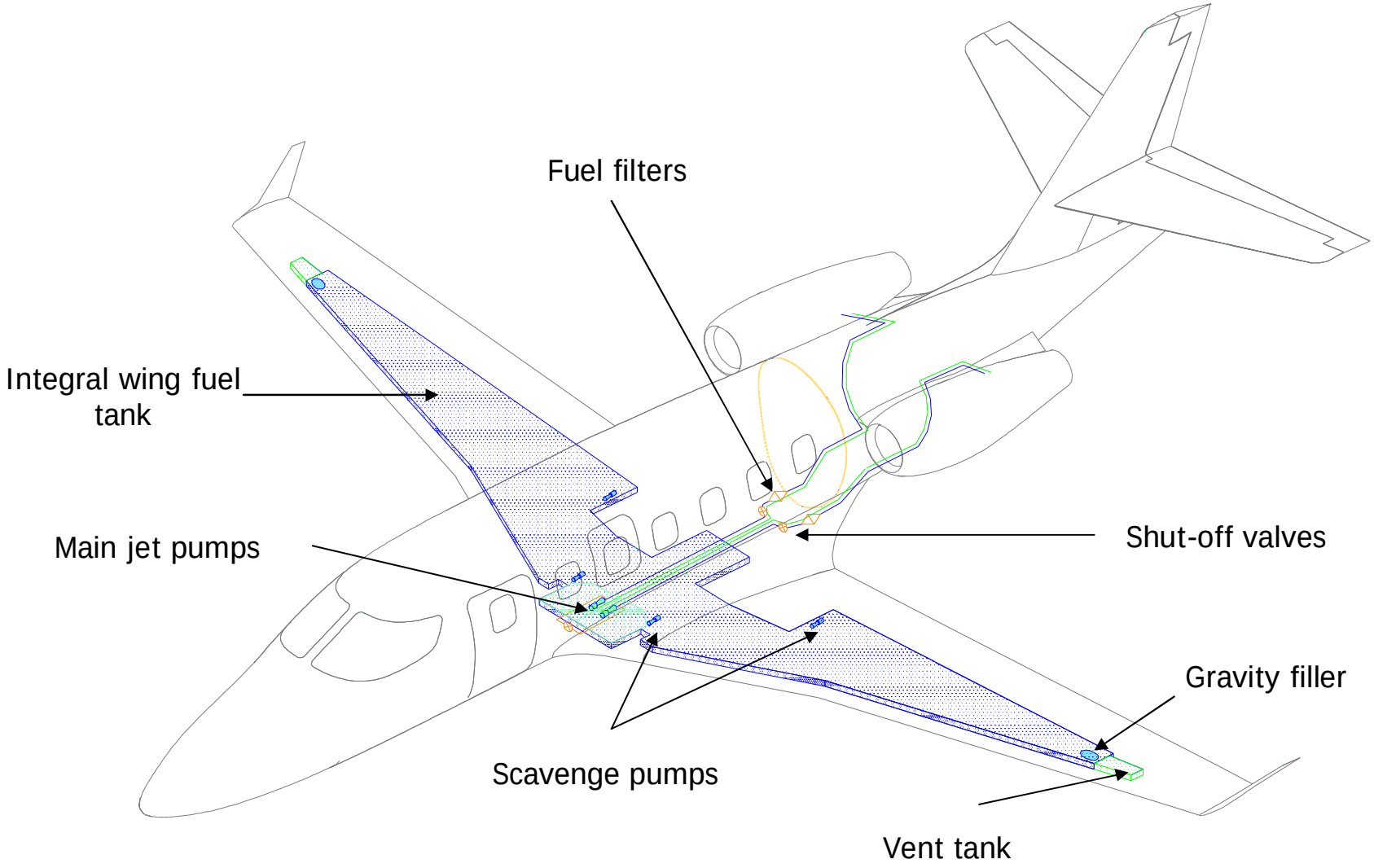
** Aircraft Braking Systems Corporation*

Landing Gear System

Fuel System



Fuel System – General Description



Fuel System

Design philosophy

- q Two fuel pumps supplying each engine
  - one main jet pump for normal operations
  - one submerged boost pump for starting and back-up
- q 2 scavenge pumps per wing for continuous fuel transfer
- q One additional engine-driven pump on each engine for pressure at injection nozzles
- q Cross-flow valve allowing supply from opposite wing

Jet pump

Booster pump

Fuel System

Key Features

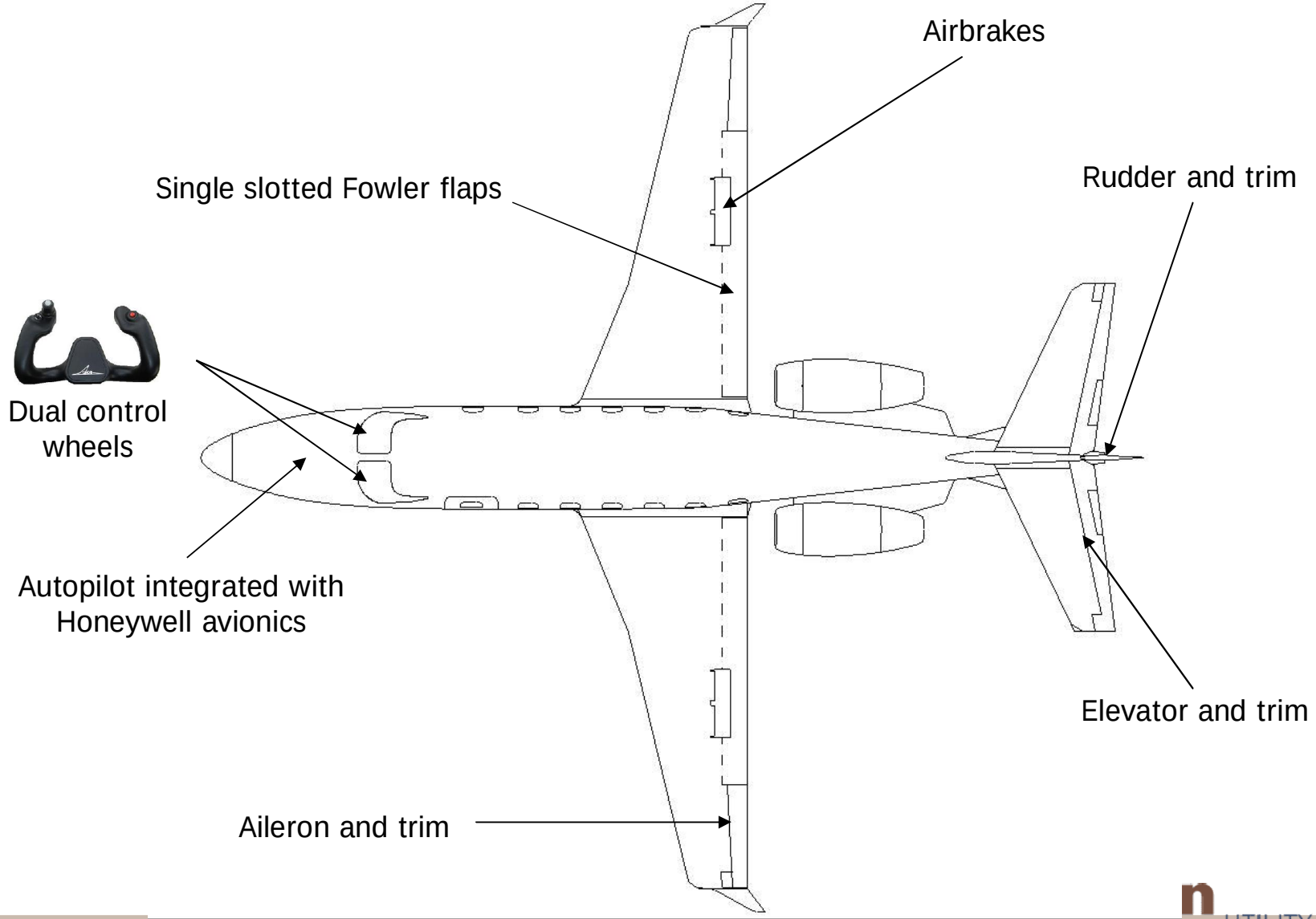
- q 660 US gallon tank in the wing and center fuselage
- q Two gravity fuelling ports
- q Optional pressure fuelling point
- q Fuel control by the FADEC and display on the Honeywell avionics

Crossflow valve

Fuel types available for use

Grade	Specification	Min Temp	Max Temp
Jet A	ASTM-D1655	-40 deg C	93.3 deg C
Jet A1	ASTM-D1655	-40 deg C	93.3 deg C
JP 8	MIL-T-83133	-40 deg C	93.3 deg C
Chinese 3 Jet Fuel	GB 6537-94	-25 deg C	57.2 deg C
RT	C.I.S. GOST 10227	-36 deg C	57.2 deg C
TS-1	C.I.S. GOST 10227	-46 deg C	57.2 deg C

Flight Control System



Flight Control System

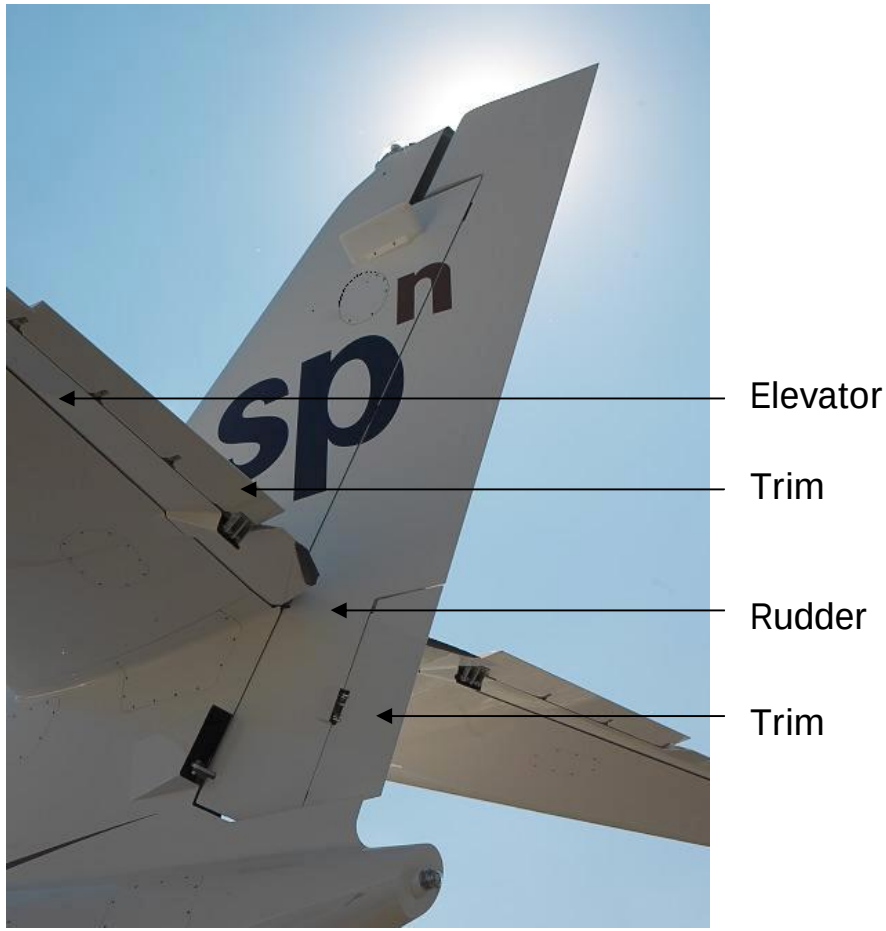
Key Features

q All-control rod engineering philosophy (no cables)

- More reliable and easier to maintain than cable-driven systems
- Design concept proven on previous GROB aircraft

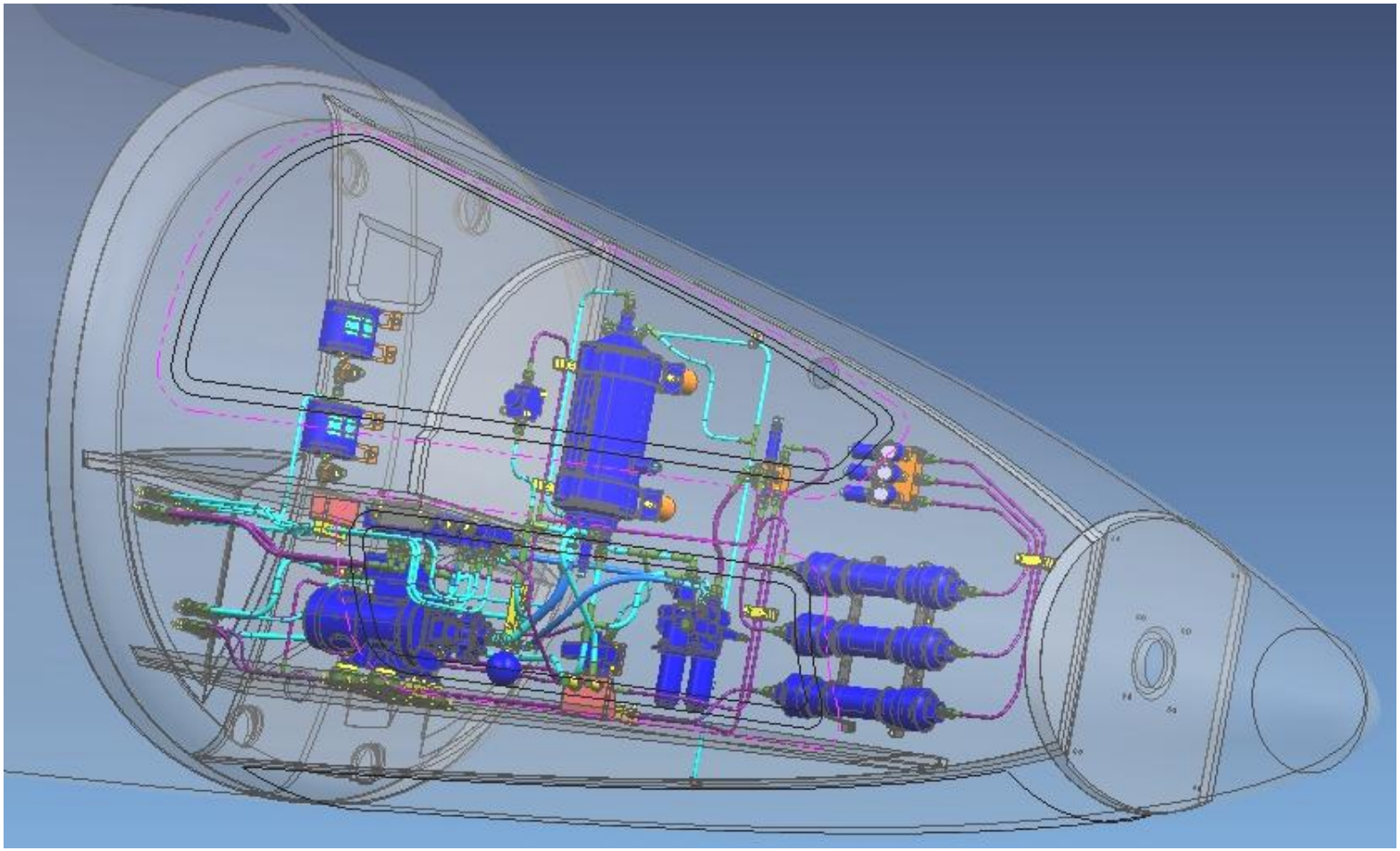
q High level of redundancy

- Dual motors for the elevator trim
- Rudder and elevator control rods are split in aft fuselage

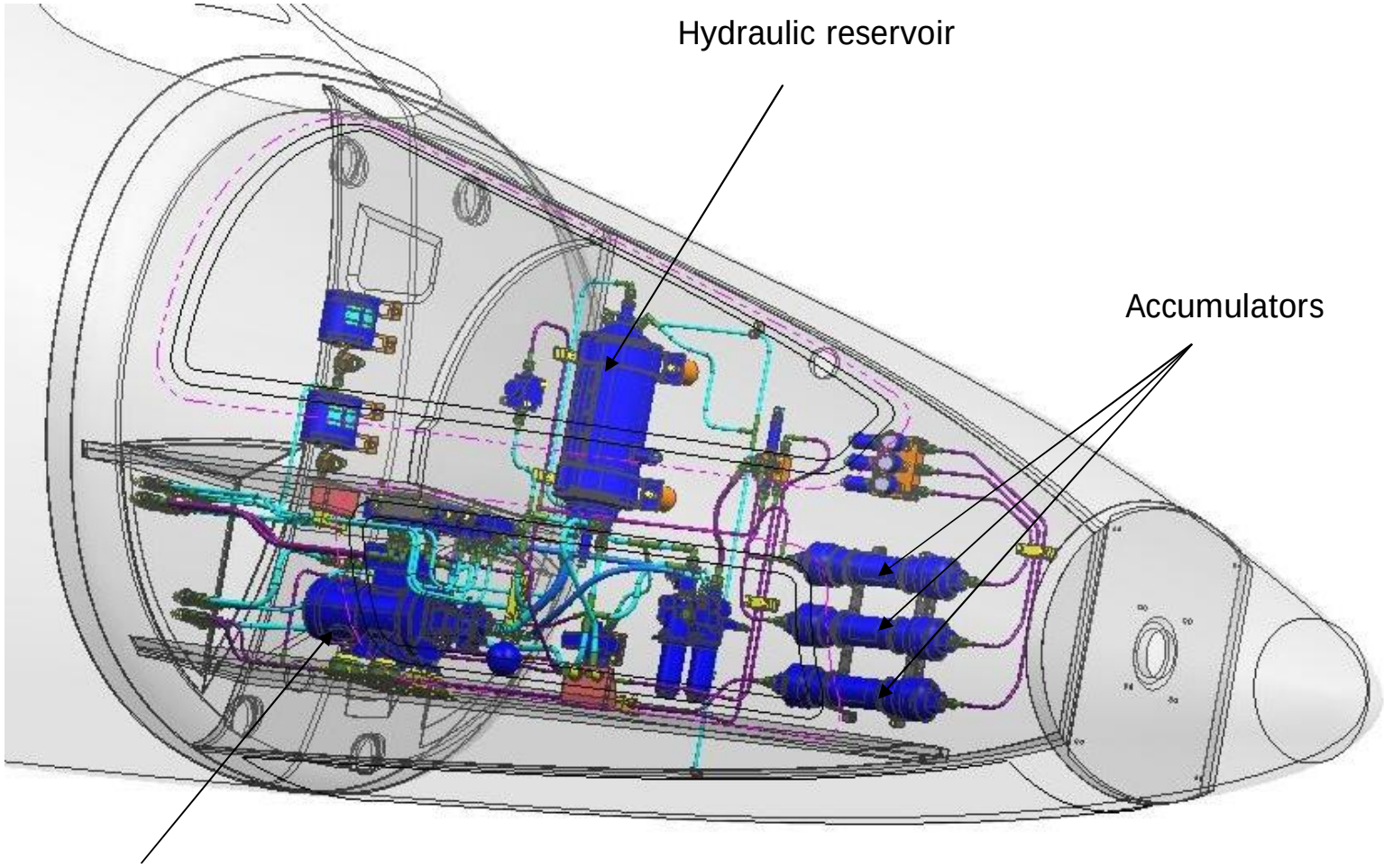


Empennage control surfaces

Hydraulic System



Hydraulic System



Hydraulic System

Operates:

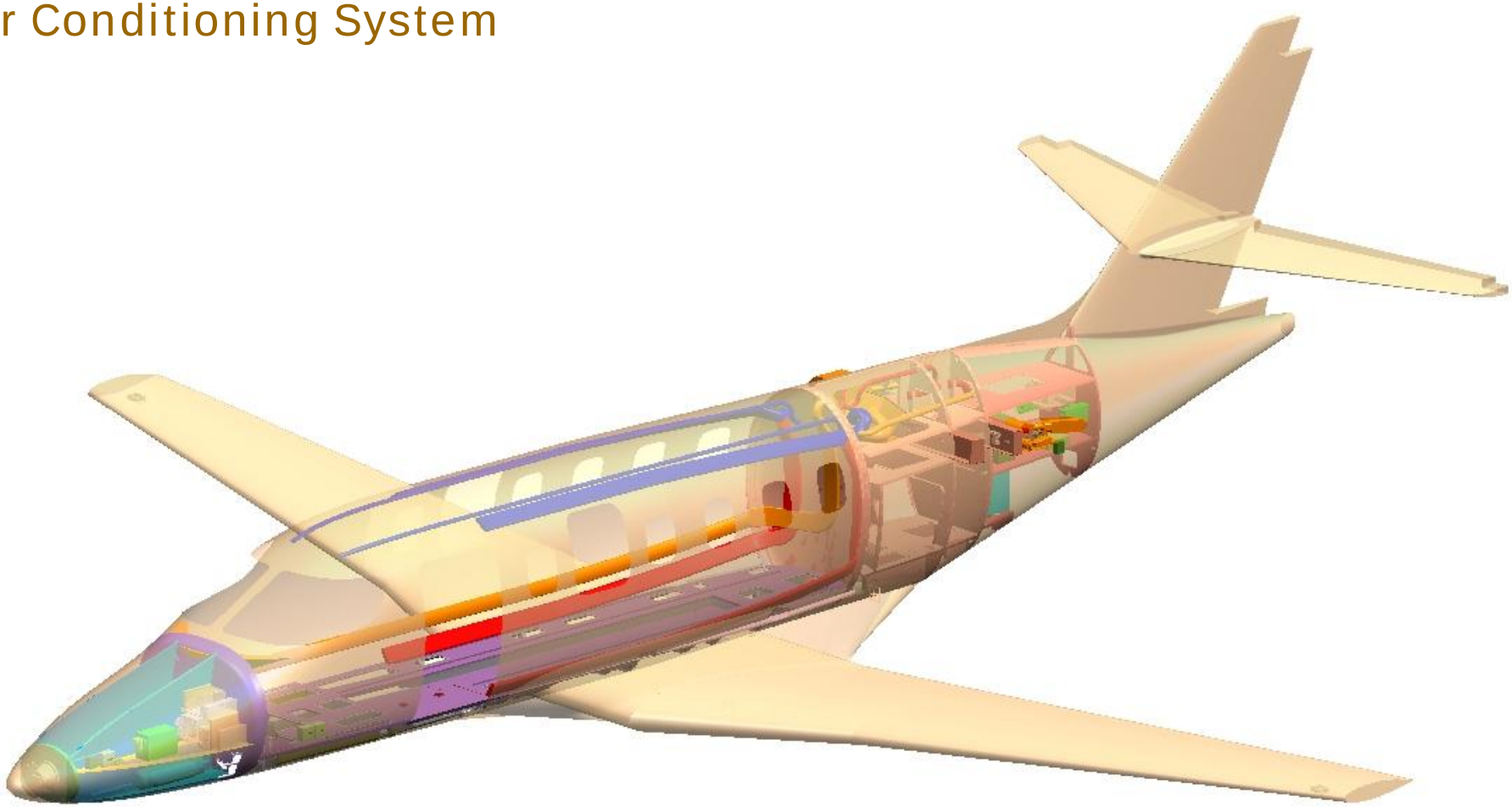
- The landing gear
- The braking (normal and emergency)
- The nose landing gear steering
- The spoilers

Key Features

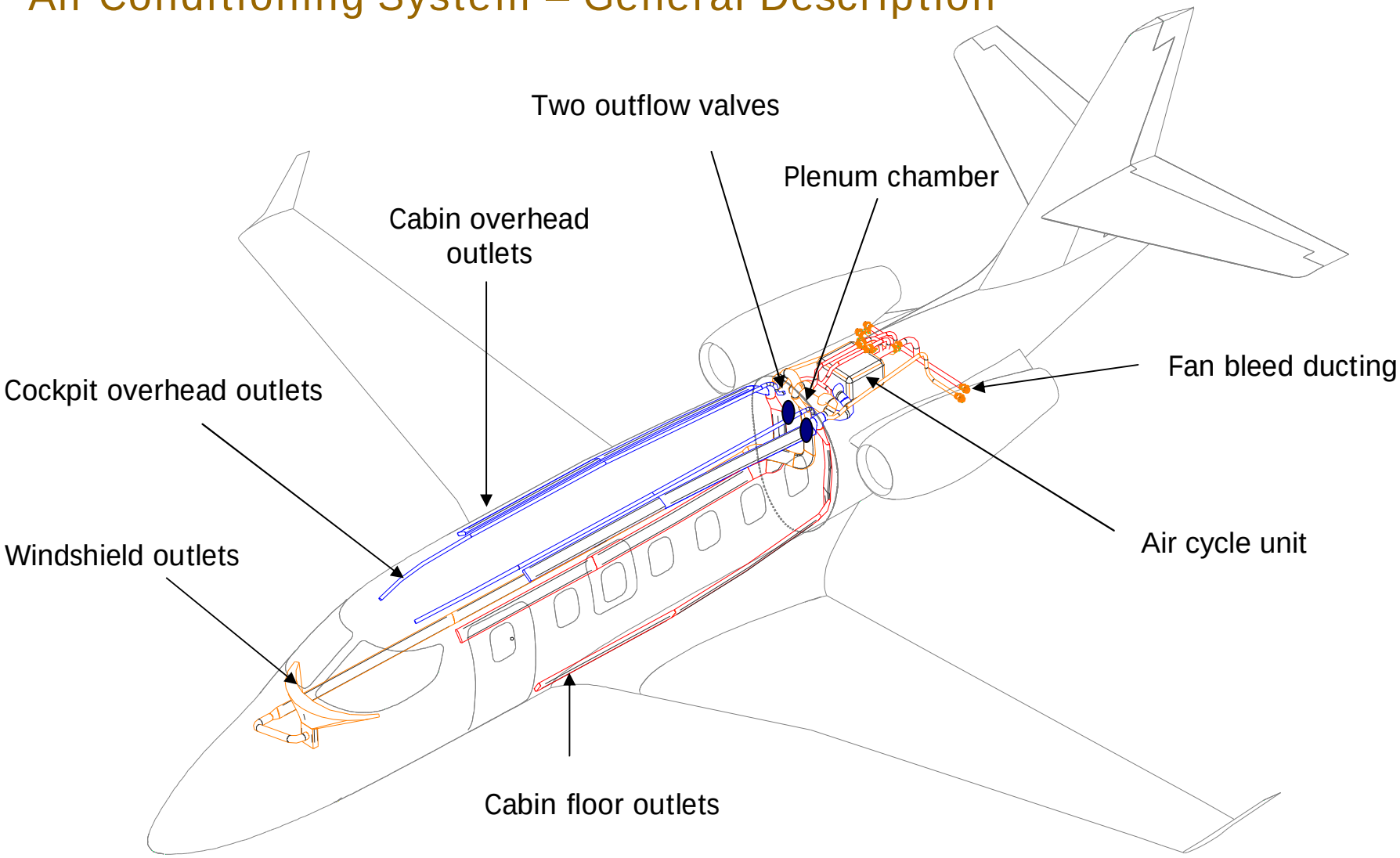
- One 3-liter reservoir
- 3 accumulators:
  - Main
  - Brakes back-up
  - Parking/emergency-braking back-up
- One 3000 psi hydraulic pump
- Widely available Mil-H-5606 hydraulic fluid

Hydraulic pump

Air Conditioning System



Air Conditioning System – General Description



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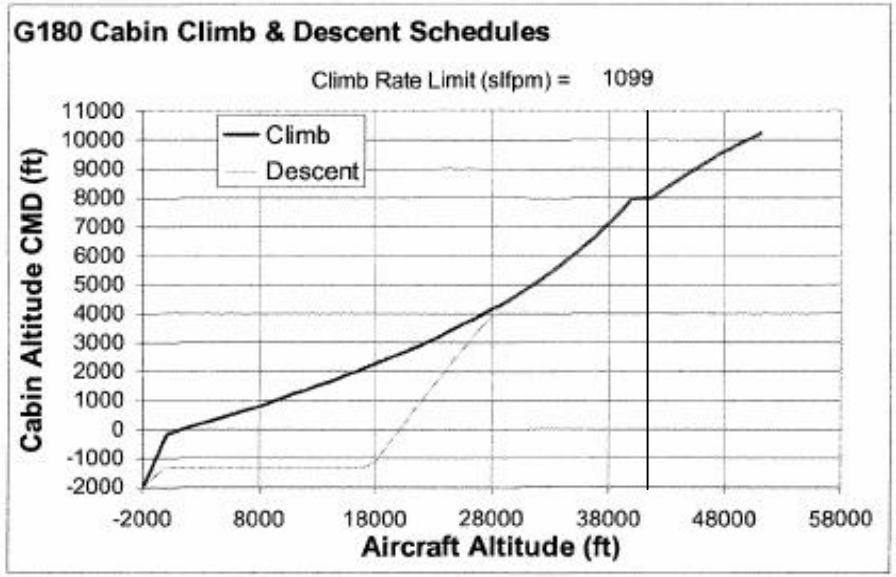
Air Conditioning System

Honeywell Air Cycle Unit

- Unusual for this class of aircraft
- Better cooling capabilities than Vapor Cycle
- Lower maintenance costs
- Lower weight and power consumption

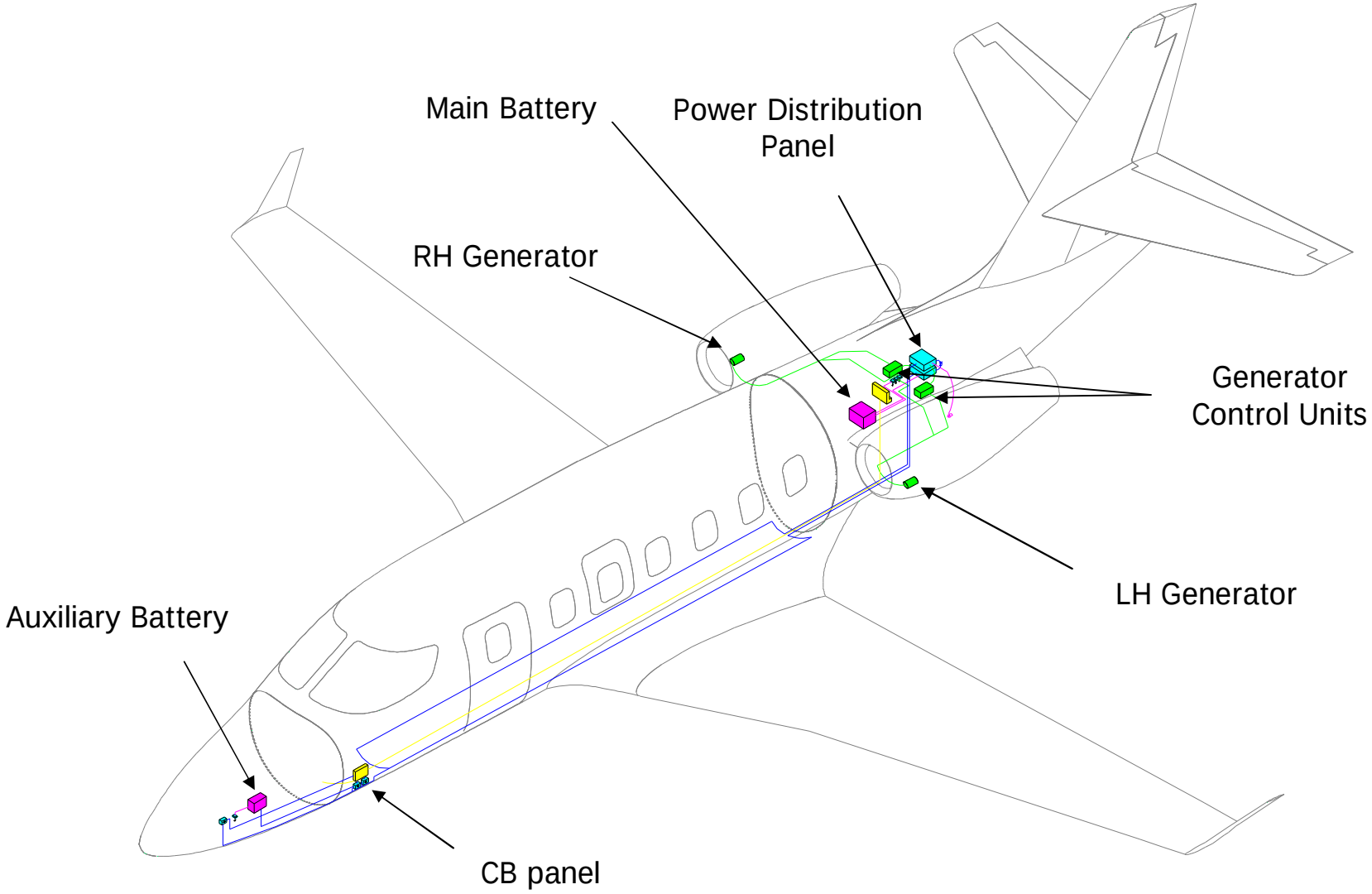


Other features

- Individual overhead air gaspers in cockpit, cabin and toilet
- Cabin temperature selection from cockpit and cabin
- ΔP = 8.3 psi

Aircraft altitude	Cabin altitude
41,000 ft / 12,496 m	8,000 ft / 2,438 m
35,000 ft / 10,667 m	6,000 ft / 1,829 m
30,000 ft / 9,143 m	4,500 ft / 1,372 m
25,000 ft / 7,620 m	3,500 ft / 1,067 m
20,000 ft / 6,096 m	2,500 ft / 762 m

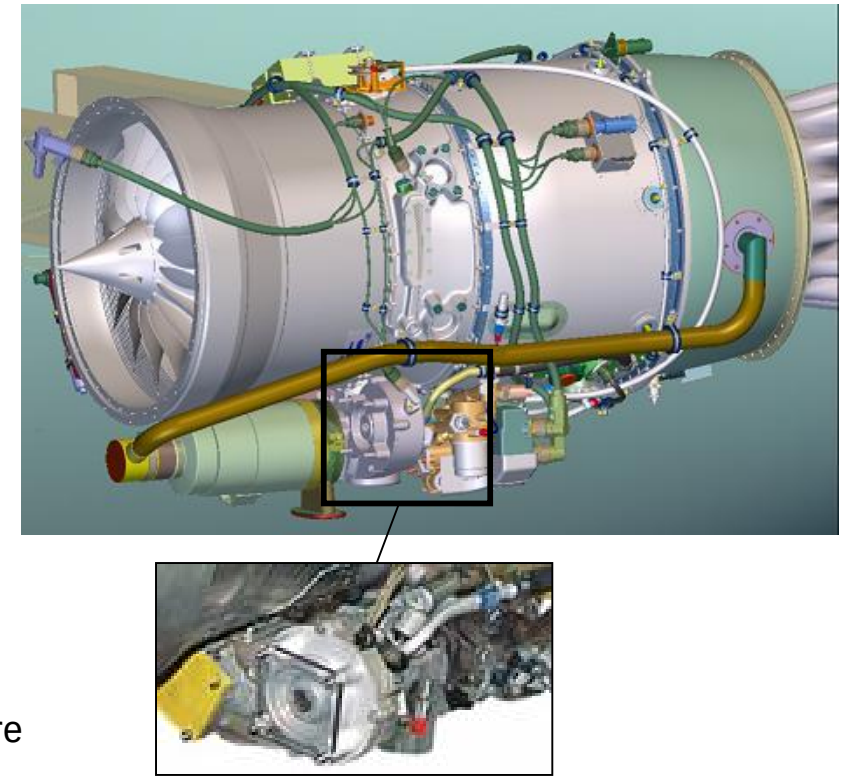
Power Generation System



Power Generation System

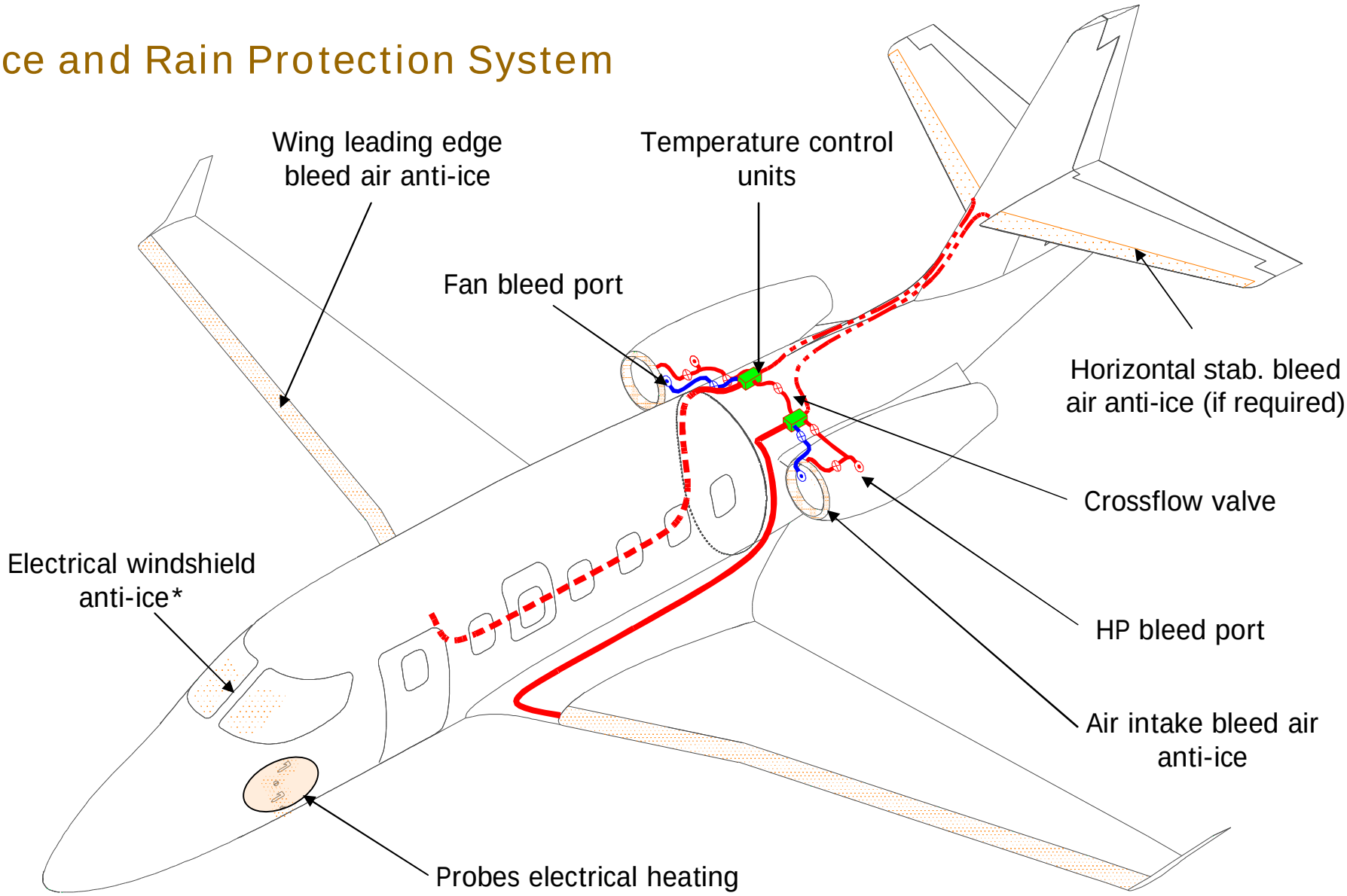
Key Features

- q Two 400 Amps starter/generators
- q Two pure-lead-acid batteries:
  - Main battery 40Ah
  - Auxiliary battery 18Ah
- q Ground power connection:
  - Supply power to entire system on ground
  - Charge batteries
- q Essential vs. Non-essential power distribution concept
  - Automatic re-configuration in case of engine failure
  - Load shed of non-essential loads



Starter generator

Ice and Rain Protection System



* Right hand heating is optional

Exterior Lighting System

Key Features

- Two anti-collision lights
- Three navigation lights
- Two landing/recognition lights
- Two taxi lights
- One wing inspection light (left hand side)
- Optional logo lights

Landing lights (wing fairing)

5. Certification

FAA and JAA Commuter Certification

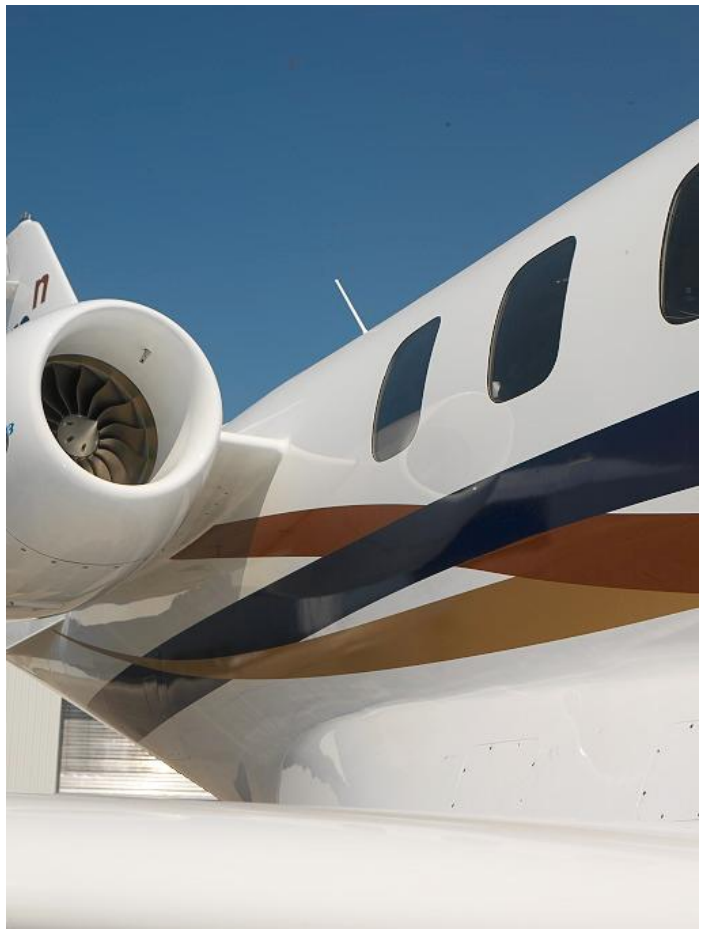
US and EU Certification Levels

ü EASA CS23 Commuter category :
→ planned for 1Q 2007

European Aviation Safety Agency
Agence Européenne de la Sécurité Aérienne
Europäische Agentur für Flugsicherheit

ü FAR 14CFR Part 23 Commuter category:
→ planned for 2Q 2007

Federal Aviation Administration
Bringing Safety to America's Skies



Operating capabilities

ü Single pilot operation

ü MNPS, RVSM, P-RNAV compliant

ü Operations in : - IFR & VFR day/night
- Known icing conditions

The Certification Process (1)

1. Engineering review

q Review of the engineering concepts by the Authorities

2. Structural Tests

q One full airframe structure dedicated to these tests

q Static tests conditions:

- 1.725 x maximum loads are applied on the structure
- 72°C temperature
- Damage tolerance (defined defects in the structure)

q Fatigue tests :

- Minimum life time limit superior to 28,000 hours
- Actual test performed to 3-5 times this limit

Wing static test

The Certification Process (2)

3. Prototype tests

- Ground tests
- Flight tests
  - 1st flight performed on July 20, 2005
  - Full flight envelope testing by Q4 2005
  - 2 aircraft fully dedicated to flight tests

Aircraft Type certification

First Flight: July 20, 2005

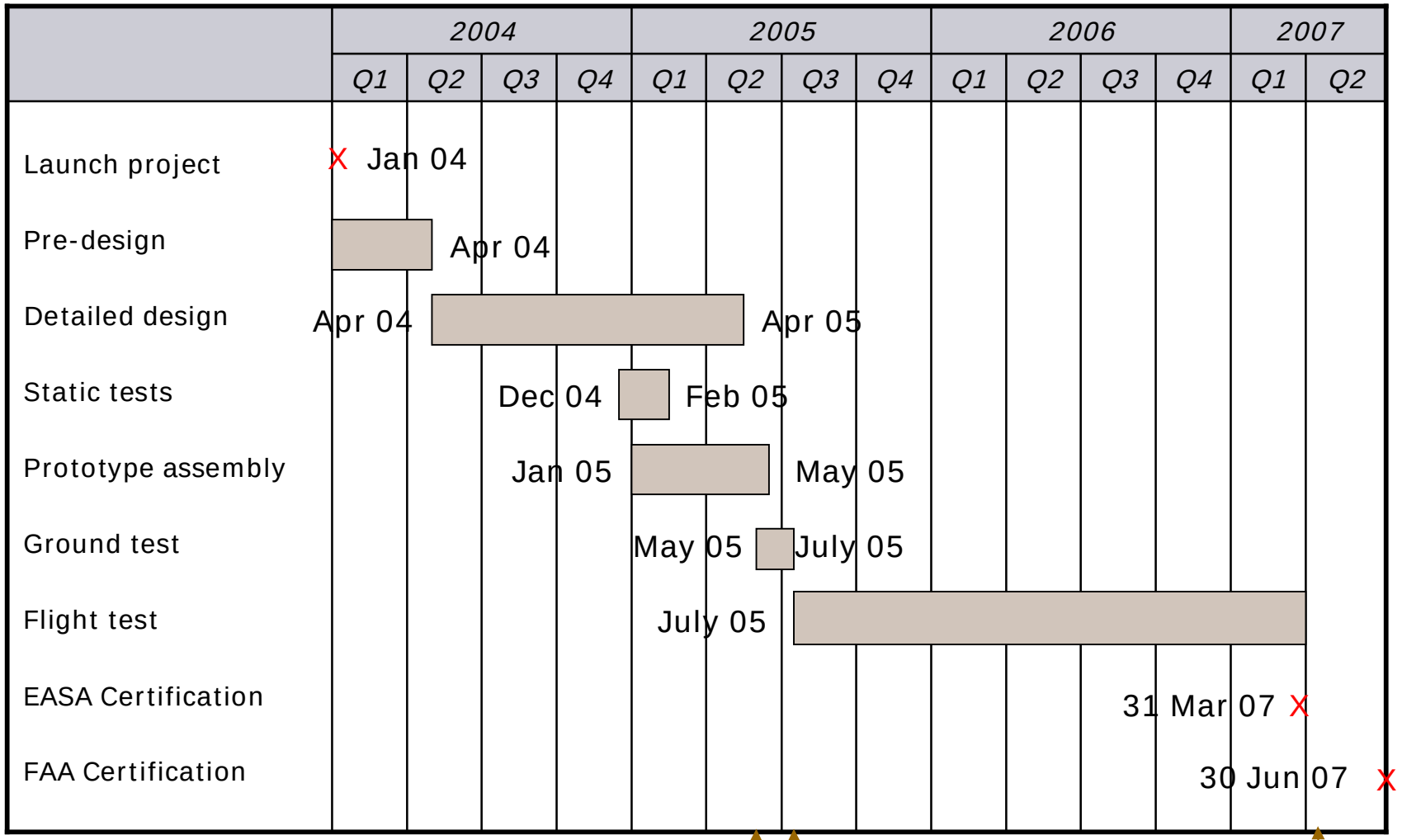
4. Series aircraft tests

- Ground tests
- Flight tests

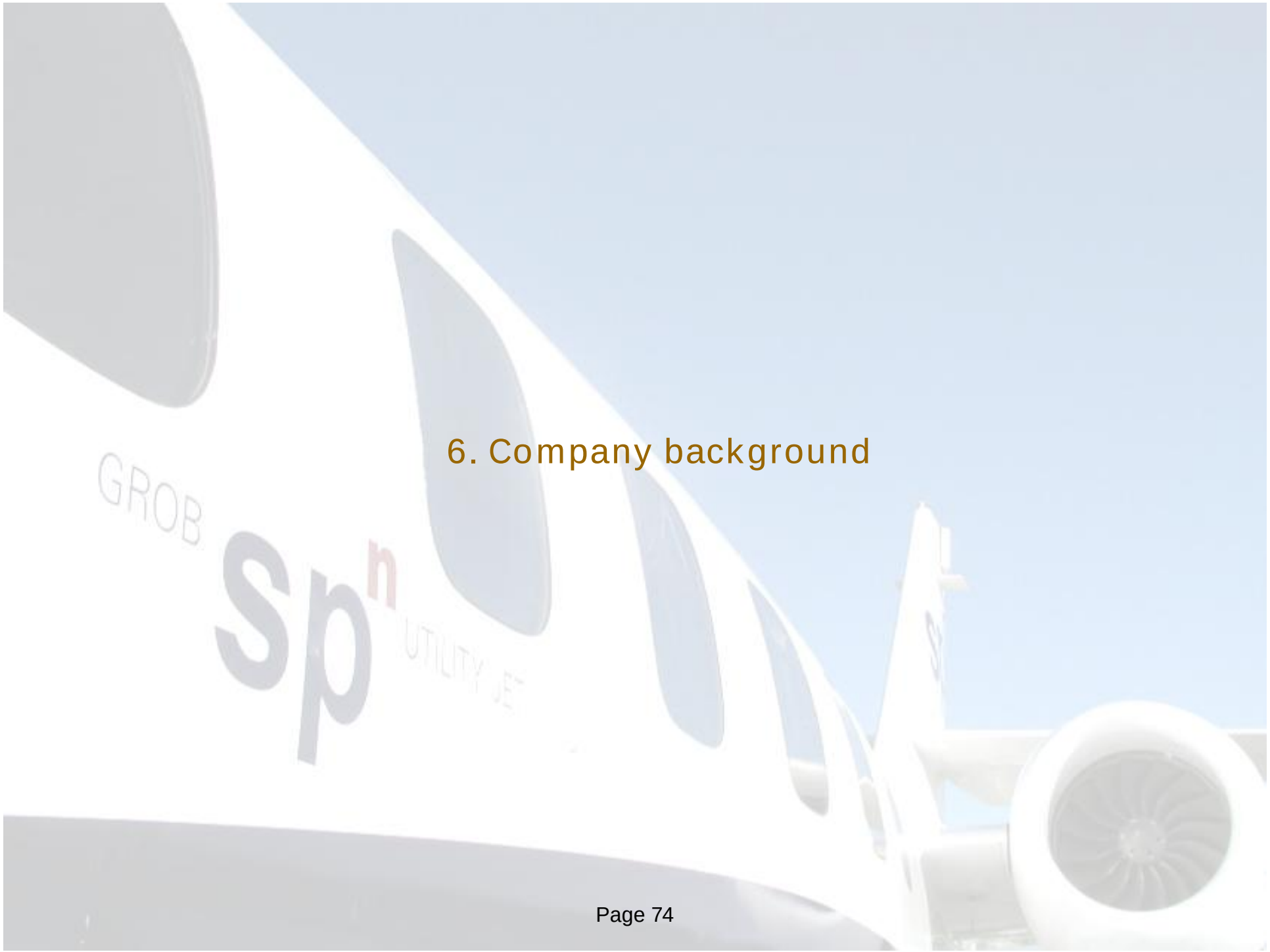
Aircraft Certificate of Airworthiness and Delivery to Customer

Flight test program underway

Program Development



GROB sp UTILITY JET



6. Company background

GROB Werke

- World's most accomplished and most experienced composite aircraft manufacturer
- More than 3500 aircraft delivered which have flown over 7 million hours on five continents
- A precision automotive machine tools manufacturer
  - Clients include Audi, BMW, Daimler Chrysler, Ford, General Motors, Volkswagen
- ± 3000 employees and turnover of approximately € 450,000,000
- Privately held, founded in 1926, in Aerospace since 1971
- Based in Germany with international operations in USA, Brazil and China

Aerospace Division
Mattsies, Germany

The GROB Group

GROB sp n UTILITY JET

GROB - Werke Aerospace Division

- In-house manufacturing of all structural composite and metal parts:
  - Fuselage
  - Wing
  - Control surfaces
  - Landing gear
  - Brackets and hinges
- High-precision metal parts manufactured by GROB tooling division
- In-house composite curing facilities
- Integration of complete OEMs systems on the airframe (avionics, air conditioning, engines, etc)
- In-house testing capabilities:
  - Static & Fatigue test
  - Ground & Flight test

Composites

Metal parts

Systems

GROB sp n UTILITY JET

The GROB Legacy

Gliders

- More than 2500 gliders built
- Altitude record of 49,000 ft

Engine-powered gliders

- More than 470 aircraft built since 1981
- Fixed engine / retractable engine

Trainers

- More than 400 pistons and turboprop aircraft
- Certified for aerobatics
- Flying and supported in Europe, US, Australia, Middle East

GROB spn UTILITY JET

The GROB Legacy

Business aircraft (G160 Ranger)

- Up to 6 passenger seating in business aviation standards
- Integrated avionics
- More than 2000 nm of range
- Certification underway

G160 Ranger

Research aircraft

- Multiple altitude records
- Largest aircraft made of composite (56m wingspan)
- Designed for 48h of continuous flying

Strato II

GROB sp n UTILITY JET

ExecuJet Aviation Group

- Turnkey business aviation service concept
- Bombardier business aircraft sales in 35 countries
- Pilatus aircraft sales in 35 countries
- Aircraft management & operations (over 80 a/c)
- Aircraft charter
- Aviation services (incl. FBO)
- Airframe & engine maintenance
- Employ 420 staff in multiple locations
- Based in Europe, Africa, Australia, Middle East & Central America

Facilities at Lanseria Airport, South Afirca

Strong Partnership

GROB Aerospace - Development & Manufacture

- Significant aviation experience and technical expertise in aircraft design and manufacture
- Successful track record bringing training and high altitude aircraft to market
- A strong “can do” culture and record of achievement

ExecuJet Aviation Group - Sales & Support

- ExecuJet Aviation Group (EAG) appointed as primary distributor
- Comprehensive knowledge of the needs of business aircraft operators
- Located in Europe, South Africa, Australia, Middle East & Central America
- Capability includes sales, flight operations, maintenance & FBO

7. Engineering and Manufacturing

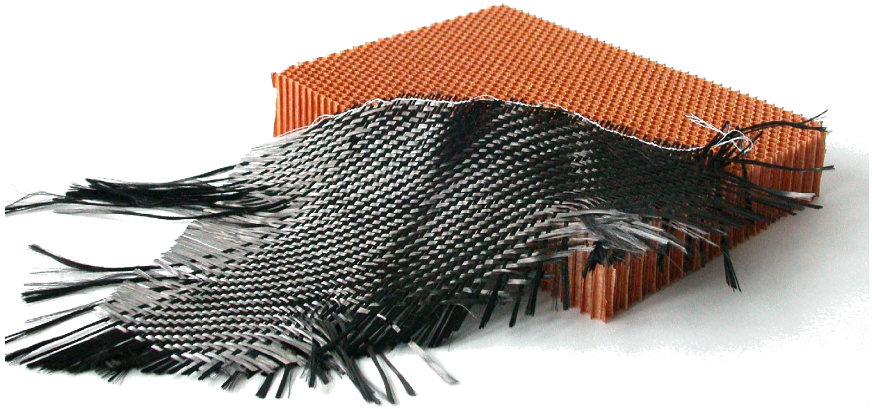
Engineering Expertise

- State of the art 3D-CAD systems
- Finite Element Analyses
- Computerised aerodynamics models
- Partnership with world-reknown OEMs
  - Williams
  - Honeywell
  - Goodrich
- In-house static and fatigue testing
- Ground and flight testing

3D modeling

Carbon Fiber Technology

- Light weight
- High strength and rigidity
- Optimized aerodynamic surfaces (no rivets)
- Non corrosive
- Unlimited fatigue life
- Low maintenance
- Simple field repairs
- Extreme climate proven
- Low parts count



Carbon fiber and Honeycomb core

Carbon fiber is as strong as aluminum but 44% lighter

Carbon Fiber Technology

Creation of the Airframe

1. A positive core is created based on the aircraft engineering data

2. A negative mold is created to the shape of the core

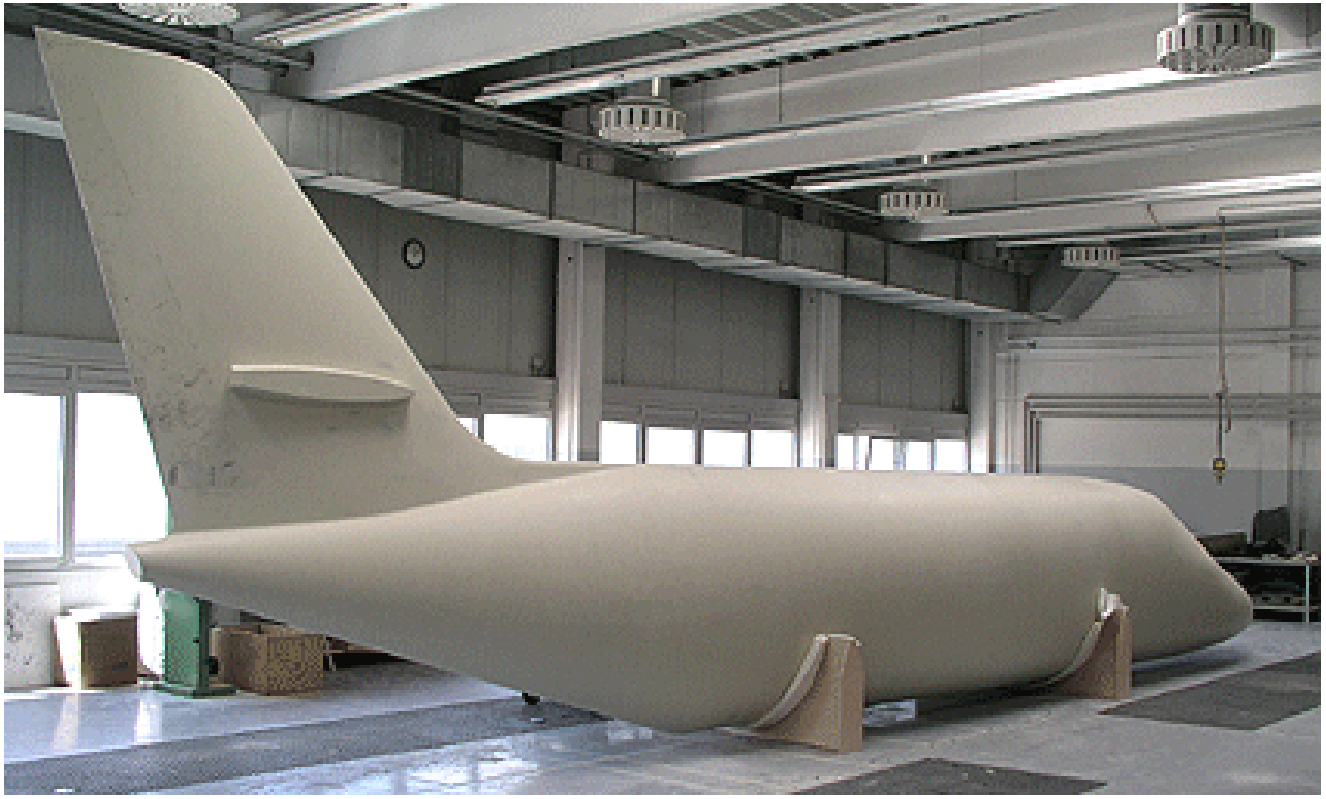
3. The airframe structure is manufactured in the mold:
   - q Honeycomb or foam plates with carbon fibre fabric on both sides
   - q Resin applied to bind materials and create strength

4. The structure is heated and fused together in a large heating chamber

5. The fuselage structure re-heated outside the mold

Carbon Fiber Technology

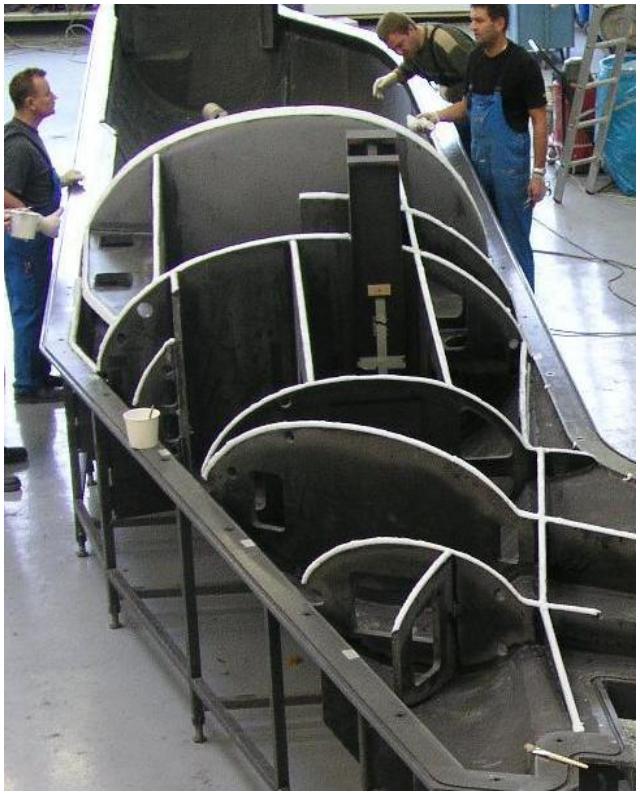
1. Creation of the core



2. Creation of the molds

Carbon Fiber Technology

3. Structure created in carbon fiber sandwich



4. First heating at 60°C / 140°F in the mold

5. Second heating at 80°C/176°F outside the mold

8. Customer Support

Superior Maintenance Capabilities Around the World

- World-wide service and support in place through ExecuJet
- Certified for all types of maintenance (airframe, engines, avionics, systems, etc.)
- Authorized to service multiple business aircraft models including Bombardier and Pilatus

Superior Warranty Offer

- Comprehensive coverage for all major components and systems
- Meets or exceeds industry standards
- Engine backed by Williams and supported at any authorised facility

Aircraft part	Warranty Period
Fuselage and wing composite structure made by GROB	7 years or 7000 flight hours
Other structural elements made by GROB	3 years or 1500 flight hours
Engines (directly via Williams)	3 years or 1500 flight hours
Honeywell avionics	5 years
All other vendor parts and equipment	2 years or 1000 flight hours
Aircraft interior	2 years
Exterior paint	2 years

9. Comparisons

Comparison vs. Turboprops

	GROB SP^{n} Utility Jet	Pilatus PC12	King Air C90B	King Air B200	King Air 350	Piaggio Avanti
Range with seats full * (nm)	1670	1340	840	920	1440	980
Typical Pax * (Normal Configuration)	8	7	5 or 6	6	8	6
Available Volume * (Cabin + Baggage) (cu ft/m^3)	439 / 12.43	370 / 10.47	277 / 7.84	357 / 10.11	405 / 11.46	435 / 12.31
Cabin Height * (ft/m)	5.4 / 1.64	4.8 / 1.46	4.8 / 1.46	4.8 / 1.46	4.8 / 1.46	5.8 / 1.76
Max Payload** (lbs/kg)	2491 / 1130	2745 / 1245	2142 / 971	2470 / 1120	2800 / 1270	2000 / 907
Field Performance** (TOFL in ft/m)	3000 / 914	2300 / 700	2710 / 826	2579 / 786	3300 / 1005	2850 / 869
Rate of Climb * (ft per min)	4360	1680	2010	2448	2731	2950

* *Source: Conklin and de Decker – Fall 2004*
** *Source: BC & A May 2005*

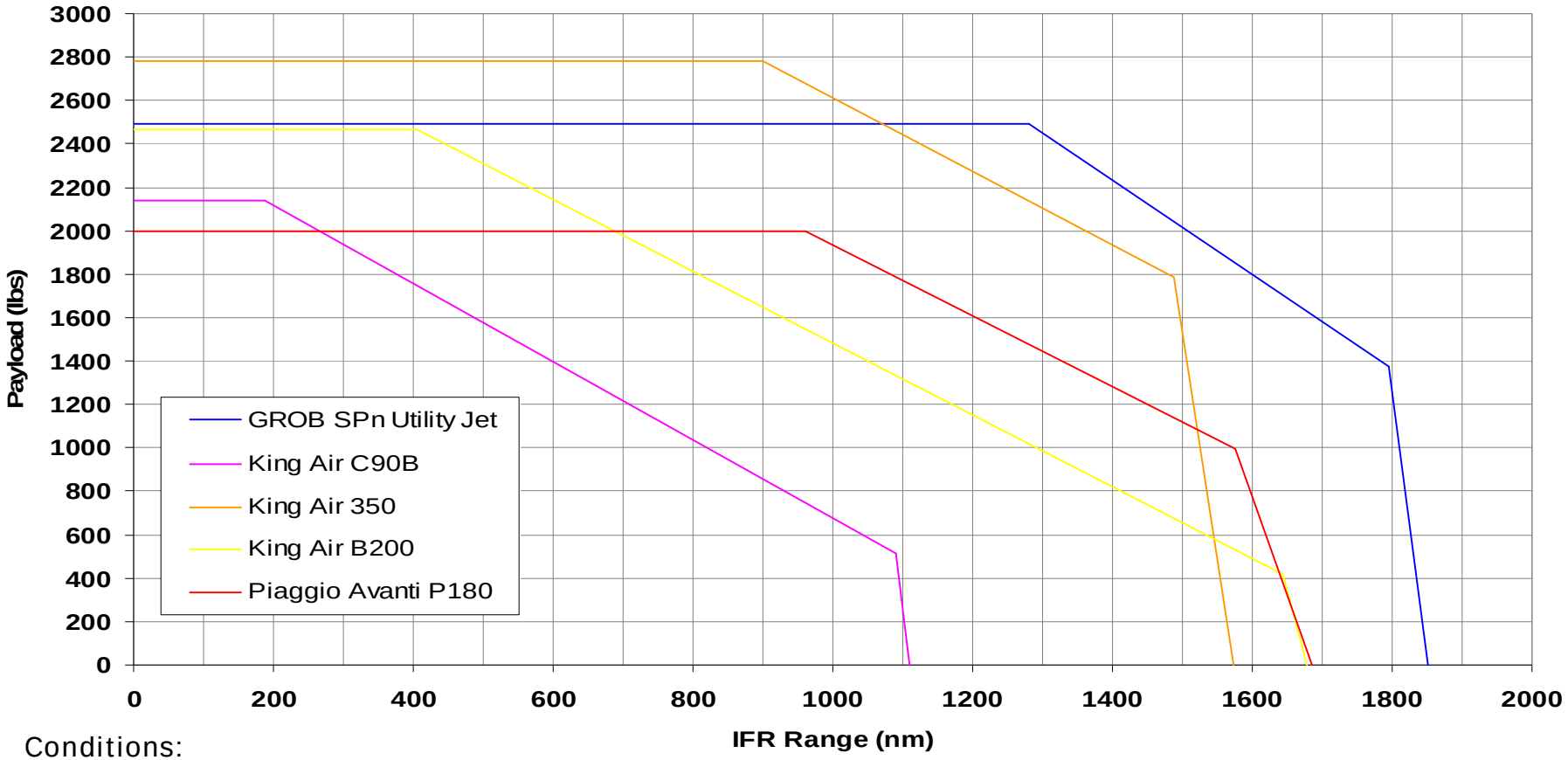
Comparison vs. Part 23 Light Jets

	GROB SP^n Utility Jet	Cessna CJ1+	Cessna CJ2+	Cessna CJ3	Raytheon Premier I	Swearingen SJ30-2
Range with seats full * (nm)	1670	857	1075	1488	850	1850
Typical Pax * (Normal Configuration)	8	5	6	6	6	5
Available Volume * (Cabin + Baggage) (cu ft/m^3)	439 / 12.43	253 / 7.11	322 / 9.12	357 / 10.11	393 / 11.13	244 / 6.90
Cabin Height * (ft/m)	5.4 / 1.64	4.8 / 1.46	4.8 / 1.46	4.8 / 1.46	5.4 / 1.64	4.7 / 1.43
Max Payload** (lbs/kg)	2491 / 1130	1510 / 685	1805 / 819	1870 / 848	1500 / 680	1900 / 862
Field Performance** (TOFL in ft/m)	3000 / 914	3200 / 974	3420 / 1042	3180 / 968	3792 / 1155	3515 / 1070
Rate of Climb * (ft per min)	4360	3230	3870	4350	4000	3900

* *Source: Conklin and de Decker – Spring 2005*
** *Source: BC & A May 2005*

Range and Payload – vs. Turboprops *

Only the King Air 350 can carry more load, but only for short missions



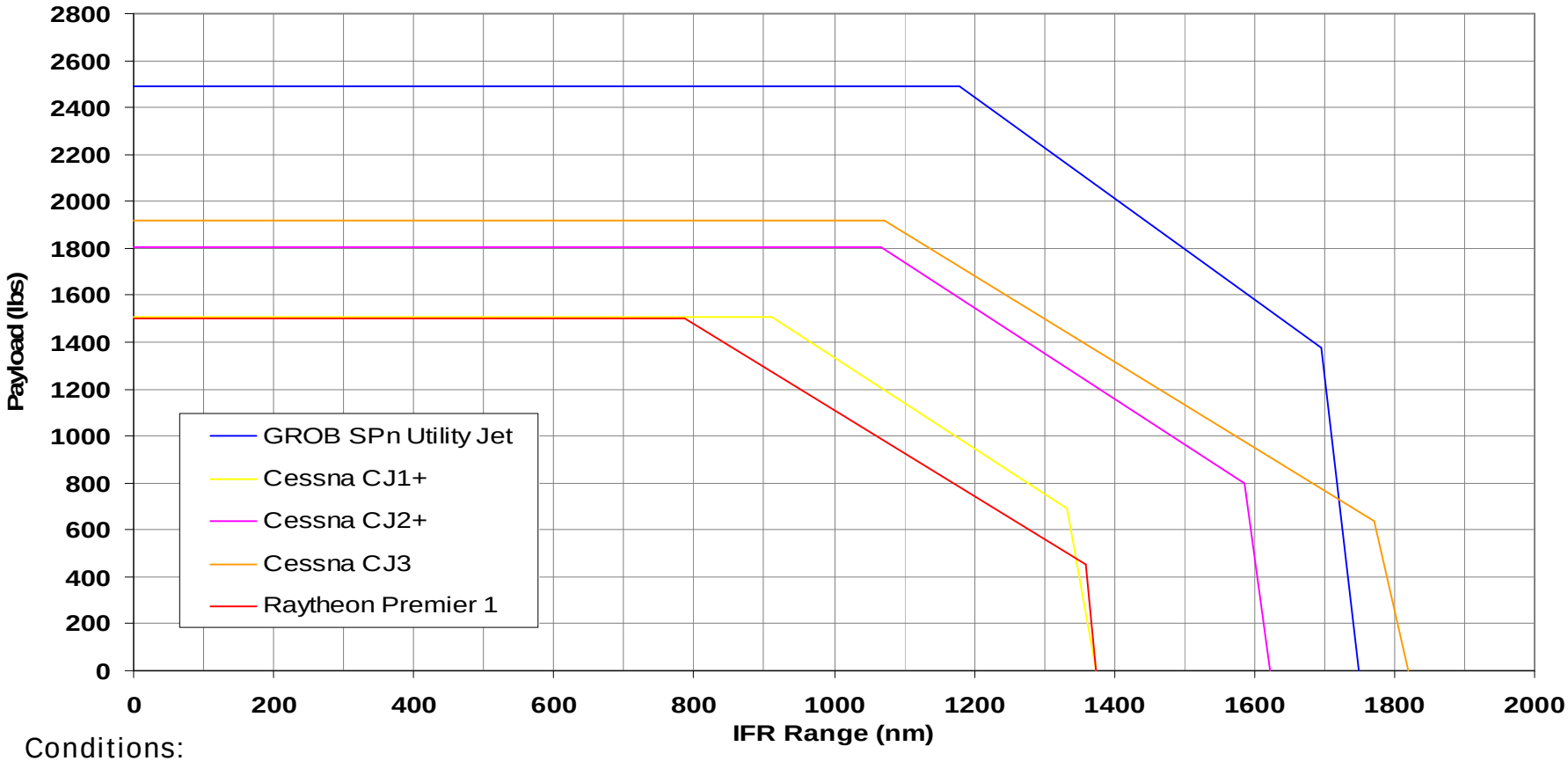
Conditions:
Reserve 100nm alternate

** Source: BC & A May 2005*

GROB spn UTILITY JET

Range and Payload – vs. Part 23 Light Jets *

The GROB SP^{n} Utility Jet outperforms all light jets competitors



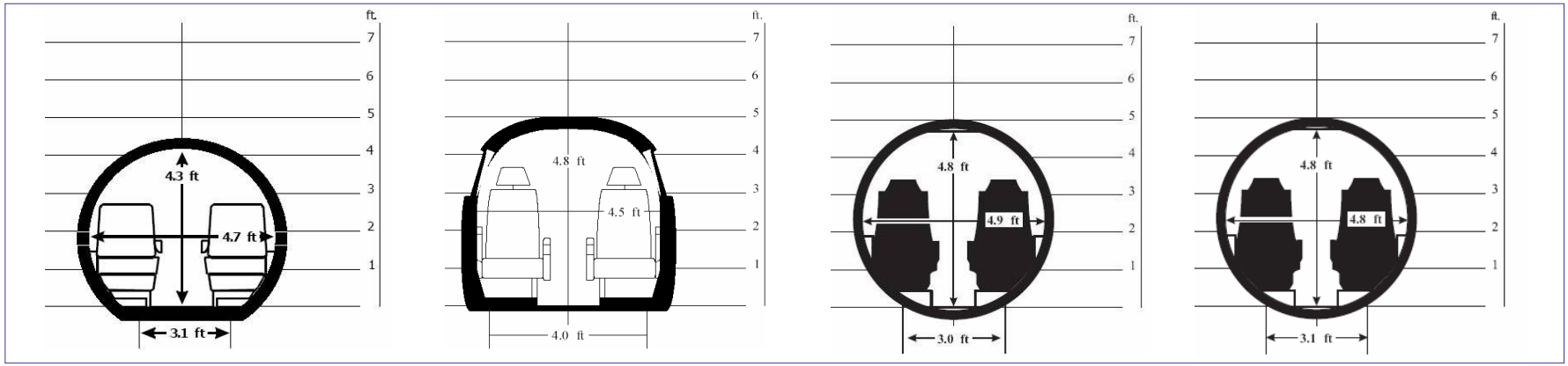
Conditions:
Reserve 200nm alternate

** Source: BC & A May 2005*

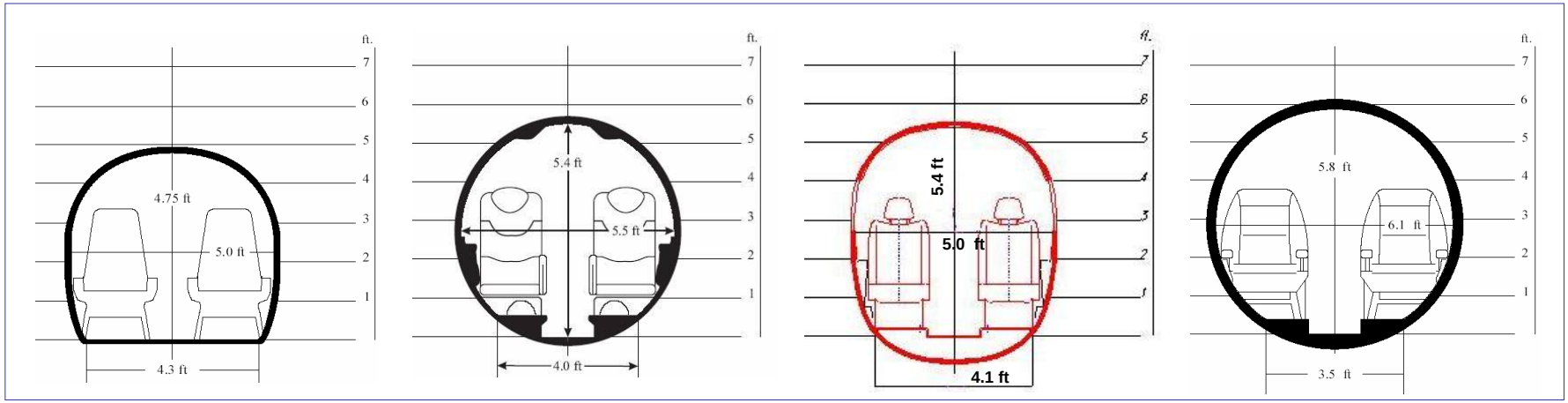
GROB sp^{n} UTILITY JET

Cabin – Cross section comparisons *

SWEARINGEN SJ30-2 | KING AIR C90/B200/350 | CITATION CJ2 | CITATION CJ3



PILATUS PC-12 | RAYTHEON PREMIER I | GROB SPⁿ UTILITY JET | AVANTI P-180



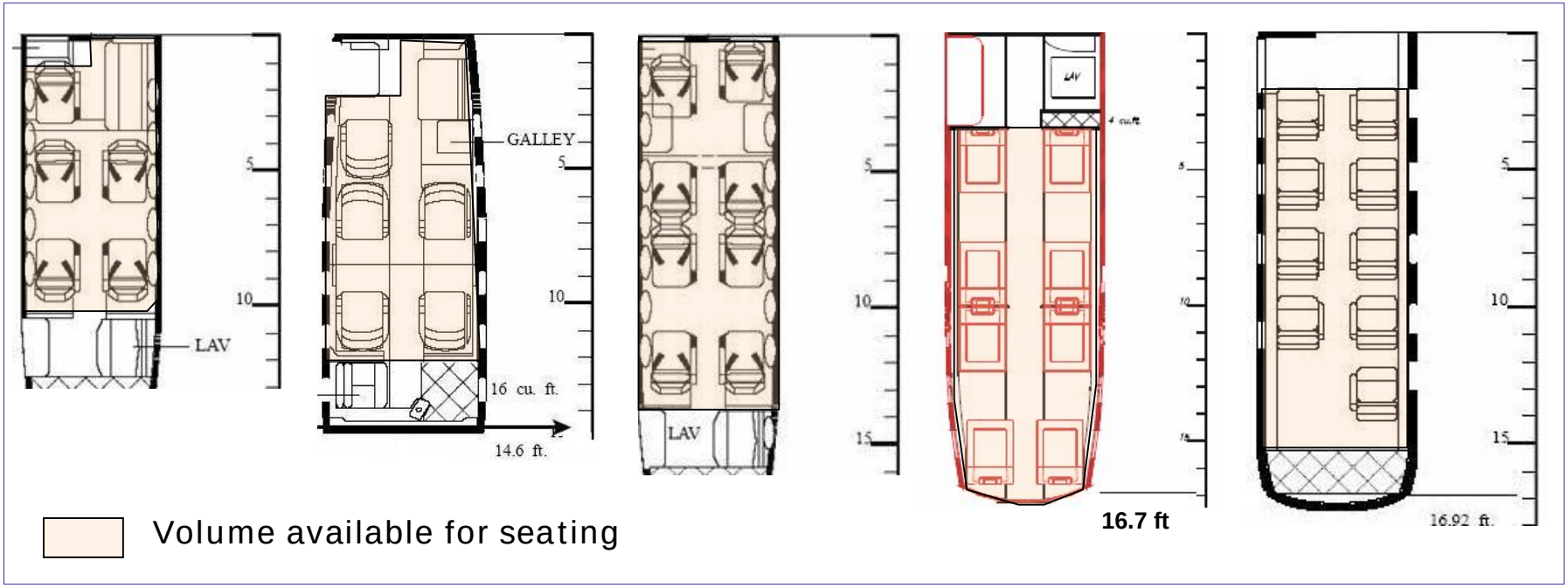
The SPⁿ oval cabin cross section is designed to offer the biggest head space.

** Source: Conklin and de Decker – Fall 2004*

GROB spⁿ UTILITY JET

Cabin – Turboprops floor plan comparision *

KING AIR B200	AVANTI P-180	KING AIR 350	GROB SP^n UTILITY JET	PILATUS PC12



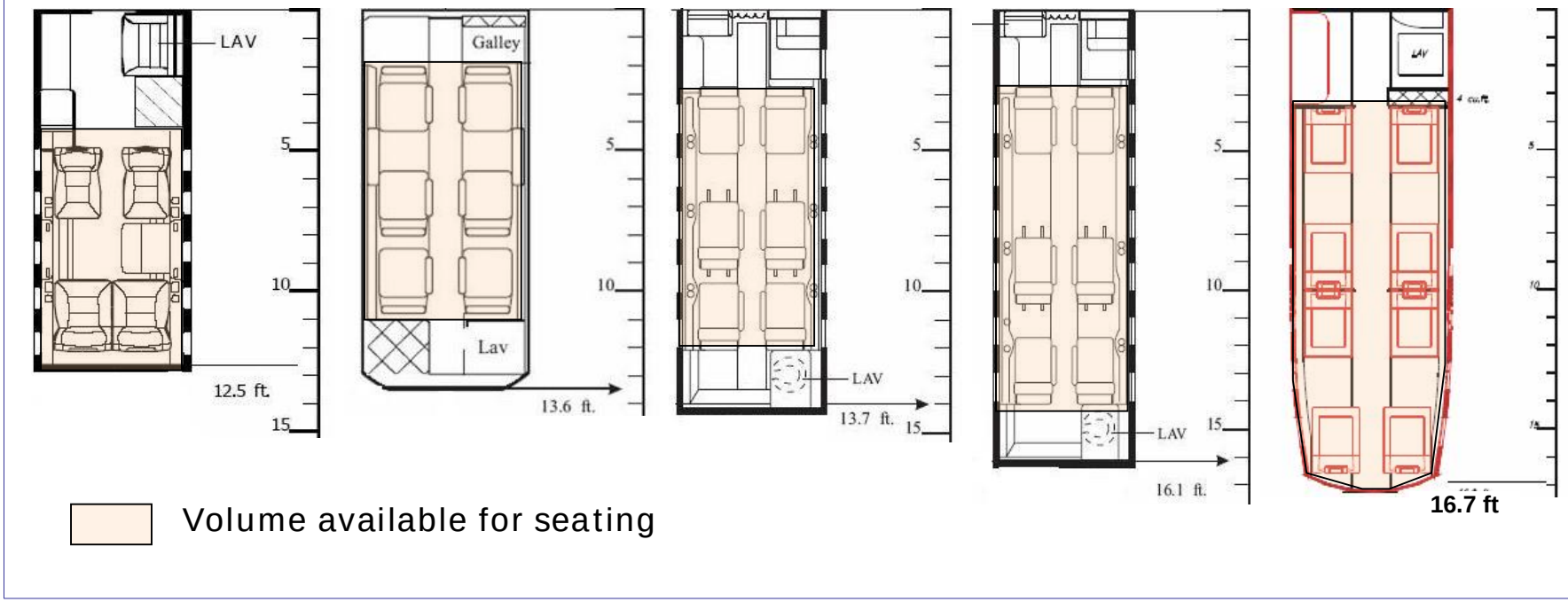
Unlike turboprops, the SP^n allows for a comfortable double club layout

** Source: Conklin and de Decker – Fall 2004*

GROB sp^n UTILITY JET

Cabin – Light jets floor plan comparision *

SINO SWEARINGEN SJ30-2	RAYTHEON PREMIER I	CITATION CJ2	CITATION CJ3	GROB SP^{n} UTILITY JET



The SP^{n} cabin is much larger than these of other FAR 23 jets

** Source: Conklin and de Decker – Fall 2004*

Warranty comparison

Aircraft part	GROB SPn Utility Jet	Cessna CJ1	Cessna CJ2	Cessna CJ3	Raytheon Premier 1	Swearingen SJ30-2*
Airframe	7 yrs / 7000 hrs	5 yrs / 5000 hrs	5 yrs / 5000 hrs	5 yrs / 5000 hrs	5 yrs / 5000 hrs	5 yrs / 2500 hrs
Minor metal structures	3 yrs / 1500 hrs	N/A	N/A	N/A	N/A	N/A
Engines	3 yrs / 1500 hrs	2 yrs / 1000 hrs	3 yrs / 1750 hrs	3 yrs / 1500 hrs	3 yrs / 1500 hrs	3 yrs / 1500 hrs
Honeywell avionics	5 yrs	5 yrs	5 yrs	5 yrs	5 yrs	2 yrs
Vendor parts	2 yrs / 1000 hrs	1 yr	1 yr	1 yr	2 yrs	2 yrs / 1000 hrs
Aircraft interior & Exterior paint	2 yrs	1 yr	1 yr	1 yr	2 yrs	1 yr

Source: Conklin and de Decker – Fall 2004, except otherwise mentioned
** Source: SJ30-2 manufacturer*

Other Un-Matched Features and Qualities

- q Un-improved runway capability
- q Modular and versatile cabin
- q Latest avionics technology
- q State-of-the-art systems
- q No fatigue / corrosion


sp

Back-up slides

Comparison vs. Part 25 Light Jets

	GROB SP^n Utility Jet	Cessna Citation II	Citation Encore	Citation Bravo	Hawker 400XP
Range with seats full * (nm)	1670	1220	1410	1290	1180
Typical Pax * (Normal Configuration)	8	7	7	7	7
Available Volume * (Cabin + Baggage) (cu ft/m^3)	439 / 12.43	340 / 9.6	376 / 10.65	352 / 9.97	361 / 10.2
Cabin Height * (ft/m)	5.4 / 1.64	4.7 / 1.43	4.8 / 1.46	4.7 / 1.43	4.8 / 1.46
Max Payload** (lbs/kg)	2491 / 1130	2350 / 1066	2000 / 907	1840 / 834	2050 / 930
Field Performance** (TOFL in ft/m)	3000 / 914	4650 / 1417	3490 / 1063	3600 / 1097	3606 /1100
Rate of Climb * (ft per min)	4360	3130	4740	3190	4020

* *Source: Conklin and de Decker – Fall 2004*

** *Source: BC & A May 2005, except Citation II: Conklin & de Decker*

Carbon Fiber Technology

Steps to Create Composite Fibre

1 one simple mould

2 carbon/glass fibre sheets wet laminated with epoxy resin

3 light sandwich core

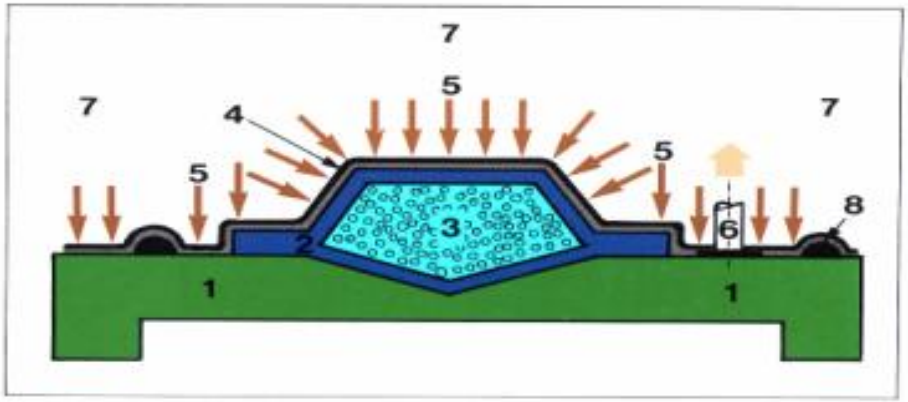
4 vacuum foil

5 ambient pressure

6 suction

7 low temperature curing

8 seal



GROB sp n UTILITY JET