SEASTAR WORLD´S MOST ADVANCED AMPHIBIOUS AIRCRAFT

DORNIER SEAWINGS

unlimited runways

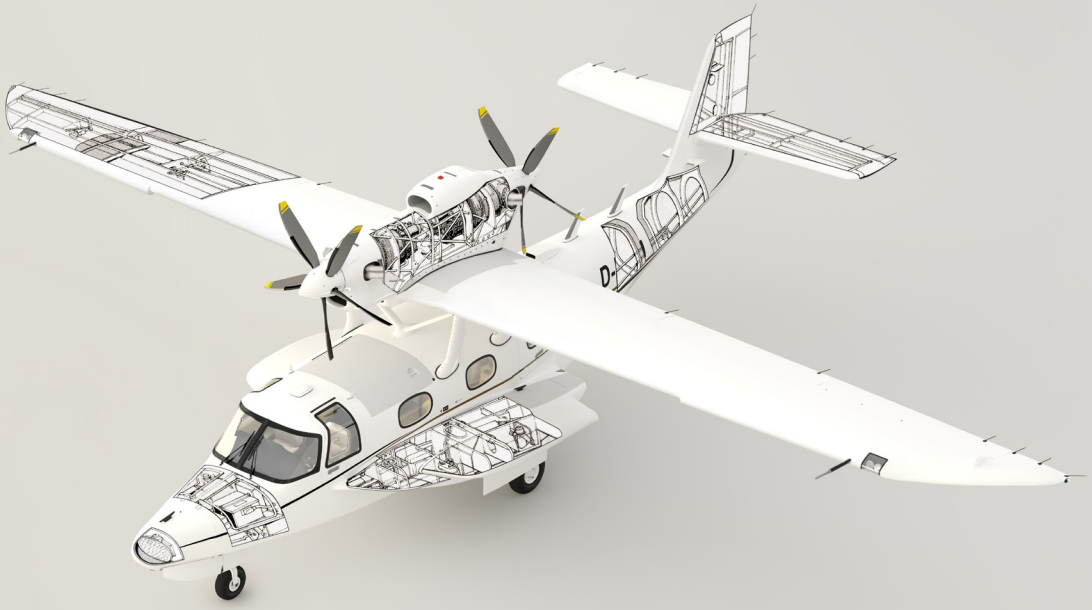
DORNIER SEASTAR

AMPHIBIOUS AIRCRAFT DESIGNED TO PURPOSE

The Seastar aircraft is engineered to operate from runway and water surfaces. It can perform airport to airport missions with its short field take-off and landing capabilities. At the same time, it is able to take-off and land on water, even under rough conditions. This unrivalled versatility and performance along with best-in-class cabin space, allows for entirely new missions. In the spirit of pioneering Dornier flying boats, the Seastar is superior in every important measure – speed, range, safety, cabin size and lower maintenance costs.

Max Cruise Speed	Max Range	Max Passengers	Max Take-off Weight	Take-off Distance, Land (MTOW)	Demonstrated Wave Height (Not Limiting)
180 KTAS	**900 NM**	**12 PAX**	**11240 LB**	**2244 FT**	**2 FT**


DORNIER
D-ISEA
seastar



CONSTRUCTED TO BE SAFE

SUPERIOR DESIGN

A main design principle of the Seastar is related to enhanced safety. The aircraft is certified by both EASA and FAA. Equipped with two proven and highly reliable Pratt & Whitney PT6A-135A turboprop engines in tandem configuration, which eliminates the possibility of asymmetric thrust in the event of an engine failure. It offers twin-engine reliability with smooth single-engine handling.

The Seastar wing is constructed as a single continuous airfoil structure with a three spar fail-safe design. The same holds for the fuselage: the rigid structure and integrated design results in long structural life and high damage tolerance properties. The “boat hull” is able to cope with rough sea conditions. The Seastar design results in smooth flying characteristics with a stall speed of only 66 KCAS in the landing configuration (land).

OPERATING ECONOMICS

In terms of direct operating costs, the Seastar is the most economical aircraft in its class. The all-composite, corrosion-free boat hull significantly reduces maintenance cost compared to other aircraft. Due to its manufacturing quality and durability, the residual value is poised to be significantly higher than that of metal aircraft.

FEEL THE POWER OF TWO TURBINES

EXCELLENT PERFORMANCE

With a maximum cruise speed of 180 KTAS, the Seastar is 40 KTAS faster than its nearest competitor. The powerful Pratt & Whitney PT6A-135A turboprop engines provide Seastar with 1,300 horsepower flat-rated, allowing the aircraft to become airborne quickly with take-off runs of only 2,244ft/684m on land and 3,445ft/1,050m on water (obstacle 35ft/10,67m, MTOW).

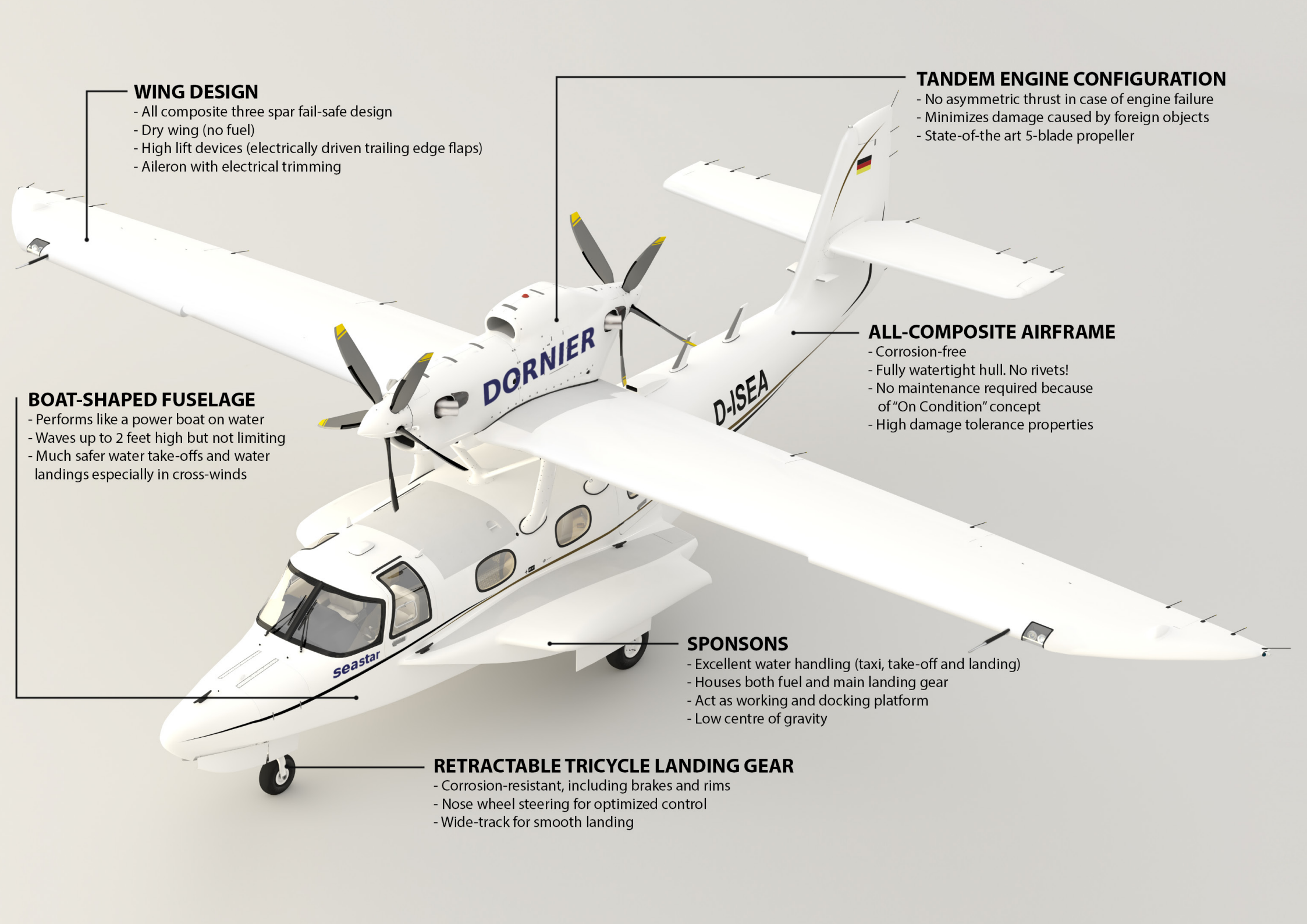
FEATURES

The Seastar has a set of design features that create advantages not found on any other amphibious aircraft, including the wide-track corrosion-resistant landing gear including brakes and rims, all the way to the centre-line engine configuration. All features combined lead to a safer and lower operating cost aircraft ideally suited to carry out various missions. A hydro stern thruster makes the Seastar turn around on the water 360° in both directions.

DURABILITY

Conventionally designed aircraft and helicopters require a high level of time-consuming and costly maintenance. The Seastar was systematically designed to reduce complexity and allows operators to focus on missions. The Seastar is durable in an economical sense, by combining the advantages of performance, efficiency and safety.

The Seastar was designed in Germany and strictly adheres to Dornier's high-quality standards. Its all-composite hull is resistant to extreme environments, even when the aircraft is left in saltwater areas. It is resistant and far more durable than conventional aircraft, especially if made from aluminium. The Seastar's all-composite airframe maintenance concept is "On Condition". The entire aircraft is certified for 30,000 flying hours after which a special inspection is required for extension.



WING DESIGN
- All composite three spar fail-safe design
- Dry wing (no fuel)
- High lift devices (electrically driven trailing edge flaps)
- Aileron with electrical trimming

TANDEM ENGINE CONFIGURATION
- No asymmetric thrust in case of engine failure
- Minimizes damage caused by foreign objects
- State-of-the art 5-blade propeller

ALL-COMPOSITE AIRFRAME
- Corrosion-free
- Fully watertight hull. No rivets!
- No maintenance required because of "On Condition" concept
- High damage tolerance properties

BOAT-SHAPED FUSELAGE
- Performs like a power boat on water
- Waves up to 2 feet high but not limiting
- Much safer water take-offs and water landings especially in cross-winds

SPONSONS
- Excellent water handling (taxi, take-off and landing)
- Houses both fuel and main landing gear
- Act as working and docking platform
- Low centre of gravity

RETRACTABLE TRICYCLE LANDING GEAR
- Corrosion-resistant, including brakes and rims
- Nose wheel steering for optimized control
- Wide-track for smooth landing


DORNIER

FULL SITUATIONAL AWARENESS

COCKPIT

The Seastar cockpit features Honeywell's state-of-the art Primus® Epic 2.0 avionic suite with advanced vision, communication, navigation, surveillance, air traffic management systems and allows for single-pilot operation.

THE SEASTAR COCKPIT FEATURES INCLUDE:

The Seastar's ergonomically configured flight deck reduces pilot workload by providing a full digital cockpit and electronic checklists. This aircraft is ideally suited for VFR and IFR flights.

Four 10" LCD Displays providing all flight information in an easily readable layout. They are installed in one line making a full situational awareness for both, pilot and co-pilot.

A fifth independent working backup display provides necessary flight parameters even in the case of an electrical power failure.

FULL SITUATIONAL AWARENESS

VFR/IFR
SAFE NAVIGATION

world-wide technical
24H SERVICE

QUICK TURNAROUNDS

iPad connected
FLIGHT DECK

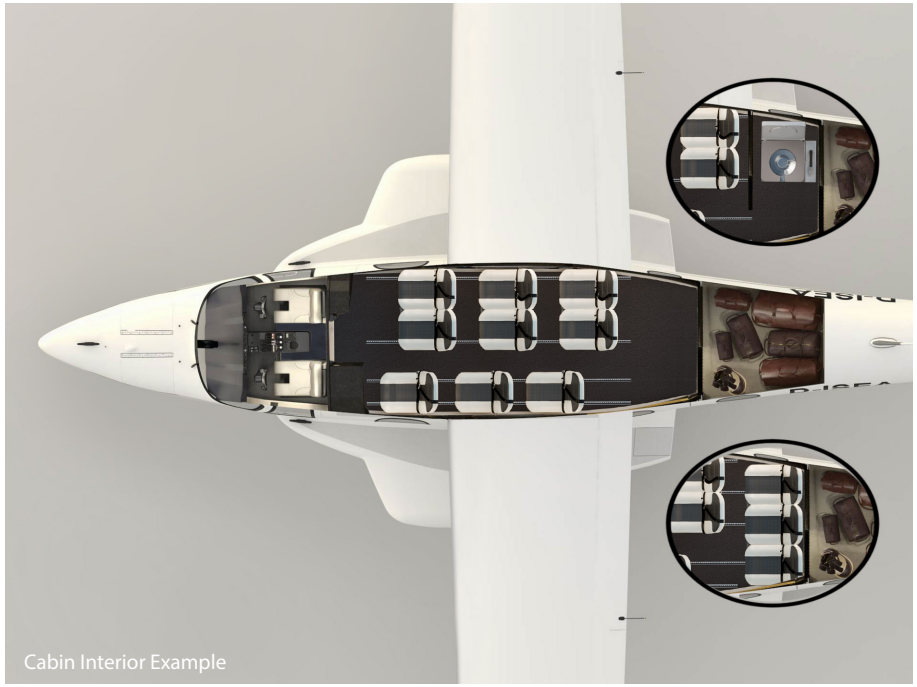
saltwater resistant and protected
EQUIPMENT

ONE AIRCRAFT - MULTIPLE OPTIONS

CABIN

The Seastar offers the most versatile and spacious cabin in its class, ensuring passengers a comfortable ride and an enjoyable experience. The large windows flood the cabin with natural light and offer outstanding visibility to the outside. A large-sized sliding door offers easy access from the cabin to the baggage compartment.

Cabin Interior Example



Cabin Interior Example

CORPORATE CONFIGURATION

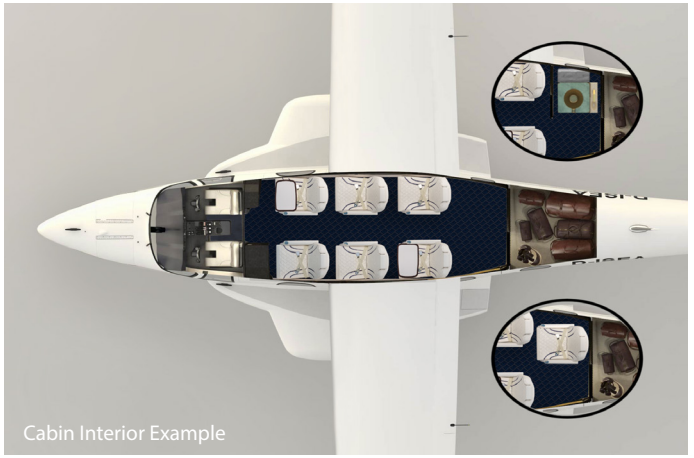
9 SEAT

- 9 superior comfortable seats
- Ergonomically designed interior
- Cabin wide flat floor
- Lavatory (optional)
- Upgrade to 12 cabin seats by a triple seat bench (optional)

FIRST CLASS TRAVELLER

VIP CONFIGURATION

- A spacious cabin with generous shoulder and legroom
- 6 premium leather seats and lavatory (optional) or
- 7 premium leather seats without a lavatory
- Ergonomically designed interior
- Cabin wide flat floor
- Customized club-seating options
- Super-Yacht feeling


Cabin Interior Example

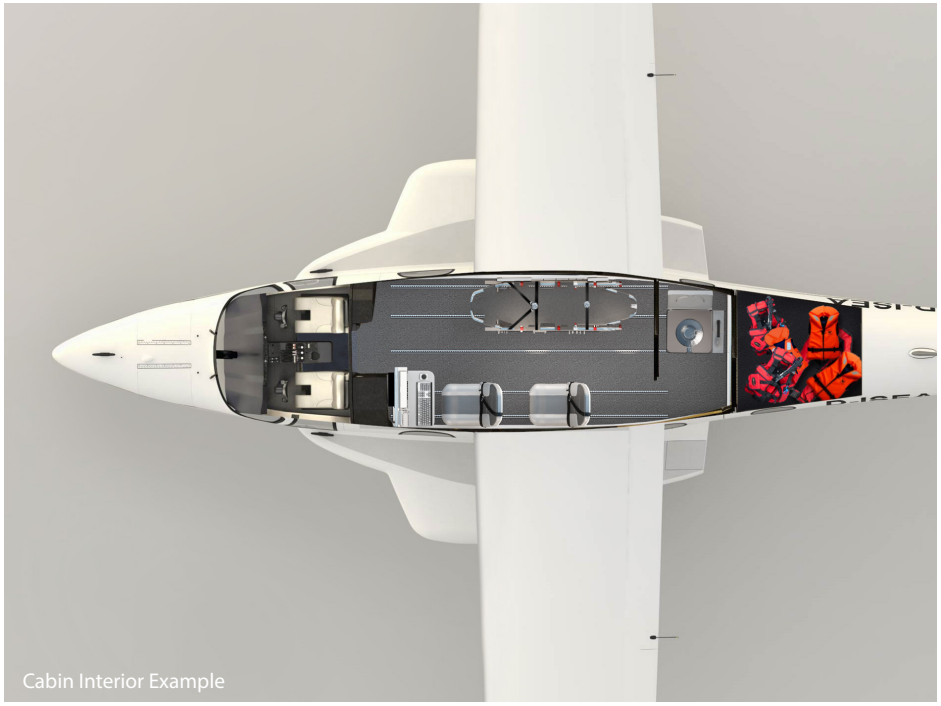

Cabin Interior Example

MULTI VERSATILE

GOVERNMENTAL AND SPECIAL MISSIONS

Used as a multi-role platform, the cabin of the Seastar is customized to your needs. From medical configuration to any other special mission equipment, the layout is tailored to your operational requirements. Additionally, the sponsons act as a working and docking platform to increase flexibility and ease of use.

Cabin Interior Example



Cabin Interior Example

SPECIAL MISSION

CONFIGURATION

- Most advanced amphibious mission platform
- Multi versatile mission equipment integration
- Continuous seatrails over the entire cabin floor
- Additional mission- equipment space in the baggage compartment

UNIQUE

MISSIONS

The Seastar is a multi-purpose aircraft delivering unmatched versatility at low operating costs. It covers a wide operational range of VIP-transport, commercial, governmental, special and corporate missions. Just tell us your requirements and we will tailor the Seastar to meet your demands.

AIRBORNE SUPER-YACHT

VIP MISSION

The Seastar is the ideal aircraft for operations such as coastal surveillance, patrolling, environmental control, fisheries protection, emergency medical services, search and rescue, drug interdiction and disaster relief, to name a few. The Seastar is able to perform the combined operational tasks usually requiring both air and seaborne assets. This ability to combine asset tasking will produce faster response times, increase operational flexibility and reduce costs in comparison with the use of existing fixed wing, helicopter and seaborne assets. Operating in single-engine mode extends on-station endurance up to 24%.

COMMERCIAL MISSION

Able to operate on water or land, the Seastar provides unforeseen flight opportunities for commercial operators. Its "flying boat" design enables to land in sea states with up to two-foot waves (demonstrated but not limiting). Moreover, due to the Seastar's ability of using a ramp to transition between water and land, passengers may board the aircraft without the need of an airport. Direct operating costs are significantly lower compared with aircraft of its size, due to higher cruise speeds and significantly reduced maintenance cost.

MULTI VERSATILE

GOVERNMENTAL AND SPECIAL MISSION

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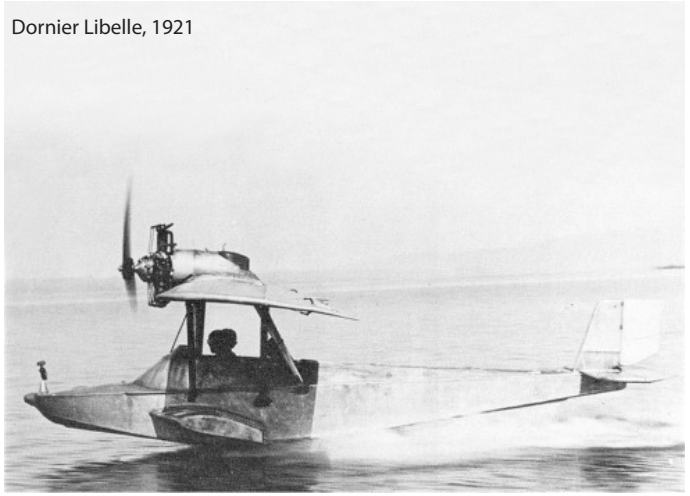
FLEXIBLE

CORPORATE MISSION

With comfortable seating for up to twelve passengers and low direct operating cost (DOC), the Seastar is the best choice for fast transportation and corporate mobility on water and land. It can be configured to fulfil a wide range of special missions.

Dornier Libelle, 1921



Dornier Superwal, 1928

Dornier Do-24, 1938

DORNIER

HERITAGE OF A PIONEERING SPIRIT

The Dornier Seastar aircraft program builds on the rich experience of 100 years of creating flying boats. This heritage and experience are deeply embedded in the company's DNA as engineering experts in aviation. It incorporates features that would be difficult to replicate without the experience gained in millions of flying hours and flight missions that Dornier flying boats have completed worldwide since the mid-1910s.

In 1910 Professor Claude Dornier began working with Count Zeppelin – the famous airship pioneer – from this point on the seeds for a family tradition in aviation were sown. The Dornier name was first associated with aircraft production in 1914 when the first all metal flying boat was built. Over the lifespan of the company, Dornier has produced more than 100 designs for both the civil and military market and manufactured over 10,000 aircraft.

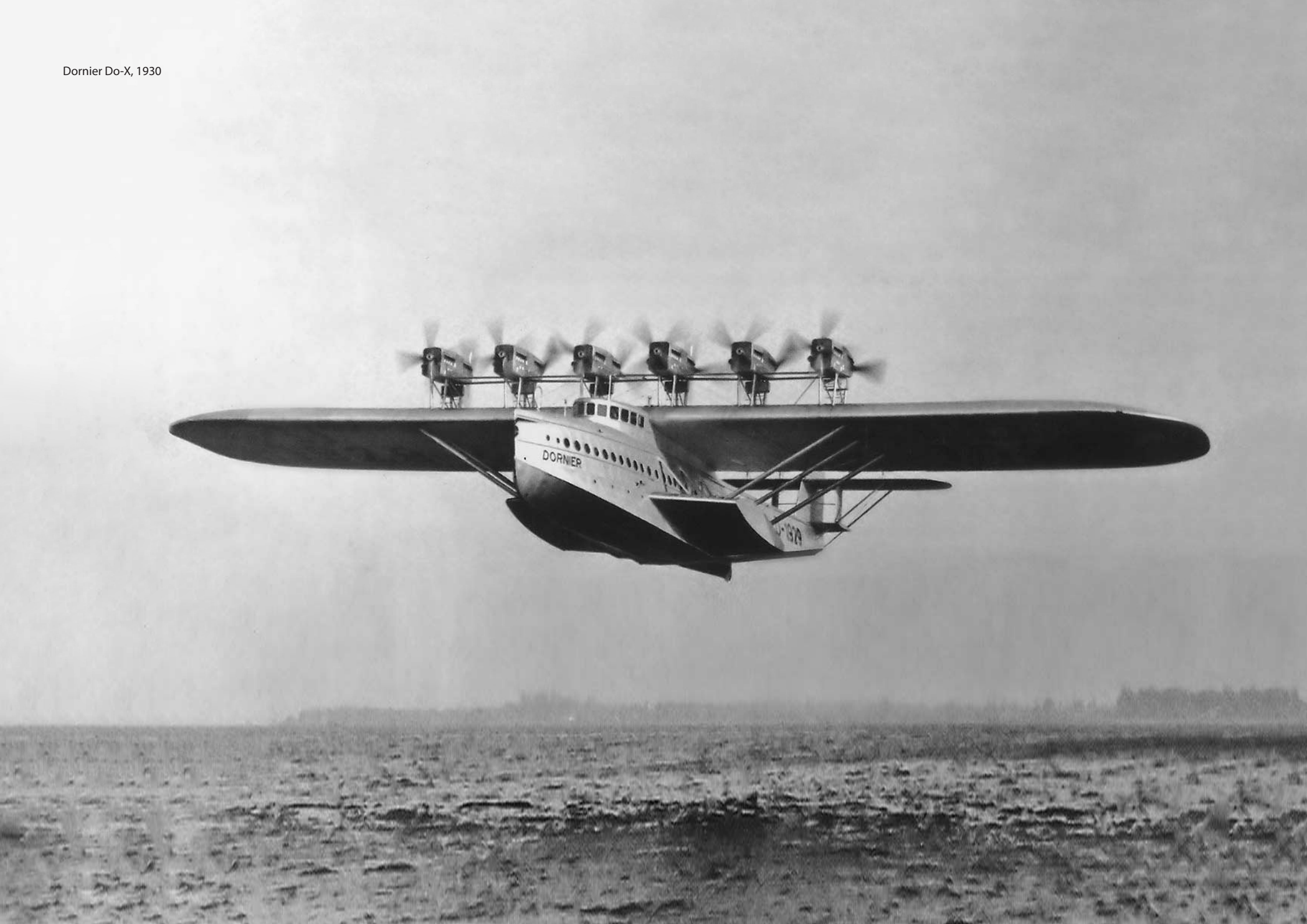
Dornier rose to prominence in the 1920s and 1930s as a manufacturer of large, all-metal flying boats, including the 1924 built Wal and the 12 engine DO-X in 1929. The company also built a series of successful land planes, including the Komet and Merkur that were used by Lufthansa and other European carriers.

VISIT THE DORNIER MUSEUM

The Dornier Museum is located in Friedrichshafen at the Lake of Constance, Germany and offers a great overview of the Dornier Heritage.

www.dorniermuseum.de

Dornier Do-X, 1930



DORNIER SEAWINGS

Dornier Seawings GmbH is an associate Joint Venture between the Dornier family and two fully state-owned Chinese enterprises. The Joint Venture is headquartered in Wuxi, Jiangsu Province, China.

The company's mission is to design, produce, sell and support amphibious aircraft that offer operators enhanced mission capabilities to get a foot in new business fields, which will result in adding value.

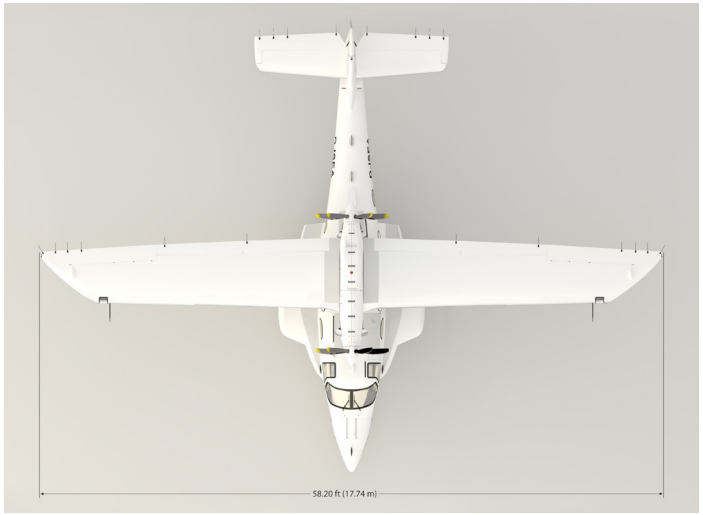
"Unlimited runways" is the visionary approach to meet the 21st century goals in being an economical and environment friendly innovative product made for the worldwide demand for connecting people, interests and businesses.

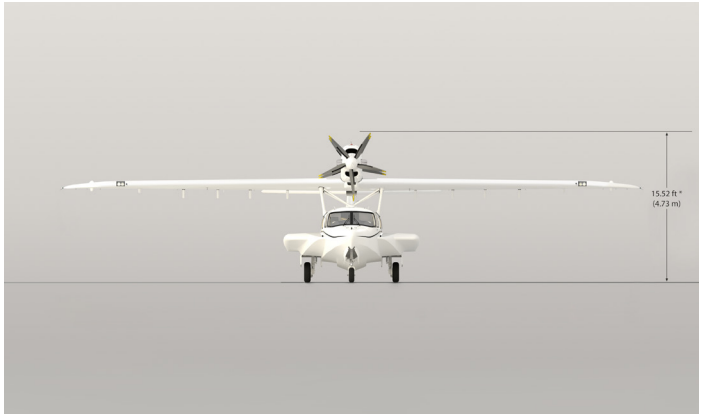
Dornier Seawings GmbH in Germany provides the necessary know-how, while the Chinese partners provide the financial backing and entrepreneurial spirit to ensure a proper set up of the production and a sustainable business model. Production lines are set up in Germany (Oberpfaffenhofen) and in China (Yixing, Wuxi), as shown.

Dornier Seawings Facility in Yixing, China


Oberpfaffenhofen Airport, Germany


Industrial Park Yixing, China





SEASTAR CD 2

GENERAL AIRCRAFT SPECIFICATIONS*

ENGINES

Manufacturer	Pratt & Whitney Canada
Model	PT6A-135A
Shaft-Horsepower per Engine	650 (Flat Rated)

EXTERNAL DIMENSIONS

Wing Span	58.2 ft (17.74 m)
Length	41.67 ft (12.70 m)
Height	15.52 ft (4.73 m)
Wing Area	329.38 ft2 (30.60 m^2)

PROPELLERS

Manufacturer	MT-Propeller
Number of Blades	5

INTERNAL DIMENSIONS

Cabin Length	13.12 ft (4.00 m)
Cabin Height	4.53 ft (1.38 m)
Cabin Width	5.35 ft (1.63 m)
Total Cabin Volume (Incl. Baggage)	347.20 ft3 (9.86 m^3)

ACCOMMODATIONS

Crew Seats (One Pilot Required)	2
Passengers Seat	Up to 12
Baggage Capacity	397 lb (180 kg)

WEIGHTS

Approx. Basic Empty Weight (Stand. Config. 9 Cabin Seat)	8,375 lb (3,800 kg)
Maximum Ramp Weight	11,351 lb (5,150 kg)
Maximum Take-off Weight	11,240 lb (5,100 kg)
Approx. Useful Load	2,865 lb (1,300 kg)
Maximum Landing Weights	
Land	10,689 lb (4,850 kg)
Water	11,020 lb (5,000 kg)

FUEL CAPACITY

Useable	363 U.S. gal (1,375 l)

SPEED

Maximum Cruise Speed	180 KTAS
Stall Speed (Landing Configuration, Land)	66 KCAS

RATE OF CLIMB

Two Engines at MTOW, SL	1,079 ft/min (329 m/min)
One Engine at MTOW, SL	392 ft/min (120 m/min)

CEILING

Maximum Operating Altitude	15,000 ft (4,573 m)

TAKE-OFF DISTANCES

Sea Level, ISA (Over 35 ft/10.66 m Obstacle)	
Land	2,244 ft (684 m)
Water	3,445 ft (1,050 m)

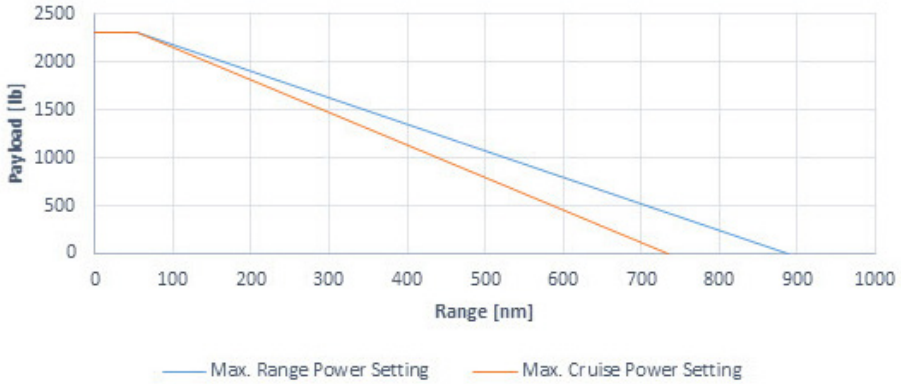
LANDING DISTANCES

Sea Level, ISA (Over 50 ft/15.24 m Obstacle)	
Land	2,621 ft (799 m)
Water	2,795 ft (852 m)

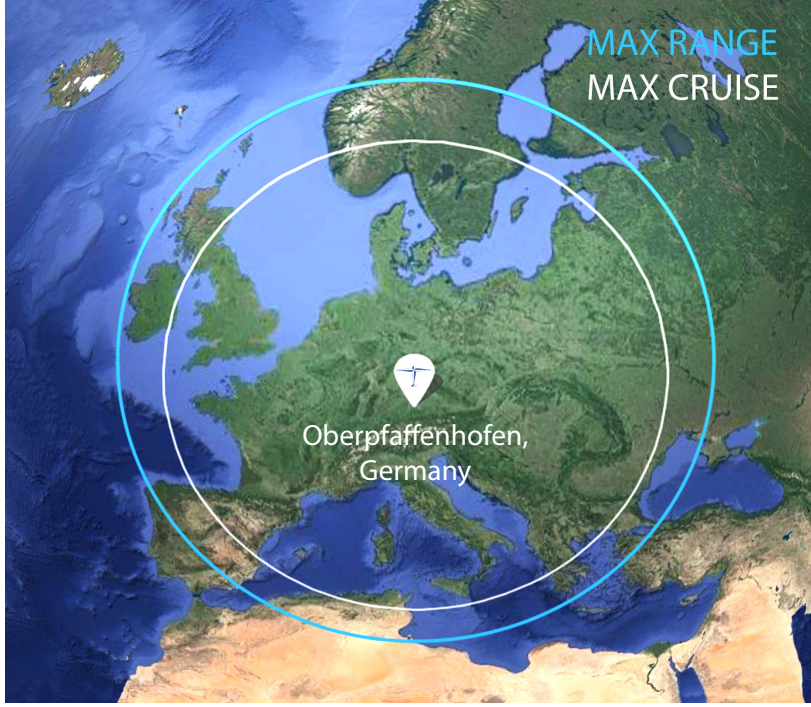
*PRELIMINARY DESIGN DATA;

All data and information's published within this brochure are preliminary and subject to change without any notice. For most updated information, please contact us.

ESTIMATED PAYLOAD RANGE DIAGRAM**

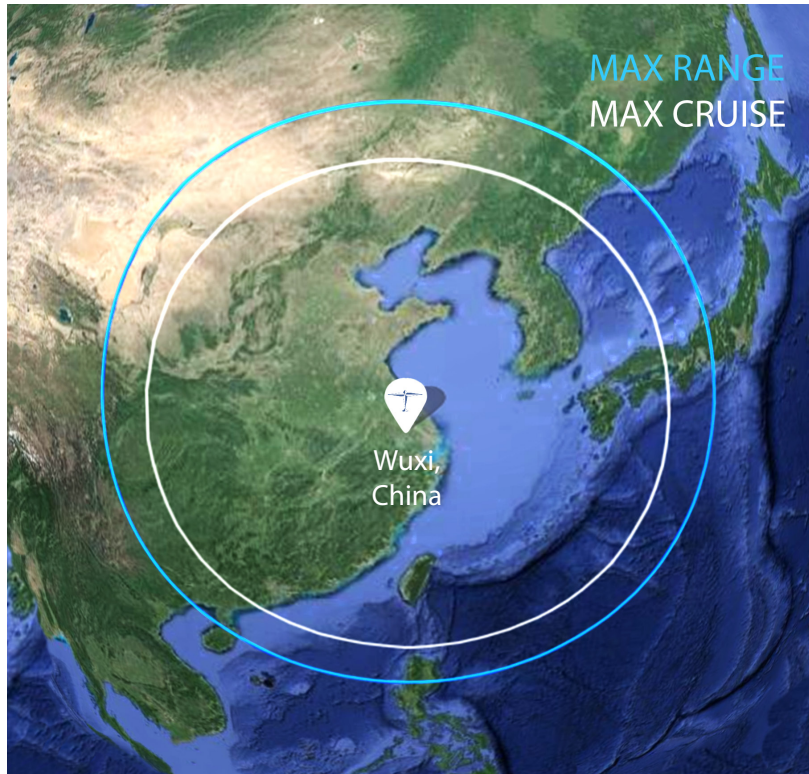


**Conditions: ISA, Cruise at 15,000 ft, 1 Crew, Takeoff and Landing at Sea Level, VFR Reserve, Corporate Configuration (9 Seat)



Estimated Range Map Takeoff Oberpfaffenhofen, Germany**

Estimated Range Map Takeoff Wuxi, China**



DORNIER SEAWINGS

FOR YOUR NOTES:

For any further information, please contact us via email:
ms@dornierseawings.com (Marketing & Sales)

THANK YOU

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