Dornier 228-Halberd

The Lowest Cost Multi-Role Platform Available

The Halberd Program

1. Client acquires a fully refurbished civil airworthy “zero-timed” Dornier 228-202 mission platform with the following provisions:
   - upgraded to TPE331-10T-511D engines
   - multi-role interior allowing for seats, jumping, freight, ISTAR, Medevac, and customer-customized mission capabilities
   - air-operable door
   - reenforced floor plate allowing installation of expanded mission capabilities from air-operable door
   - 2 hard-points under each wing

After acquisition:*

1. Livery/painting as per customer request (field green, desert tan, coast guard, etc.)
2. Cockpit upgrades as per separate contract
3. After delivery at the provisioning center, customer can provision and commission aircraft as needed and contracted with third parties.
4. Optional upgrade to latest Garmin avionics package

* Equipment and consumables may be subject to approvals of exporting or transferring country

Currently six aircraft available:
First delivery within 120 days or less

The Basic Platform: 10 Hours of Loitering

The Dornier 228 is the most advanced aircraft in its class, offering unsurpassed effectiveness and efficiency with superb versatility. This is why authorities all over the world count on it when it comes to demanding special missions of various kinds.

Key features are the long range, high utilization rates and high payload – and all this at impressively low operational costs. With the aircraft state-of-the-art technology, pilots are able to maintain superior situation awareness in the most
demanding missions. No other plane in this category combine safety and efficiency
to the level offered by the Dornier 228.

Operational advantages
– Speed performance: high speed cruise and range of operating speeds
– Endurance: up to 10 hours loitering
– Range: well in excess of 1000 Nm with a significant payload
– Productivity and flexibility: largest payload/range envelope

Economic advantages
– Lowest fuel consumption per Nm and Lowest operating cost per Nm

Mission advantages
– Equipment installation flexibility – large square cabin cross-section
– Basic avionics or Garmin upgrade – any pilot can fly this aircraft

Payload advantages
– Mission fit: ISTAR/Cargo/Pax/Jumper/Medevac …and military platform versatility
– Largest transportation volume and loading
– Unmatched versatility
– Air operable and Quick swap aft door
– 2 hardpoints each wing

Mission Grade Performance

With its Transport Category OEI field performance, control and engine responsiveness and wide range of operational speed (74 to 223 KIAS), the Dornier 228 ensures safe margins throughout the entire mission envelope.

Range of take-off distance

- 2.600 ft at MTOW, ISA, SL
- 3.150 ft at MTOW, ISA+10°C, 2000 ft elevation
- 4.000 ft at MTOW, ISA+20°C, 4000 ft elevation

Accelerate stop distance range

- 2.500 ft at MTOW, ISA at SL
- 3.000 ft at MTOW, ISA+10°C at 2000 ft elevation
- 3.600 ft at MTOW, ISA+20°C at 4000 ft elevation

Range of unfactored landing distance

- 1.480 ft at MLW, ISA at SL
- 1.590 ft at MLW, ISA+10°C at 2000 ft elevation
- 1.730 ft at MLW, ISA+20°C at 4000 ft elevation

Climb at ISA, SL conditions

- Normal 1570 ft/min
- Single engine 400ft/min

Speed

- Max cruise 223 KIAS
- Minimum control 74 KIAS

The Dornier 228 is the only 3rd-generation aircraft in its class and has been natively designed to the FAR23/CS23 commuter category airworthiness standard, which gives safety margin equivalent to transport category aircraft. Its advanced design provides the Dornier 228 with unmatched performance, payload capacity, operational flexibility and efficiency.

The Dornier 228 success is proven by over four million hours flown to date. Based on continues improvements and innovations the Dornier 228 offers a high level of safety, even in its standard version, and is one of the most reliable aircraft in the world with its perfect mix of a mature design and innovative technologies.

Due to its advanced aerodynamics, the Dornier 228 is able to match or exceed the STOL performance of competitors on the same payload, while cruising up to 50 kts faster.

Over 4 Million Flight Hours and Counting

Central Command for Maritime Emergencies Germany

"The Dornier 228 is used as a mission aircraft for pollution control in the North and Baltic Sea on a daily basis. For this task the aircraft fulfills all requirements for low level flights and long endurance over sea."

Finnish Border Guard

"The aircraft's performance and mission equipment enables us to provide reliable, accurate and real time maritime situational awareness to maintaining border and maritime security, and fighting against illegal immigration as well as maritime pollution."

Royal Thai Navy

"The Dornier 228 complies with our squadron slogan 'All Day, all Night, all Purpose' as we are convinced by its capabilities and easy maintenance. And it is economical to operate. Every day it is a pleasure to work and fly with it."

Italian Army Aviation

"Owing to their versatility and their STOL capability the Dornier 228 have been employed for different tasks (passenger transport, cargo) in different environments, including the training of the Italian Army paratroopers unit."

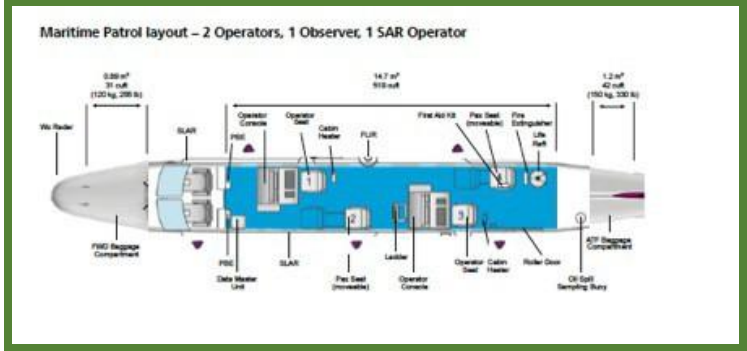
Luftransport AS Norway

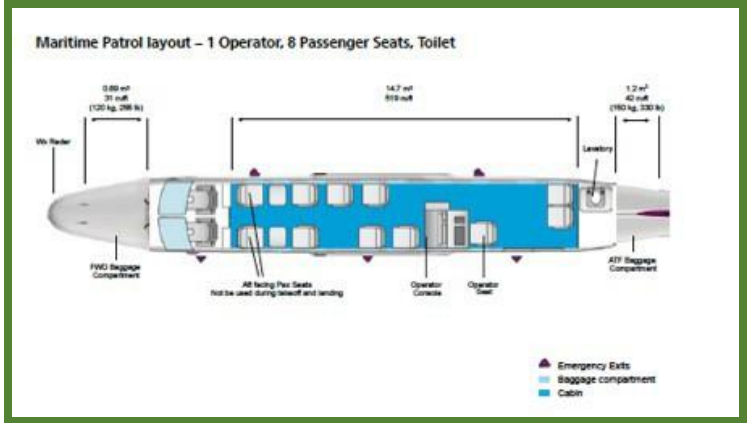
"Our Dornier 228 has been specially equipped for passenger transport in the arctic climate of Svalbard. It has already proven that it was the right choice for operations under such harsh conditions."

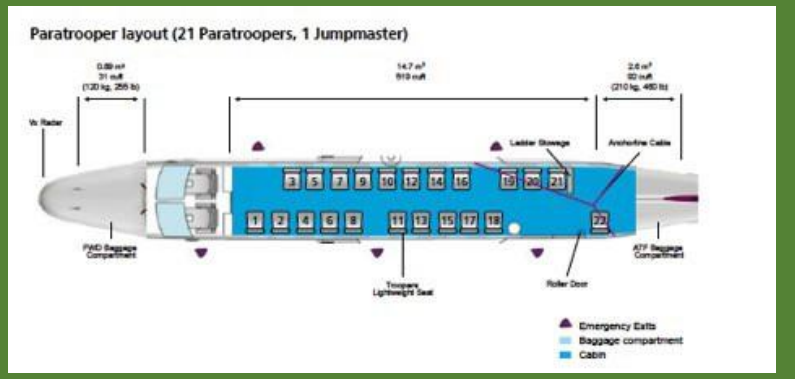
DLR Research Flight Facility

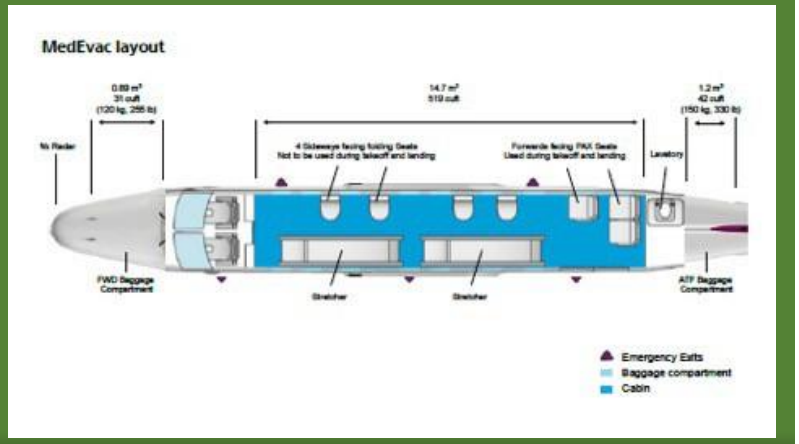
"Atmospheric science and earth observation are the main activities of the DLR research flight facility in Oberpfaffenhofen. The Dornier 228 has been specifically chosen for operations using radar, multispectral and camera instrumentations."

Layout Examples: No Limits

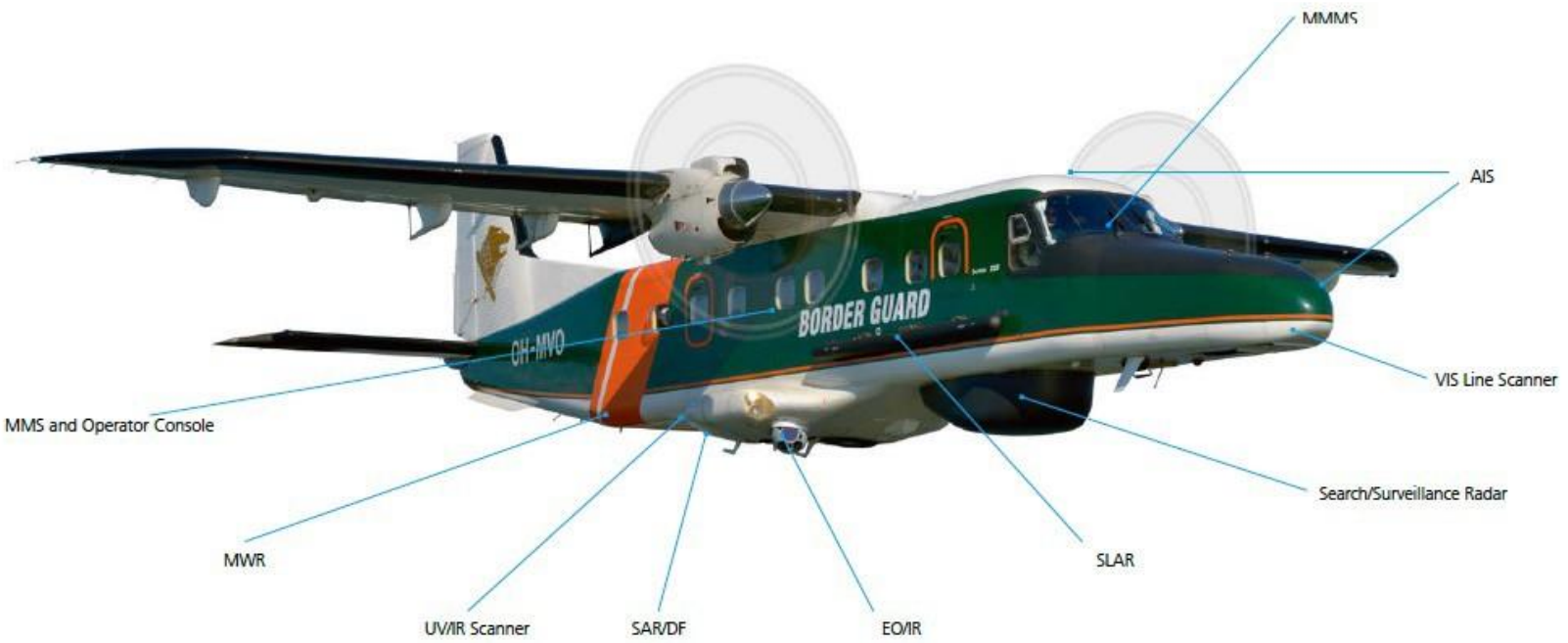








Sensor Capabilities



Dimensions

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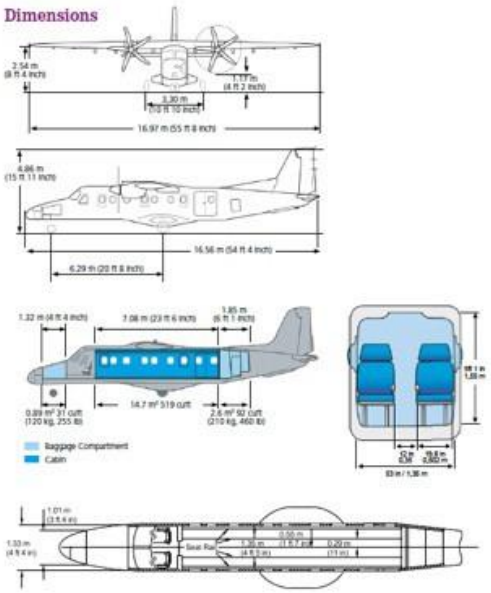


Principal dimensions	
Overall height	15 ft 11 in (4.86 m)
Overall length	54 ft 4 in (16.56 m)

Wing	
Span	55 ft 8 in (16.97 m)
Area	344.3 ft² (32.00 m²)
Aspect ratio	9.0
Taper ratio	0.7
Sweepback of leading edge inboard	0°/outboard 8°

Vertical stabilizer	
Height	8 ft 10 in (2.70 m)
Area	64.6 ft² (6.0 m²)
Aspect ratio	1.50
Taper ratio	0.46
Rudder area	16.1 ft² (1.5 m²)
Rudder deflection	-24°/+24°

Passenger compartment	
Overall length, max.	23 ft 3 in (7.08 m)
Maximum width	4 ft 4 in (1.328 m)
Maximum height	5 ft 1 in (1.55 m)

Horizontal stabilizer	
Span	21 ft 2 in (6.45 m)
Area	89.6 ft² (8.33 m²)
Aspect ratio	5.00
Taper ratio	1.00
Elevator deflection	-30°/+25°

Ailerons	
Span	8 ft 10 in (2.69 m)
Area	2×14.5 ft² (2×1.345 m²)
Deflection (Flaps 0°)	25° up/18° down
Chord	30%

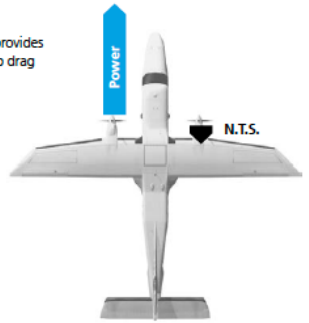
Doors (height × width)	
Cockpit door	2 ft 9 in × 2 ft 2 in (0.84 m × 0.65 m)
Passenger airstair door	4 ft 5 in × 2 ft 1 in (1.34 m × 0.64 m)
Passenger/cargo door (both door panels are open)	4 ft 5 in × 4 ft 2 in (1.34 m × 1.28 m)
Baggage door (front)	3 ft 11 in × 1 ft 8 in (1.2 m × 0.5 m)
Baggage door (rear)	2 ft 11 in × 1 ft 9 in (0.89 m × 0.53 m)
Emergency exits (3)	2 ft 2 in × 1 ft 7 in (0.67 m × 0.48 m)

Weights

Weights	lb	kg
Max. take-off weight (MTOW*)	14,110	6,400
Max. landing weight	13,448	6,100
Max. zero fuel weight (MZFM)	13,095	5,940
Operating weight empty (with 2 Pilots) (OWE)	8,598	3,900
Mission equipment (incl. operator and console)	1,047	475
Max. fuel	4,156	1,885

Engine data	TPE331-10
Dimensions	1080 – 518 – 676 (mm)
(length – width – height)	42.5 – 20.4 – 26.6 (in)
Weight	385 lb
Pressure Ratio	10.55
Power	940 shp
Compressor bleed (max.)	10%
TBO (commercial operation min 800 h/year)	7,000 h
ESFC (Equiv. Specific Fuel Consumption T/O)	0.534 lb/hp-h

N.T.S.
Negative Torque Sensing (N.T.S.) provides automatic and instantaneous prop drag reduction



Optional Garmin Upgrade*

- Installation of Glass Cockpit System: dual G700TXi system, GTN 750Xi, GTN 650Xi, dual transponders GTX 3000, GAD 43e converter, weather radar GWX75, GI275 ADAHRS system, GMA 35c audio panel, GSR56 Iridium Satellite Receiver, Radar Altimeter GRA 55, and a TCAS II system GTS 8000, by Garmin, two CH93MAX Digital Clock, by Mid-Continent, and FDR-1652 and CVR-1651R systems, by Universal Avionics, in accordance with Jazz Engenharia Aeronautica Master Document List JA-716-1000, Rev. IR, dated 08/22/2022. Autopilot KFC 250 by Bendix/King.
- Installed under a supplemental type certificate for General Atomics AeroTec Systems models Dornier 228-100, 228-101, 228-200, 228-201, and 228-202, later updated for 228-212 and newer.

* Export approvals may be required

Potential Expanded Capabilities *

Hardpoints

Hardpoints

Air Operable Door

* Provisioning done by third parties under direct contract of the customer.
* Exporting government approvals may be required