



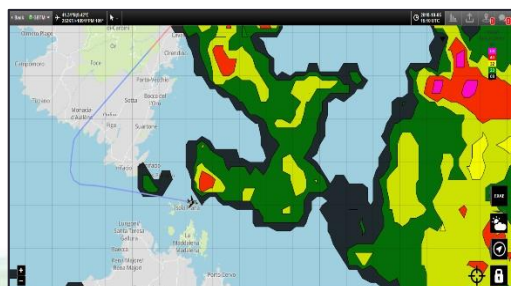
Iridium Certified Product PLANET 9523 UAV Terminal



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PLANET Terminal Specifications



Functions

- Managed Network Service with QoS
- Web/API PLANET Service

Features

- Iridium Certified Product (TC006)
- Fanless ARM Processor Board
- Linux OS
- Memory: 128GB (default)
- Operating Temperature: 0°C to +50°C
- No internal battery

Mechanical Characteristics

- Flame-resistant ABC UL94V-0
- Enclosure: 180 x 100 x 30 mm
- Weight: 260g

Power Requirements

- Power supply: 9.0 ⇒ 36VDC
- Average Consumption: 700mA@12VDC
- Peak Consumption: 4.5A@12VDC/6A@9VDC

Connectivity & Sensing

- Iridium 9523N Modem
- Cellular Modem (option)
- WiFi Module (option)
- GPS receiver

PLANET Terminal UAV USE CASE



UAV tracking
Weather radar image
Temperature on PLANET



Planet Terminal

BOREAL's drone performed ~50 hours and ~5000 km of flight in BVLOS (Beyond Visual Line Of Sight) conditions.



- **Light terminal** : 260g (OEM board 100g)
- **Long distance**: Even beyond radio horizon, or ground networks coverage (LTE), satellite communication links UAV to ground anywhere.
- **C2 and Payload communication** : PLANET Terminal enables to transmit UAV command and control information, as well as payload data (sensor, image). QoS management guarantee delivery of C2 traffic.

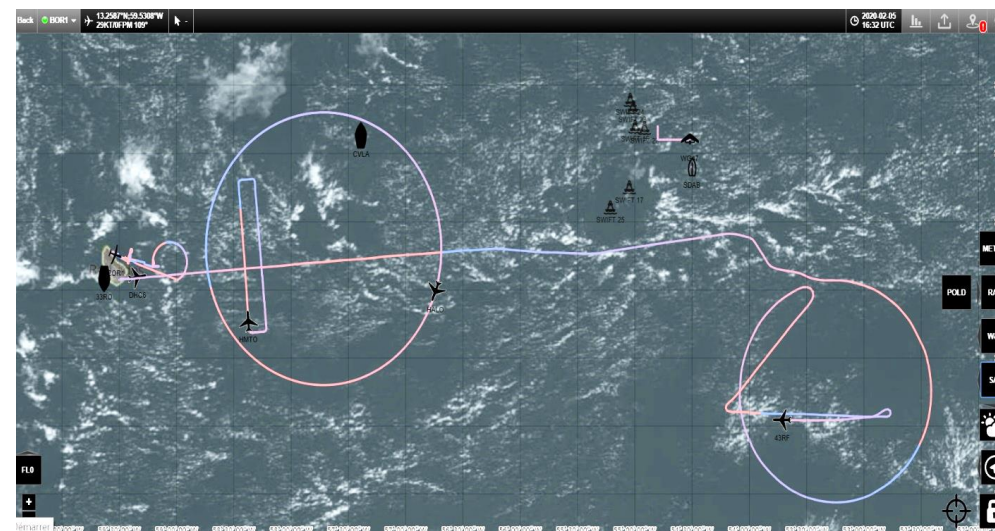
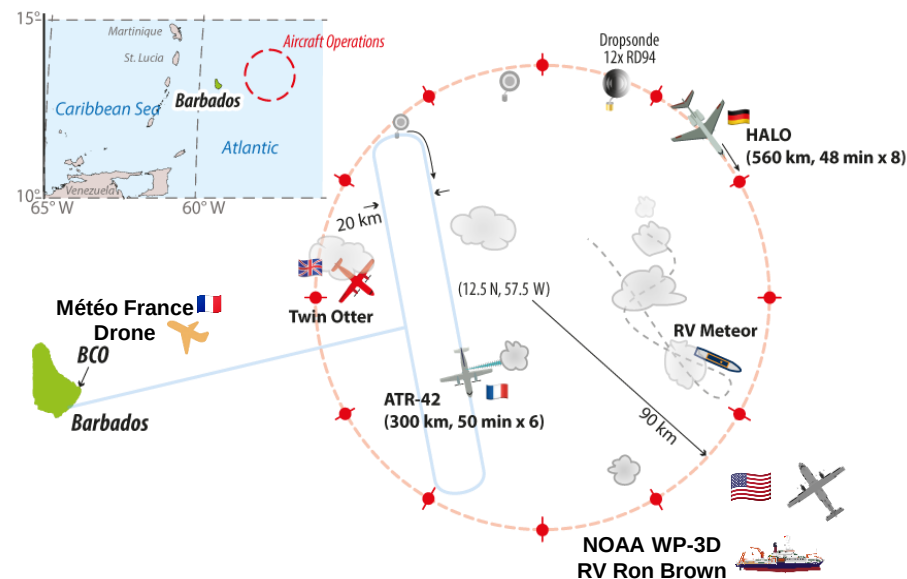
PLANET Application USE CASES

Use Case – Environmental research

EUREC4A / ATOMIC Field Study – EUREC4A (the World Climate Research Programme's Grand Science Challenge on Clouds, Circulation and Climate Sensitivity) and ATOMIC (Atlantic Tradewind Ocean Atmosphere Mesoscale Interaction Campaign) project from January to February 2020 in Barbados.

- More than 30 institutions from 11 different countries
- 4 aircraft, 4 Research vessels, 1 UAV, satellites, saildrones etc participated on PLANET
- Weather display : Satellite image, PoldiRad image, METAR and Wind&Temperature

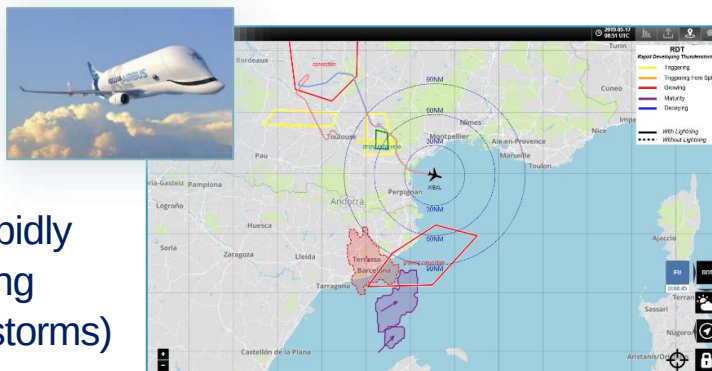
[PLANET video is here](#)



PLANET Application USE CASES

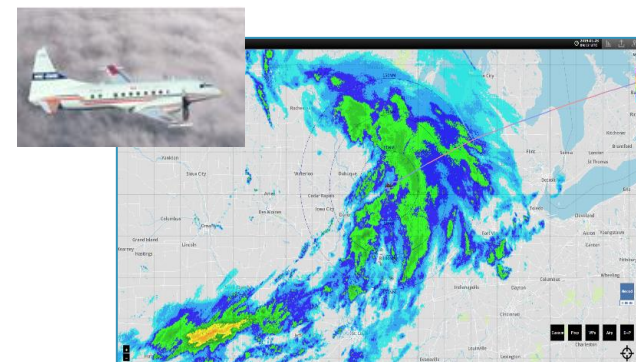


Flight Test of A330 neo, A350, A380, Beluga XL...



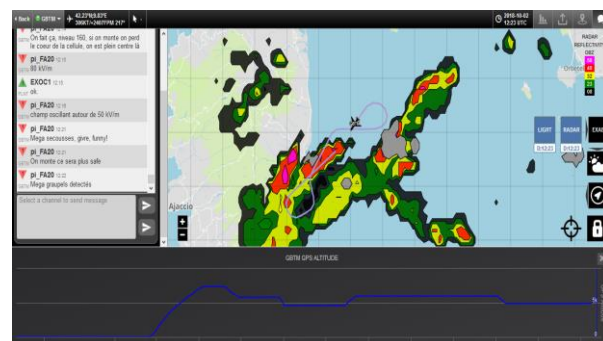
RDT (Rapidly Developing Thunderstorms)

ICICLE project in 2019 – Scientific Research flight



NEXRAD Weather Image

EXAEDRE

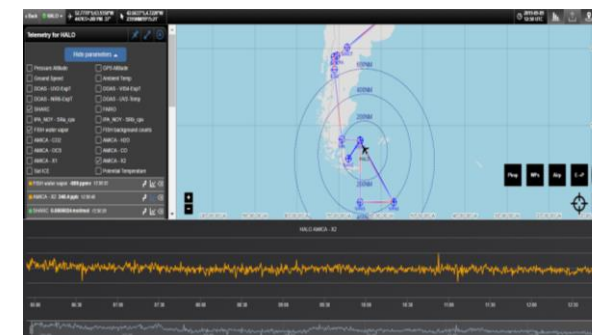


EXAEDRE (EXploiting new Atmospheric Electricity Data for Research and the Environment)



SouthTRACK

SouthTRACK (Transport and Composition of the Southern Hemisphere UTLS)



PLANET Application USE CASES



Aircraft Operation



PLANET Terminal is installed on DLR Cessna 208B for airborne scientific research

UAV/USV Operation

BOREAL
SEAPROVEN



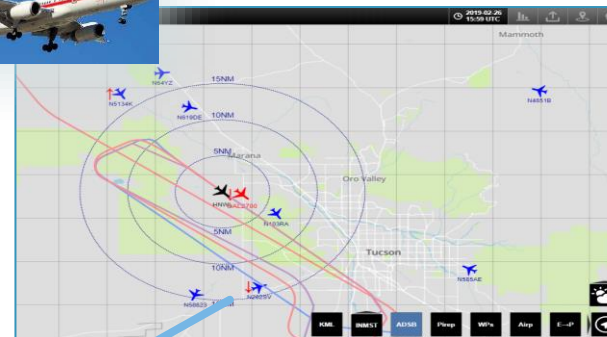
PLANET Terminal is installed on several UAV/USV. PLANET Terminal enables UAV/USV to operate in BVLOS (Beyond Visual Line Of Sight) conditions.

Rotorcraft Operation



PLANET Terminal used for H160 ferry flight to Finland

Honeywell Paired Approach Experiment



ADS-B (other aircraft position)

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