Dominator XP MALE UAS

The powerful Dominator XP Medium Altitude Long Endurance (MALE) UAS is designed to carry multiple large payloads and to perform tactical and strategic, long-range BLOS missions. Dominator XP is capable of all-weather and denied-GPS operation for strategic ISR, maritime surveillance, and homeland security missions. The maritime Dominator configuration offers the additional capability of under-water detection combined with traditional sea surveillance.

Main Features

- Multi-sensor, multi-mission system
- Maritime Surveillance capabilities
- Options for internal & external payload integration
- Datalink – LOS, BLOS - SATCOM
- Automatic Take-Off and Landing (ATOL)
- Easy airspace integration
- Autonomous mission programmable flight modes
- GPS/INS navigation, operational in denied GPS zones
- Civilian physical appearance
- LAN based GCS, C4I compatible
- Built in flight & mission Simulator

Payloads

All Dominator XP system configurations support multiple payloads up to 3/3 kg in weight. Implementing an open-architecture interface, Dominator XP can carry a vast range of payloads, including EO/IR and hyper-spectral sensors with laser pointer and designator, maritime radar, SAR/GMTI radars, communications relays, COMINT, ELINT, MAD and additional sensors.

Applications

- ISTAR
- Electronic warfare
- Relay mission: Air to Air, Air to Ground
- HLS - Border/coastal protection

Maritime Radar

Dominator supports traditional maritime surveillance including detection of small targets in high seas, and provides superior sea-search mode performance, with ISAR and Synthetic Aperture Radar (SAR), Search and Rescue Transponders (SART) beacon detection, an Automatic Identification System (AIS) and a weather-detection mode.

Maritime Applications

- Anti-submarine warfare
- Maritime surveillance
- Fishery monitoring
- Search & rescue
Dominator XP MALE UAS Features

Aircraft

Based on the fully certified Diamond DA-42 Twin-Star commercial aircraft, Dominator XP is designed to meet the highest safety standards of commercial aviation. Dominator XP is equipped with an active anti-icing system, twin engines, and with triple redundancy in all critical avionics. It has the capability to sustain straight and level flight with one of its turbo-diesel engines shut down. The reliability of the Dominator XP is founded on the operational experience of innumerable flight hours, including military and HLS operational missions for several NATO members.

Flight Control

The Aeronautics proprietary state-of-the-art UMASTM on-board control system integrates the controls of all the aerial platform's subsystems, including propulsion, avionics, power, payload and communications. UMAS also implements multiple autonomous programmable flight modes meeting specific mission and user requirements. In addition, the Aeronautics advanced navigation systems provide the Dominator XP with excellent flight and sensor accuracy, allowing full mission continuity even in denied-GPS environments.

Data Link

Dominator XP uses an advanced digital, multi-channel Line of Sight (LOS) data link system (C/L, S & UHF bands), which enables real-time command and control at ranges of up to 300 km. In addition, the platform can accommodate a Satellite Communications (SATCOM, Ku/Ka) terminal enabling operations beyond line of sight, via geo-stationary satellites.

Ground Control Station

The Ground Control Station (GCS) of Dominator XP is equipped with real-time control tools for fail-safe flight operation and with user-friendly interface for route planning, choice of operational modes, payload control and target localization and designation. The GCS open architecture provides flexibility for future interface with customers’ systems.

Airworthiness & Safety Features

- Based on civil-aviation certified Diamond DA-42 airframe
- Superior airworthiness, all-weather flight capability
- Twin-engine aircraft with full system redundancy, including engines
- Straight and level flight with a single engine.

Specifications

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