AleniaAeronautica
A Finmeccanica Company

The Molynx MALE program is the main Alenia Aeronautica UAS proprietary study in the heavy MALE market segment. The comprehensive design and definition activities include operational and technical requirements establishment, platform solutions and architecture trade-offs, enabling technologies maturations, partner and supplier chain growth, market and customer survey.

The considered reference mission is Intelligence, Surveillance & Reconnaissance (ISR); the payload under study is suitable for a wide variety of missions for both civil and security purposes.

The high cruise altitude of the product derived from Molynx studies will allow it to fly above the civil air traffic and to monitor large areas in a short time, while the long flight endurance will grant more than one day coverage. The product will be able to conduct the flight in complete autonomy from taxiing on the runway before take-off, to the moment the engine stops on the parking area after landing, leaving ground operators the solely the responsibility of assign macro tasks, monitoring the flight and analysing the data collected. Thanks to its redundant advanced communication suite that includes satellite links, will be always networked with its command & control station while distributing in real time the information gathered to the ground users.

All the Molynx activities have the target to reach a product readiness in 2011. They incorporate some technology demonstration phases performed on the Sky-Y, including innovative material fabrication, heavy fuel (Jet A1) diesel engine, different dedicated surveillance sensors (EO/IR, Synthetic Aperture Radar, Hyperspectral) and relevant data treatment, elaboration, fusion and distribution.

These characteristics will allow the UAV expansion also to the promising civil/commercial market that, in perspective, is expected to be even larger than the military one.

Dimensions

Length	12 m
Span	25 m

Weights

MTOW	3400 kg
OEW	2000 kg
Fuel	800 kg
Payload	600 kg

Performances

Radius	2000 nm
Altitude	45000 ft
Endurance	34 h

Payload

EO/IR sensor
SAR Radar
Hyperspectral sensor

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