ELECTRONICS DIVISION

MIRACH 40

INTEGRATED AERIAL TARGET SYSTEM

Mirach 40 is a multi-role multi-threat Aerial Target Drone designed and manufactured by Leonardo to qualify a wide variety of Weapon Systems.

Mirach 40 is designed for fl exibility, unrivalled reliability and cost-e ectiveness being reusable if not shot down.

GENERAL DESCRIPTION

Realistic aerial threat simulation is critical for the qualifi cation of Weapon Systems and training.

Mirach 40 provides high-performances with reduced operative costs. The System is designed to combine operational fl exibility – rapid adaptation to mission planning changes –, with high mission reliability, leveraging on the Mirach family heritage and expertise.

A number of dedicated mission payloads, can be installed on Mirach 40 based on mission scenario requirements.
The System can perform sea skimming, formation fl ights, 3D maneuvers and simulates a wide set of aerial threats.
Mirach 40 is launched using a dedicated pneumatic catapult.

This solution provides benefi ts in terms of reliability, as an overall lower system complexity and benefi ts in terms of safety, environmental quality and logistics as no pyro boosters are necessary.

The System is controlled by Mirach Ground Control Station. At a tactical level the System allows mission planning and re-tasking, also o ering rehearsal and playback options to assist operator's training.

System features a full prefl ight test procedure, which increases mission reliability, reduces operator involvement and improves safety.

Customers can benefi t from the Mirach System functionality, but also from a range of Services specifi cally tailored to Customer's needs.
Available Services span in fact from equipment maintenance up to Turnkey Mirach System Mission Management through dedicated Leonardo personnel.
Our Turnkey Services are designed and implemented in order to guarantee the maximum mission e ectiveness and allow Customers to focus on Weapon System set-up.

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KEY FEATURES

- Low overall life-cycle costs.
- Pneumatic catapult
- TAR freeSimulates many threats in terms of kinematics and signatures
- Efficient system restoration and recovery readiness for next launch:
  - Ground < 1 hour time
  - Sea < 3 hours (since target recovery from sea)
- Customized turnkey configurations.

Mirach 40

Mirach 40 Ground Control Station

TECHNICAL DATA

DIMENSIONS

Length	2520 mm	(99,212 inch)
Wingspan	1580 mm	(62,204 inch)
Fuselage diameter	220 mm	(8,66 inch)
Height	500 mm	(19,685 inch)
MTOW	70 kg	(154,324 lbs)

PERFORMANCES (ISA)

Subsonic aerial target system Speed up to		200 m/sec	(720 Km/h)
Operating maximum altitude		10000 mts	(32808 ft)
Minimum altitude	with sea state 0	3 mts	(10 ft)
	with sea state 3	20 mts	(66 ft)
Endurance		60 minutes	
Load factor		6 G	
Maximum payload		20 Kg	(44 Lbs)
Link range LOS		100 Km	(54 NM)

PAYLOADS CONFIGURATIONS

Active and Passive RCS Augmentation	Luneburg lens; X Band radar active amplifier
IR augmentation	IR Tracking Flares; Hot Nose
Visual Augmentation	Smoking Cartridges
Scoring System	Radar MDI (Miss Distance Indicator); Acoustic MDI
Radar Threat Simulator	RF Seeker Simulator
Additional & Auxiliary Capabilities	Radar Transponder (GFE); Radar Altimeter (Sea Skimming); Navigation Light

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