

AIRCRAFT DIVISION

# MIRACH 100/5

INTEGRATED AERIAL TARGET SYSTEM



Mirach 100/5 is a multi-role multi-threat high performance subsonic reusable Aerial Target Drone system designed to qualify the most demanding Weapon Systems.

Mirach 100/5 delivers reliability, maneuverability, together with unparalleled versatility.

## GENERAL DESCRIPTION

Reliable, realistic and state-of-the-art threat simulation is fundamental for the proper qualification of Weapon Systems and for training.

Reliable, realistic and state-of-the-art threat simulation is fundamental for the proper qualification of Weapon Systems and for training.

Mirach 100/5 simulates most of the present-day threats and their performances, such as very low altitude sea skimming missions, tight formation flights and 3D maneuvers up to instantaneous 8G load factors, covering flight envelop between 3 m - 9,84 ft - and 12.500 m - 41.010,5 ft - above sea level.

A wide and flexible selection of payloads, installed inside the fuselage and under the wings, together with long endurance, effectively comply with requirements of the most complex missile systems engagement scenarios.

Top performing Mirach 100/5 system combines great operational flexibility - rapid adaptation to mission planning changes - with a NATO certified reliability of more than 98%.

Mirach 100/5 is launched using two Jato Boosters, thus offering a full day/night, adverse weather capability, from fixed ground (e.g. ranges) and from mobile facilities (e.g. ships).

The system is controlled by a Ground Control Station, that allows mission planning and re-tasking mission rehearsal and play back for operators training.

A fully automatic pre-flight test checkup from possible failures increase overall mission reliability, optimizing personnel involvement and safety.

Certified by the Italian Joint Forces in 1998, since its debut on the market it has been in use by many Armed Forces.

Mirach 100/5 has a continuous upgrade process to maintain performances at highest levels.

Customers can benefit from the Mirach System functionality, but also from a range of Services specifically tailored to Customers' 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 effectiveness and allow Customers to focus on Weapon System set-up.

## KEY FEATURES

- High Subsonic Aerial Target System.
- Used by many European Armed Forces – NATO Certified Mission Reliability 98%
- Simulates most of today's threats in terms of kinematics and signatures including: sea skimming; ASM; Fighters and Strike Aircrafts; Cruise missiles; Fast UAS
- 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 100/5 - Multiple Launch



Mirach 100/5 - Ground Control Station

## TECHNICAL DATA

### DIMENSIONS

<b>Length</b>	4070 mm	(160,236 inch)
<b>Wingspan</b>	2300 mm	(90,551 inch)
<b>Fuselage diameter</b>	400 mm	(15,748 inch)
<b>Height</b>	890 mm	(35,039 inch)
<b>MTOW</b>	330 Kg	(727,525 lbs)

### PERFORMANCES (ISA)

<b>Subsonic aerial target system Speed up to</b>	250 m/s	(900 Km/h)
<b>Operating maximum altitude</b>	12000 m	(39370 ft)
Minimum altitude with sea state 0	3 m	(10 ft)
with sea state 3	20 m	(66 ft)
<b>Endurance</b>	90 min	
<b>Load factor instantaneous</b>	8 G	
sustained	6 G	
<b>Maximum payload</b>	70 Kg	(154 Lbs)
<b>Link range LOS</b>	100 Km	(54 NM)

### PAYLOADS CONFIGURATIONS

<b>Active and Passive RCS Augmentation</b>	Luneburg lens; X Band radar active amplifier
<b>IR augmentation</b>	IR Tracking Flares; Plumer; Hot Nose
<b>Visual Augmentation</b>	Smoking Cartridges
<b>EW-Countermeasures</b>	Chaff & IR Flare Dispenser
<b>Scoring System</b>	Radar MDI (Miss Distance Indicator)
<b>Radar Threat Simulator</b>	RF Seeker Simulator
<b>Additional &amp; Auxiliary Capabilities</b>	Radar Transponder (GFE); Radar Altimeter (Sea Skimming); Navigation Light
<b>Secondary Target</b>	Up to 2 towed body; Luneburg lens; X Band Radar Active Amplifier; IR Tracking Flares; Smoking cartridges

For more information:  
nicola.gambini@leonardo.com

Via M. Stoppani, 21 - 34077 Ronchi dei Legionari (GO) - Italy  
T +39 0481 478111



leonardo.com

This publication is issued to provide outline information only and is supplied without liability for errors or omissions. No part of it may be reproduced or used unless authorised in writing. We reserve the right to modify or revise all or part of this document without notice.

2022 © Leonardo S.p.A.

MM07761 10-19

