Italian Defense: The Evolution of Anti-Drone Systems in the Armed Forces

Published on 02/05/2025

In recent years, the increasing use of drones, both in civilian and military contexts, has posed new challenges to national security. The Italian Armed Forces have recognized the need to develop and implement effective systems to counter these unconventional aerial threats.

The Counter Mini/Micro Remotely Piloted Aircraft Systems (C-M/M APR) Center of Excellence in Sabaudia, established in 2019, has become the hub for research and development of anti-drone technologies. This center is responsible for operator training and the testing of new technological solutions.

Italian Defense: The Evolution of Anti-Drone Systems in the Armed Forces - brigatafolgore.net

Anti-Drone Systems in Use

Drone Dome

The Drone Dome system, developed by the Israeli company Rafael, was acquired by the Italian Army in 2019. This system is designed to detect, track, and neutralize hostile drones using a combination of radar, electro-optical sensors, and jammers. It has been successfully deployed in operational theaters such as Kosovo from 2020 to 2022.

AD3S

The Anti Drone Detecting And Disabling System (AD3S) was developed in collaboration with Italian industries such as IDS, INTECS, and CPM. This system offers an integrated solution for drone detection and neutralization, combining radar sensors, electro-optical sensors, and jammers to ensure effective protection.

Italian Defense: The Evolution of Anti-Drone Systems in the Armed Forces - brigatafolgore.net

ACUS Enhanced

Developed by Leonardo as part of the Forza NEC project, the ACUS Enhanced is an advanced system delivered to the Italian Army in 2024. This system integrates multispectral sensors and command and control capabilities to provide a rapid and precise response to drone threats.

KARMA

The KARMA system (Kinetic Anti-dRone Mobile Asset), developed by ELT Group, represents a new generation of anti-drone solutions. This modular and scalable system uses RF sensors to detect and identify drones, transmitting jamming signals to neutralize them. It is designed to be integrated on military and civilian vehicles, offering flexible protection in various operational scenarios.

Italian Defense: The Evolution of Anti-Drone Systems in the Armed Forces - brigatafolgore.net

Operational Applications and Training

The Italian Armed Forces have employed these systems in various operations both domestically and abroad. During Operation Orice in Qatar, the Air Force's C-UAS Task Force used the ACUS system to ensure airspace security during the 2022 World Cup.

In Italy, anti-drone systems have been used to protect high-profile events, such as the visit of Russian President Vladimir Putin to Rome in 2019. On that occasion, the Italian Army deployed anti-drone assets to ensure the security of the affected areas.

The C-M/M APR Center of Excellence in Sabaudia continues to play a crucial role in operator training and the testing of new technologies. Through exercises like "Prometeo VIII", the center tests new sensors and counter systems to address emerging drone threats.

News link: https://www.analisidifesa.it/2025/04/da-elt-group-il-nuovo-counter-uas-karma-kinetic-anti-drone-mobile-asset/