SONGAR™

ARMED

SONGAR™ Armed Drone System is the first Armed Drone in Turkish Armed Forces inventory developed by ASISGUARD to be used effectively in any kind of day/night military and security operations. The system broadcasts real-time video and operates within mission radius of up to 5 kms.

SONGAR™'s user-friendly system design reduces the operator's load during mission such as autonomous/manual flight control modes, returning to home on link-loss or critical battery level, mission planning on moving map, autonomous flight on planned route and in-flight mission change.

SONGAR™ Ground Control Station's ergonomic and portable design provides maximum usability on the field to the operator. The drone video, flight telemetry data and drone flight position on the moving map can be displayed and recorded on the Ground Control Station. It is also possible to start / stop video recording, and select and view a recorded video from previous recordings.

ASISGUARD

SONGAR™
ARMED

GENERAL SPECIFICATIONS

- Effective control mechanism
- Ground control station (GCS)
- Autonomous/manual flight control modes
- Mission planning on moving map and autonomous flight on planned route
- Return to Home function in case of link-loss or critical battery level
- Operation within a mission radius of up to 5 kms

SUBSYSTEMS

SONGAR ™ Armed Drone System components are functionally divided into the following sub-units:

Drone Structure

- 8 carbon-fiber propellers, "octocopter" configuration with quadcopter type
- 8 electric motors
- Carbon-fiber body to maximize flight time and mechanical strength
- Ergonomic and user-friendly foldable arm structure

Avionic Structure

- Stable flight control
- Automatic take off/landing
- The ability of "Return to Home" in an emergency
- Analog/digital communication options
- Real-time video and flight data transfer
- CRPA option to provide Anti-Jamming capability

Electro-Optical Imaging Units

- Pilot camera options for surveillance and exploration purposes
- Barrel camera and laser range finder (LRF) module (Eye-safe laser)
- Optional gimbal integrated day light /thermal camera
- Optional higher zoom capable electro-optic payloads

Gun Stabilization System (GSS)

- Payload rotation between 0° and +45° on elevation axis
- Recoil force damping mechanism
- Compatible with any Assault Rifle which can carry 5.56 caliber 45 mm ammunition

Ground Control Station (GCS)

- Control of drone movements
- Real-time data/video monitoring
- Capability to record the flight data and the video streams, selection and display of a recorded video among the previous records
- Ability to follow drone flight position on the moving map
- Mission planning on moving map and autonomous flight on planned route
- Multi-layered fire safety with different hardware and software methods

TECHNICAL SPECIFICATIONS

- Takeoff Weight: Max. 44 kg
- Payload: 9 kg
- Size: 140 cm from rotor to rotor
- Maximum Flight Speed: Standart 10m/s
  Optional 15m/s (with selected payloads)
- Service Ceiling: 3000 meters (MSL) and 300 meters (AGL)
- Operation Range: 3 km (Standard)
  5 km (Optional)
- Max. Flight Time: 25 min
- Environmental Conditions:
  Operating Temperature Range: Between -20°C and 50°C
  Max. Wind Speed Resistance 10m/s
- GSS Payload Rotation: 0° and +45° on elevation axis
- GNSS: Available (GPS and GLONASS)
- Weapon Type: Compatible with any Assault Rifle which can carry 5.56 caliber 45 mm ammunition

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