



Mini UAS System

UAV field operations

UAV ISR Missions



Cruiser Mini UAS System has been conceived as ready to fly UAS system with high standard integrated payloads.

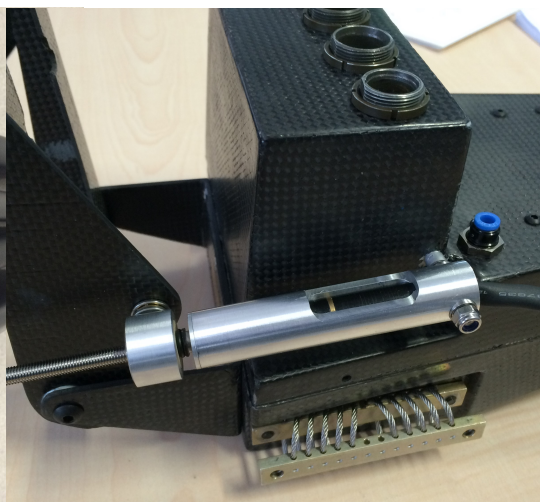
Integrated features include Quattro autopilot with auto take off, auto land navigation features and i.e. tracking, Geo-location for EO/IR gimbal operation ISR capabilities.

UAV crashworthy airframes & avionics suite, are designed for on the field easy interchangeability. Also, maintenance operations are simple and easily manageable allowing to reduce operations cost.

Bungee launch, (hand with low weight configurations), and auto land recovery are available for operation in environments where no landing strip is available

Cruiser mini features gimbal retraction mechanism in order to enable belly landings with gimbals on board, and allows for longer flights as it helps reducing drag while not in operation theatre.

UAS set-up, is ready to fly in less than 5 minutes in a one man operation, which can be delivered from a ground vehicle, or else a standalone operation.



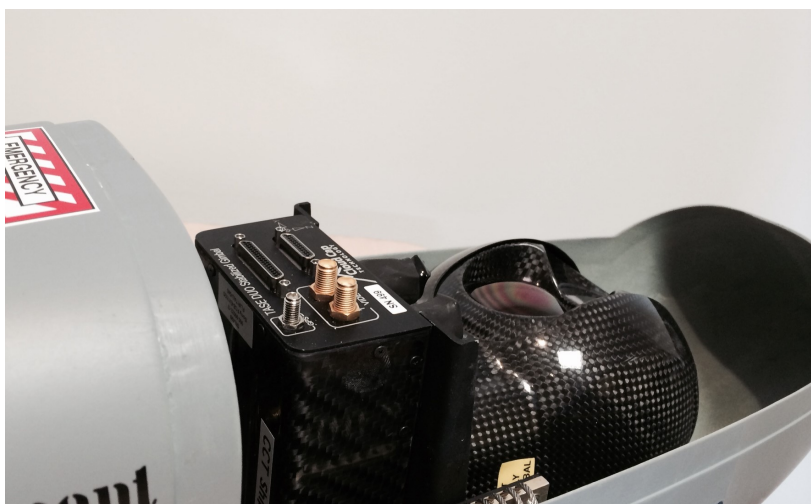
Wing Batteries

Crashworthy Avionics Box (STS MIL Conectors)

Integrated Gimbal Retract

Integrated Items

Equipment	Description	Availability	Integrated
Platform	<ul style="list-style-type: none"> Cruiser Mini UAV Frame Twin Electric motors Lilon batteries (long life high discharge current) 	2x 30Ah / 14.4V	Yes
Electrical Kit	<ul style="list-style-type: none"> Batt Only / Power Boards AP/Servos/Payload wiring 	Yes MIL Connectors	Yes
Comm Kit	<ul style="list-style-type: none"> Video-Data Omni antenna 	Yes	Yes
Autopilot	Quattro FCS (Full autonomous T.O. and Landing) Incl Futaba CAG 10 Transmitter for manual operation	Yes	Yes
Autoland: DGPS Laser Alt	Options <ul style="list-style-type: none"> DGPS: +/-2 m accuracy Laser Alt 10Hz +/-10cm accuracy 	Available Available	Yes
Navigation System	Vigilant Spirit / QET	Yes	Yes
Camera Payload	<ul style="list-style-type: none"> Recommended Trillium HD25, ... w Ethernet port) <1Kg Gimbal Retract mechanism 	Yes	Yes
Camera Software	Gimbal Vendor	Yes	Yes
Video System Transmitter Receiver	Digital Dual Simultaneous channel or single HD option with Dual vision equipment.	Yes	Yes
Omni directional Antenna	<ul style="list-style-type: none"> Video & Data Omni MIMO x2 Ch 	Yes	Yes
GCS	Portable GCS/APU & Laptop	Yes Yes	Yes Yes
GCS Vehicle / Trailer integrated	GCS with Rack mounted systems (mission/payload).	Yes	Yes
Ground Equipment	Power Gen Set / Extra battery Backpack	Yes	Yes
Training Package	<ul style="list-style-type: none"> End User Integrator Level 	Yes	Yes
Carrying Cases	PGS in Plastic Pelican Case, Rugged case for A/C transport	Yes	Yes



Performance & Data

CRUISER mini UAS

Data	Performance (verified)	Comments
Empty Weight	6Kg Cruiser Mini	No fuel, no payload
MTOW	7Kg MTOW Recommended long life LiFe batt if long loiter	Electrical batteries
Wing Span	2.6m	
Range @MTOW w max. payload	<ul style="list-style-type: none"> • 3h • 100km 	<ul style="list-style-type: none"> • battery sets with backups
Service Ceiling Operational altitude	<ul style="list-style-type: none"> • 3500m (bungee launch) • 300-500m above ground for best image performance 	
Range for Lost Communications	<ul style="list-style-type: none"> • 30km with Omni, direct LOS 	
Range for Video Communications	<ul style="list-style-type: none"> • 30 km with Omni direct LOS 	Video performance requires also clean line between GCS antenna and the aircraft.
Cruise 65% pwr Cruise 75% pwr	<ul style="list-style-type: none"> • 22 m/s • 30 m/s 	
Setup time with PGCS	5 min	Single operator
Total Number of Boxes / Cases	Aircraft, GCS computer.	1
Fuel Consumption	Battery 2Kg for 3h flight depending on payload	Tbd for ea different configuration

- Specs depend on final configuration and subjected to component availability.
- Note: The image below corresponds to a test flight in Egypt for Air Defence Group.

