

UNMANNED AIRCRAFT SYSTEMS



reddot winner 2024
best of the best

SQA³

MULTIROLE eVTOL
DEVELOPED BY C-ASTRAL X-WORKS



3h



80x



160 km



vtol



12kg



safety

NSN - 1550-42-000-3356



C-ASTRAL
AEROSPACE

↳ Cursor On Target CoT enabled / Target geo-tagging

↳ Large area surveillance

↳ Remote sensing / aerophotogrammetry

↳ Pipeline monitoring / Infrastructure control / Wildfire management

SQA³

MULTIROLE eVTOL



↳ Border surveillance

↳ JTAC fire control / Call for fire & fire direction functions

↳ Target acquisition for indirect fire and air to surface fire (CAS)

↳ Complex military level ISR

BEST IN CLASS STABILIZED PAYLOAD

80x zoom EO / HD thermal sensor

SUPERIOR AERODYNAMIC EFFICIENCY

Best flight endurance & stability in class

GNSS JAMMING / SPOOFING PROOF / INS

Inertial and anti-jamming / spoofing mitigation

NAVIGATION & LANDING

Sub-meter auto-landing accuracy

VERTICAL TAKE-OFF & LANDING

Fully autonomous flight with simple GUI

SILENT & STEALTH

Kevlar composite / low radar signature

DETACHABLE VTOL BOOMS

Quick release system for fast setup

SQA eVTOL SPECIFICATIONS

SQA eVTOL multirole system is an evolutionary and compact small unmanned system developed by C-ASTRAL advanced X-WORKS laboratory enabling the complete spectrum of ISR operations over medium distances of up to 40 km from the ground control station. The SQA eVTOL can be equipped with several different sensors and command and control datalinks at frequencies from 1GHz up to 5GHz in MANET or MIMO configurations.

The MK2 basic SQA system can be configured for first responders, search and rescue, firefighting, as well as complex military level ISR and fire control missions with an array of stabilized sensor options. Additionally, the SQA eVTOL can serve as a very capable remote sensing platform for aerophotogrammetry as well as scientific atmospheric sensing including gas leak detection missions.

* Flight endurance measured at ICAO standard atmosphere conditions (15 °C / 1013,25 hPa / winds calm), depends on UAS configuration / system weight.



FLIGHT CHARACTERISTICS

MTOW Up to 12 kg (depending on a payload)
 Cruise speed 18 m/s - 30 m/s
 Flight endurance Up to 3h
 Max. GND wind speed 8 m/s
 Max. FLT wind speed 12 m/s
 Max. flight altitude Up to 4000 m ASL
 Take-Off / Landing VTOL
 Rescue / Emergency Parachute
 Pre-flight setup time Less than 5 min
 Operator req. One or two operators
 VTOL landing area 3 x 3 m
 Operating temperature -20 °C to +55 °C



SENSORS / PAYLOAD

Gimbal - option 1 80x EO - LWIR 8x
 Gimbal - option 2 40x EO - LWIR 2x
 Mapping sensor Up to 1.0 kg
 Custom payload Up to 1.3 kg

AIRCRAFT TYPE & AIRFRAME

Fixed wing VTOL Blended Wing Body
 VTOL configuration Blended low drag detachable boom
 Structure Low radar signature materials
 Wingspan 2.9 m
 Length central module 1.2 m
 Other Modular assembly



COMMUNICATIONS

Data / Videolink IP, Encrypted
 Comm Range Up to 40km LOS

GCS

Gimbal Control Flight stick control
 Manual Flight Optional flight stick

AVIONICS

Navigation 100% autonomous from take-off to landing
 GNSS GNSS / IMU / GPS SPOOFING MITIGATION
 Manual landing Optional manual stabilized assisted landing



TRANSPORTATION CASE

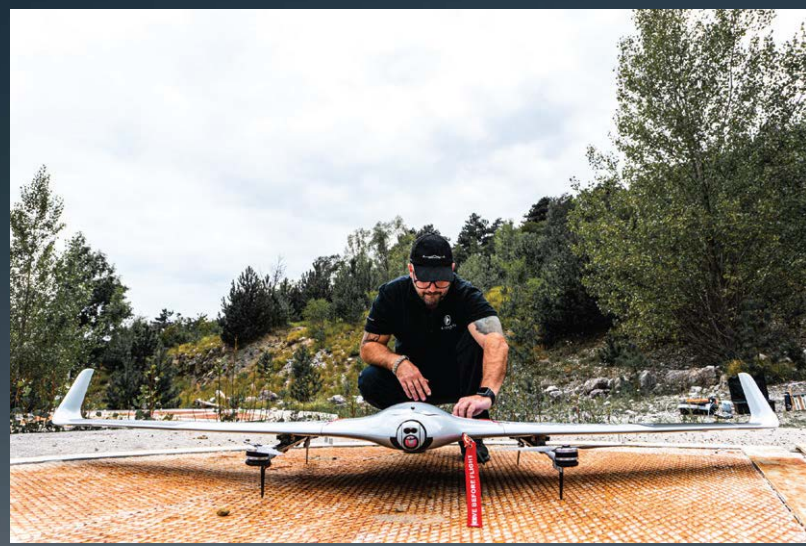
Features Watertight / crushproof and dustproof
 Dimensions 45 x 25 x 17 in (114 x 64 x 42 cm)
 Standards 1780 DEF STAN / MIL STD 810G Certified

STANDARDS

Environment protection IP65
 Military standards NATO STANAG 4586, CoT
 STANAG 4609, MISB ST 1402.1,
 STD 0601.4 UAS Datalink Local Data Set
 Battlefield Man. Systems COMPATIBLE
 Other FCC / CE / ISO

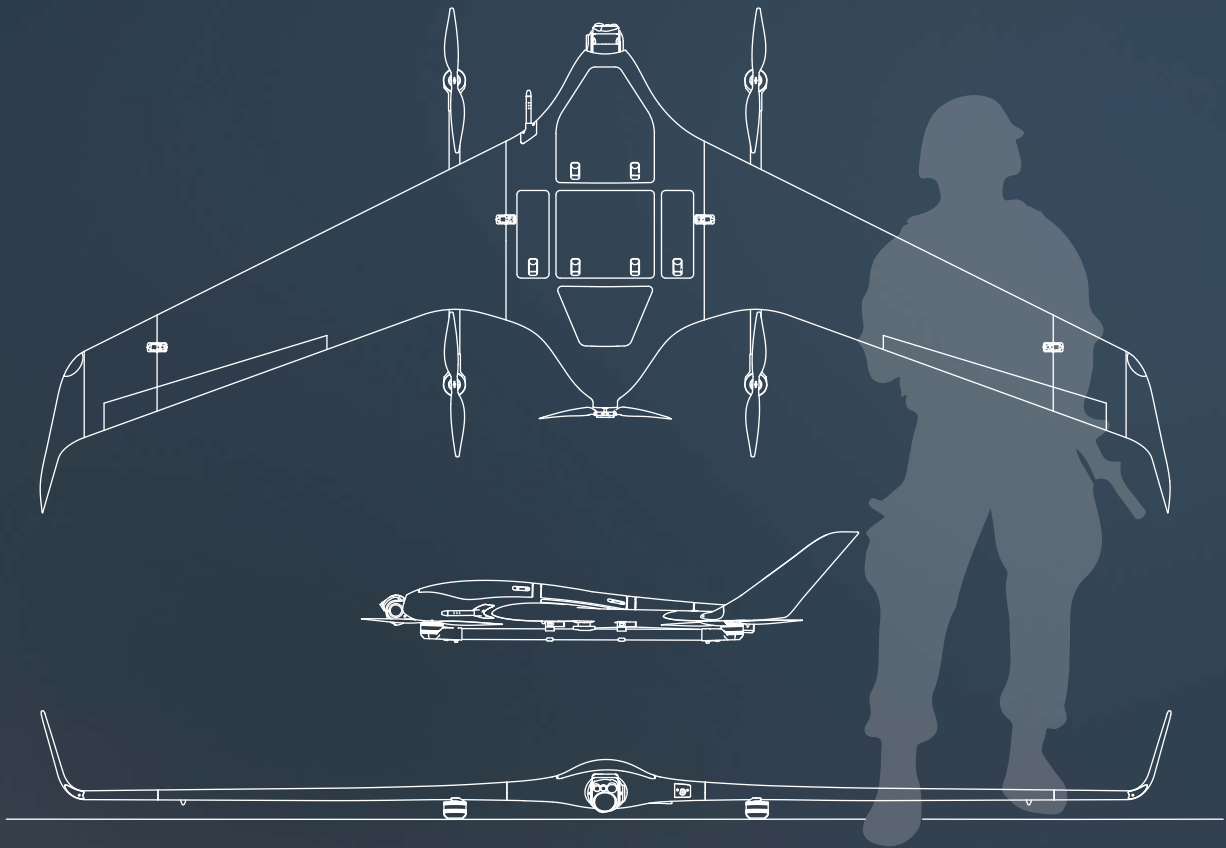


THE ULTIMATE C4ISR UNMANNED AIRCRAFT SYSTEM ON THE MARKET



C³P command, control, communications and planning software provides superior situational awareness and safety of UAS operations through a user-friendly GUI and intuitive control. With the C-ASTRAL C³P (Command, Communications, Control and Planning) software you can plan and execute your UAV flight missions, control the flight parameters and sensors in real time and collect and aggregate geospatial data.





IN USE WITH FORCES



NSN - NATO STOCK NUMBER
1550-42-000-3356



CONTACT OUR SALES FOR QUOTATION
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FLY FURTHER



SEE BETTER