

UNMANNED AIRCRAFT SYSTEMS

SQA

MULTIROLE eVTOL
DEVELOPED BY C-ASTRAL X-WORKS



2.5 h



80 x



160 km



vtol



12kg



safety

NSN - 1550-42-000-3356



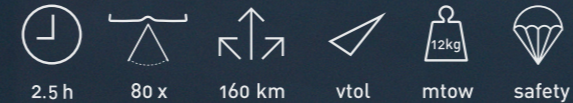
C-ASTRAL
AEROSPACE

↳ Cursor On Target CoT enabled / Target geo-tagging

↳ Remote sensing / aerophotogrammetry

SQA

MULTIROLE eVTOL



↳ Border surveillance

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

↳ Large area surveillance

↳ Pipeline monitoring / Infrastructure control / Wildfire management

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

↳ Complex military level ISR

BEST IN CLASS STABILIZED PAYLOAD
80x zoom EO / HD thermal sensor

SUPERIOR AERODYNAMIC EFFICIENCY
Best flight endurance & stability in class

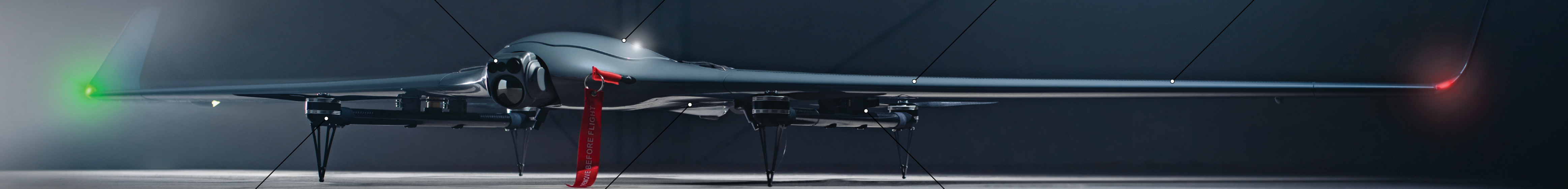
GNSS JAMMING / SPOOFING PROOF / INS
Inertial and anti-jamming / spoofing mitigation

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
Cruise speed
Flight endurance
Max. GND wind speed
Max. FLT wind speed
Max. flight altitude
Take-Off / Landing
Rescue / Emergency
Pre-flight setup time
Operator req.
VTOL landing area
Operating temperature

Up to 12 kg (depending on a payload)
18 m/s - 30 m/s
Up to 2.5 h @ 10 kg MTOW
8 m/s
12 m/s
Up to 4000 m ASL
VTOL
Parachute
Less than 5 min
One or two operators
3 x 3 m
-20 °C to +55 °C



SENSORS / PAYLOAD

Gimbal - option 1
Gimbal - option 2
Mapping sensor
Custom payload

80x EO - LWIR 8x
40x EO - LWIR 2x
Up to 1.0 kg
Up to 1.3 kg

AIRCRAFT TYPE & AIRFRAME

Fixed wing
VTOL configuration
Structure
Wingspan
Length central module
Other

VTOL Blended Wing Body
Blended low drag detachable boom
Low radar signature materials
2.9 m
1.2 m
Modular assembly



COMMUNICATIONS

Data / Videolink
Comm Range

IP, Encrypted
Up to 40km LOS

GCS

Gimbal Control
Manual Flight

Flight stick control
Optional flight stick

AVIONICS

Navigation
GNSS
Manual landing

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



TRANSPORTATION CASE

Features
Dimensions
Standards

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

STANDARDS

Environment protection
Military standards

IP65
NATO STANAG 4586, CoT
STANAG 4609, MISB ST 1402.1,
STD 0601.4 UAS Datalink Local Data Set
COMPATIBLE
FCC / CE / ISO

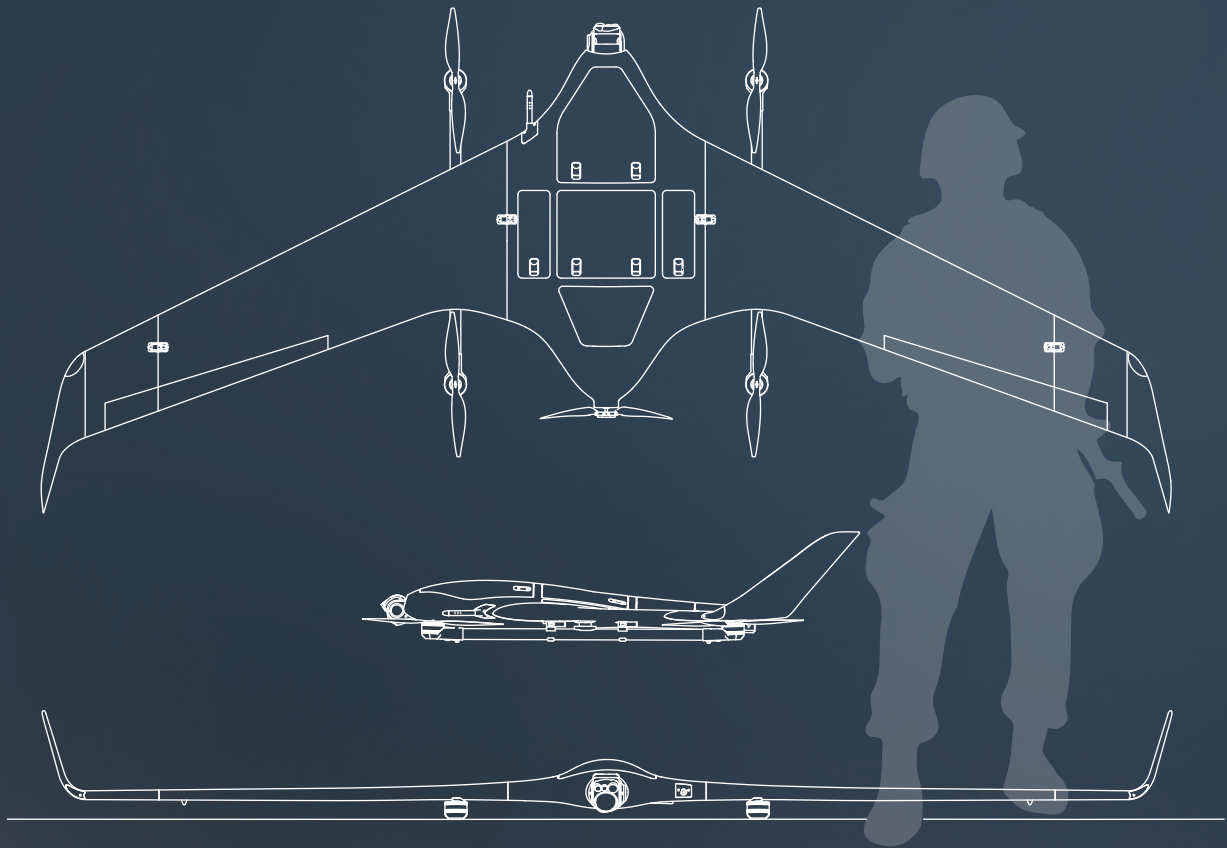
THE ULTIMATE C4ISR UNMANNED AIRCRAFT SYSTEM ON THE MARKET



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.



WWW.C-ASTRAL.COM



IN USE WITH FORCES



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



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