CANNON DYNAMICS

JACK KNIFE

Multi-role, versatile, long endurance quad/octocopter

- Multi-Motor
- VTOL
- Lightweight Carbon Fiber
- High Endurance

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What is the JACK KNIFE?

The CANNON JACK KNIFE offers 4 sizes and is a versatile, long-endurance quadcopter UAV.

Jack knife is constructed from lightweight and durable carbon fiber material to give you a tough and strong frame but lightweight for a longer flight time.

The Jack knife comes with a flexible connector and multiple optional power supply ports for better compatibility with more devices for different demands.

JACK KNIFE J1

JACK KNIFE J3, J5, J9

KEY FEATURES

- **Lightweight and Durable Frame**
  Built from carbon fiber and, JACK KNIFE offers excellent rigidity for reliable performance while maintaining flexibility and reducing weight for longer, more efficient flights.
- **High Wind Resistance**
  JACK KNIFE is capable of maintaining stable flight even in challenging weather conditions, ensuring dependable performance in outdoor operations.

Featuring single or coaxial motors, multi-rotor the JACK KNIFE is a high performance, high safety quadcopter.

JACK KNIFE is adaptable for a diverse range of applications that require both flexibility and endurance.

60mins +

Flight Duration

60mins

Flight Duration (payload)

1kg

Payload capacity

JACK KNIFE J1

The JACK KNIFE J1 is a versatile quadcopter UAV with long endurance and flight times.

JACK KNIFE is powerful and efficient, its lightweight frame giving it great flight characteristics.

Versatile and able to carry a range of payloads, JACK KNIFE is adaptable to a range of missions.

40km

Range

700mm

Wingspan

JACK KNIFE J3, J5, J9

MULTI-ROTOR QUADCOPTOR UAV

50mins

Flight Duration

24-50mins

Flight Duration (payload)

JACK KNIFE J3, J5, J9

The JACK KNIFE J3, 5 and 9 are versatile quadcopter UAVs with long endurance and flight times and increased load capacity over the J1.

JACK KNIFE J3-9 shares many of the great features of its smaller sibling but boasts a greater wingspan / wheelbase, operating ranges, payload capacity and speeds.

Up to 9kg

Payload capacity

45km

Range

860m

Wingspan

Features

- Light weight frame - easy to carry and transport
- Weather resistant
- Rapidly deployed, convenient
- Fully integrated ISR (Intelligence, Surveillance , Reconnaissance)
- Provides quick, out of the box, flight operation
- Safe, Reliable, Stable
- Easy to operate
- Electric propulsion
- Full product support

Specifications

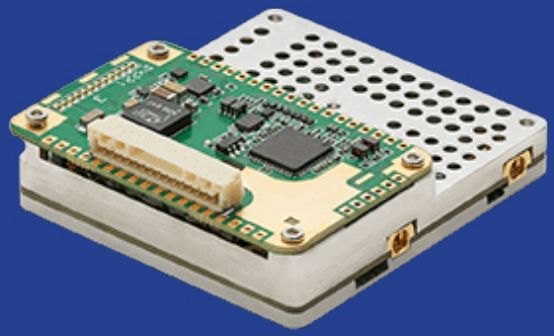
Model	J1-60	J3-50
Frame Length	550 x 550 x 445mm	550 x 550 x 445mm
Wingspan	700mm	860mm
Frame Weight	3.59kg	9.96kg
Take off Weight	6kg	19.96kg
Frame Material	Carbon Fiber	Carbon Fiber
Flight Time	60mins (1kg payload)	50mins (3kg payload)
Payload	1kg+	3kg+
Wind Resistance	14m/s	14m/s
Working Temperature	-15C to 50C	-15C to 50C
Max Flying Speed	15m/s	20m/s

Model	J5-40	J9-24
Dimensions	550 x 550 x 445mm	550 x 550 x 445mm
Wheelbase	860mm	860mm
Frame Weight	9.96kg	9.96kg
Take off Weight	19.96kg	19.96kg
Frame Material	Carbon Fiber	Carbon Fiber
Flight Time	40mins (5kg payload)	24mins (9kg payload)
Payload	5kg+	9kg+
Max Wind	14m/s	14m/s
Working Temperature	-15C to 50C	-15C to 50C
Max Flying Speed	20m/s	20m/s

Radio

High quality radio communications ensure a responsive and stable flight

Secure and reliable radio communications



A wide range of multi-band and single-band radios

Low Latency

Low latency, designed for reliable, long-range applications with real-time, immediate information from nodes.

Resilient Network

Built-in spectrum scanner that monitors in-band interference and provides automatic band and channel switching capabilities.

Fine-tuned filtration and frequency-band shifting techniques are designed to minimize noise and block out-of-band signals.

With an advanced interference-avoidance feature-set, can even automatically switch to cleaner channels and bands of operation.

Multi-Cast Video

In a point to multipoint configuration, provides the ability to stream high quality video to multiple receiving nodes, from drones to numerous stakeholders on the ground.

Cannon SmartEye

Single, Dual or Triple-sensor gimbal cameras

10x to 80x Optical Zoom
Up to 32x Digital Zoom
Thermal imaging options
AI Object Tracking and more ...

JACK KNIFE can be fitted with a range of Cannon SmartEye cameras featuring single or multiple sensors, low-light vision, IR and thermal vision, tracking and more.

All cameras are gimbal mounted, packages range from under 200g to around 2kg.

Powerfull Zoom Functions

10x Optical zoom (up to 80x available)
32x Digital zoom

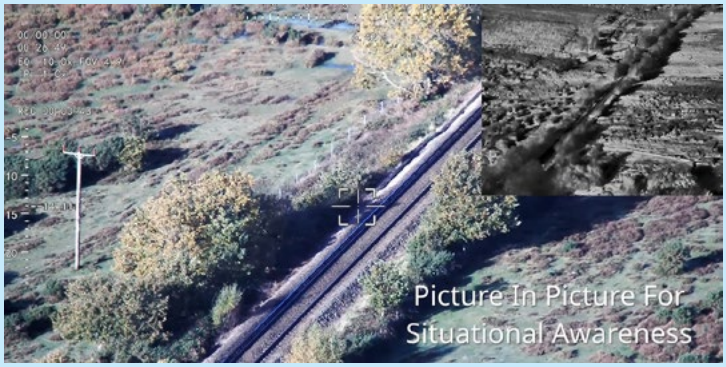
AI Onboard Tracking

Identifies objects of interest using onboard AI tracking abilities

With one click the camera follows the object as both it and the aircraft move, the aircraft can be set to automatically fly to keep the object in view.
Many gimbal options and targeting are available to suit mission needs.

Picture in Picture

Identifies objects of interest using onboard AI tracking abilities



IR / EO Cameras may be used simultaneously to view scenes in both thermal and natural light, the zoom on the EO camera gives excellent details of targets from several km. The IR view makes it easy to detect hidden heat sources in undergrowth or at night.

Low -light Operation

Identifies objects of interest using onboard AI tracking abilities

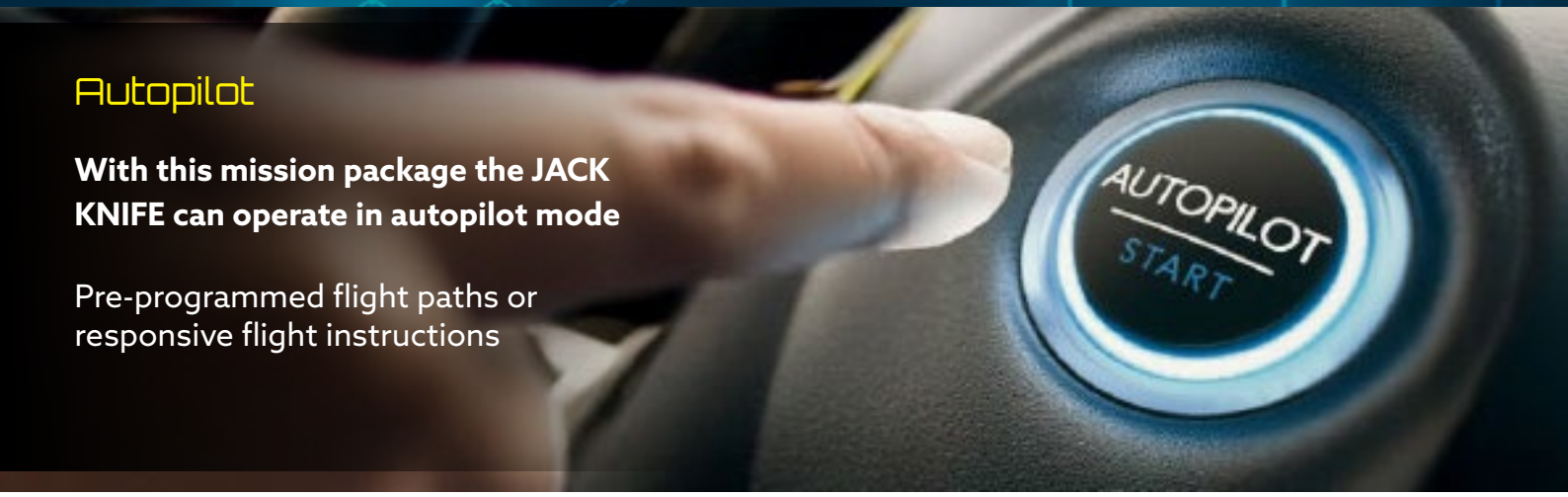
IR and Low light modes, In low light conditions the EO camera goes into 'starlight' mode – it can see much better than the human eye at night, combine this with Infra-Red mode and the scene is clear, objects and targets may easily be seen at long range.

Infra-Red / Thermal

Selected models feature full infra-red and thermal vision capabilities

Features and Benefits

- SD card support



Autopilot

With this mission package the JACK KNIFE can operate in autopilot mode

Pre-programmed flight paths or responsive flight instructions

Multiple autopilot systems are available

Options vary between full 'remote pilot in control' through fully autonomous autopilot options. A choice of various Autopilots and Flight Controllers are offered to suit customers' needs; from low-cost commercial to full military specification GNSS, denied mission capable systems.

Typical Features

Three Inertial Measurement Units (IMU) within the UAV autopilot system.

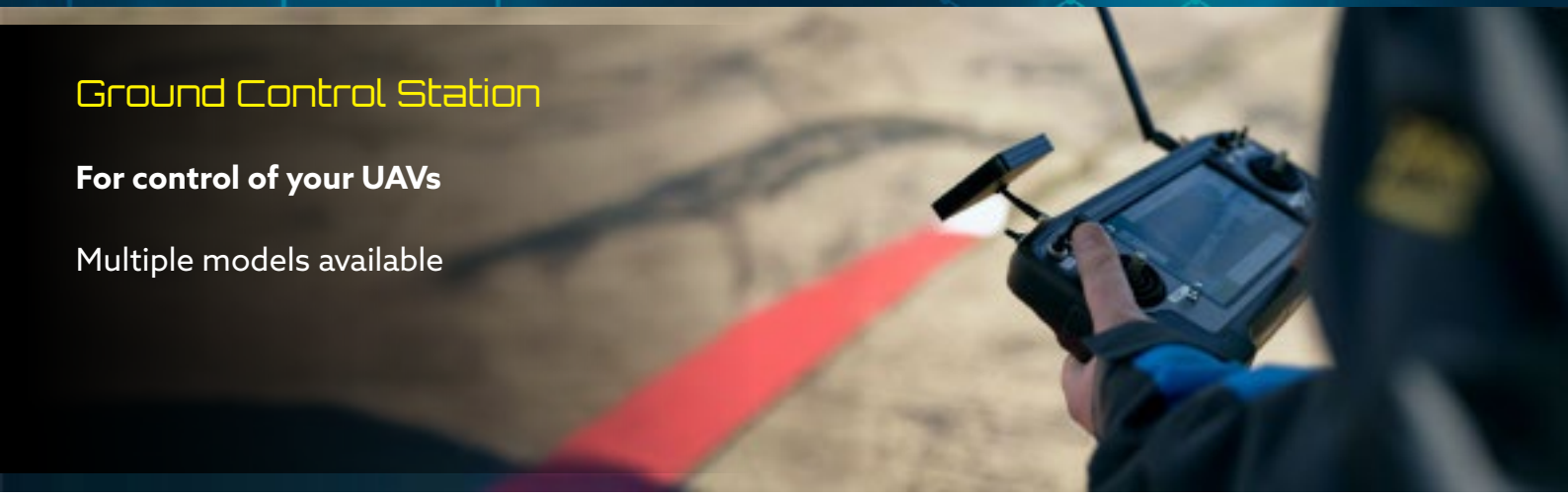
IMUs comprise a suite of sensors used in the Inertial Navigation System (INS).

Measuring orientation, velocity, and gravitational forces to aid navigation and control using the raw IMU measurements and sensors for extra redundancy.

The entire Flight Management Unit (FMU) and Inertial Management Unit (IMU) are housed in a small form factor housing.

Possibility to integrate alternate and multiple Global Navigation Satellite Systems (GNSS) from GPS (USA) and Galileo (EU) are available.

Clients preferring GLONASS (Russia) or BeiDou (China) can be accommodated.



Ground Control Station

For control of your UAVs

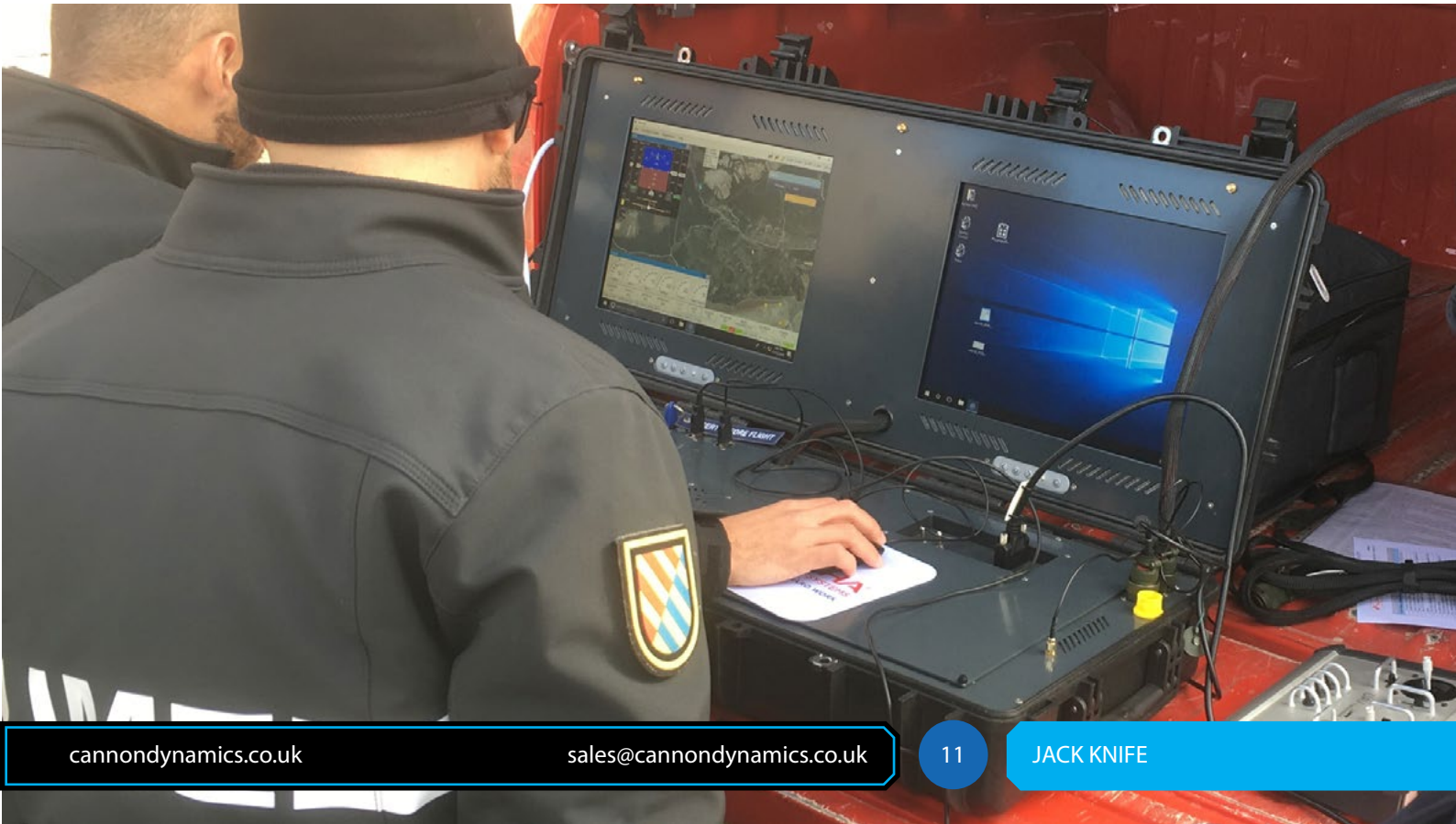
Multiple models available

From a simple laptop or android handset to a full 40-foot container based mobile command and control center - Cannon Dynamics can provide a system that suits your needs

The Cannon Technologies Group has been making Command and Control rooms for 40 years and has a wealth of experience in providing cutting edge data platforms in the most extreme of environments.

A Basic Configuration includes the components necessary for mission planning, control battery replacement and charging facilities, field level configuration changes, level maintenance and repair solutions including the necessary tools and spares.

Further configurations include anything from generators to operator basic accommodation to airconditioning if required and is completely scalable to the desired deployments.



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