

# Application Scenarios

## Navigation Environment Inspection



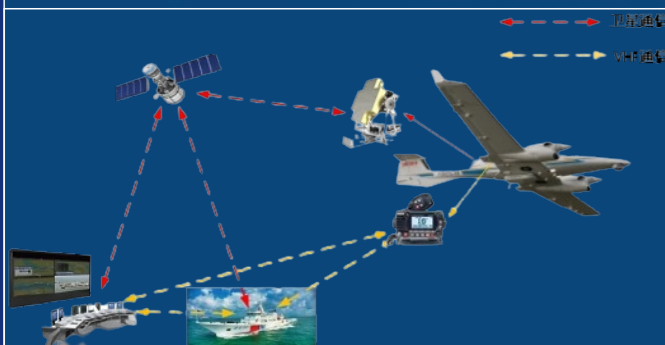
- Capture of infrared HD video of ship navigation environment.
- Capture static and dynamic ship information, navigational history, and past data in the area.
- Classification and display of merchant ships, fishing boats, dangerous goods vessels and other types of vessels.

## Intelligent Forensics of Illegal Targets



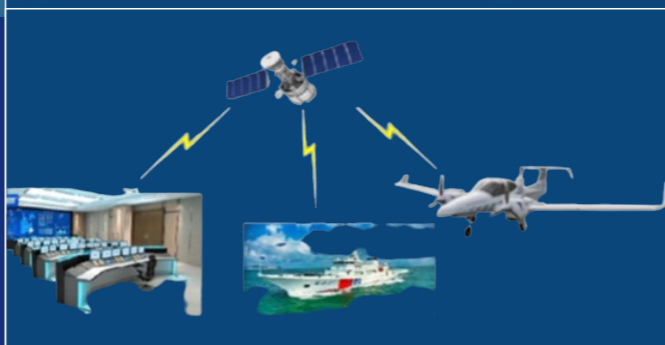
- Alert for illegal berthing, unauthorized AIS use, and illegal discharging.
- Utilize AIS to gather data on illegal ships, guide photoelectric target tracking, and capture clear details such as ship name, identification number, and national flag as evidence to support law enforcement efforts.

## Real-time Communication at Sea



- Marine VHF radio supports real-time communication between vessels at sea and the ground command center.
- Sea-to-ground real-time communication using airborne VoIP calling for SATCOM and BeiDou short-wave system.

## Real-time Information Transmission



- Transfer acquired information in real-time to the ground command center or maritime law enforcement vessel.
- Receive real-time information from the ground command center or maritime law enforcement vessel.



# Sentinel

## —Maritime Patrol Aircraft

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## Introduction

- Large-scale & long-distance investigations, tracking, and maritime supervision of illegal activities;
- Reliable to assist law enforcement agencies;
- Guarantee the marine traffic navigation;
- Highly ensure the maritime safety.

## Technical Specifications

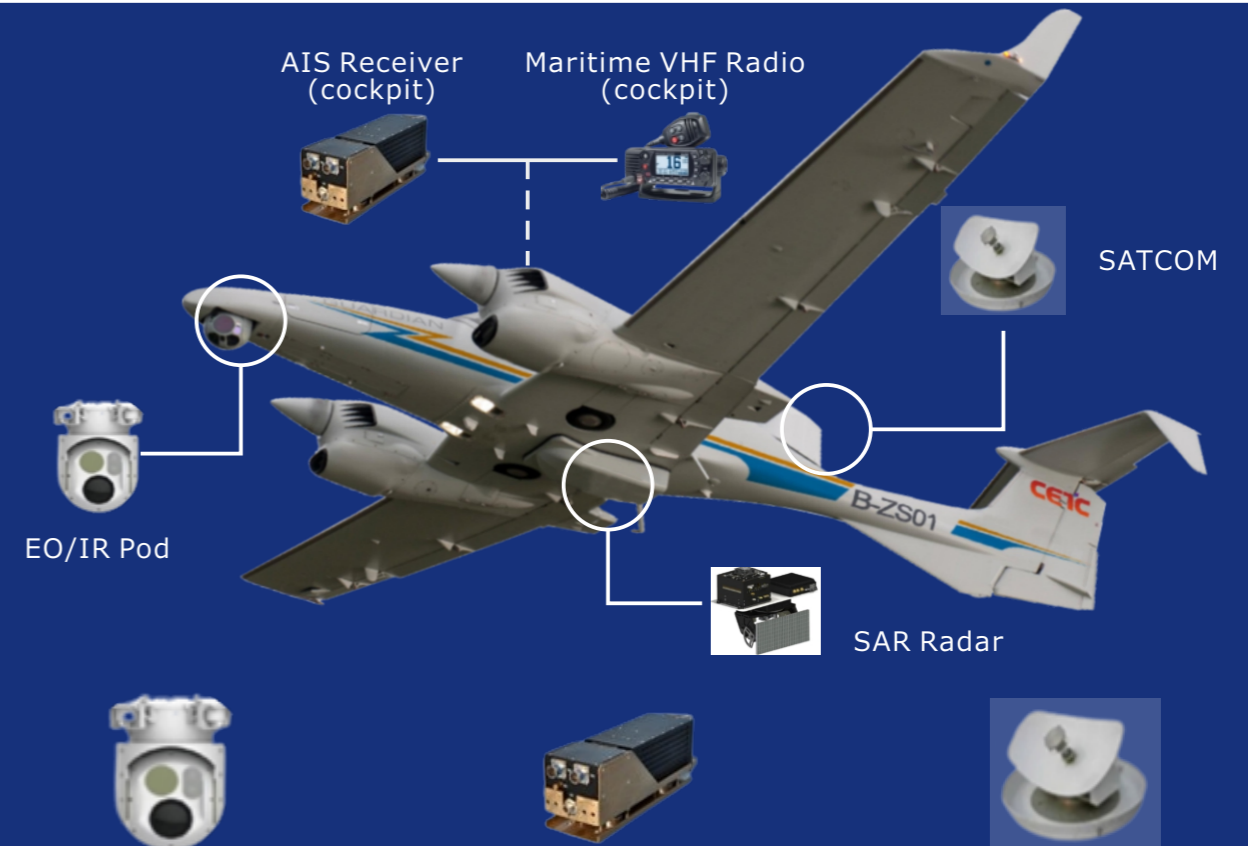
|   |                         |                                 |
|---|-------------------------|---------------------------------|
| Dimension (Length/Height/Wingspan)            | 8.56 m/ 2.49 m/ 13.55 m | 28 ft 1 in/8 ft 2 in/44 ft 4 in |
| Max. operating altitude                       | 5,486 m                 | 18, 000 ft                      |
| Max. cruising speed (16,000 ft)               | 352km/h TAS             | 190 KTAS                        |
| Stall speed                                   | 130km/h TAS             | 70 KTAS                         |
| Economical cruising speed                     | 280km/h TAS             | 151 KTAS                        |
| Typical airborne operations time <sup>1</sup> | 6-8 h                   | 6-8h                            |
| Max. range                                    | 2,357 km                | 1, 275 nm                       |
| Fuel capacity                                 | 289 Lt                  | 76.4 US gal                     |
| Fuel consumption                              | 24.2 Lt/h               | 6.4 gal/h                       |
| Twin-engine rate of climb                     | 6.8 m/s                 | 1, 325 fpm                      |
| Take-off/ Landing distance                    | 886 m/ 647 m            | 2, 907 ft/2, 122 ft             |
| Empty weight/ MTOM                            | 1,365 kg/ 2,001 kg      | 3, 009 lbs/4, 411 lbs           |
| Useful load                                   | 636 kg                  | 1, 402 lbs                      |
| Demonstrated crosswind                        | 46 km/h                 | 25 kts                          |

<sup>1</sup> With standard mission equipment and 2-man crew.

## Configuration Options

### Water Cruising System Platform

- Real-time monitoring and control of mission equipment
- Integrated processing and display of task data
- Real-time transmission of task data
- Task data recording and storage



#### EO/IR Pod

- Real-time capturing of visual/infrared images
- Laser ranging, positioning, and tracking
- Detection range 25 km
- Resolution ratio 1920 X 1080

#### AIS Receiver

- Acquisition of static and dynamic data and data of the ship navigation
- Receiving range >200km

#### SATCOM

- Real-time transmission of video, image, data through B-LOS link
- Transfer ratio ≥8Mbps
- Real-time VoIP calling for SATCOM

#### Maritime VHF Radio

- Receiving channels: 66
- Communication distance >70km

#### SAR Radar

- All-weather, all-day, high-resolution rate
- Real-time target information processing
- Ku band