



being there ...

# ***ZEN UAV-MISSION SIMULATOR***



**ZEN UAV-MISSION SIMULATOR** is a comprehensive system developed indigenously to train External Pilots, Internal Pilots, Mission Commanders, Observers/Special Payload Operators and Image Interpreters.

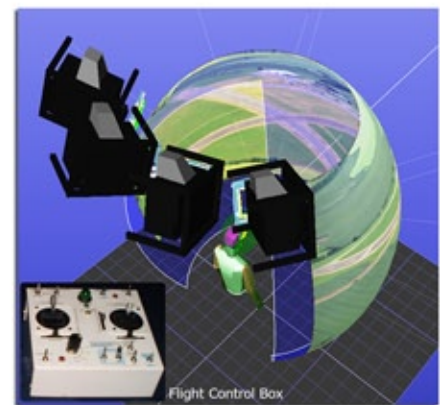
#### THE SIMULATOR :

- Provides Stand-alone mode for individual training and integrated mode for team training
- Provides evaluation of complete operational procedures of missions /profiles and payloads
- Includes all the features of GCS/LRS/UAV flight and payload functions
- Trains the operators to handle fault / emergency, weather, poor visibility and special payloads like GMTI, SAR, MPR, ISAR, COMINT and ELINT

#### SYSTEM CONFIGURATION :

- Internal Crew Training Station
- External Pilot Training Station
- ICTS Instructor Operating System
- Server Console
- Power Distribution Unit

#### EXTERNAL PILOT TRAINING STATION (EPTS)



EPTS Display System

#### INTERNAL CREW TRAINING SYSTEM (ICTS)



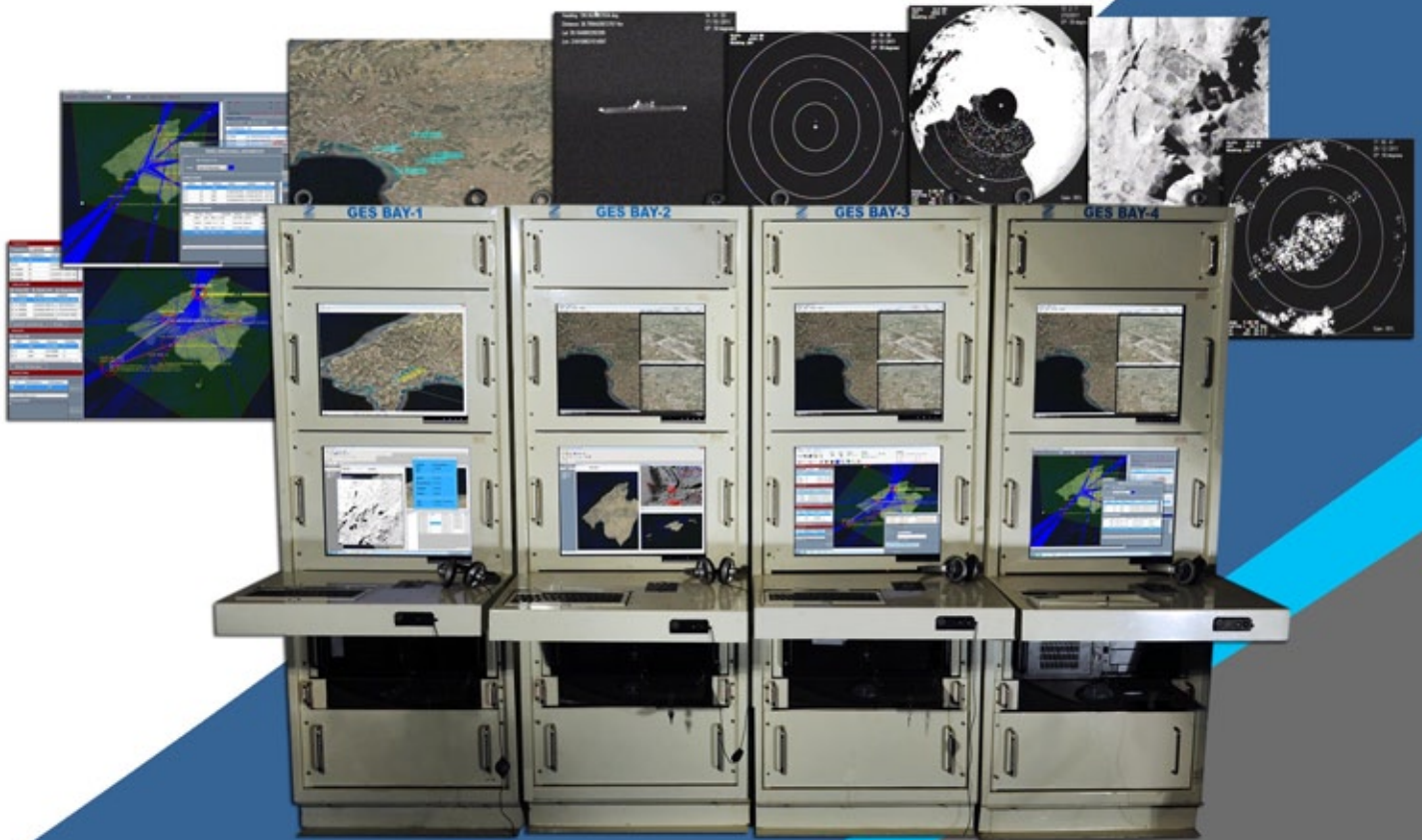
The system runs on a four monitor system. The Center Top and Bottom Monitors display a replicated view of both the monitors on any trainee station. The left and Right screens display the instructor's interface and controls. Each screen is divided into different sections.

Generates and controls all the instructor settings and functions. It Houses the EP SIMULATOR SYSTEM that provides flight dynamics of UAV and camera views to the projectors.

#### External Pilot Flight Control Box

This Unit allows the EP to control the UAV during take-off and landing simulation.

## SPECIAL PAYLOAD- GES BAYS



### GES BAY-1: RADAR (SAR / GMTI)

The Synthetic Aperture Radar (SAR) and the "Ground Moving Target Indication (GMTI), Simulator provides for Scanning SAR Strip Region of Interest (ROI), for fix-target detection, High-resolution SPOT interpretation, for fix-target classification/reporting and GMTI surveillance, detection and location of moving targets.

#### Mission Planning:

Provides the Trainee to Create, edit and/or update the radar mission plan in accordance with the Priority Intelligence Request (PIR) list issued by the user(s).The trainees could also Initiate online mission plan update(s), according to local interpretation findings and/or external PIR inputs.

### GES BAY-1: RADAR (MPR)

Maritime Patrol Radar (MPR) is simulated for aircraft Air-to-Sea missions. It fulfills the training needs of operators for small targets detection at long range and high sea states. The radar searches, detects and tracks sea and air targets that are within its field of view. It provides surface image in Synthetic Aperture Radar (SAR), Doppler Beam Sharpening (DBS) mode, Inverse SAR (ISAR) and Range Signature (RS) classification modes.

### GES BAY-2: EXPLOITER/INTERPRETER-1

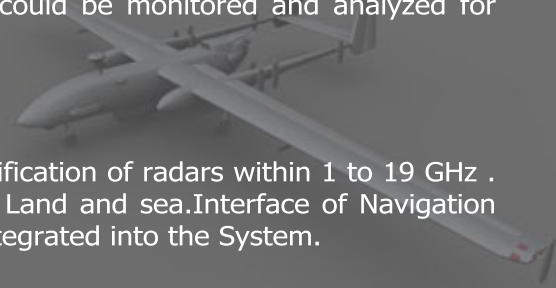
This application Provides to freeze images of particular interest for further examination, or to retrieve a stored image from the Database, for further examination. It enables detailed exploitation of the of selected images and generate Intelligence reports

### GES BAY-3: COMINT

The COMINT Simulator provides training for creating the Electronic Order Of Battle (EOB) by tracking, processing, monitoring and direction finding of emitter signals. The localized emitter could be monitored and analyzed for transmitted audio communication.

### GES BAY-4: ELINT

The ELINT Simulator provides Automatic detection, measurement and identification of radars within 1 to 19 GHz . The System allows Direction finding for Localization of enemy radars over Land and sea.Interface of Navigation systems for aircraft position data (LAT. LONG. & True-Heading) has been integrated into the System.



## GROUND CONTROL STATION(GCS) BAYS

### INTERNAL PILOT (IP)/OBSERVER BAY (OB):

Internal Pilot (IP)/Observer Bay (OB): Consists of two systems—IP/OB right and IP/OB left. They are interchangeable either of them can be set as master which becomes the Internal Pilot Bay from which the IP navigates the UAV or UAVs.

The other bay automatically works as Observer Bay from which the Observer commands the electro optical payloads .

### MISSION COMMANDER BAY:

Two Functions:

- The Flight Line tester (FLT) and Digital Acquisition system (DAS) are simulated in the 15 inch screen of the Mission commander. However only auto test menus are available for FLT, as the manual test requires other test connections and sensors with the UAV.
- The DAS systems displays and can record all the parameters of the System as passed by the Flight Simulator engine.



## ZEN TECHNOLOGIES LIMITED

B-42, Industrial Estate, Sanath Nagar, Hyderabad – 500018.

Andhra Pradesh, INDIA

Phone: +91 40 2381 2894/4894/3294, Fax: +91 40 23813694

Website : [www.zen.in](http://www.zen.in)

E-Mail : [sales@zentechnologies.com](mailto:sales@zentechnologies.com)

TOLL FREE : 1-800-425-4094