

En Route Integration & Interoperability Facility

Location

The En Route Integration & Interoperability Facility (EIIIF) is located in Building 27 at the FAA William J. Hughes Technical Center (WJHTC), Atlantic City International Airport, New Jersey.

Description of Laboratory

The EIIIF provides laboratory and engineering services supporting En Route infrastructure modernization and integration of new systems or capabilities into the National Airspace System (NAS). These services support activities such as development of new En Route innovations, proof-of-concept prototypes, early engineering assessments for new systems, operational evaluations, risk reduction demonstrations, training, and operational procedure development for both Air Traffic and Technical Operations personnel.

The EIIIF is an ISO 9001:2008 certified laboratory, sponsored and funded by the En Route and Oceanic Services Organization (ATO-E) and is devoted to exploring the issues associated with modernizing the NAS En Route infrastructure. The EIIIF is available to both Government and Industry organizations that support the emerging NAS architecture.

Characteristics of the EIIIF include:

- The flexibility to support multiple NAS projects in various stages of development
- Complete, high fidelity en route air traffic systems
- Ability to accommodate both hardware and software modifications
- Diverse simulation capabilities
- Interconnectivity to other WJHTC laboratories
- Managed and maintained by a multi-disciplinary team
- Engineering services, operations, maintenance, and project support
- A 24 hour day, 7 day per week schedule

Mission

The EIIIF engineering staff is dedicated to finding cost-effective solutions by integrating cutting-edge technology and methodologies that promote safety, increase capacity, and support the efficiency goals of the FAA's NAS.

Purpose

The EIIIF is dedicated to exploring the issues associated with modernizing the existing FAA NAS infrastructure. The facility provides engineering, simulation, and laboratory capabilities for the following activities:

- Proof-of-Concept Studies
- Prototype Development
- Early Engineering Assessment
- System-level Integration and Verification
- Experimentation/studies
- Simulation/Scenario Development
- Demonstrations
- User Evaluations
- Risk Assessment Studies
- Air Traffic and Airway Facilities Familiarization
- System Development

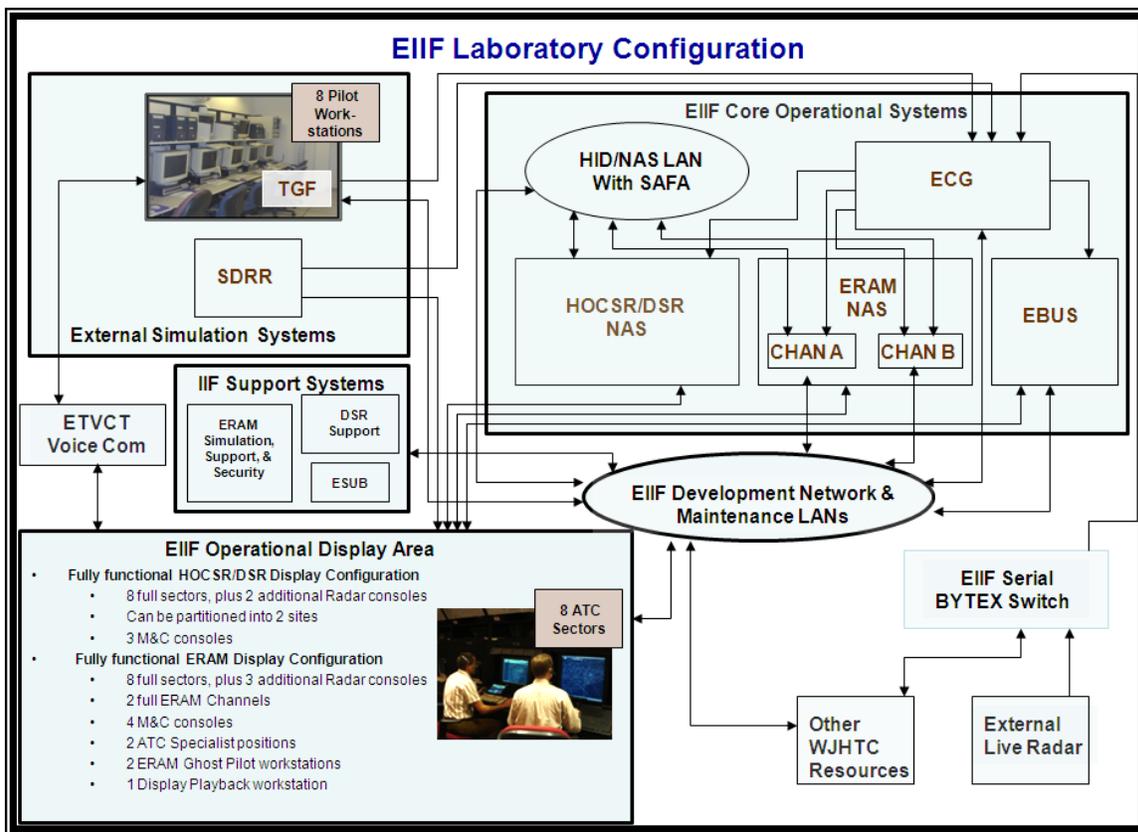
Facility Capabilities

The EIIIF has been designed to represent an En Route Air Route Traffic Control Center (ARTCC) with 8 air traffic sector positions. The EIIIF has the capability to conduct standalone experiments. The facility is also interconnected to other laboratory facilities located within the WJHTC, This enables both large-scale and inter-domain experimentation.

EIIIF lab can be configured as:

- A single ARTCC with full redundancy and external or simulated interfaces
- Two independent ARTCCs capable of communicating with each other and/or other external air traffic facilities.





Fully functional DSR configuration:

- 8 full sectors, plus 2 additional Radar Consoles
- Can be partitioned into 2 sites
- 3 Monitor and Control consoles
- Complete Primary and Backup Networks

Fully functional ERAM configuration:

- 8 full sectors, plus 3 additional Radar Consoles
- 2 full channels
- 4 Monitor and Control consoles
- 2 Supervisor Positions
- 8 Simulation Pilot Positions
- Support and Security workstations and processors

Other systems:

- Host Computer System Replacement (HOCSR)
- En Route Communications Gateway (ECG)
- Host Interface Device (HID)/NAS LAN
- User Request Evaluation Tool (URET)
- En Route Backup System (EBUS)
- En Route Training Voice Communications Tool (ETVCT)
- Radar and Interfacility simulators including Target Generation Facility (TGF)
- Live radar feeds

EIIF Manager

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