

NextGen Integration at the Tech Center

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Federal Aviation
Administration



Tech Center Support to R&D



Topics

- ✈ **William J. Hughes Technical Center**
- ✈ **Federal Laboratory**
- ✈ **Laboratory Infrastructure**
- ✈ **JPDO Partners Inside the Fence**
- ✈ **Aviation Research and Technology Park**



The William J. Hughes Technical Center

- ✈ **US leading laboratory complex for the research, development, test and evaluation of air transportation systems**
- ✈ **Two missions:**
 - ➔ Independent Operational T&E
 - ➔ Federal Laboratory



WJHTC Quick Facts

- ✈ **5,000 Acres**
- ✈ **250+ Buildings**
- ✈ **4,000 employees (3,000 FAA/Contractor)**
- ✈ **156,000 sq ft automation laboratories**
 - (climate controlled, raised floor, robust power)
- ✈ **“NAS under one roof”**
- ✈ **R&D, T&E, 24/7 engineering support**
- ✈ **Operational Tower/TRACON**
- ✈ **Non-FAA tenants...**

The Federal Laboratory – “ACT-1”

✈️ **Federal Legislation and FAA Order**

✈️ **Technology Transfer Function**

→ CRDAs and other agreements

→ Technology Licensing

✈️ **Intellectual Property Legal Support**

→ Patent applications

✈️ **Management of the Overall FAA Laboratory Infrastructure**

→ Supply common validated data and tool sets for use in research (and other)

Laboratory Infrastructure

- ✈ **High fidelity human-in-the-loop simulation**
- ✈ **Low and medium fidelity “what if” analysis**
- ✈ **Many specialized structures for aviation testing**
- ✈ **6 Flying Laboratories**
- ✈ **Support to R&D as well as T&E and maintenance**
- ✈ **Part of National Aeronautics R&D Infrastructure Planning team**

JPDO partners at the Center

- ✈️ **177th Fighter Wing**
- ✈️ **USCG Air Station**
- ✈️ **Transportation Security Lab**
- ✈️ **Federal Air Marshal Service**
- ✈️ **Atlantic City International Airport**



Aviation Research and Technology Park



Questions/Discussion





CAUTION
TAXI AIRCRAFT
WITH CARE
ON THE APRON

ALL AIRCRAFT STOP HERE
FOR PARKING DIRECTIONS CALL
FAA OPS FREQUENCY 123.4 OR
USCG OPS FREQUENCY 381.8 (UHF)



50 Years of NAFEC History

✈️ **New Jersey: Long History of High Technology Involvement**

→ Birthplace of the Industrial Research Laboratory (Menlo Park, Bell Laboratories, Sarnoff Laboratory)

✈️ **Rich History of Aviation in South Jersey**

→ First Air “Carnival” in 1910

✈️ **Established 1 July 1958**

→ Formerly NASAC

→ Unique National Asset

→ Federal/State Agencies Co-Located

→ Key Participant in National Air Traffic Control System Development/Testing

