TUG WebEx Meeting Notes
December 20, 2023

Maria Sheridan (PANYNJ, KTEB Airport Manager)

- Maria is retiring on January 10, 2024 after 4 years of outstanding leadership through one of Teterboro Airport's and our nation's most challenging periods. TUG recognized her distinguished service by presenting her with a plaque.
- A successor has not yet been named.

Maria Sheridan (PANYNJ, KTEB Airport Manager) and Scott Marsh (Manager, Ops & Security)

- Airport Operations
    - Sept. to Nov. 2023 – operations were down about 2% from the same period 2022
    - However, YTD ops were up 3% from 2022
    - Busiest day – 710 ops on Wed. Sept. 13
    - Daily average 520 operations
- New FAA Tower at KTEB
    - Scheduled completion in Fall 2024
    - Airport lighting controls have been installed in Tower
- Runway 1/19 Rehabilitation (mill & overlay)
    - Upgrade lighting to LED
    - Stormwater drainage rehabilitation – multiple locations across airport
- Airport Closures – 12-hour duration (Sundays 0000L to 1200L) July 6, 2024 to Sept. 1, 2024
- FAA Construction – Upgrade Rwy 01 VASI to PAPI, power distribution upgrades
- Historically busy dates:
    - Hanukkah – Dec 7-15
    - Christmas – Dec 25
    - New Years – Jan 1
    - MLK Day – Jan 15
    - Grammys – Feb 4 (Los Angeles, CA)
    - NYC Fashion Week - Feb 9-11
    - Super Bowl – Feb 11 (Las Vegas)
    - Daytona 500 – Feb 18
    - Presidents Day – Feb 19
    - Ramadan begins – March 10
    - Spring Break – Last 2 weeks of March
    - Easter – March 31

Matthew Petersen (FAA, Acting KTEB ATCT Manager)

- RNAV X Rwy 19
    - Available upon request, even during daytime, for noise abatement. Controllers can adjust runway lights upon request.
    - Alex Gertsen from NBAA indicated that he successfully requested the RNAV X 19 during the daytime

    - For unknown reasons, only about 1/3 of pilots accepted the RNAV X when assigned, and opted for the RNAV Y 19 instead.
- Southbound routes – utilize WHITE, LANNA & PARKE gates, or deepwater routes
- De-Icing
    - Coordinate with the FBO Ramp Boss
    - Tower will advise Operations & FBOs of runway closures for snow removal
    - Communication is key!

Jim Johnson (Honeywell, Sr. Manager – Flight Technical Services) and Dave Woodcock (Honeywell, Principal Application Engineer – Customer & Product Support)

- Honeywell FMS Guided Visuals
    - Provides lateral and vertical guidance for a circling approach
    - Available at some airports, including KTEB (Rwy 01), KTRM (Rwy 35), KPWK (Rwy 34), KVNY (Rwy 34L) and KSDL (Rwy 21)
    - In development: KPDK (Rwy 03R), MMSL (Rwy 11), KHND (Rwy 17R & 35L), KSFO Quiet Bridge Visual
    - Utilizes RF (Radius-to-Fix) legs, which are constant-radius turns. They're superior to Track-to-Fix legs because of their consistent ground track (e.g. not affected by wind or groundspeed), which helps with vertical guidance and produces a predictable, stabilized approach.
    - Eligible aircraft: Global Express, Cessna Sovereign, Citation X, Embraer 170/190, Falcon EASy and 900EX, G450/550/650/500/600, GV, Hawker 4000, PC-12 & PC-24
    - Pilots should NOT request the RNAV H (Rwy 01) procedure at TEB. It's merely an overlay to a circling approach. Pilots should monitor the appropriate underlying NAVAID to the approach whenever required.
    - Flight Technical Services - james.johnson2@honeywell.com, 817-504-3888
    - Technical Sales Manager - carey.miller@honeywell.com, 602-245-3537
- GPS Jamming
    - Occurs when signal to receiver is blocked or lost, e.g. another signal on the GPS frequency band.
    - The system can recognize this problem, and fall back to a "next-best" state
    - Associated with loss of Synthetic Vision, loss of ADS-B, and increase in EPU (Estimated Position Uncertainty)
    - Honeywell avionics will continue operating, using the other onboard sensors
- GPS Spoofing
    - Occurs when genuine GPS satellite signals are replaced with counterfeit ones
    - Asynchronous (Non-Coherent) Spoofing – similar to jamming in that the spoofer uses a GNSS signal imitator to overpower genuine GPS signals, but introduces counterfeit ones. Transmits different position/time.
        - GPS receiver switches to spoofed GPS signal. Remains in "Navigation" or "Differential" mode
        - GPS clock and position will jump
        - GPS position may be frozen, or moving very slowly

        - CHECK GPS POSITION messages, FMS-GPS MISCOMPARE, Map position shifts, Degraded message, Unable RNP message, EPU increases, aircraft turns unexpectedly, impact to PNR/ETE/ETP/ETA/Fuel predictions
        - Loss of synthetic vision, Ground Prox warnings, Datalink problems
        - Check and compare the onboard Position Sensors, and look for inconsistent GPS altitude and groundspeed indications
    - Synchronous (Coherent) Spoofing – spoofer generates signal identical to the real one AND in real time, based on the range relative to the aircraft.
- GPS Spoofing and IRS
    - Non-Hybrid IRS
        - Provides pure independent inertial position
        - Systems using Hybrid IRSs always consider the input as 2 separate position sensors, and can temporarily stop using a spoofed signal.
        - FMS continues to use Hybrid IRS and annunciates HYBRID as the navigation mode
        - Nav radios are unaffected by spoofing, but Auto-Tuning can be affected.
        - IRS HYBRID should be de-selected if Spoofing is suspected
- GPS Spoof Mitigation/Recovery
    - Removing Hybrid IRS and GPS sensors from FMS position solution will force FMS to use Radios and Pure IRS
    - Removing position sensors from FMS does NOT affect products outside of FMS that use GPS directly
    - GPS status page can be monitored
- GPS Jam/Spoof Guidance
    - Honeywell SIL D202311004193 on Tech Pubs and Pilot Gateway websites
    - Refer to your AFM or OEM documentation for operational guidance prior to departure
    - Follow that guidance for mitigating Jamming and Spoofing events, and for recovery procedures
    - Hardware updates will be available at some point in the future to mitigate spoofing.

Basel Sabbagh (U.S. Customs & Border Protection – Supervisory Officer)

- Operational changes at KTEB and the NAS
- 2023 was one of CBP's busiest years
- Increased staffing at KEWR
- New handheld device allows streamlined on-aircraft processing of U.S. Citizens
- eAPIS manifests – tolerance of +/- 60 minutes. A minimum of 60 minutes' notice is required prior to departure.
    - Operators must cancel the original eAPIS and re-submit if more than 60 minutes late.
    - Manual (phone) notification may be needed in some cases.
    - What about last-minute changes?
        - Time changes – just requires verbal approval
        - Passenger changes – requires 60 minutes' wait-time. Must receive email authorizing departure/arrival.
- TEB contact info: 201-288-8799, ktebgaops@cbp.dhs.gov

    - TEB Customs hours are 0700L-2400L
- 24-hour EWR Coordination Center 201-297-8098
- RSP – Reimbursable Service Program
    - Allows TEB arrival outside normal hours. Requires 24-hour notice to assign officers.
- Upon inspection of an outbound charter flight destined to the UK, officers were overwhelmed with a strong smell of marijuana
    - 515 lbs of marijuana and 27 lbs. of cocaine were seized.
    - Crew was questioned by CPB and FBI. It was determined that crew was innocent, and were released after 90 minutes
    - Had this been a private operation, the aircraft would have been seized.

Ralph Tamburro (PANYNJ Delay Reduction Manager)

- Teterboro GreenLandings Phase 2
    - See https://greenlandings.net/ for background info
    - Monitors real-time traffic and provides speed and landing-time information to pilots
    - Potential annual reductions of flight distance, time, fuel, CO2, ramp congestion, and noise from 150nm to landing
    - Phase 2 has been approved, and involves outreach to the TEB community on the operation and benefits of GreenLandings
    - Phase 3 involves a fully-functional system with RTA (Required Time of Arrival) information sent to pilots in real-time
- SWAP (Severe Weather Avoidance Plan) 2024
    - Managing weather deviations by airlines and air traffic
    - Tower-initialized reroutes
    - Additional escape routes
    - Getting departures out of NY airspace
- Vianair ADSB receiver at TEB to help with procedure design, noise analysis, performance tracking, airspace efficiency
- Diversions to EWR – several go-arounds due to aircraft exiting runway too slowly
- EWR FBO parking fills up quickly – obtain PPR

Dave Belastock (President, TUG)

- FlightSafety has assisted with having N90 controllers sit-in on Pilot Recurrent simulator sessions, to help see things from the pilot's perspective.
- Vertical pilot deviations on RUUDY 6 departure are still occurring.
    - The "vision" for a new procedure is: WENTZ 1 Departure, which has a "Top Altitude" of 1,500'.
    - Lost Comm procedures will require a climb to 2,000'.
    - A waiver will be required due to obstacle clearance being less than 1,000'
    - Chart will be de-cluttered
    - Projected publication date is July 2024

Happy and Healthy Holidays to everyone!