

TUG 2021 Year in Review

While 2021 saw some improvements and lifting of Covid-19 restrictions, TUG made the conscious decision to continue conducting virtual Teterboro User Group meetings out of an abundance of caution. While we are hopeful that we can return to in-person meetings sometime in 2022, we will continue with our virtual GoToMeeting format until the PANYNJ lifts their restrictions on conducting in-person meetings.

TUG was actively engaged in numerous new procedures, projects and studies that directly impact Teterboro operations, efficiency, and safety that will be summarized at the end of this document. But first, we would like to provide a short review of the highlights of our meetings. As a reminder, you can review all TUG meeting notes and presentations on our website:

(<https://teterborousersgroup.org/meetings/covid-19/2021-tug-mtgs>). Once again, during this past year we were honored to have the following individuals contribute their professional expertise and time to deliver meaningful information to our users:

Regular Port Authority of New York and New Jersey (PANYNJ) and FAA Area Representatives

- **Maria Sheridan** and **Scott Marsh**, *PANYNJ Manager Teterboro Airport and Manager Airport Operations and Security*, respectively, will provide an Airport Operations update. <https://www.panynj.gov/airports/teterboro.html>
- **Gary Palm**, *FAA KTEB ATCT Manager*, will present Tower Topics, to include a progress report on the construction of Teterboro's new ATCT. <https://www.faa.gov>
- **Ralph Tamburro** *PANYNJ Delay Reduction Program Manager* will provide an overview of the Planning, Execution, Review, Training and Improvement (PERTI) Advanced Operational Plan. He'll also provide a status update re: Teterboro Green-Landings and TEB/HPN Escape Routes. Additionally, he will provide an update on the new NY Escape Routes and new AZEZU. <https://www.panynj.gov/airports/teterboro.html>
- **Gabriel Andino**, *AvPorts Noise Abatement & Environmental Compliance Manager*, will discuss the newly deployed RNAV (GPS) X Rwy 19 offset IAP designed to reduce community noise impact. In addition, he will review the results of TUG's KTEB Operator Questionnaire regarding the RNAV (GPS) X Rwy 19, suggested runway incursion mitigation strategies, and late night south flow preferred noise abatement runway/SID usage.. <https://avports.com/airport/teterboro-airport-teb/>
- **Jim Schultz**, *FAA General Manager, NY District*, will provide a status update regarding the relocation of N90's EWR Area to PHL. <https://www.faa.gov>
- **Neil Byers**, *FAA ZNY Deputy General Manager*, will fill in the blanks for operators regarding ATC capabilities and expectations and procedures associated with ATC Zero events in oceanic airspace. <https://www.faa.gov>
- **Laura Stensland**, *FAA Deputy Director System Operations East-North*, will provide a "post-mortem" analysis of the 4+ hr departure delays that occurred at KTEB on Dec 19. <https://www.faa.gov> <https://www.panynj.gov/airports/en/teterboro.html>
- **Steve Costa**, *FAA (N90) EWR Area NATCA Representative*, will provide an update regarding the FAA's plan to relocate the EWR Sector from NY to PHL TRACON. <https://www.natca.org>

Special Guest Speakers

- **Jenny Showalter**, *Aviation Professionals International Client Services Manager*, will discuss the top tools and skills necessary for pilots, flight attendants, mechanics and managers

seeking career employment to find the right fit with business aviation organizations. <https://www.apiaviation.com>

- **Laura Everington**, Universal Weather and Aviation's *Senior Manager of Government and Industry Affairs*, will provide an update on IATAs new Travel Pass and the implications for business aviation. <https://www.universalweather.com>
- **Heidi Williams**, *NBAA Director of Air Traffic Services and Infrastructure*, will discuss the FAA's plan to relocate the EWR Sector from NY to PHL TRACON. <https://nbaa.org/aircraft-operations/airspace/regional/>
- **Divya Chandra, PhD** and **Andrea Sparko**, *U.S. DOT Volpe National Transportation Systems Center, Principal Technical Advisor | Transportation Human Factors Division and Engineering Psychologist*, respectively, will introduce a DOT human factors study of flight operations in the NY area. The study will involve 1-hour "listening sessions with groups of 2-4 pilots. <http://www.volpe.dot.gov/>
- **Bob Mason**, *The Daedalus Group Managing Partner*, will introduce the 3-5-2 Decision Making Process; an effective and flexible way to make hard decisions easier and better. <https://dleadershipgroup.com>
- **Kevin Hoffman**, *Janus Aerospace President and CEO*, will present the "Suitcase Sling" Aviation Loading System for large cabin business aircraft. <https://janusaerospace.com/wp-content/uploads/Suitcase-Sling-e-brochure-08.20.20.pdf>
- *Air Charter Safety Foundation Chairman* **Bob Ruffli**, *Pentastar VP & Director of Flight Operations*, will deliver a presentation entitled: "Improve Your Safety Performance and Reporting Culture," featuring SMS programs for both large and small flight operations, and including ACSF's new Aviation Safety Action Program (ASAP) Portal. <https://www.acsf.aero>
- *General Aviation - Issues Analysis Team (GA-IAT) Tri-Chairs* **Kyle Quakenbush**, *Mitre Aviation Systems Engineering, Lead*, **Chad Brewer**, *FAA Office of Accident Investigation & Prevention Integrated Safety Teams*, and **Jens Hennig** *GAMA VP of Operations*, will demonstrate the practical application of the ASIAs dashboard toward strengthening the safety risk management and assurance pillars of the SMS program: "The Aviation Safety Information Analysis and Sharing (ASIAs) program has enabled the aviation community to transition from a forensic approach to managing safety to a more prognostic/diagnostic approach. ASIAs government and industry representatives will discuss the practical use cases on how the program's safety information can be leveraged by small-to-medium sized business aviation operators to proactively manage risk." <https://portal.asias.aero>
- **Darrin Broadwater**, *NTSB, Senior Aviation Accident Analyst*, will demonstrate how users can navigate the NTSB's new Case Analysis and Reporting Online (CAROL) tool and other avenues, both current and forthcoming, to access NTSB data. <https://www.nts.gov/Pages/CAROL.aspx>
- **Jim Johnson**, **Dave Rogers**, and **Derek Fiedler**, *Honeywell, Manager, Flight Technical Services, Technical Pilot and Training Specialist*, respectively, will review Honeywell's New Aspen Special Approach Procedure and ideas for utilizing similar technology for future instrument approach procedures at Teterboro. They will explain their new advanced RNP "hybrid" approach technology that can utilize RF legs without the requirement for a RNP LOA. <https://aerospace.honeywell.com/us/en/learn/about-us/blogs/honeywell-receives-faa-approval-aspen-rnav-approach>

Additional TUG Involvement:

PANYNJ Virtual Meetings:

- In addition to our regularly scheduled quarterly TUG meetings, TUG participated in monthly PANYNJ Manager meetings. These meetings were instrumental in keeping all Teterboro

tenants updated on current PANYNJ statistics, projects, initiatives, inspections, and current Covid-19 federal and state guidance.

- Additionally, TUG participated in quarterly Teterboro Airport Noise Abatement Advisory (TAANAC) meetings. These meetings provide a meaningful dialogue between the airport community and the local airport and residential communities. The goal of the committee is to work collaboratively with the airport management and FAA in an effort to enhance the quality of life of the residents of local communities while ensuring the continued efficient operations of the airport. While TUG attends these meetings, our goal is to listen and determine if there are any potential noise mitigation strategies that we can deliver to our users to assist in the reduction of noise. Several of these strategies are fully addressed in this summary document.

RNAV (GPS) X RWY 19 Offset Approach and Recommended Best Practices:

On July 1, the KTEB RNAV (GPS) X Rwy 19 became available as an alternative IAP designed to mitigate noise when Teterboro is operating on a southerly flow.

NY TRACON has advised that, when KTEB is operating on a southerly flow, the RNAV (GPS) Y Rwy 19 straight-in approach will be the preferred procedure the majority of the time. However, subject to weather conditions, controller workload and traffic volume/complexity, the RNAV (GPS) X Rwy 19 offset approach will be preferred procedure during the hours of 2200-0700 local and also made available upon pilot request at all other times.

Operators are advised that the newly published RNAV (GPS) X Rwy 19 approach incorporates some unique characteristics that warrant a thorough briefing: 13 degree offset final, LP (many avionics suites do not yet offer LP approach capability) and LNAV minima, relatively high MDA and visibility minima, a Visual Descent Point (VDP), and close proximity to the WABC-AM antenna tower.

Specifically, the ABC antenna tower is located 1.54 nm from the touchdown point. A crew following the procedure on the chart-specified 3 degree path will reach the Visual Descent Point (VDP), 2.6 nm from the runway threshold, at the LNAV MDA of 960', placing the aircraft 267' above and 1.06 nm NNW of the ABC antenna tower. The crew may at this point maneuver as necessary to be stabilized on final approach no later 500'.

TUG compiled some change management "best practices" that operators may wish to consider in order to maintain the highest levels of safety as they prepare for this new procedure:

- (1) All pilots will review the intricacies of this approach, including but not limited to the following: 13 degree offset final, LP and LNAV minima, approach modes to be utilized, airspeed and configuration targets, visual Descent Point (VDP), and proximity to the WABC-AM antenna tower.
- (2) Each pilot will first fly the approach in daylight VMC conditions (left or right seat is sufficient) before requesting the approach at night.
- (3) Pilots should not request this approach unless the weather is at least 2000'/3sm.
- (4) Pilots will commence their turn to align with the runway at the VDP. Pilots wishing to commence this turn earlier must first coordinate with ATC.
- (5) This procedure is intended to benefit the surrounding communities by mitigating aircraft noise exposure.
- (6) If, in the judgement of the crew, executing this IAP is inadvisable due to a lack of crew familiarity, suboptimal weather, obstacle clearance considerations, fatigue or other adverse factor(s), the crew should declare unable and instead request to fly the RNAV (GPS) Y Rwy 19 or ILS Rwy 19 approach.

Teterboro Departure Late Night South Flow Noise Mitigation

Teterboro Airport is rather unique in the NAS in that, on a south flow, the default runway in use, Rwy 24, for late night departures, 2200 – 0700 local time, is not the preferred noise abatement runway (Rwy 19). Numerous avoidable decibel limit exceedances off of Rwy 24 have occurred because crews have accepted the default runway assignment and SID without awareness of the provisions of the Quiet Flying Program. The operational consequences of such noise violations have been particularly troublesome for large fractional operators and international operators.

In order to harmonize the interests of the Airport, it's surrounding communities, operators and ATC (Airport and Airspace), TUG has facilitated several group discussions with the PANYNJ, FAA N90, TEB Tower on possible mitigation strategies. TUG has recommended that during the Quiet Flying hours, 2200-0700 local, that Teterboro Tower coordinate with N90 and advertise the TEB-4 Standard Instrument Departure (SID) off of runway 19 vice the RUUDY-6 SID off of runway 24 while on a southerly flow.

While this has yet to be implemented, TUG will continue to pursue this recommendation. In fact, commencing in April 2022 and lasting almost a year, runway 6/24 will be closed nightly due to an extensive rehabilitation project. This project will ultimately force Teterboro Tower and N90 to utilize Rwy 19 for departures during this time.

TUG has articulated these noise mitigation options with our users during TUG meetings as well as posted guidance on the TUG website. We will continue to pass along any new developments.

Teterboro Airport Operator Questionnaire

Due to feedback from the local airport community concerning noise as well as a runway incursion incident with past summer, the FAA, PANYNJ and AvPorts approached TUG and expressed interest in TUG facilitating the gathering of feedback from Teterboro's operators regarding three topics: RNAV (GPS) X Rwy 19 IAP acceptance, suggested runway incursion mitigation strategies, and late night south flow preferred noise abatement runway/SID usage.

This past October, TUG sent to our constituents a TUG authored survey soliciting such feedback. We were assisted in this effort by NBAA and OpsGroup, to whom we offer our sincere gratitude. We were pleased to report that we received 196 responses. A written summary and virtual debrief of the results were provided to the FAA, PANYNJ and AvPorts and delivered during our December TUG meeting. The FAA, PANYNJ and AvPorts are in the process of crafting enhancements to Teterboro's procedures, policies, and infrastructure based on this invaluable user feedback.

N90 Move From New York Liberty Sector (Newark) to Philadelphia TRACON

This past year it came to TUG's attention that the highest levels of the FAA made the decision to commence a pending move of New York's (N90) TRACON area of responsibility (Newark, Teterboro, Morristown, Caldwell airports) down to Philadelphia's TRACON. TUG has spearheaded numerous meetings with the N90 National Air Traffic Controllers Association (NATCA) union representative, Steve Costa, NBAA's Director of Air Traffic and Services & Infrastructure, Heidi Williams, and the Manager of the PANYNJ, Maria Sheridan, concerning the impact this move might have on Teterboro operations. The mutual concern is that years of corporate knowledge, standard operating procedures, and coordination among the NY TRACON controllers and NJ airport Tower FAA controllers will be lost resulting in potential extensive departure and arrival delays.

While the implementation of this move has met strong resistance, it appears the FAA's leadership is determined to complete this move and it is just a matter of time. On a positive note, the FAA has invested substantial money into upgrading Philadelphia's TRACON infrastructure as well as hiring and training additional air traffic controllers to ensure a seamless transfer of control.

OpsGroup Engagement:

We've continued to coordinate with and support the mission of OpsGroup to educate the business aviation community, particularly with respect to the unique considerations associated with bizav operations at Teterboro Airport.

NBAA Support:

- We proactively worked with our NBAA Regional Representative, Brittany Davies, and other aviation association user groups while participating in quarterly NBAA regional leadership meetings.
- In addition, we are grateful to the NBAA's Certified Aviation Manager (CAM) board for supporting our virtual TUG meetings and rewarding ¼ point toward CAM recertification for participation in each meeting.

Department of Transportation (DOT) Human Factors Study of NY Flight Operations

TUG welcomed a presentation by Divya Chandra, PhD and Andrea Sparko, U.S. DOT Volpe National Transportation Systems Center during a recent TUG meeting. This meeting highlighted a study concerning NY and Multiple Airport Route Separation (MARS). Afterwards, TUG facilitated Teterboro pilot volunteers to participate in 1-hour listening sessions to assist with their data gathering. They recently published their report with the data gathered during these listening sessions and thanked TUG as this data was paramount to a larger project. The report has been briefed to the FAA and industry members of the Performance-based Navigation Aviation Rulemaking Committee (PARC).

TUG Highlighted the Rising Risk of Drone and Laser Strikes within the NY/NJ Airspace

With the increase in frequency of both laser strikes and drone sightings across the Nation Airspace (NAS), TUG conducted data research that purely focused on NY-NJ airspace. The subsequent data was captured in a paper posted on the TUG website. The paper was provided to raise pilot awareness, provide guidance for pilots should they have an encounter, suggest mitigation strategies, and detail reporting requirements.

Charitable Contributions to the Community:

While we are fiscally conservative and cognizant of TUG's treasury, we felt it important to support our local community. As TUG has done in the past, we made a modest contribution to Teterboro's 28th Annual Gift Drive for the Center for Hope and Safety. This charity benefited victims of domestic violence, including emotional, economic, sexual and physical abuse.

Summary

The TUG Board of Directors have strived to work hard to cultivate and build upon our productive working relationships with airport, regulatory and industry decision makers to facilitate operational, procedural and infrastructure enhancement for the benefit of our collective stakeholders. Bottom-line, none of this would have been possible without our "users" steadfast support and participation in our programs and activities. Hopefully you all have found our TUG meetings educational, beneficial to your flight operations, and provided you with "takeaways" to better understand Teterboro operations as we strive to improve operational safety and efficiency. We're honored to serve as the voice of Teterboro's business aviation community, and look forward to continued progress in 2022.