

Minutes of TUG Meeting – July 16, 2014

Jim Dramis – TUG Leadership

- The Group was pleased at such a strong turnout at the meeting, and were glad to see several new participants.
- Jim welcomed everyone to the meeting, and attendees introduced themselves.
- TUG expresses our sincere gratitude to Dassault Falcon Jet for sponsoring our meeting's luncheon, which was provided by Prova!

Pam Phillips & Renee Spann – Port Authority & Airport Operations

- May 2014 was the busiest month since May 2008, with 15,358 operations. Nine days of the month had days with more than 600 movements. May 21 alone saw 709 movements.
- Gary Palm (TEB Tower Manager) indicated that these numbers don't account for other operations such as Class D airspace transitions, so the actual number of aircraft handled by ATC is probably 1,000 to 1,500 higher per month.
- June 2014 saw 13,836 operations, with a high of 641 on June 4.
- Wednesday and Thursday are typically the busiest days at TEB. Thursdays were busiest in January, March and April, while Wednesdays saw the most movements in February, May and June.
- Total movements year-to-date 77,876, up 3% from 2013.
- Construction is continuing on the Runway 1 safety area and the airport patrol road. No other construction events are planned for this year.
- The Runway 6 EMAS (Engineered Material Arresting System) has been completed.
- Teterboro's annual 5K run will take place on Saturday, July 19 at 8:30am. For more information, visit http://oymp.net/Raceinfo/teterboro_airport_5k.htm. Participants should apply here: <http://oymp.net/Raceapps/T5KApp2014.pdf>
- The annual Ed Furst Sr. Memorial Teterboro PAMA Golf Outing will take place on September 12. Information and registration is available at: <http://www.golfdigestplanner.com/26254-TeterboroPAMAGolf2014/>
- Following up on the success of June's Pilot Webinar, Port Authority will try to organize these events at least twice per year. TUG members are invited to participate in the webinars, and to suggest topics that may be pertinent to airport users.

Gary Palm – Teterboro Tower Manager

- SWAP (Severe Weather Avoidance Plan) season isn't over yet. When weather is blocking arrival/departure routes, pilots should prepare to take advantage of low-altitude routings whenever available to help reduce delays.
- High altitude routings to Florida are not utilized as much as they should be.
- Leo Prusak, Manager of Tactical Operations Northeast at the FAA, indicated that airlines have been encouraged by FAA to file any route they choose in order to avoid delays or weather. This is a change in paradigm, since ATC previously requested that pilots file

their normal routes, and then let the controllers deal with reroutes. Obviously, the latter strategy increases both controller workload and delays.

- Corporate operators should file a route that will avoid weather. If a route is filed that doesn't require ATC intervention, then that will make things easier for ATC.
- Use the offshore AZEZU route (previously explored by TUG here http://teterborousersgroup.org/wp-content/uploads/2014/05/BAF_Presentation_2014-05-08.pptx) to avoid delays. It's longer, but it's usually better than waiting on the ground.
- Leo Prusak admitted that ATC created their own problems by placing the onus on themselves to "fix" the airlines' routes. Then, when a reroute was proposed, the airline pilots usually didn't have enough fuel to accept it.
- The Dalton 2 VFR departure remains largely unused. Pilots are reminded that they must request the procedure, and should not ask controllers if it will reduce delays. Controllers aren't allowed to answer that question, but it most likely WILL result in shorter ground holding.
- One of TUG's members pointed out that some aircraft may be too heavy to make the turn on the Dalton 2 within the published constraints. Pilots seem to be afraid to request the procedure due to the possibility of violating it.
- Dean Saucier from NBAA echoed that sentiment. NBAA hasn't mentioned the Dalton 2 in about 9 months, but will remind members about it in the near future.
- Dean suggested the possibility of creating a video of pilots flying the Dalton 2 in a simulator. This would especially benefit foreign pilots and pilots unfamiliar with the airport, who constitute most of the violations.
- The group thought this was an excellent idea, and Jim Dramis from FlightSafety volunteered to lead the project.
- The Runway Safety Action Team will plan on incorporating Dalton 2 discussions into future webinars.
- A new procedure at TEB, the RNAV (GPS) Rwy 19, will be published on July 24. This procedure, which is anticipated to provide LPV minimums, will help alleviate the glideslope perturbation issue that TUG has been bringing to everyone's attention.
- An additional visual approach to TEB is also under development.

Dr. Woody Saland – Director of Avionics and Pilot Training, Dassault Falcon Jet

- Noise mandates will soon be upon us in the U.S. By December 31, 2015, all jets must pass Stage 4 noise requirements. This will effectively ground older aircraft that haven't been retrofitted with "hush kits."
- ADS-B Out, which allows an aircraft's transponder to broadcast numerous flight parameters to ATC and other aircraft, will be required by all U.S. aircraft by January 1, 2020.
- Of the estimated 150,000 aircraft in US, only 4000 have been equipped with ADS-B Out thus far. With approximately 2,000 days remaining until that deadline, over 70 aircraft per day would need to be upgraded to comply with the mandate. Clearly, there will be a "crunch" at the end if operators don't begin upgrading soon.

- At AEA airshow, FAA revealed problems with some installations in terms of position accuracy of ADS-B Out.
- ADS-B Out broadcasts aircraft position every second. Even if an operator has requested their N-number to be blocked from online flight-tracking services, it will still be visible due to ADS-B. This presents potential security problems, or terrorism problems in the worst case.
- ADS-B isn't useful over the ocean, so airlines used FANS (text message and automatic position reporting).
- ADS-C (Contract) broadcasts position every 20 minutes in New York, 18 minutes in Gander & Shanwick, and 14 minutes in Pacific for 30/30 separation.
- Europe has delayed implementation of ADS-C from 2015 to 2016, and then to 2017.
- ICAO's DO-260 and DO-260A specifications for ADS-B don't require a WAAS-augmented signal. However, DO-260B does require WAAS augmentation.
- WAAS = SBAS, LAAS = GBAS
- In countries like Australia, which is mostly desert, it doesn't make sense to implement SBAS over a wide area, so GBAS in proximity to major airports is a better option.
- Due to a band of high ionization across the equator, SBAS won't work in these areas. Therefore, these areas won't require augmented ADS-B.
- France intends on replacing ILS with LPV approaches.
- LAAS/GBAS allows curved approach paths, but LAAS antenna location is susceptible to jamming.
- The FCC fined a Chinese company \$35M for selling jammers to the U.S.
- By 2020 – FANS 1/A will be required to cross the Atlantic.
- There are many different satellites, but only 2 are compliant with FANS.
- TCAS version 7.1 has no U.S. mandate, but Europe and Hong Kong require it. Version 7.1 includes RA reversals and "Level Off" capability.
- ACAS (ICAO version of TCAS) is the next generation of TCAS, and it might try to harmonize with ADS-B In to allow horizontal RAs in addition to vertical RAs.
- ATN-B1 (Protected Mode CPDLC was originally mandated in Europe by 2011, but Dassault appealed because the equipment wasn't ready for the aircraft, and the ground stations weren't equipped either.
- Frequent disconnections are occurring due to numerous reasons: single frequency instead of multi-frequency communication; possible radio-frequency interferences due to ground infrastructure; and the fact that much of Europe is effectively bankrupt. Inadequate technical implementation of the system has turned this mandate into a complete disaster.
- After 2017, 8.33 kHz radio spacing will be required in Europe.
- Woody enthusiastically unveiled his "ONE X" homebuilt aircraft, which sports a Type 1 Volkswagen powerplant and iPad flight instrumentation.
- Dassault recently announced 2 new airplanes: the 5X and 8X.
- 5X – 5200nm twinjet
 - Brand new design, largest cabin in the industry – 6'6" high (4" taller, 10" wider)
 - Most powerful engine – 11,450 lbs thrust Silvercrest

- Flaps & slats are part of the digital flight control system. Roll control, high-lift, or airbrakes
 - Vertical-scan radar, next FMS generation
 - A new HUD, built by ELBIT, will feature full-time synthetic vision *and* enhanced vision.
 - First flight – 1st half 2015. Entry into service – 1st half 2017
- 8X – 6450nm tri-jet
 - 8X – solution to the California-to-China problem
 - Stretched version of 7X
 - 1st flight early 2015
- Woody's excellent presentation can be found here: <http://teterborousersgroup.org/wp-content/uploads/2014/07/TUG-presentation-July-16-2014.pptx>