

Teterboro Users Group

PANYNJ Initiatives

9/20/2023



Current initiatives

- FAA's Atlantic Coast Route (ACR)
[Updated Preferred IFR Routes Available for NEC ACR Optimization Project | NBAA - National Business Aviation Association](#)
- GreenLandings
[GreenLandings.Net](#)

FAA CDM workgroup - SWAP

NEC NIWG ACR

- The Atlantic Coast (ACR) Optimization project

Use the super high-altitude structure as much as possible 40,000' or above.
Relieves congestion at the lower altitudes.

BEFORE

Not all central and western
U.S. Routes are depicted

Q-Routes depicted in green
Y-Routes depicted in gray
J-Routes depicted in blue



Federal Aviation
Administration



NEC ACR - FUTURE STATE

~~11/7/2019~~ ~~11/5/2020~~ ~~12/2/2021~~ ~~11/3/2022~~

4/20/2023

Not all central and western
U.S. Routes are depicted

Q-Routes depicted in green
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Federal Aviation
Administration





PANYNJ TUG Briefing

TEB GreenLandings™ Initiative

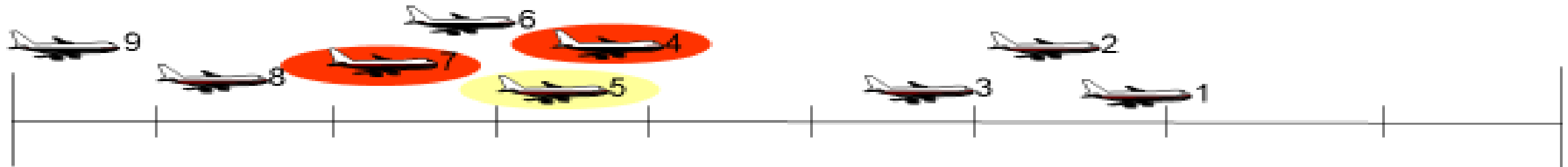
June 21, 2023

Sustainability, Quality, Safety and Profits

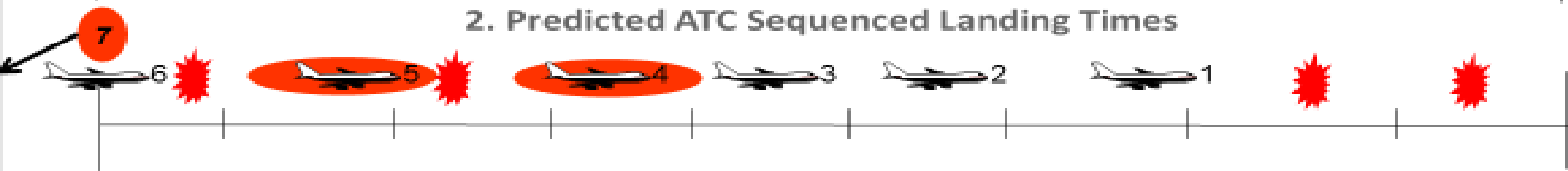
GreenLandings™ - Defect Prevention



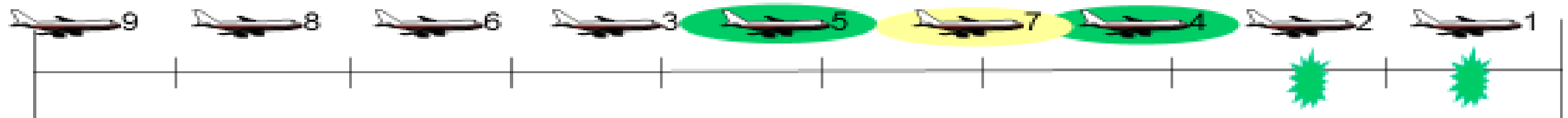
1. Predicted Random, Unaltered Landing Times





2. Predicted ATC Sequenced Landing Times

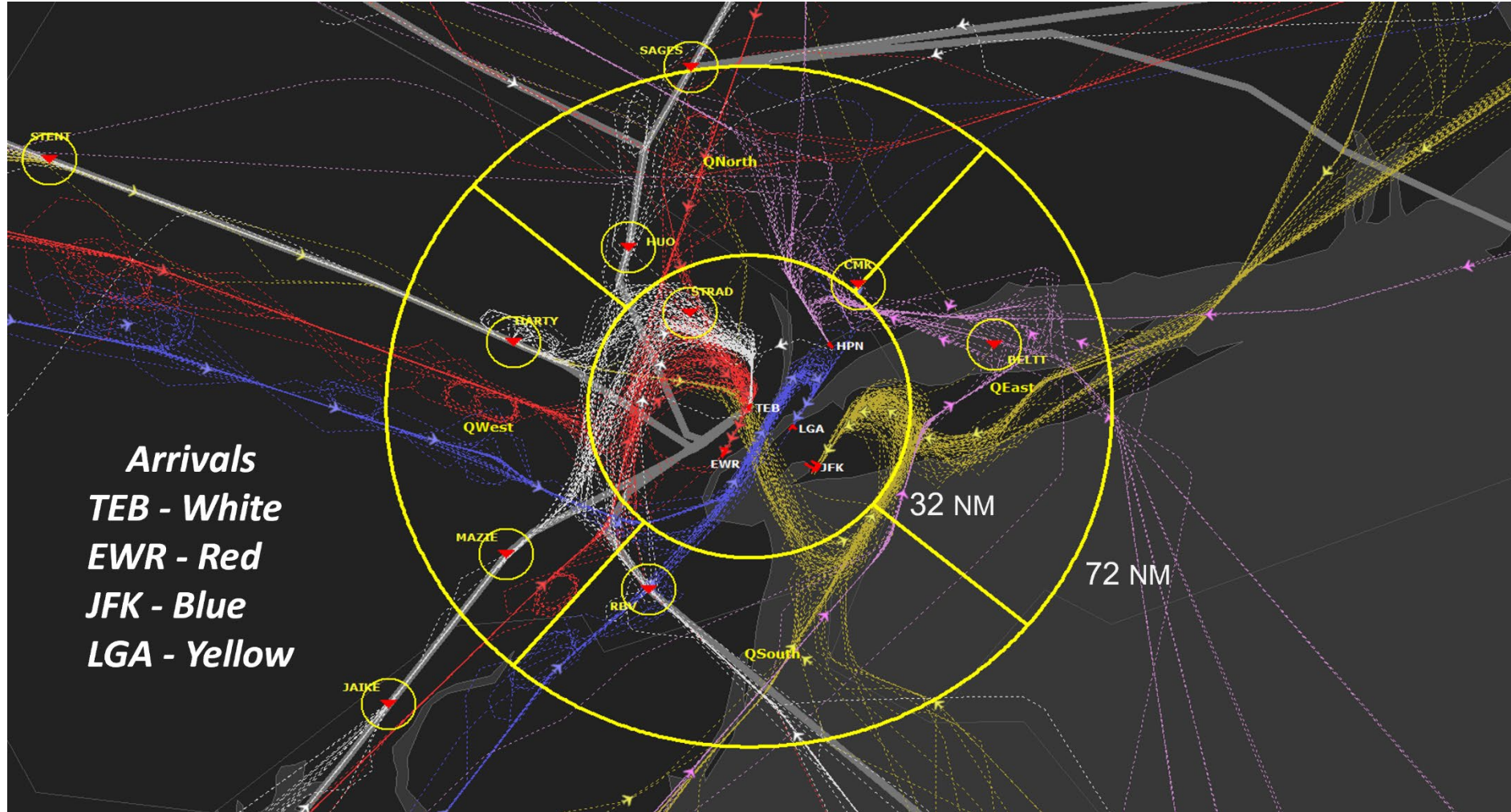


3. GreenLandings™ Sequenced Landing Times



- Real Time airline goals considered by GreenLandings™ Process
 - Aircraft #1 and #2 are **early**, but benefit entire queue by moving forward
 - Aircraft #4, #5 and #7 are **late** but managed to early
 - Aircraft #3 is slightly ahead of schedule and may be re-sequenced to remain OT
- Capacity Spoilage  and Recovery 

TEB RSM Complexity Quadrants (5)



GreenLandings™ Benefit Summary



Potential annual reductions of Flight Distance, Flight Time, Fuel, CO2 and Noise from 150 NM to landing, much of the noise at relatively low flight levels (5,000' and below) in the terminal area, includes:

- Excess Distance - 799,490 NM
- Excess Time - 2,529 hours
- Excess Fuel - 989,885 gallons
- Excess CO2 - 19,797,695 pounds
- Excess Noise - 368 square NM (5,000' and below, 79% of current TEB arrival noise footprint)

Sustainability, Quality and Productivity



FAA Validated GreenLandings™ Benefits

- Increased on time arrival
- Reduced flight time
- Reduced fuel burn and CO2
- Reduced ramp congestion
- Reduced ATC complexity and costs
- Defect Prevention

The rapid benefits make GreenLandings a huge win for operators, pilots, passengers, PANYNJ, the local community and environment as validated in actual operations by FAA, Embry-Riddle University, Georgia Tech, GE Aviation and others.

TEB GreenLandings™ Initiative



Phase 1 (Complete)

- Data collection
- TEB airport, traffic, CO2, noise, etc. analysis
- [GreenLandings.Net](https://www.GreenLandings.Net) web site
- GreenLandings™ video* pending review

Phase 2 (approval to proceed)

- Expanded analysis of GreenLandings™ initial values and starting parameters
- Educate TEB operators, pilots and local community about GreenLandings™ operation and benefits. Coordinate with the FAA.
- Secure TEB GreenLandings™ Phase 3 funding
- Dynamic, real-time passive landing queue information available to pilots and dispatchers on the GreenLandings™ website.

Phase 3

- Fully functional, active GreenLandings™ operation with RTA sent to participating aircraft, automated daily data collection and reports

FAA CDM workgroup

Ralph Tamburro – Industry lead, Michael Porcello – FAA lead

Tasking

Near term initiatives focused in three areas:

- Current SWAP briefings and planning.
- Enhancing the forecast discussion to improve risk assessment.
- Examining PERTI.

Long term initiatives included several items moved to the parking lot for exploration after Labor Day. These include:

- Understanding/managing deviations.
- Review gate returns
- Reducing MIT for centers about experience severe weather
- Overall surface management

QUESTIONS?

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