FAA Facts

Federal Aviation Administration, Washington, D.C. 20591

Performance Based Navigation: Untangling the Airspace

The Federal Aviation Administration's Next Generation Air Transportation System, or NextGen, is the **ongoing transformation of air traffic control technologies and procedures** in the United States.

You might think of this transition as similar to moving from paper maps to GPS when you drive your car.

Performance Based Navigation (PBN) has many benefits:

- PBN **allows the FAA to improve traffic movement** by making the best use of airspace and procedures.
 - PBN uses satellite-based navigation and on-board aircraft equipment.
 - It provides benefits through all phases of flight.
 - It creates shorter, more direct flight paths, increasing safety through predictability.
 - It improves airport arrival rates.
- PBN is a core component of international initiatives designed to meet industry and air traffic goals for increased safety and efficiency.

George Bush Intercontinental Airport, Houston, Texas (IAH)

The current work at IAH consists of adjustments that would reduce noise, flight time and emissions on two existing satellite-based routes, known as Standard Instrument Approach Procedures. These procedures serve runways 27 and 8L.

- The improvements will reduce the amount of time aircraft are at level flight in the terminal area, flying at altitudes between 2,000 and 7,000 feet MSL.
- Level flight requires a higher thrust setting. Improvements will reduce that setting, allowing pilots to use a continuous descending turn toward the runway, which will reduce flight time, fuel used, aircraft emissions and noise.
- The new flight paths will make approaches more predictable, enhancing safety.

These improvements are scheduled to go into use in the spring of 2022.

- Input came from FAA air traffic controllers, as well as airline representatives, the Houston Airport System, environmental protection specialists and noise specialists.
- The new approach enables aircraft to reduce miles flown, and use a power-off, gliding turn toward the landing runway instead of being required to power up for additional miles.
- There may be communities that see a noise reduction from these changes.
- Not all communities may see any differences from the proposed changes.

For up-to-date information, please review the project website:

https://www.faa.gov/air traffic/community engagement/

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