Flight Predictability

**BENEFITS**
- **Total flight prediction**: Unmatched predictive accuracy through the entire flight, ensuring early, consistently accurate ETAs to enable better decisions about connections, gate allocations, schedule adjustments, crew allocations, and many other ETA-dependent decisions.
- **All flights, all airports, gate-to-gate**: PASSUR manages the entire ETA process, allowing an airline or airport to power all its critical systems, across its entire network, with a single, consistent, accurate arrival prediction.
- **Makes all systems run as they’re supposed to**: An accurate ETA optimizes existing processes and technology without requiring expensive or disruptive changes.
- **Specific success metrics include**:
  - Fewer gate holds (gate “unmets”—aircraft arriving with no ground crew to greet at the gate)
  - Higher rate of passenger, bag, and crew connections
  - Reduction in cancellations related to crew time-out (FAR 117)
  - Reduction in mishandled bag costs
  - Reduction in redundant ground handling staffing through just-in-time allocation of ground crews
  - Fewer last-minute gate swaps
  - Higher on-time departure rates/optimized turn times
  - Reduction in taxi-in times (costs: fuel, crew, maintenance, power by hour)

**LATEST DEVELOPMENTS**
- The unique PASSUR ETA calculation now applies gate-to-gate (including predictive taxi times in and out).
- The ETA prediction algorithm itself is even more accurate, based on fusion of multiple data sources (live and historical), additional logic refinements, and consideration of more variables, such as fleet type.
- New data feed and data management tools streamline IT integration for our customers, making implementation faster and easier.

**WHAT MAKES IT UNIQUE**
- The PASSUR ETA is derived from proprietary algorithms, which are fed by multiple data sources in real time, including live flight position and airspace performance information from the network of PASSUR surveillance systems.
- PASSUR ETA is calculated by tracking multiple real-time measurements of the individual flight that is being estimated, as well as other nearby aircraft in the surrounding airspace and current and historic airspace conditions, resulting in unmatched predictive capability.
- Multiple, independent airline studies have shown PASSUR ETA to be the most accurate in the industry.

**HOW IT WORKS**
PASSUR ETA is a data feed solution. PASSUR updates flight ETAs for the airline or airport from gate to gate. PASSUR ETA optimizes all systems that are currently fed with a flight ETA and all airline processes that are dependent on a flight ETA.

Various hub/station management operational and customer service decisions dependent on inbound ETAs are optimized by PASSUR ETAs, such as:
- The decision to hold or release for connecting aircraft waiting for the inbound aircraft.

**BY THE NUMBERS**

> 10
Studies show our predictions are accurate

More than 10 independent airline studies have shown PASSUR arrival predictions—powered by the PASSUR surveillance network and algorithms—to be significantly more accurate than internal airline ETAs, supporting actionable changes in operations.

12 per day to 0
Zero gate holdouts due to PASSUR ETA

A major US airline reported reducing its “gate holdouts” (”gate unmets”) at one of its primary, congested hubs from 12 per day to zero after integrating PASSUR ETA.

“Our studies show that the PASSUR ‘Estimated On’ arrival time results are consistently and considerably more accurate than other sources.”

– Executive, American Airlines
• Preemptive rebooking of delayed passengers: Connecting passengers on a late inbound flight can be processed earlier and with less disruption when the prediction of a delayed arrival is early and accurate.

• Gate allocations and utilization: Accurate ETAs enable hub controllers or ramp managers to optimize tactical decisions about gate assignments (for example, preventing gates from being held open too long for a flight that is late, while there is gate demand on the ground).

• Just-in-time deployment of ground handling resources (underwing/overwing): Crews can be dispatched at precisely the right time to ensure aircraft are greeted neither too early nor too late.

• Staffing and readiness in CBP arrival halls: Customs and Border Patrol staffing mixes and schedule shifts can have a major impact on arriving passenger wait times. An accurate ETA for inbound international flights can make the difference between fast processing vs. hours of waiting time.

• Major incident readiness and response: During major weather events, safety incidents, or security alerts, all key stakeholders need to know the status of inbound aircraft as a key element in their situational awareness of the operation.

EXAMPLES OF SYSTEMS OPTIMIZED BY AN ACCURATE ETA

• Airport Flight Information Displays (FIDS)
• Gate Flight Information Displays
• Airline passenger mobile apps
• Baggage Information Displays (BIDS)
• Ramp Information Displays (RIDS)
• Schedule and cancellation optimizers/solvers
• Crew solvers
• Flight Management Systems
• Flight Planning Systems
• Turn Time Management Systems
• Gate Management Systems

ABOUT PASSUR

PASSUR is a business intelligence, predictive analytics, and big data company. Our mission is to improve global air traffic efficiencies by connecting the world’s aviation professionals onto a single platform, making PASSUR the common element tackling the $30 billion of system-wide inefficiencies.

PASSUR has a broad and global customer network. PASSUR’s products are used by all of the top North American airlines, over 125 airlines worldwide, over 60 airports including 80% of the top 30 airports, approximately 200 business aviation organizations, and the US government.

Our core business addresses some of aviation’s most intractable and costly operational and financial challenges, including underutilization of airspace and airport capacity, delays, cancellations, and diversions.

Our cloud-based local, national, and international collaborative communication network and ecosystem allow us to solve problems collaboratively that can’t be solved by individual organizations.