TURNAROUND EFFICIENCY READY FOR TAKE OFF

HONEYWELL NAVITAS™ GATE AND TURNAROUND SOLUTIONS
With constant changes in the airline industry, airports are facing new challenges. To optimize passenger experience and aircraft throughput, congested airports all around the world are often either investing in additional airport infrastructure or turning to technology to maximize the use of their assets while minimizing CapEx outlays. But one of the most important priorities for both airports and airlines remains safety – in the air and on the ground.

The safety culture is an integral part of the industry. Essential components such as standard operating procedures and highly regulated technologies help ensure that safety is the driving force behind airport operations. But to prepare for today’s and tomorrow’s challenges, airports need to leverage a range of digital solutions.

Sources:
1 Aviation Risk 2020, Allianz (https://www.skybrary.aero/bookshelf/books/5439.pdf)
A wind of change in the aviation industry

Passenger traffic is expected to nearly double in the next 20 years, so airports need to start addressing capacity issues ahead of time. Preparing for the future, while addressing present challenges, also means optimizing gate operations and increasing situational awareness for both airside and landside – speeding up turnaround operations, getting aircrafts ready for flight faster, and promoting on time departures.


Air travel continues to grow over the long term at 4-5% CAGR*

By 2040, China will have more passenger traffic than the USA*

Increased safety regulations

CO2 emissions under increased inspection

Return on CAPEX and OPEX scrutiny

Make room for more efficient air travel

Airports are looking for technologies to alleviate capacity constraints and safety concerns due to expected growth in air travel demand. Currently, nine million people pass through the world’s airports each day – and long-term predictions show that this number could double by 2040*. Therefore, airports and airlines are constantly working to improve their on-time performance and reduce turnaround time without compromising safety.

Source:

Safety

Safeguarding people, property, and infrastructure is a top priority. Airports need to continue to reduce risks around aircraft landing, taxing, and docking accidents, as well as invest in technologies that empower early warnings and location-specific responses – improving their overall operational safety.
Safety is built from the ground up

From traffic handling, runway and taxiway lighting, to tower-based, traffic control systems and gate and docking automation, airport turnaround operations call for integrated solutions that are more performance-driven, cost-effective, and sustainable for the environment.
Honeywell Airport Solutions

With over 100 years of airport and aviation experience, Honeywell solutions and services have a track record of helping airports around the world address their safety, security, capacity, and operational challenges. From airside to landside, our integrated systems help improve situational awareness, with safer and more secure throughput optimization, as well as improved airfield availability and uptime – delivering global expertise and local capabilities to airports virtually everywhere.
The Honeywell NAVITAS Gate and Turnaround Solutions

By unifying air and ground traffic control, airport operations and maintenance with predictive performance analysis, Honeywell offers a true, end-to-end airport management solution. Innovative technologies are put to work to mine big data insights – helping to improve gate turnaround and optimizing capacity throughput.

Our Honeywell NAVITAS Gate and Turnaround module offering comprises two main components:
- The airport visual docking guidance system (A-VDGS).
- The turnaround manager (TMAN), enabled by a software platform which provides the integration between gate systems, Airport Operations Database, and Advanced Visual Docking Guidance Systems.

With the help of modern 3D technology and multiple-source data collection, Honeywell Gate and Turnaround Solutions:
- Increase situational awareness of the apron/ramp controller.
- Improve safety by detecting aircraft types, even in lower-visibility conditions like thick snow or heavy rain.
- Provide more accurate docking.
- Enhance uptime for airside operations, by enabling operations in adverse weather conditions such as lightning, when airfield marshalls can’t intervene.
- Optimize uptime for airside operations, decreasing maintenance downtime by up to 25%
The Honeywell NAVITAS Turnaround Manager

**Faster turnarounds. Higher uptime. Safer operations.**

With one platform, you’ll streamline human-machine interactions to more effectively focus on the core needs of your airport. The Honeywell Turnaround Manager (TMAN) helps deliver control and monitoring of the visual docking guidance systems and gate equipment – increasing the speed and the visibility of turnaround operations and reducing downtime by up to 25%. With advanced support maintenance functions, engineering crews react faster to faults – encouraging greater uptime and ground operational effectiveness.

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**Apron controller working position**

Integrated view of all airport stands and docking status. Provides a flight plan viewer and manages operations through a rich, user interface.
Honeywell Gate and Turnaround Solutions

Honeywell Advanced Visual Docking and Guidance System

Efficient gate assignment and live view of gate activity are increasingly important, as they often empower airports to increase the capability of existing passenger terminal resources – enhancing safety and real-time operations. The Honeywell Visual Docking Guidance System and Gate Control System help further optimize airport gate capacity and efficiency.

- Safer aircraft docking in designated STOP positions.
- Obstruction detection feature enhancing aircraft safety during docking.
- Mono/Stereo High Dynamic Range CMOS Camera (HDRC).
- Proven 3D aircraft model software on powerful computing platform for more reliable detection.
- Ramp information display.
- Integrated CCTV Camera for Ramp Surveillance.
- Airport IT systems seamless integration.
- Touchscreen-based, manual control board for standalone A-VDGS operations.
- Built-in test capability, monitoring critical system components, early warnings to help lower failures and reduce downtime.
- ICAO annex 14, EASA EN50512, UL, NFPA and other mandated hardware certifications.
Managing Gate Turnaround Operations

Discover the features behind the Honeywell Turnaround Manager (TMAN) and how they help airports reduce downtime, turnaround times, and associated costs.

1. Gate/Flight Plan Management
2. Gate Situational Awareness
3. Safe Docking and Guidance
4. Maintenance

Gate/flight plan management

The apron/ramp controller receives a status update that a flight is 16 kilometers out. The controller then uses Video and Layout status views. With TMAN, the controller has all tools at hand to confirm the allocated stand and, once the flight taxis to the gate, to automatically trigger the A-VDGS.
A proven track of airport excellence

Our most important achievements are the breakthroughs our customers achieve in their operations. Honeywell empowers airports worldwide to reach optimized operational potential.

Dubai International Airport, United Arab Emirates
Indira Gandhi Airport, Delhi, India
Incheon International Airport, South Korea
Kuala Lumpur International Airport, Malaysia

Brussels International Airport, Belgium
Abu Dhabi Airports Company, United Arab Emirates
Pittsburgh International Airport, Pennsylvania, USA
Denver International Airport, Colorado, USA
Put your airport to work for you

Turnaround operations are ready for take-off with the Honeywell suite of airport solutions. As a leader in developing airport technologies, we understand the challenges you face and provide the resources you need to pilot your airport operations toward peak performance – reducing downtime, turnaround times, and costs along the way.

Find out what your airport can achieve when you have the Honeywell Turnaround Manager working for you.

For more information, contact us.

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