



GLU-2100 MULTI-MODE RECEIVER

Land globally with performance-based navigation

Reduce the complexity of cross-border operations

Aging ground infrastructure and poor visibility conditions pose challenges for commercial airline operations. Government mandates and regulations across the globe demand performance-based navigation (PBN) to reduce the complexity of cross-border operations. Working with industry partners to advance navigation solutions, we developed the future-ready GLU-2100 multi-mode Receiver (MMR) with satellite-based augmentation system (SBAS) software.

The GLU-2100 MMR maximizes the benefits of the Global Navigation Satellite System (GNSS), enabling PBN.

collinsaerospace.com/MMR

It is a replacement for existing MMR-equipped aircraft. Its robust design provides an immediate global landing system (GLS) CAT 1 solution that eliminates the need for an instrument landing system (ILS). The Collins MMR software is field loadable and makes the adoption of future navigation capabilities seamless and efficient.

PBN approaches will soon be used exclusively across runways throughout Europe, requiring all operators to be similarly equipped. With the GLU-2100, fleets can navigate to land anywhere in the world. The MMR activates high-precision PBN approach capabilities by localizer performance with vertical guidance (LPV), using satellites instead of ILS. LPV provides safer and more stable performance down to a CAT I minima, regardless of low-visibility conditions.



KEY FEATURES & BENEFITS

- Reusable hardware accommodates upgrades for certified platforms
- Software upgrades can be loaded on-wing
- Centralization of units decreases size, weight and power requirements
- Dual-frequency/multi constellation (DFMC) connectivity
- Dynamic satellite tracking for multi-constellation GNSS
- Integrated VHF omnidirectional range (VOR)



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An RTX Business

PBN BENEFITS WITH THE GLU-2100 MMR



Reduce flight into terrain

PBN enhances safety with precise positioning that reduces terrain collisions in challenging regions with limited infrastructure.



PBN becoming a global standard

In an effort to reduce complex cross-border operations and harmonize across different regions, PBN is becoming a global standard for navigation procedures. PBN enables the implementation of advanced navigation procedures such as required navigation performance (RNP) and area navigation (RNAV), essential for efficient, modern air traffic management.



Efficient routing and separation procedures increases capacity

PBN optimizes airspace usage by enabling more efficient routing and separation procedures, increasing airspace capacity and safety



Flying direct routes improves environmental sustainability

PBN flight efficiency reduces fuel consumption, which contributes to a reduction in carbon emissions helping industry achieve net zero.

GLU-2100 MMR CAPABILITIES

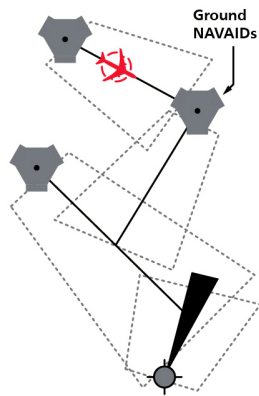
- ADS-B Out compliance
- GLS-CAT II and III approaches
- PBN approaches with SBAS/LPV database
- Patented hardware designed to design assurance level (DAL) A
- Improved sensor robustness to meet the latest OEM and industry standards
- Integrated VOR

FUTURE READY ENABLEMENT

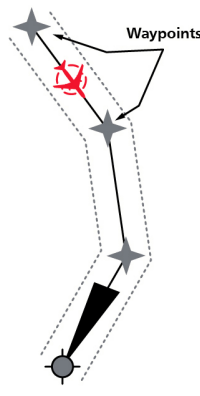
- Continuous resilient navigation
- Robust hardware that can adapt to challenging GNSS environments
- Dual-frequency/multi-constellation (DFMC) connectivity
- Dynamic satellite tracking for multi-constellation GNSS

PBN VERSUS CONVENTIONAL ILS NAVIGATION

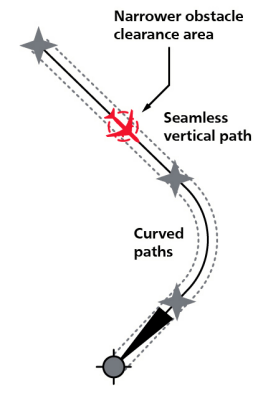
PBN is flexible, eliminating the constraints of ground-based, sensor-specific routes and procedures.



CONVENTIONAL NAVIGATION



PBN: AREA NAVIGATION



PBN: REQUIRED NAVIGATION PERFORMANCE



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