



# PRECISION BORESIGHT ALIGNMENT SYSTEM

THE  
FUTURE  
IS  
WHAT  
WE  
MAKE IT

**Honeywell**

# BORESIGHT ALIGNMENT

## WHY BORESIGHT ALIGNMENT?

Boresight alignment is designed to ensure the proper performance of precision equipment across different industries. Depending on the application or platform, the process can be lengthy and expensive, usually having to perform cumbersome equipment setup, data gathering and post processing which can cause disruptions in aerospace or naval ship operations.

## WHAT IS A PRECISION BORESIGHT ALIGNMENT SYSTEM?

Honeywell's precision boresight alignment system (PBAS) is a non-optical, gyro-stabilized, computerized system that utilizes navigation-grade inertial technology to capture and calculate boresight alignment corrections with an intuitive, step-by-step guided software that automates all calculations, and provides customized software outputs to match our customers' requirements.

## WHY HONEYWELL?

Honeywell is a trusted leader with decades of experience engineering and manufacturing high-performance, industry-leading navigation and sensor products for commercial, defense, industrial and space applications. Our highly-dependable and accurate sensors, systems and subsystems are trusted by millions every day, and are designed to withstand the harshest operating environments. As new applications enter the market, our products continue to serve the needs of aerospace customers and several emerging applications including autonomous vehicles, communications, marine, mobile mapping, oil and gas, platform stabilization and much more.

## PBAS FOR AEROSPACE APPLICATIONS

For commercial or defense original equipment manufacturers or maintenance providers that need higher accuracy to align munitions, navigation, radar and sight systems, Honeywell's precision boresight alignment system (PBAS) step-by-step guided software reduces the need for expert training and job completion time by 50%. We do this by removing the need for periodic calibrations, line of sight, jacking or leveling. As a result, this dramatically decreases maintenance costs and downtime

PARAMETER	PBAS SPECIFICATIONS
Operating	Operating temperature range from +32 °F to +131 °F (0 °C to +55 °C) Includes a (MIL-STD 810F and IP54 compliant) ruggedized user interface laptop computer (User can substitute any USB capable computer with at a minimum, a Windows 10 Operating System).
Accuracy	AMS achieves excellent accuracies on the order of 0.002 degrees (0.03 milliradians or 0.12 arcminutes or 7.2 arcseconds) on measurements taken within 15 minutes of initialization.
IRU Interfacing	Up to 200 feet (61 meters) between IRUs, to accommodate various aircraft configurations.
Weight	6.7 lbs. (3.0 Kg) per Inertial Reference Unit (IRU)
Calibration interval	None required, on request only <sup>1</sup>
MTBF	Demonstrated in excess of 30,000 hours
Built-in-Test (BIT)	Built-in fault diagnostics that detect sensor performance failure as well as other equipment failures.
Interchangeability	Complete at the Line replaceable Unit (LRU) level.
Environmental Conditions	Night/day (full sunlight), high wind, rain, snow, blowing sand, no hangar requirements.

<sup>1</sup> Conditions for a calibration request would include if anomalous performance was observed or an IRU is damaged (i.e., dropped). All customers are encouraged to work with a Honeywell expert to tailor fixtures and adapter plates for a specific application or platform.

## For more information

[aerospace.honeywell.com](http://aerospace.honeywell.com)

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N61-3045-000-000 | 06/21  
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## KEY HONEYWELL ADVANTAGES

- Intuitive step by step guided software
- No Manual Calculations or need for line of sight
- Does not require platform to be jacked/leveled/dry docked
- No calibration needed for life
- Small, lightweight, and portable solution
- Can be used to align multiple platforms and systems
- Data output can be tailored to match your requirements

while providing customers with a solution they can trust backed by Honeywell's century of experience high-performance navigation solutions.

## PBAS FOR NAVAL

For shipbuilders, surveyors, or maintenance providers that need higher accuracy to align munitions, navigation, radar and sight systems, Honeywell's precision boresight alignment system (PBAS) using step-by-step guided software reduces the need for expert training and cuts job completion time by 50%. We do this by removing need for line of sight as well as eliminating the need for dry docking by compensating for vessel motion and working without leveling while providing customers with a solution they can trust backed by Honeywell's century of experience engineering high-performance inertial solutions. PBAS is ideal for naval applications where technicians operate in space constrained areas because it reduces errors caused by motion, equipment set up time like instrument leveling, measurement time and associated costs by almost 50%, depending on the application.

## PBAS SUPPORT AND TRAINING

For new Honeywell customers, we're excited to offer customized support and training packages designed to help you get up to speed as quickly as you can. For support or training information, please contact us using our web form on the PBAS webpage.