

ADVANCED BORESIGHT EQUIPMENT (ABE®)



ON TARGET WITH PRECISION ALIGNMENT

Textron Systems' ABE system provides customers with a highly accurate, repeatable system that reduces time, training and manpower requirements. This state-of-the-art, gyro-stabilized, electro-optical, angular measurement system is designed to align systems on any land, sea or air vehicle.



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TEXTRON Systems

ADVANCED BORESIGHT EQUIPMENT (ABE®)

ABE MODEL 310A SYSTEM

NSN: 4920-01-575-4554



ABE easily aligns the Apache® area weapon system using a small adapter. The need for an unobstructed line-of-sight between the aircraft reference and the stations is eliminated.



The ABE field boresight system for Apache helicopters is contained in three compact, rugged, easily transportable transit cases.



ABE projects accurately aligned infrared or visible images into optical sensors, eliminating the need for station-unique adapters for most optical systems.



The portable HHDU allows an operator to view boresight results at any location. ABE is designed to align systems on any land, sea or air vehicle.

The ABE Model 310A is a truly common, multi-platform boresight system and is in inventory throughout the U.S. Army, Navy, Air Force and Marine Corps, allied military and aircraft manufacturers. The system works in all operating environments including concurrent aircraft maintenance and assembly, high winds, cramped and cluttered workspaces, and in extreme temperatures. Our system provides an accurate, repeatable and verifiable solution.

Our ABE Model 310A is a universal computerized measurement system capable of aligning armament, navigation, electro-optic sight sensors and missile warning systems on a variety of platforms. Utilizing inertial measurement technology, the system provides rapid, accurate and highly automated measurements without requiring a target board or a clear line-of-sight between the aircraft reference datum and weapon or sensor stations. ABE is adapted to a specific aircraft by means of a set of compact, aircraft-specific mechanical adapters and Personality Module (PM) software. The PM provides an electronic job guide that assists the operator during boresight tasks by completely automating the measurement process.

FEATURES

- Gyro-stabilized
- Core system
- Automated angular measurement system
- No "line-of-sight" requirement
- Platform-specific PM software
- 18-month maintenance cycle
- Military standard and CE qualified

BENEFITS

- Doesn't require platform to be jacked and leveled
- Allows concurrent maintenance
- One system can be shared across multiple platforms
- Reduced logistics cost
- Fast and repeatable
- Eliminates operator interpretation
- Reduced set-up time and complexity
- Small, lightweight adapters
- Reduced logistics footprint
- Electronic job guide
- Automatic measurement setup and calculations for specific platform
- Decreased life cycle cost
- Approved for use in U.S. military
- Approved for use in Europe

The System Controller is the processor and computational engine for ABE.

The Measurement Unit (MU) is a lightweight, portable, handheld unit used to precisely measure actual station alignment.



The Reference Unit establishes platform reference and tracks platform movement.



The Handheld Display Unit (HHDU) is the primary operator interface for ABE.



ABE BORESIGHT ADAPTER

- ABE station-specific boresight adapters interface with the station requiring alignment.
- ABE station-specific boresight adapters incorporate one or two small mirrors to support angular measurements with the ABE MU.



ABE PM SOFTWARE

- The PM is application-specific software that tailors the operating characteristics of the ABE system (menus, set-up parameters, reporting formats) to a specific platform.
- The PM allows boresight measurements to be electronically uploaded directly to a platform, ground station or PC.

CURRENT ABE APPLICATIONS

Find out why ABE is the boresight solution choice of the U.S. Army, Navy, Air Force and Marine Corps, Royal Netherlands Air Force, Royal Air Force (UK), German Air Force, Italian Air Force, Spanish Air Force, Japan Defense Agency, Hellenic Army, Boeing, EADS, BAE Systems, Lockheed Martin, Bell Helicopter, Fuji Heavy Industries and other users and manufacturers around the world.



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