Military & Defense
NAVWAR Positioning Technology
NAVIGATION SUPERIORITY STARTS WITH NOVATEL

Success is critical in military and defense applications. NovAtel® has been a leader in this domain for over 25 years, producing innovative technology which ensures accurate, reliable and precise position and time measurements for successful military operations for land, air and sea.

OEM Excellence in NAVWAR

Thanks to a team of top engineers in geomatics, antennas, radio frequency (RF), hardware, software, and digital techniques, NovAtel’s OEM Global Navigation Satellite Systems (GNSS) technology is inside many of the industry’s most advanced high precision positioning applications.

Our technology addresses the needs of Navigation Warfare (NAVWAR), including Electronic Protection, Electronic Support and Electronic Attack. NovAtel OEM components and military off-the-shelf items are engineered to ensure continuous positioning, as well as detecting, locating and characterizing interference sources and training users in the presence of deliberate GNSS denial.

ELECTRONIC SUPPORT

Detects, locates and characterizes jammers for situational awareness or cueing countermeasures.

INTERFERENCE MONITORING

The Interference Toolkit™ on board our OEM7® receivers enables users to monitor the in-band GNSS spectrum for interference and to mitigate the interference sources using advanced digital filtering techniques. The interference can be characterized and located when more than one receiver is used.

NOVATEL ADVANTAGE

» Product manufactured in Calgary, Canada
» Broad line of military technology meets diverse needs
» Robust supply chain ensures highest product quality
» Lifetime product return rate <1%
» Short lead times for urgent requirements

VISUALIZATION AND ANALYSIS

Waypoint® post-processing software (GrafNav, GrafNet and Inertial Explorer®) provides the ability to analyze position, velocity or attitude. Post-processing maximizes accuracy by processing previously stored GNSS and IMU data forward and reverse in time and combining the results. The solution can be smoothed and output at the required data rate, and in the coordinate frame required.
ELECTRONIC PROTECTION

Protection from interference and intentional jamming so Position, Navigation and Timing (PNT) is continuously available.

**OEM7® RECEIVERS**
NovAtel’s multi-frequency, multi-constellation receivers provide unsurpassed signal availability in challenging signal environments. Designed for product quality and ease of integration, all OEM7 receivers can host your own firmware through an application programming interface (API). This allows the use of customer-designed navigation engines or the hosting of guidance and control algorithms, which can reduce the overall number of boards in a system.

**GAJT-710™ GPS ANTI-JAM TECHNOLOGY**
GAJT® mitigates against jammers to ensure the continuous signals required for calculating position and time remain available. GAJT is off-the-shelf to ensure short order lead times and quick deployment. It integrates easily into new platforms or can be retrofitted on existing and legacy military fleets.

**GAJT-AE-N™**
Designed for weight and size constrained applications, GAJT-AE-N provides the antenna electronics for a 4-element Controlled Reception Pattern Antenna (CRPA). GAJT-AE can be delivered in an enclosure or as an OEM board set for your own integration.

**GAJT-410™ GPS ANTI-JAM TECHNOLOGY**
The GAJT-410 is the next evolution of NovAtel's battle-proven anti-jam technology. It maintains the high levels of interference rejection performance as in the larger GAJT-710 system, but in a lower size, weight and power (SWaP) design. Working alongside the GAJT-410, the Power Injector Data Converter (PIDC) provides access to the jammer status and direction-finding (DF) information. It also provides clean power and data over the same cable that delivers the protected GPS signal back to the receiver, which reduces the need for costly platform modifications. The PIDC can be supplied in either an enclosure or board and is available to license for installation into third-party equipment.

**ALIGN® GNSS HEADING**
ALIGN firmware is ideal for calculating precise position, heading and relative heading in high dynamic land, marine and aviation applications. ALIGN uses GPS, GLONASS and BeiDou to provide the best solution accuracy and availability for your application, even in harsh environments.

**SPAN® GNSS+INERTIAL NAVIGATION**
SPAN tightly couples NovAtel’s GNSS receivers with Inertial Measurement Units (IMU) for reliable, continuously available 3D position, velocity and attitude—even during periods of satellite signal unavailability.

ELECTRONIC ATTACK

Incidents of electronic attack are on the rise with adversary forces looking to disrupt allied position, navigation and timing systems.

**NEAT™ NAVWAR ELECTRONIC ATTACK TRAINER**
NEAT is a small hand-held GPS jammer developed to train allied forces to recognize and adapt to GPS jamming. With provision for remote operation, NEAT provides advanced capability in an easy to use package.
As the world’s leading supplier of OEM GNSS positioning technology, NovAtel has established relationships with home and allied governments, military organizations and commercial defense contractors.

For precise position and time measurements your operation can depend on, choose NovAtel.