

Automated Tactical Artillery Control System - ATACS



General

Based on years of accumulated experience in the design and supply of battlefield proven military applications, Astronautics presents its high quality and cost effective solutions for Land forces.

- Accurate Navigation Systems for all kinds of Transport and Armored vehicles.
- State of the art Navigation and Aiming Systems for Mortars, MLRS, Self-Propelled guns and Towed guns.
- Modern Digital Fire Control Systems for Artillery.
- Superior Navigation and Target Acquisition Systems for Artillery observation crews.



Astronautics C.A Ltd. solutions assure battlefield superiority.

Astronautics ATACS

- Recognizing the severe operational restrictions placed on modern artillery by traditional survey and deployment methods, Astronautics has developed the Automated Tactical Artillery Control System (ATACS) to provide a highly adaptive solution for Mortars, Multiple-Launch Rocket System (MLRS), Self-Propelled guns and Towed guns.
- The ATACS enables autonomous gun Navigation and Pointing and provides ballistic computation capabilities to enhance weapon operation.
- The system's ability to perform rapid changes of position, as well as its high responsiveness, enables the crew to **Shoot and Scoot** and thus gains the **force-multiplier** advantage which is essential to the modern battlefield.

The ATACS consists of the following elements:

- Vehicle Reference Unit (VRU)- Kearfott's MILNAV®, KN-4053, three-axis Monolithic Ring Laser Gyro (MRLG), (embedded GPS – optional)
- Commander's Control and Display Unit & Tactical Computer (CDU&TC)
- Gunner's Display Unit (GDU)
- Muzzle Velocity Radar (MVR)
- Vehicle Motion Sensor (VMS)

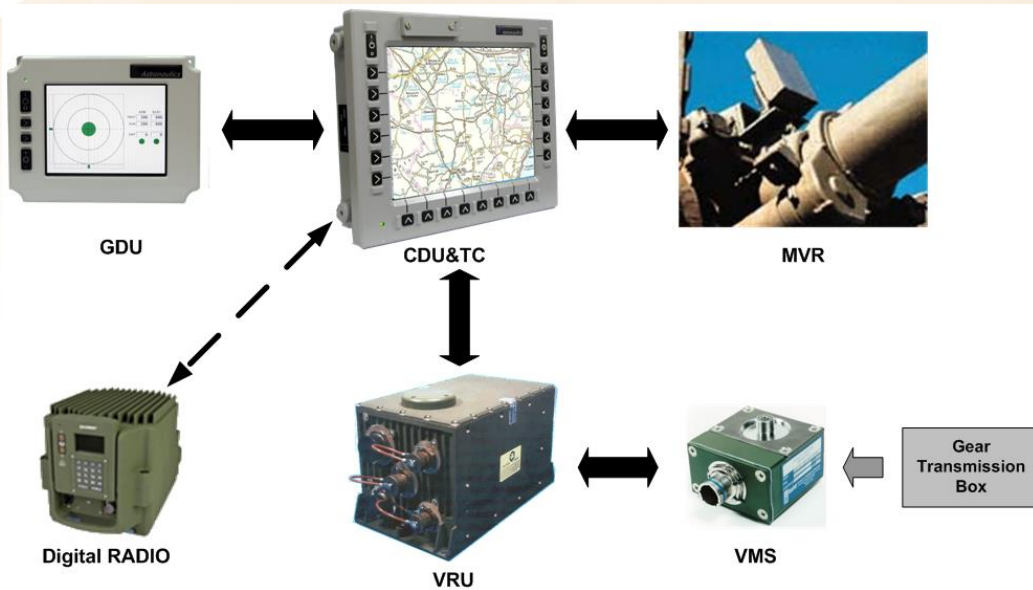


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Automated Tactical Artillery Control System - ATACS



M109 Howitzer



GDSBS 155/52



L118/L119 105mm Light Gun



GHN - 45A1



LG1 - 105mm



120mm Mortar

MAIN COMPONENTS DESCRIPTION

• Vehicle Reference Unit (VRU)

The VRU is a fully integrated inertial navigation unit with an optional GPS receiver which may either be embedded or external PLGR/DAGR. The VRU is installed on the elevating mass of the Gun/Mortar/MLRS and provides a continuous high precision output of position and attitude of the weapon.

• Commander's Control and Display Unit & Tactical Computer (CDU&TC)

The CDU&TC unit is provided for use by the gun's Commander or by the gunner, in case the system doesn't include GDU.

The CDU&TC includes a powerful processor, which provides overall control, management and fire control computation within the system.

The CDU&TC includes a sunlight readable display and performs all system level management and processing tasks within the ATACS.

The various functions can be defined as Commander MMI, overall system mode control and management (VRU, Gunner Display, Radio, MVR and other optional units),

graphic display generation and the on-board technical fire control. Per customer request, 2D/3D map layers can be incorporated for navigation and control purposes.

• Gunner's Display Unit (GDU)

The GDU is provided to the gunner for pointing the gun/mortar/MLRS accurately and in very short time to the required attitude.

• Muzzle Velocity Radar (MVR)

The ATACS is designed to accept inputs from a MVR to allow real time monitoring of the effect of gun wear and, in a predictive manner, to improve the ballistic computation and thus avoid the need for traditional calibration rounds.

• Vehicle Motion Sensor (VMS)

The VMS provides a continuous independent measurement of wheel or track speed to the VRU during vehicle/gun movement for optimal system performance.



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