## VOLKAN 220/155

FIRE CONTROL SYSTEM #LandandWeaponSystems

> The T-155 Self-Propelled FIRTINA Howitzer, one of the most important weapon systems of the Turkish Armed Forces, enhances the firepower of Turkish Artillery significantly. VOLKAN 220/155 Next Generation Fire Control System (FCS) integrated to the T-155 Self Propelled FIRTINA Howitzer, enables rapid deployment, relocation, computerized fire preparation and management, integration with fire support systems along with fire control and direction. It covers full fire mission execution starting from fire command ending wih the ammunition leaving the barrel.





## VOLKAN 220/155 FIRE CONTROL SYSTEM

In addition to full fire command and control capabilities, VOLKAN 220/155 FCS comprises a fully automated projectile handling and loading system along with a servo-driven gun laying system allowing the fast and secure execution of intense fire missions.

FIRTINA Howitzers have fulfilled numerous successful missions over the years. VOLKAN 220/155 Fire Control System, designed and implemented by ASELSAN, encompasses state of the art units in accordance with the field experience of Turkish Armed Forces.

## System Units

- Ballistic Computer
- Inertial Navigation System
- Muzzle Velocity Radar
- Automatic Gun and Turret Aiming System
- Automatic Projectile Feeding System
- Ammunition Magazine System
- SARP<sup>®</sup> Remote Control Weapon System
- Commander, Gunner, Loader and Driver Display Units
- Day & Night Vision Driving System
- Automatic Gun Travel Lock Mechanism
- Propellant Conditioning Unit
- Auxiliary Power Unit
- Air Conditioning Unit
- Power Distribution Unit

## Skills

- Digital communication with AFSAS and possibility of integration with other fire support systems
- Operation in different unit organizations (e.g. battery based, platoon based and single gun single battery) as required by the tactical environment.
- Gun Commander's Display Unit provides mission oriented, menu driven colored graphical user interface
- Digital battlefield information display via digital map
- Receiving and displaying fire request, fire orders, commands, formatted and free text messages sent by the Artillery Fire Direction Center and other fire support units.
- Rapid deployment and relocation of the weapon system, by means of Inertial Navigation System and GPS.
- Processing various types of fire missions; e.g. Multiple Round Simultaneous Impact (MRSI), Fire For Effect, Direct Fire and Registration Fire.
- Computation of fire commands precisely
- Utilization of meteorological data received from Artillery Meteorology System via radio.
- Utilization of muzzle velocity data received from the on-board Muzzle Velocity Radar
- Calculation of the projectile trajectory and checking for crest clearance using Digital Terrain Elevation Data (DTED).
- Rapid & accurate ballistic calculation using "NATO Armament Ballistic Kernel (NABK)
- Automatic laying and relaying the gun at high speed and precision

- Digital interoperability with other C4I Systems within the force.
- Safety checks for travel lock, mechanical limits and alignment accuracy to provide safe and proper operation.
- Integration of Stabilized Advanced Remote Weapon Platform (SARP) for close-in self defense.
- Direct Fire mission and night vision capability for the gun commander provided by SARP RCWS integration.







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