



CV90 during test in Arctic climate. (Photo: FMV)



FMV T&E LAND SYSTEMS

The T&E Land Systems organisation manages and carries out evaluation and validation of land combat systems. During all stages of an acquisition process – from development through operational use to phase-out – advanced test and validation is carried out on equipment to make sure that all requirements and operational specifications are met.

T&E Land Systems has more than fifty years of experience of advanced tests on components, units and complete systems related to vehicles and weapon systems in various demanding environments, including the Arctic climate. This also encompasses advanced testing of various prototypes and demonstrators. Trials are often carried out as combined technical and tactical missions.

T&E Land Systems major locations for facilities and resources are the cities of Skövde and Karlsborg in the south-western part of Sweden.

The fielding of advanced protection systems for existing vehicles and future concepts is a major requirement. A large part of the production today is carried out within the area of protection technology.

The T&E Land Systems organisation is also extensively involved in today's artillery development towards autonomous platforms with long-range weapon systems and built-in sensor systems in the projectiles.

For the environmental tolerance testing of ammunition and other systems, T&E Land Systems has a number of facilities

providing environmental conditions similar to what may be expected in climatic regions ranging from Arctic to tropical. The test objects can be subjected to accelerated ageing and environment tolerance effects in the form of impact, jolt, vibration, shaking, sun exposure, salt spray, moisture, drop, cold, heat, etc. After the test objects has been subjected to accelerated ageing they can be examined with X-ray systems and, mechanically, visually or functionally tested.

Handling and manipulation of explosives takes place within the depot and ammunition workshop ahead of firing and detonating tests. The workshop provides the possibility of manipulating ammunition with an explosive content of up to 10 kg TNT equivalent. The workshop facility offers explosive classifications of up to EX1. Remote-controlled machine dismounting, sawing, drill turning in a lathe, etc, are operated from an operators room.

T&E Land Systems have a firing range in Karlsborg with a number of firing stations and catch boxes. The maximum range for firing against targets on land is about 2000 m. By moving the impact area to Lake Vättern the range can be increased to over 25 km. Resources for recovery of shells in the water for examination are available.

T&E Land Systems also have access to the Älvdalen Firing Range. The Älvdalen Range covers an area of 540 km² and is ideally suited for evaluation of artillery and armed vehicle systems. At the Älvdalen Range a special area for use of live munitions has been established (700 x 1000m) that minimises the risk in clearing unexploded ordnance. Älvdalen Firing Range has a subarctic climate.

For the mobility and performance tests of both tracked and wheeled vehicles T&E Land Systems uses the 50 km² exercise and training field at Skövde garrison. T&E Land Systems can set up a track that suits the actual test with regard to the proposed operational profile from the customer.

T&E Land Systems offers services for campaign execution such as:

- Test Management
- Meteorological, fire and rescue support
- Safety management
- Instrumentation coordination
- Instrumentation resources
- Data collection, storage and distribution
- Data evaluation, analysis and preparation of test report
- Recovery resources for vehicles up to MBT size during mobility trials
- Support vehicles (incl. driver) for mobility trials

The field of action for T&E Land Systems covers test and evaluation of:

Combat and vehicle systems

- Mobility and performance
- Environmental tolerance
- Protection
- Sensor systems
- Battlefield management systems
- Unmanned ground vehicles

Environmental factors

- Vibration
- Acoustic
- Blast overpressure
- Equipment

Ammunition

- Performance
- Environmental tolerance
- Safety, surveillance
- Modification and manipulation
- Development

Weapon system evaluation

- Environment tolerance
- Protection
- Battlefield management systems
- Sensor systems
- System integration
- Functional/performance
- Small arms to large calibre
- Remote operated weapon stations

Protection technology

- Ballistic protection
- Mine protection
- Threats
- Thermobaric
- Body armour



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