



KONGSBERG

**ODIN**

# **FIRE SUPPORT SYSTEM**

Digital Fire Support for the Modern Warfighter



## Worldwide Operations

KONGSBERG is an international corporation with strong Norwegian roots. Collaboration with our global customers, partners and suppliers is essential in our success as is developing a clear understanding of our end users and the operational environment where they use our technologies. These factors are driving forces behind the corporation's international success.

## Support in the Extreme

KONGSBERG contributes to improved safety, security and performance in demanding and complex missions. We achieve this through an in-depth knowledge of our customer's objectives and the needs of the operator, and by meeting their challenges with the right systems, services and technological solutions.

Extreme  
Performance  
for extreme  
conditions

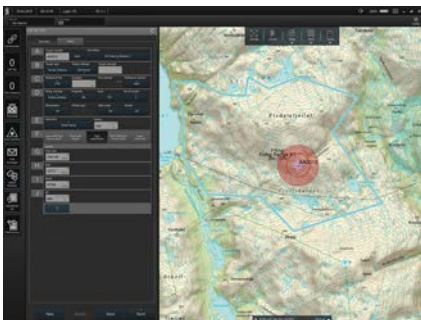


Photo: Frederik Ringnes/Norwegian Armed Forces

# ODIN FSS

## – DIGITAL FIRE SUPPORT

- Speed, Accuracy, Interoperability, Cross-Domain

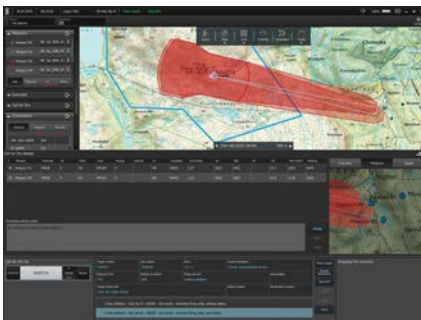


### General

Kongsberg Defence & Aerospace provides Warfighters a world class fire support system through ODIN FSS, ensuring both speed and accuracy on the complex, modern battlefield.

### The System

ODIN FSS is a fire support / fire control system fielded in Norway, and includes functionality for all levels of fire support chain of command, from the sensor to shooter. It is built upon NATO standards and symbology such as AArty-P artillery procedures, STANAG 4082 (METCM), STANAG 6022 (METGM) and STANAG 4537 (NATO Armament Ballistic Kernel). ODIN FSS can utilize any IP based communication solution, which is designed especially for use of tactical low-band radios with a communication solution tailor made for very challenging terrain.



### Flexible Configuration

ODIN FSS enables automatic utilization of connected radios (or other means of communication) and build up an understanding of the network topology. ODIN FSS employs network resilient strategies to ensure vital communication between all ODIN FSS users.

### Interoperability

NATO Armaments Ballistic Kernel  
ASCA Compliant Fire Support system  
Link 16 Compliant Fire Support system  
Variable Message Format  
AArtyP - Artillery procedures  
METGM/METCM meteorological data.





## MAIN FEATURES

- Full chain of command from Sensor to Shooter
- In use by the Norwegian Army
- Optimized use of all types of heavy fires resources
- Avoid fratricide incidents during operations
- Plan fire support operations
- Improved safety during peace time exercises
- Engage high value targets according to priority
- Engage several targets simultaneously
- Reduced engagement time for all types of fire missions
- Provides enhanced fire support from multiple weapon platforms from one common system
- Optimized use of sensors, weapon platforms and communication systems

Photo: Ole-Sverre Haugli/Norwegian Armed Forces

## Value of ODIN FSS

KONGSBERG presents a fielded and proven ODIN FSS configuration which significantly improves the operational capabilities of any artillery or mortar unit. ODIN FSS supports multiple fire missions on different weapons platforms simultaneously. The system has an intuitive user interface that addresses all roles from sensor to shooter in a single system.

The Fire Direction Centre (FDC) is supported by the ODIN FSS software running the FDC role. The FDC role provides support for FDC tasks like allocating required resources to achieve the requested effect on the target together with safety and ballistic calculations.

The Fire Support Coordination Centre (FSCC) Fire Support Officer (FSO), Artillery Ranger Command Post (CP) and Radar CP are supported by the ODIN FSS running the FSO role. The FSO role provides support for FSO tasks like target prioritization, target engagement including selection of weapon platform (mortar, artillery or rocket artillery) and unit to be used for the fire mission.

The Forward Observer (FO), Artillery Rangers, Artillery Locating Radar and other integrated sensors are supported by the ODIN FSS running the FO role. The FO role provides support for FO tasks like target acquisition and target engagement.

The artillery and mortar weapons are supported by the ODIN FSS Artillery or Mortar role. The roles provide support for weapon tasks like executing a fire mission including presentation of gunnery data, firing commands and sending of status messages. ODIN FSS supports both non-autonomous and autonomous weapons.

### ODIN FSS System Architecture

ODIN FSS SW is designed using open standards. Data Distribution Services (InterCOM DDS) is used as middleware. Adapters are implemented for all external systems, ensuring mapping between the adapters and the physical device attached and the internal data model. This enables low-cost integration of new external systems.

ODIN FSS can be installed and run on one physical computer, as long as all systems to be integrated are either directly coupled to the computer or available on the local network (LAN).





Photo: Ole-Sverre Haugli/Norwegian Armed Forces

# ODIN FSS CAPABILITIES

## ODIN FSS

Plan Fire Support	Prepare Fire Support	Engage Target	Cross Domain	Manage Fire Support COP	Logistics Support	Miscellaneous	Distribute Information	External Interfaces
Manage Points	Manage Own Position	Target Acquisition	Coordination of non/organic assets	Manage Fire Support COP	Manage Ammo Account	Time Management	Monitor Network Status	Sensor Interfaces
Deployment Planning	Manage Crests	Request Fire	Link Support			Monitor System Status	Manage Address List	Weapon Interfaces
Fire Planning	Manage Basic Firing Data	Tactical Evaluation	Tactical Evaluation			Map Functionality	Distribute COP	C2 System Interfaces
	Manage Safety Measurement	Technical Evaluation				Exchange Free Text Messages	Distribute Fire Support Msg	Artillery System Interfaces
	Manage Range Safety	Load and Fire Weapons				Application Framework		Communication System Interfaces
	Manage Planned Firing Positions	Monitor and Control				Manag System Configuration		
	Distribute Firing Unit Status	Damage Assessment				Import/Export Config Data		
		Engaged Target Management						
		Perform Safety Control						
		Handle Call for Fire						



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