ODIN
FIRE SUPPORT SYSTEM

Digital Fire Support for the Modern Warrior

Worldwide Operations

KONGSBERG is an international corporation with strong Norwegian roots. Collaboration with our customers, partners and suppliers, and a commitment to understand the context where our technology is applied, are important driving forces behind the corporation's international development and growth.

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.

Pro**tech**ting people and planet

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 in use by 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 basically any IP based communication solution, but is designed especially for use of tactical low-band radios with a communication solution tailor made for very challenging Norwegian terrain.

Flexible Configuration
ODIN FSS will automatically utilize of connected radios (or other means of communication) and build up an understanding of the network topology and connectivity status of other ODIN FSS nodes in the entire network, and ensure that data messages can be sent between all connected ODIN FSS users.

Interoperability
NATO Armaments Ballistic Kernel
ASCA Compliant Fire Support system Link
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
- Part of the Australian AS9 SPG fire control system
- Integrated artillery reconnaissance and ammunition handling roles
- Optimize the use of all types of heavy fires resources
- Avoid fratricide incidents during operations
- Plan fire support operations
- Improve safety during peace time exercises
- Engage high value targets according to priority
- Engage multiple targets simultaneously
- Reduce engagement time for all types of fire missions
- Provide fire support from multiple weapons platforms from one common system
- Optimize the use of sensors, weapon platforms and communication systems.

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 simultaneous fire missions on various weapon platforms together with an intuitive user interface and is covering all roles from sensor to shooter in one holistic system.

The Fire Support Elements

Joint Fires Support Element, Brigade (JFSE), Fire Support Officer Battalion (FSO), Artillery LNOs and Artillery locating radar command posts are all supported by Odin FSS software in their respective roles.

The Fire Direction Center

At Battery level 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 target together with safety and ballistic calculations.

Forward Observers (FO)

Artillery Rangers, artillery locating radars and other integrated sensors are supported by Odin FSS soft-ware running the FO role. The FO role provides support for the FO role like target acquisition and target engagement.

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

Ammunition Vehicle

For effective handling and distribution of ammuni-tion within the brigade, a specific role is available through Odin FSS. The ammunition role is developed specifically for keeping track of holdings and status for ammunition supply vehicle and ammunition dumps.

Artillery Reconnaissance

To prepare new positions for weapons - especially with modern, autonomous guns, a Reconnaissance role has been developed. The Reconnaissance teams will prepare and find new positions and report this before the guns arrive in new areas of operation.
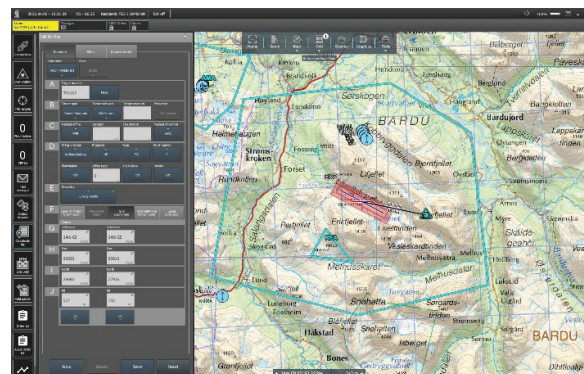
Odin FSS Forward Observer
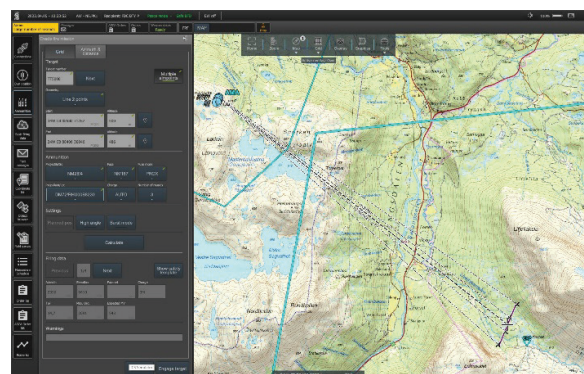
Odin FSS Weapons
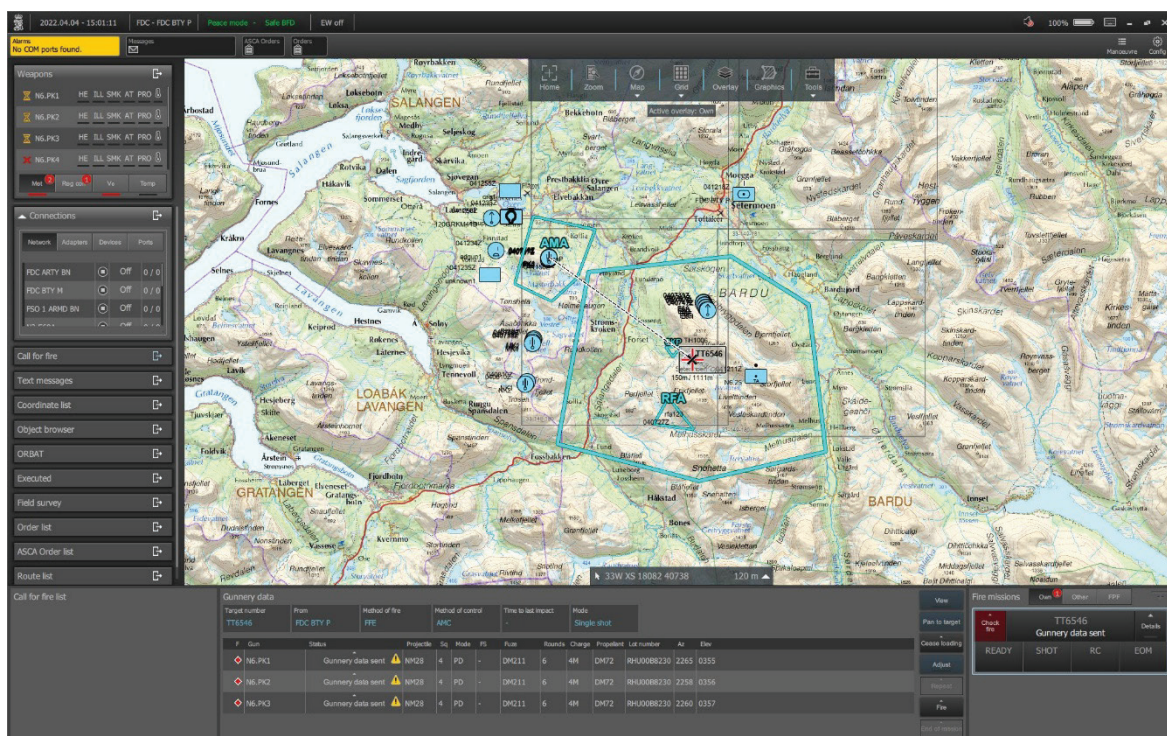
Odin FSS Architecture

The functionality on Odin FSS is based on the philosophy that information is entered into the system at one place only and then distributed to other actors that require the information.
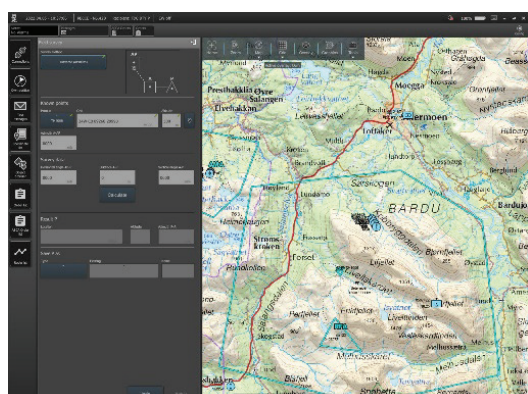
Odin FSS Artillery Reconnaissance

Odin FSS software 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 a local network (LAN).

ODIN FSS Capabilities

ODIN FSS

Fire Support Command & Control	Prepare Fire Support	Engage Target	Manage Fire Support COP	Logistics Support	Miscellaneous	Distribute Information	External Interfaces
Plan Deployment	Manage Own Position	Target Acquisition	Manage Fire Support COP	Manage Ammo Account	Time Management	Monitor Network Status	Sensor Interfaces
Manage Deployment	Manage Crests	Request Fire		Manage Ammo Resupply	Monitor System Status	Manage Address List	Weapon and ARV Interfaces
	Manage Basic Firing Data	Tactical Evaluation			Map Functionality	Distribute SA Information	Vehicle Information System Interfaces
	Manage Safety Measures	Technical Evaluation			Exchange Text Messages	Transmit and Receive FS Messages	C2 and Artillery System Interfaces
	Manage Range Safety	Load and Fire Weapons			Application Framework		Meteorological Interfaces
	Manage Planned Firing Positions	Monitor and Control			Manage System Configuration		Communication System Interfaces
	Distribute Firing Unit Status	Damage Assessment			Import/Export Config Data		Simulator Interfaces
		Perform Safety Control			Multiple Clients		
		Target Management					

Worldwide operations

Vancouver (Canada)

London (Canada)

Ottawa (Canada)

St.Johns (Canada)

Lynnwood (USA)

Halifax (Canada)

Mt. Arlington (USA)

West Mystic (USA)

Salt Lake City (USA)

Washington (USA)

Houston (USA)

New Orleans (USA)

Mexico

Venezuela

Brazil

Norway* (15)
Head Office
Kongsberg

Ireland

United
Kingdom (8)

Denmark

Netherland
Germa

Spain

Ita

Algeria

Niger

Antarctica

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KONGSBERG – ODIN FSS

Svalbard
(Spitsbergen)

Finland

Sweden

Russia

Poland (2)
s
ny
Hungary

aly
Greece

Kuwait

Saudi Arabia

United Arab Emirates

Dalian (China)

South Corea (5)

Zhenjiang (China)

Shanghai (China)

Guangzhou (China)

India (2)

ria

Singapore

South Africa

Australia

KONGSBERG DEFENCE & AEROSPACE AS
Kirkegaardsveien 45
PO Box 1003
N–3601 Kongsberg
Norway

+47 32 28 82 00
office.kda@kongsberg.com

Einar Berntsen
Manager Business Development

+47 99301278
Einar.Berntsen@kongsberg.com