

KNOWIT DATAUNIT

InCS – integrated communication system

InCS is an integrated message handling and data link processing system capable of handling an entire array of modern communication requirements in an integrated, tried and tested solution.

InCS, Integrated Communication System formerly known as ISIS, handles both military messaging as well as tactical data links in an integrated solution. InCS is a link independent communication processor for the combat management system as well as a message handling system that can provide external communications for a large or small staff support system.

COMPLETE COMMUNICATION SOLUTION

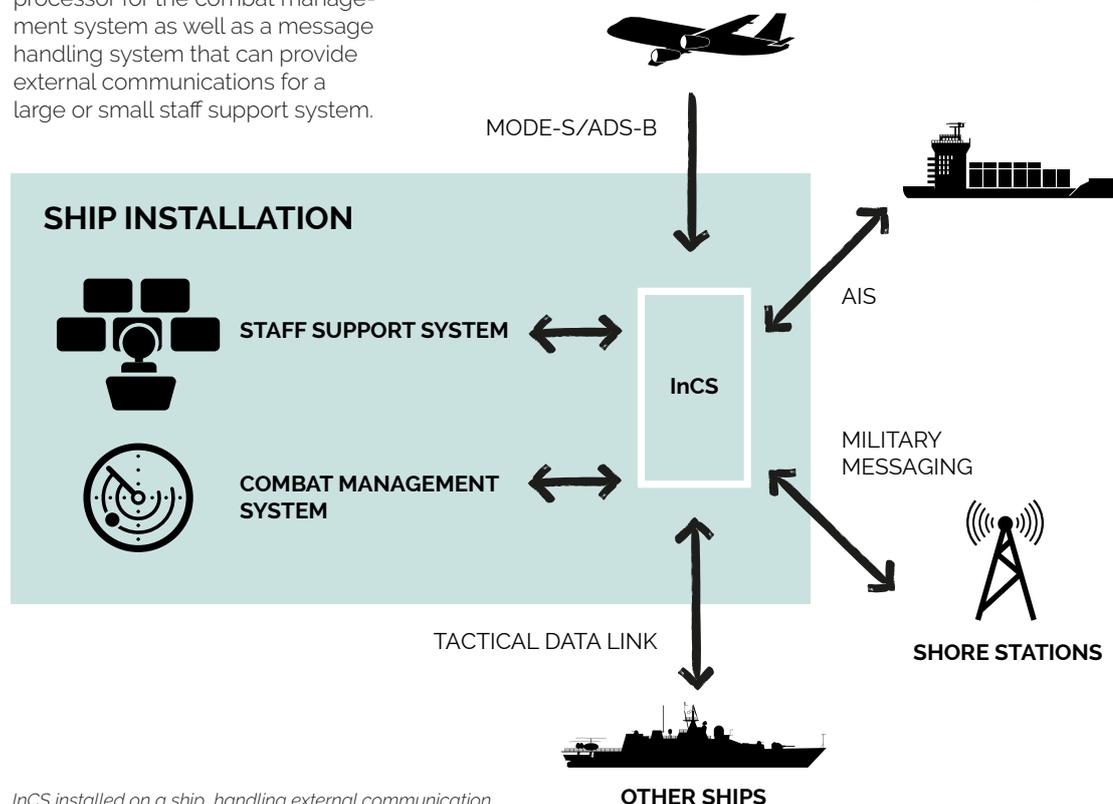
A common situation with military communication is that the various link and message systems claim and use transmission resources as their own. These systems tie up resources and often do so even while having no traffic. InCS is different in that the transmission resources can be handled as a common resource pool. This way a certain radio can be used with a tactical data link on one frequency and the same radio can later be used for formal message traffic on another frequency.

EXTERNAL COMMUNICATIONS

InCS is flexible and adaptable to individual installation requirements. It can be used on its own as a dedicated military message handling system. It can also be a part of a bigger system and provide tactical data link capability for a combat management system while at the same time providing message handling for a staff support system.

UNIFIED COMMUNICATION DIRECTORY

InCS holds a communication directory where all external addressees can be found. This is a common, unified, directory that is valid for all communication through InCS.



InCS installed on a ship, handling external communication

InCS – *continued*

AUTOMATIC SELECTION OF ROUTE AND FORMAT

A unit in the communication directory is listed with the possible links and formats it is capable of handling.

These links or ports are listed with order of priority which means that InCS can automate the process of finding the proper message format, transmission route etc.

MESSAGE FORMAT CONVERSION

InCS seamlessly converts message formats between networks. This means that tracks and messages received on one link can be converted and forwarded to users of other links, e.g. an air track received on the InCS equipped ship can be converted and sent to army units using another type of link (and vice versa).

MULTILINK CAPABILITY

InCS supports all Swedish Navy national data links as well as international standards such as ACP-127, AIS, Mode-S/ADS-B, OTH-T GOLD, ADatP-3, VMF, JREAP-C and NFFI. InCS is capable of concurrently handling both formal military messaging as well as acting as a data link processor for tactical data links.

Supported Swedish national standard formats include MOF (similar to ACP-127), DART (army/marine), 8000 (the main Navy tactical data Link), LvMÅDS (ground based air defence data link), LuLIS (air track information system) and xAlfa (tactical data link format).

REFERENCES

InCS is used on all major Swedish Navy ships as well as network participating units on land. InCS has been used by Swedish Armed Forces during NATO CWIX exercises since 2008.

InCS and its predecessor Hermes has been in use with the Swedish Navy since the early 1990's.

Components or parts of InCS are also used within several products from other vendors. Such as an air defence system, a simulation and testing system and a land based battle management system.

InCS has been used and tested with many systems from other vendors. These systems include MCCIS, C-Flex, SeaLion, Leba, MLST3, CIGAR3, ACCS, SIC21, JMTDL, GCCS-M, Jasmine and ICC.