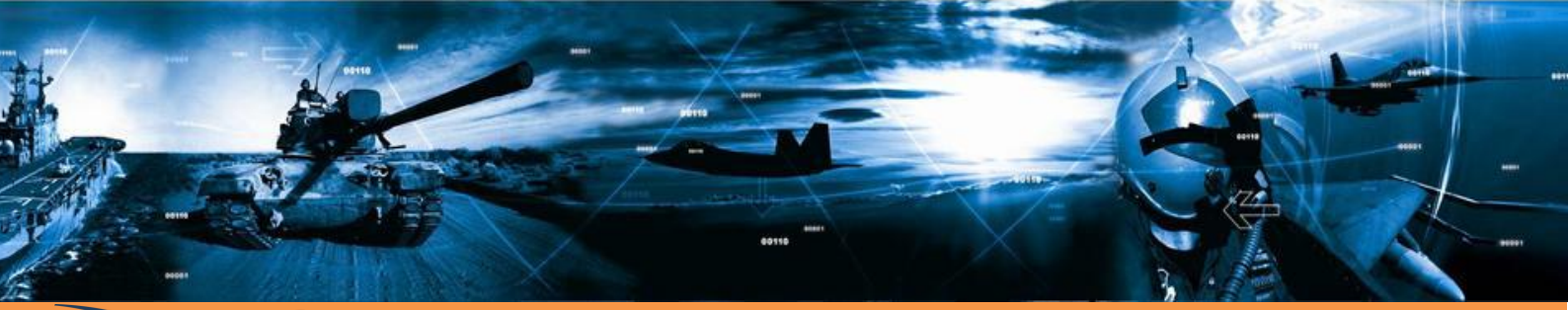

DIGINEXT Tactical Data Links

BE VISIONARY

October 2013

STARLINX L16/JREAP C2 SYSTEM SELECTED BY FRENCH ARMY FOR OPERATION SERVAL IN MALI

DIGINEXT resolves a topical issue implementing real-time links to connect C2 centers and actors involved in 3D coordination

As part of the Operation SERVAL trigger, the French Armed Forces have used the Data Link System JREAP (Joint Range Extension Applications Protocol) developed by DIGINEXT. (www.diginext.fr)

The Theater of Operation over Mali SERVAL, considering the strains and lack of permanent radars means (the radar coverage of the Operational Armed Forces' progression area is only obtained in the presence of the AWACS) makes the coordination in 3D particularly difficult. Joint Forces Chief is thus deprived of a part of his freedom of action, reducing his ability to choose the necessary means and to assure an efficient flow of actions.

To improve the interaction between C2 centers in charge of the 3D coordination, DIGINEXT has equipped the French Armed Forces with three JRE systems to extend the L16 from a line-of-sight capability to an over-the-horizon capability.

The integration of this new capability

The main function of the JREAP is the extension of the L16 network scope. These systems are built, through a better communication between all 3D players and C2 centers in charge of air-ground and air-air operations, to provide Joint Forces Commander with more flexibility in the use of his resources (Jets, helicopters, UAVs…).

DIGINEXT's system improves coordination by linking Theatre of Operations' C2 centers and 3D players. Joint Forces Chief can thus accelerate operations pace and better combine his resources effects.

Deployment of Armed Forces JREAP means and interconnection with the Combined Air Operations Center in Mali

The JREAP link between the two Armed Forces' nodes was established in Mali six days after the Detachment arrival in Gao. This period includes the three days of conveyance, which where necessary for the deployment of MIDS-ground station integrating the JREAP on an air-PC.

Combination with STARLINX operational multi-link system

STARLINX system is a software application enabling the display on cartographic background of a tactical situation established on the L16 and disposing of L16 Command (order). It also allows the free exchange of Command, text messages, pointers and tracks with the other L16 network participants.

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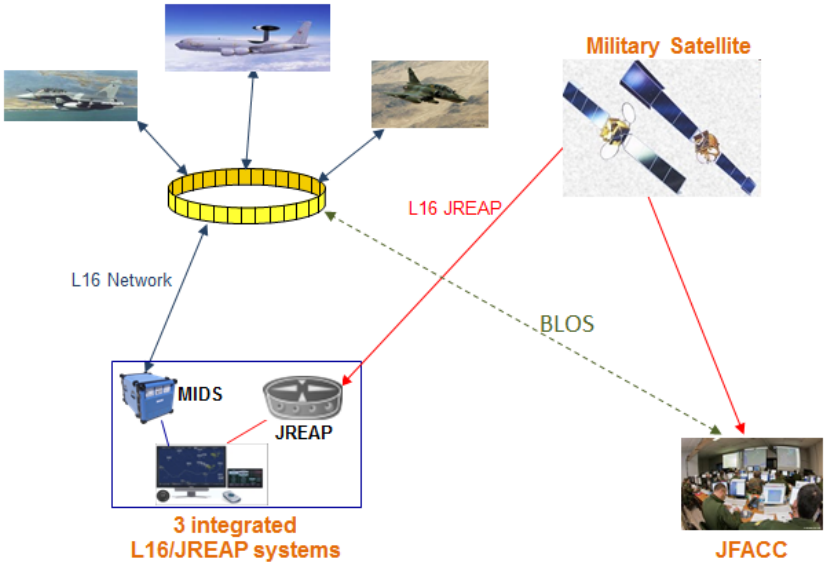
JREAP SERVAL Satellite Architecture

JREAP Solution enabling BLOS interaction between L16 players



1. Visualization
   - *PPLI+SITAC*
   - *Platform status*
   - *Engagement status*
2. Exchange
   - *Command orders*
   - *Text Messages*
   - *Geographical pointers*

Conclusion

We notice through this mission that 3D coordination becomes a constant concern at all levels of Command in the Theater of Operations. The implementation of real-time links as the JREAP to connect all C2 centers and all actors involved in the 3D coordination , is absolutely a topical issue.

The system built by DIGINEXT and deployed in Mali is the right solution to meet this issue offering real coordination capacity. The JREAP system, integrated or combined with existing tools in the artillery provides a cost-effective solution with an important added-value for Joint Forces Command.

The set-up of these connections, essential for 3D coordination, should be combined with reliable radar sensors constantly present in the Theater of Operations. There is therefore a need to continue efforts to improve the capability by increasing the interconnection capability of radar sensors, C2 centers and 3D players through Tactical Data Links.

This also involves the need of a reflection in close partnership with Joint Forces to establish a C2 network shared between Joint and Allied Forces in charge of 3D coordination integrating all available means.

DIGINEXT, a CS Group subsidiary, is a human-scaled company recognized internationally for its cutting edge, scalable and interoperable operational systems, simulation systems for design or testing and Training solutions.