



OPERATIONALIZING CFI

TECHNICAL APPLICATION OF THE CONNECTED FORCES INITIATIVE

By Colonel William D.
(Bill) Jones, United States Army
Chief C4 Event Support
Branch, Joint Warfare Centre

"There is an opportunity to put a **NATO point of presence** at the **Joint Multinational Simulation Center** in Grafenwoehr. This will expand **NATO training capabilities** and offer another capable venue to **further the CFI.**"

THE CONNECTED Forces Initiative (CFI) was created to complement Smart Defence and achieve the goals of NATO Forces 2020. The key tenets of the CFI are *readiness* and *interoperability*. One of the ways to achieve interoperability is through making better use of technology. Our tenth anniversary issue (July/October 2013) briefly described how the Joint Warfare Centre (JWC) supports the technological aspects of the CFI. In this article, I will expand on that theme.

TO UNDERSTAND CFI you have to understand its component parts. The CFI Implementation Plan describes actions and programmes that, worked together, will achieve the end state of connected forces by 2020. The plan consists of eleven chapters. Even though these chapters describe technological solutions the problem is, for most people, CFI is basically conceptual. If something exists in concept, the challenge becomes how to *operationalize* it so it is both of use to Commanders and staff and also recognised as worthy of sustainment and support by leadership.





We need an initiative to complement Smart Defence. One that mobilises all of NATO's resources so we strengthen our ability to work together in a truly connected way. I call this the Connected Forces Initiative."

Anders Fogh Rasmussen, NATO Secretary General
4 February 2012

As training professionals, we at the JWC are interested in the practical application of the CFI — tools we can use to help Commanders meet training objectives. One of the primary ways we do that is through the use of technology in the following areas:

- Capability Development and Integration,
- networks,
- simulations,
- Knowledge Management.

Capability Development and Integration

TIDE SPRINT is the premier think tank in NATO to formulate and define future interoperability solutions. The Coalition Warrior Interoperability eXploration, eXperimentation and eXamination eXercise (CWIX) tests the physical instantiation of those concepts. The JWC is a key contributor to both. Our efforts will ensure we continue to be a leading venue for the experimentation and doctrine development that facilitate the implementation of the CFI.

Networks

The technical aspect of networking can be described, without exaggeration as complicated. Network solutions must be flexible enough to meet operational requirements yet rigid enough to meet engineering standards. This strategy of mitigation is not without precedent. The Afghan Mission Network (AMN) was built of the component parts of national networks, and then expanded to be an operational success.

The Federated Mission Network (FMN) is the next generation of interoperable networks. FMN refers to a capability as opposed to a discrete "network" and is the natural successor to the AMN. The FMN capability is composed of rules and policy for governance as well as the technical speci-

fications for access and operation. The JWC contributes to the doctrine development and implementation of the FMN. TRIDENT JUNCTURE 15 will be a milestone for FMN capabilities development.

Simulations

At certain levels of command, live training becomes impractical. This is where constructive simulated exercises become invaluable to a Commander. For the JWC, our primary contribution to the CFI will be through the planning, preparation and execution of Computer Assisted Exercises (CAXs) through simulations.

SIMULATIONS AND SCENARIO

are inextricably linked. Modern scenarios like SKOLKAN II make heavy use of products like Intel, geo and targeting data. This summer, the JWC will co-host the "Training Centres Conference on Collaboration for Settings, Scenarios and Simulations" (TS3) from 24-26 June 2014. This is designed to be the kickoff conference of a permanent collaboration between NATO and national simulation centres. The conference is not about building the content of scenarios but to develop relationships and processes for sharing information and interoperability. The intent is that this be an inclusive, collab-



Prof Erdal Cayirci (right, CAX Branch Chief) and Mr. Stuart Furness during a discussion.





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Photographs by JWC PAO.

SKOLKAN II meeting at JWC.

orative session wherein all Partner Nations have the opportunity to contribute.

Information and Knowledge Management

The JWC is in the last few months of an Information Management/Knowledge Management (IM/KM) pilot programme. The information gained from this study will inform the future structure and business practices of the JWC. Other NATO bodies will be able to take best practices and our lessons learned and apply them to their organisations. It is important to be NATO compliant as we derive an IM/KM solution that is tailored for this HQ. The JWC is linked closely with NATO IM/KM initiatives. JWC personnel are members of the NATO Information Management Authority (NIMA) Working Group and collaborate in the development of the NATO Information Portal (NIP).

Challenges and opportunities

The way ahead for connecting NATO forces faces substantive challenges. First and foremost are issues of security protocols, information assurance and computer network defence in a cyber-environment. The physical transfer of data is a purely technical solution. We have the means to do that now. The challenge is to agree on policy that is politically and legally acceptable to Member Nations. Business and trade agreements must be taken into account. Some nations simply do not have the flexibility of some of the larger

NATO Partners to share software and intellectual property. National rules may prohibit the practice. We have at our disposal opportunities to work through these challenges. Every year, the United States European Command (EUCOM) conducts the Command and Control (C2) interoperability exercise COMBINED ENDEAVOR (CE) at Grafenwoehr, Germany. CE hosts 38 countries, many of them NATO, to develop new methods of sharing information, interoperability and operations in a cyber-environment. This exercise has been an unqualified success. However, to date neither the JWC nor the Joint Force Training Centre (JFTC) has played a role. There is an opportunity to put a NATO point of presence at the Joint Multinational Simulation Center (JMSC) in Grafenwoehr. This will expand NATO training capabilities and offer another capable venue to further the CFI.

AN AREA WITH GREAT promise is the JFTC-led initiative to connect NATO and national simulation centres for Education, Training Exercise and Evaluation (ETEE). In the summer of 2014, the JFTC will brief a concept of operation that describes the unification/connecting of national assets beginning 2015 and culminating with full interoperability by 2020. Finally, our partners in the NCIA will reorganise for more efficient operations. Centralisation of ETEE services at the JWC will ensure currency of mission and responsiveness of service.

Proof of principle: Interoperability in exercises

Distributed exercises are tangible evidence of interoperability and a prime venue to test and prove/disprove connected force theory. The most visible evidence of that assertion is the success of the exercise STEADFAST JAZZ (SFJZ) conducted in the fall of 2013. What made SFJZ 13 the model for future interoperability was the scope and level of its complexity. SFJZ 13 was conducted on multiple levels of command and distributed to eleven different locations. It combined Allied forces with a national exercise (BALTIC HOST) and embedded air (EAGLE TALON) and Ballistic Missile Defence (BMD) training. TRIDENT JUNCTURE 2015 will be the next step toward achieving the goals of NATO Forces 2020.

Conclusion

The CFI is not a future concept. It is tech-enabled and substantive progress is underway. At the JWC, we advance the CFI agenda every day. Our capability development, simulations, exercise support planning and Knowledge Management solutions all stem from current user requirements. Those requirements are centered on leveraging technology to work interoperably and more efficiently – universally consistent with the concept of the CFI. The next spiral of the CFI Implementation Plan will be out late in the second quarter of 2014. ✦

UPCOMING EXERCISES



Preparations for LOYAL JEWEL 15: Royal Navy Vice Admiral Peter Hudson CBE, Commander Allied Maritime Command, with Brigadier General John W. Doucette, JWC Chief of Staff.