

TRACKING THE SIMULATED ENEMY

OPERATIONAL LEVEL INTELLIGENCE AND JISR IN TRIDENT EXERCISES

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MILITARY leaders throughout history have recognized the need to understand and assess the intentions and capabilities of their adversaries as well as the effects of the surrounding environment. A variety of quotes from famous military figures extol the importance of detecting or predicting the enemy's intentions as a precursor to successful planning and execution. In an age influenced by the rapid and voluminous exchange of information in a highly complex global environment, however, apply-

ing the art and science behind military intelligence may present greater challenges than ever for commanders and their staffs.

As part of its mission to deliver computer assisted, command post exercises (CAX/CPX) in support of NATO Command and Force Structure headquarters, the Joint Warfare Centre (JWC) provides opportunities for those staffs to train the complexities of the Intelligence Cycle (Direction, Collection, Processing, Dissemination) and Joint Intelligence, Surveillance and Reconnaissance (JISR) process at the joint, collective and operational level. Designing and then delivering the conditions for these Training Audiences (TAs) requires a well-constructed and well-coordinated approach involving a range of stakeholders, across a time-frame of up to 15 months.





During MEL/MIL scripting workshops participants develop incidents and injects to support the Training Objectives. PHOTO: JWC PAO

ENDEX conditions, but also the expected outcomes of discrete events.

Managing the Requirements

Orchestrating the application of the methodology above represents the primary role of JWC's Chief Intelligence. For this exercise-specific role, the appointed "Chief Intel" serves as a member of the Core Planning Team during exercise planning and development, and supports Exercise Control (EXCON) delivery during the CPX execution. The role provides focused attention and oversight to ensure that all intelligence-related factors have been appropriately considered in order to deliver the best possible training for the TA. The Chief Intel drives cross-functional coordination and synchronization, and works to ensure shared understanding and consistent application (current doctrine/policy; exercise requirements, capabilities, and limitations) among affected stakeholders, both internal and external.

Support to Joint Intelligence Planning

Within each exercise, the JWC-produced scenario provides the broad setting and detailed background information about the locations, groups, people and environment with which the TA are notionally involved. In accor-

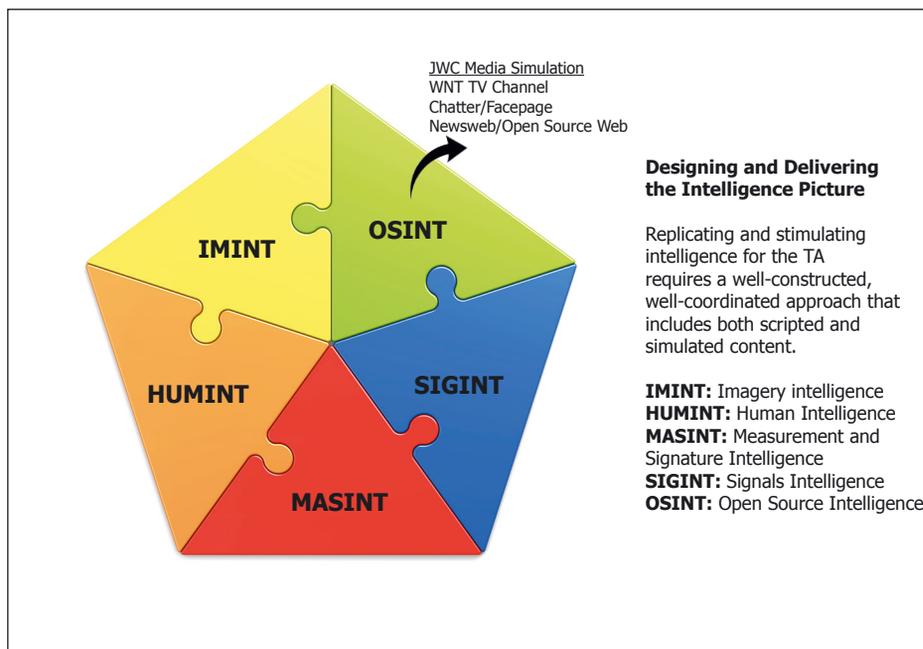
Framing the Requirements

In broad terms, within the context of the overall exercise design, creating the conditions to stimulate the Intelligence Cycle within a simulated environment requires exercise planners and content developers to first consider and address the following questions:

- **What do we want or need the TA to know?**
Examples: Locations, activities, capabilities, intentions.
- **When do we want them to know it?**
Examples: As an indicator/warning; prior to TA working groups, boards, or decision points; after an attack or a significant event.
- **Why do we want them to know it?**
Examples: To shape TA assessment/understanding, influence TA decision(s).
- **How do we deliver and/or stimulate the requirement?**
Examples: Through scripted and/or simulated exercise content.

Collectively, the answers to these questions form an envisioned end-state that represents a completed jigsaw puzzle that the TA must try to assemble through their application of the Intelligence Cycle. Working backwards from this desired end-state, JWC exercise content developers "cut" or deconstruct the puzzle into the individual pieces that will be developed and introduced to the TA through the most appropriate collection disciplines (e.g. HUMINT, IMINT, OSINT, SIGINT, MASINT)

as scripted and/or simulated content. Scripted content includes the broadly focused exercise scenario products and the more specific Main Events List/Main Incidents List (MEL/MIL) that is managed through the Joint Exercise Management Module (JEMM) application. Simulated content, on the other hand, is generated by the Joint Theater Level Simulation (JTLS). These two delivery means working in concert provide complimentary effects for the benefit of the TA. This methodology for framing the requirements helps exercise content developers to foresee not only the anticipated



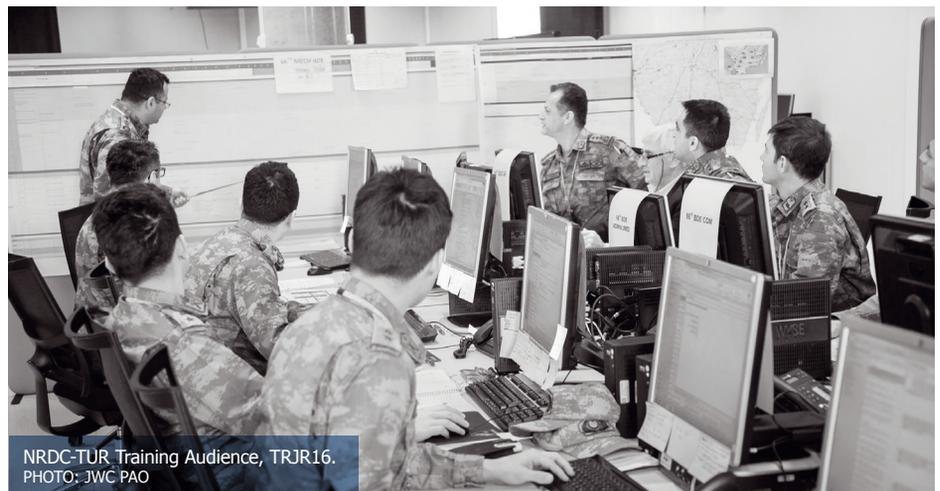


dance with NATO Bi-SC 75-003, the Collective Training and Exercise Directive, the JWC Scenario Branch produces a diverse range of documents that address Political, Military, Economic, Social, Infrastructure, Information (PMESII) content and geo-spatial information for incremental delivery to the TA. Also included within these packages are the Crisis Response Intelligence Package (CRIP) and Crisis Situation Updates (CSUs). These products enable the staff to prepare the Joint Intelligence Estimate and Joint Intelligence Preparation of the Operational Environment as part of Crisis Response Planning (CRP). Any Requests for Information (RFIs) that the TA generate during the course of their planning may be submitted to the JWC exercise scenario team, who assess the requirements and prepare responses in the role of SHAPE and/or the NATO Intelligence Fusion Center (NIFC).

Stimulating the Intelligence Cycle and the JISR Process

Building upon the scenario modules, the MEL/MIL adds fidelity and specificity in order to stimulate joint, operational level challenges to support the Training Objectives. The resultant storylines typically incorporate and rely upon intelligence-related subject matter that is developed during the JWC-led MEL/MEL Scripting Workshop, and later introduced to the TA during CPX execution. As MEL/MIL process custodians, JWC-appointed Event Managers guide the scripting process under the direction of the JWC Chief MEL/MIL. The Event Managers lead and synchronize the contributions of allocated script writers. Participants in exercise scripting workshops typically represent a mix of personnel from the JWC, other NATO units, and additional external sources who collectively contribute the expertise necessary to develop incidents and injects across all domains and warfighting functions. Producing credible, technically accurate, and complete

Producing credible, technically accurate, and complete injects that represent multi-source reporting across collection disciplines requires expertise from trained, experienced intelligence specialists.



NRDC-TUR Training Audience, TRJR16.
PHOTO: JWC PAO



Colonel Engen, the author.
PHOTO: JWC PAO

974

Number of injects played during TRIDENT JAGUAR 16.



TRJR16 OPFOR, the "Opposing Force", in Stavanger.
PHOTO: JWC PAO



For more information about OPFOR, check out The Three Swords Magazine, Issue No. 29 at jwc.nato.int/media/selected_articles for article titled "TRIDENT JUNCTURE 15 Opposing Force (OPFOR) and the Exercise Design" by Lieutenant Colonel Markus Schilcher.

injects that represent multi-source reporting across collection disciplines requires expertise from trained, experienced intelligence specialists. During the course of the workshop, the Chief Intel works in support of the MEL/MIL team to distribute, synchronize, and coordinate available expertise, which may be limited due to competing demands affecting the availability of externally sourced personnel.

TYPICALLY OCCURRING in tandem with the scripting workshop, STARTEX validation represents the vital link between scripted content and the simulated environment that unfolds upon execution. Representatives from the JWC (Scenario, MEL/MIL, OPFOR) and TA work with the JWC CAX team to validate the simulation generated conditions at STARTEX, including the size, composition, locations, and capabilities of friendly forces, threat/adversary forces, neutral forces, civilian traffic, etc. What that TA "sees" within their Command and Control (C2) systems beginning on Day 1 of the CPX relies upon this process. Thereafter, the simulation maintains and represents a consistent theatre and operational picture through the TA C2 systems, including physical aspects related to movement, consumption of resources, and perception. The simulation works in concert with scripted content to bring the exercise to life and provide "reality" within the TA command post(s).

CPX Execution

Months of planning and preparation come together during the 10 days of the CPX, which are immediately preceded by five days of EXCON staff training. The Chief Intel leads a small, multi-discipline intelligence team within EXCON to manage the delivery of the pre-prepared intelligence content during the dynamic flow of simulation-enabled execution.

Key functions performed by this team include:

- Replicate SHAPE J2, including the receipt and response to RFIs from the TA;
- Replicate the NIFC through the preparation of exercise specific Daily Intelligence Updates and Special Intelligence Reports;
- Replicate/produce national intelligence reporting and products;
- Review, synchronize, refine, and validate intelligence-specific injects;
- Coordinate and support the activities of the intelligence/JISR staff members within the Lower Control (LOCON) Response Cells (RCs) that replicate the component commands or subordinate tactical echelons of the TA (Land, Air, Maritime, Special Operations, etc.).

EXCON training provides the means to famil-

iarize external augmentees and RC personnel with the tools (JEMM, JTLS) and processes (battle rhythm, information exchange) unique to exercise delivery. Once the exercise is underway, the Daily Intelligence Coordination Meeting, chaired by the Chief Intel, provides the venue within the EXCON battle rhythm to synchronize and validate the intelligence content that will be delivered to the TA during the upcoming 24 to 72 hours of exercise play. Further, the JWC Observer/Trainers, who are collocated with the TA, provide critical feedback to the EXCON Intel Team regarding the effects of the intelligence stimulation upon the TA as well as the progress of the TA intelligence staff in achieving their objectives. Adjustments and refinements are made to ensure that intelligence stimulation supports the flow of the exercise and the training requirements.

Factors Influencing Execution

As noted earlier, JWC-delivered exercises focus on the joint operational level. The current NATO TRIDENT Series of Exercises like "JAGUAR" and "JUNCTURE" do not typically provide venues for highly specialized or tactical-level intelligence training. Only tactical-level information necessary or relevant to operational level analysis, assessment, and decision-making is prepared and delivered to the TA. Additionally, as a theater-level simulation,





NRDC-TUR Training Audience, TRJR16.
PHOTO: JWC PAO

port segments) present within the EXCON structure and manned with trained personnel. These and other considerations represent key topics for further exploration and detailed discussion within the NATO intelligence and training/exercise communities.

As the preceding paragraphs outline, many factors influence the breadth, depth, and realism of intelligence and JISR stimulation during joint, operational-level CAX/CPX events. The exercise-appointed Chief Intel represents the focal point for coordinating and synchronizing support to JWC's intelligence-related deliverables. The JWC relies heavily upon external support and expertise to meet intelligence and JISR requirements. Shared understanding of the necessary inputs/tasks and collective support of the associated personnel and resource needs will enable the continued provision of challenging, realistic intelligence and JISR collective training for NATO Command and Force Structure HQs. ✦

FURTHER READING

For these related stories, visit www.jwc.nato.int

* "Data Mining in Real and Synthetic Environments" by CDR Tristan Lovering MBE, The Three Swords Magazine, Issue No. 28

JTLS does not generate all forms of tactical-level information or data, such as high-resolution imagery and real-time, full motion video feeds. The simulation does, however, provide the information that would be collected by tactical systems if employed properly and effectively by the TA as a result of the JISR process. The simulation generates text reports for analysis and action by the RC personnel performing intelligence and JISR staff functions.

It must be noted that the quality and rigor of LOCON RC reporting, product preparation/delivery, and support to the TA battle rhythm relies heavily upon the training and experience of the personnel filling those roles. This holds especially true for those serving as the subordinate intelligence staffs, collection managers, and JISR units. Getting the most out of the intelligence cycle and the JISR process during the CPX demands a subordinate team proficient in the latest NATO doctrine/policy, their roles and responsibilities, and technical support systems such as Intelligence Functional Services. Further, the TA must ensure their Standard Operation Procedures (SOPs), report formats, and dissemination guidance have been provided to the RCs and reviewed/rehearsed prior to execution.

The exercise-specific Computer and Information System (CIS) architecture represents another critical variable influencing execution. All applications and systems that support intelligence and JISR must be included within the exercise CIS architecture plan, properly configured, and appropriately tested. Success requires close coordination and collaboration

between affected participants across the CIS and intelligence/JISR functional areas.

Future Considerations

Future exercises must continue to account for and reflect the latest developments impacting intelligence and JISR. The advent of the NATO Alliance Ground Surveillance Forces (NAGSF) represents one such important, burgeoning capability for forthcoming CAX/CPX implementation. NAGSF core systems must be appropriately modelled within the simulation, the data transmission architecture reflected in the exercise CIS architecture, and the functions of this JISR unit (air, ground, and sup-



Primary function: High-altitude, long-endurance intelligence, surveillance and reconnaissance
Operational: 2017/2018

NATO Alliance Ground Surveillance: Future capabilities for NATO. Here, Global Hawk remotely piloted aircraft (RPA), which will be acquired by a group of NATO Allies. PHOTO: TSGT APRIL QUINTANILLA