NATO CAX
Specialist Certification Course

CAX PROCESS (BiSc Dir 75-3)

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References

- **MC 458/2**: NATO ET Policy
- **Bi-SC 75-2**: ET Directive

  - **Bi-SC 75-3**: Collective Training & Exercise
  - **Bi-SC 75-4**: Experimentation
  - **Bi-SC 75-7**: Education & Individual Training
  - **Bi-SC 80-6**: Lessons Learned

  - **Bi-SC 80-90**: NATO Task List
  - **ACO Forces Standards**: Volumes I-X

ETEE: Education, Training, Exercises, Evaluation
Bi-SC 75-2
ETEE Directive

EDUCATION AND TRAINING

Bi-SC 75-7
Education & Individual Training

Bi-SC 75-3
Collective Training & Exercise
Exercise roles and terms

- OSE - Officer Scheduling Exercise
- OCE - Officer Conducting Exercise
- ODE - Officer Directing Exercise
- EXDIR - Exercise Director
- DIREVAL - Director of Evaluation
- TA (PTA/STA) - Training Audience (Primary/Secondary)
- EXSPEC - Exercise Specification
- EXPLAN - Exercise Plan
- TO - Training Objective
- MEL/MIL - Main Events List and Main Incidents List
NATO Ex process
Exercise Process Timing

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Exercise Process

OSE Exercise Guidance

- Concept & Planning
  - Individual & Collective Training
    - Ph 3.1
- Execution
  - Crises Response Planning
    - Ph 3.2
- Evaluation
  - Ph 3.3

OCE Exercise Guidance (Public Inform.)

Exercise Plan

Observations & FER & Lessons Identified

Individually identified

- Identification & Lessons
Event Support Preparation

All what should be related to CAX Operators in all 4 stages of CAX Process
- EXSPEC – Geo Strategic Situation

- EXPLAN – Part 2 - EXCON functional responsibilities
- EXPLAN – MEL/MIL development – Annex M – Appendix 2
- Establish Modelling and Simulation (M&S) Requirements and Constraints. – Annex N
- Assess M&S Tool Options and Cost/Benefits. – Annex N
- EXPLAN – ORBAT/OPFOR

- IPC – what is inside
  - Assess EXCON Manning and Resources
  - Assess Interface of M&S Tools with Operational C2IS

- Modul 4 - Crisis Response Planning Information
  - Finalize EXCON Structure and Arrangements

- MPC –
  - Finalize EXCON Structure and Arrangements
    - Final EXPLAN
  - Modul 6 – STARTEX + MEL/MIL, ORBAT, SITREP
  - Develop M&S Theatre Data (from C2IS Data) per Strategic Guidance.
Exercise Operational Conduct

Phase 3.3 - 3.4

All what should be related to CAX Operators in 3 stages of CAX Process
- Foundation Training
  - (Crisis Response Planning
    - Execution
    - Assessment

ANNEX H for Luca role play
CAX Support during phases - EXSPEC

M&S SUPPORT TO THE EXERCISE CONCEPT AND SPECIFICATION DEVELOPMENT STAGE

3.1 The OSE CAX support tools used during the Exercise Concept and Specification Development Stage should assist in the: capture, analysis and harmonisation of relevant NATO policy; strategic direction, guidance and essential exercise/training objectives; lessons learned; etc., to develop the overarching exercise concept, scope and scale and to produce the exercise guidance, specification, geo-political situation, analysis requirements and high level documentation.

3.2 The OCE CAX support tools used during the Exercise Concept and Specification Development Stage should assist in developing the operational commanders’ mission essential tasks and training objectives as well as relevant lessons learned.

3.3 The exercise planning group (EPG), when conducting the Develop Exercise Form and Type Alternatives step, should address the merit and costs of using CAX support systems to support the exercise. Although this decision can be modified later during the EP, the broad decision for the use of which simulation systems and to what extent should be taken before the approved EXSPEC is issued. At least, it should be decided whether a simulation system will be used or not. This decision should be based on several factors including:
   a. Exercise and training objectives.
   b. Missions and operational tasks.
   c. Capabilities and the availabilities of the simulation systems.
   d. Constraints on resources such as budget, time, space, manpower and CIS capabilities.
CAX Support during phases - EXPLAN

4.1 CAX support tools used during the Exercise Planning and Product Development Stage should assist the exercise planning and product development staff with:

a. Collaborative development of all scenario modules with respect to geo-referenced data, information and documentation fully in compliance with NATO policy, doctrine, forces' standards, mission essential tasks and interoperability requirements of Functional Services.

b. Collaborative development of pre-scripted events, injections and information flows to support achievement of the exercise aim and objectives and to be provided to the training audience via doctrinal means using Functional Services or other authorised conventional means.

c. Capturing and managing exercise costs.

d. Collaborative development of the EXPLAN.

4.2 The core planning team (CPT), when conducting the Provide Guidance on Scenario Development step for the OCE Exercise Planning Guidance should carefully consider scrutinising and merging available off the shelf scenarios or scenario modules. When this is not feasible and time allows, a completely new NATO UNCLASSIFIED BI-SCD 075-003 N – 1 – 3 NATO UNCLASSIFIED scenario or a complete new setting may need to be developed. In both of these cases a special purpose setting/scenario development tool could prevent the duplication of effort, enhance collaboration and increase efficiency as well as connect the scenario, MEL/MIL and database management team efforts. The scenario development tool should also be capable of producing theatre data and information in the formats and levels of granularity required by the training audiences' Functional Services.

4.3 The CPT and/or the ODE, when developing Scenario Module 4 – Crisis Response Planning Information, should consider use of a MEL/MIL development, management and execution tool. The tool selected should be capable of, among other things: associating the exercise objectives, training objectives, events, incidents and injections; allowing collaborative development of events, incidents and injections; allowing modification of injections before transmitting to the training audience; allowing dynamically scripted injections to be introduced; collecting the lessons identified from the training audiences response to the scripts; supporting training audience response trend analyses; and supporting the post-exercise analysis and reporting phase. An example MEL/MIL tool is Joint Exercise Management Module (JEMM).

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CAX Support during phases – EX phase IIIb

OPERATIONS SUB-PHASE

8.1 The CAX support tools used during the Exercise Sub-Phase IIIB, Operations, should assist in the presentation to the training audience through the real Functional Services the data and information in the expected formats and levels of granularity that they would expect to see if the situation were real to include the same requirements as Sub-Phase IIIA.

8.2 Various constructive simulation systems may be used in the Operations sub-phase of CPXs. Among these the joint theatre level simulation (JTLS) and the joint conflict and tactical simulation (JCATS) are more important for Joint Warfare Centre (JWC) and Joint Force Training Centre (JFTC). JTLS is a highly aggregated joint constructive simulation system used in CAXs supported by JWC of JFTC. JCATS is a high resolution joint constructive simulation system used in the exercises supported by JWC and JFTC.

8.3 CAX support tools must replicate C4I environments during CAXs. In other words, simulation systems and all the other related software must be transparent to (i.e., not seen by) the TA, which should carry out the exercise as if they are in an operation and commanding their subordinates by using C4I systems normally available to them. They should also be able to receive the orders and to send the reports through these systems. This transparency can be achieved by the mediation tools between the simulations and C4I systems. NATO has the mediation tools between NATO C2 systems and simulation systems to fulfil this requirement.

8.4 As many injections can be created automatically by the simulation systems their inputs to the training audiences' information systems should be carefully monitored for two reasons:

   a. Exercise control staff needs to follow the management of the incidents and injections from the beginning to the end.

   b. Some of the incidents and injections created automatically can hamper the exercise goals, and therefore may
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