

Below: A Training Team meeting during TRIDENT JAGUAR 16. Training Analysts provide assessment of the direction in which the TA is heading. PHOTO: JWC PAO



JWC TRAINING ANALYSTS & THE TRAINING OBJECTIVES

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AS TRAINING ANALYSTS at the Joint Warfare Centre (JWC), our duties include advising Training Audiences (TAs) during development of Training Objectives and assessing whether exercise content will provide the conditions necessary to achieve them. Additionally, we assess the achievement of Training Objectives during the various exercise phases and sub-phases. Our usual guide in the preparation and delivery of exercises, Bi-SC 75-003, is very specific regarding the components of a training objective. However, it is less specific when developing or assessing Training Objectives. The most effective way to develop Training Objectives and to assess their achievement is to use traditional NATO planning and as-





1951

The year when NATO started conducting military exercises.



EXERCISES: During an exercise, forces are asked to respond to a fictional scenario that resembles what might occur in real life. Exercises cover the full range of military operations, from combat to humanitarian relief and from stabilization to reconstruction. They can last from a day to several weeks and can vary in scope from a few officers working on an isolated problem, to full-scale combat scenarios involving aircraft, navy ships, artillery pieces, armoured vehicles and thousands of troops.

Exercises vary in scope, duration and form—ranging between live exercises in the field to computer-assisted exercises that take place in a classroom. They are planned in advance by NATO's two strategic commands—Allied Command Operations and Allied Command Transformation—taking into account strategic priorities and objectives, operational requirements and specific exercise objectives.

Each exercise has pre-specified Training Objectives, which drive the selection of activities. Objectives may be to build skills and knowledge, practice coordination mechanisms, or validate procedures.

At the conclusion of an exercise, commanders and, in many cases, troops collectively review their performance. This process allows them to identify areas that work well ("best practices") and areas that can be improved ("lessons learned"). In this way, exercises facilitate continuous improvement of interoperability, efficiency and performance.

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assessment processes. In simplified terms, this involves conducting a mission analysis, developing Courses of Action (COAs) and selecting the most appropriate one. Then, creating a plan that includes Training Objectives as desired effects, establishing measures of effectiveness, assessing that effectiveness during and after execution, and, finally, making recommendations. But, before attempting to apply mission analysis techniques to a (for example) Joint Task Force Headquarters (JTF HQ) preparing for an NATO Response Force (NRF) standby period, let us begin with a much more simple example from the past.

From 1987 to 1989, one of us was a part of the U.S. Army 1st Armored Division (1AD), 1st Brigade Combat Team (BCT). Anyone entering any HQ within 1AD, from company-level to the Division HQ, would immediately notice a large sheet of paper with a handwritten list of that unit's Mission Essential Tasks (METs), with the overall lists of METs abbreviated as METL. Based on the NATO General Defence Plan (GDP) and Operational Plans (OPLANs) from AFCENT to CENTAG to U.S. VII Corps, 1AD's mission was to defend north-eastern Bavaria approximately north of Amberg and east of Nürnberg. While the Division's 2nd and 3rd BCTs were assigned to defend in depth from forward positions, 1BCT was the Division's reserve brigade and was primarily expected to conduct counter-attacks or establish blocking positions. This gave the mission, which was distinct from the other BCTs in the Division.

All types of U.S. Army units had corresponding "Army Readiness Training and Evaluation" program manuals listing tasks that, for example, a heavy BCT like 1BCT should be able to perform. By comparing the list of potential tasks to the mission, unit leadership developed a METL. In 1BCT's case, the METL included tasks such as deployment, movement to contact, forward passage of lines and attacks, but did not include tasks that were irrelevant to the mission or to the terrain. For example, there was no task related to river crossing operations, but a task concerning deception operations was added in 1988 when the BCT was assigned to execute part of the VII Corps and 1AD deception plans.

The Mission Analysis allowed us to identify tasks that needed to be trained, but not necessarily how to train them. There were

many tasks and not all could be accomplished in each exercise. In those days we conducted a number of exercises each year: Two gunnery exercises in Grafenwöhr Training Area (IRON THUNDER), two manoeuvre exercises focused at the battalion level and below in Hohenfels Training Area (IRON STAR), and two or three Division-level Command Field Exercises in the GDP area (IRON FORGE). Manoeuvre tasks such as "conduct movement to contact" for large units could be exercised well during IRON FORGE, but IRON STAR was a better venue for the same task at the battalion and company level. Commanders and staffs developed COAs to train specific tasks within specific exercises when developing long-term (18-month) training and exercise plans. For each exercise, the METs were operationalized into Training Objectives. They were defined by the Primary Task to be trained, Supporting and Enabling Tasks that identified the steps to achieve them, and Conditions and Standards under which the Tasks were to be performed.

Mission Analysis

While a JTF HQ is a much larger and more complicated headquarters than that of a late 1980's BCT, the steps to develop Training Objectives are not that much different. However, one difference is that the BCT from the example had a very specifically defined mission, while a JTF HQ preparing for a standby period does not. It must be prepared to accomplish a wide range of missions across the spectrum of conflict; from peace support to warfighting. Therefore, the range of tasks will be broader and more generic.

While the 1980's BCT could draw on a list of tasks from a specific manual, there is no single list of tasks for a JTF HQ. Fortunately, Allied Force Standards Volumes V and IX (AFS Vol V and IX) include a list of Main Capability Areas (MCAs), with associated tasks, for the joint level. The MCAs provide a good starting point for METL development and are also linked to the SHAPE J7 Evaluation Criteria. They are: 1) Prepare, 2) Project, 3) Engage, 4) Sustain, 5) Consult, Command and Control, 6) Protect, and 7) Inform. From these, the Commander and staff can develop a list of tasks to be operationalized as Training Objectives. Again, AFS V and IX can be helpful in identifying potential tasks to be trained.



COA Development

Based on the nature of the exercise and the list of potential tasks, the JTF HQ can develop COAs to achieve the Training Objectives. The exercise aim and exercise objectives as defined within the Exercise Specification (EXSPEC) will provide a framework in which to nest the Training Objectives. For example, whether an exercise is set in an Article 5 or non-Article 5, Major Joint Operation (MJO) or Small Joint Operation (SJO/Land), or other specific scenario conditions, EXSPEC will help determine what tasks can be exercised.

Another important consideration is the need for training. Commanders and staff can determine the need for training for each potential task based on previous HQ performance; new tasks yet to be performed by the HQ, as well as anticipated staff turnover in staff branches and other considerations. In the end, the HQ should identify a limited number of Tasks to be performed in each phase or sub-phase of the exercise. Preferably, the commander should prioritise these tasks in order of importance and they should be:

- limited in number by phase or sub-phase (ideally, around 10-15);
- comprehensive by covering cross-HQ processes, and preferably not stove-piped by a branch or section;
- distinct, so that there is no overlap between Training Objectives; and
- expressed in action verbs such as "develop", "plan", "coordinate", or "engage".

Plan Development

The next step is to operationalize the Training Objectives. The HQ does this by defining the Supporting and Enabling Tasks (SETs), Conditions, and Standards to under-pin them. Perhaps the most important element is the former as these are the processes that must be achieved to accomplish the SETs. While it is tempting to list every possible step and small process, training objective developers should take care to ensure that each SET could realistically be accomplished and observed during the course of the exercise. Preferably, like the tasks above, they should be:

- limited in number and focused on the

- most important processes leading to the accomplishment of the task (ideally, around 10-15 as a maximum per task);
- processes or products that can be observed; and,
 - expressed in action verbs.

The next element of the Training Objectives describes the "Conditions" under which it should be accomplished. Bi-SC 75-003 explains Condition requirements very well. In general, they concern manning of the HQ as well as any Response Cells, the CIS environment and systems, processes that must be in place (battle rhythm, for example), and the exercise environment (including scenario and exercise play, whether through injects, simulation, or the Opposing Force, OPFOR).

Finally, the "Standards" provide the criteria upon which accomplishment of Training Objectives are assessed. Again, AFS Volumes V and IX can be a source document, as well as JTF SOPs and Standing Operating Instructions (SOIs), and Allied Joint Publications. To assist those who observe and assess the exercise, they should be as specific as possible.

EXAMPLE TRAINING OBJECTIVE DURING A CPX: THE PROTECTION OF CIVILIANS

TASK: Plan and conduct activities with the intent to safeguard non-combatant civilians from physical violence; secure their rights to access essential services and resources; and contribute to a secure and stable environment for them over the long-term.

Supporting and Enabling Tasks:

1. Conduct operational appreciation and assessment of the threat to civilians during the Crisis Response Planning (CRP),
2. Plan actions to protect civilians during the CRP and subsequent long-, medium-, and short-term planning activities,
3. Develop Effects and Measures of Effectiveness related to the type(s) of threat to civilians,
4. Incorporate threat to civilians in Operational Assessment.

Conditions:

C1-Response Cells: To simulate subordinate components and formation that are

supporting Operations Assessment at operational level. It is also required to have the LOCON expertise to integrate Operations Assessment at the joint level.

C2-Command Post (CP) Augmentation: One Assessment Subject Matter Expert.

C3-Observer Trainer (O/T): One O/T with sufficient Operations Assessment expertise.

C4-Scenario Documentation: It is required to have a set of events to be processed and assessed prior to the STARTEX. This documentation should provide sufficient detail to lead to potential recommendations from the Joint Assessment Board.

C5-Expected MEL/MIL outcome: Incidents to challenge achievement of Decisive Conditions, leading to potential recommendations.

C6-C2IS: TOPFAS SAT-OPT-CAT available at all levels.

C7-CAX: Flow of information to be processed require to arrive at least three weeks prior to STARTEX, due to time required to collect and analyze data that has to be converted in assessment and proposed changes.

C8-Battle Rhythm: During the execution, Assessment Working Group members have to comply with an internal battle rhythm to analyze data that has to be converted in assessment and proposed changes.

Standards:

- S1. Reference Documents:
- Knowledge and use of all relevant JTF HQ reference documents and operational assessment guidance amongst them.
 - The Comprehensive Operations Planning Directive (COPD V2).
 - NATO Operational Assessment Handbook.
- S2. Criteria of Performance: Knowledge of operational assessment; use of TOPFAS (OPT and CAT).





Training Objectives and Relationship to Exercise Content

At JWC, we develop exercise content, including triggers from the Main Events List/Main Incidents List (MEL/MIL), Computer Assisted Exercise (CAX) simulation and OPFOR, based on the TA's training objective needs. For example, when developing the MEL/MIL, the content developers link each incident (or storyline) to a specific training objective and based on the training objective's SETs and Conditions, the developers script a number of injects to provide triggers to stimulate the TA. The better developed SETs and Conditions are, the more the content developers can develop and deliver effective and stimulating incidents and injects.

Assessment

Just as accurately defined "Actions, Effects and Decisive Conditions" are the cornerstones to effective Operational Assessment, so are well-defined Training Objectives similarly critical to assessing the training progression of the TA's training objective. Over the years, we have used several methods for assessing Training Objectives based upon input from our Training Team's (TTs) Observer/Trainers. In general, the Observer/Trainers provide feedback on, among other things, whether the SETs have been accomplished to the specified standard. Well-developed tasks can be compared to Decisive Conditions, while the SETs are more like "Effects". As the SETs are achieved, the analyst can develop a cumulative assessment of each Training Objective. One recent method of assessment is based on the percentage of SETs that have been achieved and these are mapped across the exercising days. See Figures 1 (below, left) and 2 (above).

EXAMPLE ASSESSMENT SCALE

	Observing
	SETs success observed
	SETs deficiency
	Majority SET success observed (≥%65 SET)
	TO success (≥%90 SET)
	TO failure (≥%90 SET)

EXAMPLE TRAINING OBJECTIVE PROGRESSION

Training Objective	G+55	G+56	G+57	G+58	G+59	G+60	G+61	G+62	G+63	G+64
01 Jt Comprehensive OPP	Dark Green									
02 Interoperability	Light Green									
03 Jt Targeting	Light Green									
04 Jt Ops Assessment	Light Green									
05 Comprehensive Approach	Light Green									
06 Info Ops & STRATCOM	Light Green									
07 Force Protection	Light Green									
08 JISR	Light Green									
09 Jt Log Support	Light Green									
10 Info Management	Light Green									
11 Gender Policy	Light Green									
12 JLSG Deployability & Mobility	Light Green									
13 JLSG Theatre Level Log Support	Light Green									

= SET Deficiency = ≥ 65% SETs Achieved = ≥ 90% SETs Achieved

About the training progression of the TA's training objective, the analysts report daily to the Exercise Director (EXDIR) who is then able to better determine, if at all, there is need for additional training or exercise content to provide the Training Audience with further opportunities to meet their Training Objectives. Then, at the end of the training event, training progression mapping and associated observations from Observer/Trainers are used to inform formal reviews, reporting and the capturing of lessons identified.

Conclusion

Whilst the TA creates and owns its Training Objectives, it is the Training Analyst who provides intimate developmental support, bringing to bear his or her experience and advising on process as well as best practice. However they are built, it is crucial that the Training Objectives represent a vehicle that services the demands of the TA's Commander's training needs and intent as well as the exercise objectives, and that they will also provision SHAPE J7's Evaluation process. Ensuring that they will, it is the role of the Training Analyst who will map the Training Objectives across a MEL/MIL and exercise development process that can take some 10-months.

Finally, during exercise's execution, it is the Training Analyst who provides assess-

ment and analysis of the direction in which the TA is heading. He will advise the EXDIR as to whether he should or should not amend the MEL/MIL content, with the aim being to provide the TA with the correct stimulation to demonstrate training objective proficiency, thus achieving the "green status" by ENDEX.

While the levels of command and range of potential missions for NATO Command and Force Structure headquarters are far more complex than for a BCT in the 1980's, the process of developing sound Training Objectives need not be much more difficult. Tools such as the Training Objective Management Module (TOMM) can assist headquarters in developing Training Objectives collaboratively and some headquarters have developed their own systems. For example, Rapid Reaction Corps-France has a tool to incorporate AFS Vol V and IX tasks into their Training Objectives.

Additionally, headquarters preparing for exercises in which JWC is the "Officer Directing the Exercise" (ODE) can also receive advice and assistance from JWC Training Analysts. They are available to assist in delivering special Training Objective Workshops and in reviewing draft Training Objectives. Their early involvement in the Training Objective Development Process will benefit the TA and other stakeholders and increase the likelihood of achieving "green" on Training Objectives in due course. ✦