NATO Lessons Learned Conference Final Report 2018

INTEROPERABILITY

NLLC & NATO LESSONS LEARNED OPTIMIZATION ACTION PLAN

INFORMATION EXCHANGE

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INTRODUCTION

The NATO Lessons Learned Conference 2018 (NLLC) was hosted by the Joint Analysis and Lessons Learned Centre (JALLC) on 20-22 March in Oeiras, Portugal.

This year's conference was attended by more than one hundred participants and covered two themes:

"Interoperability and Information Exchange of Lessons within NATO and with Partners, including International Organizations, Governmental organizations and Non Governmental Organizations"

and

"NATO Lessons Learned Optimization Action Plan Assessment and Adaption."

Supreme Allied Commander Transformation (SACT), General Denis Mercier, opened the Conference by video, emphasizing that enhanced interoperability will make sharing lessons easier, and that machine learning, artificial intelligence, and other emerging disruptive technologies will assist the analysis of data in the future.

General Mercier was followed by the JALLC's Commander, Brigadier General Mario Barreto, who noted that,

"…the NATO Lessons community must also ensure true interoperability in the lessons learned context, to provide the right processes, tools, structures and training that enable and encourage—and not hinder—the exchange and sharing of information, knowledge, experience, lessons, and best practices."

The format of this conference marks a change from the format in the past, with participants working in syndicate working groups on the procedural, technical, and human dimensions of the Interoperability domain. Participants also took a cross-cutting look at the Information Exchange of Lessons within NATO and with Partners, including International Organizations (IO), Governmental Organizations (GO), and Non Governmental Organizations (NGO). Finally, the assessment and adaptation of the NATO Lessons Learned Optimization Action Plan was also addressed in a separate working group.

The JALLC's Commander confirmed in the presentation of the final Conference Statement that the new format of the Conference had been met with many positive remarks and perceived as a fruitful and dynamic way to bring worthwhile suggestions for transformation of NATO.

The next Lessons Learned event on the JALLCs calendar is planned from 02-04 October and will look at how new technologies can help improve Alliance lessons learning. Details on this event will be made available on the JALLC's website and on the NATO Lessons Learned Portal.

BGEN Mario Baretto
Portuguese Air Force
Commander JALLC

Interoperability: Human dimension

Chairman: GRP CAPT Adrian HILL

Facilitator: Ms Katie MAULDIN

Introduction

Through the use of divergent and convergent thinking techniques, the human syndicate was able to identify numerous human-related factors that affect information/lessons sharing across the NATO Lessons Learned (LL) capability. The syndicate that worked on this topic analysed eight of these factors in-depth over the course of the syndicate work and developed actionable recommendations that may be taken to mitigate singular issues, and in some cases, address broader, systemic issues. Interestingly, the focus shifted over the two days of syndicate work to look not just at information/lessons sharing, but to look at the NATO Lessons Learned capability as a whole, and human-related factors that may impact its effectiveness. As such, most of the recommendations aim to address the capability in a broader sense than purely from a lessons sharing standpoint.

Summary of Syndicate Work

The syndicate work began with members introducing themselves and identifying one human-related barrier or enabler for sharing lessons and/or information exchange that they have experienced. Through this exercise, the syndicate was able to identify over 30 barriers/enablers, or *the universe*. Follow-on discussions allowed the syndicate to add to this universe and then to categorize the barriers/enablers in the universe to better understand the issues and how they may present themselves in an LL capability. These discussions were focused in terms of viewing the barriers/enablers through both *individual* and *organizational* lenses.

For example, one identified barrier was a *lack of trust*. This barrier, however, can have an effect at both the individual level, e.g., no trust that the system works; or at the organizational level, e.g., that the organization does not trust individuals to use the system correctly. Not surprisingly, many barriers were related to mindset, such as *uploading lessons to the NATO LL Portal (NLLP) is not the same as sharing*, and *leadership is not really interested*. However, upon categorization, the syndicate members did not identify *mindset* as its own specific category, but focused much more on leadership issues.

Once discussed, syndicate members were given a few votes to vindicate the top barriers/enablers from their individual perspective that the syndicate should look at more in-depth. The voting resulted in eight priorities (in priority order):

- Lack of knowledge and understanding from leadership.
- Double duty/lack of experience.
- Not seeing outputs/no feedback.
- Other things are more important.
- Tendency to over-classify.
- Differences in perspectives (i.e., generational).
- Lack of trust.
- Lack of confidence in the observation/lesson submitted.

During the following session, the syndicate split into small groups of three to four people and each was assigned one of the above priorities. The small groups were asked to answer four key questions related to each priority:

- Where in the NATO LL Process does the issue occur and/or have impact?
- How does the issue occur/present itself?
- What is/are the reason(s) the issue occurs?
- What (if anything) can we do about it?

These smaller groups then all presented their work to the larger group, resulting in more discussion. Through such discussions, what became even more clear is that it is impossible to disentangle the human from the procedural from the technical dimensions. But, by taking these discussions as a whole, and refocussing them through the human *perspective,* three themes emerged and are discussed in the following paragraphs.

Humans do not understand the value of LL

The idea that humans do not always understand the value of LL was pervasive in most of the smaller teams' discussions. What was apparent was that this lack of understanding affects all levels, from newcomers to leadership. It affects individuals' willingness to admit mistakes, and it affects the culture and mindset of organizations, all contributing to individuals and organizations being disincentivized to spend time on LL in the first place. Although each of these ideas can be explored in even more depth, the syndicate members were able to identify a number of ways to address the lack of understanding, namely through specific training requirements across multiple levels, mechanisms to evaluate leaders, individuals and organizations, and opening up courses, conferences, and other events to younger people in order to assimilate the importance of LL in their early NATO education.

Humans do not perceive the LL process as transparent.

This theme emerged through the identification of perceptions that the current mechanisms/tools in place to monitor observations/lessons are not transparent for the originator. This lack of transparency is, in part, related to the fact that individuals desire more feedback for the originator throughout the LL process. Without such feedback, originators can lose interest in what happens to their submitted observation/lesson or lose confidence that the process is working as intended. Additionally, members identified the need to publicize/socialize successful lessons more in an effort to build confidence in the process. In this vein, members identified actions related to ensuring that end-of-activity reporting is not limited to Lessons Identified Action Lists (LIAL) and/or Final Exercise Reports (FER); considering more innovative ways to publicize lessons; and considering how the NLLP can provide more automated feedback to the originator.

Humans perceive the LL capability as more difficult to field than expected.

In general, it can be stated that there exists amongst LL practitioners a perception that the process takes too long. Syndicate members pointed to NATO/national exercises as a particular example, in that, from the time the exercise begins to the point at which lessons are identified in a Lessons Identified Action List (LIAL)/ Final Exercise Report (FER) to when the lessons get staffed, can be months. This time lag can mean that some lessons are not formally identified in adequate time to inform the next, similar exercise(s). In addition to a slow process, numerous syndicate members asserted that the current technology/tools do not reflect the way humans operate in the 21st Century, particularly when considering how advanced social media, smart searching, and mechanisms for feedback (e.g., commenting capabilities) are anymore. If the point of LL is indeed to learn from the past in order to approach the future more intelligently, then the NATO Lessons Learned Portal (NLLP) does not, in the opinion of the syndicate members, reflect the concept of LL at its core. Syndicate members mentioned, numerous times, the lack of user friendliness of the NLLP in this regard.

The perception that the process and the tools do not reflect the demands of the current real world and potential operating environment leads to a lack of confidence that the LL capability results in success. This lack of confidence thereby discourages users/practitioners from using the capability in its current status.

Syndicate Recommendations

In order to address the myriad issues with the LL capability from the human perspective, as discussed above, syndicate members identified the following recommendations.

1.   Primarily, it is recommended that training and education being adjusted in a number of ways. Specifically:
     - There should be a standard training for all NATO newcomers that covers the value of the LL capability.
     - There should be semi-annual/regular training for all NATO entities/staffs regarding LL (e.g., refresher training).
     - Every course through NATO School Oberammergau (NSO) (and potentially others) should include an LL aspect.
     - Different NATO entities should leverage the NATO Centres of Excellence more in order to both train

2. The NATO Command Structure (NCS) (and potentially other NATO entities) should establish a mechanism for evaluating individuals/leaders/organizations regarding their success in *doing LL*. For example, the standard International Evaluation Report (IER) for the military could include a line regarding LL.
3. All courses, conferences, other events should be opened up to younger staff/more junior staff in order to (1) bring in new ideas; and (2) educate staff from a young age on the importance of LL.
4. New options should be considered for publicizing successes of the NATO LL process and for doing so more frequently than just LIALs/FERs. This could be in the form of a monthly newsletter or other format that would highlight specific lessons identified/learned and their contribution to the NATO LL capability.
5. The NLLP should provide more automated messaging to originators, such as automated emails, that inform originators of what is happening with their submitted observations/lessons.
6. The timelines for the LL process (e.g., in the exercise process) should be reviewed and adjusted to shorten the time it takes from the start of exercise to the promulgation of the LIAL. One potential solution is to identify mechanisms to allow for staff to more easily submit observations/lessons throughout the event (e.g., not on Mission Secret) and not just at the end of the activity.

Finally, a number of questions were raised that would likely require further analysis/research.

- How can we train to ask "why" more and "so what" less?

- What are other ways to educate and involve staff in LL earlier in their careers?

- How can we tie performance to "making the organization better?"

- Units should think more intelligently about their LL structure. What about Tiger Teams to address short term requirements?

- What are the short, medium, long term options for the technology to provide better monitoring and feedback?

- How best can we incorporate LL goals into strategic documents?

- What kind of procedure would actually incentivize individuals to share in the LL community?

INTEROPERABILITY: TECHNICAL DIMENSION

Chairman: CAPT Jürgen VELTEN

Facilitator: Dr. Henrik HEIDENKAMP

Introduction

The technical dimension syndicate aimed to provide a participants with a framework to discuss constituent elements of existing and future technical solutions, as part of NATO's LL Capability, and their alignment with the NATO Lessons Community's requirements in order to support the effective and efficient development, implementation and utilization of a technical LL solution successfully serving both day-to-day and long-term needs of the Alliance in its efforts to be a learning, innovative organization.

With reference to stated New Lessons Learned Tool (NLLT) functionalities – data collection, data analysis, staffing, tracking, monitoring and sharing – syndicate members engaged in a brainstorming discussion to identify generic NLLT user requirements as a baseline for further analysis of the development, implementation, and utilization of the NLLT. Syndicate discussions were further framed by the NLLT's ambition to provide for an integration of Commanders' intent/mission, user requirements, available technologies, and security considerations.

Themes that were discussed by syndicate participants included:
- the diversity of the LL user community,
- the complexity of the information exchange environment,
- crisis scalability and resilience,
- tailoring to exercise and operation requirements,

- management of data redundancy and aggregation,
- translation functionalities,
- integration of collection, exploitation and sharing functions,
- feedback and visibility function throughout the LL process.
- access solutions for non-NCS users and interoperability with National systems,
- interaction function for LL community users,
- management of LL data legacy,
- LL education and training requirements related to the technical dimension, and
- technical support function requirements.

The following entities were represented in the technical dimension syndicate:

- Cooperative Cyber Defence Centre of Excellence (COE);
- Counter Intelligence COE;
- Military Police COE;
- Modelling and Simulation COE;
- Weather Operations COE;
- Operations in Confined and Shallow Waters COE;
- HQ Allied Joint Force Command Brunssum;
- HQ Supreme Allied Commander Transformation;
- the JALLC;
- Ministry of Defence Portugal;
- NATO Rapid Deployable Corps Headquarters Greece;
- Royal United Services Institute for Defence and Security Studies;
- SHAPE; and
- the Swedish Armed Forces

Summary of Syndicate Work

An initial assessment of the NLLP has delivered the following, not-comprehensive, list of shortfalls:

- The NLLP is not sufficiently user-friendly,
- is not adequately reflecting all capabilities of 21st century technology,
- is not yet a one-stop-shop for the Lessons community,
- requires significant education and training to be usable,
- does not offer a personalized user experience, and
- is not fully matching operational requirements.

In conclusion, syndicate members are concerned that the NLLP currently does not always deliver the right lessons to the right users in the right time. Against this background the syndicate members identified seven generic user requirements as a baseline for further analysis of the development, implementation and utilisation of the NLLT, namely:

- **Accessible, exploitable, and shareable information**

    - Individual security credentials driven access to information;
    - Personalized, scalable front-end view and push of information;
    - Search function with integrated analytics;
    - Automatized generation of LL deliverables;
    - Automatized extraction of observations/lessons;
    - Direct translation functionality;
    - Voice-to-Text functionality to support in-time collection; and
    - Currency of information indicator.

- **Linkage between Lessons Learned and Strategic Management**

    - Observations/Lessons collection plan functionality; and
    - Linkage of observations and lessons with stated top-level goals and (sub-)objectives and associated risks and issues.

- **Integration of LL tool into the wider NATO IT architecture**

  - Interoperability with other tools (e.g. NATO Tasker Tracker)
  - Downward compatible technical solution
  - Flexible design of tool to ensure upgradability

- **Improved Lessons community interaction**

  - Common chat and commentary functions
  - Availability of current information owners overview

- **Continuous feedback for users**

  - Status update function on collection, exploitation, and sharing activities
  - Free text comment box function

- **Deployable LL capability**

  - Offline, real-time and mobile functionalities

- **Intuitive NLLT design**

  - Minimum training and education requirements
  - Multiple layers of the tool

Syndicate Recommendation

In order to generate consolidated, detailed user NLLT requirements the technical dimension syndicate participants recommend for the JALLC to be tasked with a respective in-depth analysis that is founded on a comprehensive, validated data base. Syndicate members called for such a study to encompass the identification of user requirements within the higher-level assessment of the NLLT's purpose and to be reflective of the human and procedural dimensions of interoperability with the scope of NATO's LL Capability.

INTEROPERABILITY: PROCEDURAL DIMENSION

Chairman: Mr John REDMAYNE

Facilitator: Mr Filipe VIEIRA

Introduction

As noted in the read ahead material provided for the Procedural Dimension Syndicate, Lessons are a key learning component for understanding and improving interoperability of the Alliance, but as a process, Lessons Learned has its own interoperability implications—namely the sharing and exchange of lessons. By looking at the sharing and exchange of lessons through the lens of the procedural dimension of interoperability, the syndicate aimed to meet the Commander's intent of the 2018 NATO LL Conference to, specifically:

Identify concrete recommendations and lessons to improve NATO's interoperability of LL, including information exchange, on LL with Allies, Partners and Non-NATO Entities; and,

Identify requirements and ways to improve interoperability of LL among LL repositories.

The Procedural Dimension Syndicate examined the procedural-related barriers and enablers to the sharing and exchange of LL. The following questions were offered to syndicate participants in advance for their consideration, and consequently framed the Syndicate's work:

- Do national processes differ significantly and do these differences inhibit Allies from sharing information?

- Does sharing lessons have the same doctrinal meaning for all Allies?

- Does current security policy hinder information sharing? Do national policies and directives hinder information sharing? How can we encourage *responsibility to share* rather than *need to know*? Are there best practices that NATO and the Allies could learn from?

- Is lessons information being effectively shared within groups of Allies and Partner nations e.g. in the context of the Very High Readiness Joint Task Force (VJTF) multinational brigades? Is this approach more effective, similar to communities of interest in the NLLP?

- If we were to talk about information sharing rather than lessons, would this facilitate sharing of experience within the Alliance?

- NATO Command Structure (NCS) directives and the NLLP currently mandate the use of the Observation-Discussion-Conclusion-Recommendation (ODCR) format for lessons and other NATO entities and Allies are strongly encouraged to use this format. Does a common format encourage or discourage the sharing of information? How can this be improved?

- Is a NATO Standardization Agreement (STANAG) covering lessons and the sharing of information required? What aspects would such a STANAG cover? Who would take the lead to develop such a STANAG?

- Is the requirement for lessons identification and sharing adequately addressed in NATO processes such as the NATO Defence Planning Process (NDPP) and the Operations Planning Process (OPP)—these processes are explicitly referenced in the NATO Interoperability Policy? What about other NATO processes such as capability development (capability packages), NATO Crisis Response Process (NCRP), exercise planning? And in wider NATO Doctrine e.g. Allied Joint Publications (AJP)?

The Procedural Dimension Syndicate consisted of 32 participants, and included military and civilian personnel. The following entities were represented:

- Ministry of Defence Estonia
- SHAPE
- Naval Mine Warfare COE
- Ministry of Defence Croatia
- Norwegian Joint Headquarters
- Joint Force Training Centre (JFTC)
- Ministry of Defence Poland
- Ministry of Defence Spain
- Ministry of Defence Australia
- Strategic Communications COE
- Ministry of Defence Bulgaria
- Ministry of Defence Portugal
- Headquarters Naval Striking and Support Maritime Forces (SFN)
- Headquarters Allied Joint Force Command Naples (JFC NP)
- Energy Security COE
- Joint Warfare Centre (JWC)
- NATO Force Integration Unit (NFIU), Estonia
- Ministry of Defence France
- NATO Communications and Information Agency (NCIA)
- Ministry of Defence Bosnia and Herzegovina
- Ministry of Defence Hungary
- Ministry of Defence Canada
- Headquarters US European Command
- Multinational Joint Headquarters Ulm
- Ministry of Defence Georgia
- JALLC
- HQ Allied Rapid Reaction Corps (ARRC)
- EU Military Staff
- General Staff of the Ukrainian Armed Forces
- Knoco Ltd

Summary of Syndicate Work

Day one consisted of an introduction to the Syndicate and its theme, and a brainstorming session in which syndicate members were asked to identify procedural-related barriers and enablers to sharing information and lessons, and group similar ideas. The following day the members, first collectively prioritized the ideas, and then, working in smaller teams, analysed the priority barriers and lessons and the actions needed to overcome or institutionalize them, respectively. A more detailed timetable is provided below.

Day 1 (20 March)

Syndicate Work 1 – Introduction

This session included initial introductions followed by the chairman and the facilitator providing back-ground and review of the current hierarchy of NATO LL-related documentation and the NATO LL Process.

Syndicate Work 2 – Focussed discussions

This session consisted of brainstorming to promote divergent thinking and begin to identify a set of procedural-related barriers and enablers to sharing information and lessons. Similar ideas regarding procedural-related barriers and enablers were grouped together.

Day 1 Output

Syndicate participants took turns to introduce themselves and provide an example of a barrier and/or enabler to sharing information and/or lessons, as required. At the end of the day, a total of 19 barriers and 17 enablers were presented by the syndicate participants.

After the syndicate work, the SME, the chairman and the facilitator sorted and grouped similar ideas together into a final list of 12 barriers and 10 enablers. Additionally, ideas that were related to the human and technical dimensions of interoperability were shared with the syndicates addressing these dimensions.

The 12 barriers and 10 enablers produced as the outcome of Day One were as follows:

Barriers:

- Lack of knowledge/national process for information sharing;
- Knowing what to share;
- Lack of incentives to share/no feedback;
- Lack of appropriate LL tool;
- Language (related to translation of LL);
- Over-classification;
- National/organizational sensitivities;
- Disconnection between management process and LL process;
- Cycle of exercise shorter than learning cycle;
- Poor quality content;
- Lack of political will and education/training; and,
- More manpower for LL related functions.

Enablers:

- STANAG + Generic Standard Operating Procedures (SOP);
- Disclosure programs/procedures;
- Political will;
- Measurement + reporting;
- NLLP training;
- Institutionalization of LL training;
- Connect LL with real practice (use of experienced personnel to conduct pre-deployment training);
- Mandatory LL annexes in Operation Orders (OPORD);
- Alignment NATO/EU (lessons and processes); and,
- Pushing LL into the planning process.

Day 2 (21 March):

Syndicate Work 3 – Analysis of Priorities

- Select barriers and enablers using a voting system in order to identify, from the collective perspective of the syndicate participants, the most important—i.e. priority—barriers and enablers.

- Working in small teams of five, create understanding: for the priority barriers, where the issue occurs in the LL process or in information sharing, how it manifests itself, and what the possible root cause is; and for priority enablers, where the issue supports the LL process or information sharing, and what can be done to institutionalize it.

- Consider what may be done in the NATO context about the identified root causes for barriers or concrete actions to institutionalize enablers.

Syndicate Work 4 – Wrap-up

Working within the smaller teams, the analysis was finalized and discussed. The groups then synthesize the findings through discussion into agreed overall points in a short written summary (less than 500 words) for each priority issue. Each team was provided with the opportunity to present their findings and recommendations to the syndicate.

Day 2 Output:

Syndicate work on Day 2 started with a voting procedure. Syndicate members were given the possibility of placing three votes in the list of barriers/enablers provided in order to select the priority barriers and enablers to be worked on in more detail. The syndicate members were allowed to use their three votes freely, including allocating all three votes to the same barrier or enabler.

After the conclusion of the voting procedure, three barriers and three enablers were selected as the priorities to be further analysed and developed, as follows:

Barriers:

- Over-classification;
- More manpower for LL related functions; and,
- Lack of internal or national procedures for Info sharing.

Enablers:

- STANAG and generic LL SOPs;
- NLLP training; and
- Pushing LL into the planning process/mandatory LL annexes.

The syndicate members were divided into six teams of approximately five persons each in order to analyse one barrier or enabler per team and develop recommendations on what may be done in the NATO context about the identified root causes for barriers or concrete actions to institutionalize enablers. The outcomes of these six teams are detailed in the following section.

Syndicate Recommendations

In the context of the procedural dimension of interoperability, syndicate members identified three priority barriers and three priority enablers to the sharing of information and lessons. The reports and recommendations stemming from the six teams that worked on each barrier or enabler are reproduced below. They constitute the major outcome of the Procedural Dimension Syndicate's work during the NLLC 2018.

Barrier: Over-classification

Syndicate members identified over-classification as one of the three priority procedural-related barriers to sharing of lessons and/or information. During discussions among the team members addressing this barrier, several reasons leading to this issue were mentioned, including a lack of national procedures and know-how regarding how to release information to NATO. In addition, participants noted that it is easier and often safer to use national classifications, that *responsibility to share* is trumped by the principle of *need to know*, and that once a document has been classified at a particular level, it is difficult to change/lower the classification.

Therefore, the team recommended that work be done to create a sharing mindset within NATO. This includes reducing the individual effort needed to share lessons and/ or information; ensuring that people are tasked to share—not just to record—lessons (e.g. through a LL Annex in Operational Orders (OPORDER)). In addition, the team recommended that the issue of over-classification be given a more prominent role during Training and Education at NATO courses such as the Lessons Learned Staff Officer Course (LLSOC). The JALLC should also encourage upfront thinking about sharing lessons and/or information by prompting NATO nations about this issue before exercises take place. Finally, the team recommended that within the NLLP, users should be shown a pop-up notice whenever they attempt to apply a high classification to a lesson, asking them to carefully consider the appropriate classification level.

- Create a mindset of sharing (e.g. COE, multinational exercises or preparing material in a multinational environment);

- Reduce the effort of sharing by targeting areas you want to share (e.g. Focus on Bridge crossing, CBRN, etc.);

- Ensure people are tasked to share, not just record lessons but that they need to share (e.g. Annex LL in OPORDER);

- Explain classification as a focus point during Training and Education on NATO courses (LLSOC, etc.);

- Encourage upfront thinking about sharing lesson by the JALLC prompting nations before exercises happen; and

- Create within the NLLP a pop-up asking about classification for higher classification lesson entries (e.g. is this really NATO SECRET).

Barrier: More Manpower for LL-related Functions

Syndicate members also identified lack of manpower for the LL process as a priority procedural-related barrier to sharing of lessons and/or information. The team that addressed this barrier determined that the perceived manpower issue is caused by insufficient doctrine to guide the LL function in NATO.

The team recommended that doctrine be developed to describe the command-led design, development, and delivery of an adequately trained and staffed LL function that is optimally organized to be interoperable both internally within and externally to NATO. More specifically, the team argued that LL should be an implicit task for all staff and that LLSOs should report directly to the NATO-body Chief of Staff. Staff should function at LL Officer of Primary Responsibility (OPR) level or higher, and should have access to the software and tools necessary to carry out their LL responsibilities.

Barrier: Lack of Internal or National Procedures for Info sharing"

The team that addressed the lack of NATO internal and/or national procedures for information sharing determined that this issue is very much trust related and heavily dependent on National/Organizational decisions/interests.

With regard to NATO internal procedures, it was noted that the NATO LL Policy addresses IOs only and is therefore incongruent with the relevant Directive of the two Strategic Commands (Bi-SC). The NATO HQ Implementing Directive states that it is the responsibility of the Senior Management within NATO HQ to facilitate information sharing; however there is no mention of implementation procedures for NCS/NATO Force Structure (NFS).

Regarding the lack of internal procedures for information sharing, the team recommended that the JALLC/ ACT initiates an amendment of the NATO LL Policy to read non-NATO Organizations (NNO) instead of IOs and that the JALLC works with Partnership Directorates/Divisions to initiate a process for developing plans for implementation at the NCS/NFS level.

Regarding the lack of national procedures for information sharing, the team recommends that the issue is brought by the Strategic-Military level to the Political-Military level (potentially through a report/ paper by the JALLC/ACT) for endorsement and follow-on action, and that NCS/NFS provide LL Mobile Training Teams (MTT) and/or special advisors to Nations/Partners as required.

Enabler: STANAG and generic LL SOPs

The team also identified the need to establish common standards and to have interoperable procedures for the LL process and for sharing of lessons. While the current Bi-SC Directive on LL (080-006, dated

23 February 2018) provides adequate guidance for the NCS, it does not apply to NATO Member States. A LL STANAG would be the highest reference for NATO evaluation and would enhance the LL capability of each Ally to meet minimum NATO requirements.

- Therefore, the team recommends that the NATO LL Steering Group approve a Standardization Proposal to be submitted to the Military Committee Joint Standardization board.

- Topics that should be covered by the proposed LL STANAG include:

- A clear articulation of the NATO LL Process;

- An ideal manning structure;

- Guidelines for the use of tools such as the NATO LL Portal, as well as the ODCR format;

- The use of the NLLP as the single tool for sharing and tracking lessons (applicable to all Nations and possibly to Partners);

- Minimum desired levels of training requirements;

- Guidance for local/National SOPs; and,

- Guidance to facilitate cooperation with NGOs.

Additionally, the STANAG should include a set of common procedures for the LL process in a generic LL SOP. By ratifying such a STANAG, Nations need to set up a national capability and would be rewarded by access to NATO's know-how.

Enabler: NLLP Training

In order to get everyone in the same mindset on the value of LL, institutionalization of LL training should be introduced in all stages of military education (from basic training to Staff/War College). The NLLP should be user-friendly and intuitive to allow all users the ability to easily input and output data.

Therefore, the team recommended that the structure and content of the different LL courses be reviewed and—if needed—modified to address the requirements of NLLP users. In addition, it is recommended that a basic on-line training course (unclassified, accessible to all users) and a classroom course be developed. Moreover:

- There is a need to review the structure and content of the different courses in order to increase cohesiveness and to clearly distinguish different levels to cover the requirements for different users;
- It is also recommended to have two NLLP training courses; one basic online training course (unclassified, accessible to all users) and one classroom training course. The online course would be a self-paced, high-level course teaching the student how to input observations as well as how to use the portal to extract outputs. An online course solution would include audio-visual instruction manual and an NLLP handbook for reference;
- A separate classroom training course is recommended for advanced/administrator NLLP users. This in-depth course should include small blocks of lectures complemented by small blocks of practice to allow for users' hands-on NLLP training;
- A generic LL SOP should be created and information about the NLLP should be included the such LL SOP; and
- Basic and refresher LL training should be provided to participants prior to operational deployments and exercises, in order to emphasize the importance of producing observations, and to explain the format and procedure to be used (ODCR, reporting procedures, etc.). The generic LL SOP (to be developed) should include a standardized presentation including all relevant aspects to be briefed.

Enabler: Pushing LL into the Planning Process/Mandatory LL Annexes

The team identified the need to push LL into the planning process/mandatory LL annexes. Currently, there appears to be a paucity of information regarding previous operations and exercises. Lessons, weaknesses, and best practices from previous operations and exercises are not applied to the planning process for upcoming exercises and operations.

Therefore, the team recommended that LL annexes be attached to every OPORD/ OPLAN/EXPLAN, and that a LL board be incorporated in the HQ battle rhythm. Further, the team recommended searching the NLLP to provide a list of LL and best practices divided into functional areas for planners, organizing and conducting training for after action review (AAR) analysts, and to make LLSO (from J7) and planners from Operations Planning Group (OPG) work together (J7 in support of OPG).

It is recommended to:

- Produce LL annexes to every OPORD/OPLANS/EXPLANS;

- Search the NLLP to provide a list of LL and best practices divided into functional areas for planners;

- Incorporate a LL board in the battle rhythm;

- Organize and conduct a training for AAR analysts; and,

- Ensure LLSO (from J7) and planners (from OPG) work together (J7 in support of OPG).

NATO LESSONS LEARNED OPTIMIZATION ACTION PLAN SYNDICATE

Chairman: COL Angel SANTAMARIA

Facilitator: Mr. Clovis AUTIN

Introduction

Through several methods of Alternative Analysis, the NATO Lessons Learned Optimization Action Plan Syndicate (NLLOAP) was able to identify, analyse, and discuss this Syndicate's main objective: assessment and adaptation of the NLLOAP. The Syndicate members provided different ideas and considerations of the NATO LL process based on their professional experience in different entities of the LL community. The Syndicate aimed at providing recommendation in four key areas:

- Enhancement of NATO LL Governance;
- Cultural Adaptations;
- A new balance of the JALLC role; and
- Improvement of the NLLP.

The following entities were represented at the Syndicate:

- Air Operations COE
- Centre of Excellence for Operations in Confined and Shallow Waters
- Counter Improvised Explosive Devices COE
- Crisis Management and Disaster Response COE
- Deployable Air Command and Control Centre
- HQ Allied Air Command
- HQ Allied Joint Force Command Brunssum
- HQ Allied Maritime Command
- HQ Multinational Corps Northeast
- HQ Supreme Allied Commander Transformation
- HQ US European Command
- The JALLC
- Joint Warfare Centre
- Ministry of Defence, Lithuania
- Ministry of Defence, Netherlands
- Ministry of Defence, Portugal
- Mountain Warfare Centre of Excellence
- Multinational Division North-East
- NATO Force Integration Unit, Romania

- NATO International Staff
- NATO International Military Staff
- NATO Rapid Deployable Corps HQ, Italy
- NATO Rapid Deployable Corps HQ, Spain
- NATO Rapid Deployable Corps HQ, Turkey
- Norwegian Joint Headquarters
- SHAPE
- United States Joint Staff

Summary of Syndicate Work

Enhancement of NATO LL Governance

The first part of the Syndicate work was focused on NATO LL governance enhancement to be able to oversee implementation and sustainment of the NATO LL Policy. During the session, the Syndicate members demonstrated different ideas and understandings of roles and responsibilities in the NATO LL process, in order to recommend Action Bodies. The Syndicate members were able to clearly identify gaps between HQs in understanding the NATO LL process. Also, the Syndicate members concluded that there is a paucity of leadership with regard to the NATO LL process. There was also a call for engagement of other stakeholders, including partners and establishing a better link between the political level of NATO and the NCS.

Cultural Adaptation

Once the roles and responsibilities were defined, the Syndicate members moved to focus on cultural adaptation. In particular, the members provided their observations and identified problems regarding communication of importance of LL. Emphasis was placed on valuing those involved in the NATO LL process, specifically with regard to uploading lessons to the NLLP. It was clear from the discussion that the syndicate members did not find enough incentives to be involved in the NATO LL process, concluding that lessons are generally kept within a respective NATO entity. Being busy with other (higher) priorities was named as one of the reasons behind the lack of proper importance given to LL.

A New Balance for the JALLC's Role

The third part of the Syndicate's work focused on the new role for the JALLC in the NATO LL process. This Syndicate included JALLC personnel from various fields which provided an opportunity to interact with representatives of other elements in order to provide effective answer to questions regarding the topic. The debate was partly directed at the possibility of reassigning the JALLC somewhere else within the NCS. The participants touched on the issue of JALLC capabilities regarding training and exercise, mainly the division between coordinators of the NATO LL process and Subject Matter Experts.

Improvement of the NLLP

The last part of the Syndicate started with a question whether there should be a single tool for the management of LL. All Syndicate members were aware of the NLLP and were able to present strengths and weakness of the tool based on their experience. Mostly, the participants agreed that as a tool, NLLP serves as a good starting point. Managers of the NLLP who were present, concurred that there is a learning process for the NLLP to improve its effectiveness and user-friendly format. The Syndicate members were reminded that the NLLP is undergoing a process of improvement, including the migration of stand alone lessons databases into the NLLP.

Syndicate Recommendation

Overall, the NLLOAP Syndicate members recommended better coordination, effective communication among stakeholders, and definition of areas of responsibility.

More specific recommendations were concerning the NATO LL Process and the NLLP:

Invite more Flag Officers and General Officers (FOGO) to the NLLC – This point was raised several times during the initial part of the Syndicate work. It was stated that the NLLC and Syndicate work would benefit from presence of FOGOs.

Create a LL course for leadership – A key conversation during the Syndicate work was devoted to the issue of NATO leadership understanding and contributing to the NATO LL Process. It was suggested that there should be a course devoted to that particular group.

Find a new way to train personnel – In terms of innovation, there was an appeal to create and develop a new, more effective way to train people, in particular with regard to addressing the time required for training of new personnel (rotation).

Include LL part in every training and course – To raise awareness of the NATO LL Process and subsequently increase its importance across NATO there was a suggestion to include a mandatory LL part in all trainings and courses.

Value of involvement in the NATO LL Process – As a motivation to involve personnel in the NATO LL Process, the syndicate members advocated the provision of incentives to increase NLLP activity and to promote a NATO LL mind-set.

Promote sharing of success stories – Sharing success stories could also function as a motivator to get personnel more involved in the NATO LL Process. Sharing in this way may also help to improve the understanding of the NATO LL Process for newcomers.

More resources for NLLP – An important suggestion made during the Syndicate work was the need for resources available for NLLP management which could help to maintain NLLP as the single tool for LL in NATO.

CONCLUSION/ WRAP UP

The NLLC 18, in accordance with the guidance established for its execution, implied a new concept and a new format which would involve participants active contribution more than ever in the form of syndicate work. This new format was successfully executed and generated tangible conclusions, recommendations, and ideas for addressing the two themes of the conference: interoperability and information exchange of lessons within NATO, and with Partners including IOs, GOs, and NGOs; and the NLLOAP assessment and adaptation. The work regarding the first theme—interoperability of lessons—transformed over the course of two days, to more broadly include ways to enhance the NATO Lessons Learned Process and Capability.

Although all three dimensions of interoperability were investigated separately, their key takeaways, as presented in this report, should be considered as a suite of actions:

For the procedural dimension, syndicate members established the need of a clear requirement for the development of common standards, such as an LL STANAG and/or interoperable procedures for the LL process, such as a generic LL SOP.

The technical dimension syndicate members called for an in-depth analysis of detailed user requirements for the NLLT.

The human dimension syndicate members identified a need for deeper analysis to fully understand NATO LL training and education requirements across all levels and how to implement them.

The outcomes of the fourth syndicate, which looked at **the NLLOAP**, overlapped the work the interoperability dimension syndicates, and emphasized the need to ensure stakeholder involvement and improved collaboration as fundamental elements for developing and implementing the next version of the NLLOAP.

The results highlighted above, merely represent a collation of the detailed outcomes produced by each syndicate, as described in the previous sections of this report.

Regular and alternative analysis techniques were applied during syndicate work to deduce and refine respective outcomes. However, it must be noted that all the conclusions and recommendations identified by the syndicates during the conference were, of course, not reached through what the JALLC would consider proper analysis and using evidence-based approach. Nonetheless, this set of considerations has been systematically organized and collected from an experienced NATO-wide audience and represents a body of work that may form the starting point for further thought and analysis as required.

This conference's outcomes (as presented in this report) may and should be considered as valuable information from the Lessons Community at large for the several corresponding work-strands ongoing in NATO currently, ranging from interoperability focused studies to technological and capability development issues. However, such outcomes would require significant further and in-depth analysis to truly contribute to these work-strands. As such, the Conference Statement, this report, and the individual syndicate reports cannot be considered as recommendations to be followed up, but should instead be considered as a set of identified and prioritized topics that may be further explored.

Conference Statistics

The Conference Audience consisted (broadly) of 138 participants (including 35 JALLC staff) from 76 entities including the International Staff, International Military Staff, the NCS, the NFS, COE's, IOs, and various national ministries of defence, and other agencies and organizations representing 32 Nations, 8 of which were NATO Partners.

The following page presents results of both the administrative and content questionnaire. While Figure 1 provides valuable data to assess and improve mainly the administrative aspects, the focus is on Figure 2 and 3.

From Figure 2, we can see that 88.5% of attendees have postings related to LL and 58% attended previous editions of the NLLC. This translates to the qualitative nature of the attendee, pointing out that most attendees indeed had expertise and knowledge in the LL arena, which was the intent.

The syndicate work, which was introduced in this year's format, was welcomed. Conference participants noted a feeling of inclusiveness and ownership of the NLLC outcomes through participation in the syndicate work.

NATO LL Community networking was also something that conference participants rated highly. Participants actively shared their respective insights on the matters being dealt with in the syndicates, and continued the discussions out of formal syndicate work time and digressing to other related topics, generally improving the overall awareness of all participants during the NLLC 18.

Areas for improvement include read-ahead material (content and availability), details on the conference venue location, and optimization of the schedule.

One item that participants noted in particular, related to leadership, or rather lack of leadership presences during the conference. In fact, only one FOGO was present during the full duration of the conference and that was COM JALLC. Participants highlighted that, at a time where leadership is being considered an essential driver for change in the organizational mind-set and cultural adaptation of the NATO LL domain, their absence at a NATO LL Community key event was notable.

Overarching Recommendations

The conclusions, recommendations, and ideas presented in this report should be taken into considerations in the context of relevant work-strands in NATO, as applicable.

The NLLC 18 format appears to have been a success. The recommendation then is to continue using this format (i.e. including syndicate work) and to consider ways to improve the plenary sessions to make it more interesting and relevant for the conference audience in general.

Encourage leadership to attend next years' conference and take advantage of the opportunity it presents to show the NATOLL Community that LL is important to NATO and that the community's work in this respect is valued and contributes to the broader transformation of the Alliance. FOGO participation could be in the form of participating in syndicates, during plenary sessions, or merely attending and contributing to the overall perspective of the conference.

QUESTIONNAIRES

Sample Set: 41 questionnaires

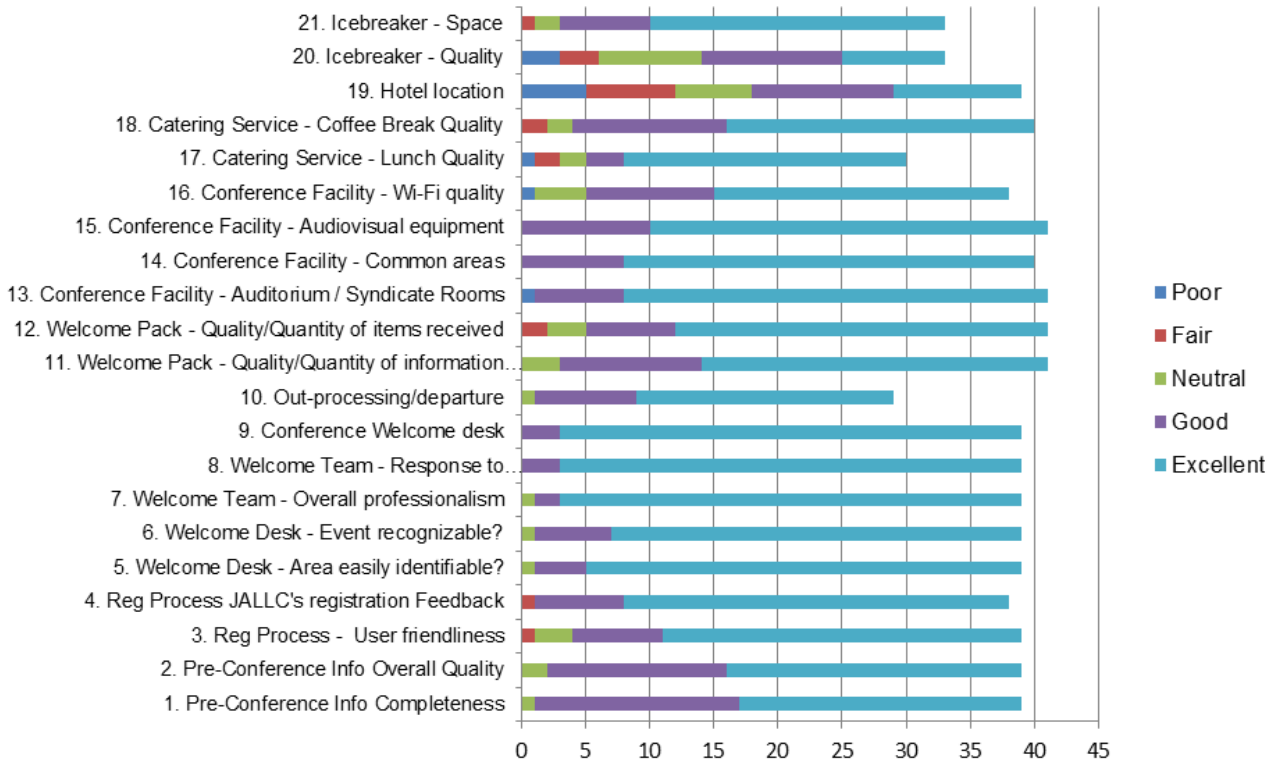## General & Admin Questionnaire feedback
NLLC 2018

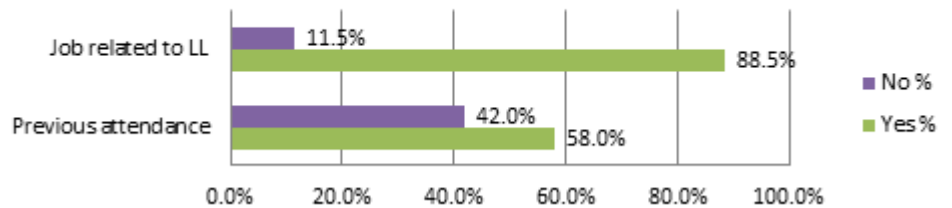*Figure 1: Gen/Admin Feedback*
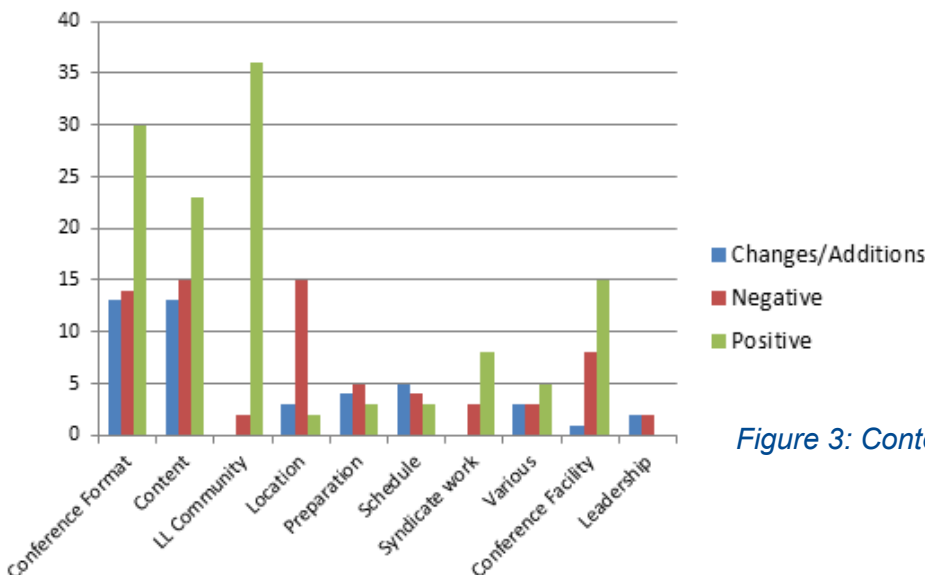
General statistics - attendees

- Job related to LL: No % 11.5%, Yes % 88.5%
- Previous attendance: No % 42.0%, Yes % 58.0%

Figure 2: Gen Statistics

Figure 3: Content Feedback

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