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This year’s NATO Lessons Learned Conference was my first as Commander of the Joint Analysis and Lessons Learned Centre (JALLC), and I believe that we truly looked to the future of the Alliance through the lens of Lessons Learned. I’d like to give you my key takeaways from this year’s Conference; my interpretation of the briefings, the discussions, the interactions, and the exchange of ideas and experiences that all took place over the two days we were gathered together in the beautiful city of Lisbon, Portugal. Each of the six panels contributed to the overall picture of the conference:

To begin, during the first panel, I noted that the Lessons Learned Community has really taken Supreme Allied Commander Transformation’s (SACT) six key focus areas to heart, and much is being done to channel efforts towards improving and innovating in these areas. We must continue this momentum as the Alliance prepares for the future.

The second panel showed that Lessons can, and do, contribute to the implementation of the Readiness Action Plan (RAP); whether they come from operations or from training and exercises; whether they lead to improved interoperability or STRATCOM. Learning allows us to improve, and if we are improving then we feel assured and can reassure our Allies and Partners. This is why the Lessons Learned Process is key to NATO’s military adaptation, allowing us to respond swiftly and firmly to the changing global security threat environment.

During the third panel, we discovered that NATO as an organization can learn much from its non-military partners; in particular we can learn about learning. We call ourselves a learning organization, but this concept, and perhaps more so its application, was challenged a number of times during the Conference. In particular, it was suggested that the Alliance is perhaps more geared to looking inwards, rather than outwards; which, as our non-military partners point out, might be slowing us down. It is our responsibility then to address this challenge and ask ourselves what type of learning organization we want to be in the future; and then act upon it.

The fourth panel explored the fact that NATO is well known for its standards, and these standards are effectively what NATO exports to its members and Partners to ensure not only interoperability, but also a collective mindset. However, the difference between formal and informal learning must be respected; although standards may help the Alliance in many areas, the organization must retain a degree of flexibility and diversity to be able to respond to the full range of threats, from wherever they may come.
The fourth panel looked at how NATO can support Member Nations in terms of the Lessons Learned process. The Centres of Excellence (COE) support the Alliance in its transformation, experimenting with and developing new concepts. Interaction between NATO and the COEs—a mutually beneficial relationship—must be fostered if it is to ultimately contribute to Lesson Learned, Education and Training, Concept Development and Experimentation, and Doctrine Development. These four pillars are then the focus of NATO’s COEs, ensuring improvement and innovation for the future of the Alliance.

In the fifth panel, the perspective was reversed: NATO’s Lessons Learned Process is a two-way conduit: NATO needs the support of its members if its Lessons Learned Capability is to continue to evolve and transform to meet the Allies’ own needs. Learning from our members’ and Partners’ successes and failures, and, more importantly, about how they learn from these successes and failures, will act as a catalyst to the Alliance’s own learning curve, exponentially increasing our chances of success and minimizing the risk of failure.

Finally, I’d like to remind you that we, the Lessons Learned Community, are the future of the Lessons Learned Process. It is therefore our responsibility to contribute to that future. Improvement and Innovation cannot end with the Conference. We must ensure that our Lessons Learned Lens remains focussed on improvement and innovation to ensure the Alliance continues to transform and to meet challenges and threats from wherever they may come. Doing so will require the active participation of the Lessons Learned Community, or we risk losing that focus.

Mário Barreto
Brigadier General Portuguese Air Force
Commander JALLC
The 2016 Conference was opened by Supreme Allied Commander Transformation (SACT) GEN Denis Mercier, through a video-recorded message. SACT welcomed all the participants and thanked them for their commitment to the Lessons Learned Process, also stating his confidence in their ability to identify and discuss, over the course of the Conference, new ways to improve common learning and innovate the Alliance. GEN Mercier also thanked Portugal, host nation of the Conference and of the JALLC, which has been based in Monsanto for over 14 years. To the JALLC team and its Commander, BGEN Mário Barreto, SACT expressed his gratitude for the hard work carried out to prepare the Conference.

SACT highlighted how, learning lessons from our exercises, operations, training, and everything else we do is the starting point for NATO’s transformation, and gives us a key tool to improve NATO’s posture. As such, continuously adapting to be able to fulfill the three core tasks defined in the Alliance’s Strategic Concept, is the ultimate output of the Alliance’s transformation process. In today’s uncertain and ever-changing security environment, NATO needs to continuously improve and adapt faster than its opponents. Therefore, effective common learning is now more important than ever.

However, SACT also stressed that NATO should not be learning lessons for the sake of it. Rather, the Lessons Learned Process should be focussed on NATO’s priorities, with an aim to reinforce the Alliance’s capacity in the short term when necessary, but also with a longer term vision.

“The Lessons Learned Process should be focussed on NATO’s priorities, with an aim to reinforce the Alliance’s capacity in the short term when necessary, but also with a longer term vision.”

SACT welcomed the Lessons Learned Conference as an opportunity to, “...take stock of our current Lessons Learned Policy and explore new ideas”, reiterating in this context the importance of the six key areas to enhance the responsiveness of the Alliance’s military capacity and guide the Lessons Learned Process in accordance with the objectives of the Alliance.

GEN Mercier then focussed on the need to document lessons and share them throughout the Alliance, ensuring that NATO benefits organization-wide from the Lessons learned by one or more of its bodies. Documenting and sharing lessons also works as an expression of solidarity and contributes to the coherence of the Alliance.

The NATO Lessons Learned Portal (NLLP) is NATO’s hub for lessons learned documentation and sharing. GEN Mercier reiterated the importance of using it accordingly, in order to fully exploit its potential. As he underlined: “If all NATO bodies and member states document and share lessons in one single place, and if we also include our Partners’ lessons, the NLLP becomes a formidable force...”
multiplier. But to facilitate the exchange of lessons through the Portal, we need a standardized approach.” One possible way to implement such an approach would be through the development of a lessons learned standardization agreement (STANAG).

Finally, SACT stressed the key role played by leadership across the whole Lessons Learned Process. Strong leadership is essential to build a common attitude towards this process and thereby support the continuing strengthening of NATO’s common learning capacity. Strong leadership will be needed to seek continuous improvement and make documenting lessons an integral part of any task or function. Leadership will be required to establish the Lessons Learned Capability required to run the NATO Lessons Learned Process efficiently.

In conclusion, the link between the Lessons Learned Process, the sharing of knowledge, the continuous improvement of the Alliance, and the strength and credibility of its military posture—which means being capable and ready to fight and win—was reaffirmed. Therefore, NATO must continue its efforts to support its own improvement, together with the improvement of its members and Partners.
Current Developments in Lessons Learned

The Conference opened with the NATO Updates which provide conference participants with an overview from the two strategic commands. LTC Andrea Scarabotto (HQ SACT CAPDEV CEI), provided an update from HQ SACT, giving his perspective on the current Lessons Learned Process and the way forward. LTC Scarabotto started by asking four questions related to the current status of NATO's Lessons. Where are Lessons tracked, stored, and referenced from? What does the NATO Lessons Learned Process currently look like? Who is involved with the implementation of the NATO Lessons Learned Policy? And who is responsible for the Lessons Learned Process?

LTC Scarabotto, in answering those questions, noted that currently Lessons are not being collected, stored, tracked, or referenced from one shared location across the Alliance but are instead housed within each individual command and referenced only by that command. The Lessons Learned Process and way forward would be more effective and would build Alliance cohesiveness if the NLLP were better used as a single, centralized Lessons hub, simplifying the process and ensuring that Lessons can be shared NATO-wide. Doing so would further increase the impact of each individual lesson, and reduce the amount of duplication in the system.

LTC Scarabotto also stated that the current Lessons Learned Process is too lengthy to work effectively, and that the outputs are getting lost due to a lack of tracking, concerted collection efforts, and feedback, combined with a technological deficit that spans the entire Alliance. He suggested a four-step process to reinforce the Lessons Learned Process over time: identification of the Lesson, analysis of the Lesson, a decision on the Lesson, and implementation of the Lesson. This process would then be followed by feedback and, as required, repetition of the process until a satisfactory outcome/output was achieved.

LTC Scarabotto expanded on how far NATO has come in terms of implementing its Lessons Learned Policy and how it has measured, and will continue to measure, the implementation of Lessons Learned. He suggested drawing up an Alliance-wide plan for tracking and measuring implementation of the policy which would allow for analysis and subsequent improvement in the active learning process. He also highlighted the fact that responsibility for implementation of Lessons Learned does not just rest with the JALLC, Subject Matter Experts (SMEs), and Lessons Learned Staff Officers, but rather belongs to all members of NATO, who share the obligation to provide feedback and actively use the Lessons Learned Process.

Finally, LTC Scarabotto advised that the way ahead would be focussed on standardizing the Lessons Learned Process across NATO through leadership, engagement, and use of a shared tool such as the NLLP to simplify the process. It is critical to keep every stakeholder engaged throughout the process with both their own and their colleagues’ lessons, and for NATO to utilize a tracking mechanism for the implementation of Lessons Learned.
NATO Updates: SHAPE

NATO Exercise Programme Review

The NATO Updates were continued by BGEN Jurgen-Joachim von Sandrart (SHAPE/ACOS J7), who provided the audience with an overview of Allied Command Operations’ (ACO) perspective on Lessons Learned. Although both ACO and Allied Command Transformation (ACT) face many challenges, as BGEN von Sandrart said: “We can mitigate these challenges and be better, but it is all about working together and not against one another.”

BGEN von Sandrart expressed the view that NATO needs to focus its efforts on high value training activities in order to improve its deterrence capability. One potential problem across NATO is that people rarely attempt to stop one task in order to focus on another, and the organization has a tendency to attempt to do everything at the same time. This poses a potential problem because NATO does not have sufficient resources or time to achieve unlimited goals. However, rebalancing NATO would allow it to move into a forward-leaning posture that would enable it to operate in the new global threat environment where, as BGEN von Sandrart put it, “…a holistic approach to overcoming challenges is much more significant than it ever was before.”

BGEN von Sandrart then emphasized the need to analyse NATO’s current Lessons Learned resources, processes, and structures, in order to provide a clear picture of what we have, where we are, and where we need to go. The systems in place are effective but underutilized, and overcoming that problem will provide the agility that NATO needs in the ever-changing global threat environment it finds itself in today.

Finally, BGEN von Sandrart wrapped up the NATO Updates by talking about the importance of using exercises already planned for 2017 to increase NATO’s capability in civil-military coordination. It is essential that the Alliance takes the Lessons captured from working with member states, International Organizations (IO), Non-Governmental Organizations (NGO), and other Partners and shares them as widely and effectively as possible.

“A holistic approach to overcoming challenges is much more significant than it ever was before.”

NATO Updates:
BGEN Jurgen-Joachim von Sandrart, SHAPE/ACOS J7
SACT Focus Areas and Lessons

Following the Warsaw Summit, HQ SACT continued to develop SACT’s six key focus areas—Command and Control (C2), Logistics and Sustainability, Training and Exercises, Partnerships, Capabilities, and Human Capital—enabling the implementation of a proactive transformational agenda for NATO. This first Conference panel took a closer look at how lessons relating to the key focus areas have been contributing, and can continue to contribute, to the Alliance’s transformation, ensuring viable options to further improve and innovate the Lessons Learned Capability.

Key Speaker LGEN Jeffrey Lofgren (SACT/DCOS CAPDEV) led the panel, speaking on the six key focus areas. LGEN Lofgren focussed the audience on the interrelated nature of all six areas and the requirement for a unified approach by all of NATO to incorporating Lessons Learned: “We cannot ask the JALLC to do it alone—we have to work together to cover what we need to and turn our attention to specifically address our focus areas.”

LTC Tiberiu Szmuck (SACT/JFT/TREX/FOTE) followed LGEN Lofgren, giving his remarks on the Training and Exercises focus area. The main focus to date in this respect has been on the near-term five-year horizon, with an emphasis on sustaining current capacity and building upon that. Collective Training and Exercises has successfully incorporated the Lessons Learned from previous years of exercises; one example is the TRIDENT JAGUAR series, which each year has built upon the successes of the last. Another example of how NATO is improving Collective Training and Exercise is the introduction of the Lessons Identified Action List to the NATO Exercise Reporting Process to meet related requirements and allow for more effective tracking of Lessons Learned implementation.

The panel discussion then moved to COL Paul Malessa (SACT/CAPDEV C2DS NPI), who spoke on the C2 focus area—in particular the activities of the C2 Focus Group—describing SACT’s approach and way forward. COL Malessa explained that SACT first focussed on the traditional concept of military C2, then combined that with the Communications and Information System (CIS), Joint Intelligence, Surveillance, and Reconnaissance, and an interface with the political consultation process. The C2 Focus Group then took an inventory of past and current C2 related activities and looked for what could be enhanced and improved right now through low-friction implementation strategies. The next task for the group was to look forward 15 to 20 years and position C2 to operate most effectively against future challenges. In order to do that, COL Malessa had already set up greater coordination with ACO to work with their vision of future challenges, and connected with JALLC staff to further cement the working relationship between C2 and the Lessons Learned Community.

LTC Jonathan Meisel (HQ SACT/CAPDEV/C2DS LDS) then discussed the Logistics and Sustainability focus area, beginning with background and context on its development as a focus area and the Logistics, Deployment, and Sustainment (LDS) Branch. LTC Meisel presented the vision of where the intent for the focus area will lie in 2030 with three lines of effort: a network of hubs, a strong civil-military interface, and technology, as well as concept advances with four strategic

“We cannot ask the JALLC to do it alone—we have to work together.”
sustainment objectives: to realise shared awareness, enhance operational agility, enhance resilience, and enable persistent operational activity. LTC Meisel discussed the Lessons Learned relating to SACT’s internal and external processes with regard to LDS, which have allowed the LDS Branch to better interact with other organizations. He suggested the way ahead is to continue engagement with stakeholders through socialization and demonstration of benefits of such interaction.

CDR David Stoffell (HQ SACT/JFT JETE/EIT) moved the discussion to the next focus area: Human Capital, speaking on the connection of Human Capital to all the other focus areas. According to CDR Stoffel, the power of NATO is in the highly competent nature of its people, who make the rest of the focus areas run. Supporting and continuing to invest in those people will allow NATO to increase its warfighting capabilities. In addition, the development work done in the Human Capital sphere today feeds directly into NATO’s capability in the future and its ability to handle the changing global security environment. In order to continue developing NATO’s Human Capital, CDR Stoffell suggested an iterative process of assessment, adaptation, and shaping the environment to, as he put it, “...provide the best prepared people, in the right place, at the right time, every time.”

LTC Andrea Scarabotto (HQ SACT CAPDEV CEI) spoke next on the Capability Development focus area. He first set out the background and vision of the focus area followed by a presentation of some of the challenges faced by the Alliance in this area and some potential ways to meet those challenges. The primary challenge for NATO with regard to Capability Development is a sound understanding of the security environment, with a wider range of possibilities to consider while maintaining the ability to inspire confidence throughout NATO with robust solutions to difficult and unforeseen problems.

LTC Aaron Bazin (HQ SACT/SPP/STRT PLP) finished the panel discussion with an overview of the Long Term Military Transformation Programme from the Framework for Future Alliance Operations (FFAO). While the FFAO looks far into the future, there had previously been a lack of communication between the FFAO and the Lessons Learned Community. LTC Bazin gave an overview of some Lessons already Learned—for example, the need to reach out to non-traditional partners such as industry and academia—and the impact those lessons have begun to have.

LGEN Lofgren then opened the floor for questions and there was a robust discussion on the measurement of different focus areas, tracking and improved tasking for Lessons Learned, and better mechanisms to capture feedback and Lessons throughout exercises and from all Partners. He ended the first panel of the Conference by stressing the importance of NATO working and learning together to change the military posture, asking us to, “...focus on the output and recognize that we’re all in this together and need to focus on the solutions.”
The Readiness Action Plan (RAP), announced at the 2014 Wales Summit, represents the most significant reinforcement of NATO’s collective defence since the end of the Cold War. Its implementation, through assurance and adaptation measures, was welcomed during the Warsaw Summit. During this panel, participants had the opportunity to present lessons relating to the RAP and provide insights on how the RAP is contributing to the Alliance’s efforts to improve and innovate. In particular, the panel aimed to contribute to the general awareness of how lessons can be an integrated part of the different work strands of the RAP.

The second panel of the Conference began with a presentation by BGEN Benjamin Corell (HQ MND SE/DCOM), who was recently assigned as Deputy Commander to NATO’s newly opened Multinational Division Southeast (MND SE) in Bucharest, Romania. BGEN Corell spoke about the Lessons relating to setting up HQ MND SE and their impact on NATO’s RAP. BGEN Corell drew attention to these Lessons and urged all of NATO to draw on them in continuing to implement the RAP. In particular, he stressed the importance of coordination and communication across all lines of effort: this includes defining mission essentials, sharing and managing information, and pinning down all infrastructure and CIS requirements. He also pointed out that, in a new organization, having sufficient people in place at the outset is vital to grow capacity and provide effective training.

LTC Leopoldo Ramirez (SHAPE/J5/CAT-A/RAP) then gave an in-depth review of the Very High Readiness Joint Task Force (VJTF), which is designed to deploy rapidly and routinely either as a whole or as discrete elements to assure, deter, and contribute to countering threats to the Alliance. He spoke about the Lessons relating to setting up the VJTF and the results of Exercise Test-Bed 2015 (TB15), an exercise that tested the efficacy of the VJTF through several lines of operation—including the NATO Force Integration Units Concept; Deployment and Reception, Staging, Onward Movement, and Integration (RSOMI); the C2 Concept; Intelligence, Surveillance, Target Acquisition, and Reconnaissance (ISTAR); Interoperability; STRATCOM; and Sustainment—to ensure that the Alliance has the capability to support and sustain the VJTF and its associated units. Incorporating the Lessons Learned from Exercise TB15 into the VJTF plan will allow for a truly responsive and credible reaction to any military threats.

The next speaker, Mr Mark Laity, is the first Chief of Strategic Communications at SHAPE and leads STRATCOM transformation within NATO. Mr Laity communicated the Lessons Learned from previous STRATCOM work, including the validation of the current path for STRATCOM and the value of STRATCOM both to operators and as a tool for effective assurance and reassurance. Supreme Allied Commander Europe’s (SACEUR) Security Detachment put an emphasis on STRATCOM, and NATO responded positively to that by integrating STRATCOM into overall planning and incorporating it into core membership positions inside assurance planning teams. Mr Laity stated that the way forward for STRATCOM is to integrate communication disciplines, increase cooperation with its key audiences, and continue the imaginative use of social media. Many of STRATCOM’s Lessons Learned through NATO’s history of assurance will carry forward into its future mission of deterrence, despite the increasing complexity of the global security environment.
“Increased information sharing and building on the relationships between command structures will be critical.”

Mr Ian Bayless, Department Head of the Defense Planning and Policy Division at NATO HQ, spoke engagingly on the future political landscape and how implementation of the RAP would impact that landscape through military and political posture. Mr Bayless emphasized the success of the RAP in the context of NATO’s rebalancing and its move towards more nimble decision-making. He challenged the audience to think about whether implementation of the RAP should be top down or bottom up.

COL Michael Pappal (US CALL) and LTC Andrzej Lis (DTC PAF) then gave Conference participants a comprehensive briefing on the logistics and political requirements of Exercise ANAKONDA-16, the largest training exercise to take place in Poland since the country joined the Alliance in 1999. ANAKONDA-16, which mimicked an attack on Poland and the Baltic States, involved 33,000 troops (mainly from Poland and the US Army Europe) and 7,000 vehicles and platforms. COL Pappal and LTC Lis gave the audience their respective Nations’ perspectives on the exercise, which both deemed a success in terms of increasing NATO’s ability to perform in multinational battlegroups. However, both also felt that there was room for improvement in the future, where increased information sharing and building on the relationships between command structures will be critical. Certainly with regard to some of the challenges regarding information sharing experienced during ANAKONDA-16 has created opportunities for NATO to find creative solutions in this respect.

After the panel had finished its presentations, the floor was open for questions. The audience discussed the impact of the RAP on NATO’s deterrence capability, as well as the switchover from assurance to deterrence. In addition, NATO was urged—as an organization that is arguably not always as retrospective as it could be—to continue to make Lessons Learned an integral part of the different work strands of the RAP.

Key Speaker:
BGEN Benjamin Corell, HQ MND SE/DCOM
Panel Members:
LTC Leopoldo Ramirez, SHAPE/J5/CAT-A/RAP; Mr Mark Laitly, STRATCOM SHAPE P1 Director; Mr Ian Bayless, IS DPP/PCD DEP Head; COL Michael Pappal, US CALL; LTC Andrzej Lis, DTC PAF
Innovative Ideas for the Future of Lessons Learned

The Lessons Learned Process, just like any other process, evolves continuously based on the implementation of new techniques, methods, and best practices. In this respect, NATO can evolve its Lessons Learned process effectively and efficiently by looking outside of the Alliance and understanding how other organizations conduct the business of Lessons Learned. The aim of this panel was to contribute to a better understanding of how NATO can think “out of the box” when it comes to improving and innovating its own Lessons Learned Process, in particular with regard to the NATO Lessons Learned Policy, Bi-SC Directive, Handbook, and related material, processes, and procedures.

This final panel of the day showcased Partnership—one of SACT’s six key focus areas—with presentations from leaders from both academia and industry. In today’s global threat environment, NATO needs more than ever to be connected with both the private and public sectors for broader situational awareness and capability to lead in the future. Bringing distinguished guests from outside NATO to address Conference participants demonstrates the Alliance’s continuing commitment to transformation through learning from all partnerships.

Professor John Louth, a former officer in the Royal Air Force who is currently Senior Research Fellow and Director for Defence, Industries, and Society at the Royal United Services Institute (RUSI), the world’s oldest independent think-tank on international defence and security, opened the panel. Professor Louth spoke critically on the differences between learning organizations and process-driven organizations, characterizing the former as outward-looking and the latter as inward-looking. He asked the audience how Lessons Learned might help both types of organization to develop, and discussed some of the component pieces of a learning organization’s knowledge; the themes of agility, doctrine, systems learning, and organizational theory and analysis; and the wealth of research on these topics that NATO can (and should) exploit. Professor Louth challenged the audience to think about how and whether the Alliance’s partnerships need to change in the future, given that increasing amounts of investment in science and technology are made by the private sector rather than by individual governments.

Professor Louth also highlighted the fact that NATO staff are good at learning, despite the fact that organizational complexity can work against a culture of learning. However, as the professor pointed out, this problem is not unique to the public sector: the private sector faces a similar challenge, often coupled with a constant pressure for cost reduction. Finally, Professor Louth stressed that different organizations have different mindsets and tend to attract different kinds of people—which may be another reason for NATO to seek out more support from the private sector.

“NATO needs more than ever to be connected with both the private and public sectors.”
The second (and final) speaker in Panel 3 was Mr Enrique Martin of E&Q Engineering, a technology-based company that offers engineering, consultancy, and training services to a number of sectors, including security and defence. Mr Martin spoke about the similarity between E&Q’s business process management model and the NATO process improvement model, concentrating on the areas of information sharing and vertical integration. The ability to share and act on information quickly, and to get that information to those who need it, is a critical capability in a large organization, especially one whose staff move roles frequently. NATO needs its processes to be both flexible and robust; in addition, by focusing on improving its interoperability with NGOs, NATO will better leverage its capabilities more effectively in today’s dynamic global threat environment.

There were audience questions for both speakers on the growing complexity of relationships with the private sector, especially on the impact that technology can have on defence requirements and capabilities. A discussion took place on how NATO could take advantage of opportunities to interact with private sector entities in order to increase its capabilities. Private sector firms compete in continuously evolving industries, and as such NATO was urged to search for private sector solutions creatively rather than look to the single source solutions of the past.

“The ability to share and act on information quickly is a critical capability in a large organization.”
How to Improve NATO Lessons Learned Support to Member Nations

NATO’s Lessons Learned Capability not only serves the organization to learn efficiently from past experience in order to improve future performance, but is intended to support the Member Nations in much the same way. During this panel, participants discussed how the NATO Lessons Learned Capability could be further improved in support of Member Nations, including how a Lessons Learned STANAG might contribute to improvement and how the JALLC is currently analysing the NATO Lessons Learned Process in terms of improving the collection and sharing of lessons with NATO’s Partners.

The second day of the Conference began with a discussion led by Key Speaker BGEN Mário Barreto, Commander JALLC. Alluding to the JALLC’s current analysis of the NATO Lessons Learned Process, BGEN Barreto encouraged participants and panel members to consider the best ways to improve this process. He explained that, “…moving lessons in one place to share in the NLLP is a force multiplier—it is like a weapon.” He noted that a consolidated approach to capturing, storing, and accessing lessons is essential to sustain and improve our robust Lessons Learned Capability; this can be achieved through consistent and persistent use of the NLLP. In this respect, the JALLC is committed to improving the NLLP in a way that will be meaningful and actionable.

BGEN Barreto then spoke of the importance of the Lessons Learned concept and how development of a STANAG might contribute to improvement of the Lessons Learned Process. He provided his perspective as a pilot: much as pilots expect excellence from their aircraft we in the Lessons Learned Community should also expect excellence from our materiel: in this case our processes, structures, and tools. When referencing how the NATO Lessons Learned Process might be improved, BGEN Barreto noted that, “…we are all our users of the process; that process must therefore be based on our requirements and what we will do with the information. Moreover: the Lessons Learned Process must support the objective of interoperability.”

The JALLC’s Principal Operational Research Analyst continued with a summary of the JALLC’s activities relating to the Lessons Learned Process. He identified the Directives and Standard Operating Procedures (SOPs) that support the Lessons Learned Process and questioned whether the Directives accurately establish its philosophy. He explained that in order for the Lessons Learned Process to be effective and act as the key to future transformation, it must be relevant to the user and implemented according to pertinent guidance. He noted that during the Conference leadership and mindset has already been discussed in this respect, and stressed their importance in ensuring that the NATO Lessons Learned Process is kept relevant. He then stated that information sharing is also essential to the Lessons Learned Process, especially between members of the Alliance. He compared the NATO Lessons Learned Process to the OODA loop—the military procedure of Observe, Orient, Decide, and Act—and stressed that NATO needs to make sure it Acts when following its Lessons Learned Process. He further pointed out that NATO needs people, training, and tools in order to support the Lessons Learned Process. Finally, he urged participants to work together to get the word out about the existence and importance of the NLLP.
The next speaker, CAPT Paul Beckley (US Navy, NSO, Joint Branch), discussed the question of whether NATO needs a STANAG for its Lessons Learned Process. CAPT Beckley stated that there is already clear and plentiful guidance regarding the process, and that it is obvious that much care and expertise has gone into its development. He noted the importance of the specific policies provided to individual Nations with regard to their role in the process, and suggested that those policies are not being implemented sufficiently.

CAPT Beckley went on to compare the NATO Lessons Learned Process with the NATO Standards Process. According to the Captain there is a gap at the national level in both processes in terms of Nations providing the inputs required. He further explained that a STANAG could be developed to guide Nations in providing NATO with Lessons.

The final speaker of the panel was CDR Holger Grossman (SACT/CAPDEV/C2DS THF), who gave an overview of the Coalition Warrior Interoperability eXploration, eXperimentation, eXamination, eXercise (CWIX) programme. Designed to support continuous improvement in interoperability within the Alliance, the CWIX programme gives the Nations a platform to confirm their cooperation and allows them to fix any interoperability issues in an exercise and training environment before these arise in a real-world scenario. Because NATO needs modern forces, we need to increasingly think about interoperability and try to use common procedures, encouraging Nations to examine and re-examine their processes.

CDR Grossman reiterated that NATO needs to continue improving the development and testing of its interoperability capabilities, raising awareness of what Nations need in order to improve interoperability. Proper funding, along with improved tasking, STRATCOM, and problem solving, are key to this process. In this sense, there are many similarities with the NATO Lessons Learned Process.

BGEN Barreto provided some final food for thought for participants by reiterating four key themes from the panel discussion: process, standards, interoperability, and information sharing. He then opened the floor for questions, and there was a healthy debate around the fact that Nations all have different standards and at times do not share information or Lessons as effectively as they could. The audience agreed that this is not a productive way to work, and could be seen as another argument for drawing up a NATO Lessons Learned STANAG.

BGEN Barreto ended by stressing the importance of Lessons Identified and of working and learning together to change the Lessons Learned Process. He reminded the audience that the JALLC is open for business and that proposals for improvement are always welcome.
Centres of Excellence (COE) act as a catalyst for NATO’s transformation, assisting in doctrine development, identification of lessons learned, improvement of interoperability, development of capabilities, and testing and validation of concepts through experimentation. The purpose of this panel was to highlight the COEs’ role in improving and innovating the Lessons Learned Capability, and how improved interaction between NATO and the COEs will ultimately contribute to an improved capability. In particular, the panel sought to assess and discuss ways to improve future Joint Analysis Requirements and related tasks, focusing on potential lesson collection capabilities and improved use of the NLLP as NATO’s central Lessons Learned hub, as well as Modelling and Simulation (M&S) and its potential to improve Lessons Learned and analysis.

This panel was opened by Key Speaker CAPT Renée van Pamelen-Hollenberg, Director Command and Control (C2) COE, quoting Einstein’s famous definition of insanity—doing the same thing over and over again and expecting different results—and challenging the Lessons Learned Community to avoid falling into that trap. She spoke about how NATO COEs can support the Alliance in its transformation, acting as agents of change, promoting new concepts, and helping different entities achieve the most effective Lessons Learned Process.

CAPT Van Pamelen-Hollenberg next spoke about the Signing Ceremony for the NATO Force Structure Joint Task Force HQ Handbook, which took place the day before at a special event held at the Portuguese Military Academy during the Conference. Noting that the Handbook is the result of a three-year cooperative effort between the JALLC, the Joint Warfare Centre, and the C2COE, she thanked all those who contributed to its publication, including commanders, staff officers, SMEs, and analysts.

Next to address the participants was CDR Mike Kleibaum, Staff Officer Analysis and Lessons Learned at the NATO COE for Operations in Confined and Shallow Waters (CSW). CDR Kleibaum spoke about the challenges faced with regard to CSW in implementing the Lessons Learned Process. Although the COE CSW has seen improvements in this respect in the Maritime Domain, the Lessons Learned Process is not yet being applied to maximum effect in his opinion. CDR Kleibaum hypothesised that there are three root causes to this issue: the first is poor determination of requirements; the second is the lack (or poor quality) of observations; the third and final cause is that, while coordination within the command might work, overall coordination between Nations frequently does not.

CDR Kleibaum explained that, in order to improve the overall Lessons Learned Process, the COEs first need to optimize Observation phase of the process by determining precise requirements and developing an observation management tool.
Many agencies throughout NATO submit observations, which are then developed into Lessons Identified and subsequently into Lessons Learned. These should ultimately feed into the RAP. Developing an observation tool may improve, not only the quality of the output, but also the quantity of Observations submitted in the first place.

LTC Walter David, Section Chief Analysis and Lessons Learned at the NATO M&S COE, followed CDR Kleibaum’s presentation with a discussion of the challenges and opportunities involved in providing Lessons Learned support in the field of M&S. He spoke of the JALLC’s essential assistance and partnership as the M&S COE refined its vision and methodology. LTC David identified many obstacles to the Lessons Learned Process, such as a lack of sharing, limited high level support, commands working in silos, poor communication, rigid bureaucracy, and—most importantly—lack of time and resources. He explained that most Lessons Learned repositories are classified and scattered around different locations, which disconnects the Lessons Learned Community. In order to support NATO and its interests, the M&S COE is providing inputs to working groups, producing papers and presentations on M&S, sharing the expertise of the M&S SMEs, and hosting workshops on M&S to better inform the Lessons Learned Community.

The next organization to be discussed was the newly established Mountain Warfare (MW) COE, which aims to act as a hub for NATO’s MW capabilities. MAJ Igor Brinar, Lessons Learned Staff Officer at the MW COE, provided examples and insights into how the COE has built up its Lessons Learned Community, including cooperating with other bodies, using its SMEs and analysts effectively, and implementing the JALLC Lessons Learned Process internally.

LTC Alexandru Nica from the NATO Human Intelligence (HUMINT) COE then provided an overview of HUMINT transformation within the Alliance. The HUMINT COE has established relationships with academia as well as with other NATO entities. LTC Nica explained how the COE receives inputs from exercises and then provides feedback to all the entities involved. He discussed the COE’s current efforts in the revision of its policy and doctrine, which include the development of a HUMINT team operator’s handbook, and increased Lessons Learned and analysis. The COE has consolidated lessons, challenges, and best practices from two decades in support of NATO and the Lessons Learned Process.

Finally, CDR César Correia (HQ SACT/CAPDEV/TRNET) summed up the relationship between COEs and the Alliance as being one of mutual benefit. COEs can offer training to all Lessons Learned officers and assist NATO with the dissemination of Lessons Learned. CDR Correia reminded participants that the NLLP is a vital tool for sharing information with NATO’s Communities of Interest (COIs), and urged COEs to use it more frequently and effectively. In short, the relationship with COEs must be fostered if innovation and improvement are to be secured for the future of the Alliance.

Key Speaker:
CAPT Renée van Pamelen-Hollenberg, Director, NATO C2 COE
Panel Members:
CDR Michael Kleibaum, COE CSW; LTC Walter David, M&S COE; MAJ Igor Brinar, MW COE; LTC Alexandru Nica, HUMINT COE; CDR César Manuel Pires Correia, HQ SACT/CAPDEV/TRNET
How to Improve Member Nation Support to NATO

NATO’s Lessons Learned Process is a two-way conduit: NATO needs the support of its Member Nations if its Lessons Learned Capability is to continue to evolve and transform to meet the Allies’ own needs. This panel discussed how Member Nations can help NATO help them in the context of developing and implementing the national and Alliance Lessons Learned Process in operations, exercises, and training, as well as in terms of doctrine and capability development. In particular, the panel sought to draw on national experience and ideas in order to contribute to the improvement and innovation of the NLLP in terms of better synchronizing exercises, training, doctrine, and capability development efforts among the Allies and the Alliance.

Opening the final panel of the Conference, Key Speaker MGEN (Ret) Eric Roussel (FRA Army) presented the Lessons Learned from three French operations carried out in Africa between 2013 and the present day: Operation Serval, Operation Sangaris, and Operation Barkhane. He underlined the need for the Alliance to improve its role as a facilitator for the exchange of these as well as other national observations and lessons. He stated: “At the end of the day, Nations want to be effective and want to deliver.” MGEN (Ret) Roussel noted that a great deal of humility is required to improve the sharing of Lessons Learned within each Nation in the Alliance. Coordination between Member Nations is not useful until they are willing to share Lessons.

Following this presentation, panel members went on to provide insights into their Nations’ or organizations’ lessons learned processes. CDR Todd Copeland of the Joint Lessons Learned Division (JLLD) (formerly the Joint and Coalition Operational Analysis division) highlighted his organization’s Joint Lessons Learned Information System (JLLIS). He noted that JLLIS combines 12 non-compatible systems into one interoperable system and that over 25 US agencies—both civil and military—actively use the system. Like the NLLP, JLLIS is used to manage observations and provide lessons, but also works as a tool to assist its customers with mission planning on all US networks. CDR Copeland agreed that having a single, common knowledge management system is essential to the success of the Lessons Learned Process. He admitted that achieving this with JLLIS was not straightforward, and that it took many years and a great deal of behavioural change before a system focussed on the customer was effectively implemented. He ended his presentation by stating that an agreed acquisition process and leadership buy-in were needed to bring the right system into being.

Mr David Mosinski, Senior Lessons Learned Analyst for the US Army Peacekeeping and Stability Operations Institute (PKSOI), then briefed participants on PKSOI’s Stability Operations Lessons Learned & Information Management System (SOLLIMS). He introduced SOLLIMS, describing it as a large database on Peace and Stability Operations (PSO) that is available to everyone. It provides analysts with multiple tools for research and collaboration within the PSO Lessons Learned Community, as well as strategic and operational lessons written by students of the US Army War College. Mr Mosinski described the training partnership between PKSOI and NATO and the PSO/NATO & Europe Portal, designed and used by the NATO working group focussed on PSO operations. He then discussed multiple
lessons derived from SOLLIMS, which are provided in a PKSOI quarterly publication and made available to the NATO Lessons Learned COI.

The next speaker, LTC Achim Hesse (Strategic Lessons Learned Branch Chief, Office for Defence Planning), provided a quick overview of Germany’s participation in NATO Lessons Learned related activities, giving his thoughts on how NATO could better develop and implement a revised Lessons Learned Process. He stated that, as the NATO Lessons Learned Process is currently largely decentralized, "...the JALLC should serve in a coordinating role in order to share information in the best possible way, taking the broadest possible approach." Germany compiles a yearly strategic evaluation report, focussed on specific topics related to Lessons Learned. Sharing this information through a more central Lessons Learned Process is essential for capability development.

The final panel speaker of the Conference, LTC Jody McKinnon (Lessons Learned Chief for the Canadian Department of National Defence), described the steps taken in Canada to expand their Lessons Learned Capability. He discussed his organization’s lessons learned methodology and provided examples of some of the problems encountered in improving it. First, he acknowledged Canada’s complicated force structure and the difficulty of becoming a learning organization while each command is competing for the same resources. Second, he noted that creating a lessons learned board was a good way to assist in the development of a single system to manage observations and information: "Getting everybody to the same table takes leadership. Lessons Learned is everyone’s business, and Lessons Learned is a leadership function." Third, he pointed out that it is necessary to create doctrine for those conducting Lessons Learned and, more importantly, accountability for adhering to any Lessons Learned Process.

LTC McKinnon stated that, while issues are often identified, the challenge is in the follow-through and feedback stage of the Lessons Learned Process: "We don’t share information well and liaison officers can be the key when technology does not work. We need to find a better way to share observations so we can collaborate together in the Lessons Learned Process."

MGEN (Ret) Roussel ended the final panel of the Conference by closing on the importance of Lessons Identified and working and learning together to change the Lessons Learned Process, stressing that data does not become knowledge until you organize it. He emphasised that some information on the NLLP is still just data, and recommended that the JALLC take the lead in terms of organizing the data in order for it to be processed, analysed, and published as useful and actionable Lessons Learned. He implored everyone to be focussed on output, which is a sign of efficiency and effectiveness. NATO must agree that sharing is not just posting something on the NLLP.

Key Speaker:
MGEN (Ret) Eric Roussel, French Army
Panel Members:
CDR Todd P. Copeland, US JLLD; Mr David Mosinski, US PKSOI; LTC Achim Hesse, SLL Branch Chief ODP; LTC Jody McKinnon, LL Chief Canadian DND
ADM Manfred Nielson, Deputy Supreme Allied Commander Transformation (DSACT), honoured the Conference this year by addressing the audience at the end of the final Conference day. He began by noting that Portugal has always been a model NATO Member Nation, engaged and forward-leaning in improving the cohesion of the Alliance. He then expressed his pride in and appreciation of the JALLC staff, noting that the JALLC plays a crucial role in developing and improving NATO’s capabilities and affirming that it will remain a key player in the Alliance’s continuous adaptation as it stands on the crossroads of transformation.

The Admiral went on to remind the audience of SACT’s opening remarks and shared ACT’s thoughts on the evolution of the security environment, stressing the requirement to develop and follow innovative and consistent approaches—especially regarding Lessons Learned—in order to meet the challenges and threats the Alliance faces. He noted that the Warsaw Summit was a defining moment for the Alliance, referring to the new security environment as the trigger for the Alliance not only to adapt, but also to deliver. He highlighted that a fundamental factor of NATO’s responsiveness in this respect will be the capability to adopt the right posture, one that is credible at both the political and military levels. A strong emphasis will be placed on deterrence, which will require the Alliance to rely on appropriate forces, structures, and capabilities, all of which need to be networked and integrated both now and in the future. In short, he stated: "We must ensure that the Alliance maintains its edge in a constantly changing security environment."

DSACT emphasized that, in the future, robust education, training, and exercise programmes will be a clearly visible demonstration of force and NATO's ability to deliver appropriate strategic impact. This will require the Alliance to maintain a high state of readiness across the full mission spectrum and will serve as the cornerstone of a credible NATO deterrence posture. To achieve all this, the Admiral noted, will require analysis of our activities and lessons to be learned, swiftly, decisively, effectively, and efficiently as an essential part of the continuous adaptation, innovation, improvement, and transformation of the Alliance. In this respect, he mentioned the North American and European Space Agencies’ definition of lessons learned:

“A lesson learned is knowledge or understanding gained by experience. The experience may be positive, as in a successful test or mission, or negative, as in a mishap or failure. A lesson must be significant in that it has a real or assumed impact on operations and applicable in that it identifies a specific design, process, or decision that reduces or eliminates the potential for failure and mishaps, or reinforces a positive result.”

This definition illustrates perfectly, he said, why lessons from all NATO’s activities, not just operations and exercises, should be documented and implemented. Leadership, within both NATO and the Nations, has a key role to play in creating the required conditions and mindset in this respect. He pointed out that the Lessons Learned Process is an integral task and everyone’s business; a prerequisite to be able to take action, find solutions, and learn.
The Admiral then moved on to the topic of the Conference, stating that it had been an opportunity to take stock of where we are in implementing the NATO Lessons Learned Policy and to explore innovative ideas and exchange experiences on how to improve this process. He also noted that the Conference is the only annual forum within NATO which provides the Lessons Learned Community with the chance to do just that. In that respect, he drew the attention of participants to some areas that call for improvement, engagement, and dedication:

- We need to integrate and standardize the Lessons Learned Process across NATO.
- We need leadership commitment and guidance for the Lessons Learned Process to trigger and task the consistent collection of lessons.
- We need to run the Lessons Learned Process effectively, taking care to document our Lessons and upload them into the NLLP.

These three areas of improvement then apply to the whole Lessons Learned Community: NATO, Member Nations, Partners, and, where appropriate, other IOs such as the EU, and NGOs such as the International Committee of the Red Cross. DSACT noted that there are still too many individual and separate Lessons Learned databases within NATO that have not been transferred to the NLLP: of the 5500 visible NATO-wide lessons, only about 1100 have actually been transferred/uploaded into the NLLP. The remainder are spread out across the various stand-alone databases, only accessible and therefore learnable by those who can use the relevant database. This is without taking into consideration the number of invisible lessons stored in databases we know nothing about.

It is therefore key, the Admiral noted, that Conference participants back-brief their respective chains of command on the outcomes of the Conference and the three areas (above). We should remind them that a consistent Lessons Learned Process is an essential step to adapt our training and exercise procedures and thereby keep NATO agile, responsive, and able to maintain its edge in today’s constantly changing security environment.

In closing, DSACT quoted General Douglas MacArthur, whose memorial and burial site is located close to HQ SACT in Norfolk, Virginia, USA: “In no profession are the penalties for employing untrained personnel so irrevocable as in the military” to which he added: “...not just employing untrained personnel, but wrongly trained personnel.” This is then why the NATO Lessons Learned Process is so tremendously important.
In a special event on the first day of the Conference, the Signing Ceremony for the NATO Force Structure (NFS) Joint Task Force (JTF) HQ Handbook took place. The Handbook was signed by BGEN Mário Barreto, Commander of the JALLC, CAPT Renée van Pamelen-Hollenberg, Director NATO C2COE, and LTC Jacek Ropejko, Branch Chief, Quality Assurance (Lessons Learned) of the Joint Warfare Centre (JWC). LTC Ropejko was representing MGEN Andrzej Reudowicz, Commander of the JWC. The Signing Ceremony marked the official launch of the Handbook.

The NFS JTF HQ Handbook is the result of a three-year cooperative effort between the JALLC, the JWC, and the C2COE. It combines observations, insights, and analysis from the TRIDENT JAGUAR series of NATO exercises, which took place in 2014, 2015, and 2016. The exercises aimed to test the readiness of NATO's Graduated Readiness Forces (Land) to perform as JTF HQs, a role that was assigned to them as part of the framework for a new NATO Command Structure agreed at the Lisbon Summit in 2010. As the NATO transformational and operational communities developed the NFS JTF HQ concept, commanders, staff officers, SMEs, and analysts identified good practices and areas for further study and reflection.

Speaking at the Signing Ceremony, BGEN Barreto said: “It is a pleasure and an honour to sign this Handbook, which is an example of true teamwork between the JALLC, the JWC, and the C2COE.”
Participants’ visit Museu do Combatente

The NATO Lessons Learned Conference is not all work and no play. After the close of the first Conference day, participants were offered the opportunity to socialize, and network at the Conference Ice Breaker event. The event was held at the Forte do Bom Sucesso (which literally translates as the Fort of Good Success) in Lisbon’s waterfront Belém District. The fort is next to the famous Belém Tower (Torre de Belém) and near the equally famous Hieronymites Monastery (Mosteiro dos Jerónimos), both of which have UNESCO World Heritage Site status. Despite its famous neighbours, very few people actually make the trip to the fort, which houses the fascinating Museum of Combatants (Museu do Combatente). The museum tells the story of Portuguese military personnel serving in the Portuguese Colonial War (Guerra do Ultramar), fought from 1961 to 1975 in Angola, Guinea-Bissau, and Mozambique.

After a quick stop for a group picture in front of the Belém Tower, the participants were guided inside the fort, where they saw historical vehicles (including an M5A1 tank which saw service in Angola) and weapons used by the Portuguese Armed and Security Forces. Their tour of Portuguese military history ended in the parade square, where they were officially welcomed by LGEN Chito Rodrigues, President of the Portuguese Veterans Association, and joined by DSACT, ADM Manfred Nielsen.

The participants were offered traditional Portuguese food, including pastéis de bacalhau, rissois, other traditional finger food and various sweets, which were served in two of the main halls of the museum, named after two famous Portuguese battles. They also took the opportunity to taste world-famous Port wine—both red (Tawny and Ruby) and white—while they wandered around the museum rooms and the fort’s trench.

Networking and the exchange of knowledge and information is one of the goals of the NATO Lessons Learned Conference. The Ice Breaker event allowed participants to interact not only as professionals and national representatives, but also as colleagues and friends in a more informal and relaxed setting. The presence of DSACT and other Flag Officers and General Officers was a great way of showing the community that these informal opportunities are just as important as the formal ones.
08:30 | Admin remarks
COM JALLC Welcome

SACT – Conference Opening by recorded video

09:00 | NATO Updates

HQ SACT/ACOS CEI – Current Development in NATO Lessons Learned – LTC Andrea Scarabotto
SHAPE/ACOS J7 – NATO Exercise Programme Review – BGEN Jurgen-Joachim von Sandrart

09:30 | BREAK

10:00 | Panel 1: SACT Focus Areas and Lessons

Following the Warsaw Summit, HQ SACT continued to develop SACT’s six key focus areas—Command and Control (C2), Logistics and Sustainability, Training and Exercises, Partnerships, Capabilities, and Human Capital—enabling the implementation of a proactive transformational agenda for NATO. This first Conference panel took a closer look at how lessons relating to the key focus areas have been contributing, and can continue to contribute, to the Alliance’s transformation, ensuring viable options to further improve and innovate the Lessons Learned Capability.

Key Speaker: LGEN Jeffrey Lofgren, HQ SACT/DCOS CAPDEV – SACT focus areas and lessons introduction

HQ SACT/JFT/TREX/FOTE – Training and Exercises; Status and way ahead. How to collect and use lessons to improve – LTC Tiberiu Szmuck
HQ SACT/CAPDEV C2DS NPI – C2; Status and way ahead. How to collect and use lessons to improve – COL Paul Malessa
HQ SACT/CAPDEV C2DS LDS – Logistics and Sustainability; Status and way ahead – LTC Jonathan W. Meisel
HQ SACT/JFT/JETE/E&IT – Human Capital; Status and way ahead. How to collect and use lessons to improve – CDR David Stoffell
HQ SACT/CAPDEV/CEI IDLL – Capabilities; Status and way ahead. How to collect and use lessons to improve – LTC Andrea Scarabotto
HQ SACT/SPP/STRT PLP – Long Term Military Transformation (LTMT) Programme Lessons Learned – LTC Aaron Bazin

11:30 | Panel 1 Discussion

12:00 | LUNCH

13:00 | Group Photo
TUESDAY, 29 NOVEMBER

13:15 | Panel 2: NATO Readiness Action Plan (RAP) – Assurance and Reassurance

The Readiness Action Plan (RAP), announced at the 2014 Wales Summit, represents the most significant reinforcement of NATO’s collective defence since the end of the Cold War. Its implementation, through assurance and adaptation measures, was welcomed during the Warsaw Summit. During this panel, participants had the opportunity to present lessons relating to the RAP and provide insights on how the RAP is contributing to the Alliance’s efforts to improve and innovate. In particular, the panel aimed to contribute to the general awareness of how lessons can be an integrated part of the different work strands of the RAP.

Key Speaker: BGEN Benjamin Corell, HQ MND SE/DCOM – Lessons from the set-up of HQ MND-SE and their relevance in RAP

SHAPE/J5/CAT-A/RAP Adaptation – RAP implementation: a brief summary and Lessons Learned from this period; benefits – LTC Leopoldo Ramirez

STRATCOM SHAPE P1 – Lessons from the STRATCOM contribution to RAP: How they will benefit NATO in the future – Mr Mark Laity

IS DPP/PCD DEP Head – Political-military observations, lessons, and issues from the implementation of the RAP – Mr Ian Bayless

US CALL & DTC PAF – Learning lessons to change the future: The EX ANAKONDA-16 case study – COL Michael Pappal and LTC Andrzej Lis

14:30 | Panel 2 Discussion

15:00 | BREAK

15:30 | Panel 3: Innovative ideas for the future of Lessons Learned

The Lessons Learned Process, just like any other process, evolves continuously based on the implementation of new techniques, methods, and best practices. In this respect, NATO can evolve its Lessons Learned process effectively and efficiently by looking outside of the Alliance and understanding how other organizations conduct the business of Lessons Learned. The aim of this panel was to contribute to a better understanding of how NATO can think “out of the box” when it comes to improving and innovating its own Lessons Learned Process, in particular with regard to the NATO Lessons Learned Policy, Bi-SC Directive, Handbook, and related material, processes, and procedures.

Key Speaker: Professor John Louth, Director for Defence, Industries, and Society, RUSI – Analysis in support of long term decision making/programmes

E&Q Engineering (Spanish Defence Company) – Trends in software: the DIY process-based system, BPMS approach – Mr Enrique Martin, CEO

16:30 | Panel 3 Discussion

17:00 | Admin remarks

18:00 | Ice Breaker
Conference Agenda

WEDNESDAY, 30 NOVEMBER

08:30 | Admin remarks

08:45 | Panel 4: How to improve the NATO Lessons Learned support to Member Nations

NATO’s Lessons Learned Capability not only serves the organization to learn efficiently from past experience in order to improve future performance, but is intended to support the Member Nations in much the same way. During this panel, participants discussed how the NATO Lessons Learned Capability could be further improved in support of Member Nations, including how a Lessons Learned STANAG might contribute to improvement and how the JALLC is currently analysing the NATO Lessons Learned Process in terms of improving the collection and sharing of lessons with NATO’s Partners.

Key Speaker: BGEN Mário Barreto, COM JALLC

JALLC – What is available to support Allies and potential ways to improve such support – Principal Operational Research Analyst

NSO/Joint Branch – Need and usefulness of a Lessons Learned STANAG – CAPT Paul Beckley

SACT/CAPDEV/C2DS/THF – Coalition Warrior Interoperability eXploration eXperimentation eXamination eXercise (CWIX) – CDR Holger Grossman

09:30 | Panel 4 Discussion

10:00 | BREAK

10:30 | Panel 5: How to improve NATO–COE Lessons Learned interaction

Centres of Excellence (COE) act as a catalyst for NATO’s transformation, assisting in doctrine development, identification of lessons learned, improvement of interoperability, development of capabilities, and testing and validation of concepts through experimentation. The purpose of this panel was to highlight the COEs’ role in improving and innovating the Lessons Learned Capability, and how improved interaction between NATO and the COEs will ultimately contribute to an improved capability. In particular, the panel sought to assess and discuss ways to improve future Joint Analysis Requirements and related tasks, focussing on potential lesson collection capabilities and improved use of the NLLP as NATO’s central Lessons Learned hub, as well as Modelling and Simulation (M&S) and its potential to improve Lessons Learned and analysis.

Key Speaker: CAPT Renée van Pamelen-Hollenberg, Director NATO C2 COE – Lessons Learned and transformation of NATO

COE CSW – Lessons Learned initiative with MARCOM – CDR Mike Kleibaum

M&S COE – Challenges and Opportunities: Establishing a Lessons Learned Community for Modelling and Simulation – LTC Walter David

MW COE – Newly established Mountain Warfare COE – MAJ Igor Brinar

HUMINT COE – HCOE Lessons Learned – The engine of HUMINT transformation within the Alliance – LTC Alexandru Nica
HQ SACT/CAPDEV/TRNET – COEs’ support to NATO and Nations and the way ahead – CDR Cesar Correia

11:45 | Panel 5 Discussion

12:15 | LUNCH

13:15 | Panel 6: How to improve the Member Nations Lessons Learned support to NATO

NATO’s Lessons Learned Process is a two-way conduit: the Alliance needs the support of its Member Nations if its Lessons Learned Capability is to continue to evolve and transform to meet the Allies’ own needs. This panel discussed how Member Nations can help NATO help them in the context of developing and implementing the national and Alliance Lessons Learned Process in operations, exercises, and training, as well as in terms of doctrine and capability development. In particular, the panel sought to draw on national experience and ideas in order to contribute to the improvement and innovation of the NLLP in terms of better synchronizing exercises, training, doctrine, and capability development efforts among the Allies and the Alliance.

Key Speaker: MGEN (Ret) Eric Roussel, FRANCE – Lessons from French Operations in Africa; how can they benefit NATO and other nations?

US JLLD – Building the Joint Lessons Learned Information System (JLISS) – CDR Todd P. Copeland

US PKSOI – Peace and Stability Operations Lessons; Sharing Tool – SOLLIMS (Strategic and Operational Lessons/Trends) – Mr David Mosinski

GERMANY Bundeswehr Office for Defence Planning – German Lessons Learned activities and results – LTC Achim Hesse

CANADA DND BH JLL – Lessons Learned training evolution in support of national armed forces transformation; recommendations for the NATO Lessons Learned Capability – LTC Jody McKinnon

14:35 | Panel 6 Discussion

15:05 | BREAK

15:10 | ADM Manfred Nielson, DSACT – Conference Closing Address

15:20 | COM JALLC – Final Thoughts

15:30 | Admin remarks
WHAT PEOPLE ARE SAYING...

“This year’s conference was a deep dive into the future of Lessons Learned and NATO. The future looks very bright indeed!”

“This was another excellent conference by the JALLC, with valuable information for all Nations to take on board.”

“Continued learning and evaluation of our progress is integral to our success, and this year’s conference was another excellent example of NATO’s commitment to excellence.”

“Very professional conference with great staff, a good environment in beautiful Lisbon, and important content.”

“A topic that was stressed was the need for improvement and a way forward. We have the ideas from the conference and now it is up to us, NATO, to enact the way forward and continue improving.”

The JALLC will continue to publish high quality and intellectually honest analysis products that document NATO’s learning and steer leaders’ understanding of the problems we face. The JALLC will continue to provide and improve the tools for learning and sharing, such as our handbooks and training courses, that help you provide a similar product for your leaders. More specifically, we will continue to improve the NLLP so that it becomes the pre-eminent sharing tool for all of you. Finally, we will continue to provide support to all of you in developing your own organization’s Lessons Learned Capability.

As in past years, you must champion learning in your organization and push sharing with others, whether you are a Lessons Learned practitioner, an operator, or a leader. You must make sure that, when appropriate, your learning is reflected in our doctrine, policies, directives, and plans. You must contribute your Lessons as requested by the JALLC, SACT, and SACEUR and make suggestions to improve the NATO Lessons Learned Process, the NLLP sharing and staffing areas, and other Lessons Learned tools. Promote the use of the NLLP and the NATO EXTRA Portal, suggest our training courses, and remember to visit the JALLC website for regular updates of what is going on at the JALLC.
ACKNOWLEDGEMENTS

The JALLC wishes to thank the following organizations and individuals for their support to and efforts during and after this Conference:

The Portuguese Army Military Academy for allowing us to use the facilities, and for their support in IT, catering, and admin during the Conference itself.

All the speakers and presenters, without whom there could be no Conference.

The United States Navy Reserve for their outstanding editorial and administrative support.

The JALLC’s staff in producing this report, as well as staff from the Lessons Learned & Analysis Support Branch, the Administration, Registry & Base Support Group, IM & CIS, and BUDFIN branches who assisted with the Conference.

Finally, all the attendees for your engagement and enthusiasm in helping to make NATO into a successful learning organization.

Improving YOUR NATO Lessons Learned Portal

Having one reliable information management system facilitates the identification and exchange of lessons. As the Alliance’s key tool for sharing of Lessons Learned related information, the need to improve and use the NLLP was highlighted throughout the Conference.

Established and managed by the JALLC, the current features are the result of a long process which started shortly after the creation of the JALLC in 2002. Projects are currently under development to improve the efficiency and quality of the NLLP. Efforts to further develop its functionalities will continue in order to become a Lessons Learned interoperable hub.

The NLLP is only an information technology tool made by and for its users, within and outside the Alliance. The NLLP is available in two versions: one that can be accessed on internet at https://nllp.jallc.nato.int containing up to NATO UNCLASSIFIED information and one available on the NATO SECRET network. It contains information and documents as provided and updated by its members. Any feedback from the users’ experience and contributions are more than welcomed because Lessons Learned is everyone’s business.

As emphasized by SACT himself during his opening remarks to the conference: “let us improve together and create this unique and common portal for our lessons!”
The JALLC
Supporting Intelligent Change
The JALLC was established in Lisbon, Portugal, in September 2002 as NATO’s lead agency for the analysis of operations, training and experiments, and for the dissemination of Lessons Learned. The precursor body to the JALLC was the Permanent Maritime Analysis Team (PAT) based at Northwood, UK.

The PAT was established in 1978 and conducted operational analysis of NATO maritime exercises. The PAT formed the core of the team tasked with analysis of the NATO IFOR and SFOR operations in the Former Yugoslavia which concluded that NATO lacked a standing joint analysis capability ultimately leading to the operational requirement for the JALLC to be approved by the NATO Military Committee in June 1997.

The implementation concept, recommending the JALLC be located in Portugal as the most efficient and effective location for NATO’s analysis and Lessons Learned capability, was submitted to the International Military Staff in January 2000 and approved by the Military Committee on 07 December 2001. Finally, on 02 May 2002, the North Atlantic Council approved the activation of the JALLC as a NATO Military Body from 02 September 2002 and the simultaneous de-activation of the PAT. The JALLC was formally opened on 06 December 2002 and declared full operational capability on 28 March 2006.

Our History

Our Mission

Today, the JALLC is NATO’s centre for performing Joint Analysis of operations, training, exercises and experiments, based on analysis requirements generated by both NATO strategic commands. The JALLC supports the exchange of Lessons Learned and facilitates the development of Lessons Learned Capabilities, reinforcing the continuous transformation and modernization of NATO’s forces and capabilities.

Our Role & Tasks

The JALLC, as part of the NATO Command Structure, and subordinate to HQ Supreme Allied Commander Transformation (SACT), provides analysis support to operations, training, exercises, and experimentation. The JALLC also supports the overarching NATO Lessons Learned capability by maintaining and managing the NATO Lessons Learned Portal; providing (joint) analysis and Lessons Learned training; and engaging, through the JALLC Advisory & Training Team (JATT), with NATO commands and the Allies, partners, and other entities to support their Lessons Learned capability development. In addition the JALLC provides a wide range of support services to the NATO Force Structure and Agency Structure in Portugal.
Joint Analysis

Why does NATO need Joint Analysis?

The results of the JALLC’s Joint Analysis of tasked Joint Analysis Requirements (see below) are used to support decisions that will result in enduring improvements, Lessons Learned (LL), and the subsequent transformation of the Alliance. The relationship between these terms forms the fundamental basis of the JALLC’s Mission. As well as its use in support of LL processes, analysis provides decision-making support to NATO in other areas, including day to day operations; Capability Development; Concept Development; and Training.

How does the JALLC conduct Joint Analysis?

The JALLC conducts its Joint Analysis projects in accordance with the JALLC Project Approach (JPA), an adaptation of the PRINCE2® (Projects IN a Controlled Environment) approach, which ensures the focus on quality and timeliness of JALLC analysis products. The JPA leads projects through a five-stage approach with the Planning, Executing, and Production Stages housing the majority of the key analysis activities. Within the stages, analysis activities are divided into phases at the end of which a quality control check takes place to ensure the project is running according to plan and meets the JALLC’s high quality standards.
The Analysis Tasking Process

The JALLC is tasked by Supreme Allied Commander Transformation (SACT) to carry out a wide range of analysis projects based on Joint Analysis Requirements (JARs) generated from both NATO strategic commands based on NATO-wide requests for analysis. JARs are enduring issues that affect NATO and require further analysis to ensure the Alliance learns and transforms.

JARs can be proposed by any NATO command within Allied Command Operations (ACO) via Supreme Headquarters Allied Powers Europe (SHAPE). SHAPE prioritizes ACO’s JARs for operations and exercises and forwards them to HQ SACT where they are merged with Allied Commander Transformation’s (ACT’s) JARs for exercises, training, experimentation and capability development. Additionally, the NATO Nations, the International Military Staff (IMS), and International Staff (IS) can submit proposals for analysis to HQ SACT.

HQ SACT and SHAPE cooperatively prioritize all the JARs and develop the Prioritized Analysis Requirements List (PARL). The PARL is used to design a responsive and balanced JALLC Programme of Work (POW) which is revised twice a year to reflect the operational and transformational needs of NATO. However, if new issues arise, they may be inserted into the JALLC POW as Emergent Analysis Requirements (EARs).

Lessons Learned

What are Lessons Learned?

The term Lessons Learned (LL) is broadly used to describe people, things and activities related to the act of learning from experience to achieve improvements. The idea of Lessons Learned in an organization is that through a formal approach to learning, individuals and the organization can reduce the risk of repeating mistakes and increase the chance that successes are repeated. In the military context, this means reduced operational risk, increased cost efficiency, and improved operational effectiveness.

NATO’s Lessons Learned Capability

In September 2011, the North Atlantic Council approved the revised NATO Lessons Learned Policy which provides the overarching policy for Lessons Learned in NATO. NATO defines its Lessons Learned capability as follows:

"A Lessons Learned capability provides a commander with the structure, process and tools necessary to capture, analyse and take remedial action on any issue and to communicate and share results to achieve improvement."

The NATO Lessons Learned capability comprises several important elements. Strong leadership support and a positive Lessons Learned mindset across an organization are extremely important, governing the success of real learning, sustained improvement and profitable knowledge-sharing among the Allies.
The NATO Lessons Learned Process and the JALLC

The NATO Lessons Learned Process is divided into several phases. The process starts with the Analysis Phase in which the Root Cause of an observation and potential Remedial Action is identified. This is where the JALLC is often asked to step in to conduct analysis and provide the observing organization with the information it needs to follow the rest of the process. The output of this Analysis Phase is a Lesson Identified (LI).

An LI is then sent through the Remedial Action Phase, during which it is Endorsed and Action Bodies are tasked with the implementation of the LI. Following successful validation of the LI, it is deemed an LL and the formal process concludes. However, it is important that the LL is further disseminated and published via the NATO Lessons Learned Portal, which is managed by the JALLC, to ensure the LL is put into NATO-wide practice.
Outreach, Support, and Education

Besides its core activities of conducting Joint Analysis and contributing to the Lessons Learned Process, the JALLC performs a host of other activities which are of great importance to the Alliance and its transformation:

**Outreach:** The JALLC’s outreach activities and tasks were established in support of ACT and assist NATO, Nations and other organizations to enhance and/or develop their Lessons Learned Capability by offering advice and training on analysis and the NATO Lessons Learned Capability. The JALLC also provides analysis training, including the LLSO Course and the JATC (see below).

**Support to Exercises:** The JALLC provides training and advice on the NATO Lessons Learned Process throughout the Exercise Planning Process to NATO LL staff officers employed in exercises and can provide direct support, acting as a Lessons Learned advisory body, during Exercise Phase IIIb upon request. The JALLC also developed the NATO EXTRA Portal, the single centralized exercise and training information platform within NATO.

**Training:** The JALLC Analyst Training Course (JATC) is a five-day course which is held twice a year by the JALLC. It covers a wide range of issues and topics related to the conduct of analysis at the JALLC, including the JALLC Project Approach (JPA) and basic statistical analysis. The JALLC also runs the NATO Lessons Learned Staff Officers (LLSO) Course, held three times a year and hosted by SWEDINT. This course covers the management and execution of an organizational Lessons Learned Process using NATO Lessons Learned related processes, training, tools, and information sharing in order to develop a Lessons Learned capability.

**NATO Lessons Learned Conference (NLLC):** Each year the JALLC organizes the NLLC which is an important event in the Lessons Learned calendar. The Conference brings together the NATO Lessons Learned Community and provides an excellent opportunity for the exchange of information and discussion on the Joint Analysis and Lessons Learned Processes.

The JALLC also provides a wide range of support services to the NATO Force Structure and Agency Structure in Portugal.
The NATO Lessons Learned Portal

The JALLC developed and manages the NATO Lessons Learned Portal (NLLP), which is NATO’s key tool for sharing of Lessons Learned and related information. The NLLP is a centralized platform, allowing the NATO Lessons Learned Community to share LL related documents, such as overarching reference documents, operational, experimental, and exercises-related lessons (Observations, LI, LL) and other documents relevant to Communities of Interest (CoI).

The NLLP also supports various Communities of Interest (CoI), providing them with dedicated CoI areas in order to facilitate the sharing of Lessons Learned related information and the interaction of the NLLP members with a common interest on a specific subject within a specific area of expertise. The NLLP also supports the planning of Lessons Learned activities and includes an interface with dedicated Lessons Learned courses.

JALLC Products

The JALLC produces a large quantity of analysis and related products each year:

- **JALLC Analysis Products**: Since its inauguration the JALLC has published over 150 Analysis Reports. The JALLC publishes 8-10 Analysis Reports each year, with an average endorsement rate of 75%. In addition to analysis reports, the JALLC can develop tailor-made products such as applications, dashboards, and internet portals.

- **Factsheets**: The JALLC produces an unclassified, ready for public consumption, summary (two pages) of each report that it publishes.

- **Handbooks and Guides**: The JALLC maintains the NATO Lessons Learned Handbook, the Joint Analysis Handbook, and several guides such as the NATO EXTRA Portal User Manual.

- **Brochures**: The JALLC publishes brochures on its key activities and products, including on the JPA and the NATO EXTRA Portal.

- **The Explorer**: The JALLC’s own newsletter, which features the latest news and interesting articles highlighting the JALLC’s work.

- **The NLLC Report**: The summary of the annual NATO Lessons Learned Conference.
How we do it....

Supporting the Exercise and Training Community of Interest by developing the NATO EXTRA Portal allowing for improved sharing of Lessons and experience — The NATO EXTRA Portal (January 2015)

Supporting SHAPE COS efforts to describe the intent and mechanism of the Regional Focus (RF) initiative, in order to devise criteria upon which to assess the alignment of NATO activities with a regional dimension — NATO’s Regional Focus Initiative; Exploiting Regional Expertise (March 2016)

Supporting SHAPE COS in understanding the extent to which Knowledge Management processes and activities are implemented at ACO — Knowledge Enterprise November (2016)
The JALLC is NATO’s centre for performing joint analysis of current operations, training, exercises, and experimentation. Reporting directly to Supreme Allied Commander Transformation (SACT), the JALLC recommends development or improvement of concepts, doctrine, and capabilities. The JALLC also maintains and manages the NATO Lessons Learned Portal and supports Allied Command Transformation (ACT) outreach activities in the Lessons Learned domain. Operational since 2002, the JALLC is located in Lisbon and has a permanent staff of 50 military and civilian personnel.

Upcoming JALLC Projects:
The JALLC is currently working on the following projects from its 2016 Programme of Work:

**Enhancing ACO’s Intelligence Capability:** This study will examine present and planned NATO intelligence capabilities in the context of recent crises, in order to assess their adequacy and provide recommendations for improvement - January 2017.

**Analysis of IV&V Events:** This study will analyse one year of Interoperability, Validation, and Verification (IV&V) events to identify benefits and best practices - January 2017.

**LL with Partners During Crisis Management:** This study will summarize key interoperability lessons related to crisis management, drawing on lessons provided, inter alia, by NATO Partners - June 2017

**C2 FA Capstone Concept:** This study will analyse collected observations, LI and LL in 12 development areas and seek to identify relevant shortfalls and issues - June 2017

**Non-Kinetic Functional Areas within the NATO Crisis Management System:** This study will aim to identify advantages and disadvantages related to comprehensive non-kinetic planning and provide recommendations for improvement - June 2017

**Host Nation Support LI:** This study will summarize and analyse LI relating to Host Nation Support activities during the Cold War - June 2017

Recent projects

**NATO Military Actors in NATO’s Crisis Response Planning** – In this report, published in April 2016, the JALLC reported on how NATO has made significant progress in its implementation of a Comprehensive Approach over the last year, but still faces challenges when it comes to incorporating input from Non-Military Actors when planning its response to a crisis. In this report, 14 actions are identified that could contribute to improving how NATO incorporates input from Non-Military Actors, including: crafting a Functional Planning Guide identifying the sections of the crisis response planning process to which civil-military interaction may contribute, and developing an engagement strategy for Allied Command Operations (ACO) in support of crisis response planning.

**The NFS JTF Handbook** – The TRIDENT JAGUAR (TRJR) series of exercises was developed to exercise and certify Graduated Readiness Forces (Land) HQs into their role as and NFS Joint Task Force (JTF) HQs for commanding Smaller Joint Operations (Land Heavy); part of the leaner NCS design agreed at the Lisbon Summit in 2010. Over the past three years, the JALLC has observed and analysed the TRJR exercises, reporting on lessons and good practices. These have now been incorporated into a handbook which guides the reader through the major processes, ideas, and lessons regarding the implementation of the NFS JTF HQ concept, and discusses how the GRF(L) HQs may transform from their Corps HQ role into an NFS JTF HQ role. The Handbook is the joint effort of staff at the JALLC, the JWC, and the C2COE.
www.jallc.nato.int

The JALLC’s website is your one stop shop in NATO for all things related to Joint Analysis, Lessons Learned, as well as to all of the other JALLC Activities such as our training courses and outreach activities.

The JALLC produces and publishes eight to ten analysis reports and/or research papers on a wide range of topics each year. Our factsheets provide summaries of these reports and can be downloaded from the website. Commander JALLC noted that, “The JALLC’s factsheets are an invaluable source of information to the public about how the JALLC has contributed to NATO’s transformation and about the JALLC’s capabilities. The factsheets offer a taste of what each JALLC analysis product has to offer and are intended to draw the reader in and find out more about the JALLC and what we can do.”

The JALLC Explorer is a quarterly digital newsletter that provides information on JALLC activities, including features on key joint analysis projects, important events, and other interesting topics. You can download the current and previous issues of The Explorer from the JALLC website.

You can find links to key events taking place such as the NATO Lessons Learned Conference and, of course, to the unclassified version of the NLLP.

You can download copies of key Joint Analysis and Lessons Learned documents such as the NATO Lessons Learned Handbook and the Joint Analysis Handbook.

The website also covers the latest JALLC news: everything from success stories regarding our joint analysis projects to distinguished guest visits, outreach activities, and other key events and activities.