

Communicator

ISSUE 4 | 2013



The journey ahead • Boot Camp Training • NATO Agencies Days

The whole world is part of an all-embracing transformation process. So are the NATO Communications and Information (NCI) Agency and AFCEA, two "number one" in communications and information technology.

Increasing tasks in the defence and security sector are challenged by decreasing budgets in the western world. However, intensive exchange of information between users and producers of state of the art C4ISR hard- and software on an ethical basis are still indispensable. That's why AFCEA Europe and the NCI Agency decided on a Strategic Cooperation Agreement that aims on an evolutionary and resources saving format to address today's strategic and technical issues and to showcase the most diverse range of new and innovative products and services.

AFCEA Europe's TechNet International and NCI Agency's NATO C4ISR Industry Conference 2014 is the first of a new and unique event series to be organized "truly joint".

The follow-on events will be held in Madrid, Spain in spring 2015 and in Ottawa, Canada in spring 2016



“From Assets
to Services -
Capability Delivery
in the
21th Century”

25-27 March 2014

Bucharest, Romania

NATO C4ISR Industry Conference & TechNet International 2014



NATO Communications and Information Agency



The Association for Communications,
Electronics, Intelligence & Information Systems Professionals

ISSUE 4 2013

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Chief editor

Michal Olejarnik

Editorial team

Mike Bauer, Lucie Cimatoradka, Lisa Harvey, Thorsten Jungholt, Grégor Molenaar, Richard van Nijnatten

Layout

Andre van Herk

Print

NCI Agency - Creative Media Centre



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Boot Camp training

GM's

Winning the last 50 meters



Colleagues,

I recently spoke to the team that is working incredibly hard to deliver the upgrade of NATO's cyber defences (NCIRC FOC) and drew an analogy to an Olympic 400 meter competition.

In a 400 meter race, the first 350 meters essentially do not matter. As long as you are not too far behind, the race is lost or won in the last 50 meters. At this stage, you are combating severe exhaustion. To win, you need to know yourself really well and truly understand your limits. Mentally you need to plan for the full race, and the pain, and not be tempted to dominate at the outset. If you are not careful, you will not be able to push when it really matters and you will lose, even if you got off to a flying start.

I made the same point recently as we were engaged in discussions with our Board on the proposals for a new Organizational Design, which you can read about in this edition of our magazine. A lot of work was necessary to prepare the 'big picture', but – not surprisingly – even more work went into the final phases as we looked at the detail of the documents that were being prepared.

This is something that I would encourage all of us to think about. As we plan our activities, let's make sure we leave energy for the final sprint. No plan will survive contact with reality and we are bound to encounter challenges and difficulties, frequently in the very last phases, when we feel we may have reached our limits. This is normal and something we always need to plan for. But it is this 'crunch time' when we frequently need to give it our all, or risk losing all the effort put in.

The races we run and win are more important than the Olympics because the services we deliver have a fundamental impact on the ability of the Alliance to execute its tasks. For example, a recent restructuring of the team working in Sector Brussels will allow us to better support the Secretary General, the Ambassadors, Delegations and the important political processes at NATO.

Similarly, we have just completed a major effort to support Steadfast Jazz, the Alliance's largest live exercise in recent years.

Our cyber colleagues won their race against their October deadline, but another deadline looms already for February. Similarly, as the Nations have approved our organizational design proposal, we will have to work equally hard now to prepare a smooth transition to the new structure.

I remain optimistic about our races, because each and single day, even at the most challenging juncture, I remain inspired and uplifted by your dedication to the important work that the Alliance has entrusted us to deliver. At the Olympics I had a great coach, but it was me who had to push through the last 50 meters; now, I'm the coach and I need all of you for this 50 meters as well as the next races we'll run together.

Last but not least, I hope you all can enjoy a well-deserved rest during the Christmas period so that we can face the upcoming challenges for 2014 with renewed energy.

A very proud General Manager,

Koen Gijsbers

Steadfast Jazz 2013 tests customer readiness for the NRF

From 2 to 9 November, exercise Steadfast Jazz 2013 (SFJZ13) was held across Europe, including the Baltic States and Poland. The exercise had the aim to train and test the NATO Response Force (NRF), a highly ready and technologically advanced multinational force that the Alliance can deploy quickly wherever needed. As the main provider of NATO communication and information systems (CIS) and their day-to-day support for both operations and exercises, the Agency's CIS supported the air, land, maritime and Special Forces components of SFJZ13. Also incorporated in the exercise was a staged cyber threat to the nations; SFJZ13 saw participation from the 28 NATO Nations, and three partner nations Finland, Sweden and Ukraine. Through long hours and challenging situations over the course of 9 months, the exercise support was setup in time for Joint Force Command Brunssum to conduct their training exercises and certify their role as lead command for the 2014 NRF cycle.

For the NCI Agency, SFJZ13, as a certification exercise was important as it tested our customers' interoperability in anticipation of their NRF responsibilities, which will begin on 1 January 2014. Nearly every component of NCI Agency Service Delivery has either indirectly or directly contributed to the exercise for SFJZ13 - supporting the static domains for reach back support, or supporting the NATO CIS Groups' deployable CIS systems and its domains.

The preparations followed on an 9 months exercise planning cycle which consisted of regular meetings on strategic requirements, user functionality, service provision, equipment implementation, and logistical challenges that needed to have a plan of action. Planning for SFJZ13 was done for about 7 of the 9 months, until a formal Tasking Order was produced to set the coordination in motion. This included the services, manpower, and equipment needed to conduct the exercise.

In order to ensure that SFJZ13 was enabled to meet its objectives, the actual setup started 3 weeks prior to the exercise's official start date to ensure all users had every service that the NCI Agency was tasked to provide. The capability requested and/or required included, but are not limited to, functional services, core services, border protection services, cyber defence and cryptographic services from NIATC/NCIRC, logistics and equipment support from the CIS Sustainment Support Centre, cross-domain

solutions from project managers based in The Hague, local support from co-located sectors/squadrons in five main locations, and numerous other systems and personnel. All are vital to the success of an exercise and incorporate new ways to conduct business that grows the NCI Agency as a capable agency ready for NATO's necessities.

It is important to note that Agency customers in static locations such as HQ Allied Air Command Ramstein had a direct connection to Poland and role to play during the Exercise. A static location is in this regard more effective and efficient, and able to start executing airpower missions in a matter of days, instead to a matter of weeks if it would deploy forward.

Exercises like SFJZ13 allow for a greater cooperation between entities within NATO including the NCI Agency and to focus on enhancing capabilities to provide adequate and timely response to the operational community for their communication needs. The "Connecting Forces" vision is reinforced when a combined force of military members, NATO civilians, and contractors work seamlessly together to contribute to not only NCI Agency goals and expectations, but also directly to SACEUR's vision. NATO Defence Ministers at their meeting on 22 October 2013, agreed to move forward on plans for a broader concept for training and exercises up to 2020 as part of the Connected Forces Initiative.

author: CPT Daniel A. Esposito, USAF



First-ever NATO Agencies Days event

At the Lisbon Summit, November 2010, NATO leaders endorsed a new Strategic Concept, which states that the Alliance will “engage in a process of continual reform, to streamline structures, improve working methods and maximize efficiency.” This process had already started in June 2010 with the internal organization of NATO Headquarters, i.e., the NATO Committee review. In parallel, NATO also engaged in the reform of its Command Structure – the NATO Command Structure Review – and that of its Agencies – the NATO Agencies Review.

On 17 and 18 September 2013, all nine current NATO Agencies (NAGSMA, NAHEMA, NAMEADSMA, NAPMA, NCI Agency, NETMA, NSA, NSPA, STO) participated in the first-ever NATO Agencies Days exhibition and information fair at NATO HQ. The event was launched with opening comments by the NATO Deputy Secretary Ambassador Alexander Vershbow, and general and welcoming comments were made by Assistant Secretary General for Defence Investment, Mr Patrick Auroy. Their comments highlighted the important role that the diverse array of Agencies provide to NATO, Nations and Partners.

The event featured a brand-new, integrated NATO Agencies exhibit (on display from 14-20 September) incorporating photos and capability stories from each agency, and organized along the lines of four themes:

Agency support to NATO Priority Capabilities

With the initial implementation of Agencies Reform, the majority of functions performed by NATO Agencies have been transformed to new bodies and the remaining functions are being considered in the continued implementation of Agencies Reform. At the same time, the reform has been guided by the principle that critical capabilities will be delivered throughout the change to the new structure and the provision of services to ongoing operations will be maintained.

The critical capabilities include: Afghanistan Mission Network; Counter-IED (Improvised Explosive Devices); Strategic and Tactical Airlift; Collective Logistics Contract; Expansion of ALTBMD (Missile Defence); Cyber Defence; Comprehensive Approach - Stabilization and Reconstruction-related Capability Requirements; Bi-AIS (Automated Information Systems); ACCS (Air Command and Control Systems); JISR (Joint Intelligence, Surveillance and Reconnaissance); AGS (Alliance Ground Surveillance).



Cooperation with partners

By working together NATO, Alliance members and partners are better able to ensure the security of their citizens than by acting alone. NATO Agencies strengthen this cooperation between NATO and partners by expanding opportunities for collaboration in practical areas such as capability development and delivery.

Smart Defence

Smart Defence is a new way of thinking about generating the modern defence capabilities that the Alliance needs for the future. It is a renewed culture of cooperation that encourages Allies to cooperate in developing, acquiring and maintaining military capabilities to undertake the Alliance's essential core tasks agreed in the new NATO strategic concept. A reduced overall NATO Agency footprint, focused on streamlining manpower and efforts and cost savings, while retaining quality and standards, epitomizes Smart Defence and enhances multinational cooperation. Agency reform has provided opportunity for a transparent, cooperative and cost-effective approach to meet essential capability requirements.

NATO Agencies Reform

The Alliance has fundamentally reformed its agency and military command structure to ensure that it is more effective, leaner and affordable. The transition to the new command structure took place in December 2012, opening the way to an entity that is more agile, flexible and better able to deploy headquarters for remote operations as well as to protect Alliance territory. In the same spirit, a major reform of NATO's Agencies was conducted and in July 2012 four new NATO organizations were established, rationalizing and consolidating functions and responsibilities of nine NATO Agencies related to Support, Communications and Information, Procurement, and Science and Technology.

The event also featured information briefings from each agency, which offered NATO HQ staff and visitors a chance to receive updated agency-specific information and to network. The event provided an opportunity to showcase NATO Agencies products and services to NATO HQ residents. It also facilitated senior leaders and staff from all the agencies to learn about each other's organizations and to build relationships and network.

The exhibit attracted much interest from NATO HQ staff and visitors alike, and viewing traffic through the NATO HQ lobby area was steady. Following the successful event at NATO HQ, part of the display also featured at the Comprehensive Regional Ministerial Meeting in Ljubljana, Slovenia.



-GrM



**BOOT CAMP
TRAINING**

THE FINAL PREPARATION FOR THE DEPLOYING SECTOR ISAF TEAM

This post-summer break time was marked with one of the most important training events within the NCI Agency – the Sector ISAF Boot Camp training event. The three-day event was conducted at NCI Agency Service Delivery in Mons from 3 to 5 September 2013. In general this is the final mission preparation for Agency / NCISG personnel before being deployed to Afghanistan. The event has been highly supported by the Command Group of the Agency. The NCI Agency COS, Major General Luis E. Andrey (ESP AF) paid a visit during the training to personally address the future Sector ISAF team. He expressed the importance of having well trained people on the ground to support the ISAF mission. The importance of the event was also underlined by the Director of Service Delivery – Brigadier General Luigi Tomaiuolo (ITA A): *“It’s very important for the NCI Agency and me to make you as best as possible trained in order to support our customers, the operational community in ISAF.”*

The training event was planned and conducted by JCCCO, Service Delivery in Mons under the direct support of the now former Sector ISAF Commander, Colonel Frank Gonzales (USA A). The training event covered all necessary aspects that are required to understand Sector ISAF’s roles and responsibilities. Group Captain Thomas (GBR AF), at the time the prospective Sector ISAF Commander, emphasized his confidence in the Agency-provided Boot Camp training programme and gratefully confirmed that his training requirements have been met. Also he stressed that his personnel is fully prepared and willing to face NCI Agency’s mission challenges in Afghanistan.

This was the third training event organized by NCI Agency Service Delivery since the establishment of Sector ISAF in 2012. Since the previous Boot Camp programmes the course content has been improved and further developed to fully meet the demanding changes of the operational environment in Afghanistan.

The scope of the briefings further expanded to areas like real life support, transportation procedures, contracting, finance and project management. All trainers are Subject Matter Experts (SMEs) with recent deployment experience in Afghanistan. Among others the NATO CIS School in Latina, Italy was involved by providing expertise on specific areas. In addition to several informative briefings, the attendees had the opportunity to visit the THALES HQ and laboratory in Lambersart, France for the first time. They were introduced to the replica of the THALES portion of the network, visited the THALES ISAF Platform - AMNOC, and established face-to-face connection with key managers and system engineers at THALES. In conclusion Group Captain Thomas thanked to JCCCO team for the coordination of the Boot Camp and requested close coordination between the Sector ISAF team and the SMEs during his deployment.



Major Orlin Garkov, BGR A
NCI Agency Service Delivery, Joint Coordination
Centre for CIS Operations, Boot Camp leader

Controlling information access while enabling collaboration

The successful operation of NATO missions requires effective and secure sharing of information among not only partners of the coalition, but also with external organizations (e.g. the International Committee of the Red Cross). While making as much information as possible available to the various participants involved in a mission, it is crucial to avoid the disclosure of sensitive details to users with insufficient clearance. Of course, the conflict between confidentiality and availability of information greatly complicates the task of information sharing. On the one hand, some pieces of information must be disclosed to external partners in order to ensure their effective involvement in a NATO mission. On the other hand, the disclosure of certain other pieces of information may negatively affect the outcome of the mission and should clearly be avoided.

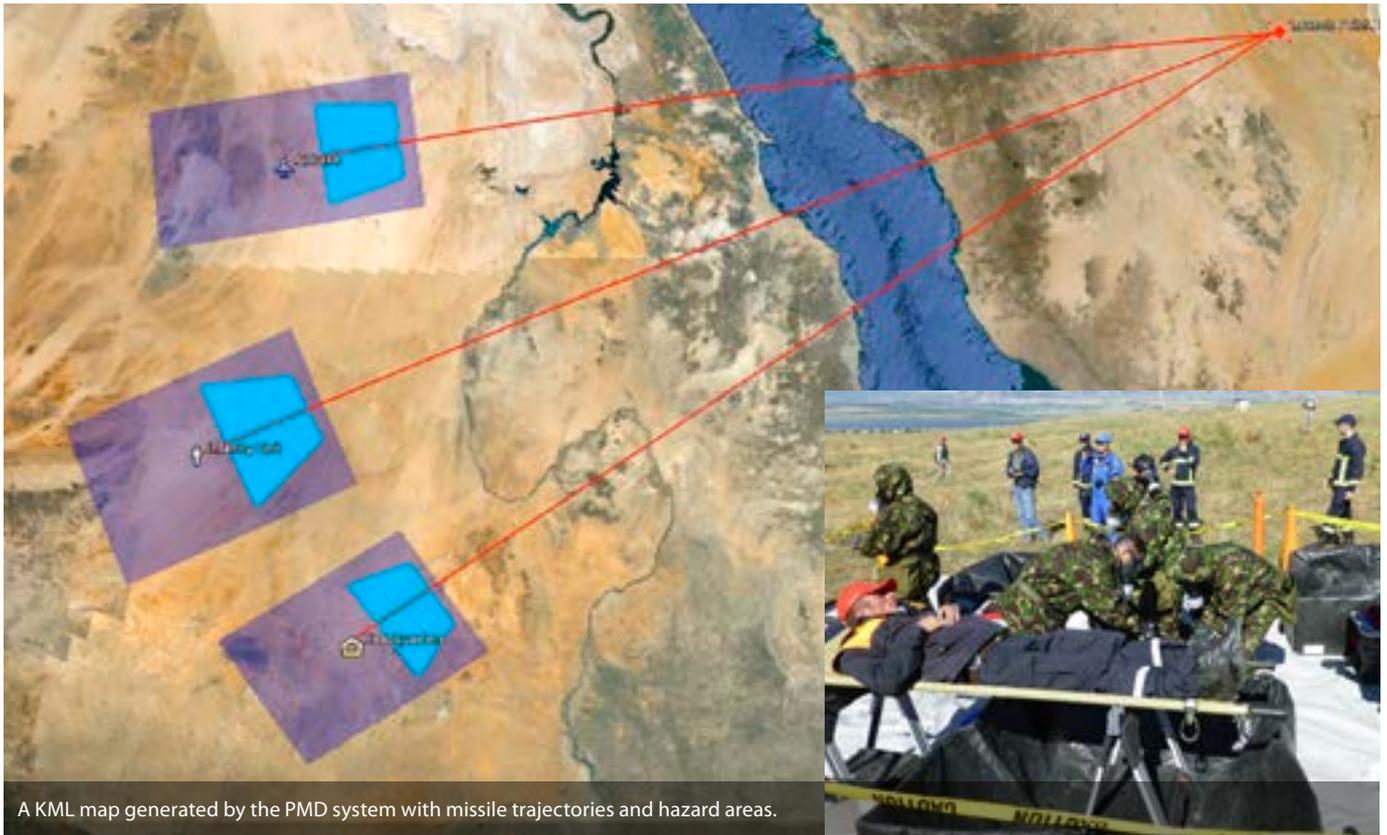


In current NATO operations, timely sharing of information is hampered as a result of a number of limitations that are inherent to the traditional use of security markings, the two most important of which are the following. First, a security marking reflects the protection requirements and release conditions of a resource at the time of creation. Only manual (time-consuming) intervention can be used to update the markings to accommodate changes in security constraints, following strict information management procedures that may involve consultation with the resource originator (when possible). Second, owing to subjective interpretations of the security policy, resource originators may derive different security markings for resources with similar content. This leads to a situation in which similar resources are protected in different ways, leading to under- or over-restricted information sharing.

To overcome these limitations, NATO is developing a new information sharing infrastructure that uses content metadata to enable decisions about the release of information according to Content-based Protection and Release (CPR) policies. Access control decisions are taken by considering the attributes (e.g. the clearance) of the user requesting the resource, the content metadata associated with the various pieces of information in the

requested resource (e.g. the paragraphs comprising a text), and the capabilities of the terminal (i.e. the device and connection used by the requester to access the resource) that are related to processing, storing, and transmitting data. CPR policies aim to overcome the limitations introduced by the use of security markings discussed above by separating the association of attributes with resources from the process of determining their protection requirements and release conditions. The attributes of a resource are content properties used to derive access decisions by taking into consideration also the attributes of users, those of terminals, the protection requirements and the release conditions specified in appropriate policies by NATO security experts. This greatly reduces errors due to subjective interpretations of security directives, ensures the homogeneous protection of resources with similar content, and permits timely changes in release or protection policies to reflect evolving security requirements.

In the Attribute-Based Access Control (ABAC) model, requesters are granted or denied access to a resource based on the properties - called attributes - that may be associated to users, resources, and the context. Examples of attributes are identity, role, and military rank of users; identity, precision, and sensitivity of



A KML map generated by the PMD system with missile trajectories and hazard areas.

Use case: NATO Passive Missile Defence

The goal of the NATO Passive Missile Defence (PMD) system is to minimize the effects of missile attacks. The PMD system runs simulations of a missile attack in a given geographic area by taking into account several parameters, such as the type of missile employed in the attack and weather conditions. As a result of the simulation, a map of the predicted missile impact area is calculated, enriched with annotations about a description of the consequences of the impact at several locations, hazard areas with risk analysis, the trajectories of the threatening and intercepting missiles, sub-munition locations and descriptions, etc. The maps are represented in the XML-based Keyhole Markup Language (KML) so that e.g. Google Earth can be used to visualize them (see figure above). The PMD system is an important component of NATO missions for crisis-response planning and disaster preparation. In this context, missions require the coordination of coalition partners with civilian organizations (e.g. for rescue and medical operations). Thus, sharing (selected parts of) the content stored in KML maps created by the PMD system is crucial for the success of a mission.

resources; time of day and (some part of) the system state for the context.

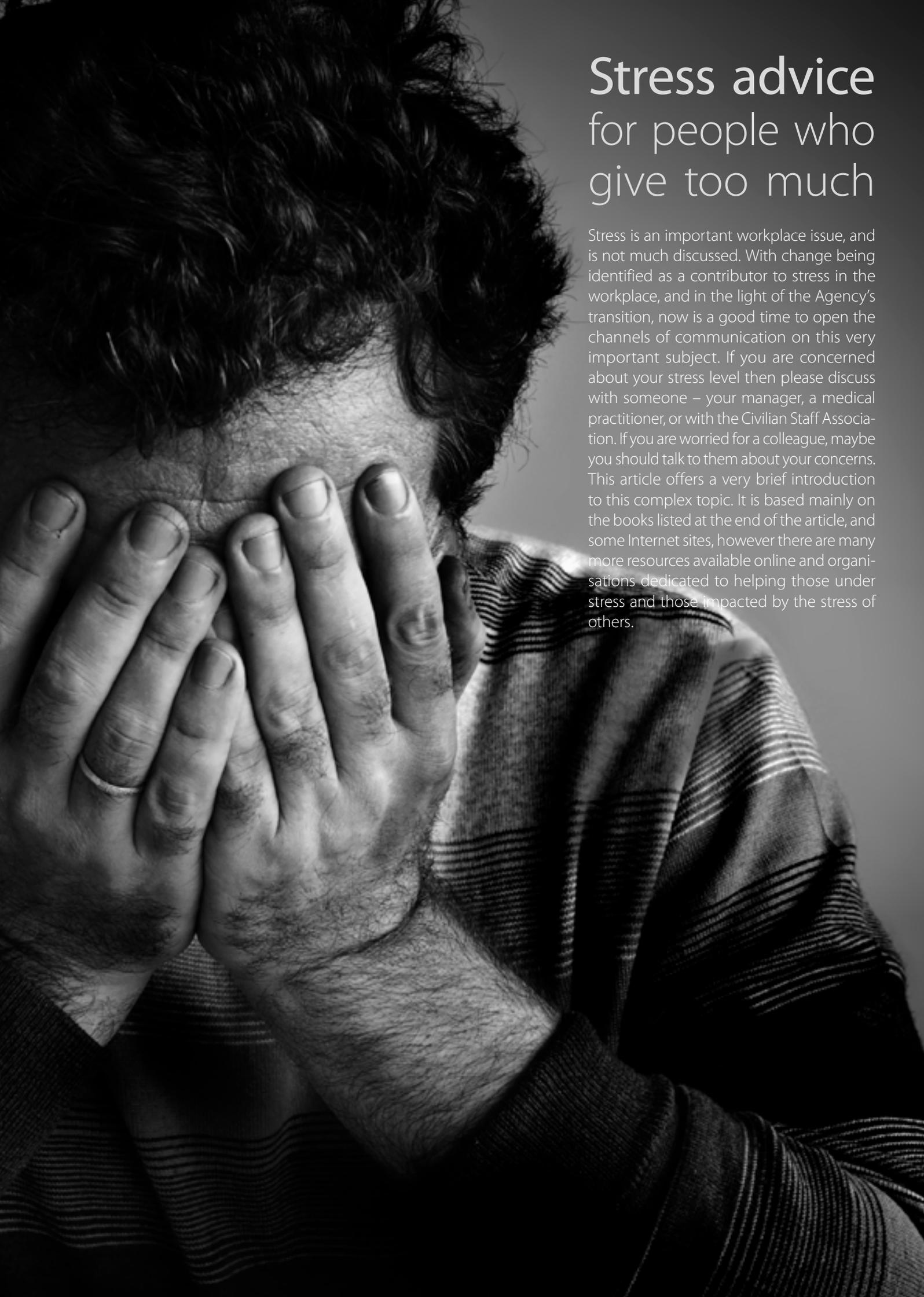
The CPR refines ABAC in three respects. First, in addition to the attributes of users, resources, and the context, those of terminals are considered, i.e. the capabilities of the device through which a user is trying to access a resource. Examples of terminal attributes are the hardware model, the type of encryption used to locally store data, and the type of connection to the terminal (e.g. SSL). Second, the CPR policies are structured in two distinct sub-policies: (1) a release policy, taking into account user, resource, and contextual attributes; and (2) a protection policy, taking into account terminal, resource, and contextual attributes.

This enables separation of policy management roles and reflects the current procedures used within international and governmental organizations, including NATO. For example, consider the situation in which a user wants to access NATO classified information. This requires, on the one hand, connecting to a network infrastructure used for processing NATO classified information. To do this, a terminal must satisfy a number of technical requirements related to hardware and software configuration that are

precisely defined in NATO technical directives and guidance documents. On the other hand, the security policy governing user access to the documents stored in the network is defined in a separate set of directives and guidance documents.

Third, access in CPR is content-based, i.e. decisions about the release of information are derived from content metadata. Depending on the granularity with which content metadata is associated to (pieces of) a resource, access requests are then answered with permitted views, i.e. selected pieces of a resource that the user is allowed to access, and not with a simple “permit/deny” answer. A mechanism for the fine-grained association of attributes to selected pieces of information in structured resources is NATO Labelling, which allows for the binding of extensive content-metadata structures to a variety of structured resources (ranging from XML and PDF files to military documents in proprietary formats) in a way that is transparent to the user.

Dr Konrad Wrona, Principal Scientist, Cyber Defence and Assured Information Sharing Capability Area Team



Stress advice for people who give too much

Stress is an important workplace issue, and is not much discussed. With change being identified as a contributor to stress in the workplace, and in the light of the Agency's transition, now is a good time to open the channels of communication on this very important subject. If you are concerned about your stress level then please discuss with someone – your manager, a medical practitioner, or with the Civilian Staff Association. If you are worried for a colleague, maybe you should talk to them about your concerns. This article offers a very brief introduction to this complex topic. It is based mainly on the books listed at the end of the article, and some Internet sites, however there are many more resources available online and organisations dedicated to helping those under stress and those impacted by the stress of others.

What is stress?

Stress comes when you are trapped at the wrong level of stimulation. At the right level of challenge life is great, but if you are under-stimulated you will feel bored and want to go and do something more challenging; over-stimulated and you will feel overwhelmed and want to run away. We can cope with the wrong level of stimulation for a while, particularly if we ourselves chose to do the tedious or daunting activity. But if you peer into your future and see that you are trapped with this boredom or fear, and you cannot escape, that may lead to stress.

"Stress isn't always harmful and in any case it's unthinkable that any of us should enjoy a completely stress-free life."

"Stress is cultural. It isn't what is happening that causes stress. It's what we fear is going to happen in the future. What is most feared varies between cultures, because fear is a conditioned response."

ure, or success, or looking stupid. The things which stress you may be very different from those that stress another person.

"Most of us feel stress when confronted with danger, extreme demand or rapid changes. But some people, in contrast, experience stress when their natural inclination to live on the edge is thwarted...It's the force stopping you from moving the way you would choose to that creates stress."

What are the causes of stress?

There are many causes of stress such as: wanting to control the future, perfectionism, doing too much, trying to achieve conflicting or impossible goals, change, fear of failure, substance abuse or addiction, unbalanced lifestyle (e.g. overwork), unhealthy patterns, genes, and toxic people (most people are nice, but there are some who will make you ill!). If you want to find out more read the book 'Stress-Related Illness'. In a nutshell, stress is caused by being trapped in a future you do not like.

The stress illness

"It is like falling down a well with no bottom; the blackness surrounds you and the tiny circle of light gets ever smaller till it disappears."

A brief period of stress is normally harmless, but being stressed for a long time can make

you ill. Stress can manifest itself in numerous ways, both mental and physical. It is sometimes difficult and even seems illogical to think that the various symptoms we experience are caused by stress. "...the stressed ones were being tormented by an unpleasant future created in their own heads and blamed on past unforgivable mistakes...it is [they] who end up getting sick with depressive illness..." according to Dr Cantopher, who described depressive illness as a physical illness that is 'the curse of the strong'. "The sufferer will be morally strong, reliable, diligent, conscientious, responsible, sensitive, vulnerable to criticism, they will put others first and have self-esteem which is dependent on the evaluation of others. They keep going... on and on and on, until suddenly: BANG! The fuse blows."

"It is being trapped in hell, with no comfort, no salvation, and no hope."

Dealing with stress

Get the level of stimulation that is right for you. This is your responsibility, as you are the only one who knows what you need. Make changes so that you have enough time and energy for your

"G - R > 0
G stands for Guilt and R for Resentment. In other words, your level of guilt needs to be greater than your level of resentment."

own needs. These changes will make you feel guilty. Don't worry about that. Guilt is good. It is a sign that you are making the changes you need to. Conversely, resentment is bad. It is an indication that you are sullenly, passively, accepting the status quo. Set boundaries, and stick to them. Use a 'Positive No' when you need to.

Mental wellbeing will help you deal with stress, and 'Evidence suggests there are five steps we can all take to improve our mental wellbeing'. So google 'Five steps to mental wellbeing' and **CLANG!**

- **C**onnect with the people around you: your family, friends, colleagues and neighbours. Spend time developing these relationships;
- **L**earning new skills can give you a sense of achievement and a new confidence;
- **A**ctivity that you enjoy - make it a part of your life!
- **N**otice the present moment, including your feelings and thoughts, your body and the world around you;
- **G**ive to others. Even the smallest act can count, whether it's a smile, a thank you or a kind word.

By activity we mean exercise (yes, really). The UK National Health Service says "Exercise helps to bump up the production of your brain's feel-good neurotransmitters, called endorphins. Regular exercise can boost

self-confidence, mood and sleep quality, and lower the risk of depression. Exercise can reduce your risk of major illnesses, such as heart disease, stroke, diabetes and cancer. It can lower your risk of early death by up to 30%".

Kill your stress with kindness

Kindness to yourself works. It's difficult to do, but becomes easier with practise. When you get the hang of it [...] you are more productive, more fun, more help, more healthy and more happy. If this makes sense to you, ask yourself every day, just before bed: "Have I been as kind to myself today (in what I've said to myself and the way I treated myself) as I try to be to others? If not, what can I do differently tomorrow?"

Useful books

Stress-Related Illness: Advice for people who give too much, by Dr Tim Cantopher

Depressive Illness: The curse of the strong, by Dr Tim Cantopher

How to De-Stress Your Life, by Gregory L. Jantz, PhD

Boundaries: When to Say Yes, How to Say No to Take Control of Your Life, by Henry Cloud and John Townsend

The Power of a Positive No: How to Say No and Still Get to Yes, by William Ury

author: Rob Goode,
Principal Scientist, The Hague

"Kindness keeps you well" ☺

The journey ahead

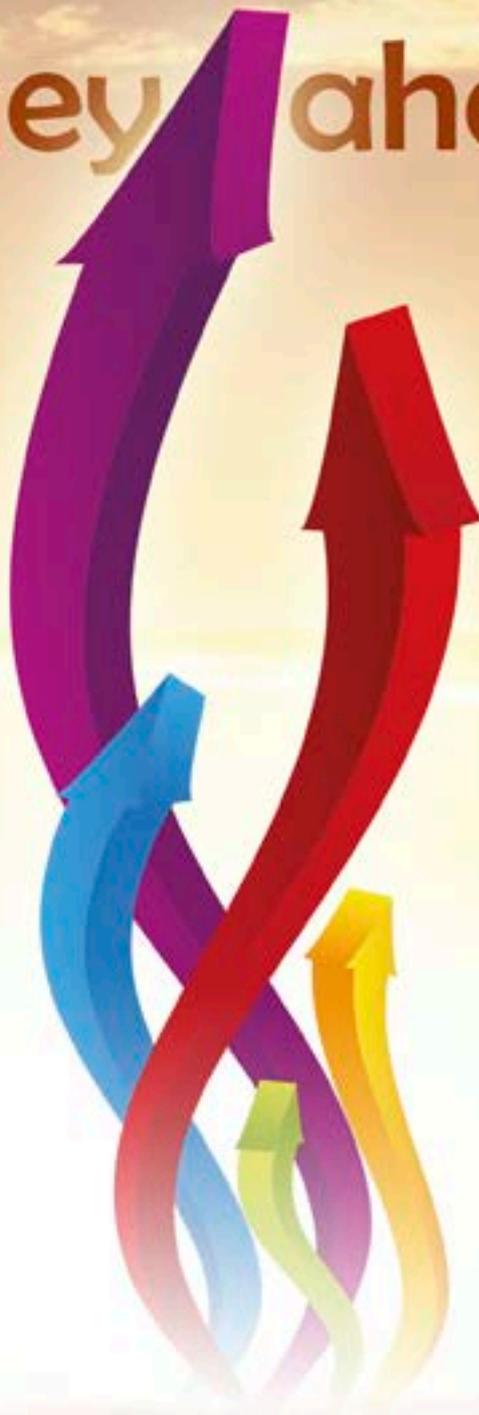
The aim of the Agency's Transition Programme is to deliver significant improvements, both for the operational and political structures of NATO and their support functions. The benefits extend beyond financial savings into quality of service, agility, security and responsiveness. When NCI Agency General Manager Koen Gijbers presented his plans to the North Atlantic Council, NATO's top decision-making body in January 2013, it was made very clear that the Ambassadors appreciated the high level of ambition proposed by the Agency. The Council recognized that savings were not the only driver; more important was to make the environment secure, more agile and able to accommodate faster insertion of new technology in order to give our forces the best chance of success on the battlefield. In addition, the political consultation functions there needed improved information technology support.

In meeting the expectations of the Nations in terms of Efficiency, Effectiveness and Savings (E2S), the Agency has proposed to the Agency Supervisory Board (ASB) an Organizational Design that is modern and capable of delivering end-to-end life-cycle managed services. To assist Nations' deliberations, a comprehensive package was submitted including: the Organizational Design, Service Lines, Military Manpower Requirements, and a Benefits and Savings Document. This article outlines what the proposed structures entail, but also reflects on how these came into being.

How the design was developed

The proposed Agency structure was shaped in the 3rd quarter of this year in a series of in-depth workshops and sessions. An important step in this regard was the initial A5/OF5 matching in July 2013, selecting those who would lead the development of the Service Lines. *"It was a priority for me that those individuals who will lead the Services Lines will be driving their design, as leaders they need to be able to shape the resources and structures that they will be responsible for,"* said the General Manager in announcing the results.

Subsequently to the matching process, three workshops were organized by Mr Chuck Shawcross, Director Service Strategy that provided opportunity for Directors and Service Line Chiefs to discuss the development of the future Agency structure, in order to ensure a cohesive way forward. The third workshop in September focused on aligning the proposed Service Lines with the Agency overall Transition Programme and allowed Directors to screen these proposals before submittal to the ASB. The proposed design included not just the Service Lines, but also the Enabling Services that will support the Service Lines. Furthermore, the proposals were discussed and finalized in the Agency's Executive Management Board, chaired by the General Manager. The proposals were



also briefed and discussed with customers, in order to identify any issues and concerns.

Another factor taken into consideration was the decision, on 8 July 2013, by Nations in the ASB on a way forward on the outcomes of the Functions & Facilities Study (approved by the North Atlantic Council under silence procedure on 5 September 2013). Among the Agency's principal locations there will be a 700/700 staff split between The Hague and Mons, and a 400 staff Headquarters in Brussels. The Functions & Facilities Study outcomes only looked at the principal locations and not at the sectors or the CIS Sustainment Support Centre. The future shape of the service delivery substructure (sectors, squadrons, detachments) is being looked at in a separate project, the sub-structure optimization study. However, both strands of work were taken into consideration in preparing the organizational design.

Understanding the Design

The proposed organizational construct for the NCI Agency reflects the quiet revolution the IT services industry has undergone in the past decade to revolutionize service standards upwards and to reduce costs. The Service Lines will ensure that the operational users of the Agency's services are properly supported with Consultation, Command, and Control (C3) capabilities and Communications and Information Systems (CIS) services. This approach will also enable more innovation and increased collaboration to sustain NATO's information advantage into the future.

A Service Line is essentially an organizational sub-entity within the Agency consisting of a grouping of personnel, resources, specialized facilities and funding, all under the direct supervision of a Service Line Chief. Each Service Line has accountability for the provision of services and capabilities of a horizontal slice of the NATO C3 Services Taxonomy through an end-to-end life-cycle approach.

The Organizational Design outlines the full Agency structure, which includes: the new Service Lines (organized under the Applications Services Director and the Infrastructure Services Director), Programme Offices and cross-cutting elements, such as Demand Management, Service Strategy, Operations Centre, Independent Verification and Validation, and the CIS Sustainment Support Centre. Internal Support Services are included comprising Legal, Human Resources, Acquisition, Finance, Internal Audit, Chief Strategy Manager, General Services, and Executive Management supporting the General Manager and Chief of Staff. The functions and manning covered by the NATO CIS School and NATO Programming Centre are included in the details for the Education and Training Service Line and the AirC2 Programme Office respectively.

Changes to the Agency sub-structure are being looked at in the sub-structure study and will be implemented through the 2015 End-State Peacetime Establishment (ESPE). However, within the new organization, the intention is to maintain an integrated Agency presence collocated with the users, delivering customized support to meet their operational requirements.

The Service Lines are organized into two directorates, largely along a separation between the higher level (Applications Directorate) and lower level (Infrastructure Directorate) of the C3 Services taxonomy. To implement the decision to split the Agency's main delivery components between Mons and The Hague, the Applications Directorate will be largely based in The Hague, and the Infrastructure Directorate in Mons.

The core delivery Service Lines of the Agency are supported by the cross-cutting Service Lines, operational support centres, service management elements, the Demand Management Directorate, and presences at customer locations (now called CIS Support Units). These additional elements specifically include the Service Management and Control Service Line, the Operations Centre, the Cyber Security Service Line, and the Service Strategy Directorate. Service Lines have full life-cycle responsibility in their respective areas. However some support elements, including the 'Service Management and Control (SMC)', 'Operations Centre' and 'Cyber Security' elements, have a cross-cutting role across each Service Line. These elements are responsible for ensuring the single, coherent provision of SMC, helpdesk and operations support, and CIS security and cyber defence across every service the Agency delivers.

Customer focus

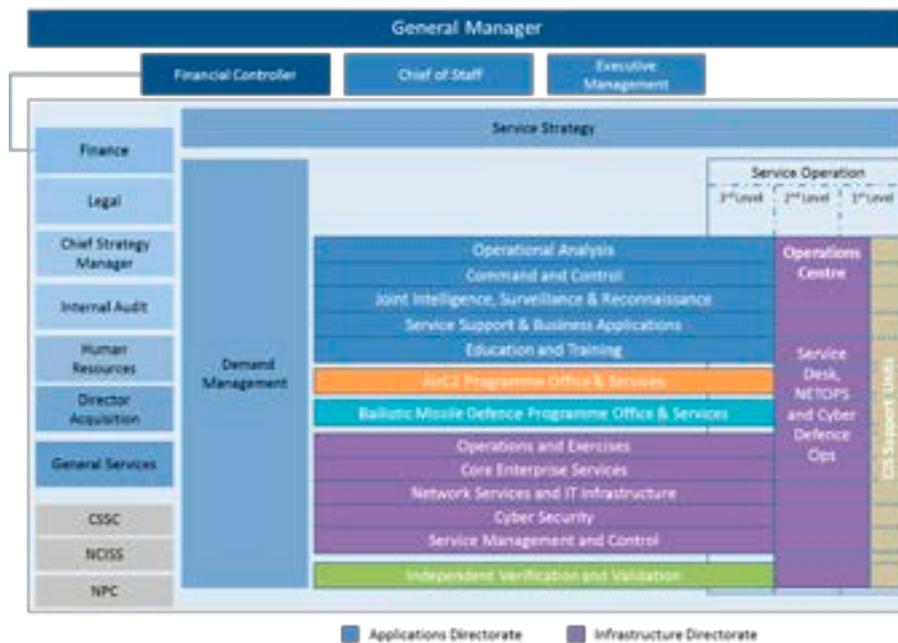
Service Lines will shift the way the Agency relates to its customers and users. Services will be increasingly expressed in operational terms that are meaningful to the user, rather than in terms of the underlying technology needed to provide them. Expectations for the quality of the service will be clearly defined in quantifiable terms, for which the Agency will be contractually accountable through costed Service Level Agreements. Services will be benchmarked with comparable external providers and will be continuously improved.

The Agency's detailed knowledge of the end-users' needs, and its commitment to assist them in fulfilling their mission are the key strengths of the Agency, and this is considerably enhanced by the presence of Agency staff throughout the NATO Alliance, embedded with end-users. These Agency staff will continue to be embedded within a sub-structure component of CIS Support Units normally under military commanders. These staff members, primarily military contributions from the Nations, are embedded throughout the NATO Command Structure, providing the day-to-day support of the IT and C4ISR services for the operational users in a close working partnership. Requests and problems will be reported through a single Service Desk, which can then ensure an effective response through the use of either local or remote Agency support staff or, for more complex issues, centralized 2nd or 3rd line support within the Service Lines.

The proposed Service Line organizational design implementation will realize earlier savings and improved efficiencies and effectiveness. In addition, the Service Line concept will enable the identification of actual costs of end-to-end services rather than in budget categories of individual technical components and personnel costs. This will facilitate greater transparency with customers and facilitate improved decision making and choice. Once services are provided and accounted for on an end-to-end life-cycle basis, it will be easier to benchmark the costs for different services against commercial service providers. It is the intent to retain military staff in their present geographical locations; if a functional movement is required, negotiations with nations will ensue.

Essential enablers

Funding is required to advance the proposed changes in the way the Agency does and will do business, and to materialize the significant savings targets mandated to the Agency. In this regard, progress was made in August 2013 when the NATO Resource Policy and Planning Board endorsed the Transition Programme to move to the next stage and seek Investment Committee and Budget Committee funding.



Full realization depends on timely allocation of funds in order to make 'spend-to-save' investments. The Agency provided to the ASB a Transition Programme Benefits and Savings document, which included an abbreviated Type-B cost estimate for the required investments, to be presented to the NATO HQ Implementing Committees for authorization. This includes for example the investments necessary to promulgate the IT Modernization effort, which is a cornerstone project to drive the expected increase in efficiency and effectiveness.

As IT Modernization is going to set the foundations for a fundamental transformation of IT services within NATO, it is a key project in terms of investment efforts and expected high level profile return on investment - both in terms of reduced Agency direct personnel and O&M costs for service delivery, and reduced military manpower requirements. Most importantly, it addresses current operational and technical shortcomings, issues and risks of the fragmented and sub-optimal IT infrastructures.

Anticipated way forward

Following ASB approval of the concept at their November meeting, the early implementation of the Service Line structure in 2014 will be done as an incremental step within the current personnel establishment and made in accordance with existing policies and procedures with minimal impact on current Agency military staff. NCI Agency General Manager Gijbers has stressed: *"This is a journey and not a big bang; we take steps every day in the direction of a very modern service and customer oriented organization."*

Meanwhile, a high priority before the end of 2013 includes:

- Development of the implementation plan, including a Concept of Operations (CONOPS) that will clearly spell out how the new organization will function, as well as an OPORDER that will guide the transition into the new structure;
- Development of a baseline for the Personnel Establishment, allocating each and every staff member into the structures;
- Implementation of the new cost allocation and accounting structure by Service Lines and Cost Centres;
- Plan for a communication campaign to inform customers and stakeholders on the new structures;
- Based on this preparatory work, the General Manager will decide on a date at which we will start moving to the new structure. Currently, the plan is for the GM to make this decision at the 9 December meeting of the Agency's Executive Management Board.

"My priority is that we move forward methodically, with full clarity and good communication, including to staff and customers," said the General Manager.

The implementation of this Service Line approach will not change the current external governance processes with respect to the Agency. For example the governance by the Investment Committee and associated bodies of the major capital acquisitions under the NATO Security Investment Program or by the Budget Committee for operations and maintenance budgets will continue as is currently done. Any revision of these processes is outside the scope of the Service Line implementation.

The Organizational Design will be refined over time through lessons learned and in response to other transitional milestones such as when the Agency has moved into new or rebuilt accommodations in Brussels, Mons and The Hague. Based on this current establishment, detailed analysis is being done to define the 2015 ESPE for the military personnel to be approved by the Military Committee, the ASB and finally the North Atlantic Council. Military staff adjustments, except for incidental change in reporting lines, will in principle not occur until formal approval of the adapted ESPE. If limited change is needed, it will be coordinated with the nation involved. Full definition and staffing of the future military Peacetime Establishment for the new organization will be accomplished during 2014 for implementation in 2015.

Staff engagement

Please take the time to read the Documents submitted to the ASB, including the Benefits and Savings plan and the Agency Service Lines document. The next key information pieces will be the CONOPS and the OPORDER, as well as update sessions to staff. It is important that any concerns, questions or issues that you may have when reading these documents, are channeled to your line management so that they can be discussed during the finalization of the CONOPS and OPORDER. Also, your line manager can be directly contacted for further inquiries, and feel free to send any to communication@ncia.nato.int.

"We're in this together," said the General Manager, *"We need to work together flexibly, with imagination, to evolve into the modern, effective & efficient service organization expected by the Nations."*

Meet the

Squadron Commanders



Squadron Izmir

COL Askin Simseker



Squadron Ramstein

COL Paul Gillespie



Squadron Bydgoszcz

LTC Wojciech Czerwinski



Squadron Stavanger

LTC Atle Kjosnes



Squadron Northwood

GP CAPT Kevin Thomas

is the standing Commander of NCI Agency Northwood and is deployed as Commander Sector ISAF until 1 April 2014.



On 19 August 2013, CDR Frederic Decup arrived at Northwood to take over the NCNW Hd Command Branch and has assumed local command of NCI Agency Squadron Northwood until GP CAPT Thomas returns from ISAF.

NATO Detachment in Larissa closes its doors



Back to the very beginning of this brilliant and honorable history, it's important to remember that NDet Larissa was established in 1999 as Allied Signals Group at Camp Schina, Tyrnavos, supporting Joint Command Southcenter. Following the HQ Closure in 2004, the unit was transformed to CIS Group Greece. In September 2010, NDet Larissa was relocated inside CAOC7 based on official tasking by SHAPE Chief of Staff in order to save Operation and Maintenance (O&M) costs by consolidating NATO facilities.

LTC Dimitriou, Commander NCI Agency Detachment Larissa, folds the NCI Agency flag on Wednesday 25 September 2013, at a ceremony marking the official closing of the base in Larissa, after 14 years of presence.



The closing ceremony was attended by the Commander of NCI Agency Sector Naples, COL Dario Nicolella, and his Deputy, CDR James Kirkwood.

Both military and civilian personnel have been relocated in other settings all around Greece with the exception of those inside NCNP AoR.

The majority of staff are technical CIS personnel responsible for the administration and support of Automated Information Systems, Communication systems, Crypto and Formal Messaging.

Before the ceremony itself a recollection was given on several adaptations that had to be undertaken to fit systems and functions within the limited space available at the CAOC (about half the space compared to the old location). For that reason, bunker dormitories had been transformed to office space for the NDet personnel.

From this military site, the local staff supported several exercises such as "Brilliant Ledger" 2011 in Thessaloniki, GRC and "Steadfast Cobalt" 2011 in Fredericia, DEN, and they provided a superb support to KFOR and to "Operation Active Endeavour".

In the last three years, NDet Larissa transferred and re-configured NATO AIS on 11 Flagships (GRC, TUR, GBR, GE and NL) at different locations (Djibouti, Jordan, Egypt, Greece, Turkey, Spain) and provided a significant support for FLS Souda, GRC.

But the masterpiece of this bright hike has been the participation to Operation Unified Protector (OUP), under SHAPE mandate, finalized to provide NATO CIS to:

- Greek DOBs
- FLS Souda
- NATO Flagships and Vessels

and to install NS (ICC+RAP, JCHAT, INTEL, LOGREP, AIMS) and NU/ internet, Secure Voice (VoSIP) services for OUP NO FLY ZONE and OUP ARMS EMBARGO. Most of the above services were installed within 3 weeks.

"I wish you to meet soon some really bright redevelopment opportunities on the horizon, that bode well for the community," Commander Nicolella said during the ceremony, *"That's where people ought to have their focus."* The day after, a formal ceremony was held in the meeting room 'Metora' in which all the military and civilian members of the Detachment participated. The local clergyman blessed the participants, after which the NCNP Deputy Commander CDR Kirkwood accepted the NCI Agency flag from Commander Dimitriou's hands. As a remembrance of this final step an official photo portrayed, maybe for the last time, all together - an extraordinary group of women and men sincerely proud to have been part of that beautiful story. An informal lunch at a restaurant located in a close village ratified the closing of Larissa NDet in a friendly tone and a warm environment.



author: CPT Giorgio Buonaiuto, Sector Naples Public Affairs

Internship opportunities within NATO



Your full name (exactly as it appears on your Social Security card)

1. Last name

Your mailing address

4. Number and street (include

2. First name

Work experiences at the NCI Agency

While European youth employment is at historic lows and labelled as one of the EU's acute problems, also in other parts of the world, including the United States, we see the highest youth non-employment rates in years. Therefore, for students internships are a perfect way to fast-track their career. What are the opportunities?

Key to employment is educating, in Europe and the USA youth are on average highly educated, or have the opportunity to pursue a higher educational or university degree. Yet higher education doesn't guarantee a decent job in times when job markets are oversaturated with highly skilled and experienced people. On the up side, despite budget restraints imposed by the financial and economic crisis, there remains a need for skilled people, advanced technologies, and continuous research, development and training. Therefore, today internship opportunities are in popular demand among current and recent students seeking to augment their professional skills and experience.

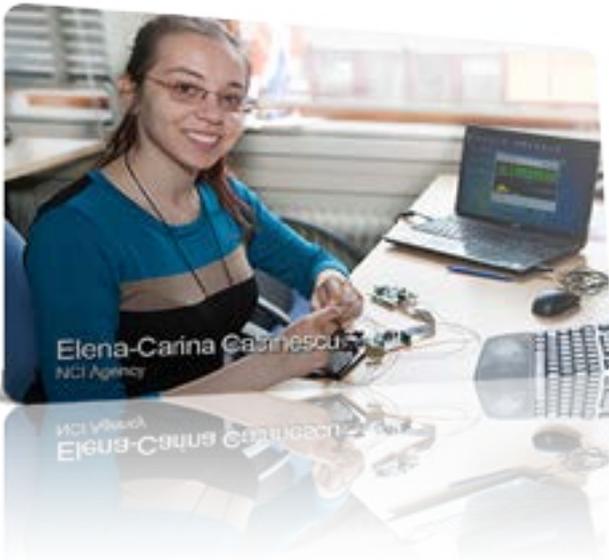
In recognition of the need for fresh knowledge and skills to advance the Alliance, NATO provides students the unique opportunity to gain valuable 'hands-on' work experience. This is since 2004 facilitated through the NATO Headquarters Internship Programme aimed at providing students an opportunity to intern for six months with the International Staff in Brussels. Furthermore, the Programme also select candidates for other NATO bodies, including the International Military Staff (IMS), the NATO Standardization Agency (NSA), the NATO Support Agency (NSPA), Allied Command Transformation (ACT), Supreme Headquarters Powers Europe (SHAPE), and the NCI Agency.

Typically for a period of three to six months, internships enable NATO to foster the best and brightest students early on in their

career, but also provide students the opportunity to work in an international environment, sometimes even in a country other than their own. The NCI Agency recognizes that enabling Alliance success requires new knowledge and colleagues from all Nations to interact. As the interaction between various nationalities and cultures define working in NATO, internships at the NCI Agency offer an opportunity to develop interpersonal and cross-cultural skills, as well as technical and scientific expertise in various areas.

A particularly successful internship programme use-case is the initiative by the Joint ISR, Service Supply team (CAT5) in The Hague. This initiative started in 2004. It was Mr Laurent Smith, now working for Ballistic Missile Defence (BMD), which initiated a cooperation with the École Spéciale Militaire de Saint-Cyr, and Mr Thomas Kreitmair, Principal Scientist CAT 5, with the Old Dominion University, Norfolk, VA. Within CAT 5, support to internships has continued since then. In 2008, a bilateral agreement on these kind of internship was established between the former NC3A and the Military Technical Academy in Bukarest, Romania.

The arrangements with various universities have provided opportunity for numerous students to gain valuable work experience. Mr Kreitmair, who has coordinated this initiative since the beginning states: "Over the years we learned that students actually compete at their universities for an internship position at the Agency. After accepting a candidate we assign him/her to a particular project



in CAT5, such as to the Multi-intelligence All-source Joint ISR Interoperability Coalition (MAJIC 2) or other Sensor and Information Systems projects. These projects challenge the students, however, each time the students completed their individual assignments to our satisfaction. Most important, their knowledge and skills are augmented significantly."

In June 2013, two students from the Military Technical Academy in Romania concluded their three month internship with the NCI Agency in The Hague. Ms Elena-Carina Catrinescu and Mr Ionut-Cristian Nedelcu were assigned two projects that respectively aimed at 'physiological measurements using Doppler radar sensors' and 'evaluating the impact of network performance on video streaming'.

Physiological measurements using Doppler radar sensors

Carina was assigned to a Sensor project that aimed at measuring the heart rate and respiration rate using a Doppler radar sensor. Finding solutions to emerging threats has been a priority for NATO for many years. In recent years the NCI Agency has conducted a number of experiments using radar technologies suitable to perform remote physiological measurements on human beings. A few of the scenarios where such technologies can provide value added are:

- Remote identification of potential human threats (e.g. terrorist behaviour in the proximity of friendly forces or civilians),
- Remote lie detector (e.g. check points, border security),
- Health monitoring in combat situation (e.g. measuring vital signs from distance),
- Stress level monitoring,
- Natural disaster recovery (e.g. earthquake victims trapped under).

The experimental setup consists of a Doppler sensor (which includes an antenna, a transmitter and a receiver), an analogue to digital converter (ADC) converter, a data transfer board and the signal processing software on a laptop. During the experiment the impact of environment on the human physiology was analysed by monitoring respiration and heart rate. Carina firstly established a baseline condition of normal respiration, and compare this with the measurement results while listening to music. Heavy metal music was found to increase the heart beat rate in comparison with classical music.

In the military field, this setup may be used to see if the soldiers are still alive, or to measure their stress level. An adversary carrying an explosive belt can have an increased heart rate due to adrenaline, which may be detectable using Doppler radar sensors. "The attractive part of the radar based solution is that the measurements are performed non-contactly and non-intrusively," said Dr Franco Fiore.

Evaluating the impact of network performance on video streaming

Ionut explained that his project specifically aimed at analyzing the effects of a network transmission on video data. Software tools can be used to assess the image data in an objective way, and compensate for the lack of trained imagery and video operators available to process large volume of information. Therefore, the use of an automated tool to measure the impact of certain parameters such as bandwidth, latency and packet-loss on video streamed over a network was studied by him in detail.

Currently the image quality of video clips used in the military domain is expressed by the subjective Video NATO Imagery Interpretability Rating Scale (V-NIIRS). V-NIIRS has ten levels from two to eleven, at each level different criteria should be met. The rating of the intelligence value of airborne motion imagery is performed by a group of imagery analysts. Especially in operational environments the quality of video can't always be guaranteed, therefore this experiment, that was supported by Agency staff, aimed at identifying and devising an objective means to evaluate the quality of video.

To this end, Ionut used the Motion Imagery Quality Equation (MIQE) formula as found in literature and implemented it using the Java programming language. Using the MIQE implementation, the task was to rate each video sample before and after being transmitted over a network. Different scenarios were used and emulated in order to obtain the unreliable network that would visually affect the quality of video streams. Some of these included streaming the video files with a small bandwidth, delays, and other quality reducing issues. The scenarios were implemented using a small LAN of three computers interconnected through a switch. On one of the computers a free software application called 'Wide Area Network Emulator' was running, which allowed emulating the network.

Ionut indicated the internship was challenging but helped him to improve various skills, especially programming Java code. The conclusion of his project was that although the videos are visually



affected, the MIQE formula does not take into consideration the unwanted effects introduced by a poor network connection. He indicated that the MIQE formula could be enhanced by introducing another parameter, which can better reflect the impact of the network streaming process onto the image quality.

Both Ionut and Carina evaluated their experience gained at the close of their internship and presented the results to the CAT5 team. Besides the rather brain intensive work that they engaged in for three months, during their stay the students also saw opportunity to visit several cities in The Netherlands, and were grateful to have experienced some of the Dutch culture, in particular the coronation of King Willem-Alexander in Amsterdam on 30 April 2013.

When asked for the most valuable lesson from the internship, both students indicated: *"While classes at the Military University are broad and versatile, the internship allowed us to really focus on one specific project."* Carina added, *"This internship abroad exposed us to many conditions that contrast with the university rigour. The fact that the project was practical and we were able to see how the radars worked, made me really happy. There are both theoretical and practical aspects in university, but this was really putting it into practice."* Now that they returned to Romania the students have shifted focus again to their exams and are looking forward to finishing their degree next year. The following step for both will be to continue their military careers; as they emphasized their exposure to the multinational environment was a great experience.

During the three month period the students received advice and support from various specialists within the Agency. This required time, but most of the scientists in CAT5 managed to fit the work with the students in already busy schedules, often by spending long hours in the office or by having 'keyboard lunches.' When discussing students, Mr Kreitmair often says: *"Students do not often have experience or specialized knowledge when they come to us, but they have sharp minds and a lot of motivation and enthusiasm, and this is important in research projects."*

Besides the value for students Dr Cristian Coman (CAT5), who was one of the supervisors, indicated that the students brought in a fresh perspective to their area. *"It was also beneficial for us to have the students explore these topics. Our workload usually does not permit to experiment too much, whereas the students could really focus on a particular case. In the end they have contributed to our work, which is impressive as they were both still studying in university."* Dr Franco Fiore states, *"The students contribute to our understanding of the limitations of technologies, which is very important. Over the years our work in support of ISAF has taught us that it is better to not*

have technology at your disposal, than to think you can trust technology when you actually cannot. In follow up to this research it would for example be good to test the Doppler radar for larger distances."

A fresh touch with technology

Also, in the Agency's IT Services department there recently has been a student who had the opportunity to augment knowledge and skills. For a period of 5 months Steven van der Pouw, a bachelor student interned at the Agency's IT Service Desk in The Hague. Mr Frank Mikla, Head IT and Communications Services, who sponsored the internship explains, *"I think it is important for an organizations like ours to give this type of opportunity to people. It is an opportunity to learn, which we consolidate in a work experience. It allows students to mature while preparing them on entering the job market."*

The internship provided a valuable break from Steven's studies in anticipation of the completion of his Bachelor degree next year. Steven's main projects involved enhancing the Sharepoint environments, including the registration forms for REACH users, the processing of tokens, and preparations for a new media site that allows for a more interactive experience to various media, including video. Under supervision of his colleagues Roger Hageman and Mario de Jonge, Steven was well positioned to learn new skills on the job. *"Working with my colleagues enabled me to quickly learn new skills. They are very skilled people, therefore I not always could keep up with their pace, but nevertheless they gave me great guidance on solving issues,"* said Steven on his last day on the internship.

Frank Mikla, highlights the value of having interns for example in the area of IT. *"We have had one intern before, and also with Steven we experienced that having a younger mind-set and a different touch with technology gives fresh eyes on our projects. But I also recognize the responsibility we have; we assign meaningful projects that have clearly defined end-goals. This involves a high time pressure, demand for high quality work inherent to our work environment, and also a clearly defined timeframe. With Steven, that was the case and he delivered to that with great result in a short period of time."*

Applications for summer 2014 internships will open in January 2014 on the NCI Agency website (www.ncia.nato.int). Colleagues seeking to learn from the experience by the CAT5 team in The Hague are invited to contact Mr Thomas Kreitmair.

- GrM

The Afghanistan Mission Network Operations Centre

Part 2

In Issue 3 of the Communicator I gave an introduction to the build and implementation of the Afghanistan Mission Network Operations Centre (AMNOC) located at Kabul Afghanistan International Airport (North) (KAIA (N)). I promised to follow up with Part 2, covering how the old AMNOC migrated to the new AMNOC, and how the users appreciate their new capability. The AMNOC is a capability that far exceeds the expectations of the operational community, delivered through inter-Agency Collaboration, Operational Stakeholder involvement and buy-in, and the professionalism of all personnel involved to provide a truly outstanding capability to enable the delivery of C4ISR capabilities to the Warfighter.

The Migration

Between 17 and 21 June 2013, the 70 personnel from the AMNOC migrated from their current location within the ISAF Joint Command Headquarters (IJC HQ) compound to a brand new purpose built hardened facility within the KAIA(N) camp. The migration was an unmitigated success with a seamless transition of services and systems that saw no impact on the user community across Afghanistan. The Service Delivery team in Mons did an outstanding job managing the IOC network during the migration phase, which also saw a seldom practiced change of ISAF C4ISR management control from the AMNOC to the NCC. The unification of the old AMNOC capabilities and the Functional Area Services (FAS) Team under one roof in the same location enabled the Sector ISAF Commander, Colonel Frank Gonzales to truly meet the aspirations of a "one stop shop" for C4ISR management and control. From 10 to 12 July the COMSEC team migrated across from HQ ISAF to see the completion of all the migration requirements for the new AMNOC.

The Grand Opening

On 12 July 2013 Major General Dieter Warnecke (Deputy Commander, ISAF Joint Command), Mr Koen Gijsbers (General Manager, NATO Communications and Information (NCI) Agency), Mr Mike Lyden (General Manager, NATO Support Agency (NSPA)), and Colonel Frank Gonzales (Commander, Sector ISAF) officially opened the new hardened AMNOC. The AMNOC was designed as a Mission Critical 24/7/365 capability providing the System



Management and Single Enterprise Service Management (SESM) for all NATO C4ISR strategic and tactical capabilities deployed in Afghanistan. It can support and house a team of up to 100 NATO and National Network operations engineers and administrators, Functional Area Services (FAS) technicians and trainers, and Cyber Defence specialists. Currently 10 National Afghanistan Mission Network LNO's (France, Germany, Italy, Norway, Poland, Spain, Sweden, Turkey, United Kingdom) are represented in the AMNOC.

Major General Warnecke highlighted in his speech the advantages that the AMNOC provides, stating: *"The new AMNOC enables all communication links from the ISAF Joint Command to command and control its subordinate units. It also establishes connection to the higher echelon and flanking commands as well as the gateway to NATO CIS back in Europe and North America. Moreover, the new AMNOC provides the 'plug in' for all national extensions of the Afghanistan Mission Network. And I am happy to recognize that this does not include exclusively the CIS equipment, it also includes the Liaison Officer of the participating nations, and with the effect that information can be exchanged more efficiently than before."*

The presence of the General Managers of the two NATO Agencies responsible for the design, implementation and delivery of the AMNOC underlined the importance of the event. Mr Koen Gijsbers stressed the very good and extremely close coordination throughout all the phases between the NCI Agency and NSPA. It was far more than just the fact that NSPA provided the building and the NCI Agency the technology. From the initial design to the 100% design, both Agencies collaboratively determined all construction and C4ISR requirements. The partnership between both Agencies has been excellent and has built on the close team work experienced during the multiple projects delivered at KAIA since 2009 with the move from KAIA South to KAIA North.

Mr Gijsbers recognized the outstanding onsite support provided by Mr Michael Beacom, Mr Russell Adamson and Mr Hugh Roberson from NSPA and Mr Andrew Forbes, MBE from the NCI Agency. Commander KAIA, Brigadier General Philippe Adam stated during the event that *"the rise of the AMNOC from the ground of KAIA has been phenomenal in such a short time."* After the opening ceremony the guests had the opportunity to visit the brand new facility and see the outstanding facilities and capability. Multiple visitors from different Nations expressed before and during the opening ceremony that the building is a state of the art NOC, and would be an exceptional capability for any entity, military or civilian, even in Europe or North America. The building is a hardened structure that has a resilient power (standby generator and UPS) and ACU capability to combat the very demanding environment in Afghanistan. This ensures delivery of the required C4ISR capabilities to the warfighter, even during an attack on the camp.



The AMNOC

To ensure that access to the AMNOC is controlled and managed correctly the facility is monitored by closed-circuit television (CCTV) externally and internally, and accessed via a card reader access system. The design also incorporates a more aesthetically suitable working environment for the AMNOC team to give all personnel the ability to work in a professional environment. The building has been engineered and designed to allow the AMNOC to unify the servers, which are now distributed to various sites, increasing the network core services and FAS resilience, and creating a NATO Data Centre in Kabul providing service throughout Afghanistan.

Major Mathieu Demenois (AMNOC Director) believes that *"this new workplace is the best designed and built facility he has seen in Afghanistan and even at home in Mons and France"*. It shows how the requirements of the operational community have been well captured by the NSP Agency and the NCI Agency, and delivered to the user in an outstanding manner. The new AMNOC provides all necessary capabilities to support the ISAF mission. Moreover, it integrates systems from sites that will be closed in the near future because of reduction of forces, but that are still necessary for the follow-on mission. It will now be possible to provide a true Single Enterprise Service Management (SESM) capability in Afghanistan for NATO C4ISR. This makes the new AMNOC not only a modern-day milestone; this project also exemplifies the future of NCI Agency C4ISR service provision in support of NATO missions. I

believe the true acid test of the new AMNOC capability and design comes from the feedback of the NATO Contractors who have manned the AMNOC since 2009 and have seen multiple rotations of military personnel. Both the Functional Area Services team and the multiple ICC's and Thales Teams have approached me emphasizing that the AMNOC is 'awesome' and that they now not only enjoy their job, but also enjoy coming to work in a First Class working environment.

The AMNOC Team

The AMNOC C4ISR delivery team from the initial concept through to delivery has worked in a truly collaborative fashion to ensure that the AMNOC is a capability that will last not only the current mission, but also the future mission. It will be a blueprint in design and in working capabilities and functionality for future NATO missions.

The project was initially managed by Lieutenant Colonel Pierre Calvez who did much of the initial preparatory work starting in early 2011. On his departure Mr Jeff Wisnom became the PM and Adrian Johnson continued as the DPM and the in-theatre implementation was managed by Mr Andy Forbes MBE. Technical support was provided by Martin Peake and Berend Seegers back in The Hague, whilst essential contractual support was provided by Alain Courtois in Brussels. Thales has been the NCI Agency contractor for all phases of the project.

The operational delivery of the capability was managed by Colonel Frank Gonzales (Sector ISAF Commander) and the coordination of the user requirements and migration was enabled by Major Craig Sanders (AMNOC Director 2012 – 2013), Major Mathieu Demenois (AMNOC Director 2013) and the AMNOC implementation team.

Prior to the migration I walked around the facility with Mr Scott Bruce (HQ ISAF CJ6 Projects), the operational sponsor and initial AMNOC requirements lead who said *"this is truly a capability that everyone involved with it can be truly proud."*

author: Andy Forbes
 MBE - ISAF KAIA NCI Agency
 Programme Management Support
 Sector ISAF



NIAS 2013

IA
CD

From 17-19 September, over 1,500 delegates from NATO and Industry gathered for the NATO Information Assurance Symposium (NIAS) 2013 at the NATO SHAPE Headquarters in Mons, Belgium.

This year the event's focus was on securing command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) in the NATO Cloud – the challenges posed by the Cloud were explored and discussed in workshops, seminars and presentations throughout the three-day event. The large number of delegates that visited the SHAPE Headquarters in Mons, Belgium, broke attendance records and highlighting the increasing prominence of Cyber Security in the digital age.

The event was held in the context of NATO's IT-Infrastructure modernization through consolidation, virtualization and cloud computing. *"Data consolidation and the move towards Cloud services requires new thinking for security personnel and development of new security services and solutions,"* said Mr John Tatman, NIAS 2013 Principal and Head of Information Architecture Plans and Policy at the NCI Agency.

Also in 2014, NATO will continue to explore ways it can forge partnerships with the private sector to leverage existing and upcoming technology to protect NATO's interests. The General Manager of the NCI Agency, Mr Koen Gijsbers, reflects on NIAS: *"This is a unique event where senior Transatlantic decision-makers come together with senior industry representatives and discussed how evolving cyber security affects our ability to protect the freedom and liberty of our countries and citizens, and how industry can contribute to this vital mission."*

The next edition of NIAS will be held from 16-18 September 2014, and will again be organized by the NCI Agency's Conference Management Services Team in partnership with Coast Promotions, for which NIAS2013 was its largest hosted event to date.

For more information on NIAS2014 please contact us at: events@ncia.nato.int

NATO C4ISR Day

A one-day Industry only C4ISR Industry day immediately followed the NIAS event on Friday 20 September. The focus of this event was to inform Industry about upcoming NATO procurement opportunities.

The event underlined the active engagement with industry in the procurement of current and future NATO capabilities, enabled by the NCI Agency's role as the gateway for industry to the Alliance. Between 250-300 industry representatives were provided an introduction and overview of the NCI Agency by the General Manager, a briefing on 'How to do business with NATO' by the acting Director Acquisition, as well as briefings on potential business opportunities from Service Supply, Service Delivery, Ballistic Missile Defence, and AirC2. The afternoon's presentations included detailed workshops from the Agency's divisional leaders about specific potential business opportunities in addressing NATO's current and future security challenges.

Special emphasis throughout the event was on the opportunities that multinational capability development and procurement bring to industry, NATO and nations. In the spirit of Smart Defence, the NCI Agency has witnessed interest in its 'NATO First' policy for multinational procurements.



SYMPOSIUM & EXPO

SECTOR BRUSSELS

The NATO Headquarters in Brussels is a melting pot of Ambassadors and senior military leaders with staffs and organizations mandated to drive the NATO Alliance forward. On the formation of the NCI Agency in July 2012, much of the ICT support to the HQ and to then Brussels based Agencies was transferred to what is now known as NCI Agency Sector Brussels. The Sector works in close partnership with the Executive Management's Information Communication Technology Management (EM ICTM), which remained part of the International Staff, to deliver services to the end users in the HQ, from the Secretary General, to the National delegations, to the International Staff and International Military Staff, and to NCI Agency staff in Brussels and The Hague. Born of hard work and a determined effort between the Director of EM-ICTM, Demand Management and the Sector staff, Sector Brussels is today an organizational element on the verge of tremendous change and adaptation to meet customer expectations and the impending move to the new NATO Headquarters in 2016.

Sector Brussels is the primary Information, Communications and Technology (ICT) service provider for support to SecGen, the International Staff (IS), the International Military Staff (IMS), and other customers of the NATO Headquarters in Brussels. In addition, Sector Brussels leads Agency Information Technology elements located in The Hague and Brussels that provide a full spectrum of information technology services to an array of other customers and organizations that includes the Agency itself.

Primarily located in the NATO HQ, Batiment-Z and The Hague, Sector Brussels is directly responsible for world class development assistance and service delivery of service desk, workstation

support, multi-network operations, secure/unsecure voice, video and data communications, security systems, database management, deployable systems, systems management, infrastructure management, IT programming, and test & validation activities.

Sector Brussels is the Customer Facing Unit for all matters in its area of responsibility and reports directly to the Director of Service Delivery for day-to-day operations, with routine reporting to the Chief of Staff and General Manager when matters are of significance.



Since its inception, Sector Brussels has been deeply involved in providing the Service Delivery elements of expertise in shaping major modernization projects in NATO HQ, such as the 7NNN, WCM (NATO's primary Internet presence), Constellation, ICT Revitalization/Modernization and Enterprise Information Management to name just a few of 70 ongoing projects. Concurrent to these efforts, the Sector has also been jointly working with Demand Management to bring forth one of the Agency's major Service Level Agreements (SLAs). This is the first time that NATO HQ has had a SLA, so negotiations have been ongoing for several months in a positive and constructive manner, led by the Demand Management HQ Account Manager, David Bizley, and involving Sector, ICTM and IMS representatives. It is hoped that these negotiations will be concluded well before the end of 2013 so that the SLA is in place in good time for the start of 2014.

In addition to the Service Delivery aspect, the Agency is also involved in a wide range of projects and other support arrangements. Of note is the NHQC3S Programme of Work, which averages approximately € 3.5M per annum and delivers consultancy and policy advice in areas such as Information Assurance, Spectrum Management, and support to interoperability. The Agency also supports the Emerging Security Challenges Division and Science for Peace and Security with the Defence Against Terrorism (DAT) Programme of Work and most lately with a new project to promote Telemedicine through the NATO-Russia Council.

Together with many Agency elements Sector Brussels is also heavily involved in aspects of the move to the new HQ in conjunction with the new HQ Project Office and ICTM. These initiatives include the Active Network Infrastructure for the new building (ANWI) and moving the current applications and data across to the new environment under the ICTM Business Data and Applications Migration (BDAM) project.

Returning to close support, the Sector today is comprised of six entirely different elements that span not only service to the Headquarters, but also that of the entire Agency for its business IT infrastructure and its business applications. Altogether, the Sector has the largest customer base of any of the Agency's Customer Facing Units and has as part of it, a Belgian Communication element that is being fully integrated into the Sector Structure. This element, locally known as the COMBRANCH and currently headed by MAJ Jean-Marc Stroobants, has its origin all the way back to 1968, and is based on a MOU signed between NATO and Belgium. Through the years, the COMBRANCH evolved into the focal point for providing all external communications to and from NATO HQ and is the provider for Secure and Non-Secure VTC services to staff at all levels in NATO HQ.

One of the Sector's most important jobs is to keep SecGen connected wherever he may be in the world. Whether it's in his office, his residence or on the move, elements of the COMBRANCH remain ready on a 24/7 basis to support his needs and react to unique needs to communicate with world leaders.

In terms of reorganization, the Sector is currently moving to a new structure that will begin in earnest in January 2014. *"I realized almost instantly after joining the Sector this summer that significant and rapid changes in how we're organized and how we support our expansive customer base had to be made quickly – before we entered the Customer Funding regime,"* said COL David Jenkins, current commander of Sector Brussels. As an immediate result, the Sector has already integrated a number of elements into its core structure. On 2 September this year, elements of AirC2PO IT support were apportioned to corresponding functional sections and the COMBRANCH Service Desk was merged into the main Service Desk. *"In developing our optimized structure I wanted to be absolutely sure we were organizing as closely as possible to our future role in the Agency. For example, with more centralization I wanted to be sure our functional lines were consistent with the developing Service Lines and that centralized services nested naturally with requisite localized presence in the Sector,"* said COL Jenkins.

The associated processes of this structure coupled with the many projects on the horizon for the Headquarters as well as the Agency will be a significant change from how the Sector has operated in the past.

Frank Schnell, the Sector's Deputy Commander and Head, ICT Service Center leads the day-to-day operations of the functional sections. In total, the Sector is comprised of nine functional sections with one moving to the Business Applications Service Line in January next year. The remaining sections manage the daily activities of the Headquarters and consist of the following:

The Network Management Section headed by Eddy Vanderstraeten and is split into the Voice, Data Cabling and Data Analysts teams. They maintain the various Local Area Network systems on the campus, both for voice and data. This requires their active involvement in the design development and implementation of most Headquarters IT projects. The Voice Team in particular is responsible for the legacy PABX system, but also supports two flavours of VoIP. The Data Analysts maintain all active components (mostly Cisco) of the recently refurbished networks. The main networks are designed to be redundant from dual ISP and NSWAN uplinks to the Access Layer, ensuring high availability for the user community. The Data Cabling Team maintains all passive components for all networks, including kilometers of fiber-optic cable.

The section also provides the infrastructure for journalists present on the campus during Ministerials and special events, and in coordination with the COMBRANCH provides support for Remote Connections (such as the United Nation Liaison Office in New York, SecGen while travelling, etc.) to the main networks. The Cyber Services Section is headed by Jason Besky and provides the operational component for Infosec and Cyber Defense Services at NATO HQ, including the incident detection and response functions, management of the border protection devices and a wide range on internal systems providing additional security mechanisms like antivirus, USB access control, content filtering and password management. This section works closely with the NCIRC



Technical Center. While trying to reuse solutions that have been successfully deployed at other NATO locations, there are situations when the unique requirements of NATO HQ put the organization on the bleeding edge. Several years ago an urgent need was identified to control email messages coming from the Internet. An evaluation of the available options led to the decision to use a cloud based service. This was a unique approach for NATO at the time but has proven to be very successful. Over the years this service has been extensively tested by attackers attempting to send both common and also highly customized malware in email to NATO HQ staff. By closely monitoring these attacks as they are blocked by the various layers of defence it is now possible to develop a good understand of their tactics. This information and the malware samples are provided to NCIRC. NCIRC then uses this information to improve the defences at all of the NATO sites. In addition to email attacks the section has identified denial of service (DOS) attacks originating from the Internet. A series of DOS attacks in early 2012 indicated that the capabilities of the NATO HQ system were being tested for a significant attack. In response to these probing attacks a major effort was conducted to improve the defenses capabilities. This included implementing a dedicated system for detecting and blocking this type of attack. This was another NATO first, implemented together with commercial partners to have it in place before the Chicago summit. The staff at NCIRC were requested to help test this system by launching an attack outside of normal working hours. This testing enabled Systems Management to fine tune the configuration and gain valuable experience. During the Chicago summit there was a major attack against the NATO web site, but all of the preparation work on the part of many different groups enabled the NATO web site to remain operational.

The Server Management Section is led by Dirk Lammens and they operate and maintain the physical and virtual infrastructure in support of all the users on the NATO HQ main building and those on the site of the planned new headquarters. Furthermore they are responsible for a range of core servers and specialized applications.

The Database Management Section headed by Oswald Van-clooster is a rather small section providing and supporting the database infrastructure services for all applications consuming database services. The main focus is on Oracle and Microsoft SQL server database technology. The team's biggest challenge is to support legacy systems while at the same time enabling state of the art technology for the new projects.

Stefano Castellarin and his User Services section stand in for the provision of Workstation support, Desktop Application support, User Account Management and VTC rooms. The master workstation images to be used on three different networks are created by his team and subsequently rolled out by the Install, Move, Add and Change (IMAC) team to user fixed and mobile workstations. This includes the support of proprietary desktop applications, which are mostly provided to the user community as virtual applications. The VTC team provides modern Secure and Non-Secure VTC rooms enabling not only SecGen to have face-to-face meetings without need to travel.

The Service Desk and Incident Management functions are provided by Thomas Hauck and his Service Delivery section. A Kiosk provides the user community with a professional welcoming area. It is here where new users receive their accounts (on peak days up to 50!) and an initial overview of the ICT services provided by Sector Brussels. The Kiosk is also the place to have passwords reset,

obtain portable equipment on loan, and receive help for Blackberry and GSM issues. Next to the Kiosk is the Call Center (reachable on NATO HQ extension 5858), which offers call-in and remote support services from 8:00 to 18:30 (local time) on regular working days. They create about 20,000 tickets per year. The Kiosk and Call Center team members also provide for a special Service Desk function implemented for journalists during Ministerial meetings. The IMAC team not only ensures that issues that could not be fixed remotely are corrected 'in-office', but they also deliver and install workstations and printers as well as move them during office moves. The Technical Control Facility (formally the COMCEN) headed by CPT Andy Jackson provides the 24/7 Communication Centre monitoring and maintaining all external data links from and to NATO HQ. This includes the operation of the PABX. A special team is the SecGen communications support team, which ensures the connectivity of SecGen to all NATO HQ systems while he is on travel as well as the secure voice connectivity from SecGen to national leaders.

Joining from the constituent element of NC3A is the Information, Communications and Technology Section (ITCS) led by Frank Mikla, providing a wide range of Internet/NU and NR services primarily to the NCI Agency itself, but also to a large external customer base throughout NATO, NATO Nations and authorized Industry partners. Frank Mikla's team is responsible for the NCI Agency Business Network (REACH) and for the Federated Enterprise joining other NATO Civil and Military bodies together at NR level. These efforts enable seamless collaboration and information sharing between many Agencies, including the NATO Support Agency (NSPA) in Luxembourg. With over 10 years of experience in operating a business network at NR level, the team is contributing significantly to the Protected Business Network efforts as well as the IT Modernization project led by Dr Peter Lenk. Part of the service portfolio is also a range of collaboration services such as 'Me' (MySite), the platforms for Record Centre (RECCEN), and Internet facing collaboration services. These services are available globally for all customers connected to the Federated Enterprise through well-defined and priced Service Level Agreements (SLAs). One reference customer is for example NAGSMA hosted in Building-Z, Brussels. The 2013 IT service provision to NAGSMA is 100% service based through a detailed and priced SLA where the customer can be very granular in the service offerings consumed. Frank Mikla's team is one of the pioneers within NR mobility going back to the early days of 2006 with the first version of the NR over the Internet (NROI) laptop – a capability that is now known as the REACH capability providing a complete framework of services enabling global availability of staff.

Lastly, coherence and governance towards NATO and Agency IT related policies and procedures is ensured through the Coherence Section. This section, headed by Paolo Poli, provides specialists in the field of InfoSec, ICT and Security Architecture, Change and Configuration Management as well as projects coordination.

Together, as one team, the Sector along with Demand Management forms the nucleus of support that will partner with ICTM to lead NATO HQ into the next generation of ICT services and through the future challenges that are certain to come for the Alliance.

authors:
COL David Jenkins,
Commander, Sector Brussels & Head, CIS Support Brussels

David Bizley,
Principal Account Manager for NATO HQ



Oktoberfest



2013 celebrations at the NCI Agency



Beer, bratwurst and lederhosen – without much imagination these are the perfect ingredients for a fantastic party. This year's celebrations marking the 180th edition of the biggest and most highly anticipated beer festival in the world drew thousands of participants to its homebase Munich, Bavaria, Germany. Agency colleagues in Mons, Glons and Brussels celebrated this edition with great enthusiasm.

Mons

In Mons, the SHAPE community got together on 27 and 28 September to celebrated their 44th Oktoberfest, which has been known as one of the biggest events at SHAPE Headquarters - more than 1,200 guest celebrated on Friday, almost 1,000 on Saturday. After the traditional keg tapping on Friday evening by the German NMR, BGEN Kuhn, the German Oktoberfest Music Band started playing famous party songs and the visitors were having great fun by dancing and chatting, and consuming Bavarian food and Oktoberfest beer. At 01:00 no alcohol was served anymore and the crowd was kindly asked to leave the tent in order to prepare the scene for Saturday. On the second day of the fest a Can-Can Dancing Group was invited to entertain the visitors, as well as the famous Oktoberfest Music Band. All in all the 44th Oktoberfest SHAPE was a great event, well organized and prepared to entertain the SHAPE community in a typical German-Bavarian way.

author: Lars Einloft, OR-8; DEU AF, PA to COS SHAPE

Brussels

On 27 September, Oktoberfest was celebrated by Brussels' colleagues at the Cafeteria/Restaurant in the Batiment-Z building. Bavarian food, beer, and most importantly a big attendance made it a remarkable event.



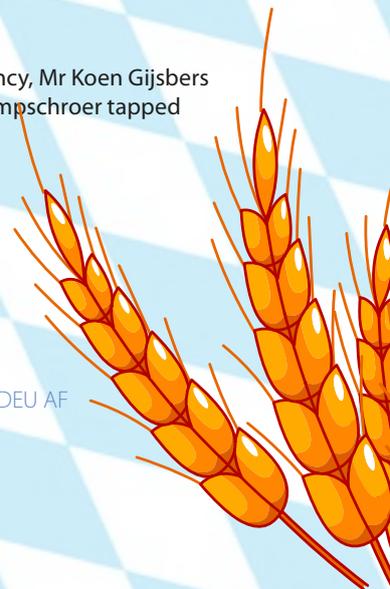
Glons

On 20 September, one day before the original Oktoberfest started in Munich, COL Kampschroer, Commander of the NCI Agency NATO Programming Centre, opened the annual NPC Oktoberfest in Tongeren. As in the previous years, the request for tickets was so high, that the event was already sold out one week before and more than 300 guests attended an evening of traditional Bavarian entertainment in Tongeren.

NPC members and their families, as well as a number of visitors, including the General Manager of the NCI Agency, Mr Koen Gijsbers and the NCI Agency Chief of Staff, MGEN Luis Andrey with his family, joined the opening session, when COL Kampschroer tapped the first barrel of beer with only four hits. Afterwards all guests were invited to enjoy traditional Bavarian food, offered at a great Bavarian buffet, together with original German beer.

The whole evening was accompanied by live music played by the German Military Music Corps from Koblenz, which started with traditional German live music and later changed to rock and pop music to entertain everyone in the audience. While the adults were dancing, the children found their entertainment with a Clown, a bouncy castle and a fire breathing show from MAJ Michael Stüwe. When the last guests left around 3 o'clock in the morning everyone was sure that this Oktoberfest was again a full success.

author: M. Späinghaus, CAPT DEU AF





Capability in the spotlight:



Distributed Networked Battle Labs (DNBL)

Framework enables greater efficiencies in experimentation, testing evaluation and exercise/training across NATO Nations, NATO bodies, and industry and academia from NATO and Partner countries.

“Ready, Robust, Rebalanced”

- the words NATO Secretary General Anders Fogh Rasmussen recently used to describe NATO’s current posture. In anticipation of the end of the NATO-led combat mission in Afghanistan after 2014, stronger emphasis is placed on maintaining and enhancing the ability of forces across the Alliance to work together. In this regard the NCI Agency, as a synergist in enabling NATO’s political and military requirements, has a vital role to play. Among the opportunities offered by the Connected Forces Initiative (CFI) and Smart Defence is a stronger focus on Education and Training as well as enhanced Exercises and better use of Technology across Communities of Interest. Currently, among the capabilities that the NCI Agency offers to Alliance members, a broad customer base utilizes a virtual platform – the Distributed Networked Battle Labs (DNBL).

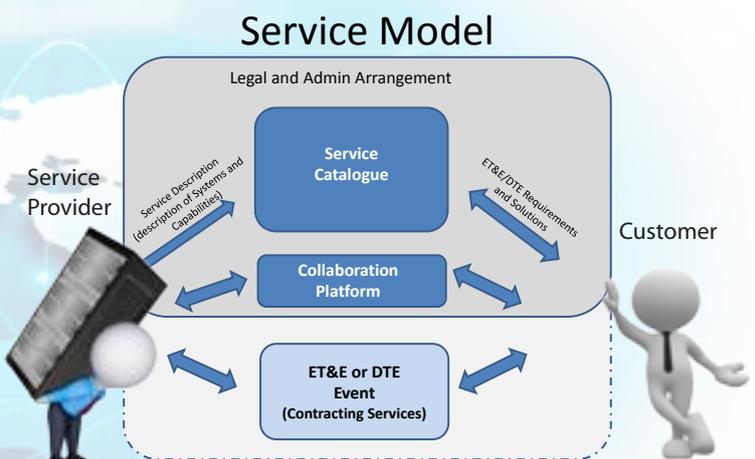
This Framework encompasses the legal umbrella, organizational concept, administrative and technical processes to arrange and offer services for testing, experimentation and exercises throughout the whole life-cycle of a capability. Founded in 2009, DNBL has tightened cooperation for the preparation and conduct of Experimentation, Test and Exercise (ET&E) and Distributed Training & Exercises (DTE) events between NATO organizations as well as NATO and Partner Nations, their industry and academia. This is to ensure that interoperability between Alliance systems is proved before they are deployed into theatre, while also enabling more efficient testing and exercise of capabilities that are still being developed.

DNBL is operated jointly by the Headquarters Supreme Allied Command Transformation (HQ SACT) and the NCI Agency. The DNBL Framework is managed by a Board of Directors and an Executive Board, together with an Advisory Board that ensures feedback is obtained from stakeholders and DNBL members. In addition, a Technical Authority (Richard Simpson for ACT and Michael J. Oberndorfer for the NCI Agency) provides management support for the administrative, legal, and technical aspects of the Framework. The DNBL Members are able to use the framework on bi/multilateral basis at no cost.

Serving the DNBL Community

Enabling easy access to available systems and capabilities, the DNBL Technical Authority maintains an online marketplace (database) of services that are offered by the framework’s members from NATO organizations, NATO and Partner Nations, their industry and academia. The exchange of services offered by the community for experimentation, testing and exercise is arranged through a service model. The catalogue, organized to meet the needs of the Communities of Interest includes currently over 150 services for Modelling and Simulation, Distributed Training & Exercise, Interoperability & Compliance Testing, Basic DNBL Services Infrastructure and T&E Management, Cyber Defence and Concept Development and Experimentation.

In the Service Catalogue each service is defined and explained in a common format, which can be tailored to meet the needs of a specific ET&E/DTE event. Individual services can be used for simple bilateral events but also contribute to more complex initiatives. The NCI Agency uses the legal, administrative and technical arrangements in the DNBL framework to implement the NATO C3 Interoperability Testing Policy, in order to federate the members’ contributions to Compliance and Interoperability Testing.





Reuse, Reduce, Recycle

DNBL has responded to a need for easier and faster access to testing facilities, by promoting collaboration between laboratories and providing access to a wide range of available services and service descriptions. Since it became operational, the Framework has build up a portfolio of successfully completed projects that demonstrate efficient sharing of capabilities among nations in the spirit of Smart Defence. Among these are: NATO Joint Intelligence, Surveillance and Reconnaissance (JISR), the Afghanistan Mission Network (AMN Coalition Interoperability Assurance & Validation (CIAV), Medical C2 systems interoperability, Alliance Ground Surveillance (AGS), and Cyber Defence (experimentation & validation concept).

The Frameworks' value proposition is expressed through the words Reuse, Reduce, Recycle. The DNBL community provides access to existing systems and capabilities with related subject matter experts; services for Joint ISR testing were provided seven times to a range of nations by making re-use of the reference system designed for the NATO change management support. Also, for example in the AMN CIAV Coalition Test & Evaluation Environment (CTE2), NATO and nations are re-using their systems and

capabilities together with the related SMEs for bi/multilateral testing. In the DTE area national organizations and industry offer the reuse of about 135 existing services in the Modelling and Simulation domain for new events with different combinations of members. Furthermore, the compliance and interoperability testing for Friendly Force Tracking systems was developed in 2010 and provided to the Spanish Army CIS command in 2011 building on the Agency's expertise in the interoperability domain.

In addition to pooling resources more smartly, the Framework also enables savings in time and cost via agreed legal and administrative environment for preparing ET&E/DTE events (Reduce), and harmonizes processes, sharing of expertise, knowledge and lessons learnt (Recycle).

Michael Oberndorfner, IT&V and DNBL TA states: *"By the distributed testing and ready in place service descriptions the testing can be conducted more quickly and efficiently. This in turn has the benefit for Nations to contribute to NATO missions without unnecessary delays or having to duplicate work already done by other Nations in setting up a test event."*

Serving the DNBL Community NATO, Nations, Industry, Academia



Portal – Share and Collaborate

The DNBL portal provides all means for the DNBL community to exchange information on ET&E/DTE and collaborate on individual initiatives. The community is constantly growing and there are now over 800 portal users from 50 member organizations using the site with over 30000 hits per month. Maciej Kłopotek, Information Manager for the DNBL Technical Authority explains: *"The portal is the means to allow communities to cooperate, we see our members participate, share ideas and build knowledge collectively. We are also interfacing the DNBL portal with other sites like ACT TransNet which links the Centres of Excellence, the ACT Tidepedia on the development of the C3 Classification Taxonomy and the Science & Technology Organization which provides links to many of the nations' technical experts."* The DNBL portal is available in three domains with four levels of classification up to and including NS. The internet-facing NU portal is available through: <https://dnbl.ncia.nato.int>



DNBL + CFBLNet: A complete package through optimized service provision

The value of the DNBL framework instantiates through the support provided with the legal and admin arrangements, coupled with the services offered by the members of the Framework. A key element of delivering test events is the management of the test event itself with the related environment. This was developed as a service, separate from the subject matter expert services together with another basic and general service which provides the IT infrastructure and the support for the security accreditation of the event.

The two elements of the IT infrastructure are the network layer and the core and hosting services. The Agency currently offers two options for the network layer – VPN over internet for unclassified events, and the Combined Federated Battle Laboratories Network (CFBLNet) for initiatives requiring the exchange of classified and unclassified protected information. DNBL and CFBLNet offer a complementary model where services can be added to CFBLNet initiatives as required. Both frameworks are very instrumental in facilitating the testing of capabilities for the AMN community, CIAV, and NATO ISR since 2010.

Therefore, both DNBL and CFBLNet are well positioned to transition the success of AMN and to preserve and build on the interoperability levels achieved there. In light of the Federated Mission Networking (FMN) / Mission Partner Environment (MPE) activities for verification, validation and training, the DNBL Framework could provide the management framework and subject matter services, with CFBLNet as the underlying network infrastructure of choice. In anticipation of the NCI Agency's Service Line structure, opportunities have already been identified to optimize services to customers in the future along the lines of the new C3 Taxonomy. Mr Edgar Harmsen, NATO CFBLNet Lead Representative, Project Manager European and NATO CFBLNet NOC&PoP¹ explains: *"Through the convergence of network services, we will be well positioned to deliver comprehensive services to our customers, preventing overlap in service offering. The appreciation for the complementary aspects of DNBL and CFBLNet enables in the end the best value for our customers."*

Customer Focus

In addition to providing collaboration environments to exchange information across the Communities of Interest, DNBL also can set up private environments for ET&E events. *"Through the framework, nations and partners can decide for an event and in such a scenario private areas are set-up that enable a group of our members to cooperate. The event will be announced on the DNBL portal, be recognized by other members and relevant POCs can be invited to join. The private environments in the DNBL Portal allow bi/multilateral initiatives to conduct ET&E/DTE events without the need to setup individual environments. The lessons gained in the event therefore contribute to an improved process of testing, feedback on standards quality, and evolution of the DNBL framework,"* Michael Oberndorfner says.

As the NCI Agency is also a member of the Framework it can offer services to the DNBL community. Responding to requirements set by the Nations, the Agency will in future focus on the core set of services in ET&E and DTE and complement these with additional services available on the DNBL service catalogue. This is already reflected in the C3B CIS Interoperability Testing Policy. The NCI Agency's project and service line managers can benefit from services offered by DNBL members through the Service Catalogue every day.

With these characteristics the framework provides specific benefits for Small and Medium Enterprises. It creates opportunity for small firms to interact directly with NATO and get in touch with the DNBL community organizations from NATO, NATO and Partners Nations and academia. They define their service once and have it available for a wide spectrum of community of interest and customers. The DNBL Code of Conduct, a set of rules and guidelines for the members, supports them in reaching customers and in partnering with other service providers.

Oberndorfner and Harmsen state, *"CFI seeks to make greater use of education, training and exercises to reinforce links between the forces of NATO member countries and maintain the level of interoperability needed for future operations. From an Agency standpoint, DNBL and CFBLNet can provide an optimal package. Customers are invited to assess the quality of our services and select the services they require. In addition we are providing unbiased guidance on event set-up and the composition of service packages through the DNBL and CFBLNet management support. The ultimate aim is that tools and services we provide are best fitted to support testing and training for communities of interest."*

The DNBL Framework, as an "open door" initiative, welcomes interested organizations to join the community and invites NATO project managers to make use of the DNBL services. By working together today, NATO will be Ready, Robust and Rebalanced for the future. **For more information on DNBL visit the portals via <https://dnbl.ncia.nato.int> and stay connected on LinkedIn.**

¹ NOC: Network Operating Centre serving the nations, POP: Point of Presence serving the NATO bodies

- GrM

POCs:
Richard.Simpson@act.nato.int (DNBL-ACT)
Michael.Oberndorfner@ncia.nato.int (DNBL-NCI Agency)

Edgar.Harmsen@ncia.nato.int (CFBLNet-NCI Agency)

REFURBISHMENT OF A NATO 'OLD-TIMER'

The Support Equipment section from the NCI Agency CIS Sustainment Support Centre (CSSC) in Brunssum, Netherlands, has recently refurbished a NATO Joint Electronic Warfare Core Staff (JEWCS) shelter. The NATO JEWCS, whose home base is the Royal Naval Air Station in Yeovilton, United Kingdom, was formed in July 2006 combining several NATO Electronic Warfare elements into one organization. This has allowed staff in this specialist area to provide Electronic Warfare expertise and training in support of the planning and execution of NATO operations and exercises more efficiently. The JEWCS uses shelters mainly in support of maritime and air defense exercises as well as for communication surveillance and jamming in support of land exercises.

For years, the CSSC Electronics Maintenance & Testing section has supported the test equipment from the JEWCS maintenance section on-site. When in 2012 CSSC technicians overheard the need to refurbish an aging JEWCS shelter the CSSC management was informed about the JEWCS requirement. In December 2012, a team from Support Equipment visited the site in the UK to see whether this refurbishment could feasibly be done by CSSC, and to discuss the requirements for the end-product. The requested task was to refurbish an old shelter into a replica of an existing modern shelter, and where applicable, also make design improvements. After thorough research and consultation with other sections in CSSC, possible contractors and suppliers, the decision was made to perform the task.

Early 2013, the shelter was transported to CSSC and since then work hours have exceeded the expected timeline and therefore extra unplanned hours have gone into this project. The shelter arrived as an old worn out shelter with an outdated electrical system and an unserviceable air conditioner. Firstly the shelter was completely stripped so that only the empty shell was left. Not only technicians but also personnel from Stock Management, Purchase & Contracting and other staff were involved. Suppliers were asked to handle the parts and materials needed for this project with priority. The contractors responsible for painting the shelter were under time pressure due to meeting the set time lines. The support section then started to repair the damaged parts to the maximum extent; parts which were not repairable were designed and manufactured within CSSC.

Not only 20m² of metal plates and 12 tubes of marine sealant kits to protect against aggressive sea water found their way to the shelter, but also 1,140m of power wires and 72m of safety strips, yet this is only a handful of all the material that was processed. The roof of the shelter was originally painted with a grinded paint, which was chipped by the heat of the sun over the years. CSSC found a different solution to overcome that problem, and after having the roof coated with regular paint, they applied stripes of anti-slip and safety tape, ensuring compliance with safety regulations.

When all metal parts were prepared everything was transported to the paint shop. Once the shelter had returned from the paint shop the technicians from Support Equipment could install a complete new electrical system, new air conditioning system, and all the mechanical parts required for it. Additionally, some small modifications like a fixing mechanism at the condenser out panel were installed. After passing the acceptance check the shelter was completed, and successfully returned to the customer. A dated shelter, which was ready to be condemned, is serviceable again for at least 10 to 15 years.

The JEWCS project was a good experience for all participants, and CSSC was able to complete this project to a very high standard and to the utmost satisfaction of the customer.

author: Detlef Zantis (CIV A2),

Head Test & Support Equipment, CSSC Brunssum



54 years of training to NATO

“Providing the right training to the right people at the right time.”
SACEUR’s Annual Guidance on ETEE dated 27 Aug 2012.

The NATO CIS School (NCISS) is a NATO Education and Training Facility (NETF) located in Latina, Italy. Whilst an integral element of the NCI Agency it receives direction and guidance on training policy from HQ Allied Command Transformation (HQ ACT), together with requirements from its main customer, HQ Allied Command Operations. NCISS fully complies with SACEUR’s guidance and directly supports the people element of NATO’s Network Enabled Capability (NNEC).

With a proud history of successfully delivering quality CIS training on behalf of NATO for 54 years the school conducts generic and bespoke training, accredited by HQ Allied Command Transformation (HQ ACT), for NATO, the Alliance, and the Partnership for Peace Nations.

Whilst the majority of the training is conducted at the School in Latina, it utilizes a number of other techniques such as e-learning and Mobile Training Teams to meet its customer’s needs. It is also a significant player in the drive for commercial recognition of military training under the “Bologna Process”, working together with the University of Rome to achieve this.

NATO approved courses

Approximately 4,000 students per year attend courses conducted by NCISS either in Latina or externally via Mobile Training Teams or e-learning. Eighty-eight different courses are currently taught with 413 iterations of them occurring through the year.

The school is a secure accredited CIS training facility that fully complies with all NATO security regulations, and incorporates a class one area with appropriately security cleared instructors. All courses offered by the school are advertised in the Education and Training Opportunities Catalogue (ETCOC) and as such are all ‘NATO approved’. Subsequently, it is the only organization within NATO that is accredited to issue certificates of proficiency that certify that individuals from NATO and Partner Nations are authorised to install, operate and maintain NATO CIS in both the static and deployed environments. Without these certificates the individuals are not authorized to operate the equipment.

Structure

Recent commercial management thinking has identified the benefits of a hybrid matrix organizational structure, in which capabilities and resources temporarily come together, to produce an output, which creates a competitive advantage for the organization. This approach has already been adopted by NCISS, with both hybrid and virtual teams, in which a single instructor is employed to teach different courses together with a single system (or equipment) being used by students on different courses; thus contributing to enhanced efficiency.

The school comprises of 101 mixed military and NATO International Civilian staff. The civilian instructors are vastly experienced with many years of professional learning, with fifty percent of them possessing PhD level qualifications. This, combined with a military staff that has considerable operational experience, enables NCISS to offer an inimitable training capability to NATO.

NCISS is a campus based facility that, like universities and colleges worldwide, offers students residential accommodation onsite. From a military perspective this enables the Commander to fully comply with his military leadership responsibilities in respect to his duty of care to the students, as well as enhancing course cohesion and supporting esprit de corps. The provision of onsite student accommodation supports and encourages those students who require additional training to easily gain access to the laboratories and classrooms out of normal hours.

Flexibility in meeting customer needs

The ability to be responsive to changing customer needs is vital. The school has been forward leaning in this respect, working with its customers in developing new courses, often at short notice, to meet emerging operational requirements. This has included the introduction of the Theatre Liaison Kit (TLK) and the HF PRC150 radio system; it has also incorporated aspects of commercial training as necessary. This has enabled students to receive the skills needed to carry-out their function, without being trained in subjects that have no value to NATO. An excellent example of this is the Deployable IS Foundation (DISF) ten-day course, combining content from five separate four-day long Microsoft commercial



courses. It should be noted however, that NCISS does not compete with commercial IS training providers. Through its mobile training team concept it is able to deliver training at the point of presence, provided that the necessary equipment is available at the site, thus meeting a key customer need.

Whilst course design and development are not part of the School's mission, there is a culture of adaptability and resourcefulness. The development of a Voice over Internet Protocol (VoIP) course to address an identified lack of knowledge whilst addressing perceived deficiencies is clear demonstration of this philosophy. This course now provides students with the right knowledge to assist NATO in its transition to a target architecture in which everything is IP based.

The introduction into service of the future NRF Deployable CIS under CP149 will see a significant increase in the level of technical foundation knowledge required by personnel who operate and maintain it. NCISS has responded to this by becoming a Cisco Certified Academy with two of the NATO International Civilians becoming Cisco Certified Network Professionals, and many of the staff acquiring Cisco Network Associate Instructor qualifications. This enables NCISS to conduct two Cisco Certified Network Associate (CCNA) courses; a five-week residential CCNA Explorer course and a four-week CCNA Discovery e-learning course.

The Future

The School faces two significant challenges; the transition to a Customer Funded regime and the move to Oeiras, Portugal. The strategy to be adopted in relation to the Customer Funding regime is currently the subject of work between NCISS and the NCI Agency HQ. It will however feature an evolutionary approach, in which our customers will not see much change until 1 January 2016. As details of this strategy are firmed-up they will be communicated to all of the school's customers. The Capability Package Implementation Plan for the move of the school to Oeiras is currently planned to be not earlier than mid 2017, with an IOC of early 2018. The school is represented in the project team and they are now commencing the design stage of the new building.

The future of NCISS will see it reflecting the convergence of communications and information systems as it evolves into becoming NATO's Command, Control, Communications and Computer, Intelligence, Surveillance and Reconnaissance (C4ISR) Training Centre. Fifty-four years on, and the training delivered by NCISS remains as valid to NATO in 2013 as it was in 1959.

author: LTC PJ Stoddart, MBE R SIGNALS GBR-A

Upcoming Management Development Programmes at NCI Agency

As the Agency moves towards an internal Talent Management, one of the key for the future success of the Agency is also the development of its future leaders and senior managers and the promotion of individual and organizational growth. The upcoming Management Development Programmes support this growth by allowing employees to become more agile by developing skills and competencies needed to be great team leaders within the NCI Agency.

During the transition process that we are currently undergoing, an effective leadership is critical to succeed and make change happen. Leaders manage our employees who are the ones that will make change happen and bring the strategy to execution.

The challenge is to set and communicate vision and strategy, aligning and energizing the organization to accomplish our goals. Ensuring a career development culture is part of our business strategy and creates a blueprint for success by aligning business and people to strategy.

Therefore investing in our leaders and managers at all levels will generate a significant return on investment that can be measured in terms of an increase in staff engagement, culture change, better alignment and communication through people management, and effective development of people.

This autumn, HR Learning and Development will launch a series of in-house management development programmes and kicks off with 'Transition into Leadership', aimed at senior managers. The concept of blended-learning aims at diversifying the learning styles in order to increase the development of behavioural skills. The approach uses various learning and development methods like:

- Assessments: staff members will be guided in self-assessment leading to increased self-awareness, to define and practise current and new skills and competencies necessary to perform their role effectively;
- Individual development plans: staff members will build on their individual roadmap and personal development plan, to cover current work responsibilities as well as program activities based on concrete actions they will decide on;
- Elective learning opportunities: these will be internal or external experiences that will be made available on a voluntary basis;
- Coaching/Mentoring: to build on development and career success. Embrace new knowledge and attitudes. Reflect on overcoming difficulties.
- Team-based, cross-functional and relationship building: successful leaders to work with their team and others across boundaries, learning by doing, with support that will make their learning powerful: get exposure, get feedback, track effectiveness;
- Employee activities: engage their teams in a meaningful way, it also help leaders continue to develop, as they receive continuous feedback on what does or does not work as applying their learning .

In order to achieve lasting and substantial benefits, and build on continuous improvement, a key component of the management development programs will be to ensure a supported phase where the tools, techniques and behaviours are applied on the job, in assignments or special projects.

More information on these upcoming program initiatives will be soon made available on HR Learning and Development portal.

author: Carole van Hoorn
Learning and Development



NCI Agency Crossword No. 4

There are no anagrams and **bold clues** follow the same theme, finding the theme will help you solve those clues.

Across

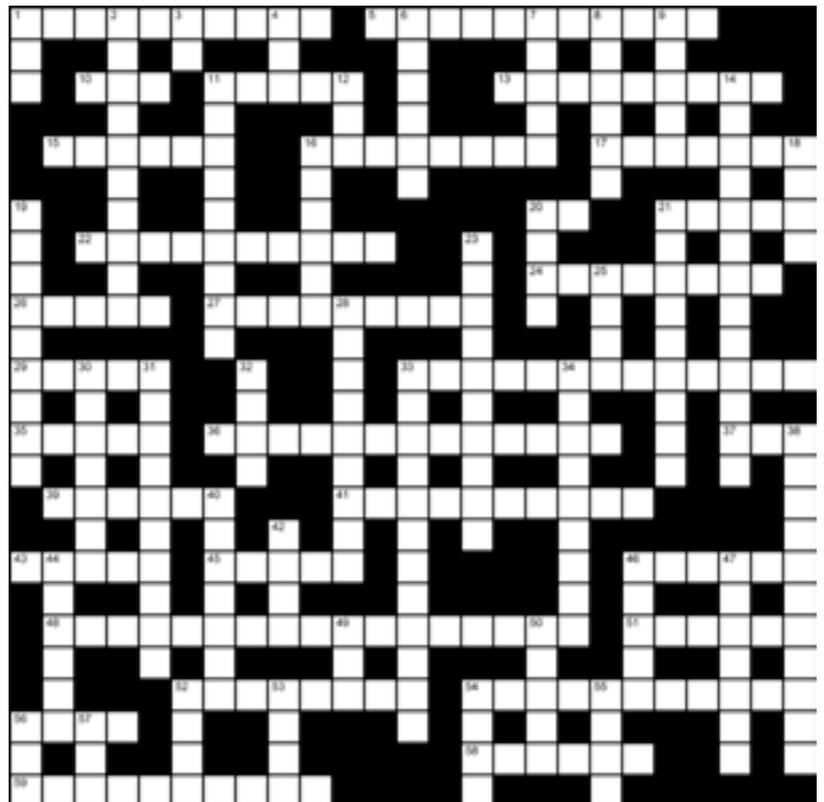
- 1 A very brief advertisement possibly banned (10)
- 5 Things to be eaten, a printer cartridge for example (11)
- 10 Initially an off-road cycling sport from the 1970's (3)
- 11 Incorrectly "Roger, _____ and out" (5)
- 13 Situational, cultural or self (9)
- 15 Redhead (6)
- 16 Anything over 50% (8)
- 17 Text editor or laptop (7)
- 20 Dad (2)
- 21 Healthy way to cook (5)
- 22 Reached when things are put under pressure - chemically and politically! (10)
- 24 Guarantee (8)
- 26 Noah's aquatic nemesis (5)
- 27 "In international affairs, a period of cheating between two periods of fighting." A.Bierce (9)**
- 29 Soldiers and civilians working together initially (5)**
- 33 Sounds like an exercise in the constant unwavering production of improvised music. (9,4)**
- 35 Good material for sheets or suits (5)
- 36 Polite or non-military spouses perhaps! (5,8)**
- 37 Distinct period in history (3)
- 39 Pub or bar (6)
- 41 Agreement possibly with Microsoft aboard Kirk's spaceship (10)**
- 43 A bunch of ships (5)
- 45 One, two, three, four... (5)
- 46 Eiffel, Holst or Klimt (6)
- 48 It's the NRF in full! (4,8,5)**
- 51 Tax or duty on an import (6)
- 52 Theatrical (8)
- 54 Working together (11)
- 56 Mistake in a document caused by "fat fingers"! (4)
- 58 Ape (6)
- 59 Dali was a master of this (10)

Down

- 1 Woodwind instrument but shortened (3)
- 2 Drink, sounds like a cross between a fruit and a musical instrument (10)
- 3 Army cop (2)
- 4 It's this or nothing! (3)
- 6 Supposedly it can't be taught new tricks (3,3)
- 7 How Sinatra did it (2,3)
- 8 Dull, drill (6)
- 9 Gustav the writer, the German municipality or Mr Blofeld the Bond villain (5)
- 11 Brief intensive course in anything, possibly in a shed. (9)
- 12 Latin eggs (3)
- 14 Mature and refined - possibly posing with a cigarette holder! (13)
- 16 According to Queen It's a Kind Of ... exercise! (6)**
- 18 Model of a human being (4)
- 19 Hard (9)
- 20 Church benches (4)
- 21 Thanks (9)
- 23 It's fundamental my dear Watson (10)
- 25 Latvian capital (4)
- 28 Exemplary (9)
- 30 Written authorisation, to take a chap out for a nice meal! (7)

- 31 Traffic jam in the sinuses perhaps (10)
- 32 Has a pH < 7.0 (4)
- 33 Opposite of a dumb offence! (5,7)**
- 34 Tables, chairs and sofas (9)
- 38 Barrier keeping scuds out of Turkey (6,5)**
- 40 Sub, bomb or power (7)
- 42 Leap (4)
- 44 Moon based madness (6)
- 46 Like a crocodile then shortened (5)
- 47 Minor (7)
- 49 Brazil, chest or hazel (3)
- 50 Entertaining person in makeup (5)
- 52 Singing prima donna (4)
- 53 On this scale diamonds get a ten! (4)
- 54 Grooming tool (4)
- 55 Possibly the earliest garden (4)
- 56 Must be done weekly! (3)**
- 57 Tiger's goal is to always get below this (3)

Answers will be provided in the next issue.



Answers June 2013

Across: 1 Barbecuer, 7 Aesop, 9 Norway, 11 Gaul, 12 France, 13 Ox, 14 Greece, 16 Estonia, 18 Panda, 19 Tofu, 20 Hue, 21 Duo, 22 Cork, 23 Albania, 24 BLT, 25 Germany, 26 KiKa, 29 Bell, 30 Poodle, 31 Pop, 33 Turkey, 36 Baz Mohammad Mobarez, 38 Portugal, 40 Beer, 41 Latvia, 43 Spain, 46 Lithuania, 48 Eel, 49 Brand, 50 Echo, 52 Slovakia, 56 Orb, 58 Romania, 59 Luxembourg, 62 Denmark, 63 Banyan, 64 Desist, 65 Ova.

Down: 1 Baguettes, 2 Belgium, 3 Urge, 4 Rune, 5 United Kingdom, 6 Croatia, 7 Al Capone, 8 Ovoids, 10 Canada, 15 Czech Republic, 17 Italy, 20 Hungary, 24 Bulgaria, 26 Kir, 27 Netherlands, 28 Poland, 32 Slovenia, 34 Kit, 35 Ezekiel, 37 Metaxa, 38 Palm, 39 United States, 42 Sumo, 43 Sofa, 44 Mekong, 45 Narcosis, 47 Iceland, 49 Beg, 51 Humans, 53 Vixen, 54 Kimono, 55 Amoeba, 57 Banana, 59 Luka, 60 Rend, 61 AAA.

NATO Communications and Information Agency
Agence OTAN d'information et de communication

Bâtiment Z
Avenue du Bourget 140
1110 Brussels
Belgium
www.ncia.nato.int

