The Shared Perspective of the World in 2030 and Beyond
Themes, Drivers, and Challenges

Strategic Foresight Analysis Workshop #2
INITIAL FINDINGS REPORT
Executive Summary

The second Strategic Foresight Analysis Workshop took place 13-14 November, 2012 in Budapest, Hungary. Workshop #2 elaborated on drivers from themes identified during the Workshop#1 (Political, Human, Physical, and Resources and Economy). 54 participants from 16 nations, NATO HQ (IS, IMS), ACO (CCOMC), ACT, think tanks, academia, MODs, Delegations to NATO, and military representatives from IMS and COEs attended the event. On the first day of the two-day event opening remarks and guidance and presentations from two distinguished foresight experts set the stage for 4 breakout syndicate discussions. The second day consisted of syndicate presentations to the plenary, including provision of sufficient time for engaging discussion/debate over various aspects of the findings.

The plenary discussion revealed the intertwined nature of various drivers across the spectrums of themes, some having greater influence than others but none being a purely independent driver. The trends within political, technology, human dimension and energy and resources are not only changing but are evolving rapidly. Studying factors such as the inter-connected nature of the world, globalization, the different perception of threat and security, demographics, social change, the role and place of individual human in the state-system and energy security has become critically important to maintaining relevance of the Alliance.

Analysis Report

INTRODUCTION

Workshop #2 built upon outcomes of the first Workshop to identify the important components of change drivers holding a likely significance to NATO. Most important was identifying those drivers that individually or collectively exert influence on the Future Security and Operating Environments. It was critical to differentiate those trends and drivers that will have direct security and military implications from those that will have an indirect or no effect on NATO decisions within the context of a framework for future operations and transformation.

ACT’s futures work examines relevant drivers and identifies developing trends that will shape the range of possible future operating and security environment and that may emerge in 2030 and beyond, triggering a deeper discussion of future Alliance capabilities required to meet the threats and challenges in the 2030 timeframe.

PLENARY SESSION

Maintaining future readiness in a complex and constantly evolving security environment and planning future capabilities demands a 2030 planning horizon and beyond, further than the current mid-term 2020 focus. A different future security environment, its security and military implications and the resulting broad strategic operating requirements are anticipated. The Alliance must be prepared for whatever the future holds within a range of options and capabilities sufficiently flexible and adaptable to respond. This is at the heart of Alliance Transformation. The aim is to create a shared perspective, a general framework to prevent strategic surprise, identify the most likely scenarios and then describe them in a common language.

Professor Mihály Simai presented the discussion titled “A Global Perspective of the World in 2030”, a framework for obtaining a shared global perspective through a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis. Strengths of the future include better education and market access with fewer economic shocks, while Weaknesses include persistent inequality, especially in the urbanization process. Threats will continue to persist but may be offset by opportunities such as shifting global demands for market products.
Mr. Péter Tálas from the National Public Service University Centre for Strategic and Defence Studies provided “A Central European Perspective of the World in 2030”. Dr. Tálas presented ideas about the future of Central and Eastern Europe (CEE) from now to 2030. He explored increased integration and contrasted this idea with a potential shift toward the periphery of the CEE region demarked by Estonia and Latvia in the North to Bulgaria, Macedonia, and Albania in the South. There will be several competing processes of integration including Europeanization, re-nationalization, and globalization that were weighed by the potential for each individually and then in combination.

Tension will likely be induced by competing drivers. Specifically, CEE nations have different understandings of sovereignty with integration influenced by both an internal national gravity and external European attraction. Additionally, the CEE is being pulled toward modernization by both national capitalization and foreign investment, which causes tension in the direction and pace of development. This dichotomy is in territorial defense, a national interest versus protection of European and global interests. This crescendo argument culminated in the premise that the challenges and dilemmas of nationalism are colliding with a pull toward European and global integration. The balance between internal and external pressures within the CEE region will determine the relation, capabilities, and performance of Allied CEE countries to NATO; and that the future cohesion of the EU will impact the cohesion of NATO.

BREAK-OUT SYNDICATE WORK

1. Political Changes Domain

The political governance of countries and similar political entities will change dramatically in the future. The challenge will be to keep NATO relevant as a political organization with the ability to react to a range of future crisis. The change to a multipolar world with new possibilities created by new media of voter’s participation in national politics, economic crisis and the differing national points of view on threat will define the future political environment. The extent of changes brought about by democratization affecting the reordering of world relations needs to be analyzed to consider if the emergence of hybrid forms of democracy in the institutional frameworks and regulatory mechanisms that aim to improve global governance will negate the relevance of the Alliance. In times of shrinking military budgets it is important to describe possible future political changes to find ways to transform NATO in accordance with the challenges it expects to face.

Political Changes Domain - Drivers

Global shift of power – The global shift of power away from the West will present challenges to the Nations to reconfirm the relevance of NATO. This shift will also increase the geopolitical focus on the global commons and competition for resources. The Alliance and the international community’s ability to manage change peacefully and decisively will be tested.

Regional instability/democratic deficit – Regional instability and a growing democratic deficit along the borders of Nations will threaten the stability and cohesion of the Alliance. The immaturity and transitional nature of certain democracies make for instability which is very difficult to manage.

Future of the EU – Renationalization of politics of EU member states after a potential disintegration of the EU would lead to national and financial/economic disputes among NATO/former EU members and most likely become a threat to the existence of NATO.

Long term impact of the economic crisis – The economic crisis will continue to define Nations’ political decisions. It will keep the political and social appetite for defense spending and military engagement at low levels. This will lead to a reduction of Alliance core capabilities.
No shared threat perception – There is a lack of a common notion of what the threat is to the Alliance. Threats are increasingly perceived regionally. It is difficult to conduct defence planning and make decisions without this shared threat perception. Alliance defence investments will continue to decrease without a shared threat perspective.

Political Changes Domain - Take-Aways

- The global shift of power will test the Alliance and the international community’s ability to manage change peacefully and decisively.
- Defence investments will continue to decrease without a shared threat perspective.
- The economic crisis will continue to define Nation’s political decisions.
- New forms of politics will challenge NATO’s political leadership.
- The political domain is interdependent with the human, physical and economic/resource domains.

2. Human Domain

In its quest to consider transformation to the year 2030, NATO must deal with what some see as an identity of a 20th century institution in the realities of the 21st century. The context provided by drivers from the Human Domain yield certain paths NATO should consider navigating if it wishes to remain viable in 20 years. The successful result is a transformed NATO “re-branded” as the security provider of choice for nations under demographic, fiscal and social pressures.

The next 20 years will see global economies stagger under the weight of demographic changes that include population decline and aging trends in Northern Hemisphere societies and youth bulges in Southern Hemisphere societies. Immigration and migration patterns may pose assimilation and integration complexities, especially as native populations witness generational losses and ethnic transition. As a result, the citizens’ trust of the nation-state as the chief provider of security and identity may erode. These issues are compounded by a movement from traditional community and institutions towards radical individualism. A rise in single living, the breakdown of the nuclear family and a movement towards secularism are facilitated by technological, cultural and economic trends. As society becomes more atomized, conflicts at both the micro and macro levels become more likely, mistrust in the validity of institutions predominates as individuals turn away from the “whole” towards their own collective or individual identity.

As the trend for isolation continues, members of society that have been isolated will continue to seek out larger collectives in the form of Supra-Societies, Virtual Societies, Diasporas or Transnational Corporations that offer identity and membership. Starbucks and Exxon serve as excellent examples as transnational corporations offering identity by association. How an individual assimilates into non-traditional forms of society largely depend on the degree of mindshare imprinted upon that individual, how that individual brands himself and where or with whom he intends to associate. In some cases, the affiliation may be an insurgent affiliation. NATO’s relevance must be the guarantee of security and safety, much different than the Cold War context of defense.

Human Domain - Drivers

Erosion of the Nation State – The viability of the state is tied to the size and vitality of its population. As populations decline, the pool of human and intellectual capital available for its defense and its GDP shrinks. At the same time, the remaining populous bears the burden of supporting the aging and the infirm. As state institutions erode over time, individuals look elsewhere for validation and may cluster in likeminded groups with a different view of the role of government. In those regions with higher birth rates and declining or limited opportunity, neither which the state can support, unrest and affiliation with extremist groups will contribute to instability and or collapse of the state.
The Search for Trust Surrogates/Proxies – A loss of confidence in and loyalty to institutions and the state as guarantors of prosperity and security force individuals turn to alternatives to fulfill their needs. Aided by the internet, virtual communities expand beyond entertainment, as individuals gravitate to those conversations that appeal to their worldview and philosophy even if the conversation lacks substance or fact. In this new media landscape individuals are bombarded with myriad stimuli and are unable to make informed decisions.

Detachment of the Individual from the Whole – The changing nature of the nuclear family and the decline of the extended family contribute to the rise of single living and an overall loss of empathy as individuals are connecting virtually rather than physically. At some point society atomizes as the those elements that connect individuals to each other disappear; religious affiliation has declined, while secularism has risen, especially in developed states, and the lack of civic education in the curriculum undermines the belief in the common good.

Identity Creation as a Mechanism to Create Mindshare – Individuals seek to differentiate themselves from the crowd on the one hand, branding themselves to ensure posterity or at least a presence amongst the noise. The desire to increase the signal to noise ratio though has a down side as the fifteen minutes of fame may mean acting counter to the interests of society. The creation of mindshare within groups, especially radicalized or extreme groups means individuals link their identity to a cause or a movement separate and apart from the mainstream.

Innovate or Die – Innovation remains the critical path in maintaining viability in a fragmented world. Innovation like adaptation is a survival mechanism that requires institutions and governments to spot the trends and anticipate the changes occurring around them and adjust accordingly. To the extent that organizations become proactive rather than reactive, they can properly position themselves to shape outcomes rather than allowing themselves to absorb the shock and respond to the aftermath and be relegated to picking up the pieces.

Human Domain - Take-Aways

• There exists a misperception in some academic circles that NATO is a 20th Century Institution in a 21st Century environment.
• NATO must reposition itself to address challenges of an information age.
• NATO must be the new security brand offering itself as the source for threat protection in a world of shrinking defense budgets, shrinking industrial base and declining populations.

3. Physical/Technology Domain

As technology spreads at an increasing rate, non-state actors and individuals are being empowered by technology at a level previously held only by nations. The increasing lines of power of social media have democratized technology advances, leading to governmental loss of exclusive use or access, such that capabilities traditionally resting within governments will be found at the individual level. Technology and innovation is a function of demand, necessity and response to current or predicted problems and crises. Faster innovation, easier access to technology and the development of internet communities drive the development of capabilities previously restricted to government provided or controlled technologies.

Technological innovation, production and spread throughout the world relates to changing world demographics that sees higher capacities in the science and technology realms associated with the greater numbers of engineers and engineering institutions. Disparities result from the gap in demographics due to urbanization trends and the rise of middle-class creativity, restricted within a class based on regional localization within urban societies and the economics of production to geographic areas where the cost of labor impacts where and how technology is developed.
Economic security is as important as national and individual security, driven by a political will to provide. While governance of technology can be neutral, it is the rate of change of the innovation and also the technologically invested empowered individuals that have access and use of technology that breeds an increase in demand for the expansion of technology use.

**Physical/Technology Domain - Drivers**

*Demography* – A reasonably reliable profile of the world's population in 2030 is possible because the overwhelming majority of that population is already alive. As a result, fairly confident estimates of important demographic trends, including increased wealth, social networking, shifting economics & manpower availability, the growth in the number of senior citizens, and the resulting support burden on workers can be made.

*Resource Scarcity* – Technology and innovation is a function of demand, necessity and response to current or predicted problems and crises. Resource scarcity and the fear it causes are driving faster innovation. Individual needs, easier access to technology and the development of internet communities, drive the development of capabilities previously restricted to government provided or controlled technologies. Demand for resources of all kinds is rising sharply due to both a growing population and rising affluence in emerging economies.

*Government/Military requirements* – Security Objectives within traditional environments drive technology through demands for acquisition and increase in technological military hardware in response to threat assessments. Additional demands are also caused by the need to address the increasing asymmetric threat – increasing array of non-state actors and individuals that have capacities formerly restricted to states. Lastly, fiscal realities look for technology to deliver smarter weapons in lower qualities to counter needs for larger, more expensive force sizes.

*Social Ideology* – Use of technology for social reasons is driven by individuals demand for knowledge development. The increasing lines of power of social media have democratized technology advances, leading to governmental loss of exclusive use or access, so that capabilities traditionally resting within militaries or government will be found at the individual level.

*Accessibility* – Ideological communities seeking technology not provided by the traditional governments. The increasing affordability and technical diffusion of technology drives further development. While governance of technological can be neutral, it is potentially the rate of change of the innovation and also the accessibility of technological investment has empowered individuals that have access and use of technology, breeding an increase in demand for the expansion of technology use. Quality of Life (increase ease of living), security demands (increase personal security) have increasing affects as well.

**Physical/Technology Domain - Take-Aways**

- Increasingly disruptive & rapidly changing technology will influences on the future.
- More affordable and accessible technology increases the consumption of technology, feeding further "rapid & disruptive" technology changes, creating an unpredictable future for specific sets of technological innovation.
- Unpredictability requires the Alliance to be proactive rather than reactive to technological change and innovation, while also being engaged rather than withdrawn from communities that drive technological change and innovation.
- Demographic, political, economic, and social processes drive production and use of technology, underpinning changes that shift regional and global balances of power; Geopolitically from west to east and north to south and structurally from state to non-state actors.
4. Resources, Economy and Climate Change Domain

The trajectory of the world’s future will be in no small measure the result of human agency, of how key actors – most importantly, the NATO nations - adapt and respond to the dynamic global trends unfolding from Resources, Economy and Climate Change. With oil being a “Strategic Commodity” it causes any nation that holds the majority of the world’s oil reserves to have an enormous amount of influence on the global economy. The massive oil reserves in the Middle East create vulnerabilities. Conflict, regime changes as well as a nuclear arms race in this region will have a profound impact on the future global economy. Energy efficiency is important as well, as it is one factor that affects the cost of transportation and the range of a platform. It will also increase autonomy and reduce environmental impact.

Our interconnected world will be increasingly vulnerable to be exploited by non-state actors, ranging from international criminal networks, cyberwarriors and terrorists. Attackers might target banking and financial institutions, voice communication systems, electrical infrastructures, water resources, or energy infrastructures. The growing complexity and interconnectedness of these systems renders them increasingly vulnerable to cyber-attack.

Resources, Economy and Climate Change - Drivers

*Geopolitical Competition for Resources* – Nations will need increasing amounts of energy and materials for economic growth. With the melting of arctic ice, new mineral and energy resources in the northernmost portions of the planet will become accessible, as will new trade routes.

*Rapid Energy Transformation and Technological Change* – Hi-tech innovation is a key driver in energy exploitation creating new strategic commodities. The emergence of shale gas as a potentially major energy resource can have serious strategic implications for geopolitics and the energy industry. Hydrofracking enables natural gas producers to recover gas from dense shale formations.

*Economic Decline Impacting Defence Expenditures* – Defence spending is declining across the Alliance due to the economic crisis. Governments faced with slow or non-existent growth, rising unemployment and increasing debt burdens have many competing priorities. Current reduction in economic growth drives a shift away from defence toward social programs that will continue to impact defence capabilities through 2030.

*Climate Change* – Climate change and its impacts are becoming apparent throughout the world and are projected to increase in the future. Record events and damage to the global economy are increasing due to climate change. Devastation by extreme weather will demand an increase in humanitarian assistance and disaster relief operations. Some nations, like Russia, may actually benefit from climate change. The retreat of the polar ice will open up large parts of the deep and fertile soils in Siberia and make the lands suitable for agriculture.

*Cyber-Attacks within Pervasive Networks* – Today's world is more interconnected and this trend will continue, harbouring opportunities and vulnerabilities. Pervasive or ubiquitous computing is a post-desktop model of human-computer interaction defined as machines that fit the human environment instead of forcing humans to enter theirs. Such pervasive networks are exceptionally vulnerable to cyber-attacks as ubiquitous computing is highly interconnected.

Resources, Economy and Climate Change - Take-Aways

- Increasing influence of non-state actors varying from corporations, terrorists, and hackers will have a profound influence on the future global economy.
- Interconnected global economies will be increasingly vulnerable to cyber-attacks.
- Continuing cuts in defence spending will impact capabilities through 2030.
• Devastating effects due to climate change will lead to an increased demand in humanitarian assistance and disaster relief.

Conclusion

Through good discussions with many different viewpoints provided, Workshop #2 participants identified the key drivers that will affect Alliance future operations. The Global Power shift reconfirms NATO’s relevance and supports increased focus on the global commons and resources but will test the Alliance and the international community’s ability to manage change peacefully and decisively. Persistent regional instability and a democratic deficit along the borders may be contagious and will threaten Alliance cohesion.

An increasing influence of non-state actors coupled with the growing importance of securing strategic resources, competition among nations in the globalized marketplace will increase overall pressure on economic and ecological systems, creating friction points. The interplay of both resources and economy will affect NATO policy and security decisions.

NATO is considered by some to be a 20th century institution “brand” of defence that must fit into a 21st century environment. Careful repositioning as a security organization vice military force should be considered if it intends to preserve traditional culture and values. Demographic shifts, changes in the relationship of individuals to the state and a redefinition of identity challenge NATO’s role as an international cultural and value depository.