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Strategic Vision: The Military Challenge

**By NATO's
Strategic Commanders**

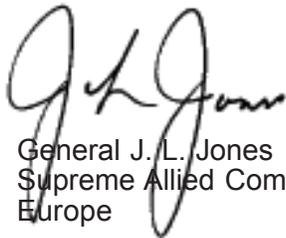
FOREWORD

"Strategic Vision: The Military Challenge" has been developed by our two staffs to provide a long term vision of the way in which we expect future Alliance operations will be conducted, and, therefore, guide the transformation of forces, concepts and capabilities in the coming decades. It looks beyond current initiatives out to 15 years and considers the changes that will be needed to face evolving threats and new challenges. In this timeframe, the continued effectiveness of the Alliance in meeting future military challenges rests upon its ability to transform its capabilities in order to prevail in the complex future environment.

In "Strategic Vision", we describe a new way of planning and conducting operations that concentrates more directly on the ultimate ends we wish to achieve. This approach to operations will involve the integrated application of all instruments of Alliance power to create effects which will achieve the desired outcome. We also set out the capabilities that will be required to maintain a competitive advantage in the 'information age' and prevail in any future crisis or conflict. Finally, we present a framework for transformation that clarifies the major areas of development needed to produce the necessary forces together with new concepts and capabilities.

The importance of this document cannot be overstated. It provides the Alliance a consolidated military view of future operations drawn from our analysis of changes in the nature of the threat, lessons from recent conflicts, research papers and other national vision efforts. "Strategic Vision" forms an integral part of the Alliance's transformation effort. The concepts and capabilities described in this paper will be translated into requirements and plans through the Defence Planning process, and will guide the development of the NATO Response Force. It will therefore provide a context within which nations can plan the development of their own future capabilities.

"Strategic Vision" is not a directive, but is intended to inform, educate and stimulate debate within the Alliance and the nations. While providing a view of future forces, concepts and capabilities, we recognise that this view will evolve over time. Therefore, "Strategic Vision" will be updated to remain current with continuing concept development and experimentation, and, thereby, serve as the beacon to guide Alliance forces to meet the military challenges of tomorrow.



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EXECUTIVE SUMMARY

1. *The aim of “Strategic Vision: The Military Challenge” is to provide a vision of the way in which future Alliance operations will be planned and conducted and thereby guide the transformation of forces, concepts and capabilities in the coming decades.*

2. *The objectives of this paper are to:*

- *Describe the nature of future conflict and the forces, concepts and capabilities that the Alliance is likely to need to plan and conduct successful operations in the next 15 years.*
- *Assist transformation by providing broad guidance for the long-term development of Alliance forces, concepts and capabilities.*
- *Provide a conceptual framework to assist in the overall defence planning processes and reinvestment decisions within both the Alliance and nations.*
- *Provide a context for experimentation with new concepts and capabilities and a focus for research and development.*
- *Provide a capstone document from which future conceptual work will cascade.*
- *Inform and stimulate the transformational debate within the Alliance and the nations.*

3. *The key drivers that will effect the future strategic environment are globalization, the increasing sophistication of asymmetric warfare, the effects of changing demography and environment, failing states, radical ideologies and unresolved conflicts. The Alliance will respond militarily more frequently in addressing global threats to its interests within this strategic environment. To be successful, a more holistic approach to future operations involving political, military, civil, and economic means must be adopted. Further, a broad, multi-dimensional concept of security must include roles such as conflict prevention, crisis and consequence management, peacekeeping, support to peacemaking, disaster response and humanitarian assistance. Intelligence collection, analysis, dissemination and sharing will be critical in reducing the decision time between recognising a security risk and executing the desired course of action. Greater political accountability, and a continuing requirement to maintain public support, will demand swift success with minimal collateral damage. Military forces must be rapidly tailorable to respond to challenges with speed, precision and flexibility and be deployable wherever they are needed. Although asymmetric threats from state and non-state actors may constitute the most immediate security risk, the Alliance must retain the capability and interoperability to conduct high intensity operations. Finally, the Alliance should structure for the most likely operations and adapt these structures for the most demanding.*

4. *Future operations will be more complex and multidimensional. The planning and execution of operations will be an increasingly joint and multilateral effort requiring truly interoperable forces. To support this end, the use of Alliance forces must change from a pattern of deconfliction to one of integration where emerging technologies and concepts, like the network-enabled capability, are increasingly used to improve the competitive advantage of the Alliance. Further, the Alliance must maximise the contributions of Partners and coalition members while ensuring that its strategic military policies and activities complement those of other international and regional organisations. The requirement for*

sustained military dialogue, consultation and co-operation in regions of strategic interest will be of critical importance. Finally, doctrine and procedures to operate in post-combat and post-conflict environments must be further developed, as these areas become an ongoing part of Alliance operations.

5. Future military forces must be agile, joint and expeditionary in character and design. They must be capable of operating across the spectrum of conflict, rapidly deployable and sustainable for whatever duration and tempo of operations, technologically superior, supported via an integrated logistics system and capable of operating in a networked environment. These forces must be rapidly tailorable and fully interoperable with other military forces and capable of interacting seamlessly with civil authorities, non-governmental organisations and other agencies in the joint operations area. Success in such a complex environment will require a highly educated and trained force that possesses a full array of specialist skills.

6. Given the emerging environment, future Alliance operations will be more efficiently conducted by adopting an effects-based approach. An effects-based approach involves the comprehensive integrated application of all instruments of Alliance power, both military and non-military, to create campaign effects which will achieve desired outcomes. This approach can be adopted at all levels of command and across the spectrum of conflict.

7. The capabilities required to be successful in the future environment and to adopt an effects-based approach to operations include: improving intelligence and information sharing as well as the ability to anticipate and react, developing network-enabled capabilities based on a robust and flexible CIS foundation, increasing the number of deployable forces that possess the flexibility to rapidly transition between warfighting and peacekeeping, improving the ability of forces to co-ordinate and co-operate with civil authorities and agencies during operations at all levels, improving the ability of forces to conduct post-conflict operations, and investment in interoperable logistics systems.

8. To achieve the widespread integration necessary to conduct effects-based operations will require forces and capabilities that are characterised by the achievement of three goals: Decision Superiority, Coherent Effects, and Joint Deployment and Sustainment. Furthermore, concepts and capabilities will be developed in a series of transformation objective areas linked through a concept for future joint operations. These areas provide a logical basis for organising and linking the many concepts, applications, capabilities and programs necessary to transform forces.

9. "Strategic Vision: The Military Challenge" provides the basis for future conceptual work. It provides a context for experimenting with new forces, concepts and capabilities, and establishing an environment that provides funding and direction for research and doctrine. In conclusion, this paper is offered to stimulate the transformational debate within the Alliance and be part of the iterative process of transformation. As a living document, it will be updated to reflect the views of the Strategic Commanders as they evolve over time.

PART 1: INTRODUCTION

1. The Alliance core mission of providing collective defence to protect the security interests of its members remains as relevant today as it was in the past. The nature of the mission, however, has changed and will continue to evolve as the Alliance adapts to the new security environment. The global threat of terrorism, the potential use of WMD and regional instability are profound security challenges of the 21st Century. Combating those threats will change the nature of conflict and require the continual adaptation of forces, concepts and capabilities over the coming decades. The Alliance decision to meet threats "from wherever they may come" will demand a more global outlook in response to crises and a requirement to project security wherever directed by the North Atlantic Council. To prepare now for an uncertain future, necessitates a strategic vision to guide the continuing transformation of Alliance forces, concepts and capabilities.

2. The aim of "Strategic Vision: The Military Challenge" is to provide a vision of the way in which future Alliance operations will be planned and conducted and thereby guide the transformation of forces, concepts and capabilities in the coming decades.

3. The objectives of this paper are to:

- Describe the nature of future conflict and the forces, concepts and capabilities that the Alliance is likely to need to plan and conduct successful operations in the next 15 years.
- Assist transformation by providing broad guidance for the long-term development of Alliance forces, concepts and capabilities.
- Provide a conceptual framework to assist in the overall defence planning processes and reinvestment decisions within both the Alliance and nations.
- Provide a context for experimentation with new concepts and capabilities and a focus for research and development.
- Provide a capstone document from which future conceptual work will cascade.
- Inform and stimulate the transformational debate within the Alliance and the nations.

4. This document provides a strategic vision out to 15 years. It considers the key factors in the strategic environment that are likely to drive changes in the global security situation and identifies the likely future risks and challenges. It highlights the acceleration in technological development and assesses what effects this will have on the nature of military operations for both the Alliance and its adversaries. The paper identifies the implications for

the Alliance and, in particular, for military forces, concepts and capabilities. Finally, it provides a framework for transformation that establishes goals and objectives to guide the process of change that will help the nations deliver more capable future forces.



PART 2: THE FUTURE STRATEGIC AND MILITARY ENVIRONMENT

Strategic Considerations

5. With the requirement to meet threats from wherever they may come, the Alliance will operate in a wider strategic environment that is influenced by several key factors and drivers for change. Foremost among these are: globalisation, the increasing sophistication of asymmetric warfare, the effects of changing demography and environment, failing states, radical ideologies and unresolved conflicts. These factors are liable to lead to shocks to Alliance security interests over the next 15 years, particularly as tensions, crises and conflicts will continue to occur with little warning. In those cases where the interests or security of its members are threatened, to include state versus state conflict, the Alliance must be prepared to act.

6. Continuing globalisation will make the nations of the Alliance more dependent on broad stability elsewhere in the world. Furthermore, the impact of regional unrest will be magnified as the 'information age' network provides a conduit through which public information can pass and unrest can be observed globally. Terrorists and extremist groups can use these networks to foster unrest and discontent through targeted information campaigns that exert pressure upon Allies. The Alliance can expect to operate for an extended period of time in regions where sophisticated indigenous media competes for influence over the perceptions of local and international audiences. Those best able to influence effectively the understanding of a crisis or conflict will likely gain the initiative.

7. Asymmetric warfare is becoming increasingly sophisticated, and, enabled by access to technology, it can achieve disproportionate effects. As access to current and emerging technology becomes more widespread, there will be greater opportunities for potential adversaries to develop effective unconventional means, including those of mass effects and disruption, for direct and indirect attack on Alliance nations. This approach provides adversaries with new avenues to pursue their causes, especially when some are prepared to undertake suicide attacks. Given these trends, proliferation of weapons of mass destruction by a growing range of state and non-state actors is cause for increasing concern.

8. Demographic differences related to the differences in life span and population growth between the developing and developed world will continue. This condition may lead to significant migratory pressures from one to the other, thus increasing ethnic tensions and putting stress on employment and welfare systems. Environmental factors, in particular increasing energy demands, continued reliance on fossil fuels and the increasing demand for water and food cannot be ignored. Impoverishment and inequitable distribution of these resources fosters grievances, provokes extremists and offers an opportunity for organised crime to further threaten security. Poverty, hunger and disease prevail in much of the developing world and contribute to the increasing stress in the security environment.

9. Fragmenting and failing states resulting from economic collapse, competition for resources, bad governance, and failed infrastructure will continue to be sources of crisis and instability. Failing states raise serious security concerns due to their lack of internal controls or border security. An increase in the proliferation of weapons and the entry of non-state actors, including criminals and terrorists, may result. Under such conditions, failing states may become sanctuaries for groups supporting transnational terrorism and organised crime. These entities have the potential to undermine the security of the Alliance in a world where concern for personal and collective security is gaining prominence over traditional defence of territory. Thus, failed states that have little significance in the traditional sense of strategic resources or geographical position, can take on strategic value by virtue of the potential base for operations they offer to powerful non-state actors.

10. Groups supporting radical ideologies and their willingness to use any measure of force to bring about change will continue to threaten the security interests of the Alliance. Unresolved conflicts in several areas of the world can generate support for some of these extremist groups. The complexity of these unresolved conflicts will

continue to require the involvement of Alliance nations.

Military Implications

11. The Alliance has adopted a more holistic approach that deals with a full range of potential missions spanning the spectrum of conflict from crisis prevention to humanitarian operations through to high intensity warfare. This reinforces the need for a concerted and co-ordinated political, military, civil and economic approach. The military forces of the Alliance will operate in a multilateral environment alongside forces of other countries in close co-operation and co-ordination with a wide array of international, national and non-governmental organisations. Future military operations linked to other informational, economic, social, legal and diplomatic initiatives will need to be implemented in a measured, co-ordinated and co-operative fashion.

12. Although large-scale conventional aggression against the Allies is unlikely, the possibility of such a demanding threat emerging over the longer term cannot be discounted. The Alliance also may choose to respond to attacks on security interests outside the Euro-Atlantic region or intercede in conflicts between nations requiring the conduct of high intensity operations. Therefore, although asymmetric threats from state and non-state actors may constitute the most immediate security risk, the Alliance must retain the capability to conduct high intensity operations in order to cope with more demanding conventional threats.



13. A broad and multi-dimensional concept of security has military implications that go well beyond traditional preoccupations with territorial defence, and places an increasing focus on roles such as conflict prevention, crisis management, consequence management, peace

keeping and peace enforcement, support to peacemaking, disaster response, and humanitarian assistance roles. This concept will enable the Alliance to take an increasingly active role in crisis management. Intrastate conflicts can expand rapidly into wider conflagrations that threaten the security interests of the Alliance. Because the complexity of developing security threats only increases with time, efforts to anticipate impending crises and timely actions taken to prevent or avoid crises will improve the Alliance's ability to respond effectively.

14. Intelligence collection, analysis, dissemination and sharing will be critical to anticipating and, possibly, preventing or containing conflicts. A full understanding of the operational environment and a proactive approach in the earliest stages of emerging crises will be required. This assessment will support increased situational awareness for decision-makers and will be supported by a secure information network for enhanced intelligence sharing and collaboration in rapidly evolving situations. Improvements in all aspects of the decision cycle must be made so that the time between the anticipation of a risk or threat, and the definition and execution of a course of action can be shortened.



15. A growing public awareness and impatience brought about by the greater accessibility of information coupled with the political necessity of maintaining public support have led to mounting political constraints on military operations, while at the same time, increasing the need to achieve rapid success. Additionally, a sensitivity to casualties and the need to limit collateral and environmental damage to the lowest possible levels, despite facing adversaries who are less constrained, will force the Alliance to conduct operations at higher levels of effectiveness with more precisely targeted lethal and non-lethal weapons. Thus, these factors and their legal codification will increasingly influence military operations as well as reinforce the need for accountability and proportionality. Within this context, the military forces of the Alliance must be capable of operating under close media and public scrutiny requiring greater transparency and openness.

16. The Alliance must adapt its military posture to respond to challenges with speed, precision and flexibility, so that forces can be effectively deployed wherever they are needed. The posture must provide the Alliance with a broad set of capabilities that will project stability, assure nations and Partners, dissuade adversaries, deter aggression and, if necessary, defeat an adversary across the spectrum of conflict. In particular, the Alliance must be capable, in concert with other organisations, of countering weapons proliferation and asymmetric threats from terrorism. The Alliance should structure for the most likely operations and adapt these structures for the most demanding. The command and force structure must be expeditionary in character and design and be capable of conducting a higher number of smaller, concurrent operations at some distance from home bases as well as sustaining operations over long periods of time. A greater proportion of Alliance forces will have to be deployable and usable, and have the flexibility to transition rapidly between warfighting to peacekeeping. The overall numbers of Alliance forces may decrease, but this reduction must be met with a corresponding investment in quality.



Key Points

- *The strategic environment will generate more frequent Alliance military responses to global threats.*
- *The key drivers that will affect the future strategic environment are globalisation and the increasing sophistication of asymmetric warfare, the effects of changing demography and environment, failing states, radical ideologies, and unresolved conflicts.*
- *A holistic approach to future operations involving political, military, civil, and economic means should be used to achieve results.*
- *Though a large conventional threat to the Alliance is remote, the possibility still exists. The Alliance must remain capable of dealing with the emergence of such a threat given the unacceptable implications of ignoring it.*
- *Intelligence collection, analysis, dissemination and sharing will be critical.*
- *The time between the decision to respond to a recognised security risk and the execution of a corresponding course of action must be shortened.*
- *Military forces must be rapidly tailorable to respond to challenges with speed, precision and flexibility and be deployable and sustainable wherever they are needed.*
- *The Alliance should structure for the most likely operations and adapt these structures for the most demanding.*

PART 3: FUTURE OPERATIONS, FORCES AND CONCEPTS

Operations

17. Meeting the military challenges outlined in the previous section will require a fresh approach to preparing for and executing Alliance operations. The planning and execution of future operations will require an increasingly joint and multilateral approach. Not only will there be greater coordination between all components of the joint force, but also greater involvement of international, governmental and non-governmental organisations in a multilateral effort. The challenge of ensuring that multinational forces are truly interoperable goes beyond matching equipments; it requires closer links between people, a systematic program of joint training, and a common understanding of joint concepts and doctrine.



18. Future operations will be more complex and multi-dimensional, as forces adapt rapidly to changing operational scenarios from high intensity, lethal combat to stabilisation and peacekeeping operations. Military activities in future theatres may occur simultaneously at many points along the spectrum of conflict. Advances in information systems, collaborative tools, situational awareness, space systems and military hardware, will allow military operations to be planned and executed at a higher tempo. Information operations will be increasingly applicable as the extensive use of and reliance upon information and its associated processes and systems creates both vulnerabilities and opportunities for the Alliance and its adversaries.

19. The Alliance must derive full benefit from emerging technologies to maintain its technological and operational advantage. Technology can act as a force multiplier. It can provide the Alliance with the ability to reconfigure forces and equipment rapidly to deliver critical effect at the right moment. In addition, collection, management and sharing of intelligence through a net work-enabled capability based on robust Alliance

command and control systems will drive changes in the organisational structure of combat units, formations and headquarters. Research and development should focus on the exploitation of nano-technology, power sources, space, advanced sensors, information and bio technology and robotics.

20. In order to maximise their contributions, the forces of Partners and other coalition members will have to be incorporated into operations as quickly and as seamlessly as possible. The challenge will be to reconcile any interoperability gap by finding ways to integrate less advanced forces. This will require technological resources and a continuous, deliberate programme of training and education. Achieving this will increase operational effectiveness and promote a more equitable division of risk and burden within the limitations of the contributed military forces. The development of specialist capabilities may provide avenues for some nations to provide valuable contributions.

21. The Alliance will have to continue to ensure that its strategic military policies and activities complement those of other international and regional organisations, particularly the United Nations, the Organisation for Security and Cooperation in Europe and the European Union. This will require that military operations are conducted under a sound legal basis and enjoy widespread legitimacy within the international community. Close co-operation and co-ordination between the Alliance and international organisations in all phases of operations will be especially important. The common objectives of peace and stability will be attained more rapidly by maximising the effective use of the political, military, civil and economic strengths of each organisation. Military dialogue, consultation and co-operation with military forces and other organisations in regions of strategic interest will be an ongoing requirement.

22. In the coming decades, military forces will engage in post-combat activities to promote stabilisation, reconstruction and reconciliation as part of an integrated strategic approach. The emphasis in these circumstances will likely be less on the use of combat forces and more on combat support and combat service support forces. The Alliance also may become involved by providing command structures and nuclei for larger forces to support post-conflict management. The transition through combat to post-conflict operations will pose significant challenges to the forces involved and will require increasing emphasis in training, doctrine and planning. In the time between the draw down of combat operations and the restoration of civil authority, numerous civil tasks may require support from military forces.



Key Points

- Operations will be more complex and multidimensional.
- Emerging technologies must be harnessed to maintain a competitive advantage.
- Efforts must be made to optimise the contributions of Partners and coalition members.
- The Alliance must continue to ensure that its strategic military policies and activities complement those of other international and regional organisations.
- Operations must have a sound legal basis and legitimacy within the international community.
- Military dialogue, consultation and co-operation in regions of strategic interest will be an ongoing requirement.
- Doctrine and procedures to operate in post-combat and post-conflict scenarios must be further developed.

Forces

23. Future forces will need to be agile, joint and expeditionary in character and design. They will need to be capable of operating across the spectrum of conflict, be rapidly deployable and be sustainable for whatever duration and tempo of operations is required. They should be technologically superior, supported by integrated, multinational logistics and be able to operate within a networked environment. They will need to be able to adapt to changing circumstances and rapidly reconfigure, calling upon a diverse range of skills to meet mission requirements. They must be fully interoperable with other military forces and capable of interacting seamlessly with civil authorities, non-governmental organisations and other agencies in the joint operations area. There will be greater call on specialist skills in areas such as engineering, communications, radiological, biological and chemical defence, special operations, civil-military cooperation, logistics and medical services. In the future, the individual joint elements of Alliance forces will be integrated rather than deconflicted.

24. Highly educated and trained officers and Non-Commissioned Officers (NCO) will be essential to operate in complex environments and will require higher and more specific levels of training. Over time, this may necessitate a transition within some nations to a more professional force. Reserve forces also will be crucial to the conduct and sustainment of long-term operations and, provided genuine readiness levels can be maintained, may also provide an avenue to address important specialist tasks.



Key Points

Operations will require military forces that are:

- Agile, joint and expeditionary in character and design.
- Capable of operating across the spectrum of conflict, be rapidly deployable and sustainable for whatever duration and tempo of operations.
- Technologically superior, supported by integrated logistics and capable of operating in a networked environment.
- Rapidly reconfigurable, fully interoperable and capable of interacting seamlessly with civil authorities, non-governmental organisations and other agencies in the joint operations area.
- Possess a full array of specialist skills.
- Integrated rather than deconflicted.

A highly educated and trained officer and NCO corps will be essential to operate in complex environments.

Concepts

25. Complex and uncertain challenges in the strategic environment will demand new ways of thinking, planning and acting. Driven by political constraints, legal influences, and with the availability of new technological capabilities, the focus will increasingly be on the effects that need to be created in order to achieve the strategic campaign objectives. Given these factors, future Alliance operations will be more efficiently conducted by adopting an effects-based approach.

An effects-based approach involves the comprehensive integrated application of all instruments of Alliance power, both military and non-military, to create campaign effects which will achieve desired outcomes.

26. The individual elements that comprise an effects-based approach are not new, rather it is a philosophical change in the way to plan and conduct operations. It puts a stronger focus on cause and effect versus target-centric attrition. It involves the coherent planning and execution of actions by all involved organisations, together with the use of modern technology, that brings new possibilities to the way future operations will be conducted. This approach can be adopted at all levels of command and across the spectrum of conflict. At the strategic level, it would involve the application of military capabilities in conjunction with all instruments of Alliance power - political, civil and economic. At the operational and tactical levels, it involves the selective combination

of lethal and non-lethal, kinetic and non-kinetic means to create campaign effects.

27. An effects-based approach to operations concentrates on the achievement of a strategic endstate, throughout all phases of an operation, from pre-crisis, through high-intensity to post-conflict activity. In high intensity environments, for example, effects-based operations focus on the creation of effects that reduce an adversary's operational coherence, neutralise his capabilities, shape his perceptions and break his will to fight. Thus the adversary is viewed from a holistic perspective where key vulnerabilities are identified in order to be engaged by the most appropriate means. Under this construct, the emphasis is no longer just on numbers, but on quality forces achieving overmatching power through the combination of knowledge, speed, precision, and lethality applied in a joint context. Thus, the aim would be for warfighting operations to be executed with unprecedented tempo, fewer forces, minimal casualties and less collateral damage.



28. From an analysis of the elements of an effects-based approach to operations, the conduct of such operations will require forces and capabilities that are characterised by the ability to achieve decision superiority, coherent effects and joint deployment and sustainment.

a. Decision Superiority. The state in which better-informed decisions are made and implemented faster than an adversary can react, allowing the future joint force commander to shape the environment to best fit his needs and objectives. Decision superiority is critically dependent on achieving and maintaining a position of information dominance and shared situational awareness during all phases of an operation. It enables a better

understanding of the operational situation than the adversary, which means that the pace, coherence and effectiveness of operations can be dramatically improved. Decision cycles once measured in days will reduce to hours and perhaps minutes.

b. Coherent Effects. The state in which military forces are able to integrate their capabilities with all the instruments of Alliance power to rapidly produce desired effects. Greater operational coherence will be achieved by more closely harmonising military efforts with international, national, and non-governmental agencies operating in the theatre of operations. Coherent military effects are dependent on the ability to effectively locate, observe, discern, and track objectives or targets; generate desired effects; assess results; and, reengage with decisive speed. More effective engagement at the earliest stages of a crisis will require better situational awareness and be achieved through continuous analyses, dialogue and consultation with nations and militaries in possible conflict areas.

c. Joint Deployment and Sustainment. The state in which the Alliance can deploy mission-tailored military forces in a timely manner wherever they are needed and conduct continuous, distributed, non-contiguous operations throughout an area of operations. Once deployed, the Alliance will be able to sustain these forces over distance for as long as required across the spectrum of conflict.



Key Points

The conduct of effects-based operations will require forces and capabilities that are characterised by their ability to achieve:

- Decision Superiority,
- Coherent Effects, and
- Joint Deployment and Sustainment.

PART 4: CAPABILITIES

29. The Alliance's continued effectiveness in meeting future military challenges rests upon its ability to transform its capabilities in order to prevail in the complex future environment. Legacy capabilities must continue to be judged against their utility in future operations. It is clear that the relevance of capabilities, such as those required for territorial defence against large-scale aggression and certain in-place non-deployable assets, will reduce. All new and enduring capabilities should offer multiple advantages if possible, be capable of being

networked if appropriate, and must be configured for joint operations.

Capabilities Required to Achieve Decision Superiority

30. As the Alliance moves into the 'information age', new command and control systems must be developed to allow superior information to be translated into actionable knowledge, and so facilitate faster planning, better decisions and more decisive effects. Decision superiority depends on accurate and timely information and the means to securely exchange and interpret it in a commonly agreed way. Intelligence collection, analysis, dissemination and sharing among nations provide the essential framework upon which decision superiority is built. The Alliance must develop the capability to acquire intelligence persistently, and carry out surveillance, reconnaissance and target acquisition activities at all levels of command in order to identify evolving threats as early as possible. Furthermore, it must develop the ability to gather and exploit all-source intelligence, including that derived from space-based systems, on a complex, mobile and elusive set of targets. Decision superiority necessitates a force that is organised, trained and equipped to operate in a collaborative, globally integrated common operational network. This network must link military forces, government and non-government agencies, and others in a seamless planning, assessment and execution environment. The provision of enabling technology to provide for the seamless exchange of information is critical. Interoperability and interconnectivity will be key enablers to achieving decision superiority.



31. Effective decision-making requires a net assessment capability that harnesses the current political, military, economic, civil, information and infrastructure factors that affect all actors. It also must provide a centralised

repository from which links can be identified between objectives and effects. Decision-support tools, knowledge fusion, and horizontal and vertical integration of situational awareness will improve clarity and assist decision-makers. In order to facilitate this assessment, national and Alliance intelligence sharing processes and procedures will be essential.

32. Network-enabled capability is critical to the rapid delivery of military effects and will allow powerful new combinations of combat power. It provides an ability to deliver precise and decisive military effects with unparalleled speed and accuracy through linking sensors, decision makers and weapons systems. When implemented, it will allow commanders to conduct operations across the spectrum with greater awareness, confidence and control. It relies upon the ability to collect, fuse and analyse relevant information in near real time so as to allow rapid decision making and the rapid delivery of the most desired effect.

From the foregoing discussion, two transformation objective areas can be derived: Information Superiority and Network-Enabled Capability.

Capabilities Required to Achieve Coherent Effects

33. The achievement of coherent effects is supported by the integration of political, military, civil and economic processes that are needed to bring all instruments of power of the Alliance into focus. In a multilateral environment, this requires multinational interagency collaboration and civil-military co-operation. Effective engagement including lethal and non-lethal means that can be precisely and rapidly targeted on developed threats will be crucial. Enhanced interoperability throughout a military force structure that is organisationally flexible is required. These components will be increasingly comprised of flexible and ready, deployable forces able to perform combined and joint manoeuvre to maximise their effect. To further enhance these forces, the ability to integrate the partners and members of coalitions will be important, as will a mechanism for the Alliance to extend military co-operation and consultation to areas of possible conflict.

34. Effective engagement and joint manoeuvre can be described as the prosecution of the right target, in the right manner, at the right time, for the right reason to achieve the right effect. Increasingly, accurate weapons, supported by precise targeting, will be used to create the desired effects by lethal or non-lethal means, causing minimal damage to civilian infrastructure or loss of life. A high priority in Alliance research and development, procurement and training must be given to

accurate weapons and precise targeting methods. By leveraging knowledge and decision superiority with effective engagement and joint manoeuvre, the Alliance will significantly increase the speed and efficacy of its operations. Importantly, this capability will also facilitate rapid post-conflict stabilisation and reconstruction.

35. New capabilities required to succeed in low-intensity conflicts must be acquired, as it is likely that peace support, stabilisation and reconstruction operations will be the most frequent actions undertaken in the future. The harmonising of military activities with those of civil organisations will be of particular importance. To achieve this, forces must have the tools and training required to conduct enhanced civil-military co-operation in all phases of an operation and across the spectrum of conflict.

From the foregoing discussion, three transformation objective areas can be derived: Effective Engagement, Joint Manoeuvre and Enhanced Civil-Military Co-operation.

Capabilities Required to Achieve Joint Deployment and Sustainment

36. Since risks and conflicts outside the Euro-Atlantic area will dominate future military operations, Alliance forces must be increasingly expeditionary in character and design. Improved deployability of tailored, mission-ready forces will allow greater flexibility in decision-making, the creation of desired effects and a reduction in the footprint of the deployed force. This includes improvements in speed, range, volume and equipment design which will likely focus on strategic and theatre lift. Deployability will be a key element in unit organisation, logistics support and conduct of training and exercises.

37. Integrated logistics, enabled by seamless, adaptive, joint multinational logistics capabilities, will be the core element of collective support to operations. Future logistics systems will remotely monitor the condition and usage of equipment, issue spares and initiate new requisitions. This process will allow military logistics assets to be more effectively assigned and prioritised across the spectrum of military and non-military logistics providers. Forces must be initially self-sufficient in order to reduce early demands on logistic systems and to operate through interruptions in normal support. Further supply-chain integration will be enhanced through increasing compatibility, interchangeability, commonality, reliability and serviceability of equipment. Finally, the balance between combat, combat support and combat service support units must be constantly monitored and adjusted to efficiently meet changing mission requirements.

From the foregoing discussion, two transformation objective areas can be derived: Expeditionary Operations and Integrated Logistics.

Enduring Capabilities

38. Force protection and survivability will continue as critical force enablers, especially in a chemical, biological, radiological or nuclear environment. Continued research, concept development and procurement in these areas are important. The Alliance must maintain a technological advantage by developing new capabilities to out-pace potential threats created by the proliferation of new technologies. These include countering weapons of mass effect and other asymmetric threats linked to the information age.

39. Alliance military forces must retain the ability to conduct high intensity conflict, halt inter-state warfare, restore peace where there is regional instability, and comply with the collective defence requirements of Article 5. This includes maintaining an Alliance nuclear capability as a deterrent against a threat of weapons of mass destruction from states or other actors that may use them as leverage to gain advantage. Capabilities to deal with the weapons proliferation and the consequences of their possible use must gain priority.



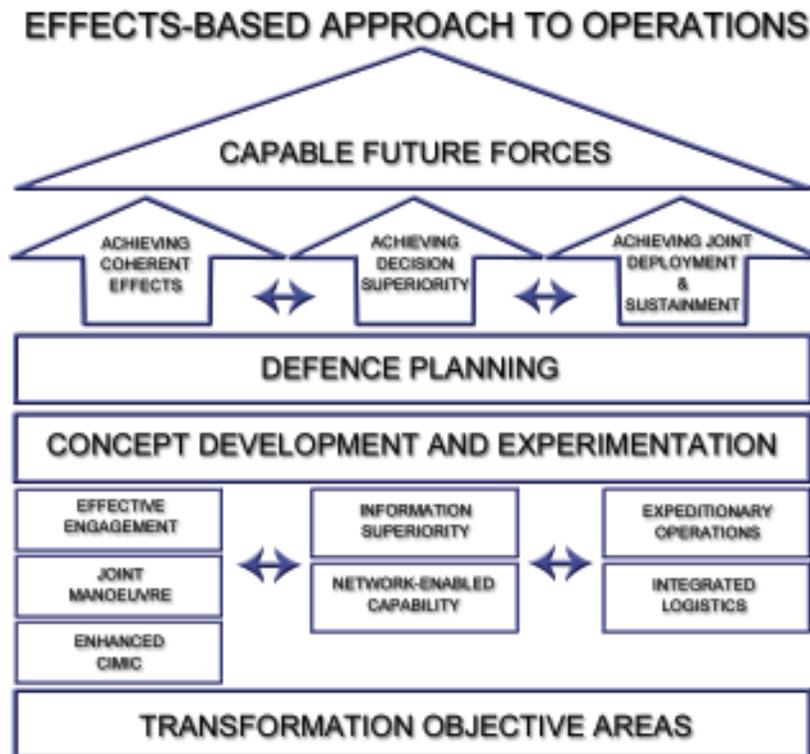
Key Points

To successfully counter future threats, the Alliance must develop the following capabilities:

- Ability to acquire and share intelligence, and carry out surveillance, reconnaissance and target acquisition at all levels of command;
- A net assessment system to identify key systems and design desired effects and assess their subsequent impact;
- Ability to conduct robust and synchronised information activities at all levels;
- Accurate weapons and precise targeting methods;
- A military force structure that is modular and flexible to meet mission requirements;
- Air and sealift to meet future deployability requirements;
- Integrated logistics to support expeditionary operations;
- Ability to successfully conduct operations within a chemical, biological, radiological or nuclear environment;
- Ability to counter potential threats created by emerging technologies;
- Provide force protection of both military and civilian populations.

PART 5: FRAMEWORK FOR TRANSFORMATION

40. The military challenge for the Alliance will be to develop future forces capable of undertaking an effects-based approach to operations. Nations and the Alliance will need to adapt current forces, concepts and capabilities which will affect all aspects of planning and preparing, generating, training, deploying, employing and sustaining military forces. This will require a framework for transformation.



Framework for Transformation

41. As part of this framework, the characteristics required to conduct an effects-based approach to operations can be expressed as three goals: achieving decision superiority, achieving coherent effects, and achieving joint deployment and sustainment. Furthermore, concepts and capabilities will be developed in a series of transformation objective areas linked through a concept for future joint operations. These areas provide a logical basis for organising and linking the many concepts, applications, capabilities and programs necessary to transform forces.

42. Research and development will be focused on capabilities to better enable an effects-based approach. This, coupled with a targeted programme of experimentation, will test the most promising transformational concepts and will be accomplished early in the development process. Spiral development will allow those

elements of emerging concepts with the most potential to be fielded as they are validated. These concepts will be translated into requirements and plans through the defence planning process and incorporated into training programmes set within the context of an effects-based approach to operations across the spectrum of conflict.



Key Points

Concepts and capabilities will be developed in transformation objective areas in order to achieve the transformation goals:

- Information Superiority
- Network-Enabled Capability
- Effective Engagement
- Joint Manoeuvre
- Enhanced CIMIC
- Expeditionary Operations
- Integrated Logistics

A focused research and experimentation programme will be essential to achieving the goals.

Validated concepts will be translated into requirements and plans through the defence planning process and incorporated into training programmes.



WAY AHEAD

43. This paper will provide the basis for future conceptual work. It will provide a context for experiments with new concepts and capabilities, and a focus for development of research and doctrine. It also will stimulate the transformational debate within the Alliance and be part of the iterative process of transformation. Finally, it will be updated to reflect the views of the Strategic Commanders as they evolve over time.

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