ALLIED JOINT DOCTRINE FOR
OPERATIONAL-LEVEL PLANNING

WITH UK NATIONAL ELEMENTS
(Intentionally blank)
ALLIED JOINT DOCTRINE FOR
OPERATIONAL-LEVEL PLANNING

JUNE 2013
(Intentionally blank)
1. The enclosed Allied Joint Publication AJP-5, ALLIED JOINT
DOCTRINE FOR OPERATIONAL-LEVEL PLANNING, which has been
approved by the nations in the MCJSB, is promulgated herewith. The
agreement of nations to use this publication is recorded in STANAG 2526.

2. AJP-5 is effective upon receipt.

3. No part of this publication may be reproduced, stored in a retrieval
system, used commercially, adapted, or transmitted in any form or by any
means, electronic, mechanical, photo-copying, recording or otherwise,
without the prior permission of the publisher. With the exception of
commercial sales, this does not apply to member nations and Partnership for
Peace countries, or NATO commands and bodies.

4. This publication shall be handled in accordance with C-M(2002)60.

Dr. Cihangir AKSIT, TUR Civ
Director NATO Standardization Agency
(Intentionally blank)
Allied Joint Publication-5

Allied Joint Doctrine for Operational-Level Planning

Allied Joint Publication-5 (AJP-5), dated June 2013, is promulgated in the United Kingdom in accordance with the UK national comment as directed by the Chiefs of Staff

Director Concepts and Doctrine
Adopting NATO Doctrine

NATO underpins the defence of the UK and our allies, while also providing deployable, expeditionary capabilities to support and defend our interests further afield. European Security and Defence Policy specifies that NATO doctrine should be used in European Union-led military operations.

DCDC plays a leading role in producing NATO doctrine. We hold custodianship for ten NATO AJPs and participate actively in producing all others. However, until now, most NATO doctrine has been mirrored by equivalent, but different, UK Joint Doctrine Publications (JDPs). This has caused a dilemma for our Armed Forces who are most frequently committed to operations as part of NATO-based coalitions.

With defence budgets reducing across Europe, the need to achieve maximum coherence and interoperability with, and between, our closest allies and partners has only increased. NATO is the institution best placed to help us achieve this. To that end, in July 2012, the Chief of the Defence Staff and the Permanent Under Secretary issued clear direction on how the UK’s contribution to NATO could be further improved, stating that:

‘We should use NATO doctrine wherever we can, and ensure coherence of UK doctrine with NATO wherever we cannot.’

In response, DCDC undertook a systematic study of the differences between NATO and UK joint doctrine and revised the UK doctrine architecture. Our doctrine now comprises:

- NATO AJPs (may have directly replaced a JDP equivalent);
- NATO AJPs with UK caveats or supplements where necessary in the form of ‘green pages/paragraphs’; and
- national doctrine (JDPs).

Where AJPs are adopted in lieu of a UK JDP, they will have a split cover with both DCDC and NATO livery and publication numbers. Some publications will have only the NATO approved text. Others will include UK text, diagrams, vignettes and even photographs, all with a green background or border to distinguish it. These additions will be made to explain a particular
UK approach to operations, to aid understanding or to increase appeal/interest. No NATO text (against a white background) will be altered or removed. UK green inserts take precedence over NATO doctrine where competing terms and concepts differ. This move re-enforces the UK’s commitment to NATO and gives our Armed Forces greater interoperability within the coalition than before. We welcome feedback on this, or any other subjects, relating to joint doctrine. Please address correspondence to the DCDC Doctrine Coordinator at:

The Development, Concepts and Doctrine Centre, Ministry of Defence Shrivenham, SWINDON, Wiltshire, SN6 8RF.
# RECORD OF CHANGES

<table>
<thead>
<tr>
<th>Change date</th>
<th>Date entered</th>
<th>Effective date</th>
<th>By whom entered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(Intentionally blank)
PREFACE

1. The successful planning of military operations requires clearly understood and widely accepted doctrine. It is especially important for joint operations that will be conducted by multinational forces. Allied Joint Publication (AJP) -5 is intended primarily for use by North Atlantic Treaty Organization (NATO) forces and for NATO-led operations. This doctrine is also available for operations conducted by a coalition of NATO members and partner nations.

2. AJP-5 is aimed primarily at those engaged in operational-level planning, specifically commanders and staffs employed in joint force command headquarters and component command headquarters. It describes the fundamental aspects of planning joint operations at the operational level.

3. The wider audience of this publication encompasses those affected by joint planning; strategic command level staffs, International Military Staff elements and those headquarters operating at the high end of the tactical level.

4. This publication reflects a clear linkage to the capstone Allied Joint Doctrine publication AJP-01 ‘Allied Joint Doctrine’, as well as the other NATO doctrinal keystone publications: AJP-3 ‘Allied Joint Doctrine for the Conduct of Operations’, and the AJP-4 ‘Allied Joint Doctrine for Logistics’. Additionally, the AJP-3.4.9 ‘Allied Joint Doctrine for Civil-Military Cooperation (CIMIC)’ was harmonized with AJP-5.

5. The policy and strategic guidance for this joint publication is derived from the Military Committee (MC) 0133/4 document, ‘NATO’s Operations Planning’. It describes how planning activities and processes are integrated and coordinated to support decision-making and the production of plans, orders and directives for Allied joint operations in any type of environment.

6. AJP-5 ‘Allied Joint Doctrine for Operational-Level Planning’ will become part of NATO’s operations planning architecture. It presents an overarching framework of the key planning principles, considerations
and process steps that are followed in operational-level planning. When promulgated, AJP-5 will guide and inform a series of planning tools, notably the Allied Command Operations (ACO) Comprehensive Operations Planning Directive (COPD) and functional planning guides (FPG).

Joint Doctrine Publication (JDP) 01 Campaigning, and JDP 5-00 Campaign Planning are withdrawn when JDP 01, UK Joint Operations Doctrine and these UK national elements to AJP-5 are promulgated. You should refer to AJP-01, Allied Joint Doctrine for Operations, AJP-5 and the Allied Command Operations (ACO) Comprehensive Operations Planning Directive (COPD) for operational-level doctrine and procedures for both UK and NATO joint operations. The UK will retain JDP 3-00, Campaign Execution until the next edition of AJP-3 is published. NATO publications reflect our doctrinal approach in most places but, where there are differences or gaps, national publications, or the green text in the NATO publication, address them.

AJP-01:  
http://defenceintranet.diif.r.mil.uk/libraries/library1/MOD/Mar%202013/20130318-AJP01_D.pdf

JDP 01: insert link once uploaded

AJP 5:  
http://defenceintranet.diif.r.mil.uk/libraries/library1/MOD/July2013/20130730-AJP_5_Planning_secured.pdf

COPD:  

JDP 3-00:  
http://defenceintranet.diif.r.mil.uk/libraries/library1/MOD/Apr2013/20120829-jdp3_00_ed3_chg1.pdf

AJP-3, Allied Joint Doctrine for the Conduct of Operations.
# Allied Joint Doctrine for Operational-level Planning

## CONTENTS

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover</td>
</tr>
<tr>
<td>Title page</td>
</tr>
<tr>
<td>NSA letter of promulgation</td>
</tr>
<tr>
<td>National letter of promulgation</td>
</tr>
<tr>
<td>Record of changes</td>
</tr>
<tr>
<td>Preface</td>
</tr>
<tr>
<td>Contents</td>
</tr>
</tbody>
</table>

### Chapter 1 – NATO planning overview

- **Section I - Policy directing planning within NATO**
  - 1-1
- **Section II - Doctrinal principles in operations planning**
  - 1-3
- **Section III - Planning levels and categories**
  - 1-11
- **Section IV - Operations planning architecture**
  - 1-15
- **Section V - Purpose of operational-level planning**
  - 1-18
- **Section VI - NATO crisis management and planning process**
  - 1-23

### Chapter 2 – Operational art and design within operational-level planning

- **Section I - Operational-level framework and planning**
  - 2-1
- **Section II - Operational art, analysis and thinking**
  - 2-5
- **Section III - Scope and fundamentals of operational-level planning**
  - 2-44
- **Section IV - Operational design concepts and tools**
  - 2-60
- **Section V - Operational-level considerations of operational design**
  - 2-85
Chapter 3 – Conduct of the operational-level planning process

Section I – Introduction

Organization for operational-level planning

Information process, situational understanding and awareness

Section II - Step 1 – Initiation of the operational-level planning process

Operational appreciation

Operational advice

Section III - Step 2 – Problem and mission analysis

Development of the operational design

Estimates of initial force / capability and command and control

Commander’s planning guidance and operational planning directive

Section IV - Step 3 – Courses of action development

Assessment of opposing courses of action and other factors affecting development

Development of courses of action

Section V - Step 4 – Courses of action analysis

Analysis of courses of action

Wargaming

Section VI - Step 5 – Courses of action validation and comparison

Section VII - Step 6 – Commander’s courses of action decision

Section VIII - Step 7 – Concept and plan development

Production of the concept of operations

Force / capability requirements development

Development of the operation plan in general

Planning for the employment of joint forces

Planning for force protection
Section IX - Step 8 – Campaign assessment and plan review / revision
Monitoring campaign progress 3-90
Planning for conflict termination and transition 3-96
Section X - Operational-level planning process integration 3-98

Lexicon

Part I – Acronyms and Abbreviations Lex-1
Part II – Terms and Definitions Lex-5

List of reference publications Ref-1
CHAPTER 1 – NATO PLANNING OVERVIEW

Section I – Policy directing planning within NATO

0101. **Operations planning within NATO’s contribution to a comprehensive approach.** North Atlantic Treaty Organization’s (NATO’s) recent operations demonstrate that the international community must work together more closely than in the past and take a comprehensive approach\(^1\) to maintaining international peace and security. Such an approach requires the cooperation of all major actors, including international organizations (IO), non-governmental organizations (NGOs), agencies and relevant local bodies in the joint operations area. Effective implementation of any comprehensive action plan requires all actors to contribute in a concerted effort, based on a shared sense of responsibility, openness and determination; accounting for their respective strengths, mandates and roles, as well as their decision-making autonomy. To maximize the ability to operate within a comprehensive approach, the Alliance aims to improve the application of its crisis management response capabilities and enhance practical cooperation at all levels with other external actors, including provisions for support to stabilization and reconstruction. From the operational-level planning perspective the commander and staff must consider the impact of, and interaction with, other organisations and bodies involved in the crisis resolution process rather than focusing solely on opposing military forces. NATO policy states that at the operational level, the priority is to cooperate with other international actors in the overall planning for complex operations in which a large degree of civil-military interaction will be required.\(^2\) At the theatre level, NATO force commanders must be empowered to achieve effective cooperation and coordination with indigenous local authorities and in-theatre principals from other international actors while execution operations.

---


\(^2\) See PO(2011)0045.
0102. **Future challenges for NATO’s operational-level planning.**
Contemporary perspective suggests that future operations will be even more complex and multidimensional than at the present time, requiring forces to adapt rapidly to changing operational scenarios. Military activities in future operational areas may be required to occur simultaneously at many points along the spectrum of conflict. Advances in technology will allow military operations to be planned and executed at a higher tempo than in the previous era of military operations. Future theatres of operation may be required to establish longer lines of communications and have very limited host-nation support (HNS), if any at all. Meeting the military challenges will require a flexible approach to preparing and executing Allied joint operations. The nature of conflict is a nondeterministic endeavour whose outcome is never guaranteed. A key component of success in armed conflict is the skilful application of operational art by the commander. Subordinates should always be able to act in accordance with commander’s intent even in the absence of other instructions.

0103. **The aim.** The aim of NATO’s planning policy is to detail the system by which NATO initiates, develops, approves, executes, reviews, revises and cancels all categories of Alliance plans. Furthermore, it specifies multinational (MN) force activation and deployment requirements and transition procedures, including all activities that must be accomplished in planning for MN operations - the mobilization, deployment, employment, sustainment and redeployment of forces.

0104. **Scope.** The scope of NATO’s planning policy is to identify the various categories of operations planning and crisis management procedures necessary to support the full spectrum of NATO’s roles and missions. It defines the purpose of the planning categories and describes the architecture necessary for timely, efficient, standardised and coherent plan development. The scope describes the operations planning process (OPP) from the initiation of planning, through orientation, design, plan development, approval and execution, as well as addressing plan review, revision and cancellation. In doing so, it

---

3 For more detail in future threats, challenges and trends see Allied Joint Publication (AJP)-01(D), Chapter 2, Section II.
4 i.e. advance planning and crisis response planning in accordance with MC 0133/4.
considers those aspects of operations planning for complex emergencies by involving Partners, other non-NATO nations, IOs, NGOs and agencies in line with rules and procedures set forth in MC 133/4. The intent is to improve the Alliance’s ability to consult and, whenever possible, coordinate on all levels with other non-NATO actors who have different mandates and areas of competence. All this is effected from a strategic-level effort with an immediate impact at the operational level.

Section II – Doctrinal principles in operations planning

0105. Principles of Allied joint and multinational operations. The following key principles of operations must be considered when planning for Allied combined joint operations. They are not absolute, and the operational situation may demand greater emphasis on some more than others:

a. Definition of objectives. Combined joint operations should be directed towards clearly defined and commonly understood objectives that contribute toward achieving the desired end state. The mission and objectives should be defined with absolute clarity before operations begin.

b. Unity of purpose. MN operations depend on cooperation and coordination to realize maximum effort. Military forces achieve this principally through unity of command, which provides the necessary cohesion for planning and execution of operations. In a complex operational environment unity of command is rarely possible when the joint force commander (JFC) and his staff deal with non-military agencies. In these circumstances, unity of purpose and effort is more appropriate because goodwill, a common purpose, clearly defined and accepted divisions of responsibility, and an understanding of others’ capabilities and limitations become essential elements in maximizing collective effort.

---

5 Cf. AJP-01(D), Allied Joint Doctrine, Paragraph 0118.
c. **Sustainment.** Planning for sustainment at the operational-level also needs to consider relevant strategic and tactical factors. Ensuring a sound administrative baseline should be part of operational-level planning from the outset. Logistics will often be one of the most important factors in the development and selection of courses of action (COAs).

d. **Concentration of force.** Combat power should be concentrated at the decisive time and place to achieve decisive results. Superior force is not just a matter of numbers but also of fighting skills, cohesion, morale, timing, selection of objectives and the employment of advanced technology.

e. **Economy of effort.** This principle refers to the employment of resources in such a manner that a commander’s primary objectives can be achieved. This principle recognizes that decisive strength is to be applied in the areas where it will have most effect. Achievement of objectives cannot be compromised by applying effort to lower priority areas.

f. **Flexibility.** Plans should be sufficiently flexible to allow for the unexpected and to allow commanders freedom of action to respond to changing circumstances. This requires an understanding of the superior commanders’ intentions, flexibility, rapid decision-making, organization and good communications. Flexibility also demands physical mobility to allow forces to concentrate quickly at decisive times and places.

g. **Initiative.** Commanders should be encouraged to take the initiative without fearing the consequences of failure. At all levels, commanders must be given the freedom to use initiative and should in turn encourage subordinates to use theirs. This requires a training and operational culture that promotes an attitude of risk taking in order to win rather than to prevent defeat.

h. **Maintenance of morale.** Commanders should give their command an identity, promote self-esteem, inspire it with a sense of common purpose and unity of effort, and give it achievable
aims. High morale depends on good leadership which instils courage, energy, determination and care for the personnel entrusted.

i. **Surprise.** Surprise is built on speed, secrecy and deception used to strike an unprepared opposing actor. It is fundamental to the shattering of an adversary’s cohesion, achieving successful results that are disproportionate to the effort expended.

j. **Security.** Security enhances freedom of action by limiting vulnerability to hostile activities and threats. Active and passive security measures help to deny critical information to an adversary, assist with deception planning and help counter offensive actions.

k. **Simplicity in plans and orders.** Simple plans and clear orders minimize misunderstandings and confusion.

l. **Multinationality.** NATO is, at its heart, an alliance of nations; its forces and command structures are therefore considered MN. NATO forces may also find themselves operating in a coalition in concert with forces from outside the Alliance. Such coalitions are also often referred to as ‘multinational’. MN forces require commanders to adopt an international perspective and be able to understand differing national perspectives and goals that are united in a common purpose. Plans must ensure that MN force levels, and the degree to which they are employed, are balanced against operational effectiveness and desired outcomes. The appropriate level of MN composition is recommended by Supreme Allied Commander Europe (SACEUR) and approved as part of the operations planning process.

Most of these principles are fundamental to planning, for example: operational objectives, sustainment and concentration of force. Other principles define planning, for example: economy of effort, flexibility and simplicity. Others again comprise, or describe principal conditions or constraints which the planning is subject to, for example maintenance of morale, security or multinationality. In any case,
operational-level planning, as well as operations planning at the strategic and tactical levels, has to be conducted in pursuit of these principles in order to successfully support the conduct of campaigns or major operations.

Planning – The Dardanelles and Gallipoli 1915

The evacuation from Gallipoli was the best planned stage of a failed campaign to force Turkey out of the war. Earlier planning displayed nearly every conceivable weakness: friction between commanders; no proper planning staff; poor intelligence and operational security; a lack of inter-service coordination; poor logistics planning and execution, inexperienced troops; and a lack of amphibious shipping. Moreover, attention was devoted to the landings rather than their purpose, leading to a catastrophic failure to exploit opportunities to break out.

0106. **Principles of operations planning.** The planning for operations in a complex and uncertain security environment generates particular challenges for both civilian and military actors. Planning should take into account the different aims and conditions of Article 5 operations and non-Article 5 crisis response operations (NA5CRO). NATO’s operations planning should conform to the following principles as stated in MC 133/4:

a. **Coherence.** Every NATO plan must positively contribute towards the accomplishment of the North Atlantic Council (NAC) approved overall objectives for addressing the crisis. Accordingly, it is essential that the planning process is coherent internally, as well as externally with other actors.

b. **Comprehensive understanding of the environment.** Achieving the desired strategic outcomes must be understood at all echelons during the planning and conduct of operations. The commanders at all levels must build and foster a shared comprehensive understanding of the environment central to the
situation and promote this understanding continuously throughout the entire planning process.

c. **Mutual respect, trust, transparency and understanding.** Operations planning in support of NATO’s contribution to a comprehensive approach is underpinned by a culture of mutual respect, trust, transparency and understanding. Within the scope of NATO security policy and regulations, trust is built through information sharing and practical cooperation and must be encouraged to allow collaboration and cooperation across NATO bodies, among civil and military actors, and with relevant non-NATO actors and local authorities.

d. **Consultation and compatible planning.** Mutually supportive, compatible, and wherever possible, concerted and harmonised planning is fundamental for success of a comprehensive approach. Operation plans (OPLANs) must meet the politically agreed upon level of interaction with external civil and military actors. At a minimum, plans must allow consistency between NATO’s actions, operations, and effects and those of external actors. Accordingly, NATO’s operations planning concerted effort and the associated information exchange and classification procedures must encourage collaboration and cooperation wherever possible. Planners should establish mechanisms and procedures to support early shared situational awareness which will contribute to compatible planning.

e. **Efficient use of resources.** This principle is founded on two requirements:
First, planners should achieve a balance between tasks and resources. Decision makers should be made aware of the risk of not adequately resourcing an operation prior to approval of a strategic OPLAN.
Second, to maximize effectiveness, planners must allow both military and non-military contributions to focus on and leverage their core competencies within the international response to the crisis.
f. **Flexibility and adaptability.** The planning process must allow for maximum latitude between action and interaction within the mission and agreed political and resources framework. No two crises or conflicts are the same or evolve the same way. Therefore, the planning process must be robust but flexible, adaptable and agile enough to allow the plan to evolve. Planning should accommodate an expanding set of circumstances, allowing due consideration for likely costs evaluated against benefits gained. Political control, guidance and approval, particularly with respect to planning and force activation, in response to an actual or developing crisis is paramount. Operations planning should be flexible enough to adjust to evolving political guidance, civil and military advice needed to facilitate collaborative planning and adapt to political requirements during a crisis. The planning process is iterative and should also allow Allies and staff to periodically review and assess the mission and amend or redraw plans when necessary to move towards the desired end state.

**Incremental strategic decision-making – Operation HUSKY 1943**

Seven months before the Allied forces invaded Sicily in the summer of 1943, the Combined Chiefs of Staff had met at Casablanca to set the objectives for the Italian campaign. The objectives were to: make the Allies lines of communication in the Mediterranean more secure; divert as much German strength as possible from the Soviet front; and intensify pressure on Italy. Yet, despite an agreement to eliminate Italy from the War, the next strategic move – namely how, where and when – was deliberately left undecided. Only if Operation HUSKY proved to be successful would the Allies go directly to mainland Italy. Having assessed the German and Italian reactions to the initial invasion, General Marshall (Chief of Staff of the United States Army) argued that the next moves should be selected with great care.
Once HUSKY was underway, when the beachheads had been secured and when the Allies were making clear progress, the next moves were agreed and the vital resources were finally assigned to the planners. In Washington, Marshall and his staff had always kept one eye on the progress of HUSKY with the other on post-HUSKY planning, carefully judging when finally to commit from a general agreement to a specific plan. This preserved operational flexibility to the last sensible moment.

0107. **Other considerations for Allied joint and multinational operations.**⁶ In addition to the principles identified in Paragraphs 0105. and 0106. that apply to all operations, predominant campaign themes (such as stabilization and reconstruction activities) require the adherence to a number of other considerations:

a. **Impartiality.** A peace support operation (PSO) should be conducted in accordance with its mandate, and without favour or prejudice to any party.

b. **Consent.** The level of acquiescence to the presence of a force charged with a PSO or stabilisation operation mission will vary in time and space, both horizontally across all elements of the population and vertically within the hierarchies of the parties to the conflict. A commander will aim to turn passive consent into active support, including local actors’ leadership and ownership, to enhance legitimacy and credibility.

c. **Restraint in the use of force.** Commanders and their forces should use a measured and proportionate application of force sufficient to achieve a specific objective. Constraints and restraints on the use of force may be established in the mandate, by international law, the domestic laws of the force providers and, in certain circumstances, host-nation law.

---

⁶ Cf. largely AJP-01(D) Allied Joint Doctrine, Paragraph 0119.
d. **Perseverance/long-term view.** The achievement of the political end state will require a patient, resolute and persistent pursuit of objectives. The identification and achievement of shorter-term objectives within the context of the overall campaign may be required.

e. **Legitimacy.** The legitimacy of the operation and the wider perception of that legitimacy will provide the foundation for support from the international community, contributing nations, and the involved parties, including the indigenous civil community. Legitimacy must be preserved throughout the operation.

f. **Credibility.** For an operation to be effective, it must be perceived as credible by all parties. The credibility of the operation is a reflection of the parties’ assessment of the force’s capability to accomplish the mission.

g. **Mutual respect.** The respect with which the conduct of an operation is viewed, and the consequent relationship between Alliance forces and the indigenous population, will have a direct impact on its long term success.

h. **Gender perspectives.** Women’s perspectives and gender mainstreaming should be incorporated into the mission and problem analysis, the concept of operations (CONOPS) development, the operational requirements staffing, the OPLAN, the operational assessments, the lessons learned process, and wherever else relevant.\(^7\)

i. **Transparency.** The mission and concept of operations should be easily understood and obvious to all parties. Failure to achieve common understanding may cause friction and lead to suspicion, mistrust or even hostility.

j. **Freedom of movement.** Freedom of movement is essential for the successful accomplishment of any operation; where freedom

of movement is constrained, objectives become more difficult to attain, at all levels.

k. **Environmental protection.** Environmental protection is the application and integration of all aspects of environmental considerations as they apply to military operations. It needs to be incorporated early in the planning process and considers factors such as legislation, pollution prevention, release of chemical, biological, radiological and nuclear (CBRN) hazards, waste management, conservation, heritage protection (natural and man-made) and protection of flora and fauna.

l. **NATO strategic communications.** NATO Strategic Communications (StratCom) is at the heart of NATO efforts to reach key audiences to support NATO interests. Militarily it is the coordination of communications and information activities and products to support the creation of desired effects and the achievement of the commander’s objectives. Synchronizing words, actions and images significantly increases the potential to create an accurate understanding of NATO’s actions and intentions among audiences, in support of NATO’s interests and objectives. StratCom themes and focus topics inform the narrative which is the logical storyline as to why NATO forces are engaged, towards what objectives - including what success looks like – and, therefore, what transition and termination would look like. It becomes part of the story from the beginning of operations to the end. StratCom considerations must, therefore, be integrated into all operations planning and execution from the very beginning.

**Section III – Planning levels and categories**

0108. **Strategic, operational, and tactical** are the three levels utilised by NATO to categorise echelons of command and operations activities.

---

8 See AJP-01(D), Paragraph 0522
9 Cf. MCM-0085-2010, NATO Military Concept for Strategic Communications, 28 July 2010
10 See MC 0133/4 NATO’s Operations Planning.
a. The NATO strategic commander for operations is SACEUR. The commander at the operational level is normally the JFC at one of NATO’s joint force headquarters.

There may be both an out-of-theatre (JFC at a joint force headquarters) and an in-theatre operational-level commander, unless the scale of the operation demands that the JFC deploys.

b. The commanders of the NATO Command Structure (NCS) Land, Maritime and Air Command will provide single service command at the operational level. Other flag officers from the NATO force structure (NFS) may be designated as the JFC for operations where a graduated readiness forces headquarters (HQ) is utilised. ¹¹ A special operations component command or other specialized component commands may also be established.

c. Commanders at the tactical level are the functional commanders. Normally, for a NATO-led operation, each of the levels of command will be present in the command and control (C2) structure.

0109. Family of plans. At each level the commander and his staff will be responsible for producing the appropriate OPLAN. Generally a family of plans is produced for a particular planning situation (PS) or crisis. For executable plans (OPLANs and standing defence plans (SDP)) the family of plans is completed down through the tactical level. For contingency plans (CONPLANs), depending on the nature of the risk or threat on which the contingency is based, planning will be conducted down to the lowest viable level. CONPLAN development may be feasible only to a strategic CONOPS stage or it may be adequate to develop a full family of CONPLANs that include the strategic, operational and tactical level CONPLANs. SACEUR will advise the Military Committee (MC) as to how far a family of plans for a CONPLAN planning scenario should be developed.

¹¹ See MC 586 (Final), Military Committee Policy for Allied Forces and their Use for Operations for further detail.
0110. **Planning categories.** To prepare for its roles and mission the Alliance has two main operations planning categories; advance planning and crisis response planning.

a. **Advance planning.** Advance planning is conducted with a view to preparing the Alliance to deal with possible future security risks. Advance planning calls for three distinct types of plans; a SDP, a CONPLAN and a generic CONPLAN.

(1) **Standing defence plan.** A SDP is designed to address a long-term, short/no-notice Article 5 identified potential security risk, for example, the NATO Integrated Air Defence System. An SDP’s purpose is to guarantee the defence of the NATO members, aimed at the integrity and protection of NATO populations and/or territory. The requirement for SDP development is initiated according to the OPP by means of an initiating directive. The purpose of a SDP requires that it be fully developed and capable of execution, with command forces assigned and execution authority delegated to the appropriate level of command. By its nature, a SDP will create a framework to assist in the identification of future force and capability requirements, based on intelligence assessments and technological developments, for the conduct of the mission. In this way, a SDP is able to assist in the refinement of the NATO defence planning process (NDPP).\(^\text{12}\)

(2) **Contingency plan.** A CONPLAN is designed to respond to a possible future security risk, in a specific region and will normally be based on MC 161 and one or more of the PSs identified during the NDPP. In the absence of a concrete situation, a CONPLAN must be based on a number of planning assumptions and, consequently, is not an executable document. Should a crisis materialise, the appropriate CONPLAN would be used as the basis for the

development of an executable OPLAN, updated as required to take into account the actual circumstances.

(3) **Generic contingency plan.** A generic CONPLAN is designed to respond to a generic or functional type of future operation and is intentionally not limited to a specific region. It is designed to facilitate rapid crisis response planning for a specific situation in any region. In this way, a generic CONPLAN is the least specific type of plan produced in advance planning and requires the most adaptation. A generic CONPLAN should state the capabilities which are essential to the type of operation covered and not cover unnecessary detail.

b. **Crisis response planning.** Crisis response planning is conducted in response to an actual or developing crisis (Article 5 and NA5CRO) and calls for the development of an OPLAN. If a crisis is foreseen, the OPLAN might be developed from an appropriate CONPLAN or generic CONPLAN; if the crisis is not foreseen, the OPLAN must be developed in response to the prevailing circumstances. An OPLAN is a detailed and comprehensive plan capable of execution as soon as forces are assigned in accordance with the combined joint statement of requirements (CJSOR). Because of the rapid manner in which crises can develop, it is essential that procedures are in place throughout the NCS to allow for the timely and efficient development of OPLANs. In circumstances where multiple operations are conducted concurrently within a single region, it may be deemed necessary to develop a single, theatre-wide OPLAN/campaign plan to ensure proper coordination, unity of purpose and economy of effort of all military activities involved in the execution of, and support for, these operations. Given the purpose of an OPLAN, such plans will not be able to exert any direct influence on the NDPP. Furthermore, lessons learned from the conduct of an operation should influence subsequent defence planning as well as the development of CONPLANs and generic CONPLANs.
0111. **Support plans.** Depending on the complexity of an OPLAN of any category and/or the requirement to provide support to concurrent operations, it may be necessary to develop support plans (SUPPLANS) to the main (parent) plan in order to address all aspects of operations at an appropriate level of detail. The agency or commander providing the support develops the SUPPLAN, which must be endorsed by the supported commander and approved in concert with the supported plan by the initiating authority. SUPPLANS are based on, and are to be consistent with, the parent plan and its relevant annexes. Additionally, they will be consistent with the political guidance and authority applicable to the parent plan, such that their approval and authorization for execution, where applicable, automatically becomes part of the approval and authorization process for the execution of the parent plan. Examples could include, but are not limited to, deployment, communication and information, intelligence, logistic sustainment, medical (Med) or military engineering SUPPLANS and NATO common funded projects.

Section IV – Operations planning architecture

0112. The operations planning architecture provides the basic structure necessary to facilitate the timely, efficient, standardised and coherent development of OPLANs at the operational level by the NATO military planning staffs. It comprises agreed upon NATO policy and doctrine on operations planning and the NATO military commanders’ various sets of planning tools.

0113. **Policy and doctrine**

a. **NATO crisis response system manual (NCRSM).** This document describes the NATO crisis management process (NCMP), NATO’s overarching system for crisis management which the OPP has to support.

b. **Military committee 0133/4 NATO’s operations planning.** This NAC-approved MC document provides overarching political/military guidance for the initiation, development, approval, execution, review, revision and cancellation of any type of Alliance
plan. The MC 0133/4 provides guidance to be taken into account for the development of subordinate operations planning documents, including NATO doctrine.

c. **Allied Joint Publication (AJP)-01(D) ‘Allied Joint Doctrine’**. The primary objective of AJP-01 is to provide doctrine for the planning, execution and support of Allied joint operations. Although AJP-01 is intended primarily for use by NATO forces, the doctrine could also be applied to operations conducted in other formats.\(^\text{13}\)

d. **AJP-5 ‘Allied Joint Doctrine for Operational-Level Planning’**. AJP-5 presents an overarching construct of the planning principles and process at the operational level. The adjacent Allied joint doctrines have to be taken into account as far as they affect operational-level planning, for example AJP-3(B) ‘Allied Joint Doctrine for the Conduct of Operations’, the AJP-2 ‘Allied Joint Doctrine for Intelligence, Counter Intelligence and Security’, the AJP-4(A) ‘Allied Joint Doctrine for Logistics’ and the AJP-6 ‘Allied Joint Doctrine for Communication and Information Systems’.

0114. **Operations planning tools**

a. **Overview**. Operations planning tools are one of the key elements of the operations planning architecture. The operations planning tools can be thought of as resources available to the planner and are organised in two groups; planning tools and complementary tools.

b. **Planning tools**

(1) **General**. Primary planning tools consist of the planning guides called for in MC 0133/4. They include the Allied Command Operations (ACO) Comprehensive Planning Directive (COPD) and functional planning guides (FPGs). In

---
\(^{13}\) See paragraph 0121.
addition to being specifically addressed in MC 0133/4, these documents are authored and maintained by ACO.

(2) The **Allied Command Operations Comprehensive Operations Planning Directive** is the basic reference document for planning staffs within the NATO military command structure. It shapes the OPP at the strategic-military and the operational-level planning process (OLPP) at the joint level. It addresses all aspects of an OPLAN and provides guidance on the conduct and methods of planning as well as the factors to be taken into consideration during the development of a plan. It also specifies the standard structure and content of OPLANs. As such, it can be a reference for planning at tactical levels, especially for HQs operating at the high end of the tactical level.

(3) **Functional planning guides** provide planning guidance in specific functional areas. Functional areas include warfare areas that are normally divided into components such as maritime, air, space, cyberspace and land. Functional areas also include specific areas of expertise such as intelligence, rules of engagement (ROE), logistics, communication and information systems (CIS) support and force protection (FP). In general, the FPGs mirror the areas covered in the list of typical annexes to the main body of a CONPLAN or OPLAN. The intent of these guides is to supplement the planning information available in MC 0133/4, other MC documents, approved NATO doctrine and the COPD. The purpose of FPGs is to help a planner concerned with a particular functional area orient to the NATO OPP.

c. **Complementary tools.** The following list of complementary tools is not intended to be exhaustive, but illustrates the more important documents available to assist in the expeditious development of OPLANs in relevant areas:

(1) MC 161 – NATO’s Strategic Intelligence Estimate.
(2) MC 166 - NATO Intelligence Warning System (NIWS).

(3) MC 362/1 - NATO Rules of Engagement.

(4) Civil Emergency Planning (CEP) Crisis Management Arrangements.

(5) Political Military Framework (PMF) for Partner Involvement in NATO-led Operations\textsuperscript{14}.

(6) MC 0567, Procedures for the Acceptance of Troop Contributions to NATO-Led Operations from Non-NATO Nations.

(7) Military Agency for Standardization (MAS), STANAG 2014 (Edition 9) Formats for Orders and Designation of Timings, Locations and Boundaries.

Consequently, these documents need to be under constant review and update to fulfil their supporting role in planning.

\textbf{Section V – Purpose of operational-level planning}

0115. \textbf{Operations planning} is defined\textsuperscript{15} as \textit{The planning of military operations at the strategic, operational and/or tactical levels. Note: The preferred English term to designate the planning of military operations at all levels is “operations planning”. The term “operational planning” is not to be used so as to prevent confusion with operational-level planning.’}

0116. \textbf{Operational-level planning}\textsuperscript{16} is defined for this document as military planning at the operational level to design, conduct and sustain campaigns and major operations\textsuperscript{17} in order to accomplish strategic

\textsuperscript{14} See PO(2011)0141
\textsuperscript{15} See NATO Terminology Management System (NTMS) and Allied Administrative Publication (AAP)-6
\textsuperscript{16} Following note is contained in the NTMS and AAP-6: \textit{The preferred English term to designate the planning of military operations at the operational level is “operational-level planning”. The term “operational planning” is not to be used so as to prevent confusion with “operations planning.”}
\textsuperscript{17} ‘Major operations’ in the sense of operations which, because of their size, importance or similar, are planned at the operational level, although they are not full campaigns. See paragraph 0255.
objectives within given theatres or areas of operation. Operational-level planning translates strategic objectives into tactical actions. It is normally conducted for the employment of more than one service (and within NATO, more than one nation) and must incorporate perspectives from the strategic and tactical levels, as well as civilian considerations when these are deemed necessary for comprehensive planning solutions.

0117. **Terminology in use at the operational level.** The terms *operations planning* and *operational-level planning* are used extensively throughout this publication. Again, to avoid confusion the following NATO agreed definitions\(^{18}\) offer further guidance:

a. **Operation.** A military action or the carrying out of a strategic, tactical, service, training, or administrative military mission; the process of carrying on combat, including movement, supply, attack, defence and manoeuvres needed to gain the objectives of any battle or campaign. (This term is, therefore, neutral regarding the level of planning).

```
Operation (revised 2013, NATO-agreed definition).
A sequence of coordinated actions with a defined purpose.
Notes: 1. NATO operations are military.
       2. NATO operations contribute to a wider approach including non-military actions.
```

b. **Operational level.** The level at which campaigns and major operations are planned, conducted and sustained to accomplish strategic objectives within theatres or areas of operations. (This term affords appropriate differentiation).

c. **Operational art.** The employment of forces to attain strategic and/or operational objectives through the design, organization, integration and conduct of strategies, campaigns, major operations and battles. (Focused on the operational level and

\(^{18}\) NTMS and AAP-6.
includes the orchestration of an operation, in concert with other agencies, to convert strategic objectives into tactical activity in order to achieve a desired outcome).

d. **Campaign.** A set of military operations planned and conducted to achieve a strategic objective within a given time and geographical area, which normally involve maritime, land and air forces. (Classifies the related term for appropriate use at the operational level).

0118. **Requirement.** In order to prepare for and conduct military operations it is necessary to develop OPLANs that address all relevant factors applicable to the efficient and successful conduct of an operation. Within the Alliance, there is a requirement to develop OPLANs at all levels of the NATO military command structure. The levels of command at which plans are developed for a specific operation will be situation/mission dependent.

0119. **Purposes.** Operations planning serves several purposes. It is an integral part of preparing the Alliance to meet any future operational situation. Operations planning can also prepare the Alliance for a possible future requirement to conduct crisis response operations. Planning is also a learning activity that promotes the shared situational awareness and understanding of the commander and staff.

0120. **Flexibility and adaptability.** The operations planning system should be flexible enough both to answer the possible requirement for frequent exchanges of political guidance and military advice and to adapt to political requirements arising during a crisis. Therefore, the OLPP described in Chapter 3 is generic and can be adapted to fit the circumstances mentioned above. All preparation will include non-military considerations and may include operating in concert with non-NATO nations, local authorities, IOs, governmental organizations (GOs), agencies and NGOs in accordance with the political-military framework for partner involvement in NATO-led operations.
0121. **Operations planning in fulfilling NATO’s different roles.** That NATO uses its OPP for the crisis management of Article 5 situations is undisputed. Furthermore, the Alliance aims for a greater involvement of international, governmental and NGOs in a multilateral effort, wherever possible. The constant challenge is to ensure true interoperability far beyond matching equipment, towards ultimately a common understanding of joint concepts and doctrine. NATO-led operations in general can be understood as any operation for which NATO is the lead organization involving NATO and Partner nations and/or other non-NATO nations and/or the involvement of other organizations. They require NAC approval and direction. Therefore, and in order to ensure consistency and economy of planning, the NATO OPP would be utilised at the strategic and operational levels for such operations. For operations that are not NATO-led, use of the NATO OPP may still be applicable. Such planning must take into account all factors and the relevant participants’ situation and roles, as well as NATO’s own role, in order to ensure the best possible and most effective cooperation. Operations planning must be applicable for the following NATO roles beyond the classical Article 5 situations:

a. **NATO-led non-article 5 crisis response operations planning.**

Operations planning at all but the tactical levels for NATO-led, NA5CROs will be conducted in accordance with the NATO OPP. Specific procedures and arrangements for Partner and other non-NATO nations’ involvement in parts of the NATO OPP are addressed in specific NATO-policy. Prior to participating in a NATO-led NA5CRO, forces from Partners and other non-NATO troop contributing nations require certification. NATO will pay attention to the need of operational partners and/or potential operational partners for familiarity with NATO procedures as well as the need for information sharing. In such cases, the challenge for operations planning is to ensure inclusiveness. If acting as the lead organization, NATO will benefit from including all relevant actors in the planning process in the appropriate role.

---

19 See MC 133/4 for detail.
b. **NATO in a supporting role.** If NATO has the military lead role, operations planning is conducted in accordance with the OPP as laid down in MC 133/4. In other situations, NATO’s operations planning will still be valid, however, it will require coordination, flexibility and perhaps the adoption of other procedures, bearing in mind that only the NAC can agree to place NATO in a supporting role. In such cases, the challenge for operations planning is to adapt to the planning process and other specifics of the lead organization. If Allies have agreed that NATO will follow the lead of another actor, NATO military forces must fully implement this decision.

c. **NATO in a participatory role.** Particularly in the early stages of an operation, the political and military situation on the ground often reflects the absence of a lead organization acting upon a mandate from the international community. In these complex and fluid situations, the NATO OPP must be sufficiently agile to accommodate an evolving set of circumstances, until a lead organization emerges or is able to establish an institutional footprint in the theatre. To facilitate the execution of NATO’s own mission and contribution to a comprehensive approach in such circumstances, the OPP should have the flexibility to promote transparency, mutual understanding and concerted action with other actors. In such cases, the challenge for operations planning is to foster the emergence of an appropriate - ideally local - lead organization to exercise overall responsibility and authority - particularly for security.

0122. Incorporating support from international and governmental organizations, agencies, non-governmental organizations and host nations. Ideally, when an organization agrees to provide support to another, included is the provision of appropriate liaison personnel to coordinate support or, at a minimum, establishment of a mechanism for awareness and deconfliction between the supporting and supported organizations. Very often certain IOs, GOs, agencies and/or NGOs will not cooperate directly with military forces. This lack of cooperation necessitates a flexible approach towards establishment
of bodies for information and knowledge sharing with the involved IOs, GOs, agencies and NGOs.

Hierarchy of military activities. Within a NATO or national context, UK military activity takes place at all levels of warfare. There is a hierarchy of terms that describe military activities and how they fit together linking strategy to tactical activity. This linkage is described in JDP 01, UK Joint Operations Doctrine.

Section VI – NATO crisis management and planning process

0123. The NATO crisis response system. The purpose of the NATO Crisis Response System (NCRS) is to provide for required preparedness and support for crisis and conflict prevention and for crisis management across the range of Article 5 crisis response operations and NA5CROs. To be able to cope with the entire spectrum, NATO has strengthened its ability to work effectively both internally, improving its civil-military interface with planning staffs such as CEP experts and externally with partner countries, IOs, NGOs and local authorities, enhancing synergy at all levels. For operations in which Alliance military forces participate, the NCRS and NATO OPP are complementary. The latter provides instruments to the decision makers and planners to prepare for and respond to a crisis through the NCMP. Other NCRS components, especially crisis response measures (CRMs) and preventive options are supporting tools within the NATO OPP.

0124. The NATO crisis management process. On a daily basis the Alliance will be monitoring and maintaining situational awareness across its area of interest (AOI). The NCMP is initiated once indications suggest that there is an emerging crisis that may affect NATO's interests.

a. The NCMP, detailed in the NCRSM, generically consists of the following successive phases that generally conform with the cycle of a crisis:
(1) Phase 1 - Indications and Warning (I&W) of a potential or actual crisis.

(2) Phase 2 - Assessment of the developing, or reassessment of an ongoing crisis situation and of its potential or actual implications for Alliance security.

(3) Phase 3 - Development of recommended response options to support NAC decision-making throughout the cycle of a crisis.

(4) Phase 4 - Planning.

(5) Phase 5 - Execution of NAC decisions and directives.

(6) Phase 6 - Transition and termination of NATO's crisis management role.

b. Progression through each phase is not automatic and will be guided by NAC decision-making. The phases do not have precise boundaries and may overlap. Moreover, they may be repeated depending on the changing circumstances during the life-cycle of a crisis. Multiple phases may also be compressed into a single phase if the emerging or ongoing situation so warrants. In the case of an emerging time-sensitive collective defence situation, planning and execution process, Phases 2 and 3 (covering the political-military estimate (PME) process) may be compressed and initiation of Phase 4 and following phases accelerated.

c. The effectiveness of the NCRS is tied to the prompt and unrestricted exchange of I&W and other information within the Alliance according to applicable NATO procedures. I&W can be provided by the NIWS, by one or more of the Allies or by SACEUR.

0125. The operations planning process. The OPP synchronizes with the NCMP. The purpose of the OPP is to prepare the Alliance to meet any
future possible crisis through the development of SDPs, CONPLANs and generic CONPLANs. The OPP also provides for the timely and efficient development of OPLANs in response to an actual or developing crisis. Throughout the planning process, the OPP must continuously consider the expanding internal NATO civil-military interface available for use within operations planning. In line with NATO policy and the planning principles, military planners will integrate CEP experts as well as liaison personnel from relevant NATO agencies and non-NATO organizations, when authorized, into the appropriate steps of the OPP. NATO’s CEP experts are responsible to provide advice and support to their military counterparts during all phases of the planning process. The NCMP at the political level and the OPP at the strategic level both require adequate response from the operational level. The flow of information – direction, orders, other planning inputs, advice assessments and reports – is depicted in Figure 1.1.

a. OPP Phase 1 – indications and warning and situational awareness. Provision of I&W is cyclic and continuous prior to and throughout the NCMP. OPP Phase 1 involves the initial consideration of information on a particular issue that is of potential interest to the Alliance, that has come to light through I&W or other information provided by the Alliance’s intelligence community, national or other sources, to determine if further Alliance action is required. In this phase the strategic-military level will begin to develop situational awareness on this particular issue to support the development of strategic assessments, planning products and directives.
This figure has been slightly revised since AJP-5 was promulgated in June 2013. The revised version is found in the COPD V2.0 Figure 3.1.
b. **OPP Phase 2 – assessment of the crisis.** This preliminary phase of the PME process is essentially descriptive in nature, designed to inform the NAC of the particular characteristics of the crisis at hand and identify the range of actual or potential implications to Alliance interests taking into account national assessments. SACEUR will then produce his SACEUR’s strategic assessment (SSA) which will form part of the basis of the MC’s strategic military advice. The MC’s advice feeds the work of the NAC and the appropriate committees that normally have a crisis management responsibility\(^1\). These committees develop advice on political-military guidance, end state, specific CRMs, participation by non-NATO countries (to be decided on a case by case basis), and the level of additional interaction with IOs. Should the NAC decide that the situation requires a NATO response, it will task the relevant committees to develop response options to achieve the agreed strategic objectives and end state. Upon approval of this decision, the OPP moves into Phase 3.

c. **OPP Phase 3 – development of response options.** In contrast with the preceding phases, Phase 3 is prescriptive in purpose. It aims at finalising the desired end state and further developing the strategic, political and military response strategy for the Alliance to deal with the crisis at hand. In this final phase of the PME process, SACEUR is tasked to develop military response options (MRO) and to provide for each MRO an estimation of the size and nature of required forces, along with other resource requirements. Taking this advice into account, the MC will develop its strategic military advice enclosing SACEUR’s MROs for NAC consideration. In parallel, other political and non-military considerations developed by the other appropriate committees would be developed and/or refined. Both the strategic military advice and other political and non-military advice would be combined into a consolidated civil/military advice serving as a draft NAC initiating directive for NAC consideration. If the circumstances of a particular crisis so warrant, particularly in the

---

\(^1\) The Military Committee (MC) representing Chiefs of Defence in Allied capitals; the Operations Policy Committee (OPC); the Political and Partnerships Committee (PPC); the Civil Emergency Planning Committee (CEPC) and the Resource Policy and Planning Board (RPPB).
case of a perceived emerging collective defence threat, Phases 2 and 3 might merge together in the interest of time and crisis management effectiveness. In such cases, SACEUR would submit his SSA and MROs together, and the MC’s strategic military advice would be structured accordingly.

d. **OPP Phase 4 – planning.** In order for NATO’s military commanders to develop plans as described by the OPP they must be authorised to do so by the appropriate initiating authority. For plans to be developed at the strategic level, the initiating authority is the NAC (with the exception of CONPLANs/generic CONPLANs for which the MC is responsible). For plans developed at subordinate levels of command, the initiating authority is the next superior NATO commander (for example during crisis response planning SACEUR will issue his strategic planning directive to the JFC). The receipt of the NAC initiating directive shifts the focus to plan development. Plan development encompasses two sub-phases.

(1) **Sub-phase 1 – concept of operations development.** In developing an appropriate CONOPS, the military commander will establish the overall design and structure for NATO-led military operations, in concert with other non-military and non-NATO efforts. The strategic-level CONOPS, as approved by the NAC should demonstrate how to achieve the strategic objectives and conditions required to attain the desired end state. An illustrative CJSOR and (if possible) an illustrative theatre capability statement of requirements (TCSOR) will be submitted with the CONOPS for information.

(2) **Sub-phase 2 - plan and TCSOR development including force generation.** This second step should identify and activate forces and capabilities required to accomplish the mission with acceptable risks.

Generally, the relevant committees will draft their advice to the NAC. MC advice will include the endorsement of the Strategic CONOPS, and subsequently the Strategic OPLAN, as well as the
supporting TCSOR and rule-of-engagement request. This MC advice and SACEUR’s products are provided to Council which, through committee work, has all inputs fused into a single coherent document. This is done to provide the NAC with a consolidated set of political military recommendations, possibly in the form of a strategic political-military plan, on which basis a mission may be executed. After the council approves the OPLAN, with its related TCSOR and ROE, it would issue a NAC execution directive when the initiation of mission execution was desired. However, when time is critical for responding to a crisis, including in the case of an emerging perceived collective defence threat and based on the NATO military authorities’ assessment of the situation during the PME process, crisis response planning may be accelerated through NAC adoption of the fast track decision-making process described in Chapter 3, when a relevant CONPLAN or generic CONPLAN exists.

e. **OPP Phase 5 – execution.** A NAC execution directive authorises the execution of an OPLAN (the execution of a SDP is delegated to an appropriate NATO military commander). The execution of SUPPLANs and further subordinate plans rests with the designated NATO commanders at the respective levels. NATO operations are conducted under dynamic conditions where changes in the strategic and operational environment are constantly happening. NATO requires a feedback process in order to determine the effectiveness of operations and make recommendations for changes. This process is the operations assessment\(^2\) which is critical to inform the military and political leadership on progress being made towards achieving objectives and the end state. This, in turn, allows for adjustments to be made to the plan or in extraordinary cases, adjusting the end state. The primary process for providing these assessments to the MC and the NAC will be the periodic mission review, unless

---

\(^2\) The activity that enables the measurement of progress and results of operations in a military context, and the subsequent development of conclusions and recommendations in support of decision-making. (Definition harmonized in accordance with the two Strategic Commands (Bi-SC) letter, CPPSPL/7740-73/10-271642; 5000 FEF 0070/TT 6518/Ser: NU0008 dated 31.01.2011. Intended for inclusion in the NATO Terminology Management System (NTMS) and AAP-6 in accordance with the procedures defined in C-M(2007)0023-AS 1, 23 April 2007, Guidance for the Development and Publication of NATO Terminology)
the NAC decides otherwise. Assessment also provides an important input to situational awareness, to assist in building up and maintaining a holistic understanding of the situation and the operating environment, and thus it assists decision-making at the various levels.

f. **OPP Phase 6 – transition.** Once the review process starts to indicate achievement of the end state and the possibility to draw down and/or handover a mission, the NCMP moves to transition and eventual OPLAN cancellation. The transition has to be based on sound assessments and a mutual synchronisation and consultation process with all relevant players in pursuit of a comprehensive approach, particularly when stabilization and reconstruction activities are involved. The procedural handling of strategic military advice for the transition withdrawal and handover to an appropriate authority will follow the pattern of normal OPP procedures.

0126. **Responsibilities for operations planning actions.** Within NATO’s operations planning there are clear divisions of responsibility for all actions related to operations planning at the political and strategic level.

a. In case of crisis response planning actions, these responsibilities are divided as follows: The political-military estimate and initiation of planning is accounted for by the NAC. The development of the CONOPS and OPLAN is SACEUR’s responsibility, while NAC’s is the approval of the CONOPS and OPLAN, as well as force generation and activation. Plan execution is triggered by the NAC. Plan review or revision following the assessment is initiated by NAC or SACEUR depending on the situation. Approval of revised plans and cancellation of plans is again NAC’s responsibility.

---

3 Via the NAC initiating directive
4 Via the force activation directive
5 Via the execution directive
b. In case of the advance planning category two sub-cases have to be differentiated.

(1) In developing an SDP, the same responsibilities apply as under Paragraph 0126. a. except that the PME, force generation and activation processes are not needed (because for such missions there are forces permanently assigned). Plan execution rests with the appropriate military commander.

(2) In developing a CONPLAN or a generic CONPLAN Paragraph 0126. a. and b. (1) applies, with the difference that the MC is stepping in for the responsibilities normally fulfilled by the NAC under 0126. a. and b. (1). Furthermore, there is no generation or activation of forces and no plan execution due to the purpose of contingency planning.

0127. **The Joint Force Commander’s responsibilities within the operations planning process.** A JFC and the staff under his direction will respond to the requirements of the OPP with the specific planning products from his level of command:

a. Formal operational-level advice on the draft strategic military response options.

b. The operational-level CONOPS.

c. The operational-level OPLAN.

d. Periodic operations assessment products (after commencement of operations and following receipt of an activation order) during mission execution as tasked in the strategic OPLAN.

e. Operational-level disengagement planning products to support political and strategic level transition planning.
These inputs and outputs of the process are shown in the lower part of Figure 1.1. The discrete steps of the OLPP will be described in detail in Chapter 3 of the document.
CHAPTER 2 – OPERATIONAL ART AND DESIGN WITHIN OPERATIONAL-LEVEL PLANNING

Section I – Operational-level framework and planning

0201. **Key functions of the operational-level framework.** There are five key functions at the operational level which assist a North Atlantic Treaty Organization (NATO) joint force commander (JFC) in both planning and execution. The five functions are: shape, engage, exploit, protect and sustain. These functions help the commander visualise how major operations, battles and engagements relate to one another within the overall campaign. They should not be viewed as sequential or separate and distinct phases. The key is to maintain a clear focus on success, balancing the need to be bold and decisive within the constraints and restraints of modern operations. These functions also enable a JFC to develop an intent and concept of operations that considers subordinate component and supporting forces in context to each other in time, space and purpose.

0202. **Shape the operational environment.** Shaping is the manipulation of the operational environment to the Alliance’s advantage and to the disadvantage of an adversary. Successful shaping operations may also have the effect of deterring an adversary and thereby preventing a developing crisis. Shaping includes identifying those areas where Alliance strengths can be exploited and information superiority attained while minimizing the adversary’s strengths. The difficulties of planning for the shaping function should not be underestimated and illustrate the importance of a detailed understanding of the nature of the problem. In fact, it is so important to place the crisis in the correct context to maximise understanding that framing the problem and environment during planning may be considered a separate function in their own right.

0203. **Engage to attack or affect the adversary’s will and cohesion.** The decisive element of a campaign will usually involve some form of offensive action against the will and cohesion of adversaries. By

---

1 For a broader description of the operational level framework cf. Allied Joint Publication (AJP)-01(D), Paragraphs 0529 to 0534.
breaking an adversary’s cohesion, he is unable to coordinate and organise military and other actions; usually it is then much easier to defeat him. By undermining his will, an adversary will be less able to marshal and motivate his forces to take risky action, and he may be more willing to accept political or other compromise. This is true for both traditional and non-traditional military forces, although in the latter case a centre of gravity (COG) will normally be more difficult to determine. Will and cohesion can be attacked through:

a. **Synchronization** of fires, information activities and manoeuvre. Although they can create significant effects on their own, the synchronized use of fires, military information activities and manoeuvre has overwhelming potential.

b. **Tempo and simultaneity**. Tempo is the rhythm or rate of activity of operations, relative to the adversary. Simultaneity is the generation of multiple, concurrent activities that combine to create focused power relative to the adversary.

c. **Surprise**. Surprise is built on speed, security and deception and is fundamental to the shattering of an adversary’s cohesion.

d. **Relative advantage**. In joint operations a JFC should always plan to achieve a relative advantage over his adversary. This can be achieved by either overwhelming force, enhanced decision making and/or a favourable shaping of the operational environment.

e. **Information operations**. Exploitation of the other methods of attacking will and cohesion is a critical role for information activities coordinated by the information operations (Info Ops) function in order to create desired effects on the will, understanding and capability of adversaries, potential adversaries and other North Atlantic Council (NAC) approved parties in support of Alliance mission objectives.

---

2 Synchronization is discussed in detail in AJP-3.
3 See MCM-0041-2010 and NATO StratCom Policy PO(2009)0141.
0204. **Exploit opportunity.** A JFC should exploit opportunities to seize and retain the initiative (the ability to dictate the course of events), or regain it, in order to achieve his mission. Making the most of such opportunities, whether they be created through planning or arise through chance, relies upon a JFC’s ability not only to identify them in advance but to be able to generate the means to exploit them. More broadly, it involves not only identifying or creating opportunities, but having or obtaining the means and will to exploit them and achieve a higher tempo relative to the adversary.

a. The use of manoeuvre and offensive action is fundamental to seizing and holding the initiative, which is the key to being able to exploit opportunities. Mission command allows component commanders (CCs) or subordinates to exploit opportunities that are presented, providing they are within the overall intent.

b. The ability to do this successfully relies on continuous planning, including accurate risk analysis and management. Both subjective and objective risk analysis is required and intuition has a role to play.

Placing absolute faith in pre-determined and closely sequenced plans is unlikely to prove successful against an agile opponent. A JFC should maintain a balance between proactive contingency planning and timely adaptation to unforeseen events. Assessment-led decision-making and adaptive planning is underpinned by a mindset that seeks to exploit opportunities and reverse setbacks. This is the essence of mission command and the manoeuvrist approach (see AJP-01). The flair and imagination of a JFC, coupled with a profound understanding of the situation, are core attributes of an operational-level commander. A JFC should encourage initiative among his staff, such that opportunities to exploit unexpected changes in the situation are not overlooked or ruled out. Recognising how a situation is changing, identifying the implications, and exploiting the opportunities as they arise, are the keys to campaign success.
0205. **Protect alliance force cohesion.** At the same time as attacking the adversary’s cohesion, cohesion of the Alliance force must be protected. Cohesion of multinational (MN) operations poses a particular challenge, especially in the case of ad hoc coalitions. Contributing nations may have differing agendas and provide forces with varied degrees of fighting power. Different doctrine, incompatible equipment, personalities, and political influence are also likely to have a disproportionate effect on the cohesion of a MN force. Cohesion is maintained through:

a. **Maintenance of morale.** The JFC should attempt to mask vulnerabilities of his own force’s morale and focus the force on the mission, whilst pursuing a comprehensive and coordinated approach to force protection (FP)\(^4\).

b. **Unity of purpose.** Within MN operations, individual goals and interests will need to be harmonized to ensure a common purpose, consensus will need to be maintained to ensure political and military cohesion. JFCs play a key role in focusing their commands on achieving the mission and in generating a common sense of purpose by developing a clear and concise commander’s intent.

---

### Multinational command – Kosovo 1999

During the Kosovo campaign, General Wesley Clark as Supreme Allied Commander, Europe (SACEUR) (and *de facto* joint commander) spent much of his time persuading national political, as well as military, leaders to ‘buy into’ his plan.

‘I talked to everyone…… There was a constant round of telephone calls, pushing and shoving and bargaining and cajoling, trying to raise the threshold for North Atlantic Treaty Organization (NATO) attacks.’

(Public Broadcasting Service ‘Frontline’ interview with General W Clark)

---

0206. **Sustain.** Sustaining operations underpins the freedom of action available to a JFC to shape, engage, exploit and protect. From a JFC’s perspective, sustaining operations include deployment and recovery, the assembly and movement of reserves or echelon forces, the redeployment and replenishment (or reconstitution or rehabilitation) of forces out of contact, host-nation support (HNS), and the establishment of operating bases and lines of communications (LOC).

See: Bi-SC Allied Joint Operational Guideline for Logistics; AJP 4.5, Allied Joint Host Nation Support Doctrine; and Procedures and JDP 4-00, Logistics for Joint Operations.

### Section II – Operational art, analysis and thinking

0207. **Operational art** is defined as the employment of forces to attain strategic and/or operational objectives through the design, organization, integration and conduct of strategies, campaigns, major operations and battles.\(^5\) It can be described as the application of creative imagination by commanders - supported by their skill, knowledge, and experience - to design strategies, campaigns, and major operations and organize and employ military forces. Operational art integrates ends, ways, and means across the levels of crises or war. In its simplest expression, operational art determines which forces will conduct what type of operations, when, where and for what purpose.

0208. Within the planning process at the operational level, operational art can be described as the component of military art concerned with the theory and practice of planning, preparing, conducting, and sustaining campaigns and major operations aimed at accomplishing strategic or operational objectives in a given theatre. Operational art is realised through a combination of a commander’s skill and the staff-assisted processes of operational design and operational management.\(^6\) The intuitive and visionary portion of operational art is

---

\(^5\) See NATO Terminology Management System (NTMS) and Allied Administrative Publication (AAP)-6.

\(^6\) See AJP-01(D), Paragraph 0524 and Fig.5.1.
fundamentally a JFC’s business and its mainspring is his creative and innovative thought or operational ideas.

0209. Operational art also promotes unified action by helping JFCs and their staffs to understand how to facilitate the integration of other agencies, Allies, Partner nations and other non-NATO nations’ resources and forces toward achieving the desired end state. Inclusiveness in understanding the complex environment is paramount. The environment is more than a military battlefield, it is the Alliance’s complete engagement space beyond a military-only ability to visualize. The best plans and operations are those fully integrated with the other instruments of power\(^7\) from the very beginning of the planning.

**Operational art – US Civil War**

Robert E. Lee and ‘Stonewall’ Jackson have been characterised as examples of military genius. By contrast, Ulysses S. Grant’s success has often been attributed to dogged persistence. The focus of Lee and Jackson was, however, on the pre-eminence of tactical activity, while it was Grant who recognised the cumulative effect of coordinated military action against the enemy’s overall capability. These examples demonstrate that while operational art has objective elements, driven by the conditions of war at the time, it also has subjective aspects, derived from the character, personality and capability of individual commanders.

0210. **Meaning of operational art.** Operational art bears various meanings during the operational-level planning process (OLPP), particularly in developing the operational design.

a. Operational art at the operational level builds the critical link between strategy and tactics. Strategy guides operational art by determining the ultimate objectives to be accomplished and by allocating the necessary military and non-military resources. Strategy also defines and imposes limitations on the use of one’s combat forces and imposes conditions on tactical combat. To be

---

\(^7\) Different models to describe instruments of power exist. This publication uses that found in AJP-01(D). For more on harmonization of the descriptions of ‘instruments of power’ see the two Strategic Commands (Bi-SC) letter, CPPSPL/7740-73/10- 271642; 5000 FEF 0070/TT 6518/Ser: NU0008 dated 31.01.2011.
successful, campaigns or major operations must be conducted within a framework of what is operationally and strategically possible. Because it is a critical link between strategy and tactics, if operational art is poorly applied, no favourable strategic results can be achieved quickly or decisively. Whenever the ends and means at the strategic level are seriously disconnected or mismatched, brilliance at the operational and tactical level can only delay, but cannot prevent, ultimate defeat. The situation becomes untenable if the political leadership is unwilling to commit adequate sources of power.

b. Operational art typecasts the JFC and his operation planners for their role in the OLPP. Irrespective of the nature of the problem at hand, the scale of the forces involved or the technological sophistication of available communication and information systems (CIS), the JFC chooses a course of action (COA) that has the greatest chance of success. In applying operational art, the JFC draws on judgment, perception, experience, education, intelligence, boldness and character to visualize the conditions necessary for success before committing forces. Operational art requires broad vision, the ability to anticipate and the skill to plan, prepare, execute, and assess. The JFC must be able to stand back from detailed planning of the campaign to take time to identify emerging trends, grasp new operational ideas as well as detect and weigh potential threats.

**Command-led planning.** UK operations planning is command-led and dynamic. While staff will assist their JFC, ultimately it is the JFC's plan and the commander drives its development. The essence of this relationship is based on acknowledging that planning is a mental activity – aided, but not driven, by process. Although each operation has a unique context, scale and mix of military activities, all share a common purpose – to translate strategic intent into tactical activity. Operational-level planning requires JFCs to determine how (the ways) a favourable situation (the dictated ends) may be created within the time and resources available (the allocated means).
Such planning should be conducted in concert with other government departments, agencies and allies, whose combined, and often interdependent efforts, are needed to achieve the national strategic aim.

Figure 2.1 – Operational-level planning – command and staff influences

c. Working with the JFC’s specific guidance and a close understanding of his intent, his staff draws more on rational and logical processes and tools. The staff will consequently concentrate on acquiring all information necessary, developing the options and details, by visualizing the alternatives and provide focus for the execution of command responsibilities. The relations are illustrated in Figure 2.1.

0211. Ends, means, ways and risks. Among the many considerations, operational art requires the JFC to answer the following essential questions from his operational-level perspective:

a. The ends. What conditions are required to achieve the objectives? What military conditions must be attained in the
operational area to achieve the strategic objectives? The JFC considers the nature of the force, the objectives within its grasp, the nature of the risks inherent in pursuing these objectives with the given force, and their possible mitigation. If the political objectives change, as they sometimes will over time or in response to changing events, this will invariably create a requirement for a change in the plan or even the requirement for a new plan.

b. **The means.** What resources are required to accomplish the proposed sequence of actions? What capabilities and other resources are available and should be applied, within established limitations, to produce these conditions? How are the military and non-military instruments integrated to achieve these conditions?

c. **The ways.** What sequence of actions is most likely to create the required conditions? What broad approaches will establish these conditions? Which instruments of power combine within these approaches? How should actions be arranged in time and space to establish these conditions?

---

**Ends, ways and means**

**Operation MENACE – Dakar 1940**

In the summer of 1940, Britain feared that Germany might seize control, from Vichy France, of the key harbour and airfield at Dakar in West Africa, and thereby threaten vital sea communications. The UK’s Armed Forces were severely overstretched, ruling out the option of a conventional assault, and the British government was reluctant to use force against the French (with whom Britain was not at war). Encouraged by reports from Dakar of support for the allies and the Free French, Churchill placed his faith in persuasion, backed by the hopefully intimidating presence of a British fleet. In fact, Dakar proved to be solidly pro-Vichy and insusceptible to persuasion. Without the power to destroy Dakar’s defences, or the surprise necessary to mount an amphibious assault, the operation ended in humiliating retreat.
Churchill had conceived ambitious ends, to deny Dakar to the Germans and also inspire other Vichy colonies to join Free France. Yet the British forces lacked the means to deliver them. Churchill deluded himself that something between outright force and peaceful persuasion could provide the way.

**Operation BARBAROSSA – Soviet Union 1941**

The German invasion of the Soviet Union in June 1941 represents a classic failure to balance ends, ways and means. The German strategic objective was to bring about the collapse of the Soviet Union (the end) through a short, yet decisive, campaign (the way). Over-confidence and poor intelligence, however, led to fundamentally miscalculating the resources (the means).

There was no significant economic mobilisation and force levels, comparable to those committed to the invasion of France, were deemed adequate. The assumption that the Soviets could only deploy some 300 divisions proved flawed. In fact, they had managed to raise 600 by December 1941. At the same time, indecision as to the Soviet’s centre of gravity (eventually agreed as Moscow) led to constant changes in the German concept of operations. As a result, despite losing nearly five million men in 1941, the Soviet Union retained the capacity to continue the war.

d. **The risks.** Risk is a situation involving exposure to danger. It is assessed by the likelihood of its occurrence and the gravity of its impact. At the operational level following questions arise. What is the likely cost or risk in performing the proposed sequence of actions? A disconnect between one’s ends and means creates a certain degree of risk. The level of risk cannot be determined with any degree of confidence; assessing it is mainly a matter of judgment. Risks can occur due to many factors, such as overrating one’s own capabilities and underestimating the opposing capabilities. They also can be the result of wilful or unintended faulty strategic assumptions. Calculated risks are incurred deliberately. The degree of risk can be greatly reduced by scaling down one’s ends or increasing one’s means. The problem of mismatch can be resolved by modifying, altering, or
even abandoning one’s ends. Another solution for resolving mismatch is to find a novel way of using one’s sources of military and/or non-military power.

Risk is an expression of the probability and implications of an activity or event, with positive or negative consequences taking place. Therefore, risk is neutral. Risk may be accepted to capitalise on opportunity and should not only be regarded in the negative.

0212. **Operational art and design encountering complexity.**
Notwithstanding the perspectives above, all crisis situations and conflicts can be viewed as systems. Each of these systems has a structure of independent parts that interact. Some of these parts interact with parts of other systems. It is the number of parts and the ways in which they interact that define the complexity of a given system. Crises and conflicts, as a kind of complex systems, tend to be:

a. **Adaptive**, as any action causes reaction and any benefit has an associated opportunity cost⁸.

b. **Uncertain**, often confusing; some risks may be incalculable.

c. **Ambiguous**, as they can be perceived in quite different ways by different actors or external observers; there is seldom a universal view of the context to any particular problem - however manifestly ‘clear’ the situation may appear from an individual perspective.

d. **Competitive or adversarial**, requiring compromise, if not submission, in relation to conflicts of interest or need, or perceived security.

e. **Constrained**, by different parties’ varying commitment to resolve a crisis, the parties’ capability to do so, and their perceived legitimacy to try.

⁸ The cost of any activity measured in terms of the value of the best alternative that is not chosen (that is foregone).
f. **Unbounded**, and permeating, or being affected by regional dynamics and, with increasing globalization, by world-wide dynamics as well.

g. **Dynamic**, altering the situation from the moment that military or other intervention is anticipated by the different parties, let alone when it occurs. A crisis situation will be examined in its entirety as a system, recognising that no single element exists in isolation. Intervention itself invariably alters the dynamics of a situation. Moreover, almost all situations are open systems affected by external intervention and influences as well as by internal dynamics.

0213. **Operational estimate.** The operational estimate is a problem solving process central to the formulation of the JFC’s plan and subsequent updating of plans in an Allied joint operation. Guided and energised by the commander, the operational estimate is a mechanism designed to draw together a vast amount of information necessary for the thorough analysis of a set of circumstances, in order to allow the development of feasible courses of action leading to the commander’s selection of the one to achieve his mission. It is, essentially, a practical, flexible tool designed to make sense out of confusion and to enable the development of a coherent plan for action. The process is applied to often ill-defined problems in uncertain and dynamic environments, in high-stakes and time-pressured situations. It combines objective, rational analysis with the commander’s intuition (a combination of experience and intelligence, creativity and innovation). A variety of functional staff checks and analyses support a JFC’s decision-making; some provide for example information and intelligence, others indicate logistics or CIS freedoms and constraints; but there is only one operational estimate. Its output is a visualisation, design and decision about **what** to do, for **what purpose**, **when** and **where** to do it. Approaches to how an operational estimate can be conducted are described in Paragraphs 0214. to 0219. The operational estimate is based upon:

a. **Understanding the problem and the operational environment.** The problem is of prime importance and is composed of two parts;
the assigned mission; and the object of that mission. The object is the thing on which the mission bears or which provides the greatest resistance to that mission; often, particularly in major combat operations, it will be the adversary’s military forces. Framing the operational environment is equally important as it places the problem in context. Detailed analysis of the mission, object and environment, early in the planning process, should enhance the prospect of designing a winning concept.

The need for a commander to understand the situation, and to keep on updating that understanding, is not new. Analysis provides a commander with an appreciation of the potential complexity of the current situation. The process also begins to indicate (based on existing unfavourable conditions) what might represent a more favourable situation in the future. In addition to affording analysis sufficient time, the other critical requirement is to gather a broad range of perspectives. These must include those that challenge any existing (national and/or military) paradigms.

In reality analysis does not start with crisis planning; it should have contributed to contingency planning and have already informed policy and national strategy. When a JFC is assigned operational-level command, the individual may receive a considerable amount of information and intelligence, noting the situation may have changed since it was collected.

JFCs are not only the principal beneficiary of analysis, they are also likely to be a key contributor, based upon their unique pan-theatre perspective and privileged access to key stakeholders. JFCs should develop their own analysis community of interest, drawn from across their headquarters and beyond, to include multinational partners, other government departments and multi-agency representatives, host-nation officials, and subject matter experts drawn from a multitude of specialist or environmental areas.
b. **Establishing the art of the possible.** A thorough understanding of the problem and environment establishes a logical basis for the commander to develop his operational design, his big idea, and then to provide direction to his staff. The focus is to establish the art of the possible, using planning factors tailored to the problem rather than a predetermined or assumed generic check list.

### Analysis – Somalia 1992-1995

The ‘Black Hawk Down’ incident in Mogadishu, in October 1993, was symptomatic of UN failure in Somalia. It was characterised by flawed intelligence and poor command and control. Perhaps more importantly, however, it reflected a lack of understanding of: the underlying situation; the past, as well as contemporary, context; and the nature of the operating environment. The UN mission’s pre-deployment reconnaissance had been limited and analysis of the various factions, issues, ethnic and tribal dynamics was minimal, while the resources were initially woefully inadequate for the task at hand. Incremental changes to the mandate and forces levels were reactions, but never solutions, to the situation.

### The nature of analysis

Analysis is expansive and open-minded. It is different from problem-solving *per se*, which, by necessity, tends to be more narrowly focused on the key issues. Analysis not only takes into account all relevant factors, to better understand the complexity and causes of a crisis, but it also actively seeks to discover what has hitherto been unknown. It must also include different perspectives, including the novel, the contrary and the extreme.
Analysis is based on both objective data (for example, physical and demographic data) and subjective opinion (such as actors’ reported aspirations and views). In interpreting the information presented, steps should be taken to guard against partiality or bias, especially given the natural inclination to exclude the unexpected, the inexplicable, the unpalatable or the counter-intuitive. Analysis is never exhaustive, nor absolutely certain, (as the dynamics of most crises are too complex and volatile), but effective analysis can help a JFC to rationalise (though not necessarily reduce) that complexity and ambiguity to some degree.

Analysis does more than look at the current situation, it also addresses what might happen next, based upon alternative assumptions regarding the actions and reactions of different actors (including the impact of any intervention). Together these enable JFCs to:

- understand the context in which they are operating or intend to operate;
- understand the potential impact of their actions or other events; and
- use this understanding to plot a path that is most likely to lead to achieving his operational end-state.

This is the basis of the theory of change.

As well as informing a JFC of what is known (its primary purpose), analysis also identifies knowledge gaps, indicating risk – of the unknown – which should be managed accordingly. Analysis also highlights risk in broader terms, namely the risk associated with acting, or not acting, and the risk of failure.

0214. **The examination of crises and conflicts – scope of analysis.** The scope of analysis – what is to be analysed? – varies from one situation to another, but its purpose is always the same: to enable a JFC to
understand the situation and to frame the problem. Analysis of the operational environment\(^9\) will generally include but is not restricted to:

a. **Crisis circumstances and surroundings**

(1) **Circumstances**: history of the conflict, geo-strategic position, physical environment (climate, geography, hydrography and oceanography), national and regional infrastructure.

**History of conflict.** The background to a crisis is frequently complex. Many crises are influenced by their historical origins as well as their more immediate causes. Background analysis addresses:

- significant events and relationships, perceived by one or more parties as fundamental to their identity or as pivotal moments in their history;
- re-aligning borders and boundaries, both formal and informal, that may have contributed to tensions or previous conflicts; and
- recent events that initiated the current crisis.

**Geostrategic position.** A country’s geostrategic position – based on, for example, geography (including relations with neighbours), natural resources (such as oil) or particular expertise (such as nuclear capability) – has a major impact upon a crisis. Globalisation of ideas, expertise and economies, however, means that crises are rarely bounded. Both regional and global actors may seek to manipulate events to their advantage. Influential diasporas can also increase the risk of conflict spreading.

---

\(^9\) Strategic key factors may be viewed using different conceptual models, for example the PMESII construct for the analysis of an engagement space.
Physical environment

- **Climate and the environment.** The potential effects of climate on the environment can be incorporated into planning to mitigate against known secondary effects. These could include increased risk of disease and drought associated with the climatic norm. Disputes over water access and grazing rights, deforestation, desertification and population displacement affect populations and economies, contributing to instability. Deviations from the climatic norm, or severe weather events, can also significantly change the physical and working environment in a much shorter period of time. For example, making a poor road infrastructure worse.

- **Geography, hydrography and oceanography.** Terrain affects the range of actors’ potential activities, supporting some tactics and frustrating others. Hydrography and oceanography influence the nature of maritime, riverine and littoral activity. The weather and seasons affect both and must be factored into the overall terrain/maritime analysis process.

**National and regional infrastructure.** Infrastructure may have a significant bearing on the operating environment, both directly (for example, influencing the essential services provided to the population) and indirectly (the potential contribution of other actors, such as other government departments as part of an integrated approach). Relevant aspects include the following:

- transport networks – road, rail, waterways, internal air services, and associated airports and seaports;
- energy – electricity supplies, coal, oil, gas and nuclear;
- communications – Internet and telephones (fixed and mobile networks)
• media – radio, television and the press;
• medical – hospitals, clinics and pharmacies;
• education – primary, secondary and tertiary;
• security sector – police forces, national armed forces, judiciary, prison service, private military and security groups, etc; and
• manufacturing and industry – munitions, chemicals, nuclear, electronic and other industries.

(2) **Population and culture**: populace (ethnicity, language, class, demography, distribution, epidemiology), culture (religion, religious divides, fundamentalism, cultural divides, distinctive cultures), political, economic and social issues (government, media, economy, medical (Med) factors, organised crime), legal issues (crisis/host nation (HN) law, national and international law), and information environment.

**Populace**

• **Ethnicity.** The ethnic make-up of a population often reveals, on one hand, overt distinctive cultural traits of a group in society, yet on the other hand, much subtler differences between ethnic groups which need detailed study to appreciate. Ethnic boundaries may not coincide with physical borders or other boundaries; a complication that could restrict access to a population.

• **Language.** Language is a key component of identity and, through variations in understanding, barriers are created between actors and groups.

• **Class.** Class may conform to a broadly Marxist model (bourgeoisie and proletariat) or be further complicated by caste, pastoral or agrarian differences.
• **Demography.** 87% of people under the age of 25 live in the developing world (World population 1950-2050 by projection variants: UN Population Division of the Department of Economics and Social Affairs, 2005) providing a large pool of fighting age males with low economic expectations. Countries and regions where young adults comprise more than 40% of the population are statistically more than twice as likely to experience societal conflict.

• **Distribution.** Changes or extremes in population distribution, such as an urban/rural divide, major population centres and densely/sparsely-populated areas, can cause tension which is frequently compounded by internal migration.

• **Epidemiology.** Knowledge of regional epidemiology (the incidence and distribution of diseases and other factors relating to health) is essential, not only for planning purposes, but also as part of an integrated approach.

**Culture and religion.** Cultural awareness is essential, not just for analysis, but also for training as part of force preparation. Culture and religion, which are often intertwined, can precipitate a crisis or influence an actor’s inclination to use violence to resolve differences.

• **Religious divides.** Religious divides may be inter-faith (such as Christian/animist) or inter-tradition (such as Sunni/Shi’ia).

• **Fundamentalism.** There is often tension between extreme fundamentalists and moderates within a religiously observant society.
• **Cultural divides.** Cultural divides include, for example, a rural/urban split or a traditionalist/modernist conflict. Such divisions may be deep-seated and exacerbated by resource inequality.

• **Distinctive cultures.** Some societies, or groups within a society, have a distinctive culture, such as a nomadic lifestyle or warrior ethos, which separates them from other elements of society.

**Political, economic and social issues.** Political, economic and social issues may have caused discontent and sporadic conflict for generations, or be more recent.

• **Government.** A government’s national and international legitimacy may be a symptom or a cause of a crisis. Governance may not follow conventional Western models, and the influence of religious, ethnic, tribal and other social networks should also be considered.

• **Economy.** A local economy may not adhere to conventional Western rules and practices, but an improved economy is often crucial to longer-term stability. Most economies are a combination of formal (for example, paid employment) and informal (such as unregulated exchanges of goods or services) arrangements, with the latter predominating in less-developed countries. The availability of resources may cause a crisis or provide a means to pursue it.

• **Organised crime.** In some places, organised crime has permeated society to such an extent that it affects the politics, economy and social structure of a state, challenging the primacy of legitimate authority. In such circumstances, those engaged in organised crime may wield influence comparable to the recognised government and may be involved in crisis resolution.
**Media.** The media’s impact on national and international opinion can both reflect and influence a crisis. Reporting can be subject to bias (sometimes extreme) and media access to different audiences will determine its local, regional, and even global, influence.

**Legal issues.** Legal issues include the legal system of the country in crisis and national or international law applicable to any intervention force.

- **Crisis/host nation law.** The three main systems of law are: **common law** (the legal systems of the UK, many commonwealth countries and the US are based on common law), a civil code (as exemplified by the French legal system), and **religious/cultural-based law** (such as Sharia courts used in Iran and parts of Afghanistan); many other nations’ legal systems also incorporate traditional cultural practices. Imposing local law may even be a causal factor in a crisis. While arrangements (status of forces agreements (SOFA), memoranda of understanding (MOU), or exchange of letters) covering force deployment normally exempt personnel from local law, deployed forces should nevertheless be conversant with it. As with local governance and economic practice, local laws may not follow conventional Western practice, but could reflect local cultural, religious and societal norms.

- **National and international law.** UK forces are subject to UK national law and international law, as well as the legal provisions of any UN or other mandate.

(3) **Catalysts – geographical, functional or socio-cultural aspects** have, or may have the potential to act as catalysts for conflict: natural resources, borders and boundaries, critical infrastructure and LOC, and socially-marginalized or excluded populations.
Natural resources. Some actors, such as local warlords, may seek to exploit natural resources, such as diamonds or strategic minerals, to fund their activities (or to deny the legitimate government any related income in an attempt to weaken it). The impact of these activities may depend on how easy it is to extract and process the resource. Oil, for example, demands major investment, whereas alluvial diamonds can be literally ‘available for the picking’.

Borders and boundaries. Borders and boundaries, especially those that ignore tribal and ethnic areas of interest, may act as focal points for discontent. Boundaries are sometimes disputed or unclear. There may be a need to support boundary commissions to resolve disputes or inter-ethnic divides.

Critical infrastructure and lines of communication. Actors may wish to deny aspects of critical national infrastructure, including lines of communication, to a legitimate government (or, alternatively, control them for their own purposes).

b. Actors and influences

(1) Those actively participating in a crisis, as well as those with the potential or inclination to do so.

These influence the course of events in ways which may be positive or negative, certain or uncertain, temporary or enduring. Most crises will be attributed to human interactions, sometimes with a hitherto cooperative state-of-affairs transformed into one of confrontation or conflict. In addition to being aware of the circumstances and surroundings described in Section I, JFCs needs a thorough understanding of the full range of actors, their motivations and relationships, but will seldom have it. Therefore, JFCs need to find ways to test their hypotheses, if necessary by assessing reactions to their own actions.
(2) **Categorization of actors**: belligerents, adversaries, other opposing actors, criminals making use of the crisis situation, neutrals, friendly.

**Belligerents.** Belligerents are hostile to each other and they may oppose the desired outcome, even if they are not directly hostile to the presence of an intervention force.

**Adversaries.** Adversaries, or opponents, are potentially hostile to achieving the desired outcome. They may employ legitimate political means, within a democratic system, or resort to violence. Some adversaries may use both. Opposition may be singular and monolithic, but is more likely to comprise a multitude of actors with shared or multiple goals.

**Neutrals.** The degree of neutrality spans those who stop short of active opposition to the desired outcome, to those who support it with a few reservations. They may or may not remain neutral. Neutral actors may include international organisations and non-governmental organisations.

**Spoilers.** Spoilers have an interest in maintaining the *status quo* and attempt to frustrate progress or prevent any change that could adversely affect their activities. Examples include groups benefiting from a war economy – arms/drug dealers, smugglers and individuals or groups, such as warlords, whose influence would decline if the crisis were to be resolved.

**Friendly.** Friendly actors broadly support achieving the desired outcome. They may include allies and coalition partners, host-nation security forces, as well as local population groups and those international organisations and non-governmental organisations who are amenable to being characterised in this way.

---

10 As in the (Communist-led) Malayan Races Liberation Army during the Malayan Emergency, 1948 – 1960, or the Viet Cong in Vietnam during the US involvement in Vietnam 1965 – 1972; both organisations allowed no rival.

11 As in Northern Ireland where the main Republican groupings (The Official Irish Republican Army (IRA), Provisional IRA and the Irish National Liberation Army) all shared the same goal of a united, independent Ireland.

12 As in Iraq, where the common goal amongst the majority of actors was to remove what they saw as Western occupation; beyond that, they had a multiplicity of goals.
(3) **Leading actors**: key leaders (real leader, power structure, power base, leadership style, strengths, weaknesses and vulnerabilities, aims and intentions) and other leaders (power brokers, popular forces, private sector/business with associated trade unions, extra-territorial interests, international organizations (IOs), governmental organizations (GOs) and non-governmental organizations (NGOs), other agencies).

**Key leaders.** Identifying, and subsequently engaging with, key leaders may be critical to success. Key leaders may be political, religious, tribal or military, acting as individuals or groups. Even within unitary states, including those with apparently cohesive leaderships, identifying and engaging with such individuals is not always simple. It becomes even more complex amongst actors with non-conventional (by western standards) power structures. ‘Link analysis’ may help to identify key leaders. Analysis should consider the following points.

- **Real leader.** The apparent leader may be a figurehead and the real power may lie with separate power brokers or activists.

- **Power structure.** The structure may be pyramidal or flat. It may follow a conventional Western pattern or, for example, a tribal model led by elders, families or hereditary rulers. The JFC should try to work out where the power lies and who has the biggest influence on senior level decision-making, for example, a close cohort of advisers or followers.

- **Power base.** A leader’s power base may be a democratic mandate, an institutional party, a tribe or a religious sect. It may be economic, in that the leader maintains their power while they continue to provide perceived benefits to all, or to a powerful group within that society. The leader may derive their power from arms, as a dictator or warlord.
• **Leadership styles.** The leader may be autocratic or consensual.

• **Strengths, weaknesses and vulnerabilities.** A leader’s strengths, weaknesses and vulnerabilities may be institutional or personal, internal or external.

• **Aims and intentions.** A leader’s aims and intentions may be institutional or personal, internal or external. In some cases, their only aim may be to retain power.

**Other leaders.** Apart from key leaders, other subordinates and associated organisations (local, national, regional and international) may also play an important role.

• **Power brokers**
  - Political parties and networks (and non-political interest groups, such as peace groups).
  - Military leaders and armed groups.
  - Traditional authorities, such as tribal and clan leaders/elders.
  - Religious leaders and organisations.

• **Popular forces**
  - Civil society.
  - Population (including refugees and internally displaced people).
  - Diaspora groups.

• **Private sector/business** (and associated trade unions).

• **Extra-territorial interests**
  - Neighbouring states.
  - Foreign embassies.
  - Regional organisations, such as the Arab League or African Union.

• **International organisations and non-governmental organisations**
(4) **Analysis of actors**: actors, as described above, impact upon a situation to varying degrees depending upon their aims, motivation, positions, intentions, sub-culture, relationships, capacity and critical vulnerabilities.

**Aims.** Actors’ underlying aims drive their activities. It may be broad and aspirational, or specific, and of local, national, regional or even global significance.

**Motivation.** Achieving an aim provides part of an actor’s motivation, but local factors and allegiances, such as score settling, personal gain and the thrill of risk taking or challenging authority, may play a part. Motivations differ between individuals or sub-groups, and senior or junior echelons within an organisation.

**Positions.** Actors may adopt specific positions for particular issues, irrespective of the interests and goals of others. Actors may, for instance, take what they see as a principled position based on their political views, regardless of the potential consensus elsewhere.

**Intentions.** Intentions are an actors’ plans for current and near-term activities.

**Sub-culture.** Individual groups of actors, although part of a wider culture, often have their own sub-cultures, which influence their aims.

**Relationships.** Relationships are reflected in the interactions between actors at various levels; perceptions of these interactions may be as important as reality. As a situation changes, so too may the relationships. Seemingly strong alliances may be transient. Analysis should identify:

- historical relationships;
- current relationships and the rationale behind them; and
- possible future relationships as the situation changes.
**Capacity.** Actors’ capacity is their capability to affect a situation, positively or negatively. Capacity is defined in terms of personal authority, arms, resources, access, social networks and alliances, within a given context and at a given time.

**Critical vulnerabilities.** All actors have vulnerabilities; actors are vulnerable to each other, to environmental and natural disasters and to external intervention. These vulnerabilities are a key factor in centre of gravity analysis.

c. **Causes of crises.** Understanding why states or other groups resort to the use of force is essential to the planning and conduct of operations.

Coercion and deterrence are introduced in *UK Defence Doctrine* and planners must consider why coercion, encouragement and/or reassurance, using all levers of national power, may have failed to prevent crisis. Previous state-versus-state and force-on-force combat is giving way to complicated manifestations of conflict, including proxy and hybrid warfare, with well-hidden adversaries combining conventional capabilities and irregular tactics in complex terrain. Factors that have caused a crisis indicate both why events have occurred and, potentially, how they may be influenced to develop in a more favourable manner in the future. Crises are seldom attributable to a single cause (in the same way that they are seldom bi-polar). Analysis should encompass the extent of causes, their strength and nature, and the linkages between them.
(1) **Elemental causes**: fear of survival, self-interest, ideology and values; momentum for conflict (i.e. culture, political will).

**Elemental causes.** Elemental causes are those fundamental factors that relate to a nation, government or other actor’s identity, its relationships with neighbouring nations or groups or, in extreme cases, its very existence.

- **Fear or survival.** Even where success is not guaranteed, a state or group may initiate armed conflict because of its fear, or perception, of an adversary’s intentions or capabilities. It may also seek to avoid disadvantage by pre-emption.

- **Self-interest.** A state or group may have an interest in gaining or preserving a position of relative power or preferential control of resources and territory.

- **Ideology and values.** An absolute belief in the justice of a cause, ideology or set of values, whether secular or religious, may drive a party to conflict. When an ideology, sense of honour or reputation is perceived to be at stake, an actor may attempt to impose its will on another.

**Momentum for conflict.** Even if the elemental causes above do not directly result in conflict, two other factors can increase momentum towards it.

- **Culture.** Some actors have a culture of violence (a ‘warrior nation’), normally reinforced by political, social or religious imperatives.

- **Political will.** The will of an actor or group, and its ability to mobilise and sustain popular support, shapes its propensity for violence.
Structural causes: illegitimate government, formal/informal leaders, poor governance, lack of political participation, inequality and social exclusion, inequitable access to natural resources.

Illegitimate government. A government may be perceived illegitimate for a variety of different reasons. It may have no electoral mandate, be the result of a palpably corrupt electoral process or have been imposed by force or at the behest of another country.

Poor governance. A government may be corrupt or inept.

Lack of political participation. The political process may be controlled by interest groups based on religion, ethnicity, class or business, excluding or even persecuting minorities.

Inequality and social exclusion. Wealth distribution may be unequal, for instance between urban and rural communities. A significant underclass, based on ethnic, cultural, language, religious or economic circumstances, may be denied full participation in society.

Inequitable access to natural resources. Scarce natural resources may be allocated to, or retained by, particular interest groups. For example, water rights may be granted to certain actors to the detriment of others.

Immediate causes: uncontrolled security sector, weapons proliferation, human rights abuses, destabilising role of neighbouring countries, role of diasporas.

Uncontrolled security sector. Militias, and even private military and security companies, operating initially in support of ineffective state security forces, may overreach their remit.
Light weapons proliferation. The collapse of state, or neighbouring state, structures (arising from a successful insurgency, for example) may result in arms and munitions, especially light weapons, being readily available throughout a population, exacerbating instability.

Human rights abuses. Inhumane methods used to counter an internal crisis may gradually alienate an entire population, or discrete groups within it.

Destabilising role of neighbouring countries. Neighbouring countries may attempt to influence the outcome of a crisis by supporting specific groups within an unstable, or potentially unstable, state.

Role of diasporas. Diasporas may support particular factions or groups within their country of origin, or may use influence in their country of residence to provoke unhelpful political/media pressure.

(4) Triggers: elections, arrest/assassination of key figure, military coup, environmental disaster, increased price/scarcity of basic commodities, economic crisis, capital flight.

(5) Crisis-generated causes: material causes, emotional causes.

Material causes. Conflict inherently increases weapon supply and circulation, which inevitably spreads from those actors involved in the initial crisis to others. This allows them to pursue their own agendas. Other weapons may fall into the hands of criminal actors. A ‘war economy’, with funds from backers and potentially foreign aid, may benefit some actors to the point that they are materially better off during a crisis.
Emotional causes. A culture of violence can emerge, or the success of certain actors in achieving their aims may create new enemies, or inspire previously dormant actors to take up arms. In some cultures there is a tradition of revenge (such as the Pashtun badal – to seek justice) or vendetta. Conflict, even if resolved at a higher level, may leave some individuals or groups dissatisfied and liable to return to violence.

d. **Implications.** Interaction between the various components of, and actors involved in, a given situation in the battlespace may result in various outcomes from worst case to most likely to best case future outcomes. Each is associated with different implications, different probabilities for occurrence and different second-order effects. These implications may be highlighted in terms of: current trends, shocks, risks and opportunities.

Current trends. Current trends may be identified as enduring, or likely to escalate or de-escalate, subject to defined changes in circumstances.

Shocks. Shocks are unexpected (low probability) but significant (high impact) occurrences likely to introduce a discontinuity in an established trend or pattern of events. Shocks may be natural (such as an unforeseen environmental disaster) or man-made (the result of unanticipated activity). While their occurrence may be a surprise, their implications can be addressed through contingency planning and resilience measures (See Global Strategic Trends 5 – [https://www.gov.uk/government/publications/global-strategic-trends-out-to-2045](https://www.gov.uk/government/publications/global-strategic-trends-out-to-2045)).

Risks and opportunities. Negative or positive developments generate risks and opportunities for a JFC. Analysis of the situation assists in managing the former and exploiting the latter.
Conducting analysis

A crisis situation should be examined in its entirety as a system, recognising that no single element exists in isolation. Intervention itself invariably alters the dynamics of a situation. Moreover, almost all situations are affected by external intervention and influences, as well as by internal dynamics.

The practical output of analysis is a clearer picture in the mind of a JFC, based on as many different opinions, perspectives and viewpoints as possible, of what is happening, why and, hence, what may happen next. Interaction between the various constituents of a given situation may have a number of implications, generating variously worst case, best case and most likely future outcomes.

Analysis includes the intelligence process and is a continuous, whole-headquarters activity to gain knowledge of the factors that characterise a situation. As a situation evolves, analysis is updated by continuously assessing progress.

Principles

• **Purposeful.** As a preliminary activity to planning, albeit one that continues during both planning and execution, analysis is invariably carried out against a finite, and often challenging, timeline. It should be managed pragmatically and purposefully, to provide situational understanding. Analysis is a means to an end.

• **Expansive.** Analysis is about understanding the nature of the crisis situation. It is during the planning process that a JFC searches for a solution. Analysis involves revealing factors, exploring different perspectives and expanding knowledge rather than focusing on what ought to be done to address a perceived issue.

• **Inclusive planning.** Although time is always a limiting factor, consideration must be given to as many sources of information and ideas, perspectives and opinions as possible. Additional credible views and insights, however inconsistent or contradictory, can enrich understanding.
• **Receptive.** The tendency to adopt a particular perspective early on, and then ignore information that fails to support that view, must be resisted. The impact of a closed mind may be to reject contrary views. It may even exclude those who hold them, thus undermining commitment to an inclusive approach.

• **Challenging.** A balance should be struck between being inclusive and being sufficiently discerning or discriminating. All ideas and information should be tested for their validity. Any gaps in information should be similarly examined in a bid to build a comprehensive picture of the situation in the time available.

• **Forward-looking.** It is important that analysis looks forward as well as examining the present, with its roots in the past. Outcome assessment involves generating a range of alternative scenarios, of varying likelihood and with variable consequences (more or less beneficial). These can then be represented as a spread of alternative outcomes. This is illustrated below.

![Alternative scenarios derived from analysis](image-url)
Analysis community of interest

Analysis is driven by the commander to frame the problem. Problem-setting must precede problem-solving. The process is multi-disciplinary and pan-headquarters, driven by the Chief of Staff, who should harness the power of the staff. J2 will be the primary advocate, but analysis frequently involves other staff divisions. An effective community of interest should ideally be selected by the commander and draw upon external expertise. The pre-eminent beneficiary of analysis is the JFC. Consequently, the JFC directs the community of interest from the outset and remains involved throughout. JFCs redirect, seek clarification and add perspective, not least because the knowledge stemming from their oversight of all activity makes them invaluable contributors.

Membership. A community of interest need not be a permanent fixture, but may operate as a federated or virtual organisation convening with the headquarters’ campaign rhythm, with J2 staff providing continuity. Membership may include the following.

- **A leader**, selected from the most appropriate staff division, according to the nature and stage of the operation. They should include information security and information management within their responsibilities.

- **Chief J2 and other J2 experts**, the Defence Intelligence community and national intelligence agencies are represented directly or through the Operational Intelligence Support Group (OISG).

- **Representatives of the main staff divisions and branches**, including: J3 and J35 (operations support); J5 (planning); Joint Force Engineer staff (geospatial expertise); J4 (logistics and infrastructure input); J6 (communications and information systems (CIS) input on friendly and host-nation CIS infrastructure and information security); and J8/9 (financial, civil secretariat and political advice), according to the nature and stage of the operation. For instance, during a reconstruction phase, J4 and J8/9 may play a larger part than during major combat operations.
• **Representatives from other government departments**, such as the Foreign and Commonwealth Office (FCO), Department for International Development (DFID) and the Stabilisation Unit.

• **Official host nation representatives**, with appropriate security clearances.

• **Multinational partner representatives**.

• **Subject matter experts**, including government employees, academics and other experts (especially host-nation nationals), covering areas such as country/regional knowledge, human factors (culture, language, religion, anthropology and sociology) and business/commercial aspects. A JFC can exploit reachback, including through secure video-teleconferencing, to exploit expertise not available in theatre. This may include, for example, universities, professional bodies for defence and security, and think tanks. In practice, subject matter experts’ input may be distorted, consciously or subconsciously, by personal perspectives – its objectivity should be tested against alternative viewpoints wherever possible. The in-depth cultural awareness provided by subject matter experts is particularly important to inform both analysis and pre-deployment training.

• **Linguists**. MOD personnel with appropriate training may have command of relevant language(s), but individuals with appropriate national or ethnic backgrounds, whether UK-based or locally employed, could have greater understanding, particularly in the areas of slang, idiom and colloquialisms. Host-nation linguists may introduce their own local prejudices, but are likely to have a more developed sense of the cultural setting. Warning – linguists provide a support function only, which should not to be confused with subject matter expertise. If the boundary is blurred, linguists are too easily perceived as *de facto* subject matter experts or *quasi* staff officers, which risks them achieving undue influence through personal bias.

0215. **Analytical approaches within operational art**. Over time a variety of analytical approaches for the conduct of the analysis of a crisis has been created to aid the development and refinement of the JFC’s operational ideas in order to produce detailed and executable
operation plans (OPLANs). Their differences exist in how they address the problem - from reductionist to holistic - and the proportion of systems thinking within each of the analytical methods.

a. **Traditional approach.** When designing an operation, conventional operational art is largely based on thinking about identifying the simple constituents of complex phenomena and dividing each problem into as many parts as possible to best solve it. Experience has shown that this reductive analysis, in use since the Renaissance age, is the most successful explanatory technique in science. The processes covered by this method mostly consist of varieties of conventional cause-and-effect chains, a thinking, that can in many cases even be conceptualized by linear mathematical models. Using such linear determinism is fruitful, when dealing with physically dominated phenomena like the movement of forces and supplies or the combat effects of weapon systems, units and formations. This traditional approach has difficulties coping with complex and ambiguous environments.

b. **Systemic approach.** A systemic approach addresses complexity by conducting an analysis of a system in a holistic manner. The system is understood by examining the linkages and interactions between the elements that compose it. Systems thinking attempts to illustrate that events are indeed separated by distance and time but linked so that small catalytic events can cause large changes in complex systems. Thus, systems’ thinking provides a framework where mental models can be built, relationships between systems components can be uncovered, and patterns of behaviour can be determined. Both the relationships within the system and the factors that influence them enable the construction and understanding of the underlying system logic. A systems thinking approach can sometimes be accused of having certain weaknesses. It could be composed of overly elaborated abstractions. It could seek scientific certainty and rationality in all phenomena. Another danger could be neglecting the irrationality, frictions and inherent uncertainty in conflicts. Systems thinking
sometimes tends to lead to a ‘checklist approach’ with an inclination to uniform and subjective mindset.

Methodologies

Strengths, weaknesses, opportunities, threats (SWOT) analysis, frequently used in strategy formulation, helps to identify the (internal) strengths and weaknesses, and (external) opportunities and threats associated with a particular object (for example, country, group, organisation or tribe). A problem situation can thus be understood as a balance between protecting strengths, minimising weaknesses, exploiting opportunities and mitigating threats.

Stakeholder analysis is used to identify the driving and restraining forces for change in a situation. The eventual resolution of a crisis should satisfy the majority of stakeholders, or at least ensure that no powerful (and legitimate) stakeholder is left (too) dissatisfied. Stakeholder analysis can take a number of forms, but the purpose is broadly the same – to identify relevant stakeholders and the ways in which each may influence, or be influenced by, the situation. Actors and their influences can be depicted diagrammatically to depict formal, and informal, relationships – in essence, a stakeholder network.

A cultural estimate addresses a situation from a sociological perspective, addressing groups of actors’ objectives, economic resources, political resources, means of social unification and weaknesses.

In support of these tools are a number of simple guides to structure the analysis. Each factor may represent either a strength or weakness of a party to the conflict, and thereby an opportunity or a threat to campaign success. The factors listed may not be amenable to direct control by a JFC, but will undoubtedly impact on how a crisis develops, and the potential effectiveness of military and other activities. These are shown below. ASCOPE can act as a checklist or, alternatively, can be used to further breakdown the constituent elements of the other checklists in a matrix form.
### Analysis checklists

These checklists can be used in the form of a matrix; for example, STEEPLEM can be compared in tabular form against ASCOPE. This approach offers a thorough analysis methodology, although not all areas of the matrix will be relevant to the JFC.

<table>
<thead>
<tr>
<th>PESTL</th>
<th>STEEPLEM</th>
<th>PMESII</th>
<th>Constituents of a nation</th>
<th>ASCOPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political</td>
<td>Social</td>
<td>Political</td>
<td>Rule of law</td>
<td>Areas</td>
</tr>
<tr>
<td>Economic</td>
<td>Technological</td>
<td>Military</td>
<td>Education</td>
<td>Structures</td>
</tr>
<tr>
<td>Social</td>
<td>Economic</td>
<td>Economic</td>
<td>Commercial</td>
<td>Capabilities</td>
</tr>
<tr>
<td>Technological</td>
<td>Environmental</td>
<td>Social</td>
<td>Humanitarian</td>
<td>Organisation</td>
</tr>
<tr>
<td>Legal</td>
<td>Political</td>
<td>Infrastructure</td>
<td>Health</td>
<td>People</td>
</tr>
<tr>
<td></td>
<td>Legal</td>
<td>Information</td>
<td>Information</td>
<td>Events</td>
</tr>
<tr>
<td></td>
<td>Ethical</td>
<td></td>
<td>Military</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Military</td>
<td></td>
<td>Economic</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Diplomacy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Administration</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Governance</td>
<td></td>
</tr>
</tbody>
</table>

#### An example of a checklist matrix

<table>
<thead>
<tr>
<th></th>
<th>Areas</th>
<th>Structures</th>
<th>Capabilities</th>
<th>Organisations</th>
<th>People</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technological</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Military</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
c. **Design approach.** Design centric approaches also entertain a holistic systemic view towards the crisis or conflict concerned, but they try to overcome the somewhat mechanistical application of the systemic approach by a methodology of critical and creative thinking that enables a JFC to create understanding about a unique situation and to visualize and describe how to generate change. While the single steps of a systems analysis are used as before, a design approach embeds these steps in:

1. a cognitive model to develop understanding of the nature and scope of a situation,
2. an adaptive learning of groups that capitalizes on imagination, insight innovation, and novel ideas and
3. a cycle of inquiry, contextual understanding and synthesis that includes rigorous debate and collaboration.

Collaborative design implies continual learning. Staffs must organize to learn, adapt, and reframe as required while preparing, planning, executing and assessing full spectrum operations. Design can precede planning, may occur at the same time or the need for design may emerge while executing on-going operations. Framing and reframing in the design context have special meanings. Frame is used twofold:

1. An environmental frame envisages the context in which the design will be implemented
2. A problem frame describes what problem the design is intended to resolve.

Reframing is restarting the design after discarding the hypotheses or theories which defined either or both the environmental frame or the problem frame. The JFC himself leads the design effort in its four main areas, namely:
(1) Putting emphasis on understanding the problem.

(2) Understanding the operational environment in a comprehensive way.

(3) Developing the operational approach as visualization of a broad solution.

(4) Reframing the problem, when changes in the situation require.

The design approach is an intellectual challenge and may be jeopardized by a lack of human resources and a lack of time, especially when exercised while executing on-going operations. It is a risk to assume that a design will be understood by untrained members of the team and especially, when a design concept crosses boundaries between units, services or MN forces with different cultures and practice of command and control (C2).

d. **Balancing analytical approaches.** A crisis situation should be examined in its entirety as a complex system that defies the use of a uniform analytical approach. In the face of this situation JFCs are required to balance the choice of their staffs’ analytical approach against the effort involved, the time available and other resources required. A variety of the approaches described and others can be separately applied within the different steps and activities of the OLPP to match the problem needing resolution to the extent and depth required. Thus, guidance on the selection of analytical methods is a command task from the outset of the OLPP.

0216. **The nature of analysis at the operational level.** Analysis is expansive and open-minded; it is different from problem-solving per se, which tends to be more narrowly focused on the key issues. Analysis not only takes into account all relevant factors in order to better understand the complexity and causes of a crisis, but it also actively seeks to discover what has hitherto been unknown and while doing so, includes different perspectives, including the novel, the
contrary and the extreme. Effective analysis is best achieved by accessing multiple sources of information in the time available, not just from the traditional military intelligence community, but from any relevant source.

0217. Analysis is based on a combination of objective data and subjective opinion. In interpreting the information presented, steps should be taken to guard against partiality or bias, especially given the natural inclination to exclude the unexpected, the inexplicable, the unpalatable or the counter-intuitive. Analysis is never exhaustive, nor absolutely certain, as the dynamics of most crises are too complex and volatile. However, effective analysis can help a JFC to rationalise, though not necessarily reduce, complexity and ambiguity to some degree.

0218. Periodic review, particularly by those previously uninvolved, can provide a fresh perspective to a JFC’s analysis and offset any tendency towards groupthink. While analysis will often become more precise during the execution of a campaign, the gap between perception and reality will always remain elusive. Analysis does more than look at the current situation, it also addresses what might happen next, based upon alternative assumptions regarding the actions and reactions of different actors (including the impact of any intervention). Together these enable a JFC to:

a. Understand the context in which he is operating or intends to operate.

b. Understand the potential impact of his actions or other events.

c. Act upon this understanding to maximise the positive results and to minimise the negative of any intervention.

As well as informing the JFC of what is known, analysis also identifies knowledge gaps. The reason can partly be seen in the fog of war. Risks can be deduced from these gaps and need to be managed accordingly. Analysis also highlights risk in broader terms, namely the risk associated with acting or not acting, and the risk of failure.

---

13 See Paragraphs 0210 and 0214.
**Groupthink** – a tendency to adopt majority decisions among group members who are similar in background and share common values. JDP 04, *Understanding*.

**Perils of groupthink**

Before Operation MARKET GARDEN, in 1944, British planners systematically ignored intelligence indicating that two panzer divisions were re-equipping in the Arnhem area. The desire for a British-spearheaded airborne assault overwhelmed rational analysis of the chances of operational success. The result was a military disaster and the 1st Airborne Division was destroyed.

0219. **The planning focus of operational art.** When designing a campaign, the JFC utilises operational art to consider several aspects:

a. **The identification of the military conditions** that will achieve military strategic objectives, thereby supporting political strategic objectives. The key to operational art is to identify in advance what is going to be decisive to bring about the downfall of an enemy or adversary. For non-Article 5 crisis response operations such as humanitarian operations, the “adversary” might be hunger or disease. Identifying these decisive acts stem largely from an analysis of the COG. Operational art demands creative and innovative thought to find broad solutions to achieve objectives, the desired end state and solutions that might be termed operational ideas.

b. **The ordering of activities** that lead to the fulfilment of military conditions for success; both sequentially and simultaneously. It is unlikely that a strategic objective can be achieved by a single action. The output of the ordering process represents the basis of the plan and is further refined in the process of operational design. As such, it is the responsibility of the commander and the foundation of a command-led staff system.\(^\text{14}\)

\(^{14}\) See Paragraph 0210.
c. **The application of the military resources.** The JFC uses operational art to consider not only the employment of military forces, but also their sustainment and the arrangement of their efforts in time, space and purpose. This includes fundamental methods associated with syn-chronizing and integrating military forces and capabilities within an overarching comprehensive approach. Operational art governs the deployment of forces, their commitment to or withdrawal from a joint operation, and the arrangement of major operations and battles, stabilization and reconstruction activities or other tactical employments to achieve operational and finally strategic objectives.

d. **The identification of the risks** involved and an appreciation for what is possible. To achieve success the JFC must be prepared to take calculated risks but he should apply contingency planning to mitigate the risk involved. No great successes in a conflict can be achieved without taking calculated risks. At the same time, there is no rule for weighing the risks to be taken. This is only a partially quantifiable problem. Without taking calculated risks based on the best available intelligence and estimates of one’s capabilities and opposing intentions, the JFC will rarely be able to apply combat potential in a coherent manner which is faster than the opposing actors’ ability to react. On the other hand, even if outnumbered and outgunned, by judiciously combining risk with flexibility and appropriate economy of effort, the JFC can generate mass, momentum and superiority at the decisive condition and time.

e. **Thinking from the other actors’ perspective.** There are a number of design concepts\(^\text{15}\) that a JFC should consider both before and during the conduct of the campaign. The opposing actor’s perspective is one and it plays a special role; regardless of the situation, the underlying premise for operational-level planning is that military operations are designed to counter threats from an opposing actor. This pertains to all defence and crisis response situations and encompasses the complete spectrum of threats. The opposing actors, including their political leaders, population

---

\(^{15}\) See “Operational Design Concepts and Tools”, Chapter 2, Section IV.
and military as applicable, possess one’s own ‘will’, influenced by their culture, organizational/ entity perspectives and vital interests, to pursue goals in opposition to Allied goals. During all operational-level planning it is imperative to allow that opponents will oppose Allied operations. They will use their full potential to achieve their goals. The perspectives of other actors like HNs, IOs, NGOs, other agencies and neutrals are by nature different from hostile perspectives. Especially, for example, during stabilization and reconstruction or humanitarian operations during which such actors benefit from Allied operations, where their attitudes may range positively from toleration up to sponsorship. In any case, these actors must also be assumed to have their own agendas, which differ from Allied interests.

**Operation URANUS – Russia 1942**

Though the brutality of close-quarters fighting in the city itself forms the widely-held image of the Battle of Stalingrad, its real significance lies in Operation URANUS, the Soviet counter-strike. The former provided the necessary shaping for the subsequent decisive engagement. As the Germans became drawn deeper and deeper into the current battle, the Soviets amassed a sizeable counter-attack force and the resources necessary to sustain it. This was done with the utmost secrecy to ensure protection. The URANUS counter-attack, launched only after meticulous planning and preparation, was designed to regain the initiative and then rapidly exploit success. The result was the first major Soviet victory of the war, foretelling the more complex successive, and eventually simultaneous, operations that saw the Soviets drive all the way to Berlin.

**Section III – Scope and fundamentals of operational-level planning**

0220. **Overview.** The OLPP includes all activities that must be accomplished to plan for an anticipated operation. This includes close coordination with non-military organisations, as they play an important role in reaching the overall strategic objectives. Operational-level planning is an inherent command responsibility guided by political and
strategic policy and guidance and shaped by comprehensive and mission type directive. It requires collaborative effort between the planning staffs from the different levels of command. Criteria for the termination of the operations need to be defined and linked to the achievement of the objectives and end state leading to transition and termination of NATO’s crisis management role. Although the level of detail will vary, the scope of operational-level planning will address the following major elements:

a. **Conduct of operation** to achieve strategic or operational objectives. This part of planning will always be a description of how operations will be conducted in order to accomplish the mission. It should identify actions, normally in planned phases of accomplishment. The planning should also describe, how the force will operate with Partner and other non-NATO forces as well as with relevant other organizations. The structure of the information describing the ‘conduct of operations’ may vary depending upon the commander’s approach and the type of plan.

b. **Force capabilities required.** This is a summary description of the major force capabilities required to execute the planning. A combined joint statement of requirements (CJSOR) may be the formal expression of this requirement.

c. **Logistics.** Nations and NATO have a collective responsibility for all functional areas of logistics, including Med support and movement and transportation, in support of NATO MN operations. This encourages nations and NATO to cooperatively share the provision and use of logistics capabilities and resources to support the force effectively and efficiently. The commander is responsible for the coordination of logistics planning and support and for establishing the logistics requirements for all phases of operation, in particular the portion of the OPLAN covering all functional areas of logistics. To achieve the desired level of multinationality, national and NATO logistics planning must be

---

16 See MC 0319/2, *NATO Principles and Policies for Logistics*, containing principles such as: Collective responsibility; NATO commanders’ sufficient authority; primacy of operational requirements; cooperation; coordination; assured provision; sufficiency; efficiency; flexibility; visibility and transparency.
harmonized from the start of the operations planning process (OPP) as well as the OLPP. By recommending the appropriate logistics command structures, the JFC will support the force by using logistics resources within the joint operations area JOA, with the prior concurrence of nations, e.g. by the arrangements for logistics control\textsuperscript{17}.

(1) **Logistic sustainment.**\textsuperscript{18} Logistic sustainment encompasses the process and mechanism by which sustainability is achieved and which consists of supplying a force with consumables and replacing combat losses and non-combat attrition of equipment in order to maintain the force’s combat power for the duration required to meet its objectives. It is the JFC’s responsibility to plan for the requirements of supply, materiel, and appropriate services, logistic information management, equipment maintenance, movement and transportation, reception staging and onward movement, petroleum logistics, as well as contracting, third party logistic support services and HNS.

Directive authority for logistics remains a national responsibility.

Commanders must understand the effect of the increasing reliance on contractor support to operations.

(2) **Health and medical support.**\textsuperscript{19} The principle planning driver for health and medical support is the treatment outcome. This means achieving the best recovery possible for the patient as a consequence of delivering high standards of Med force preparation, force health protection and Med treatment.

\textsuperscript{17} Logistics control: That authority granted to a NATO commander over assigned logistics units and organisations in the JOA, including national support elements (NSEs), that empowers him to synchronise, prioritise, and integrate their logistics functions and activities to accomplish the joint theatre mission. It does not confer authority over the nationally-owned resources held by a NSE, except as agreed in the Transfer of Authority (TOA) or in accordance with NATO Principles and Policies for Logistics (MC 526 'Logistics Support for NATO Response Force Operations', paragraph 23.).\textsuperscript{18} Belgium, Czech Republic, Germany, Poland, Slovakia and the United States do not consider medical support to be a logistic function (see MC 0319/2, footnote 1).\textsuperscript{19} For details see MC 0326/2, NATO Principles and Policies of Operational Medical Support’, containing principles such as: Timeliness of treatment; continuity of care; medical influence on operational planning; principal components of deployed health care; medical force protection; readiness of the medical support system; multinationality.
Med capabilities must be commensurate with the force strength and the assessed risks to the deployed forces, with operational risk management being conducted in consultation with the relevant Med authorities. Therefore the health and medical support must be heavily involved in the planning process by staff members of the medical advisor (MEDAD) / senior medical officer (SMO). It is essential that the NATO commander’s Med staff steers the Med part within the planning process. So the SMO / MEDAD and his staff, also in the Joint Force Command or Component Command as well as at lower levels has to be heavily involved or even an integral part in the planning and execution process of all aspects of Med support to operations.

(3) **Joint military engineering** requires special planning emphasis. Military engineering (MILENG) capabilities are much in demand but the resources are always scarce. Therefore, early identification of MILENG support requirements is critical and requires involvement in the planning process from the outset. MILENG planning is an integral part of the OPP as well as the OLPP and will be developed through all the different phases and steps. MILENG planning is conducted horizontally across the headquarters (HQs), vertically with MILENG staffs at collaborating HQs, and outwards to the relevant civil actors. The joint force headquarters engineer, on behalf of the JFC, will be the engineering technical authority and may have coordinating authority over the allocation of engineer resources to all components. The senior engineer and his staff at the joint force and component command HQs, as well as at lower levels, will be the focal point for the planning and execution of all aspects of military engineering support to operations.

---

20 Based on health and medical support principles and policies, given in MC 326/2, the Medical Support Doctrine AJP-4.10 provides health and medical support doctrine for NATO MN joint operations and essential introduction for Med planning. AJMedP-1, as one of the supporting Joint Doctrine publications is the source for all Med planning within the NCS.

21 For further detail see MC 0560 ‘Military Committee Policy for Military Engineering’.
d. **Control and use of operational communication and information.** During his decision making process, the JFC will consider the NATO StratCom policy\(^{22}\) and the ACO StratCom directive\(^{23}\) in order to develop, coordinate, shape and integrate his available communication activities and capabilities (military public affairs (PA) and Info Ops) required to achieve operational objectives. Info Ops must be harmonized with military PA in accordance with NATO StratCom policy and guidance. The JFC will be able to identify, from the outset, what information\(^{24}\) relating to all hostile, neutral and friendly actors and systems within the information environment he requires. The questions, to which he needs answers, form the commander’s critical information requirements (CCIRs).

e. **Arrangements for command and control and communication and information systems.**\(^{25}\) Effective employment and support of military forces is strongly dependent on the C2 arrangements established from the highest to the lowest levels of authority. To exercise C2 authority in joint operations, a JFC and his staff should use standardized procedures supported by the Alliance’s CIS\(^{26}\). In combination, these procedures and the CIS form a C2 system that the strategic commander (SC), the JFC and their staffs together with relevant NATO agencies have to plan for to achieve suitability to the operational environment and at the same time optimum efficiency.

f. **Cooperation with civil authorities and other civil actors.**\(^{27}\) It is essential that civil-military cooperation (CIMIC) is an integral part of the overall planning process; CIMIC must be part of the OPP and the included OLPP during all phases and steps of the process.

---

\(^{22}\) For further detail see PO(2009)0141 and MCM-0164-2009 ‘NATO Strategic Communications Policy’.

\(^{23}\) For further detail see ACO Directive (AD) 95-2, ACO StratCom Directive, 19 November 2011.

\(^{24}\) For further detail see AJP-2 ‘Allied Joint Doctrine for Intelligence, Counter Intelligence and Security’, Chapter 2.

\(^{25}\) For overarching principles see AJP-01(D) ‘Allied Joint Doctrine’, chapter 6; for further detail AJP-3(B) ‘Allied Joint Doctrine for Operations’, Chapter 2, Section 2.

\(^{26}\) See AJP-6, Allied Joint Doctrine for Communication and Information Systems’, Chapter 3 for planning details.

\(^{27}\) For details see AJP-3.4.9 ‘Allied Joint Doctrine for Civil-Military Cooperation (CIMIC)’. 
g. **Force protection.** To preserve the operational effectiveness of a force, FP functions must be fully integrated and coordinated in the OPP and the included OLPP from the outset. FP requirements must be clearly identified, including the specific FP crisis response measures (CRMs) and actions to be taken to counter the various threat categories. FP comprises a number of force capabilities and disciplines: Security, MILENG support to FP, air defence, health protection, consequence management, and chemical, biological, radiological and nuclear (CBRN) defence FP measures. FP requires risk management and prioritization, including an integrated threat, vulnerability, and risk analysis.

h. **CBRN defence** follows the general principles and guidelines outlined in NATO policy\(^{28}\). There are aspects of NATO’s operational policies which are unique to NATO response to the WMD/CBRN threat. The principle planning driver for CBRN defence is the ability to secure the Alliance - its populations, territory and forces from CBRN threats, including WMD. This means: preventing the proliferation of WMD by state and non-state actors, protecting the Alliance from WMD threats and (should prevention fail) being prepared for recovery efforts, should the Alliance suffer a WMD attack or CBRN event. CBRN defence capabilities must be commensurate with the force strength and the assessed risks to the deployed forces, derived from operational risk management.

0221. **Basics of operational-level planning.** Operational-level planning may be carried out at the joint level under varying circumstances for the production of different outputs. The following basics apply to any comprehensive operational-level planning effort:

a. **Basics for operational-level orientation**

   (1) Understand the higher commander’s intent, strategic aim and desired end state, i.e. the purpose of the military action.

---

\(^{28}\) For detail see C-M(2009)0048(INV), NATO’s Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats, dated 31 March 2009.
(2) Understand the operational environment, including the information environment and embracing civil related issues.

(3) Focus on linking the operational objectives to the strategic objectives and the desired end state established by the higher command authority.

b. **Basics for the conduct of planning**

(1) Understand the capabilities, limitations and likely intentions of the opposing actors or factions involved in a crisis and other international actors committed to the resolution of the crisis.

(2) Tailor plans taking into account the COGs of all major (opposing, cooperating and neutral) actors.

(3) Ensure protection of own COGs.

(4) Coordinate the use of physical and psychological capabilities.

(5) Establish a logical structure of achievable decisive points / decisive conditions.

(6) Determine the forces required to achieve the desired end state through decisive points / decisive conditions, operational and strategic objectives, and determine the principal command arrangements.

(7) Describe the sequence of related joint operations from initial entry through termination throughout the JOA.

(8) Provide direction, establish objectives and assign tasks to subordinates as the basis for their planning.

(9) Ensure synchronization of military power with other instruments of power.
(10) Ensure information exchange across all levels concerned with and contributing to the operational-level planning. Provide comprehensive information including military and civil issues.

(11) Ensure the provision of funding and adequate sustainment by prudent estimates and complete listing of the requirements.

(12) Develop an OPLAN that is simple, flexible and also measurable as far as practicable. Articulate that plan clearly and succinctly.

c. **Basics for command involvement**

(1) Apply intuition and experience when making decisions on the basic operational design and strive for simple patterns.

(2) Grant freedom of action to subordinate commanders by enforcing mission command\(^29\) as a fundamental principle of C2 in all fields of planning.

(3) Accept and take calculated risks. Provide elements of surprise in the operational design. Be unpredictable by avoiding routine in planning for the use of capabilities.

(4) Consider that the operational plan reflects more than knowledge of doctrine and manuals. The application of creative imagination by commanders and their staffs, supported by their skill, knowledge, and experience, is required to design strategies, campaigns, and major operations and organize and employ military forces.

(5) Be agile. Agility is the ability to think and act faster than opposing actors.

\(^{29}\) See AJP-01(D), Paragraph 0612.
Mission command – Gallipoli 1915

The tenets of mission command, if not the term, were probably familiar to General Sir Ian Hamilton, Commander Mediterranean Expeditionary Force, during the 1915 Gallipoli campaign. And yet at least some of the disastrous consequences of that ill-fated expedition have been attributed to his poor judgement in command.

Hamilton effectively communicated his intent, concerning the various beach landings, to his subordinates. They, however, were of variable competence and while Hamilton periodically suggested how they could improve matters, he was reluctant to intervene directly when problems arose. In particular, he failed to act forcibly to prevent General Hunter-Weston (commanding 29 Division) persisting with his ill-judged opposed landings on ‘V Beach’, rather than diverting later waves elsewhere.

In contrast, Colonel Mustafa Kemal (a regimental commander within the Turkish 19 Division – who clearly understood his superiors’ overall intent) responded to the ANZAC’s unforeseen break-out by redeploying his regiment, contrary to his immediate commander’s initial orders, to halt the threat.

Notwithstanding the obvious merits of mission command, applying it successfully cannot be taken for granted.

d. Basics for assessing campaign progress

(1) Clearly define criteria for measuring success in reaching the objectives.

(2) Make an overall assessment of the risks associated with the operation.

(3) Continuously reassess the mission’s goals, plans and operational environment to enable organizational learning and adaptation throughout the conduct of the operation.
0222. **Unity of effort.** Planning at the operational level is based on the principles of Allied combined joint operations\(^{30}\). Military forces achieve unity of effort principally through unity of command, which is not always achievable when dealing with non-military agencies (for interaction with these agencies, unity of purpose is more appropriate in order to achieve the maximum possible collective effort). To determine how best to develop unity of purpose, all planners must understand the strategic planning directive (SPD), the operational environment, including its military and civil issues, and the JFC’s intent.\(^{31}\) This is achieved by a common appreciation and a thorough understanding of the mission, the force’s capabilities, and existing restraints and constraints by all planning staffs and planning groups involved.

0223. **Direction and requirements.** Operational-level planning, as well as all operations planning, involves concurrent activity at the other levels of command in iterative cycles as planning matures from a basic idea, to a concept and finally a mature plan. During these cycles higher levels of command regularly transmit guidance and direction to lower levels while requirements for resources and requests for information are proactively presented for approval from lower to higher levels. Thorough operations planning at any level should take account of guidance from up to two levels above and the requirements from up to two levels below.

0224. **Objective oriented planning.** Operational-level planning seeks to describe the sequence of actions that have the greatest likelihood of setting military conditions required to achieve the objectives and the end state. Therefore, once the end state is defined at the political level, operational planners need to work backwards to the initial entry or build-up of forces in the JOA. This backward process is accomplished by linking the end state to the present (intolerable) state in a reverse sequence of construction via intermediate goals, which as pre-conditions for the end state have to be achieved by well-directed efforts to create the desired effects.

\(^{30}\) See AJP-01(D), Paragraph 0118 and cf. AJP-5, Paragraph 0105.

\(^{31}\) Cf. Paragraph 0125 d.
0225. **The operational factors – time, space and forces, and the sphere of information.** For JFCs and their staffs it is a complicated process to evaluate the influences of time, space and forces when linked to the fourth factor, the sphere of information. It is largely a matter of imagination and skill to balance the first three factors in order to gain and maintain the initiative and set military conditions for success. While this is true within the traditional set of the operational factors, the sphere of information\(^{32}\) possesses attributes that set it apart from the other three; in general, the volume of information received cannot be regulated, nor can one compensate for a lack of information. Information is also essentially indefinable in any meaningful way, unlike traditional operational factors. Information has always been a source of power but the information age is increasingly making it a source of confusion. In general what is needed in today’s operations is not more information but more orientation. It is indisputable that information is growing in significance.

0226. A proper evaluation of forces, space and time simply cannot be done without accurate information on the various aspects of the operational situation. Besides gaining information and intelligence, information also affects morale and cohesion of one’s forces. This information can also affect the morale and cohesion of one’s forces or even the opposing actors or the population concerned. Hence, information will always be a significant factor influencing operational-level planning and actions. Information today is an operational factor that has to be considered throughout the whole planning process. Information creates effects by shaping the perception of people. Information therefore could become of highest importance.

0227. **Fundamental relationships.** The following fundamental relationships regarding operational factors have to be addressed by operational-level planning:

---

\(^{32}\) Cf. NTMS and AAP-6, defines ‘information’ only as unprocessed data and preliminary stage of intelligence.
a. **Time-space** relates to the relative speed with which forces can reconnoitre, gain, occupy, secure, and stabilize or control a given area. JFCs and their staffs should evaluate an operations area in terms of space and the time necessary to accomplish the assigned objectives within that area. A JFC can harmonise the factors of time and space by selecting the objectives that lie at short distances to their base of operations; shortening average distances by operating from a central position; applying an innovative operational idea that enhances speed in execution and deception; changing routes of movement; significantly increasing the prosecution of an opposing actor’s force during a peace support operation (PSO). For an attacker the objective is to gain space as quickly as possible while the defender tries to keep control over the space and delay or deny the attacker’s achievement of his objective. With regard to time considerations, any gain of time is an advantage for an actor who wants to maintain the status quo. If a defender is not decisively beaten, he may retain sufficient space and time to withstand the attack until the attacking force reaches its culmination point. The time factor is critically important for the attacker or other opposing actor; the less time available for the defender’s mobilization, deployment and concentration the more likely the attacker or other opposing actor’s will catch the defender unprepared. This is the key to surprise.

b. **Time-force** relates to the relative readiness and availability of forces and their necessary support over time, including implications regarding their status of preparation as well as the evolution of capabilities over time. Time is the grand element between sheer weight and combat effectiveness of a force. Velocity multiplies the overall striking power of the force. The attributes that affect the timely availability of forces include: the type and size of forces and their organization, the distance to the employment area, the transportation mode and the infrastructure in the employment area. Normally, the time factor is not necessarily an advantage for an attacker or other opposing actor. However, it benefits the defender who is able to give up space.
He may be able to barter space for time and in doing so drive the attacker towards his culmination point.

c. **Space-force** relates to the relative ability to control or dominate operationally significant areas; the concentration and dispersion of forces within areas of operations (including the consequences of over extension, dislocation, and exposure); and the ability to give up space in order to avoid becoming decisively engaged. Overcoming the factor of space involves the movement of forces, the impact of fires, and the transmittal of messages and orders. Technological advances have provided better solutions for long distance movements, but the physical movement of forces, especially, still poses significant problems given, in principle: the limited means of transportation available; the general requirement to move large quantities of personnel and material; and the time consumption of longer distance moves. In general, the more distant the physical operational objective in space, the larger the sources of power needed to accomplish it. A sound force-to-space ratio is one of the most critical factors in planning a campaign or major operation, which becomes increasingly more important the longer the crisis or threat last. In general, the greater the expanse of space involved, the more stringent the limitations on resources will be.

d. **Time-space-force** relates to the relative capability to project forces into a region and the comparative speed with which they can build up decisive force capabilities. This is the most complex relationship to properly evaluate and it plays a decisive role on all levels of command. In general, the larger the distances involved in moving and deploying one’s force, the more critical the factor of time will be. Furthermore, the larger the prospective theatre, the larger the force that will be required to accomplish the assigned objectives. At the operational level, sound judgement in balancing these three factors is critical, because of the serious consequences of failing to do so. Some basic considerations: space and forces are relatively fixed at the operational level because the JFC himself can do little to change them except to work with the strategic level throughout the OPP to aid delineation
of the theatre of operations and JOA and identification of forces required for the mission in question. They are fixed at the political level by the boundaries of the theatre as well as the commitment of the national armed forces. However, the time factor is - within certain limits - variable and changeable. It is probably also the most critical factor of the three: time lost by omission can never be recovered, while space lost can be regained, and forces and assets lost can be regenerated or reconstituted. JFCs and their planners must evaluate the situation in a given area of operations (AOO) in its entirety and with a sound forecast of the operational situation weeks or months in advance. Thus, evaluation and judgement from an appropriately detached and more abstract perspective is of paramount importance for JFCs and their operational planners.

e. **Information and the factor of space.** Technological advances have had a two-pronged impact to the relationship of information and space for a JFC. On one hand, JFCs and their staffs today are able to communicate reliably and, if necessary, continuously with increasingly dispersed forces over extended distances. Their ability to reach back to home bases to communicate with their higher command echelons and request required resources may be characterised as global reach. Moreover, current information technologies allow JFCs and their operational planners to have much more detailed and accurate information than they had in the past on all aspects of the physical space. On the other hand, news of military action is broadcast in more or less real time to friends, neutrals and opposing actors alike. The global information environment has already had a profound, but not always beneficial, impact on geopolitics, economics, military activities in general and operations in particular. Non-military aspects of space, foreign and domestic politics, diplomacy, economic activity, society and other aspects of human activity, in particular, considerably affect the planning and conduct of campaigns and major operations. The success of a mission depends on a multiplicity of perceptions, both in theatre and globally. It is important to understand that there are no borders or separate information environments - There is only one information
environment. Therefore, every military action can be potentially observed in every household all over the world. Tactical actions could become of strategic relevance.

f. **Physical aspects of information and space.** In general, flexible and agile information and communication networks are more flexible commercial type. These decentralized systems are less vulnerable to hostile disabling attacks, which is advantageous for own use, but detrimental, when opposing actors shape their information structures in a networked type. Nevertheless, networking in information and communications is not without limitations; geographic location and distance significantly affect the establishment, control and use of ‘information highways’ as these are heavily dependant on the bandwidth of the network nodes and the power supply to the connected ‘server farms’. Both bandwidth and energy supply can be costly, such as when satellite links have to be established or power sources installed in remote and deserted areas. Planners at the operational level must be aware of such relationships when attempting to balance the space factor with the sphere of information.

g. **Information and the factor of time.** The world-wide-web, social networks and mobile phones with internet access can make every eye-witness an independent online journalist. Every action could reach a global audience in real time. This new quality makes active, transparent and trustworthy information an imperative on the basis of a clear information strategy. Moreover, the rapid development of information technology allows for a dramatic reduction in the time required to make decisions and in the time required for planning. Today, even if legacy systems need to be integrated, an effective network of sensors, platforms, C2 and logistics centres allows more tasks to be accomplished faster and more accurately than in the recent past. JFCs and their staffs have the ability to operate in real or near real time. The side that wins the struggle for time, which generates an information advantage and facilitates quicker reactions, is in a position to surprise the opposing actor and seize the initiative. Thus for operational-level planning situational understanding is always a
decisive condition to be achieved in order to ensure the advantage in time and the resulting freedom of action.

h. **Information and the factor of force.** Accurate and timely information can enable the JFC to make sound decisions about the forces required for operations. Improved information capabilities increase the JFC’s ability to know the location and movements of the opposing actor’s force. In particular, better information allows a JFC and his staff to plan, prepare and execute the phasing of his forces in a theatre much more effectively than in the past. The near real-time knowledge of the status of all aspects of logistics in the JOA greatly facilitates planning and execution of logistic sustainment and all other functional areas of logistics. The JFC can obtain an accurate and timely picture of the situation and, through this, obtain a decisive advantage over his opposing actors. The more accurate the picture, the smaller is the likelihood of being surprised by the opposing actor or force. The aim of JFCs and their staffs should be to shorten their own decision cycle so that the opposing actor scarcely acts, but is always forced to react or is unable to react at all. The essential factor is tempo; higher tempo is a factor not only of technology but also of the JFC’s and his staff’s mental agility to act decisively and boldly. Tactical leaders today can be reached through a variety of communication means, which together enable the JFC and his staff to constantly monitor the progress of actions. For the JFC in view of his information and communication capabilities, it may become tempting to directly interfere with the on-scene commanders’ tactical decisions. A JFC should only bypass the ordinary chain of command in cases of extreme emergency or in other exceptional circumstances and should routinely give preference to the mission type command in order to encourage flexibility and agility in decision making at the tactical commanders’ level. Another aspect is perception. Every conflict is a struggle of ideas and perceptions. Especially in PSO the perception of the local population is a key for success. Every military action shapes perceptions and has therefore an effect in the information environment. All planning has to take this into account.
0228. **Operational factors and the human factor.** Information increasingly affects the three traditional operational factors. Its effects on the space factor are growing, particularly with regard to non-military aspects of the situation. Effects of information on the force factor should not be underestimated, but they should also not be exaggerated. It is situational understanding which can provide the JFCs and their staffs with a relevant picture of the situation regardless of the time of day or the weather. All physical aspects of the JOA can be explored. However, JFCs and their staffs may still have difficulty in making sound decisions and conducting successful planning without understanding the skills and personality traits, the intentions and possible reactions, morale and discipline, unit cohesion, training state and soundness of doctrine of all actors in the JOA.

0229. As for the relationship between information and time it should be emphasized that situational understanding is a decisive condition worth achieving in any case, but the utility of information is still heavily dependant on the human factor; information is useless if the JFCs and their staffs do not exploit it by using intellect, wisdom and courage to make sound decisions and then execute the resulting plan with sufficient determination. Information should therefore be properly considered as an aid to, not the master of, JFCs and their staffs. The human element will dominate operational-level planning and execution as long as war and any type of conflict remains a clash of human wills.

### Section IV – Operational design concepts and tools

0230. **Operational design** develops and refines a commander’s operational ideas to provide detailed, executable plans. It is underpinned by a clear understanding of the political and strategic context together with an effective framing of the problem. Structured processes, like the concepts listed below, and related tools enable the operational design, which will be considered later.\(^{33}\)

0231. **Operational design concepts.** Planners, when working out a concept of operations from the JFC’s overarching ideas and guidance, require a sound understanding of many different operational design

\(^{33}\) See Chapter 2, Section V.
concepts. These need to be applied in analysing strategic and operational factors, understanding operational requirements, enhancing creativity and imagination, and ensuring a logical relationship and balance between 'ends, means, ways and risk'. The concepts are to be used in a logical sequence to design campaigns or major operations based on a thorough mission analysis and appreciation of the situation. They include:

a. Desired end state.

b. Transition and termination.

c. Objectives, effects, measures of performance, effectiveness and campaign progress.

d. COGs and critical capabilities, requirements, vulnerabilities.

e. Decisive points/decisive conditions.

f. Lines of operation (LoOs).

g. Operational geometry.

h. Sequencing and phases enabled by following operational concepts:

(1) Synchronization, synergy and leverage.

(2) Simultaneity and depth.

(3) Manoeuvre.

(4) Operational tempo.

(5) Main effort.

i. Contingency planning (branches and sequels).
j. Culmination.

k. Operational pause.

l. Direct versus indirect approach.

Campaign fulcrum. For more information on campaign fulcrum, see page 2-84.

0232. **Operational design tools.** The application of operational art requires a sound understanding of not only the operational design concepts, which are described immediately below, but also of useful design tools. They are utilized in analysing strategic and operational factors, understanding operational requirements as well as in enhancing creativity and imagination. Some tools which can assist in this are COG analysis matrix, risk assessment matrix, COA formats, operational-level OPLAN schematic and synchronization matrix. Some of these tools are in part described in Chapter 3.

0233. **The desired end state.** Before designing a campaign or major operation it is necessary to clearly identify the desired end state for both the Alliance and the opposing actors. Therefore, the NAC, the Military Committee (MC) and the SC will necessarily describe clearly the desired Alliance end state and the strategic objectives to enable the operational-level planning element to work. The articulation of an end state will be fulfilled well before military forces are committed. The desired end state is the baseline for all StratCom activities, especially for the NATO narrative and the communication strategy. Moreover, the ability to plan and conduct operations for conflict termination depends on a clear understanding of the desired end state. The Alliance's desired end state is the NAC statement of conditions that defines an acceptable concluding situation for NATO's involvement.\(^{34}\)

It describes conditions for a favourable, self-regulating situation within the engagement space that satisfies the overall political objective. The

---

end state must be comprehensible and feasible because it defines the ultimate criteria for the cessation of Alliance activities in a crisis region. It is often linked to the provisions of an international mandate or agreement providing legal authority for resolving the crisis. Operations planning groups at the strategic-military level need to assess thoroughly the strategic-military part of the desired end state and its interdependencies with the non-military features and conditions of the desired outcome.

**End-state analysis** confirms the relationship of the in-theatre military contribution within the overall effort to reach a desired outcome. For UK operations, JFCs may be given their end-state, or they may have to derive it themselves. Analysis helps them to appreciate the political and military strategic purpose behind their specific activity and the intended relationship with the other instruments of power. Using, for example, hierarchical mapping, a campaign end-state can be mapped against other strategic outcomes, to explore their hierarchical relationship. The figure below shows only the military contribution (in terms of campaign and military strategic objectives), but could be expanded to include the contributions of other participants.
0234. **Transition and termination** will in most cases include the resolution of a conflict as well as the mutual acceptance of terms and conditions to ensure a lasting settlement. It will require political action, especially when military force has been employed and will probably require a comprehensive approach to involve diplomatic, economic, informational instruments and civil capabilities\(^\text{35}\). The process may continue well beyond the cessation of hostilities and encompass stabilization and reconstruction activities. Termination provides an

\(^{35}\) Different models to describe instruments of power exist. This publication uses that found in AJP-01(D). For more on harmonization of the descriptions of ‘instruments of power’ see Bi-SC letter, CPPSPL/7740-73/10-271642; 5000 FEF 0070/TT 6518/Ser: NU0008 dated 31.01.2011.
essential link between Alliance military operations and post-conflict activities, for example undertaken by the United Nations, Organization for Security and Cooperation in Europe or other organizations.

a. **Exit criteria.** JFCs and their staffs must clearly understand the desired end state and the exit criteria for the campaign, which in turn have to be developed in a clearly articulated way by the Alliance’s political level. Appropriate and well-conceived exit criteria are the key to ensuring that successful military operations result in conditions that allow conflict resolution on terms favourable to the Alliance. JFCs must continually re-evaluate the operational conditions to determine if the original desired end state and exit criteria are still valid and achievable.

b. **Planning for transition and termination.** Termination is a key consideration in the design of an operation and must be integrated into both the OPP and the OLPP. SACEUR and his staff will examine the desired end state and determine what military conditions must exist to justify the recommendation for the cessation of military operations. In formulating his plan, SACEUR should address the following considerations:

(1) Is there a clear, concise statement of exit criteria that support the desired end state?

(2) Are all of the instruments of power (diplomatic, information, military, economic) and eventually the civil capabilities available to create the maximum effect?

(3) Will the international community provide diplomatic and economic support that contributes to achieve the desired end state?

(4) What is the NATO strategy for conflict termination? Is early termination more desirable than continued military operations?
(5) How can military operations contribute to future long-term stability while avoiding sowing the seeds for future conflict?

(6) Who must assume control of the situation once termination criteria are met?

(7) What resources and capabilities are required to sustain an acceptable end state and pursue progress?

(8) What authorities and relationships must this entity possess to enable success?

0235. Objectives, effects, measures of performance, effectiveness and campaign progress.

a. An **objective** is defined as "A clearly defined and attainable goal for a military operation, for example seizing a terrain feature, neutralizing an adversary’s force or capability or achieving some other desired outcome that is essential to a commander’s plan and towards which the operation is directed." Combined joint operations must be directed towards commonly understood objectives, which are essential to political rulers’ and military commanders’ plans at their respective levels, in order to achieve the end state. Objectives will be achieved by the outcome of an aggregation of created effects. As they are derived from the end state the achievement of objectives should also lead to the achievement of the end state.

b. **Alliance strategic-political objectives** establish the strategic purpose for all actions - be it military and non-military - by the Alliance within a comprehensive approach. They are laid down within the NAC initiating directive and describe the goals that must be achieved in order to establish conditions required to attain the favourable self-regulating situation described as the desired end state. Based on its analysis of the principal actors, influencing factors and COGs, the Strategic Operations Planning Group at the strategic-military level determines the essential

---

36 See NTMS and AAP-6.
conditions that must be achieved to attain the favourable self-regulating situation described as the end state. The development of strategic-political objectives will be an iterative process during which the planners have to ensure that strategic objectives are in balance with the ways and means available for their achievement.

c. **Military strategic objectives** define the role of military forces in the wider context of the Alliance’s overall strategic objectives. They provide the focus for operational planning by JFCs and therefore must clearly state those military conditions to be achieved that contribute to strategic objectives and the desired end state. They must be reasonably attainable given the ways and potential means available, the strengths and vulnerabilities of the adversary and/or other factors in the operational environment.

d. **Operational-level objectives.** Based on the mission analysis, the JFC and his operational planners should share a clear understanding of the operational-level objectives given to them via SPD. They decide which actors and systems in the crisis or conflict need to change, as well as the actions and effects that must be created to that end. The evaluation of main actors and analysis of their COGs provide additional insight into what changes in the behaviour and capabilities of specific systems or their elements may be required. The operational-level objectives, given by the strategic level, establish the conditions to be achieved in the JOA required to accomplish strategic objectives and contribute to the desired end state. They provide the focus for the employment of the military force to influence strategic and operational COGs.

e. **Effects at the operational level.** An effect\(^37\) is defined as a change in the behavioural or physical state of a system or system elements\(^38\) that results from one or more actions, or other causes. Based on the criteria for success for each objective and their

---


\(^38\) For ‘thinking in systems’ see Paragraph 0215 b.
previous analysis of each actor’s systems, the operational planners should be able to determine the changes required in a specific actor’s system/system elements. These changes are stated at the operational level as effects.

f. **Measures of performance, effectiveness and campaign progress.** These measures and their criteria for measurement must be well understood, differentiated and applied by the planners, when developing and reviewing operational-level plans.

(1) **Measures of performance** can be understood as the criteria used to evaluate the accomplishment of actions. Each level (operational and subordinate levels) will normally develop measures of performance for the actions they will execute. Each measure of performance must:

(a) Align to one or more actions.

(b) Describe the element that must be observed to measure the progress or status of the action.

(c) Have a known deterministic relationship to the action.

(d) Measures of performance answer the question, have the planned activities been carried out successfully as planned?

(2) **Measure of effectiveness (MOE)**\(^{39}\) can be described as a criterion used to evaluate how a system’s behaviour or capabilities have been affected by actions. In other words, are we doing the right things. MOEs are used to assess progress towards the creation of desired effects and the achievement of objectives and end state. Monitoring an MOE over time will allow the determination of whether or not results are being achieved, as defined in the plan. They can also be used to provide indications that we need to change our actions because they are not achieving our aim. Based

---

\(^{39}\) Not defined in NTMS and AAP-6 but listed as abbreviation in AAP-15.
on knowledge of the systems involved, the operational planners will determine system elements for which measurable MOEs can be derived, the measurement of which over time will indicate if progress towards the desired objectives and end state is being achieved. Multiple MOEs per intended system state may be required to fully capture desired changes. While an MOE is a metric used to describe a system state, analysts may find it useful to package other information with an MOE such as the desired rate of change and threshold values. This assists in the assessment and analysis process.

(3) **Measurement of campaign progress** is understood to be finding and utilizing criteria for operational success. These provide tests for determining when an objective has been achieved. They establish standards for sustainable self-regulating conditions and system states in the crisis or conflict that must exist as well as the ones that must not exist in order for the objective to be met. They are critically important to the campaign assessment process and decisions related to the transition and termination of operations.

**Measurement of progress** provides an opportunity to review the validity and endurance of the key tenets of a plan (intent, end-state, objectives, centre(s) of gravity, decisive conditions), and reaffirm, or adjust, as necessary. Meanwhile, the synchronisation of forces and functions (including actions, desired effects and decisive conditions) and main effort are likely to be refreshed more frequently as the campaign progresses and as the JFC seeks to maintain the initiative. The operational estimate, and the audit trail of decisions made in the past, provides the framework for subsequent adjustment.
0236. **Centres of gravity and critical capabilities, requirements, vulnerabilities.**

Also refer to COPD discussion on centres of gravity and Chapter 3.

a. **The nature of centres of gravity.** Based on the mission analysis, the JFC and his staff develop a clear understanding of the operational outcomes that must be achieved, as well as capabilities and range of actions of enemies, adversaries and other actors. On this basis, they can complete their own analysis of COGs. A COG represents the primary strength of an actor with which to achieve his objectives and/or to prevent an opposing actor from achieving his. Strategic COGs are typically related to the dominant element of power for achieving strategic objectives such as the power of a regime, the will of the people, ethnic nationalism, an alliance, etc. Operational-level COGs are typically a dominant capability, which allows the actor to actually achieve operational objectives. Therefore, depending on his mission requirements, the JFC and his operational planners have to analyse both strategic and operational COGs.

b. **Identifying operational-level centres of gravity** depends on the situation in its greater context, and the anticipated military activity. Even where there is no obvious single COG, the concept may still be useful to ensure, in potentially complex and multifaceted crises, that the JFC and his staff remains focused on what is important to achieve the operational objectives.

(1) **Bipolar conflict centres of gravity.** Each side engaged in a typical bipolar conflict should identify, and then attack their enemy’s, and protect their own, COG. Force is then applied offensively against an opposing actor’s vulnerabilities and defensively in order to safeguard one’s own COG.

(2) **Multiple centres of gravity.** In other situations, there may be no simple bipolar construct. The identification and

---

40 Defined as Characteristics, capabilities or localities from which a nation, an alliance, a military force or other grouping derives its freedom of action, physical strength or will to fight. (NTMS and AAP-6)
analysis of COGs may nonetheless help a JFC and his staff to understand the critical aspects of the situation, most notably the characteristics of key actors.

(3) **Non-opposing centres of gravity.** In situations where there is no particular enemy, and no obvious value to be gained by focusing effort on any one actor, a more abstract COG may be useful. For example, during PSOs where a range of opposing factions are fighting each other, defeat of one or more of them may not be appropriate. Their support and supplies chains from abroad may be an appropriate COG in such a situation.

(4) **Intangible centres of gravity.** In particularly complex situations, involving a multitude of actors engaged in a combination of major combat, security operations to enable stabilisation, and other peace support activity, a JFC and his staff may not be able to identify an unambiguous COG. In this situation they can seek to frame as a COG either:

(a) The most significant factor preventing them from achieving the operational objectives.

(b) One factor that appears predominant amongst or common to all opposing actors in promoting their objectives.

Identifying centres of gravity is one of the most significant decisions that a commander can make. The right selection will focus the campaign plan on what is decisive in delivering the end-state, whereas the wrong choice will lead to effort being wasted on chasing a goal that does not necessarily lead to campaign success. The choice should be clearly justifiable with evidence to show why alternatives have been rejected. Intuition will rarely suffice. The process of identifying centres of gravity will also expose more detail on the operating environment, as the commander and staff focus their energies on considering their own and their adversaries, sources of strength.
Once centres of gravity have been identified, analysis seeks to expose their vulnerabilities; those of the friendly force will be protected, and those of the adversaries attacked. In this way centres of gravity represent an adversarial relationship. Centre of gravity analysis will define the operational progression, as objectives or decisive conditions are identified and sequenced in different courses of action. Analysis must also be done from a perspective other than one’s own. The obvious perspective is from that of the adversary, but widening the analysis community of interest or ‘red teaming’ may provide alternative viewpoints. (For more information on red teaming, see DCDC’s Red Teaming Guide – https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/142533/20130301_red_teaming_ed2.pdf)

There may be different centres of gravity at different levels but, if so, they should all be nested. At the strategic level, a centre of gravity is often an abstraction, such as the cohesion of an alliance. At the tactical level, it is usually a capability or strength that can be affected through defined action over specified time-scales. Identifying an operational-level centre of gravity depends on the context, circumstances and anticipated military activity. Even where there is no obvious single centre of gravity, a commander may still find the concept useful to ensure that he remains focused on what is militarily critical to the desired outcome.

Centres of gravity may change during the course of a campaign. Commanders must also be open to the possibility that the wrong centre of gravity may have been selected during planning. Centres of gravity should therefore be reviewed throughout a campaign as understanding evolves of the relationship between cause and effect within a conflict.
Argentinian forces invaded the Falkland Islands on 2 April 1982. Britain responded rapidly by despatching a task force to retake the Islands.

The Argentinian Armed Forces had 220 jet aircraft. The British Task Force had 34, all Harriers. Control of the air was vital to enable amphibious landings and provide the freedom of manoeuvre for surface forces. Initial planning showed that even after a successful reoccupation of the Islands, the Royal Navy would have to retain two aircraft carriers in the South Atlantic for several weeks, and probably longer. The only hard-surface runway in the Falklands, at Stanley, was not long enough to operate fast jet aircraft and could not easily be extended.

The Royal Navy had two aircraft carriers: HMS HERMES and HMS INVINCIBLE. HMS ILLUSTRIOUS had been launched, but was not yet operational. The deduction was simple: for control of the air, the Task Force could not afford to lose a carrier.

That premise shaped the naval campaign. The Falklands lie 300 miles east of Argentina. Placing the two carriers east of the Falklands would keep them out of range of enemy aircraft. That had implications for the availability of air cover; the Harriers had to make relatively long transits to, and from, station. Because relatively few aircraft were available, they could only patrol for short periods. It was planned to build a forward operating base to accommodate 12 Harriers once land operations got underway. However, the loss of much of the stock of perforated steel planking on the ATLANTIC CONVEYOR limited the capacity of that base to only four aircraft.

HMS ILLUSTRIOUS joined the Task Force later in the year, but only after the Falkland Islands had been retaken. Using today’s planning concepts, two functioning carriers would arguably have been the Task Force centre of gravity. The Argentinians knew how important the carriers were, and repeatedly tried to find and sink them.
0237. **Decisive points and decisive conditions.** The following two design concepts must be well understood and differentiated.

a. A **decisive point**\(^{41}\) is defined as a point from which a hostile or friendly centre of gravity can be threatened. This point may exist in time, space or the information environment. When specific outcomes are determined to be critical to gaining or retaining freedom of action or to the accomplishment of the objective, they may be designated as decisive points. The conclusion drawn from the COG analysis should highlight changes in the critical capabilities and influences of specific actors that would be decisive for Allied success on a given LoO\(^{42}\). Identifying decisive points along each LoO is critical to the overall design in terms of:

1. Establishing the nature and sequence of joint operations along each LoO.
2. Prioritising the effects to be generated along each LoO.
3. Taking into account possible links to actions and effects along other LoOs.
4. Determining the force and capabilities requirements for each LoO over time.
5. Synchronising and coordinating operations on and between different LoOs.
6. Establishing and managing the priority of effort.
7. Ensuring that the progresses towards the objectives are measurable as far as practicable.

Decisive points are the classical elements of an operational design.

---

\(^{41}\) NTMS and AAP-6.

\(^{42}\) See Paragraph 0238.
b. **Decisive condition** (DC) is a new term that augments the extant term decisive point. It is defined as ‘A combination of circumstances, effects, or a specific key event, critical factor, or function that when realised allows commanders to gain a marked advantage over an opponent or contribute materially to achieving an operational objective.’ The definition of the term is broader than that of decisive point, is more suited to contemporary operations and better reflects the NATO contribution to the comprehensive approach. DCs, like decisive points, are logically determined from the COG analysis process and are arranged along LoOs leading to the adversary’s COG. But a DC can be a place, a precise moment or a distinctive characteristic or quality upon which a COG depends to maintain its freedom of action and power. DCs need not necessarily constitute a battle or physical engagement, nor need they have a geographical relevance. The application of the broader substance of DCs aids a JFC to analyze the problem and the operational environment in broader context, when planning for joint operations in a complex contemporary environment.

0238. **Lines of operation.** Along any LoO it will be necessary to determine the sequence in which specific outcomes must be established to focus the effort required to accomplish one or more operational or strategic objectives. DCs, like decisive points, can be elements of LoOs. Having determined the best overall approach to the opposing COG, the next step in the operational design is to determine primary and alternative LoOs. These are used to arrange operations in time, space and purpose in order to transform specific conditions at the start of the operation to conditions required to achieve operational and strategic objectives. LoOs are directed against the opposing COGs and their critical vulnerabilities. The determination of LoOs will shape the development of the plan as well as the conduct of operations. Functionally cross-cutting LoOs, each involving more than one element of MN power, will create a more effective system for coordination between military, law enforcement and other partners.

---

43 See AJP-01(D), 5A1 e.
44 In a campaign or operation, a line linking decisive points in time and space on the path to the centre of gravity. (NTMS and AAP-6).
during planning and execution. This type of LoO construct brings to bear the capabilities of multiple elements of power, which makes it particularly effective toward achieving more complex objectives or outcomes. It is important therefore, that the alternatives are developed by the planners and presented to the commander focussing on:

a. The purpose of each LoO.

b. Critical vulnerabilities to be exploited or protected.

c. Decisive points / DCs required to retain freedom of action and progress in accomplishment of operational objectives.

d. Required interaction with non-NATO entities.

Groupings, rather than lines of operation, especially in the initial stages of campaign design, may offer a means of visualisation. Depending upon the nature of the crisis, lines or groupings of operations may be environmental (for example, air and space or maritime), functional (such as, force protection, intelligence or manoeuvre) or thematic (for example, governance or security). Environmental lines may be appropriate for bipolar war fighting; thematic lines may better suit complex crises.

0239. Operational geometry. Having identified COGs, decisive points / DCs and LoOs, the geographic aspects of the operational design should be used to analyse the ‘geometry’ of the operations area. This analysis includes an examination of ‘time-space-force’ factors as well as the sphere of information\(^45\) in order to more accurately determine operational requirements related to geography. In particular, this analysis should consider the ‘operational reach’ of Allied joint forces based on the range at which different forces can prudently operate or sustain effective operations.

\(^{45}\) See Paragraphs 0225. to 0227.
0240. **Sequencing and phases.** Operational planners should determine the best arrangement of actions and effects to achieve assigned objectives. This arrangement will often be a combination of simultaneous and sequential actions of operations designed to achieve the desired end state. However, it may not be possible to attain these objectives in a single engagement or even a major operation. As such, the design of a campaign or major operation normally provides for the sequencing of actions or the phasing of operations. Sequencing is the arrangement of actions designed to achieve desired conditions or to create effects at decisive points / DCs within a major operation or campaign in an order that is most likely to produce the desired effect on opposing COGs. Although simultaneous action on multiple lines of operation may be ideal, lack of resources usually forces the commander to sequence his actions; alternatively, a commander may choose to sequence his actions in order to reduce risks to an acceptable level. This process assists in thinking through the entire operation or campaign logically in terms of available forces, resources and time, and helps to determine different operational phases. Phases represent distinct stages in the progress of the overall operation leading to the creation of effects and the attainment of specific decisive points / DCs required for subsequent stages and ultimately the successful accomplishment of the overall objective. Phases are sequential but the course of effects and actions may overlap. The actions required to create certain effects in a certain phase, may well start prior to the phase in question. In some cases the beginning of a phase may be contingent on the successful completion of a preceding phase. This should be clearly recognised in the operational design. The arrangement of supported/supporting relationships may be a valuable instrument in phasing the operations. The JFC may designate a main effort in each phase and assign the primary responsibility for execution of the military tasks to a subordinate commander. This one may in turn become the designated supported commander for all mission elements. The JFC may provide the supported commander with the authority for the general direction of the supporting effort. However, the primary aim in sequencing and phasing an operation or campaign is to maintain continuity and tempo

---

46 See AJP-01(D), Paragraphs 0620. to 0622. for further detail.
and to avoid unnecessary operational pauses. A visualization of sequencing and phasing is given in Figure 2.2.

![Figure 2.2 – Operational design:- sequencing and phases](image)

0241. In determining the character and sequence of an operation the following operational design concepts should be considered. They will influence decisions on phasing the operation. The list should not be considered as all encompassing.

a. **Synchronization, synergy and leverage.** Operational planners throughout this part of the design process consider how to best synchronise operations using all available means in order to generate the greatest effect with a given expenditure of resources or a desired effect with the least expenditure.

(1) **Synchronization** is the arrangement of actions and their results in time, space and purpose to achieve maximum advantage and most favourable conditions, namely decisive points / DCs. Operational planners will therefore make

---

This notional operational design could likewise be set up using decisive points.
integrated use of all capabilities available to them to achieve the decisive points / DCs, such as precision attack, decisive manoeuvre, psychological operations, civil-military cooperation as well as electronic warfare or deception. The primary benefit from synchronised actions is the ability to produce synergy using different resources and gain leverage through the imaginative creation of effects and exploitation of desired conditions throughout the JOA.

(2) **Synergy** is the ultimate aim of all synchronization efforts. Synergy is the cumulative outcome or result of discrete acts; it is greater than the sum of the individual parts acting independently. In practice, it means integration and synchronization of actions aimed to overwhelmingly achieve the objective, i.e., to shock, disrupt and defeat the enemy force in an armed conflict.

(3) **Leverage** is achieved when the resulting impact of an action is more than proportionate to the effort applied. Leverage can be achieved by focusing Allied joint force strengths, against opposing actor’s weaknesses when aiming at decisive points / DCs.

b. **Simultaneity and depth.** Operational planners need to determine the extent to which joint forces can conduct simultaneous operations to achieve decisive points / DCs throughout the depth of the operations area. This is largely a function of the availability of military resources and their operational reach. The intent should always be to achieve synergy by combining the effects of simultaneous actions to overwhelm the opposing actor’s ability to respond effectively with so many actions occurring at one time and to conceal as long as possible the direction of main effort.

c. **Manoeuvre.** The operational design should exploit opportunities for manoeuvre by joint forces. The purpose of manoeuvre is to seek a position of advantage in respect to the opposing actor’s position from which force can be threatened or applied.
Manoeuvre may be employed to create desired effects to achieve decisive points / DCs or to directly affect the opposing COG. Manoeuvre exploits opportunities to attack an opposing actor from unexpected directions thus threatening his physical as well as his moral strength and potentially producing results disproportionately greater than the forces committed. The key is to find ways for forces to dominate time and space.

d. **Operational tempo** is the rate or rhythm of activity relative to the opposing actors', within tactical actions and between major operations. Within PSOs the reference point may be different. Operational tempo incorporates the capacity of a joint force to make the transition from one operational posture to another in order to gain and maintain the initiative. During planning the JFC and his staff must anticipate opposing actions and be prepared well in advance, which when coupled with the ability to decide and act rapidly will enable the concentration of military capabilities and the massing effects to achieve decisive points / DCs. Likewise, he cannot allow the opposing actors to anticipate his actions and must retain the ability to become unpredictable by masking own true intentions, through operational security and deception. The ability to dictate the operational tempo provides freedom of action and is key to bringing an opposing actor to his culmination point while preventing the premature culmination of one's own operation.

e. **Main effort.** The JFC will normally designate a main effort in order to concentrate his forces, accepting an economy of force elsewhere, while planning the ability to shift his main effort rapidly to take account of the evolving situation. The concept of main effort provides a focus for the activity that the JFC considers crucial to success. A JFC states his main effort for the operation or for a particular phase in order that his subordinates understand where his priorities lie, so that in times of uncertainty or rapidly changing situations, where tactical orders may be inappropriate, subordinate commanders can take quick and independent action.

---

48 In PSOs operational tempo may be developed relative to other actors’ activities or during humanitarian assistance relative to the exacerbation of the humanitarian situation.
A main effort is given substance in a variety of ways:

- extra resources may be allocated to the component assigned to the main effort;
- other components may be assigned specific tasks to support the main effort either directly or indirectly; or
- steps such as the changing of boundaries or economy of effort elsewhere, to concentrate fighting power.

Cognisant of the JFC’s main effort, subordinates can use their initiative to take timely and independent decisions and action, thereby optimising tempo. Subordinate commanders may declare their own main effort to support that of the JFC.

0242. **Branches and sequels.** An essential step in the operational design process is to anticipate eventualities that may occur during the course of a major operation or campaign and determine alternative LoOs and sequences of action, while still ensuring to achieve the overall objective. For every action there is a range of possible outcomes that may or may not create the desired effects or the expected changes of conditions. Outcomes that are more favourable than expected may present opportunities that can be exploited. Outcomes that are worse than expected may pose risks that can be mitigated. However, the ability to exploit opportunities and mitigate risks depends first on anticipating such situations and second on developing options for effectively dealing with them. JFCs and their operational-level planners must anticipate possible outcomes and ensure that options are provided in their planning in order to preserve freedom of action during rapidly changing circumstances in order to allow them to keep the initiative despite opposing actions. This is achieved by developing ‘branches’ and ‘sequels’ derived from continuously exposing the operational design to questions, concerning situations that could possibly occur during each phase of the operation or campaign.

a. **Branches** are options within a particular phase of an operation, which are planned and executed in response to anticipated opportunity or reversal within that phase, to provide the JFC with the flexibility to retain the initiative and ultimately achieve his
original objective. The planning of branches is sometimes referred to as ‘contingency options’ planning, which has to be well differentiated from the contingency plan (CONPLAN) planning described in Chapter 1.\textsuperscript{49} Branches address the question of “what if”? 

b. **Sequels** are options for subsequent operations within a campaign or the following phase(s) of an operation. They are planned on the basis of the likely outcome of the current operation or phase, in order to provide the JFC with the flexibility to retain the initiative and/or enhance operational tempo and ultimately achieve his objective. Sequels address the question of “what’s next”? 

0243. **Culmination** is that point in an operation when a force can no longer successfully continue its current operation. Sequencing and phasing should be designed to ensure that operations by opposing actors culminate well before they can achieve their objective while ensuring that one’s own operations achieve their objectives well before any culmination. Therefore, operational design should determine ways to speed the opposing actor’s culmination while precluding one’s own. Culmination has both offensive and defensive applications:

a. In the offence, the attacking force reaches its culminating point when it can no longer sustain its offensive action and must transition to the defence or risk counter attack and defeat.

b. In the defence, the defending force reaches its culminating point when it no longer has the capability to mount a counter offensive or defend successfully and is forced to disengage or withdraw or face defeat.

\textsuperscript{49} Cf. Paragraph 0110 a. (2) and (3).
Using the culminating point – either exploiting that of an opponent or responding to that of one’s own force to break a potential deadlock – is intrinsically difficult for two reasons. First, it is often challenging to identify in advance what criteria will bring about culmination. Second, and even if the criteria are known, it is often hard to determine (at the time) when the criteria are met. Culminating points can be physical or more abstract. Studying historic campaigns, as well as effective and timely assessment, may allow JFCs to appreciate when, and where, they should bring their influence to bear. The possibilities are unlimited; it could be through key leader engagement (friendly, adversary or neutral) as much as the timely initiation of a campaign branch or sequel.

0244. **Operational pause.** Rather than risk culmination before the military strategic and the operational-level objectives of the operation have been achieved, the JFC may be forced to accept an operational pause in the design of his campaign or major operations. An operational pause is a temporary cessation of certain activities during the course of a major operation or campaign prior to achieving the objectives in order to avoid the risk of culmination and to be able to regenerate the combat power required to proceed with the next stage of the operation and the ultimate attainment of the objectives. An operational pause is preferable to premature culmination. Nevertheless, operational-level planners need to ensure an integral approach to the operational design in order to minimise the requirement for operational pauses in the operation.

An operational pause can also be imposed through choice (for example, to allow time for orchestrating military and non-military activity, or as part of a deception plan). Although a pause tends to reduce tempo, at least in the short term, it can also provide greater effectiveness and improved tempo later on. Indeed, implicit in the term ‘pause’ is the ability to reactivate the campaign to regain the initiative and re-establish momentum.
An operational pause can apply to a whole campaign or to just one line of operation, for example, to concentrate effort on another. Therefore, an operational pause (including the reason why) should be clearly articulated, preferably in advance, and never allowed simply to occur. Regaining the initiative afterwards may require a concerted effort, purposefully planned and clearly directed, to include any necessary reallocation of resources or reassignment of missions and tasks.

0245. **Direct versus indirect approach.** A further step in designing an operation is to determine the best approach for dealing with the opposing COGs. Destruction or neutralization of the opposing COG is the most direct path to success. Two alternative approaches to consider are the direct and indirect approaches. The direct approach involves a linear, uninterrupted approach against an opposing force’s COG, often by way of decisive points / DCs and objectives. The direct approach is appropriate when a force has superior strength, the opposing force is vulnerable and the risk is acceptable. Conversely, when a direct attack would mean attacking an opposing actor’s strength, JFCs and their operational planners should seek an indirect approach. The indirect approach seeks to exploit an opposing force’s physical and moral vulnerabilities, while avoiding its strengths. The indirect approach is appropriate when a force is insufficient to operate directly against opposing COGs or critical capabilities in a single operation or coup de main, and instead must concentrate on exploiting the opposing actor’s critical vulnerabilities in a series of operations that eventually lead to the defeat of the COG. In particular, the indirect approach may seek to exploit vulnerabilities within the opponents’ fighting power.

**Campaign fulcrum.** A campaign fulcrum is the point during a campaign when an approximate, albeit fluctuating, equilibrium between opposing forces is disrupted significantly; one side starts winning and the other losing, potentially irreversibly. In practice, reaching a campaign fulcrum is difficult to predict in advance. The very act of attempting to define it and its distinctive criteria, however, can help identify opportunities to create the right conditions for success.
Section V – Operational-level considerations of operational design

0246. **Campaign themes and the applicability of operational-level planning.** In order to cover the full spectrum of NATO’s roles and missions, operational-level planning, like the strategic planning level above, has to recognize and address various campaign themes.\(^{50}\) Today’s security environment requires the conduct and planning of campaigns and major operations ranging from major combat through security (operations to enable stabilization) to PSOs and peacetime military engagement. Some of these campaign themes may emerge and require response simultaneously or in close sequence\(^{51}\) or both within a short timeframe and in close proximity. Stabilization and reconstruction activities, if the Alliance decides on the need for their conduct, may form a particular challenge. For the operational-level, planning for this theme does not cause a change in the application of the planning doctrine and its fundamentals as such.

0247. Allied joint operations doctrine is based on some axiomatic principles, one of which is ‘operations are operations’.\(^{52}\) According to this principle all operations can fundamentally be approached in the same manner. What will vary for the OLPP will be the mandates, constraints and drivers that will be factors during all planning steps. The OLPP itself is applicable in a flexible way: In some cases, time for planning will be limited, which will increase the intensity of planning and limit the depth of study in any one planning step. In other cases, there will be time for more detailed consideration. However, regardless of time available, all steps of the OLPP have to be run through to guarantee a comprehensive planning and the production of well-developed planning products.

0248. **Operational-level planning as a cycle.** Like any other similar planning activity, operational-level planning is cyclic. This has a

\(^{50}\) See for predominant campaign themes AJP-3(B), paragraphs 0114 to 0124.
\(^{51}\) For example, the so called ‘three block war’.
\(^{52}\) See AJP-01(D), Paragraph 6. a.
twofold meaning in the context of operational art, design and management.\textsuperscript{53}

Figure 2.3 – Cyclic character of operational-level planning

a. Firstly, operational-level planning fits into the greater cycle of the conduct of operations with the respective phases of operational-level analysis and planning, which compose the operational design. The operations cycle is completed by execution and assessment under operational management. For the NATO OLPP, planning has two distinct sections, requiring a distinct phase of concept of operations (CONOPS) development between analysis and planning.

b. Secondly, from each phase of the operations cycle prior to the execution phase, (CONOPS development, plan development and

\textsuperscript{53} Cf. AJP-01(D), paragraphs 0524 to 0525 and Figure 5.1.
analysis) planning activities can revert directly to either of these previous phases if this becomes necessary due to changes in the mission or the situation or other constraints.

These relationships are depicted in Figure 2.3.

0249. Importance and consequences of operational-level planning. The planning process focuses the attention of JFCs and their staffs on campaigns and joint operations and enhances the JFC’s knowledge and understanding of the situation. Planning serves as a guide for the preparation of subordinate forces. Proficiency in planning considerably improves the ability of the JFCs and their staffs to prepare and execute plans on short notice when necessary. It also greatly reduces the time between decisions and actions during execution. Sound planning for a campaign and major operations requires that JFCs and their staffs truly think at the operational level. This means that they need to think far ahead to identify possible changes in the situation and then determine what decision to make and when, to positively influence events before they occur. It mentally prepares the JFCs to identify potential decision points and focus their thoughts on potential branches and sequels.

0250. There are also inherent risks in applying the planning approach; the increasing size of staffs can lead to bureaucratization. Planning can be driven too far into the future and, thus, lead to unrealistic assumptions during execution. Perfectionism and too high a degree of detail can deliver a plan not executable at a subordinate level. It is better to have and execute a reasonable plan than to wait for the best possible plan.

0251. Operational-level planning and command and control. Operations are normally characterized by centralized planning and direction to achieve unity of effort, whereas authority for execution should be decentralized, in other words, delegated to the lowest level appropriate for the most effective use of forces. To enable the execution of such direction a joint C2 structure is required, that must be fully understood at all levels, and thus facilitate the clear, timely and secure passage of guidance/orders, situation reports and coordinating
information. Because of the joint nature of the force, the characteristics, doctrine, procedures and equipment of each of the components have to be taken into consideration.

0252. **Sequential, parallel and collaborative operations planning.** The basic types of planning in terms of time are sequential, parallel (or concurrent), and collaborative. They are applied by all command echelons.

a. **In sequential planning,** the JFC and his staff conduct planning first; this is followed by planning at the subordinate tactical commanders’ level. This type of planning produces usually detailed and methodical results. It also minimizes the risk that subordinate HQs will receive an obsolete estimate of the situation and plans. At the same time, the entire planning process takes a relatively long time to complete. The method may be most useful for the category of advance planning.

b. **In parallel planning,** the JFC and the subordinate commanders together with their staffs start the planning process staggered by only brief time intervals. This type of planning can introduce risks in terms of planning reliability but also benefits by saving badly needed time. Parallel planning is facilitated by continuous information sharing between higher and subordinate HQs. In addition, early, continuous and rapid sharing of planning information among subordinate and adjacent forces allows subordinate commanders to start planning concurrently with higher HQs. This is facilitated by issuing warning orders and planning guidance. A prerequisite for successful parallel planning is timely decision making by the JFC. Another requirement is adequate coordination between the higher and the subordinate HQs. This, in turn, means that subordinate commanders should be kept abreast of all the changes in the JFC’s operational estimate and plans. If practicable, a collocation of staffs should be achieved or liaison teams/staff officers can be changed. This method is highly suitable in the category of crisis response planning, when the time available for planning is short.
c. In the **collaborative planning** process, there is a real-time interaction among the commands and staffs of two or more echelons developing plans for a campaign or major operation. This type of planning greatly speeds up the entire process. It allows subordinates to provide the JFC with their current assessment and status and apprise him of how they are postured for various operations. Collaborative planning is made possible by information technologies that allow the real-time exchange of information, including voice and video. It greatly enhances the understanding of the JFC’s intent and planning guidance throughout the force. It also greatly reduces the time required for all echelons to complete a plan. Collaborative planning is a very dynamic process. Among other things, the JFC might often modify or alter his directives to the subordinate commanders, possibly causing some confusion for subordinate planners. JFCs might be inhibited in meeting a need to adjust planning by a concern that subordinate commanders will think plans are changed too often. Additionally, there is more inherent danger of a disconnect between the JFC’s and subordinate commanders’ plans than when following the other planning methods above. The method may be most useful for meeting contingency situations during the conduct of operations, when due to the circumstances an OPLAN revision is required urgently.

**Speed of planning.** The product of planning will be determined by a combination of quality and speed. While acting early and fast is generally beneficial, the ideal is to assess, analyse and act earlier and faster than the adversary. Speed should always be seen in its appropriate context; sometimes it is right to gather all available information for a crucial decision. At other times, no amount of information will resolve ambiguity; sometimes more information will increase ambiguity. Optimum speed enables optimum weight of planning effort. Therefore, a principal skill for a JFC is to understand the last viable moment to make any decision. Planning too quickly risks missing crucial information; always seeking more information to resolve ambiguity slows planning and risks decision paralysis. The test of any commander and the efficiency of their staff is how well they can issue clear, achievable and above all timely orders.
0253. **Operational-level planning under a comprehensive approach.** Future operations will, in terms of planning and execution, require an increasingly joint, multilateral and comprehensive approach. Not only will there be greater coordination between all components of the joint force, but also greater involvement of IOs, national GOs and NGOs in a multilateral effort. To be in the best position to carry out all its roles and missions in the most efficient manner, the Alliance follows a comprehensive approach to improve NATO’s ability to commit to, conduct and sustain military operations. NATO is working to improve coordination and cooperation at all levels, including the operational, with all relevant organizations and actors in the planning and conduct of operations. Effects on the local population and on reconstruction and development are being factored into military planning.

a. NATO’s planning activities under a comprehensive approach to crisis management are focused at three levels:

(1) NATO HQ is concentrated on building the basis for cooperation between international actors by inviting them to contribute their share in the Alliance’s crisis response planning.

(2) At the strategic and operational level, the priority is to cooperate with other international actors in the overall planning for complex operations in which a large degree of civil-military interaction will be required.

(3) Locally, in-theatre NATO force commanders must be empowered to conduct effective planning and coordination with indigenous local authorities and other international actors in the execution of operations.

All three levels must function in a complementary manner to achieve success.

---

b. From an operational level perspective, the military contribution to a comprehensive approach must be founded not only on a shared situational understanding, but also on sound planning of both supporting and supported relationships with non-military actors. A military plan is most likely to succeed in building the basis for the efficient conduct of the campaign or major operation when it considers all military as well as non-military actors, forces and means throughout the design, conceptual and plan production steps of the OLPP. In the more permissive environment of a PSO or support to humanitarian assistance operation, where unity of command of all relevant actors may be elusive, it may only be through negotiation that a JFC and his subordinate commanders can confirm responsibilities, resolve differences and facilitate coordination to create unity of purpose. This demands ‘built in’ flexibility through enhanced branch and sequel planning within the LoOs as well as an increase of plan revision and update rates by the planners at the operational level.

c. In a comprehensive approach, NATO’s contribution, concentrates on the political and military instruments of power, derived through the idea that the NATO force works as one, as agreed by all participating nations. The purpose behind all crisis management is to reach a desired political-strategic end state. The military contribution to this desired end state is expressed as military strategic objectives. These include: discrete objectives, to which others may be required to provide support; and also military support required by other players to enable them to achieve their allocated objectives. Planning to deliver the military contribution to an overall comprehensive response is described in the further sections.
Malaya 1948-1960

The Malayan Emergency demonstrates how collaborative planning and activity can decisively affect the outcome of a campaign. Due to an initial failure to comprehend the complex Chinese Malayan scene, including the communist Malayan National Liberation Army (MNLA), there was little agreement at the outset between the police and the military as to how best to deal with the deteriorating security situation.

In May 1950, a new plan was developed by General Briggs, and then implemented by General Templer, that included systematic cooperation between administrative, police and military actors at all levels. Along with improved intelligence, resettlement, propaganda and increasing discrimination in using force, this approach effectively isolated the MNLA from the rest of the population. Progressively integrating police, intelligence agencies, civil service, and multinational armed forces, with a shared intent and common purpose, helped defeat the insurgency.
CHAPTER 3 – CONDUCT OF THE OPERATIONAL-LEVEL PLANNING PROCESS

Section I – Introduction

0301. Operational-level planning process description. In this chapter the operational-level planning process (OLPP) is described in a generic way. The OLPP is developed to support a joint force commander (JFC) and his staff in conducting operational-level planning. The steps presented can be rearranged and/or phased by the strategic commander (SC) to fit the planning circumstances, such as complexity or time constraints. The steps can also be arranged to align planning at the operational level with the operations planning process (OPP) at other levels and, finally, the NATO crisis management process. This is a task which may be fulfilled through the Allied Command Operations (ACO) Comprehensive Operations Planning Directive (COPD).

0302. Operational-level planning process steps. The OLPP consists of the necessary steps to support a JFC and his staff in order to develop the operational-level operation plan (OPLAN) including the conduct of the operational estimate process. The steps also comprise the campaign and operational assessment during execution in order to review or revise the plan, when required. These OLPP steps are:

a. Step 1 – Initiation of the OLPP.

b. Step 2 – Problem and Mission Analysis.

c. Step 3 – Course of action (COA) development.

d. Step 4 – COA analysis.

e. Step 5 – COA validation and comparison.

f. Step 6 – Commander’s COA decision.

g. Step 7 – Operational-level concept of operations (CONOPS) and plan development.
h. Step 8 – Campaign assessment and plan review/revision.

0303. The results of the OLPP steps are designed to respond to the requirements of the OPP at the strategic and the high-end tactical planning levels. For the strategic level the OLPP will deliver the operational-level products to inform or reflect the initial strategic assessment, strategic design, plan development and operations assessment. For the tactical operations planning the OLPP will produce direction through its products, mainly the operational planning directive, the operational-level CONOPS and OPLAN, as well as warning and activation orders.

Organization for operational-level planning

0304. Organizational structure. A joint force headquarters (JFHQ) provides for the integration of functional expertise to carry out the main operational-level processes. These staff elements collaborate within the headquarters (HQ) as well as with their counterparts in the Supreme Headquarters Allied Powers Europe (SHAPE) and subordinate commands during the preparation for, and conduct of, operations. An adequate operational-level HQ will be organised to perform the following operational functions:

a. Joint operational-level planning. A joint planning staff element, generally referred to as Joint Operations Planning Group (JOPG), established as a cross-functional working group is responsible for the process of operational-level planning to develop the operational design and plans. It plans in close coordination with cooperating relevant international actors. It includes planners, subject matter experts, and liaison officers (LOs), who represent all the required functional areas and disciplines, as necessitated by the type and level of operation to be conducted, while taking into account diplomatic, information, military and economic instruments, as well as civil capabilities. It is responsible for the coordination and production of all operational-level planning throughout a given operation, to include the development of the CONOPS, the combined joint statement of requirements (CJSOR), the OPLAN, including branches and sequels, and the
support plans. The JOPG ensures that military tasks are consistent with the diplomatic, information, economic and civil tasks within a comprehensive approach. It coordinates military tasks with those of non-military organizations, as well as the contribution to NATO Strategic Communications (StratCom), to accomplish strategic objectives and establish the conditions required to achieve the desired end state.

b. **Joint coordination and synchronization.** A joint coordination and synchronization staff element coordinates and synchronises execution and adjustments of joint operations by components and other subordinate commands by recommending mid-term priorities for targeting and resource allocation and by issuing orders and supporting products. Members of the joint coordination and synchronization staff element are normally integrated into the JOPG to ensure a smooth handover of the OPLAN for execution.

c. **Situation centre/joint operations centre.** A situation centre / joint operations centre (JOC) provides continuous situational awareness including a joint common operational picture of the area of operations (AOO) by monitoring all activity related to lines of operation (LoOs), major events and incidents. The JOC needs to monitor the development of the planning process and understand how the components will execute their elements of the plan. In the opposite sense, the JOC supports planning by, for example:\footnote{See AJP-3(B), Paragraph 2A10, for further detail.}

(1) Assessing the status and capabilities of assigned forces, as a pre-condition for the JFC’s decision on a COA and his CONOPS.

(2) Specifying the tasks for component commanders (CCs), based on JFC’s CONOPS.

(3) Producing and distributing branch plans and fragmentary orders.
(4) Recommending force organizations for planned operations.

(5) Advising the JFC on applicable rules of engagement (ROE) and suggesting changes/additions.

d. **Joint assessments.** A joint assessment staff element participates in the planning, monitors the operation and leads the operational-level campaign assessment of effects and associated actions within the theatre to measure the progress towards the achievement of operational and strategic objectives and the conditions required to attain the desired end state. To this end, the joint assessment staff element will be core member of a JOPG helping to develop the effects and their supporting tools of measurement. It will need to ensure that the operational design and supporting effects are not only capable of being measured but relate directly to the achievement of the objectives.

0305. **Organizational preparation.** Once a warning order or a direction to initiate prudent military planning is received from SHAPE the following activities take place:

a. **Activation of planning staff.** The planning staff elements with the other staff elements as required must be designated, notified and activated. An important aspect of this activity is the establishment of the necessary staff contacts with higher and/or subordinate formations who will provide input to the planning process.

**Planning teams.** The size, composition and ways of working of the Joint Force Commander (JFC)’s operations planning team should be decided in advance. The team should be trained and practised. Human factors research indicates strongly that the current composition, appropriate experience and a high degree of collaboration displayed by a planning team is one of the decisive factors determining its ability to plan well. Notwithstanding the dangers of groupthink (see page 2-42), the importance of a well-practised, efficient planning team is as fundamental as the quality of the information with which it works with.
Importance of a cohesive staff team – Command of the German Africa Corps

In 1940, the Italian Army was defeated by the British in North Africa. Hitler agreed to send a German corps of three divisions to reinforce the Italians. The first element to arrive was Lieutenant General Erwin Rommel’s Reconnaissance Staff. The German Army also formed a larger staff, originally called ‘General Liaison Staff Italian Army Libya’. It was led by a highly capable staff officer, Colonel Alfred Gause. Once command relationships had been confirmed, Rommel became commander of ‘Panzer Group Africa’. He had the German Africa Corps, the Italian XX Armoured and XXI Infantry Corps under command. Gause became Rommel’s Chief of Staff (COS) as COS of Panzer Group (subsequently Panzer Army) Africa.

Before arriving in Libya, Gause’s team had spent one month training in Bavaria. They had practised staff procedures and assessed the situation in Libya in detail. The team was small; 25 officers, including the political adviser, but not the attached artillery staff. It contained just four staff trained officers: Gause; Siegfried von Westphal (subsequently Chief of Staff to Rommel, Field Marshal Kesselring, and then Field Marshal von Rundstedt); Friedrich von Mellenthin (subsequently COS of Fifth Panzer Army) and one other. Rommel had not attended staff college. Rommel’s staff was extraordinarily efficient. They operated under intense pressure, often with poor intelligence and minimal guidance from their commander. There were probably four factors behind their effectiveness, they:

• were all very capable individuals;
• all knew each other well – it was a socially cohesive team;
• had trained together before deploying; and
• had already researched and assessed the situation in North Africa before arrival.
b. **Compilation of planning tools.** The staff prepares for the planning activities immediately on receipt of a request or directive by gathering the tools needed for the mission analysis. These may include among other things:

1. Supreme Allied Commander Europe's (SACEUR's) directions, with graphics.

2. Maps/charts and digital geospatial information on the AOO.

3. Standing operating procedures; appropriate publications and documentation as necessary.

The way in which a JFC conducts an estimate will reflect their own style and preferences. It is a collaborative effort and should exploit expertise drawn from across the headquarters and beyond. Component commanders play a critical part in the process, particularly in developing and validating courses of action. A range of techniques can be used to support the estimate process:

- three-column format (see COPD V2.0, Figure 4.9);
- course of action format;
- course of action comparator (see paragraph 0358);
- centre of gravity analysis (see COPD, V2.0 Figure 4.11);
- operational-level risk evaluation (see paragraph 0343 or COPD V2.0, Figure 4.12); and
- end-state analysis (see paragraph 223 and national text).

The use of these techniques is mapped against the operational-level planning process below.
Potential outputs from the three-column format

- **Commander’s planning guidance** to his staff, for example, to act upon a particular idea or examine a particular area. A JFC may use a focused question to direct research into a specific issue.

- **Commander’s critical information requirements (CCIR)** that the JFC deems essential for decision-making and developing the plan.

- **Other information requirements.** Those information requirements that cannot be answered within the headquarters, or by tasking organic intelligence, surveillance and reconnaissance (ISR) assets, are issued to other headquarters and external organisations as requests for information (RFIs).

- **Constraints, restraints, limitations and freedoms** are: imposed on all parties, self-imposed or generated by shortfalls in resources.

- **Freedoms** offer opportunities.

- **Clarification** may be sought on, for example, higher commander’s direction.

- **Potential decisive conditions**, and perhaps even initial thoughts, on supporting effects, or activities.

- **Risk** identified for analysis and, where necessary, risk management.

Any **assumptions** on which the plan is based. These should be recorded, along with any implications should they prove incorrect, and responsibilities for monitoring them.
Planning techniques

Phase 1: Situation awareness

Phase 2: Operational appreciation

Phase 3: Mission analysis

Phase 4: Operational estimate

Phase 5: C3A development

Phase 6: Operational concept development

Phase 7: Campaign assessment and plan review

Rationale

Techniques, formats and processes

Planning techniques

Operational-level planning process

COPD Phases

Inputs

Planning directive

Action

Planning directive

Planning directive

Planning directive

Planning directive

Planning directive
Information process, situational understanding and awareness

0306. Information acquisition at the operational level is linked via the strategic-military level to the indications and warning Phase at the Alliance’s political level. It will normally begin well in advance of a North Atlantic Treaty Organization (NATO) response to a crisis and continues in support of all subsequent planning and execution. The purpose of continuous information acquisition is to maintain global strategic awareness of SACEUR’s strategic area of interest (AOI), which is then segmented and designated to the different joint force commands, including the joint force commands established for a theatre of crisis or conflict. They will collect information and analyse the crises and conflicts in the assigned AOIs. In addition, they will determine and further coordinate the information requirements and priority intelligence requirements (PIRs) for the AOIs with SHAPE.

0307. SHAPE takes the responsibility of fusing the strategic information and feeding the Alliance’s indications and warning system. At the operational level national intelligence cells (NIC) as well as national/NATO special operations forces (SOF) elements may assist the joint force command’s AOI collection efforts. The information derived and fused will be shared at all levels, especially between the military-strategic and the operational level. Information acquisition builds situational awareness through the collation and analysis of all available encyclopaedic information, as well as the information requested through the commander’s critical information requirements (CCIRs) and established PIRs. Once approved by the JFC, CCIRs are provided to SHAPE, subordinate and supporting commands as well as cooperating civil organizations.

0308. A broad common situational understanding and awareness will support the further planning at the political, strategic and operational levels from feeding the political-military estimate process to conducting the OPP. In order to provide the information, knowledge and intelligence required to develop this broad situational understanding, well resourced entities that are separate from planning may be required at all levels of the NATO Command Structure (NCS). These entities are responsible to support the JFC’s information and intelligence.
requirements through a comprehensive preparation of the operational environment (CPOE). To maintain situational awareness at all planning levels, the constant exchange of newly acquired information and knowledge between these entities is mandatory.

The estimate is command-led but information and intelligence-driven; this presents a dichotomy. JFCs issue their intelligence requirements during their conduct of the estimate yet, unless the intelligence community correctly anticipate the principal requirements early in the planning process, there is a possibility that they may become detached from it and left behind.

Section II – Step 1 – Initiation of the operational-level planning process

0309. The purpose of OLPP Step 1 is twofold: first to understand the strategic situation and the nature of the problem; as well as the proposed end state and strategic objectives; and second to contribute operational advice to SACEUR on his military response options (MRO) and to assess the operational-level viability of strategic response options. Consequently, the main products of this step are an initial operational estimate, warning orders to subordinate commands and the document containing the JFC’s operational advice. These products aid SACEUR, the subordinate commands and the own staff to prepare for their subsequent planning activities.

a. The step begins with SACEUR’s warning order, which may refer to the initial NATO documents describing the tasks given to the NATO military authorities (NMAs) by the North Atlantic Council (NAC). As the SACEUR’s strategic assessment (SSA) is developed by the Strategic Operations Planning Group (SOPG), the JOPG core has the opportunity to provide informal feedback. After the SSA is completed, the SOPG will commence development of the strategic-level Military Response Options. During their development the SOPG collaborates informally with the JOPG, which culminates in formal operational advice of the MRO draft.
b. The JOPG will seek the JFC’s initial guidance to confirm kind and depth of cooperation and external coordination, timing issues and matters to be clarified with SHAPE. The JFC will develop the operational estimate supported by his staff, the JFC based on his intuition and the staff contributing functional analyses from the information available. This operational estimate is revised and updated as more information becomes available to meet the requirements during planning and conduct of operations. Running appreciations and estimations are developed and kept up to date for each functional area.

Mental agility is essential to tackle the realities of carrying out an estimate. Estimates will contain imperfect or incomplete information, in uncertain and changing circumstances, to achieve sometimes ambiguous or ill-defined objectives, all against challenging timelines. Sound preparation, delegation, proven standing operating procedures and concurrent activity at all levels (triggered by timely warning orders) can mitigate some of the friction.

‘Failing to plan is planning to fail’ may be true, but JFCs must use their judgement to decide how much planning is required in what level of detail. In multi-faceted crises, it may be counter-productive to over-regulate what is inherently complex and uncertain.

c. For external coordination the JFC and his staff will take the following action, as required:

1. Issue warning orders to subordinate component commands and request liaison/planning teams.

A template for an operational warning order is in Annex D, Appendix 2 to COPD V2.0.

2. Deploy liaison/planning elements to SHAPE and other HQs, organizations and agencies as required.
(3) The tactical expertise will be exploited by issuing the JFC’s initial guidance and the draft operational advice to the component level and, thereafter, by collecting their tactical advice in due time.

d. The step ends with the provision of the JFC’s advice to SACEUR including urgent requirements for the implementation of crisis response measures. Within this step the JFC may propose to SACEUR to recommend fast-track decision making, if deemed appropriate.

Operational appreciation

0310. **Operational appreciation of the strategic context of crisis or conflict.** The JOPG will conduct a thorough appreciation of the strategic aspects of the crisis. Consequently a review of available information and assessments is necessary. SHAPE will normally have drafted a preliminary SSA of the evolving crisis including a range of strategic alternatives. SHAPE and/or a JFHQ may have already developed an information database for the area. However, knowledge development about the crisis may be in its early stages and, thus, be of an immature state. Nonetheless, the immediate task will be to support the review of the strategic assessment and to develop an operational-level appreciation in parallel with evolving knowledge. The JFC and his staff have to initiate a CPOE, if not already accomplished, in order to promote the availability of information, including intelligence, in terms of their scope and granularity.

0311. **Understanding the nature, scale and scope of the problem.** The first activity for the planners, supported by the information management element, is to review and update the main structural features and relationships that define the situation and the current crisis situation in the AOI in accordance with the scope of analysis described above. This is supplemented by the review of potential risks and threats. The planners review the main strategic issues that may require an international response. Among these key strategic

---

See Paragraph 0214.
factors are: crisis circumstances and surroundings including geospatial data; actors and their influences; the causes of crises; implications including the interaction between the various components of, and actors involved in, the given situation and its possible outcome.\(^3\) The expected result is a clear understanding of strategic implications of current trends and likely future events that pose a potential risk or threat to NATO security interests.

0312. **Appreciation of the level and scope of international engagement.**

The JOPG, supported by political and legal advice will review international legal aspects of the crisis in terms of applicable international law, treaties and agreements, as well as relevant United Nations resolutions. They also review international commitments. Drawing on civil-military cooperation (CIMIC)\(^4\) expertise with input from the information management element, the planners identify and analyse the mandate, role, structure, methods and principles of all relevant international actors operating in the AOI. The planners will finally review the information environment including international media and public opinion. An effective information strategy is commander driven, proactive and ensures that the potential results of tactical actions on the information environment are considered and addressed prior to execution. While any action taken by the NATO force may influence the information environment, public affairs (PA) and information operations (Info Ops) activities are planned specifically to shape it. Information strategy facilitates coordinated communication efforts focused on reaching individual audiences via the most credible and effective means available. Positive media coverage will play a key role in maintaining public support and the international endorsement, which in turn benefits the morale and cohesion of the NATO force. It is critical to remember that adverse media reporting of joint force activities can have a detrimental impact on the overall NATO information strategy. A proactive well-managed approach to the media will therefore be an important consideration in combined joint operations. This media presence requires a media information centre, which is a properly established, resourced and

---

\(^3\) Strategic key factors may also be viewed using different conceptual models, for example the PMESII construct for the analysis of an engagement space.

\(^4\) See AJP-3.4.9 'Allied Joint Doctrine for Civil-Military Cooperation (CIMIC)'.

Original + UK National elements
empowered organization to manage, register, brief, transport, escort the media and monitor informal media activities such as on-line blogs. Failure to plan for and accommodate the media will not stop them from reporting. The information strategy and associated media access must not compromise operational security requirements.

**Relationship with the media – Suez 1956**

After the debacle of Suez in 1956, Operation MUSKETEER’s commander, General Keightley, summed up the over-arching problem of relationships with the media:

‘The one overriding lesson of the Suez operation is that world opinion is now an absolute principle of war and must be treated as such.’

(http://www.nationalarchives.gov.uk/education/topics/suez-lessons.htm)

0313. **Understanding the desired end state, strategic objectives and effects.** A NAC agreed end state and strategic objectives provide the basis for the subsequent development of possible response options. However, the need to balance ends, means and ways may delay a NAC decision on the strategic end state and objectives until they can be evaluated against the level of commitment associated with different response options. Therefore, the operational-level planners must be prepared to conduct their analysis of the end state and strategic objectives in a dynamic collaborative process with the SOPG. The understanding needs to cover the:

a. **Desired end state.** This establishes the desired outcome within the engagement space that satisfies the overall political goal. It must be comprehensible and feasible because it establishes the criteria for cessation of Alliance activities in the crisis region.

b. **Strategic objectives.** These establish specific conditions that must be achieved to attain the desired end state. They reflect strategic changes in the capabilities, actions and behaviour of the main actors required to attain the end state. The strategic
objectives need to be balanced with the ways and means available for their achievement.

c. **Strategic effects.** These describe specific changes required in the capabilities, actions and behaviour of specific actors required to achieve the strategic objectives and directly influence success and the termination of operations.

0314. **Analysis of respective military response options.** SACEUR’s SSA provides strategic alternatives for dealing with risks or threats using the different means available to the Alliance. On this basis, the NAC decides on the question, whether the Alliance will engage in a certain crisis or not, and which of the strategic alternatives will be pursued. Based on the guidance received from the NAC and Military Committee (MC) SACEUR and his SOPG will develop distinguishable responses combining different ways and means to create the desired military strategic actions that will achieve the military strategic objective(s) and the desired end state. While all MROs will be based on a single desired end state, the mission for each MRO may differ. The JFC and his staff will contribute to the development of MROs by providing an operational-level analysis of these options and developing operational advice for SACEUR on each of his options. They consider the use of military and non-military instruments, including an overall information strategy and cooperation with relevant international actors within a comprehensive approach. Normally, the following actions will be taken:

a. **Analysis of the NATO military mission.** Each response option will include a proposed military mission for which the JFC and his staff must determine the mission essential tasks at the operational level among those specified or implied in the mission. To do this, the JOPG must analyse the strategic and operational effects that must be created using military means, including essential support to non-military efforts and support to be received from non-military means.

b. **Assessment of military strategic actions.** The key military actions identified for each option establish the basis for the
employment of military forces and generation of force capabilities. These military strategic actions must: logically lead to achievement of the strategic objectives; cover the range of actions that can potentially create the required effects; be feasible in terms of strategic power projection, operational reach and sustainment; and avoid creating effects that would undermine the achievement of the strategic objectives.

c. **Assessment of operational requirements.** With the advice of planning staff elements from the designated subordinate and component commands, the JOPG will assess the adequacy of all capabilities required for the military mission. This includes but is not limited to:

(1) **Force capability requirements.** The adequacy of the primary military capabilities described in the option to conduct the key military actions and achieve the objectives, taking the possible opposition into account.

(2) **Requirement to use complementary non-military means.** Recommendation of complementary and viable non-military efforts, as desired strategic effects may not be generated by military action alone or could be created more effectively by diplomatic, information and economic instruments as well as by civil activities.

(3) **Requirements for strategic communications, public affairs and information operations.** Identification of the principal requirements for StratCom, military PA and Info Ops to address all areas and actors within the information environment.

(4) **Requirements of main resources.** Assessment of the main logistics, medical (Med) and financial estimates for each option to verify feasibility in terms of strategic lift requirements or theatre logistics requirements.
(5) **Preliminary command arrangement requirements.** Ensuring that: principal command arrangements for each option meet potential operational requirements; the ROE are appropriate for potential use of force; and the command and control (C2) structure is adequate for the operational level, including necessary component, regional, and/or functional commands in forward-element and reach-back configurations.

(6) **Legal requirements.** Review of each option to ensure that critical legal requirements have been addressed, for example the compliance of each MRO with the law in terms of Law of Armed Conflict or the European Human Rights Act, the provision of ROE, the exchange of letters and negotiations with respective host nations (HNs), arranging country clearances, and ensuring compliance with the status of forces agreements.

(7) **Requirements for interaction with relevant national and international actors.** Assessment of arrangements for effective interaction including in-theatre coordination with cooperating civil organizations, and the liaison with local, international, governmental and non-governmental entities.

(8) **Medical requirements and patient evacuation.** Disease and non-battle injury as well as battle casualty estimation, which has to be done by operational-level planners in reconciliation with the Med staff, and the provision of sufficient health and medical support (including the safe evacuation of patients), within NATO timelines is critical to the success of the mission.

d. **Assessment of strategic and operational risks.** Risks have different implications at different levels of command. Therefore, based on the assessment of risk by the strategic level the JOPG develops its own assessment of operational risks.
(1) **Strategic risk** is the probability of failure in achieving a strategic objective at an acceptable cost. Thus, operational planners will take the assessment of strategic risk into account.

(2) **Operational risks** are based on probability of an operational failure and the consequences. Planners review the main operational factors related to time, space, forces and information within the theatre to identify areas of risk and their possible consequences on mission accomplishment.

e. **Summary review of the military response options.** The JOPG, with advice from designated subordinate and component commands, as well as basic support from operational analysts, will evaluate each option through a structured cross-functional review to ensure that it is operationally viable. The options will be compared accordingly. The review and the comparison will include the elements:

(1) **Suitability of the option** - For the achievement of strategic objectives and the desired end state, for coping with operational conditions, opposition and resistance by enemies or adversaries without creating undesired effects.

(2) **Acceptability** - Do the benefits to be achieved outweigh the costs and risks associated with the option? The review should identify potential risks, commitments, and costs that might be politically unacceptable.

(3) **Feasibility** - Is the option feasible within the strategic means likely to be made available by nations?

A template for operational advice on military response options is in Annex D, Appendix 1 to COPD V2.0.
Operational advice

0315. Developing conclusions. The JFC and his staff compile their conclusions, from the assessments, evaluation and comparison of the different options as to their adequacy, merits and potential for operational success. In drafting their conclusions they will focus on the key operational questions raised above.⁵

0316. Identification of critical operational requirements. The JOPG should identify specific operational requirements that are critical for operational success. These requirements, to be included in JFC’s operational advice, should cover areas such as:

a. Preconditions for success.
b. Mission essential force capabilities.
c. Critical in-theatre support and infrastructure.
d. Essential C2 arrangements and communication and information systems (CIS) enablers.
e. Pre-deployment of enabling forces.
f. Deterrence operations.
g. ROE considerations.
h. Communications strategy.
i. Relevant national and international actors with which interaction will be required and the degree of such interaction.
j. Additional crisis response measures (CRMs), in particular to prepare and deploy an operational liaison and reconnaissance team (OLRT) as well as other enabling elements.

⁵ See Paragraph 0314 e.
k. **Required target audiences.**

0317. **Consideration of lessons learned from previous similar operations.** The JOPG will determine from the outset what lessons have been learned from previous operations that should be reflected in the commander’s operational advice.

---

**Operational-level planning for the Kosovo air campaign – inadequately appreciating an adversary’s perspective**

The Kosovo air campaign of 1999 was arguably a failure of operational-level planning. The error was not, however, one of setting inappropriate goals, nor of changing them during the operation. It was that of misunderstanding the adversary’s perspective by failing to note how the adversary had adapted to previous experience.

In 1995, the NATO Operation DELIBERATE FORCE persuaded Serbian leader Slobodan Milosevic to join the negotiations which led to the Dayton peace accords and an end to conflict in Bosnia-Herzegovina. In early 1999, the deteriorating situation in Kosovo prompted the Rambouillet peace talks.

Milosevic did not attend. Serbia rejected the draft accord, which called for autonomy of Kosovo under NATO administration. On 23 March 1995, the Serbian assembly accepted the principle of autonomy, but rejected the related military conditions. On 24 March 1995, NATO initiated Operation ALLIED FORCE.

Operation DELIBERATE FORCE had persuaded the Serbian leadership to negotiate, and NATO considered that coercion would work again, but the Serbs were mentally and physically prepared to sustain future attacks. It is often the loser who learns most and the Serbs had probably learnt more than NATO from Operation DELIBERATE FORCE.
The early phases of Operation ALLIED FORCE were a failure. Bad weather played a part. Moreover, the Serbian military dispersed among the civilian population and decentralised its decision-making. The campaign rapidly became a test of NATO unity and resolve. Milosevic was prepared to accept some damage and play for time. NATO nations had difficulty agreeing to widen the scope and intensity of the campaign. When they finally did, Milosevic realised that NATO had sufficient resolve and agreed to negotiate. Other factors played a part, and it was probably not the bombing itself which directly persuaded Milosevic. The bombing did, however, show that NATO had the determination to conclude the issue on its terms.

NATO did not shift the goalposts. In broad terms, it achieved what it had set out to do. But it initially either underestimated Serbia’s newly-found resolve, or it could not find consensus for a larger air offensive from the start. Of the two alternatives, the first is arguably the more plausible.

0318. **Determining the key issues for SACEUR.** The JOPG assists the JFC in identifying those issues that should be raised directly with SACEUR.

**Section III – Step 2 – Problem and mission analysis**

0319. The purpose of Step 2 is to analyse the crisis situation in depth, to determine precisely the operational problem that must be solved and the specific operational conditions that must be achieved. It has to identify the key operational factors that will influence the achievement of those conditions, and any limitations on the JFC’s freedom of action to develop an overall operational design. The main outcome of this step comprises the operational design, followed by a planning guidance for the JFC’s staff and the operational planning directive to the subordinate commands, both containing the JFC’s initial intent and enabling the subsequent planning steps.
0320. **Problem and mission analysis activities.** Step 2 begins with receipt of the strategic planning directive (SPD) following a NAC initiating directive for a NATO response to a crisis. This step includes:

a. Advanced CPOE, leading to a CPOE document.

b. A detailed analysis of the mission and operational factors that will influence mission accomplishment, for example key factors that lead to deductions and conclusions regarding operational requirements, the centres of gravity (COGs) for the main actors, as well as critical capabilities, requirements and vulnerabilities.

c. The development of an overall operational design, including the operational-level effects, LoOs and decisive points / decisive conditions (DCs).

d. The formulation of the JFC’s planning guidance towards his staff, containing his initial intent, providing view and direction for the JOPG developing COAs.

e. The issue of an operational planning directive to subordinate commanders to formally initiate parallel tactical operations planning.

f. Forwarding of requests for information (RFIs), rule-of-engagement requests (ROEREQ) and requests for the implementation of CRMs.

g. Adapting initial CCIRs.

0321. **Initiate problem and mission analysis.** At the commencement of problem and mission analysis, there are some key activities that need to occur to enable the staff to plan properly and swiftly:

a. **Planning milestones** are needed to manage planning efforts and the identification of key issues for consideration in the JFC’s initial guidance. In particular, the JOPG must assess the time available for planning, including force generation, based on the worst case,
and recommend adequate time for planning and preparation at lower levels of command. As a guiding value, each HQ should plan to use not more than one third of the time available to reach its decisions in order to leave sufficient time for subordinates to develop their plans and prepare their forces.

As a guide, the available planning time (the ‘⅓’) may be allocated:

- 30% to understanding the situation and the problem;
- 50% to formulating, developing and validating potential courses of action; and
- 20% to producing and issuing formal direction.

b. **JFC’s initial guidance.** It is critical that a predesigned core of planners assist the JFC by summarising the following for his consideration during the development of the initial planning guidance which assists the JOPG in Step 2:

1. Principal characteristics of the operation with key military actions.
2. Command group activities that could impact planning.
3. Time critical requirements.
4. Deployment of an OLRT.
5. Planning milestones, including specifically the JFC’s personal involvement in specific planning steps.

External coordination with SHAPE, subordinate commands, sources of intelligence and knowledge, relevant NATO civil expertise and other relevant national and international actors, including international organizations (IOs), governmental...
organizations (GOs) and non-governmental organizations (NGOs), must be established and utilized.

0322. **Strategic context review.** Normally the designated JFC and his staff will have collaborated with SHAPE in the development of the strategic level assessment of the crisis and will share a common understanding of the situation. If not, the JOPG conducts its own assessment as outlined in Step 1 – Initiation of the Operational-Level Planning Process. A review will update, as required, the current state of the different actor’s systems that are part of the problem as well as the features of the engagement space. Additional updates eventually needed:

a. **Review of the strategic planning directive.** The NAC initiating directive and SACEUR’s SPD set the boundaries of the problem to be solved and the conditions that must be achieved to attain a desired end state. The JOPG will study these directives and update their own analyses, as required.

b. **Collection and review of historical analysis and lessons learned.** Many situations have historic precedents that share similarities with other recent situations. Historical studies and analysis may provide lessons that are instructive in understanding the current strategic context and how to deal with it.

0323. **Framing the operational-level problem.** While analysis as described in the Paragraphs 0324. to 0326. uncovers a range of useful information, attention has to be paid throughout the entire Step 2 to framing the problem in its unique context. An approach to frame the problem, using a JFC-lead process supported by a staff organized to learn, adapt and reframe, has already been shown in Chapter 2. Correct framing of the problem gets to the core of OLPP, because it raises and, in the end, answers the question, whether for a specific crisis the central issue, or only a superficial problem, is approached. In framing the problem the JFC and his staff develop a shared

---

6 See Paragraphs 0310 to 0314.
7 Cf. Also AJP-01(D), Paragraphs 0542 and 0543 on the Operational Estimate.
8 See Paragraph 0215. c.
understanding and a holistic view of the current operational environment in terms of the crisis background, the underlying causes and the specific dynamics. It allows a JFC to visualise the extent of the problem that he faces and how he might shape and alter the environment to his advantage, which will inform his decision-making. Understanding of the operating environment will benefit from an integrated approach involving IOs, NGOs and appropriate agencies. These non-military actors will likely contribute to, and receive the output from, analysis. Similarly, this information exchange will inform the decisions taken by non-military leaders. Later in OLPP Step 2, mission analysis will also be performed in the light of the problem framing and not only in view of discrete environment analysis results.

0324. **Updating the operational estimate and comprehensive preparation of the operational environment.** The JFC and his staff will continue to develop the operational estimate due to increases in the availability of information. Staff analyses and estimations are synthesised in a process of comprehensive preparation of the operational and information environment. The JOPG provides guidance for the development of products required to support the mission analysis.

0325. **Definition and analysis of the operational environment.** CPOE products describe the main characteristics and allow JFC’s planning staff element to further assess the potential impact of the operational environment on accomplishment of the mission. The scope of the analysis and description will be as outlined earlier.\(^9\)

0326. **Evaluation of opponents, friends, and neutrals.** During OLPP Step 1 – ‘Initiation of the OLPP’, the JFC and his staff developed their initial understanding of the main actors and their role in the crisis.\(^10\) Now, based on the comprehensive preparation of the operational and information environment, the JOPG determines more precisely those opposing, neutral and friendly actor systems they need to influence in order to establish the conditions required to achieve the strategic objectives based on the following:

---

\(^9\) See Paragraph 0214.
\(^10\) See Paragraph 0323.
a. **Goals and objectives of each actor.** Analysis of the political goals and likely desired end state for each actor and assessment of likely objectives to be achieved by the use of military force or violence.

b. **Primary and supporting instruments of power.** Review of the systems that contribute to the main instruments of power that each actor seeks to leverage in order to influence other actors and systems.

c. **System interaction, interdependencies, influences and vulnerabilities.** Analysis of the strengths and weaknesses of the main actors and systems in terms of the capacity to influence other actors and systems and to be influenced based on their vulnerabilities and interdependencies. Identification of, and focus on, critical relationships.

d. **Military and other capabilities.** Assessment of the strengths and weaknesses in the ability of each actor to achieve his objectives. In particular, his capabilities and capacity to use force in time and space with relation to the current order of battle and disposition of the different actors.

e. **Assessment of possible actions.** Based on strategy, operational doctrine and recent operations (the assessed strategic objectives and the military means available), the JOPG assesses the full range of the opposing actors’ possible actions and evaluates them in terms of the most likely and most dangerous. It also assesses the likely response of each actor to a possible NATO military action, including the likelihood and the nature of any responses using military force and/or other forms of violence. Courses of action will be further developed based on the JFC’s guidance.

f. **Conduct theatre reconnaissance and coordination.** The early deployment of an OLRT, as soon as authorised, provides a means to conduct required reconnaissance and coordination in the theatre and enhance availability of information. This requires
that the JFC designates a single authority for direction and tasking of the OLRT, as well as to establish and maintain effective communications for the exchange of information. Accordingly, the JOPG provides prioritised coordination and collection requirements to confirm critical aspects of the mission analysis and key assumptions. Ideally, the JFC in person visits the theatre with his subordinates and key staff to conduct high level coordination and gain firsthand insights to acquire better knowledge and understanding of the operational and information environment.

0327. **Conduct of the mission analysis.** The purpose of mission analysis is to establish precisely the operational results to be achieved and to identify critical operational requirements, limitations on freedom of action and inherent risks. The JFC is personally engaged in the mission analysis and validates the results. The JOPG will analyse the relevant facts related to the strategic context and the operational environment, review the framing of the problem, make deductions about mission implications and draw conclusions related to the mission requirements that must be addressed in planning. The following aspects will normally be considered:

a. **Determining the conditions to be established.** The operational objectives will establish the conditions that must be achieved to attain the desired end state. Therefore the planners analyse these conditions in the context of the different actor systems and their interaction to determine the conditions that must be established and sustained in the operational area.

b. **Determining the actor systems to be influenced and the effects to be generated.** The strategic direction will identify the military strategic objectives. The JOPG examines the entire information environment and identifies relevant actors to determine precisely which of these systems / system elements can be influenced by military means. This set will be refined to focus on actors or groups to support the actions and effects required to achieve the desired operational conditions and objectives. It will also identify requirements for contributions by
non-military means and for possible military contribution to required non-military effects.

c. **Determining mission essential military actions.** The JOPG extracts the key military actions. It will identify any additional actions required to create the effects and achieve the operational conditions identified above. Its analysis of opponents may identify other essential actions. The JOPG will recommend to the JFC those actions that are considered critical to achieving the required outcome of the operation. The JFC designates these as his ‘mission essential actions’.

d. **Assessing the impact of time, space, forces and information.** The mission analysis considers the operational impact of time, space, forces and information on the accomplishment of the desired outcomes and helps in developing necessary assumptions about the situation and identifying operational requirements, limitations and risks. The JOPG will consider the impacts of the operational environment on the main actors as well as NATO forces as they interact in time, space and information sphere. The resulting deductions and conclusions are critical to setting the boundaries and the “realm of the possible” within which solutions must be developed.

e. **Developing assumptions.** There will be some gaps in knowledge and information at this point, such as the current conditions of the information environment or the reaction of main actors to the involvement of NATO. In such cases, certain assumptions will be made as a basis for further planning. To be valid, an assumption must be logical, realistic and necessary for the planning to continue. Assumptions must never assume away critical problems, such as dealing with the opposing capabilities or assuming unrealistic friendly capabilities or successes. The chief of the JOPG must control assumptions and ensure their regular review.

f. **Determining critical operational-level requirements.** During the mission analysis the JOPG analyses the main CPOE products
and updates available, as well as assessments and advice at hand in order to identify critical operational requirements including:

(1) **Critical capabilities, support and resources requirements.** These capture military capabilities, sustainment and strategic support required to accomplish the mission. The planners ensure that these requirements can be supported.

(2) **Strategic communications requirements.** The JOPG coordinates with strategic planners, including public affairs and information operations, to identify target audiences and key leaders, and to tailor themes and messaging guided by NATO HQ Public Diplomacy Division.

(3) **Pre-conditions for success.** Identification of any essential conditions that must be established to allow operational success, but that are beyond the influence of the JFC.

(4) **Information, knowledge and intelligence requirements.** The mission analysis will highlight gaps in knowledge, the narrower field of intelligence and the critical information required for subsequent command decisions. This forms the basis for developing RFIs through the collection, coordination and intelligence requirements management, and to the adaptation of the CCIRs, first developed at the beginning of OLPP Step 1. National intelligence assets including NICs as well as national/NATO SOF elements play a key role in filling intelligence gaps identified in approved CCIRs by providing the JFC with a unique collection capability.

(5) **Crisis response measures.** The identified operational requirements may call for the request and implementation of CRMs to ensure that necessary preparations are made and that capabilities will be ready and available.
g. **Determining requirements for complementary interaction with relevant international and national actors.** Requirements for the use of non-military means to create desired effects are captured during mission analysis and, if possible and authorized, addressed with cooperating organizations during planning. This may include requirements for non-military activity in support of military action, military actions in support of non-military activity, mutual support as well as de-confliction of critical activities.

h. **Limitations on operational freedom of action.** The mission analysis seeks to identify any limitations on the JFC’s freedom of action in accomplishing the mission. Limitations include constraints and restraints. These may be imposed by international law, the mandate, caveats of troop contributing nations (TCNs) or by NATO political or military authorities. However, they may also be determined by operational factors that will dictate the time, space and forces to be used.

i. **Operational risks.** During the mission analysis, the JOPG identifies any risks to the accomplishment of the required operational outcomes which result from the operational environment or the capabilities and actions of the main actors in the joint operations area (JOA). At the operational level, risks typically relate to time, space, forces and information factors within the theatre. Ways to mitigate each risk will be considered, which may highlight additional tasks, capability requirements or limitations resulting from the questions: How can the exposure to risks be reduced; how can the probability of occurrence be reduced; which level of residual risk is acceptable; and how can the scale and severity of the consequences be limited?
Challenging the orthodoxy. All groups of people suffer from a degree of bias, and the close environment of a well-disciplined and highly motivated team exacerbates this problem. This can lead to flawed assumptions and decision-making. As an insurance against this, and other forms of faulty analysis and planning, it is useful for a commander to employ a red team to assist him, or his staff, in understanding a specific problem. This technique is not described in NATO doctrine.

- **Red teaming.** A red team is a team that is formed, under a nominated red team leader, with the singular objective of subjecting an organisation’s plans, programmes, ideas and assumptions to rigorous analysis and challenge. Red teaming identifies and assesses, among other things, assumptions, alternative options, vulnerabilities, limitations and risks for that organisation. Red teaming employs a tool set to provide the commander or staff with a more robust baseline for decision-making. Working in parallel with the planning team, the red team will check the planners’ assumptions, identify gaps in the analysis and check their logic and deductions. The red team will identify wider factors that may affect outcomes, highlight alternatives and consider consequences. The aim is to improve understanding and decision-making by considering alternative perspectives and critical thinking. Further details of the techniques involved are laid out in the MOD (DCDC) publication *Red Teaming Guide (2nd edition).*

- **Red cell function.** Red teaming should not be confused with the ‘red cell’ functions which are normally performed by the J2 branch in support of the operations planning team. Drawing on the same data as the planning team a red cell will conduct an adversarial estimate in step with the planning team’s activities. They will produce a discrete adversarial plan and will normally provide the enemy representation in a war game.
Development of the operational design

0328. Operational design provides the critical link between operational problems to be solved and the required operational outcomes. It takes the results of the framing of the problem, conducted during the analysis of the operational environment and the mission, and develops and refines JFC’s operational ideas. It applies operational art in transforming the unacceptable operational situation at the start of the campaign by establishing decisive points/ DCs along different LoOs. These LoOs will lead to the accomplishment of operational and strategic objectives and attainment of the desired end state. The operational design provides a conceptual overview of the entire campaign and is fundamental to:

a. Communicating the JFC’s vision of the campaign and his initial intent.

b. Providing the common basis for the development of courses of actions.

c. Synchronization and coordination of the campaign over time.

d. Assessing progress of the campaign.

e. Adapting and adjusting plans to deal with foreseen and unforeseen events.

f. Develop initial ideas for transition and termination of the campaign.

The concepts and tools to develop the operational design were described in detail in Chapter 2.\(^\text{11}\)

0329. **The nature of centres of gravity.** From the mission analysis, the JOPG should have developed a clear understanding of the operational outcomes that must be achieved as well as capabilities and range of

\(^{11}\) See Chapter 2, Section III, paragraphs 0230 to 0245.
actions of opponents and other actors. On this basis they will accomplish their own analysis of COGs. A COG represents the primary strength of an actor with which they will seek to achieve their objective and/or to prevent an opposing actor from achieving his. A closer view to the COG concept was offered in Chapter 2.\textsuperscript{12} Depending on his mission requirements, the JFC may have to analyse both strategic and operational COGs. The COGs may change if strategic/operational conditions or objectives change.

a. **Centre of gravity analysis** draws upon the systems analysis of the main actors to determine their:

   (1) **Critical capabilities** - Capabilities on which the CoG depends. Critical capabilities are those aspects of the CoG that are of decisive importance to the significance of that CoG. ‘Critical capability’ is thus an expression often used for the action dimension of a CoG. It is, for example, a military force defined as a CoG, the primary capabilities of the force could be the exercise of C2, intelligence, logistics, protection, mobility and means of action (ability to do something). Critical capabilities will thus normally be formulated as a verb (for example, to command and control, to supply, to protect).

   (2) **Critical requirements** - What the critical capabilities depend on to be effective. Critical requirements are those conditions, resources or means which are essential to the realisation of critical capabilities. The military force mentioned under critical capabilities description will, for example, be dependant on communications systems in order to exercise C2, access to supplies in order to take care of logistics, as well as infrastructure for mobility, such as airfields, harbours and road systems. A critical requirement will normally be formulated as a substantive (a communications system, fuel, bridge).

\textsuperscript{12} See Paragraph 0236 ‘Centres of Gravity and Critical Capabilities, Requirements, Vulnerabilities’.

3-33

Original + UK National elements
(3) **Critical vulnerabilities** - How can the critical requirements be influenced. Critical vulnerabilities are those critical requirements, or components of these, that are deficient or have weaknesses in a way that means that they are vulnerable to effects that can be created using modest resources, which can thus have major effect. If the military force is defined as the CoG, the capability for C2 as one of the critical capabilities, and the communications system as one of the critical requirements, the communications system or components of it (for example transmitters and receivers) can be a critical vulnerability. If such a critical vulnerability is neutralised, the CoG will be weakened or will cease to function.

Table 3.1 presents a logical method for analysing COGs. It is iterative in order to determine, if required, whether tentative or candidate COGs are the truly critical ones. It is of critical importance to ensure that critical vulnerabilities are exploitable and that their exploitation will significantly impact the COG. Key insights from the analysis of COGs should contribute to the development of the main ideas for the campaign and should be captured as key deductions.

<table>
<thead>
<tr>
<th>Centre of Gravity Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Assessed Aim and Desired Outcome &lt;br&gt;The actor’s main goal and desired conditions.</td>
</tr>
<tr>
<td>2) Centre of Gravity &lt;br&gt;The actor’s primary element of power.</td>
</tr>
<tr>
<td>3) Critical Capabilities &lt;br&gt;The actor’s primary means that enable the CoG.</td>
</tr>
<tr>
<td>4) Critical Requirements &lt;br&gt;Those key system elements and essential conditions required to generate and sustain the CoG’s critical capabilities.</td>
</tr>
<tr>
<td>5) Critical Vulnerabilities &lt;br&gt;weaknesses, gaps or deficiencies through which the CoG may be influenced or neutralised.</td>
</tr>
<tr>
<td>6) Conclusions &lt;br&gt;The actor’s weaknesses, gaps or deficiencies which could be exploited to change the behaviour of an actor and improve conditions in the operational environment.</td>
</tr>
</tbody>
</table>

**Table 3.1 – Centre of gravity analysis matrix**
The COGs may change if strategic/operational conditions or objectives change. There are three tests to validate a typical COG:

(1) Does it constitute the power required to achieve an objective?

(2) If degraded, does this preclude the ability to achieve the objective?

(3) Does it constitute a power that can be degraded?

The defeat, destruction, neutralization, or substantial weakening of a valid COG should cause an adversary to change its COA or prevent an adversary from achieving its strategic objectives. This analysis will be conducted for each of the main actors. COG analysis draws upon the systems analysis of the main actors and systems to determine their critical capabilities (what it enables the actor to do), their critical requirements (what it needs to be effective) and critical vulnerabilities (how can it be influenced). Of critical importance is to ensure that the identified critical vulnerabilities are exploitable and will significantly impact the COG. If this is not the case, the identified COG might possibly be struck by an indirect approach via other vulnerabilities. Blue, Red and eventually Green Teams provide their respective views in support of this effort.

b. **Operational objectives and criteria for success.** Based on the mission analysis the JFC and his staff share a clear understanding of the operational conditions that must be established and sustained, as well as the actors and systems that must change. The evaluation of the main actors / systems and the analysis of their COGs provide additional insight into what changes in the behaviour and capabilities of specific actors/systems may be required. On the basis of the objectives given by the strategic level the JOPG determines the criteria for success. This leads to the development of measures of effectiveness (MOEs). They describe how the system capabilities
and behaviour should change if the own actions are effective. For example, planned actions may be considered effective, if “… the frequency of armed attacks against ethnic minorities has declined …”. MOE can be refined later during the planning process and execution.

A closer view to all of the conceptual elements mentioned was already given in Chapter 2.\textsuperscript{13}

c. **Determining decisive points and/or decisive conditions.** Along any LoO it is necessary to determine the sequence in which decisive points / DCs must be established to focus the effort required to accomplish one or more operational and strategic objectives. When specific sustainable states of the situation are determined to be critical to gaining or retaining freedom of action or to the accomplishment of the objective, they may be designated as decisive points / DCs. The conclusions drawn from COG analysis should highlight changes in the critical capabilities and influences of specific actors that would be decisive to success of a given LoO. Identifying decisive points/ DCs along each LoO is critical to the overall design in terms of the seven factors listed in Paragraph 0237. a. of this document.

d. **Determining lines of operation.** Campaigns and major operations may be designed using LoOs to arrange operations in time, space and purpose to transform specific unacceptable conditions at the start of the operation to conditions required to achieve operational and strategic objectives. LoOs are directed against COGs and their critical vulnerabilities. The determination of LoOs will shape the development of the plan as well as the conduct of operations. It is therefore critical that alternatives are developed and presented to the JFC in terms of the four factors listed in Paragraph 0238 of this manual.

e. **Strategic communications.** With reflection on the initial guidance, the JOPG should identify additional requirements for

\textsuperscript{13} See Paragraph 0235 ‘Objectives, Effects, Measures of Performance, Effectiveness and Campaign Progress’.
StratCom necessary to support the LoOs and the operational design.

f. **Evaluation of alternatives and selection of the operational design.** The JOPG discusses alternatives to the operational design with the JFC and provides its recommendations. The JFC will decide on the LoOs as well as the decisive points / DCs he sees along each LoO. He will use LoOs to designate and shift his main effort during the course of the campaign and use decisive points / DCs as ‘intermediate objectives’ to coordinate joint operations in cooperation with relevant national and international actors. Therefore, when finalizing the operational design, the JFC may seek advice from his subordinate commanders and executive-level representatives from cooperating relevant national and international actors.

0330. **Production of force estimates and commander’s guidance.** Once the operational design is completed there will be two tasks to finalize the situation and problem analysis:

a. The estimation of the force and capability requirements.

b. The establishment of JFC’s planning guidance.

A template for operational planning guidance is in Annex D, Appendix 4 to COPD V2.0.

**Estimates of initial force / capability and command and control**

0331. **Initial force/capability requirements.** The mission analysis will have identified critical operational capabilities requirements, while the development of the operational design will have identified additional requirements as well as the general sequence and operational areas for employment. On this basis, the JOPG will conduct a high level troops-to-tasks analysis to identify the major force/capabilities, including the assessment of PE augmentation from NCS, NFS and nations required for the operation. The process is simply to update the
AJP-5

estimate of required operational capabilities based on the mission analysis and to compare it with the force capability requirements provided in the SPD. This will allow identification of any significant differences that may reflect an imbalance between required outcomes and the means likely to be available. Significant issues may constitute an operational risk and should be brought to the attention of the JFC.

0332. **Command and control requirements.** The JOPG and the communications staff will work together with the component/subordinate command liaison to establish the basic C2 requirements based on the mission analysis and operational factors, determining:

a. **Theatre and joint operations area requirements.** This is to estimate the area required to conduct and support operations. Considerations should be based on the conclusions drawn from time – space – force requirements with respect to the necessary lines of communications (LOC), entry points and operating areas.

b. **Required command and control functions and locations.** This step is to assess what tasks will be accomplished, where and by what kind of forces.

c. **Geographical and functional areas of responsibility.** The JFC will make preliminary estimates about his requirements to organise his C2 structure based on geographical and functional areas of responsibility.

d. **Critical liaison and coordination requirements.** The location of international and governmental authorities in the area may require a permanent high level C2 presence that influences C2 requirements.

e. **Span of control.** Following military principles, the JFC will balance the advantages and disadvantages between a relatively flat organization and a multilevel hierarchy.
f. **Communication and information systems points of presence.** Depending on the theatre location and CIS infrastructure in place, the JFC may have to rely on deployable CIS, with its inherent limitations, which will influence the number of deployed HQ locations.

   This influences the speed of deployment and C2 capability in terms of the quantity and size of headquarters that can be supported.

---

g. **Required communication security**, which may lead to a more complex or two-fold communication architecture.

   Information security consists of computer security and communications security. All communications and information systems must be authorised to operate prior to deployment. This accreditation process will influence the solution deployed to enable information flows across command and control nodes.

h. **Required frequencies.** Frequency planning and coordination is critical to ensure communication interoperability and to avoid radio-electronic conflict and interference. Depending on location, and expanse of forces involved, the JFC will have to ensure strategic frequency planning and coordination is performed at the required government and military levels.

0333. **Development of requests for SHAPE.** JFC’s planning staff element will develop additional requests, requirements and issues that require action at the strategic level. These typically include: requests for additional CRMs and ROEs; and pre-conditions for success. It is critically important that the JFC clearly states those conditions that must be created at the strategic or political levels to allow for operational success.
Commander’s planning guidance and operational planning directive

Validation of mission analysis and operational design. The JOPG validates the results of the mission analysis and the operational design, including the risk assessment within the HQ and, ultimately, with the JFC. Every effort must be made by the JOPG to engage the JFC during the mission analysis and operational design, and for the development of the commander’s intent. The staff generally conducts a mission analysis briefing for the JFC to gain his concurrence to the JOPG work. In any case, the JFC will approve and take ownership of:


b. Operational-level perception the objectives\(^\text{14}\), the criteria for success and operational effects.

c. Operational design in terms of LoOs and the sequence of required decisive points in different phases of the operation.

Most likely and most dangerous opposing COAs, in broad terms, which are to be developed as a basis for planning. The JFC will also give confirmation of the commander’s initial intent. This intent reflects the JFC’s vision of how the operation will unfold in terms of the general outline, the nature, sequence and purpose of main operational activities leading logically to the achievement of the operational objectives. The initial intent will:

a. Establish the purpose of the main operational activities in terms of the conditions that he intends to achieve.

b. Indicate whether the main operational activities are being conducted concurrently or sequentially.

c. Identify risks accepted or not accepted.

\(^\text{14}\) As per mission command, operational objectives are given by SACEUR to the JFC in the SPD. However, the opportunity exists at this stage for the JFC to recommend changes to SACEUR, if during mission analysis they would be necessary to meet his intent.
d. Conclude by relating the commander’s intent to the strategic objectives and the end state.

A template for a mission analysis briefing format is in Annex D, Appendix 3 to COPD V2.0.

Communicating intent

Communicating intent can be surprisingly difficult to achieve, particularly when language and cultural barriers get in the way. Montgomery used simple speech patterns and phrases when speaking to his soldiers, pitched at a level where reasonably complex ideas could be articulated, but using a simple vocabulary that would normally be associated with a 14 year-old. He was rarely misunderstood. Care should be taken in a multinational environment. Metaphors that add much colour to the English language rarely translate well. Moreover, a large proportion of communication is nonverbal, using gestures and body-language. Therefore, face-to-face communication is often the most effective means. Even where a common language is used, understanding is conditioned by factors that cannot be vocalised, including:

- **expectations** (based on personal style and the depth of experience working with someone);
- **military expectations** (based on doctrine, training and ethos, which do not always translate well across departmental boundaries); and
- **cultural expectations** (based on societal values, which are deeply rooted and hard to overcome).

In the multinational environment use clear language, speech and text.

0335. **Guidance for courses of action development.** The JFC will provide sufficient guidance to the JOPG to allow them to work efficiently in developing COAs within the time available. The level of detail in the guidance typically depends on the nature of the mission, the
operational circumstances, especially the time available, and the experience of the planners. On this basis the JFC may:

a. Specify opposing actions to be considered and opposing COAs to be developed.

b. Establish his criteria for COA development and selection.

c. Describe in broad terms the COAs he wants developed.

d. Direct his JOPG to focus its efforts on developing a single COA due to the urgency and nature of the situation.

0336. **Operational planning directive.** The JFC will issue the operational planning directive to subordinate commanders to provide them with operational output from the problem and mission analysis and to provide the necessary direction to formally initiate planning at the tactical level.

A template for an operational planning directive is in Annex D, Appendix 6 to COPD V2.0.

**Section IV – Step 3 – Courses of action development**

0337. The purpose of OLPP Step 3 is to develop a set of tentative COAs, all of which will accomplish the mission effectively in accordance with the commander’s intent. This step may be a collaborative planning effort between the strategic and the operational-level planners to produce coherent broad COAs for each level, in order to preserve a common context during the further development steps. The prerequisites for the commencement of this phase are: the JFC’s approved mission analysis and operational design; and his planning guidance, including his commander’s initial intent and his guidance for COA development and selection. COA development begins with a review of JFC’s planning guidance, produced in the previous step, as a basis for updating functional staff checks and analyses as required. The focus is on developing tentative COAs starting with the opponents’ COAs,
which have to be taken into account accordingly. Initially, they are all described in broad terms and later on they are tested for viability.

Assessment of opposing courses of action and other factors affecting development

0338. **Assessment of opposing forces’ courses of action.** Before developing COAs, the planners must appreciate the COAs open to opposing forces. The intelligence staff within JFC’s planning staff element will present their estimate of opposing COAs, including the most likely and most dangerous COAs for each opposing actor separately and combined COAs for multiple opposing actors as appropriate. This analysis provides the planners with a more dynamic understanding of the opponents’ capabilities, as well as the inherent risks to the mission posed by his actions. The development of own COAs takes into consideration possible opposing actions and the opportunities to influence the opponents’ decision-making through StratCom, as well as military and non-military actions under following conditions:

a. Prior to any public announcement of NATO intervention.

b. After a public announcement of NATO intervention until the initial entry of NATO forces.

c. After the initial entry of NATO forces until the full build-up of forces.

d. After the full build-up of forces

Analysis also provides insight into the opposing elements including the following:

a. Decision points.\(^{15}\)

\(^{15}\) Decision point - A point in space and time, identified during the planning process, where it is anticipated that the commander must make a decision concerning a specific course of action. (NATO Terminology Management System (NTMS) and Allied Administrative Publication (AAP)-6)
b. Critical intelligence, surveillance, target acquisition and reconnaissance capabilities.

c. Opposing forces networks, infrastructure, critical C2 nodes, political, military and religious leaders, and decision makers.

d. High value targets.

0339. **Assessment/confirmation of the actions of others in-theatre.**
Prior to developing own COAs, the planners also develop a common understanding of the actions of cooperating relevant national and international actors on basis of the given StratCom strategy in the theatre to avoid adversely impacting their actions or own COAs, and to enhance interaction with them. Ideally liaison elements of these actors represent and confirm their activities, including where cooperation and mutual support is required to create positive effects.

0340. **Analysis of other factors influencing course of action development.** COA development answers how to accomplish the mission according to the commander’s intent and the operational design. The JOPG will - at this stage - have significant understanding of the operational factors that will impact on how operations can be conducted. To achieve a useful concentration of effort, they draw out those key conclusions that will influence how COAs are developed focusing on:

a. **Common requirements and constraints.** There will be a set of common conditions or restrictions that will limit the possibilities for certain mission essential tasks and other activities.

b. **Main operational activities.** Operations typically have a number of predominant operational challenges or characteristics that are pivotal to the overall conduct of operations - a critical event, phase or geographic area.

c. **Principal alternatives.** The JOPG should begin COA development with a clear idea as to where there are major choices in how operations are developed.
Development of courses of action

0341. A COA describes the employment of specific forces and capabilities in a sequence of actions within the engagement space. The development of COAs applies creativity in determining the realm of the possible while staying within the commander’s intent and the operational design. Typically, JFC’s planning staff element will form teams to brainstorm possible COAs and to develop a range of tentative COAs. Tentative COAs will be tested for viability and selected for review with the JFC, who will decide which options will be further developed and evaluated through analysis and war gaming, as a basis for recommending a COA.

0342. **Development and consolidation of tentative courses of action.**

The process of enumerating a wide range of tentative COAs is designed to encourage creative “out of the box” thinking and the application of operational art to open up the range of possibilities that could be considered. Nothing should be ruled in or out at this point. Planning teams develop tentative COAs in the form of a main idea, illustrated by a sketch, and a brief outline of the sequence of main actions and the main and supporting efforts by different forces to show how they will create the effects and achieve required decisive points / DCs. Every attempt is made to consider as many COAs as possible. This provides more flexibility in how forces might be employed to accomplish the mission and will quickly highlight similarities and fundamental differences that can be further developed. A consolidation process considering the advantages and disadvantages relative to achievement of the aim and the degree of risk involved should be conducted taking the following actions:

a. Begin by developing ways to accomplish the tasks associated with the mission. The staff may want to think two levels down (how would subordinate formations accomplish the task).

b. Then integrate and harmonize these ideas in terms of the operational-level concepts and operational functions (end state,
objectives, sequencing, tempo, shape, engage, exploit, protect and sustain.\(^\text{16}\))

c. Ensure that a focus on objectives (own and probable opposing) is maintained and on the decisive points / DCs that may lead to those objectives.

d. Broadly scope out the possible phases of the COA and initial sequencing of forces including main and supporting efforts.

e. Identify broad component level missions / tasks in terms of combat power and combat support needed.

f. Clearly describe the COA in a statement supported by sketches as required.

g. Determine preliminary command and organizational relationships.

Having finalized this creatively active phase, meet the requirements below for the elaboration of the contents and the testing of the tentative COAs.

0343. Tentative COAs should illustrate the:

a. Sequence and purpose of the main joint actions required to create the required decisive conditions / DCs.

b. Main actions necessary to create intended effects.

c. System / system elements at which actions are directed.

d. Main forces / capabilities required to carry out the main joint actions and to create the desired effects.

e. Required complementary non-military actions.

\(^{16}\) See operational-level functions in AJP-01(D), Paragraphs 0529 – 0534.

The planning teams will merge the best aspects from similar COAs into a limited number of COAs, which should be considered by the entire JOPG in the time available.

0344. Testing of tentative courses of action. The next step is for the planning teams to determine if COAs are or can be adjusted to be viable, based on evaluation of the following six criteria:

a. Feasibility. Is the COA possible, given the time, space and resources likely to be available and does it fit the operational environment?

b. Acceptability. Are the likely achievements from the COA worth the expected costs in terms of forces deployed, resources expended, casualties suffered, collateral effects, media and public reaction and levels of risk?

c. Completeness. Is the COA complete? Does the COA answer the when, who, what, why and how questions?

d. Compliance with NATO doctrine. Does the COA implement Allied Joint Doctrine to the extent possible?

Both the UK and NATO acknowledge that doctrine provides guidance and, although authoritative, this requires judgement when applying it. A commander may judge that compliance with doctrine may not be appropriate in certain circumstances.

e. Exclusivity. Is the COA sufficiently varied from other COAs to clearly differentiate its comparative advantages and disadvantages?

f. Suitability. Does the COA accomplish the mission and comply with the planning guidance?
0345. **JFC’s guidance for the refinement of tentative courses of action.**

Before the JOPG commits to developing a set of COAs in detail, it will review proposed COAs with the JFC to ensure that they meet his expectation. Tentative COAs along with any other relevant information and questions will be briefed to the JFC in a concise and logically sequenced manner. This provides an early opportunity for the JFC to focus efforts and to influence further COA development by ruling out or adding any COAs. The JFC may modify his criteria for the development and selection of COAs; it is critical at this stage that the JOPG review these criteria and discuss them as necessary with him. These criteria should reflect what the JFC considers to be most important based on factors such as the guidance and direction received in the SPD, LoOs, decisive points / DCs and known risks.

**Section V – Step 4 – Courses of action analysis**

0346. The purpose of OLPP Step 4 is to refine and analyse the COAs received from the JFC’s decision on the tentative COAs in the previous step. The final product of this step is a series of COAs derived from a comprehensive, logical cross-functional evaluation and synchronization. This series is then ready for comparison and validation in the next step. Course of action analysis will partly be a collaborative planning effort between the operational-level and the tactical level planners to produce coordinated COAs for each level. COA analysis begins with a review of the JFC’s accepted and additional COAs as a basis for further refinement. The focus is on scrutinizing the initial COAs in a cross-functional manner by the entire staff. These COAs are also coordinated with subordinate commands and refined through their analysis. Finally they are evaluated by means of war gaming and synchronized. If required, the planners further refine the COAs by adding the level of detail required for further analysis, war gaming and evaluation. Key outcomes of this step are:

a. **Outline concept of operations:**

   (1) The logical sequence and main purpose of operations to be achieved in clearly defined phases.
(2) When, where and in what sequence operations will be carried out to create desired effects and resulting decisive points/ DCs.

(3) The main and supporting efforts.

(4) Effects to support decisive points / DCs and mission essential joint actions to support those effects.

(5) Operational reserve.

(6) StratCom themes and messages.

The StratCom themes are the key ideas in the JFC’s concept or intent that have been derived from the narrative. They are designed for broad communication across all target audiences and explain the overarching operations plan. They are supported by messages that are more narrowly focussed on specific target audiences (also see paragraph 0107).

(7) Required non-military actions.

b. Missions and objectives for subordinate commands. These must be developed in conjunction with subordinate commanders; their development is a collaborative process but led by the JFC and his JOPG.
Mission statements. A JFC should write a mission – a clear concise statement of the task of the command and its purpose – for each of his subordinate commanders. There are three broad types of mission statement: single task; multiple task; and (usually for reserves) a list of contingent or be prepared to tasks.

• Each mission statement contains task, purpose, and unifying purpose (the ‘in order to’ or effect required in relation to the CONOPS). Subordinates’ freedom of action and scope for initiative is made clear.

• The sum of the purposes of all the JFC’s mission statements covers the synchronisation of forces and functions (UK equivalent term is scheme of manoeuvre), otherwise some aspect has been left un-resourced.

• Mission statements are expressed precisely and unequivocally, using defined language. This is particularly important in multinational operations, where orders are translated, and in multi-agency situations where military terminology has to be interpreted.

• Do not use any abbreviations and jargon.

Missions for reserves. A JFC should distinguish between his reserve and echelon forces. Echelon forces are those that, while not committed initially, have an explicit role in the plan; they have a given mission. Reserve forces are uncommitted in the plan but retained to deal with unforeseen circumstances, to exploit unexpected success or guard against setbacks. They should be given planning tasks or options, rather than a mission within the plan. Once committed, they should be given a specific mission. A further reserve must then be generated.
c. **Task organization** - force / capability requirements two levels down (i.e. one level below components/subordinate commands), based on an initial 'troops-to-tasks' analysis for mission-essential tasks for each component / subordinate command; supporting/supported relationships in the task organisation; any significant changes in the task organisation between phases.

d. **Operational graphics and timelines** - illustrate the spatial aspects of the COA by phase and the sequencing of key tasks by subordinates for each phase of the operation, including other key events and opposing actions.

**Analysis of courses of action**

0347. COA analysis provides an opportunity for the JOPG to examine each COA from different functional perspectives to identify inherent advantages and disadvantages, as well as to determine key aspects to be evaluated in war gaming such as: decision points for own actions; high pay-off targets\(^\text{17}\); risks and hazards; and required branches and sequels.

0348. **Troops-to-tasks analysis**. This analysis seeks to determine the military capabilities and capacities required to execute the COA by phase of the operation and under the conditions expected within the operational environment. It provides essential detail to the task organization for the determination of deployment feasibility and the conduct of the war game. Inputs are required from subordinate commands; however, the process must be led and coordinated by joint planners to optimise joint force employment. A typical sequence of analysis is:

a. Determination of the optimum employment of joint capabilities for each mission essential task and the desired effects for each phase.

\(^{17}\) *A target of significance and value to an adversary, the destruction, damage or neutralization of which may lead to a disproportionate advantage to friendly forces.* (NTMS and AAP-6)
b. Establishment of the most cost-effective mix of component, C2 and CIS capabilities, and update the task organization.

c. Estimation of the most cost-effective theatre level support capabilities for the support of the joint force, and the supplemental support capabilities required by components. However, directive authority for logistics remains a national responsibility^{18}.

d. Preparation of a draft CJSOR focusing on the required capabilities by phase.

e. Assessment, in coordination with cooperating relevant national and international actors, of potential requirements for the support of relevant national and international actors, in accordance with the JFC’s planning guidance.

0349. **Assessment of force availability.** The JOPG liaises with SHAPE - Force Generation - and checks the task organization for each COA, to assess whether the required forces / capabilities are likely to be available and ready given the warning time for the operation.

0350. **Transportation feasibility.** Movement experts in the JOPG should develop an estimate of the feasible deployment of the main forces based on their assumed readiness to forecast their potential arrival in the theatre and the JOA. Additionally, the ability within the planned scenario for a robust aeromedical evacuation plan needs to be assessed. The JOPG may seek assistance from external subject matter experts during their analysis if required.^19

**War gaming**

0351. **War gaming of the courses of action.** War gaming is a flexible instrument designed to develop, compare, and improve COAs. It should be used, whenever time permits, in order to evaluate the potential of the COA to accomplish the mission against foreseen opposition with respect to the different opposing COAs, as well as to

^{18} See Paragraph 0220. c. for further detail.

^{19} For example, the Allied Movements Coordination Centre at SHAPE.
identify and correct deficiencies. However, the real value is its ability to permit the JFC and his staff to visualise the conduct of operations and gain insight into opposing capabilities and actions, as well as conditions in the operational environment. War gaming should help them anticipate possible events and foster the mental agility to deal with them. The war game should also help identify potential risks and opportunities, which may drive the need for branches and sequels to counter or exploit such situations, as well as decision points for the commander to take action. Ideally, each own-force COA should be war gamed against the ‘most likely’ and ‘most dangerous’ opposing COAs. War gaming is regularly conducted in OLPP Step 4 to compare COAs. Additionally, it can be used in other steps. Then, however, its purpose would not be comparison, but development, improvement, or revision of COA. Besides being used in operational planning, war gaming can also be applied as a dry run in mission rehearsals.

0352. **General preconditions.** Some preconditions have to be met, without which war gaming will fail or only achieve biased results:

a. **Well trained staff** must be available, when setting up the JOPG for war gaming. Especially, a coordinator has to be appointed. He will be responsible for the preparation and the conduct of war gaming in terms of contents and organization.

b. **Constraints and restraints** for the friendly conduct of operations as well as for the opposing forces’ (OPFOR) COAs assumed conduct of operations have to be identified, made available for war gaming and followed.

c. **Operational analysis** (OA) includes not only the development and application of mathematical models, statistical analyses and simulations but also the application of expertise and experience for the determination of quantitative factors for friendly and opponents’ COAs. Mathematical models and simulations, and the interpretation of their results, form the core of OA. The results indicate trends and tendencies, and as such are only one factor to be considered in decision-making. The quality of these trends and tendencies depends on the quality of the initial factors.
These models simplify reality, which is especially true for asymmetrical scenarios. The scope of OA has to be agreed upon between the coordinator, the head of JOPG, and the OA experts. If available and time allows, war gaming can benefit from OA support from the very beginning, whether it is conducted in a computer-based or manual manner.

0353. **War game options.** The coordinator, with the approval of the head of the JOPG, decides which method will be applied. There are three basic war game options:

a. By phases (Figure 3.1) - play out critical joint tasks by phase against the goals of each phase.

![Figure 3.1 – War game phases](image)
b. To set decisive points (Figure 3.2) - play out critical joint tasks for setting decisive points / DCs.

**Figure 3.2 – War game decisive points / decisive conditions**

c. In segments of the operational environment (Figure 3.3) - play out critical joint actions in specific operating areas.

**Figure 3.3 – War game segments of the operational environment**
Preparing and conducting war games. This involves determining: the desired type of outcome, the method and scope of the game; and the participants of the game including subordinate commands, friendly, opposing and eventually neutral players (Blue, Red and Green Teams), referees, expert arbitrators and recorders. In addition, the operational situation must be prepared, tools for manual or computer assisted simulation and analysis, and rules need to be established. While there are benefits to a war game, it must be noted that preparing a joint staff war game may be cost, manpower and time intensive. The conduct of a war game is determined largely by the desired outcomes, selected method and the scope. War games will include:

a. Setting conditions. An introduction to set the strategic and operational conditions affecting the operation, including political considerations, threat conditions, environmental conditions, civil conditions, information and media conditions, etc.

b. Game moves. A series of ‘game turns’ considering the action - reaction - counter-action of opposing actors, starting with the opposing actor deemed to have the initiative.

A simplified depiction is given in Figure 3.4.

Assessment and recording of overall results
An assessment of probable results of any action - reaction - counter-action typically follows each game turn within a cognition phase and is used to set conditions for the succeeding game turns. An illustration is given in Figure 3.5. Observations and conclusions drawn from the war game are recorded in line with the purpose. Typically, these include:

a. Refinements to the COA and correction of deficiencies.
b. Additional force/capability requirements.

c. Casualty estimation.

d. Synchronization requirements.
e. Significant risks and opportunities encountered against opposing COAs.

f. Branches and sequels required.

g. Decision points and supporting CCIRs.

h. Other lessons learned.

Figure 3.5 – Move results, assessment, conclusions

These overall results have to be integrated into the next step ‘COA validation and comparison’. If during the assessment findings can be confirmed as factual conclusions, meaning confirmed facts, these can be entered into a synchronization matrix.20

0356. **Synchronise courses of action.** During the analysis, coherence across the different forces and functions should be achieved for each of the COAs. The different elements, like components' actions, strategic communication, civil-military interaction or more, can be harmonised to create synergies. A synchronization matrix or other visual aids may be of great help in doing so. Such visualization should

---

20 See also Paragraph 0356. last two sentences.
be refined during plan development, and later on included in the OPLAN.

**Course of action description.** At the end of step 4, courses of action should be described clearly and in detail following a common format. The staff can then effectively validate and compare (in step 5) and facilitate subsequent contingency planning (where an alternative course of action, or part of one, provides a potential branch or sequel). A developed course of action (amplifying the considerations in paragraph 0346) should include:

- a summary of the strategic context – national strategic aim, national strategic objectives, military strategic objectives and the military strategic commander’s intent;
- the campaign end-state and the information effect, described as the JFC’s mission and campaign objectives;
- the JFC’s theory of change;
- the strategic narrative and the JFC’s key themes and messages;
- identified centre(s) of gravity;
- other government departments' intentions and other agencies;
- assumptions (including those subject to any outstanding commanders critical information requirements);
- key constraints, restraints, limitations and freedoms;
- the JFC’s concept of operations: intent; supporting effects; scheme of manoeuvre (the NATO equivalent is Synchronization of Forces and Functions – see paragraph 0347); main effort; and key themes and messages;
- risks; and
- associated command and control requirements.
Section VI – Step 5 – Courses of action validation and comparison

0357. The purpose of the OLPP Step 5 is to validate and compare the COAs that were analysed during the previous step. Key inputs to this step are: general assessment results; war game results; evaluation criteria derived from the list of twelve principles of Allied combined joint operations in Paragraph 0105. The key products of this step are: evaluated COAs; a recommended COA; the COA selection rationale.

0358. Comparison of courses of action. COAs are compared in four different contexts: firstly, by comparing their inherent advantages and disadvantages (to include staff and supporting/subordinate commander estimates of supportability); secondly, by comparing their performance/risks against opposing COAs; and thirdly, by comparing them against the JFC’s COAs selection criteria. A final risk assessment should highlight any risks to the accomplishment of the operational or even strategic objectives. Based on these different comparisons, the JOPG should be able to prioritize and recommend the COA with the highest probability for success within acceptable risks. Presented overviews:

a. Courses of action advantages and disadvantages. The JOPG consolidates the advantages and disadvantages found during the initial analysis of each COA, as well as those revealed during war gaming. The process of comparing these should seek consistency by using the same set and weight of criteria across the different COAs.

<table>
<thead>
<tr>
<th>COA 1</th>
<th>COA 2</th>
<th>COA 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantages</td>
<td>Advantages</td>
<td>Advantages</td>
</tr>
<tr>
<td>Disadvantages</td>
<td>Disadvantages</td>
<td>Disadvantages</td>
</tr>
</tbody>
</table>

Table 3.2 – COAs advantages/disadvantages

b. Friendly and opposing courses of action. Based on the results of war gaming, the JOPG should rate how well each COA coped
with the most likely and most dangerous opposing COAs. They should indicate the expected effectiveness, likely costs and potential risks for each combination.

<table>
<thead>
<tr>
<th>Opposing most likely COA</th>
<th>COA 1</th>
<th>COA 2</th>
<th>COA 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costs:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risks:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opposing most dangerous COA</th>
<th>COA 1</th>
<th>COA 2</th>
<th>COA 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costs:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risks:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 3.3 – COAs coping with opposing COAs**

c. **Comparison of courses of action against JFC’s selection criteria.** The development of COAs has been guided by the JFC’s COA selection criteria. Therefore, all COAs should meet these criteria. However, COAs will differ as to how well they satisfy the different criteria. The JOPG will, therefore, compare these differences using whatever method the commander prefers: Narrative – using free text; one word descriptors – like good / medium / bad; numerical rating – with an assessed cardinal number value; rank ordering – with an ordinal number, or +/- as qualifying attribute.

<table>
<thead>
<tr>
<th>JFC’s Selection Criteria</th>
<th>COA 1</th>
<th>COA 2</th>
<th>COA 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criterion 1</td>
<td>High/Moderate/ Low</td>
<td>High/Moderate/ Low</td>
<td>High/Moderate/ Low</td>
</tr>
<tr>
<td>Criterion 2</td>
<td>High/Moderate/ Low</td>
<td>High/Moderate/ Low</td>
<td>High/Moderate/ Low</td>
</tr>
</tbody>
</table>

**Table 3.4 – COAs compared to JFC’s criteria**
d. **Courses of action risk assessment.** The JOPG will be constantly looking for risks and finding ways to mitigate them as they develop COAs. The COA risk assessment provides the JOPG a way to compare the risks for each COA against specific operational outcomes (operational objectives, decisive points / DCs, desired effects, etc.), as well as how those risks could be mitigated, including requirements for branches and sequels as described in Table 3.5. There will be one table per COA per risk against specified operational outcome. The table results have to be compiled in order to show the total risk for the scrutinized COA.

<table>
<thead>
<tr>
<th>Operational Risk Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sources</strong></td>
</tr>
<tr>
<td>Actions of opposing actor(s) / element(s).</td>
</tr>
<tr>
<td>Actions of friendly forces.</td>
</tr>
<tr>
<td>Operational environmental factors.</td>
</tr>
<tr>
<td>Desired effect.</td>
</tr>
</tbody>
</table>

**Risk Management**

- Can the source be neutralised?
- Can the vulnerability to the source of the risk be reduced?
- Can the consequence and/or severity of the occurrence be limited?
- Can the probability of occurrence be reduced?

**Conclusion**

- **Unacceptable** - risk management cannot reduce risk to an acceptable level.
- **Conditionally acceptable** - risk can be reduced to an acceptable level by taking actions to:
  - Modify force disposition / posture / composition.
  - Adjust current operations.
  - Prepare branch plan or sequel.
- **Acceptable** - no risk management actions required.

**Table 3.5 – Courses of action risk assessment**

0359. **Risk assessment/tolerance matrix.** The risk of any particular event occurring within a COA may be plotted on a matrix, as the one at Table 3.6, showing risk probability versus severity. An activity or event may, for example, be classified with a high probability of occurrence (i.e.
likely), and with a high severity level if the event occurs (i.e. critical) - overall, a high risk score. To aid COA development and

<table>
<thead>
<tr>
<th>Probability</th>
<th>Frequent</th>
<th>Likely</th>
<th>Occasional</th>
<th>Seldom</th>
<th>Unlikely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catastrophic</td>
<td>Extreme</td>
<td>Extreme</td>
<td>High</td>
<td>High</td>
<td>Moderate</td>
</tr>
<tr>
<td>Critical</td>
<td>Extreme</td>
<td>High</td>
<td>High</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Marginal</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Negligible</td>
<td>Moderate</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

Table 3.6 – Risk assessment matrix and JFC’s risk tolerance line (illustrative)

analysis from the start, a JFC may draw his own risk tolerance line, to provide broad guidance rather than a prescriptive rule to be followed. In spite of the constructs shown above, COA comparison remains a subjective process and should not be turned into a mathematical equation. The key element in this process is the ability to articulate to the commander why one COA is preferred over another.

The risk tolerance line may need to be adjusted to the political situation or context. For example, in non-combatant evacuation operations (NEO) and similar operations, there may be political imperatives that require the risk to a nation’s citizens and forces to be reduced to a greater extent than may be necessary in war fighting. However, no matter what the nature of the operation, the tolerance line should not be set to such an extreme that the plan itself becomes risk averse. Casualties, deliberate or accidental, are a reality of military operations and attempting to avoid them totally may well impact adversely on achieving the mission. A JFC should always balance the level of acceptable risk with the context of the campaign.

See also AJP-01, *Allied Joint Doctrine* for a discussion on risk.
Section VII – Step 6 – Commander’s courses of action decision

0360. The purpose of OLPP Step 6 is to gain a JFC decision on a chosen COA and then refine this COA as the future core of the CONOPS. The prerequisites for the commencement of this phase are: a set of refined COAs; the staff recommended COA; the COA selection rationale; JFC’s personal analysis having earlier led to the COA selection criteria in Step 2 and, in more refined form, in Step 3. The desired outputs are: JFC’s COA selection; COA modifications; a refined JFC’s intent. These will then be inputs to the CONOPS development in the subsequent step.

0361. JFC’s course of action decision. The JOPG presents its comparison of COAs to the JFC with a coordinated staff recommendation. This is typically accomplished by means of a briefing to the JFC, but could also be provided in written form. This briefing often takes the form of a decision briefing that is focussed on a few alternatives, between which the JFC can make a selection\(^{21}\). The information provided could then also include the current status of the joint force; the current CPOE; and assumptions used in the COA development. The staff briefs the commander on the COA comparison and the analysis and war gaming results, including a review of important supporting information. In any case, the presentation must ensure that the JFC has optimum information upon which to base his decision; detailed enough to identify focal points but summarized for effectiveness and brevity. The JFC will coordinate with his subordinate commanders and solicit their advice, especially during time-compressed crisis response planning. The JFC selects a COA based upon the staff recommendations and his personal estimate, experience, and judgment. He may select a COA, with or without modification, or may direct that additional COAs be investigated. The essential results of the JFC’s COA decision are:

a. Clear direction on the COA to be developed as well as required branches and sequels.

\(^{21}\) For an example COA decision briefing format see COPD, Annex F, Appendix 2.
b. Additional guidance and milestones for the development of the CONOPS.

c. Issues to be raised with SHAPE.

d. Priority issues requiring liaison, coordination or reconnaissance in-theatre.

e. Coordination required with relevant national and international actors.

A template for COA decision briefing is in Annex D, Appendix 5 to COPD V2.0.

0362. **Refinement of the selected course of action.** Once the JFC has selected a COA, the staff will begin the refinement process of that COA for two purposes: Firstly, the COA has to be adjusted as per any final guidance from the JFC. Secondly, the selected COA has to be prepared to contribute to the refined commander’s intent. For the latter purpose, the staff will apply a final ‘acceptability’ check. The staff refines JFC’s COA selection in terms of:

f. Development of a brief statement that clearly and concisely sets forth the COA selected and provides only whatever information is necessary to develop a plan for the operation.

g. Description of what the force is to do as a whole, and as much of the elements of when, where, and how as may be appropriate.

h. Phrasing of the refined intent in terms of what is to be accomplished, if possible.

i. Use of simple language so the meaning is unmistakable.

j. Inclusion of a statement to describe what is an acceptable risk.
The staff’s basis for performing a final acceptability check comprises: factors of acceptable risk versus desired outcome, consistent with higher commander’s intent and concept, and sound judgement if gains are worth expenditures.

**Course of action tools and techniques.** The JFC’s staff will employ tools and techniques, in accordance with their respective headquarters’ standard operating procedures, to articulate each course of action. Supplement 2 and its appendices includes a range of these tools.

- Campaign planning concepts are at Appendix 1 to Supplement 2.
- Campaign schematics are at Appendix 2 to Supplement 2.
- Decisive condition/supporting effect tables are at Appendix 3 to Supplement 2.
- Effects schematics are at Appendix 4 to Supplement 2.
- Joint action tables are at Appendix 5 to Supplement 2.
- Joint action schematics are at Appendix 6 to Supplement 2.
- Joint action synchronisation matrices are at Appendix 7 to Supplement 2.
- For measurement of effect see JDN 2/12 Assessment [http://defenceintrananet.diiif.r.mil.uk/libraries/library1/MOD/Apr2013/20120221-jdn212_assessment.pdf](http://defenceintrananet.diiif.r.mil.uk/libraries/library1/MOD/Apr2013/20120221-jdn212_assessment.pdf)

0363. **Commander’s analysis of the refined intent.** A commander’s analysis of the refined COA and the draft refined intent prepared by his staff should provide the critical link between the mission analysis, the commander’s intent and his selected COA. It summarises the main conclusions that the JFC has drawn from his own mission analysis (operational objectives, factors, assumptions, requirements, limitations on his freedom of action, and risks), COG analysis, and the operational design (LoOs, decisive points / DCs, and main effort). The
JFC established his initial intent, based on his mission analysis and his operational design, to guide COA development. Since then, he has continued to refine his operational estimate leading to his COA decision. The JFC must now refine his intent accordingly to ensure absolute clarity as to the critical aspects of the operation including:

a. The purpose of the operation, its main phases and activities.

b. The main effort.

c. How the entire campaign or major operation will achieve the operational-level objectives and contribute to the accomplishment of military strategic objectives.

d. Acceptance of risk.

This will inform and launch the CONOPS and OPLAN development. The commander’s intent will serve as a guide that allows mission command and initiative by subordinates.

Section VIII – Step 7 – Operational-level concept and plan development

0364. The purpose of OLPP Step 7 is to produce a coherent operational-level CONOPS and OPLAN. The CONOPS clearly and concisely expresses what the JFC intends to accomplish and how it will be done using available resources. It describes how the actions of the joint force components and supporting organizations will be integrated, synchronized, and phased to accomplish the mission, including potential branches and sequels. The OPLAN has basically the same structure and format as the CONOPS, but is elaborated to much more detail and further particulars\textsuperscript{22}. A collaborative planning effort between the strategic and the operational-level planners in order to achieve a well linked CONOPS and OPLAN on each level should always be considered. Prerequisites are: JFC’s selected COA; and his refined commander’s intent.

\textsuperscript{22} For the format of strategic CONOPS and OPLAN see MC 0133/4, Annex B, Appendix 1 and for the operational-level CONOPS and OPLAN COPD, Annex D, Appendix 3.
a. **Desired outcome.** The CONOPS and OPLAN development step is successful when:

(1) The sequence of operations along clearly defined LoOs sets decisive points / DCs that retain freedom of action and lead to accomplishment of operational objectives that set the conditions for transition / termination of the operations.

(2) Capabilities required for the conduct and sustainment of joint actions are identified.

(3) The CONOPS includes all operational aspects of time, space, forces and information, balanced sufficiently within acceptable risks.

(4) Arrangements to specify the conduct of operations have been developed into an OPLAN.

(5) The OPLAN provides a basis for planning by subordinate / supporting commands.

(6) The OPLAN is arranged for subsequent adaptation as required to meet eventual changes in the operational environment.

b. **Products.** The main outputs from Step 7 are:

(1) CONOPS.

(2) Proposal for target categories and illustrative target sets.

(3) ROEREQ.

(4) CJSOR; theatre capability statement of requirements (TCSOR); manpower / crisis establishment.

(5) OPLAN.
Production of the concept of operations

The CONOPS brings together the OLPP output from the outset of the process to this point, including the commander’s refined intent. It will later provide the basis for the further development of the OPLAN. The CONOPS format is essentially the same as the OPLAN, including a select number of detailed annexes appropriate for this point in the planning process. Once approved by the JFC, it is forwarded to SACEUR for his approval. SHAPE will ensure that it is harmonised with the development of strategic concept. The CONOPS is also issued to subordinate and supporting commands as a basis for their concept development. The ‘Operations Design’ including the ‘Scheme of Operations’ within the CONOPS provides the basis for control of the operation. It establishes the sequence and purpose of critical joint actions in distinct phases from initial entry to termination and transition, including the required operational outcomes in terms of objectives and the resulting decisive points / DCs to be achieved for each phase. The CONOPS provides the basis for the assignment of missions to subordinate and supporting commands, as well as priorities for each functional area. It comprises a Synchronization Matrix referred to before and detailed in planning directives. The operation is described from the perspective of the JFC, encompassing the employment of joint forces with respect to:

a. Joint manoeuvre, including the initial entry and the deployments within the JOA.

b. Joint fires, including the use of lethal and non-lethal fires against priority targets,

---

23 For the format of strategic CONOPS and OPLAN see MC 0133/4, Annex B, Appendix 1 and for the operational-level CONOPS and OPLAN COPD, Annex D, Appendix 3.
24 COPD, Annex D, Appendix 3, Paragraph 3. e.
25 See Paragraph 0356.
26 See COPD, Paragraph 4-29. f.
c. Strategic communication within the theatre and the JOA.

d. Interaction with cooperating and non-cooperating relevant national and international actors.

Joint action is best executed with a unified command so that orchestration can be directed rather than simply invited. It embraces supported and supporting relationships between subordinate commands while delegating the freedom to act, under mission command. Where there is no unity of command, for example, where non-military actors are engaged in activities alongside the military, harmonisation of effort can help maintain coherence between planned activities. Joint action is detailed in Chapter 3 of JDP 3-00, Campaign Execution, (Third Edition), which will be withdrawn when AJP-3 (C), Allied Joint Doctrine for the Conduct of Operations, is promulgated. http://defenceintranet.diif.r.mil.uk/libraries/library1/MOD/Apr2013/20120829-jdp3_00_ed3_chg1.pdf

0366. Assignment of mission to subordinate commands, to include task and purpose, should be done in the CONOPS and be focused on required outcomes to allow greater freedom of action. These missions will have been confirmed during war gaming for each phase and captured in the synchronization matrix. Coordinating instructions establish specific requirements, direction and priorities for different operational functions, as confirmed during war gaming, with the aim of synchronising activities across all commands. Functional details will be developed within the plan and articulated in respective annexes. Items of command interest will be stated in the CONOPS, including:

a. CCIRs.

b. ROE.

c. Joint fires, including targeting guidance and priorities for defence of high value assets/areas.

d. StratCom including PA and Info Ops.
e. Force protection (FP).

f. Chemical, biological, radiological and nuclear (CBRN) defence.

g. CIMIC.

h. Military police operations.

i. Environmental protection.

j. Joint security area operations.

k. Critical timings.

m. Critical national infrastructure.

0367. **Concept for service support.** Theatre logistics is an integral part of the CONOPS and is described within the context of the overall operation. As a minimum, it will outline: arrangements for staging, entry and exit into and out of the JOA; main and forward logistical bases; petroleum, oils and lubricants (POL) supply and distribution; theatre engineering priorities; provision of the common funding; development of the theatre infrastructure framework; land LOC; theatre health and medical support and architecture.\(^\text{27}\)

0368. **Command and control, and communications information systems support.** The description of C2 and CIS arrangements outlines the key aspects for establishing the command authorities, relationships and liaison required by the task organization. As a minimum the CONOPS should establish the following:

a. The theatre of operations (TOO), JOA, as received through the strategic CONOPS, and further areas of operations, along with communication arrangements by the NATO Communication and

---

\(^{27}\) Belgium, Czech Republic, Germany, Poland, Slovakia and the United States do not consider medical support to be a logistic function. See MC 0319/2, footnotes 1 and 6 as well as AJP-4(B) RD, footnotes 2, 13 and 39.
Information Systems Services Agency after considering arrangements of each subordinate leader.

b. The chain of command.

c. The delegation and transfer of command authorities.

d. Requests for implementation of additional CRMs if required.\(^{28}\)

e. The outline CSI structure based on the broad information exchange requirements and CIS solutions within the strategic CONOPS and policy guidance provided.\(^{29}\)

f. Location/collocation of primary HQs, with consideration to CIS limitations.

Exit criteria. They are those self-sustaining conditions that must have been established with respect to specific systems in the engagement space to satisfy international norms and allow operations to be terminated. They are developed and used as a basis for planning the transition and exit from the theatre while ensuring that favourable conditions can be sustained as military forces are withdrawn from the theatre. Exit criteria are developed at the strategic level during the strategic CONOPS development and forwarded to the operational level via the SPD. Here they are included in the CONOPS and the OPLAN in order to play their part in JFC’s future periodic assessments of progress, which feed SACEUR’s periodic mission review process. Exit criteria are also included in the operational-level CONOPS and OPLAN to aid subordinate HQs in their tactical operations assessment during the execution phase.

\(^{28}\) Requests are based on the time available for the generation of forces, theatre capabilities and manpower and the JOPG’s assessment of the need to request additional specific CRMs that call on nations to review, prepare and activate national assets to meet NATO requirements. In particular, they will review CRMs in the following areas: manpower, intelligence and meteorology / oceanography / hydrography, general operations / readiness / electronic warfare, psychological operations and logistics and CIS.

\(^{29}\) See MC 0593/1, The Minimum Level of C2 Services, Interoperability and Connectivity Required to Ensure Effective Coordination, C2 of Forces and Elements Deployed on Land, Involved in a NATO-led Operation
Force/capability requirements development

0370. The provisional combined joint statement of requirements is developed in parallel with the CONOPS. It will be presented to the nations, along with the strategic CONOPS, as SACEUR’s statement of the military requirement for forces to conduct the operation within acceptable risks. It includes preliminary deployment information based on the JFC’s required force flow into the theatre. It balances the ends and means to ensure the viability of the operation in terms of: its suitability to accomplish agreed objectives; acceptability of costs and risks; and the feasibility of deployment, employment and sustainment. Critical elements of information required by nations in order for them to determine their contributions and prepare them for deployment include:

a. Required capability and any special capabilities.

b. JFC's required date for the forces availability for employment.

c. Final destination.

d. Level of command authority required.

0371. The provisional TCSOR identifies capabilities required to support the entire theatre and which should be in principle eligible for common funding. Based on their troops-to-tasks analysis, the JOPG identifies any functional capabilities required to support the entire joint force and/or the theatre as well as the required timeframe for this support. Given that meeting these requirements may take time, planners should investigate interim solutions.

0372. Manpower / crisis establishment statement of requirements.
Appropriate templates identify personnel required to fill the crisis establishments for the activated HQ. They are developed by personnel management staff members of the JOPG. Particularly the area of manpower deserves an assessment, whether or not additional CRM s should be implemented.
0373. **Forwarding the concept of operations and the requirements to SACEUR.** The JOPG coordinates the CONOPS and the provisional CJSOR with subordinate and supporting commands, as well as with SHAPE, to ensure that they are harmonised with the development of the strategic CONOPS. Once approved by the JFC, they are forwarded to SACEUR for his approval. SACEUR forwards his strategic CONOPS to the MC and simultaneously issues the provisional CJSOR and manpower statement of requirements (SOR) to nations through their national military representatives at SHAPE. This allows nations to consider the strategic CONOPS together with the capabilities required for its implementation. It is also sent to subordinate commands as a basis for their tactical CONOPS development. Development of the operational-level OPLAN can begin with submission of the operational-level CONOPS, but cannot be finalized prior to its approval. The provisional SORs, described in Paragraphs 0370. to 0372., provide the basis for force generation.

**Development of the operation plan in general**

0374. **Overview.** The minimum prerequisite for the commencement of OPLAN development is a JFC approved CONOPS, but it must address any issues resulting from SACEUR’s review. Once national responses to the SORs in broad terms and a response to the ROEREQ, including any national caveats, are received they can be taken into consideration during OPLAN development. OPLAN development is an iterative, collaborative process that focuses on synchronising and coordinating the deployment, employment, protection, support and sustainment of the joint force during the different phases of the operation within a single plan. Plans are prepared in accordance with instructions and formats provided by SHAPE.\(^{30}\) All planning specifics developed are to be brought into the OPLAN format and its respective annexes. Plan development concludes with final coordination, forwarding, approval and promulgation of the plan as required by the different planning categories.

---

\(^{30}\) For Example, through the ACO, Comprehensive Operations Planning Directive.
0375. **Products.** Depending on the planning category the following products are developed: for a crisis response planning - an executable OPLAN; for advance planning - either a contingency plan (CONPLAN) or generic CONPLAN or a standing defence plan (SDP). Operational plan development must meet certain criteria given the planning category and urgency of the planning:

a. **Timeliness** - planning products are produced in time to allow subordinates to complete required planning and preparation.

b. **Adequacy** – the following arrangements meet operational requirements: The legal framework, including international mandate and arrangements with HNs; force capabilities and resources; the flow of forces into the theatre; C2 arrangements, including liaison and coordination with external organizations, CIS and ROE; provisions for theatre support and sustainment; contingency planning to cover the assessed risks.

0376. **Initiation of plan development.** For the provision of guidance and direction the JOPG will review any issues raised in SACEUR’s review of the JFC CONOPS, seek guidance from the JFC and accomplish the following:

a. Establish a schedule and timelines for JFC’s plan development.

b. Review of the status of strategic planning on which operational-level planning depends: force generation; preliminary deployment planning; legal arrangements with HN(s); communication strategy; and ROE.

c. Planning in coordination with subordinate commands and other cooperating actors in order to foster integration of the joint force. This may require: full information about the status of planning by these HQs related to the status of COA and CONOPS development and coordination of supporting / supported requirements.
d. Additional detailed coordination with a number of cooperating relevant national and international actors if authorized, such as, in particular, the HN(s) and cooperating international and regional organizations and agencies in the theatre.

Planning for the employment of joint forces

0377. **Review of the planning requirements.** Earlier in OLPP Step 7, the JFC CONOPS was developed to describe the conduct of operations, which was accompanied with a provisional CJSOR. The purpose of plan development is now to: refine the employment of joint forces with subordinate and supporting commands, within the constraints of the actual force package for the operation; add the required level of detail for effective C2; and assess the impact of any critical force shortfalls.

0378. **Confirmation of the task organization.** Given the expected or actual force package as articulated in the draft CJSOR and eventually an Allied force list, the JOPG, looking at each phase of the operation, reviews and confirms the task organization with subordinate and supporting commands to identify any critical shortfalls that would prevent them from accomplishing assigned missions.

0379. **Synchronization of forces and functions.** Based on their review of the task organization, the JOPG reviews, confirms and revises the current allocation of tasks and synchronization of activities for the creation of desired effects and resulting decisive points / DCs required for each phase of the operation. Collaborating with subordinate / supporting commands, the JOPG may be able to reallocate or reschedule tasks to compensate for force shortfalls. The Synchronization Matrix is also refined. The specific areas to be developed for each phase of the operation include:

   a. **Implementation of the joint scheme of manoeuvre.** The JOPG will confirm the flow of forces into the theatre, including the conduct of initial entry operations and the operational deployment
within the JOA. This detailed review will confirm timing and sequence of arrivals, movement priorities and points of entry.

b. **Supported / supporting relationships.** The JOPG will review these relationships in cooperation with subordinate / supporting commands to confirm precisely the support required by the supported commander designated for each phase and/or LoO.

c. **Plans for joint targeting and the employment of joint fires.** A major coordinated effort by specific members of the JOPG will be required to synchronise joint targeting and the use of lethal and non-lethal means to generate the desired effects and resulting decisive points / DCs to be achieved in each operational phase. This activity will seek to achieve coherence and synergy in the use of all means available to the JFC including:

   (1) Intelligence support to targeting.

   (2) Psychological operations (PsyOps), coordinated by Info Ops.

   (3) Electronic warfare, coordinated by Info Ops.

   (4) Strategic air operations and anti surface force air operations.

   (5) Maritime strike operations.

   (6) Direct action by special operations.

   (7) CIMIC, coordinated by Info Ops.

   (8) Environmental effects of successful targeting and risk to NATO troops.

   (9) Defensive cyber operations.

d. **Review of the rules of engagement.** The ROE are ultimately the commander’s rules that will be implemented by the force who executes the mission. The JOPG must continually review the
current status of ROE to ensure that the ROE are versatile, understandable, easily executable, and legally and tactically sound. The JOPG provides further requests with justification as required to adjust ROE to the operational needs. During multinational (MN) operations, participating nations are likely to have ROE different from NATO forces. The JOPG should modify the plan as required so as to mitigate the impact of these differences.

e. **Plan for the implementation of information strategy.** Working in close cooperation with SHAPE, the JOPG will coordinate PA, CIMIC and PsyOps aspects via its Info Ops function in line with the focus areas of NATO’s information strategy regarding specific audiences, themes and messages.

f. **Plan for cooperation with relevant national and international actors.** The JOPG will develop the practical arrangements required to cooperate with relevant actors on the ground within the theatre and the JOA. As a minimum the following will be specified:

(1) Delegation of authority for coordination of specific activities with specific relevant national and international actors.

(2) Mechanisms and practical arrangements for coordination.

(3) Information sharing in accordance with the relevant security policy for release of information.

g. **Plan for the build-up and use of reserves.** Based on the force package, plan development identifies reserves for contingencies. Further consideration will be given to: where reserves are positioned; whose authority they are under; and any conditions for their employment.

0380. **Planning for command and control/communication and information systems.** The CONOPS describes the C2 arrangements required to conduct the operation. Based on the force package and
further planning by subordinate / supporting commands, the JOPG will further develop specific aspects.

a. **Further specification of authorities and responsibilities.**
   Unity of command and freedom of action require that authority is clearly delegated for critical functions and/or geographical areas. The result must be a single designated authority being established with responsibility for each joint function and AOO within the JOA and the TOO.

b. **Refinement and coordination of the areas of operations.**
   Subordinate / supporting commands need to confirm that their respective AOOs are sufficient to accomplish their assigned missions and protect their force, without interference.

c. **Plan for communication and information systems architecture.** Effective CIS planning must consider time factors and the scale and complexity of the operation. The operational-level CIS staff plans for the support of the selected COA laid down in the CONOPS. The JOPG ensures that CIS factors are included in the general OPLAN sections and that these factors are mirrored adequately also in non-CIS OPLAN annexes.

d. **Confirmation of command and control locations.** The JOPG coordinates and confirms the locations of the different HQ and C2 facilities deploying to the theatre. Initial locations, collocation and any subsequent changes within the constraints of deployable CIS will be considered in this process.

e. **Plan for transfer of authority.** The JOPG confirms the level of authority required for the employment of each force in the force package, and notes any national caveats. It will further establish precisely when, where and under what conditions transfer of authority (TOA) should occur. This information will be included in the activation order and provide the basis for nations’ TOA messages.
f. **Plan for the exchange of liaison elements.** The exchange of LOs or elements, to facilitate collaboration during an operation, is fundamental to success. Therefore, the JOPG must clearly establish the requirements for the exchange of LOs and ensure that manpower requirements are filled. Planning for the exchange of LOs includes key non-military organizations (government, IO, and NGO) to affect the required communication and coordination for operations and transition / termination as far as possible.

0381. **Planning for forces preparation, deployment and logistics.** The purpose of force preparation, deployment and logistics planning is to ensure that the forces required to mount and conduct operations are fully capable of meeting mission requirements on time and at the appropriate location. The main areas of focus for this planning are: mission training and certification; deployment; logistic sustainment; health and medical support; financial support; and rotation of HQs, personnel and forces; and identification and application of lessons learned.

a. **Planning for mission training and certification of HQ, personnel and forces.** The JOPG establishes mission training and certification requirements for HQ, personnel and forces deploying into the theatre with details included in the OPLAN. These will be based on mission essential tasks and conditions in the operational environment, including FP requirements, cultural aspects, etc. Requirements and arrangements should be established for augmentation training, pre-deployment training support, certification of forces and in-theatre training support.

b. **Planning for the deployment of forces:**

(1) **Review of the planning requirements for the deployment of forces.** The strategic deployment of forces into a TOO, and initial movements within the JOA, constitute a most important operational manoeuvre, which must be planned utilizing the expertise of operations, movements, logistical and Med planners. Planning will cover the entire sequence of activities for mounting, embarkation,
debarkation, reception, staging and onward movement (RSOM) to the final destination in the JOA. It requires close coordination with the Allied movement coordination centre, TCNs, the HN(s), port/airport operating organization, and commands concerned. Legal arrangements must be in place or assumed regarding the status of forces and understandings/agreements with the HN(s) as well as arrangements for transit and over-flight.

See AJP 3.13, Allied Joint Doctrine for the Deployment of Forces.
http://defenceintranet.diif.r.mil.uk/libraries/library1/MOD/Mar%202013/20130327-ajp3_13_deploy.pdf

The increasing reliance on industry and contractor support to operations will also demand close coordination.

(2) Design and development of the theatre movements architecture. The design, development, implementation and control of movements architecture within the theatre is a JFC and Joint Logistic Support Group responsibility. The OLRT / joint logistic reconnaissance team (JLRT) reconnaissance of movement infrastructure and coordination with the HN(s), as well as with relevant international actors operating in the area, plays a critical role for the use of facilities and LOC. The JOPG in close cooperation with the OLRT / JLRT will confirm with the HN(s), as early as possible, the availability and capabilities of the following: airport(s) of debarkation; seaports of debarkation (SPODs) and other key transportation nodes; reception areas and facilities; staging areas for operational entry into the JOA; and LOC to and within AOOs.

(3) Force flow finalization. Based on detailed planning for the employment, sustainment, support and C2 of the force, and on the Allied force list, the JOPG will make final revisions to the force flow. For each force of the force package, specific
deployment requirements must be established, including the following:

(a) Strategic LOC and entry points into the theatre.

(b) Final destination in the JOA.

(c) JFC’s required date for the full operational capability of the force for employment.

(d) Priority for sequence of movement.

(e) Command authority to be transferred.

(4) **Deployment planning.** Further detail about roles, responsibilities and specifics of strategic deployment and RSOM can be found in related Allied Joint Publications (AJPs).  

C. **Plans for logistics:**

(1) **Plans for logistic sustainment of the force in theatre.** The CONOPS describes how MN joint logistical support to the force will be accomplished in theatre. During plan development, detailed planning and coordination will be conducted with TCNs and HN(s) as well as subordinate / supporting commands, to ensure that supplies and services can be delivered to the force in order to meet operational requirements for each phase. Logistical conferences are required to confirm logistical arrangements, especially with the HN(s) to ensure that they meet operational needs and allow a sufficient build-up of logistical resources. Any shortfalls in host-nation support (HNS) may require activation and deployment of additional logistical units. The following areas have significant operational impact and must be closely coordinated with all other planning:

---

32 See AJP-3(B), Paragraphs 0321 to 0324; AJP-3.13 *Allied Joint Doctrine for the Deployment of Forces* and AJP-4.4(A) *Allied Joint Movement and Transportation Doctrine*. 

Original + UK National elements
(a) **Logistic standards** will reflect the expected operational tempo and demands for each phase. Experts from subordinate / supporting commands need to assist in refining critical operational requirements.

(b) **Host nation support.** The level and scope will be confirmed based on close contacts with the HN(s), including access to specific facilities, infrastructure and logistical operating units. Operational or environmental factors that affect the use of contract support for operational or sustainment requirements have to be identified and addressed. Provisions must be made for TCNs to coordinate with HN(s) within guidelines established by the JFC.

(c) **National responsibilities.** Logistic execution by framework, lead or role specialised nations needs to be confirmed for critical logistic activities such as POL distribution.

(2) **Planning for medical support** is governed by two sets of detailed policies and principles covered in Chapter 2.\(^{33}\) The ultimate goal of the MN health and medical support concept is optimisation of the use of Med resources through coordination and increasing effectiveness by the development of the continuous improvement in healthcare support to operation and by being heavily involved in the OPP. Early consultation of TCNs will be the key to an interoperable Med network in a MN joint environment. Health and medical support to NATO forces must meet standards acceptable to all participating nations, as opposed to national support to national contingents, which requires purely national acceptance.\(^{34}\)

(a) Health and medical support to operations in austere environments with terrain and weather conditions

\(^{33}\) See Paragraph 0220. c. and 0220. c. (2).

\(^{34}\) See AJMedP-1, ‘Allied Joint Medical Planning Doctrine’ for further detail.
restricting medical evacuation (MedEvac) will benefit from more clinically capable facilities. Nevertheless national guidelines will govern operational and strategic MedEvac policies in theatre. Forward and tactical aero MedEvac is one of the main interfaces with the all components. Maximum use of appropriate air assets (fixed wing and rotary) should be used for MedEvac of the casualties, provided by the nations.

(b) There is a need to allocate effective CIS means to capture and analyse the appropriate Med data from theatre Med treatment facilities in order to allow Med personnel to communicate with each other, facilitating Med cases discussion and clinical advice, and to provide Med regulation. Effective Med CIS is further necessary for being involved in planning.

(c) Strong health surveillance has to be placed for deployed military forces. Therefore force health protection / Med FP consideration will assess readiness and adequacy of the health and medical support structure and advise commanders on health and medical support issues requiring national or collective action.

To identify the medical force protection requirement, each theatre will require a medical estimate to identify the threats to the deployed force.

(3) **Planning for theatre engineering.**

Critical requirements, such as the improvement of the APODs/SPODs, LOC and facilities, will be identified and prioritised against operational requirements. It is supported by various specialist areas of which military engineering (MILENG) is the most significant. MILENG support includes the construction, restoration,
acquisition, reinforced protection, repair, maintenance and disposal of those infrastructure facilities required to mount, deploy, accommodate, sustain, and re-deploy military forces.

(4) **Plan for financial support.** It is critical that NATO common funding is made available as early as possible to meet those requirements eligible for common funding. The JOPG will identify and prioritise operational requirements for each phase of the operation. Particular attention will be given to detailing requirements to support enabling and initial entry operations.

(5) **Plan for the rotation of HQ, personnel and forces.** The JOPG anticipates the requirement to sustain the operation until termination. It will develop requirements and initial plans for the replacement of HQs and forces, with consideration to the likely tempo of operations and the possible requirement to adjust force levels over time.

### Planning for force protection

0382. **Planning overview.** FP planning establishes requirements and identifies necessary measures and means to minimize the vulnerability of personnel, facilities, materiel, operations and activities from threats and hazards in order to preserve freedom of action and operational effectiveness. FP must be carefully planned at the strategic, operational and tactical levels in a cyclic process. Operational-level FP planning is normally a function of the JOPG, with the support of specialist staff and advisers. Force composition and organisation should reflect the required elements and components of FP that are needed to implement the operational plan. FP requirements need to be clearly identified, including the specific FP response measures to be taken under the various threat categories.

0383. **Plans and procedures.** NATO forces must have specific and appropriate plans and procedures to manage the preparation and generation of FP measures. These plans should identify anticipated enhancements to peacetime FP measures to meet escalating threats.
These plans must also establish the FP organisation, C2 and CIS, appropriate operational areas and resources, and must allow for conducting sustained operations in all the four possible threat environments, low, medium, significant, and high, with special regard to CBRN and Med implications. Forces are normally particularly vulnerable to attack during the deployment, RSOM, and redeployment phases of an operation. These plans should also include, where necessary, the relevant FP aspects of the HN(s) plans.

0384. The **NATO force protection model** has to be applied in a cyclic process of identification, assessment, implementation and supervision. It is completed by creating controls and measures that contribute to tactical self-sufficiency to the lowest practical level. The NATO FP model is applied through the following steps.

a. **Identify assigned and implied tasks** through mission analysis.

b. **Assess:**

   (1) Mission critical assets.

   (2) Threats and hazards to personnel and those assets.

   (3) Vulnerabilities that could be exploited by threats and the impact of hazards.

   (4) The risk to mission success by considering: the ability of the threat to exploit identified vulnerabilities; the accidental and environmental and industrial hazards caused by human error, topography, climate, weather and the presence of endemic diseases.

c. **Identify and implement:**

   (1) Risk management through appropriate FP controls and measures to reduce risk to a level acceptable to command. Calculate and monitor the residual risk or gaps in order to
manage the mission\textsuperscript{36}. Note: The planning, coordination and implementation of NATO funded projects can increase the level of static protection for military formations and critical installations.

(2) Incident response and recovery through controls and measures, including the development and implementation of an emergency response and recovery plan.

d. **Supervise and review** the FP controls and measures throughout the mission.

0385. **Coordinate the plan for approval and handover.** Before OPLAN finalization the JFC will be briefed on the outcome of the plan development. He may direct further reviews and rehearsals of the OPLAN. In any case, final coordination by the JOPG should re-examine each operational phase and the operational risk. The JFC may arrange a briefing to SACEUR on the main operational aspects, strategic requirements and/or significant risks. Following this strategic coordination, the JFC will direct last changes to the OPLAN. Once these are completed, the OPLAN will be forwarded to JFC for his approval and submission to SACEUR. The submitted JFC OPLAN will also be handed to the subordinate commanders to support their component plan development. During plan development, the JOPG may be reinforced by staff from the joint operations centre and other key sections that will be responsible for execution later on. This will, in part, address the need for arrangements to ensure continuity between planning and execution across all functional areas.

**Section IX – Step 8 – Campaign assessment and plan review / revision**

0386. **General.** After the reception of a NAC execution directive and the activation order the JFC and his staff will execute their OPLAN, which

\textsuperscript{36} Explosives safety and munitions risk management is an important example. Munitions-related risk and the consequences resulting for potential munitions-related accidents are to be properly identified, assessed, mitigated or communicated to appropriate national/NATO leadership for risk and consequence management. See also AJP-3.14 *Allied Joint Doctrine for Force Protection*, containing vulnerability and risk assessment/management.
was prepared during the previous steps of the OLPP. This means that the focus of activities is shifted from long-term planning to functions of operational management, operations assessment, plan adaptation and planning for transition. These activities are covered and in detail described by AJP-3 ‘Allied Joint Doctrine for the Conduct of Operations’. Operational-level analysis and planning are part of the operational design\(^ {37} \) and, therefore, handled by joint planning staff elements like the JOPG. In contrast to this, operational-level assessment, in parallel with execution, is part of operational management.\(^ {38} \) It is handled during the conduct of operations by the joint operations staff and a largely independent joint assessment staff.\(^ {39} \) This joint assessment staff is actively involved in the planning effort from the beginning. The JFC should have provided his initial assessment guidance to the assessment staff through the commander’s planning guidance. In spite of these assignments, collaboration of all of the shareholders during the battle cycle is necessary to monitor the campaign progress and to achieve a proper operations assessment of current operations. An assessment plan, including the data collection and reporting plan for MOEs and measures of performance criteria defined during the OLPP, must be developed. The products of this step include operational-level assessment reports for the strategic level, which may result in high-level decisions for OPLAN reviews and, thus, lead to revised OPLANs.

The JFC should review and adjust initial planning based upon the results of assessment, designed to: evaluate the execution of activities by the joint force; the effectiveness of those activities; and whether the situation is developing favorably. On this basis, the commander adjusts their plans and issues further direction. Assessment is a vital and indispensable element of planning and execution; assessment cannot be left as an adjunct or afterthought to the plan and should be continually undertaken throughout the operation. Defining the nature of success, and judging progress towards it, is a fundamental stage in any decision-action cycle. Reasons why judgements on the design of an assessment regime are important, include the following.

\(^ {37} \) See AJP-01(D), Paragraph 0525.
\(^ {38} \) See AJP-01(D), Paragraph 0526.
\(^ {39} \) Mainly AJP-3(B), see Chapter 4, Sections IV and V.
• **Validity of tasking.** Determining how, or whether, the attainment of particular conditions and effects can be measured, may dictate whether aspirations can be translated into actionable objectives. A JFC should avoid tasking subordinates to act to realise an effect that is ill-defined or so imprecise that they cannot know when or whether they have succeeded or not.

• **Decision making.** Adversaries are invariably adaptive, and JFCs should expect to adjust their plans as events unfold; this process of iterative decision-making should be timely and structured. JFCs need to understand what information is required by when and from whom. This will help them to anticipate rather than respond to events.

• **Practicality of assessment.** Finally, JFCs need to plan assessment processes. There is a significant difference between recognising the potential benefits of assessment and actually designing and implementing a practical means of realising those benefits, with the available resources. In seeking the most efficient solution, JFCs should consider:
  
  o The minimum requirement for assessment, weighing up the need to inform short-term decisions (principally regarding activities and current supporting effects) and to gather longer term trend information to inform broader aspects of their campaign (such as achieving the more fundamental decisive conditions).

  o Not everything can be assessed all the time, but a JFC should be alert to the possibility of ineffective activity. This may waste time and resources for no apparent or proportionate effect, or deliver counterproductive results. Assessment contributes to the maintenance of the aim; lack of assessment undermines economy of effort and concentration of force.
Assessment is a means to inform decisions rather than being an end in itself. It draws upon military judgement to interpret events and to make sense of data. It is not a precise science. While assessment should draw upon a range of expertise and techniques, ideally from both within and outside the headquarters, an appropriate balance should be maintained between art and science, between subjective and objective factors. If possible, a JFC should meet the requirement in an integrated manner and have an assessment process that brings together the various agencies.

Commanders should be clear about what assessment can deliver; not least because its utility will influence the priority and resources afforded to it. Active assessment can be a potential force multiplier, enabling the most effective use of time and resources. It may also be a prerequisite for success, or at the very least enable commanders to ascertain what remains to be done. Identifying the JFC’s measures of campaign progress and eventual success must therefore be an integral element of campaign design. Assessment – both what to measure and how to measure it – should be incorporated (and kept under review) into the planning process. Thereafter it should be applied throughout the campaign. Objectivity and candour are essential. All shortcomings identified must be reported so that corrective action can be taken as early as possible.

**Monitoring campaign progress**

0387. **Operations assessment.** The purpose of operations assessment is to provide an evaluation of actions and progress toward creating effects, achieving objectives and the end-state. The assessment of the engagement space encompasses the strategic assessment, the operational-level assessment and the tactical assessment. Each of these levels supports the assessment of the next level. Collaboration or close cooperation with non-military actors to gain a better understanding of the engagement space should always be considered. For each operation, duties and responsibilities may be shared and exchanged between levels, which will be defined in the operations assessment annexes of plans. Assessment results are reviewed by
planning and execution staff to determine if plan adaptations are required.

0388. **Operational-level assessment.** The measurement of success is a fundamental aspect of military operations. The JFC is responsible for developing guidance on the conduct of assessment. This guidance will define the tactics, techniques, and procedures for all assessments within the JOA. It will include JFC’s requirements for staff, training and equipment, including contingency augmentation. At the tactical level, the focus is on measuring the achievement of planned actions, tasks or activities using measures of performance, for each particular component. The JFC will have specified criteria for success in his CONOPS and OPLAN that must be achievable and measurable. The aim is to take a broad view of the operation or campaign and determine if the required effects, as envisaged in the plan, are being created to support achievement of the objectives. Whatever the nature of the campaign, the JFC must ensure that a monitoring and assessment process is rigorously conducted and that tactical level events do not distract his staff thereby losing sight of the operational objectives. The operational-level assessment output will feed SACEUR’s operations assessment through ad-hoc and formal assessment products, including operational-level contributions in the strategic periodic mission review. The operational-level process is divided into two areas: operational assessment and campaign assessment.

0389. **Operational assessment.** The operational assessment is a short to mid-term review of decisive points / DCs leading towards objectives along particular LoOs, and the assessment of any special events or situations that may arise outside of the standing military plan. This process supports campaign assessment by validating current operations, feeding the JFC’s decision cycle and recommending modifications or changes. These can be effected through fragmentary orders, permitting rapid reaction, or a new joint coordination order, requiring a number of days for preparation. At the operational level, the process is based on the overall analysis of metrics measuring progress of planned actions (measures of performance), the creation
of desired effects, the achievement of planned decisive points / DCs and objectives (MOE), for the whole military mission.

0390. **Operational assessment impact.** The implementation of modifications and changes to the original plan is accomplished on short notice by the careful management of LoOs. This allows the realization of the full potential of the force during changing situations. Two design tools to aid LoO management are the operational-level OPLAN schematic and the synchronization matrix. The operational-level OPLAN schematic enables the overall plan to be visualized at a glance and can be used to monitor its progress. The synchronization matrix is the method for planning the coordination of activity between components, in time and space, along the path to the objective. To achieve modifications and changes, two design principles, the branches and sequels, can be utilized. Developed by the JOPG within the normal OLPP, branches and sequels are designed as pre-planned options that deal with the inability to achieve a decisive point or decisive condition or to take advantage of a positive rapid development in the operation. Typically they are developed immediately after the OPLAN and are kept ready for use and regular review.

0391. **Campaign assessment.** Campaign assessment is the continuous monitoring and evaluation of all effects and objectives specified in the operational-level OPLAN. Furthermore, the assessment of desired and undesired effects across the operational environment will be considered, where they impact significantly on the operational-level OPLAN, or where they are explicitly stated in the plan. Campaign assessment seeks to answer the question: “Are we accomplishing the military mission by creating all planned effects and achieving the objectives?” Its assessments are the basis for periodic assessment reports and inputs to all other branches and directorates resulting in a recommendation to the JFC to develop direction and guidance to amplify or modify the operational-level OPLAN. If correctly assessed, this process will allow the JFC to make judgements on:

a. **Apportionment.** The process should assess the likelihood of achieving decisive points / DCs and so inform the JFC’s
apportionment of effort between CCs.

b. **Adversary centre of gravity.** The process should confirm that the correct COG and associated critical capabilities, requirements and vulnerabilities have been identified and selected. The JFC should be alert to the possibility that new vulnerabilities may be exposed, or those previously identified critical vulnerabilities may be too well protected to be attacked. Thus, COG analysis should be an iterative process for the planning staff and the COG should be reviewed periodically.

c. **OPLAN modifications/changes/revision.** The process should reveal, whether a required rerouting of the OPLAN execution can be accomplished by adjusting the OPLAN within the responsibility of the JFC or if a complete revision is required. Plans normally need continuous adjustment, based on the circumstances of the campaign, to be effective. JFC’s instruments for these adjustments have been described previously under ‘operational assessment’. However, if evolving circumstances dictate major changes of direction, like the simultaneous application of a vast number of branches, or changes requiring intervention in the strategic design, a complete OPLAN revision should be considered.

0392. **Operation plan revision.** An OPLAN revision can be initiated by the outcome of a periodic mission review, but a single major event could equally provide the catalyst. Normally the NAC provides guidance to the strategic level which leads to the need to change the strategic OPLAN. This in turn initiates a parallel plan review at the operational level. Although the JFC will decide if the revision published by the strategic level requires a revision of the operational OPLAN, this will normally be the case. The elaboration of a revised OPLAN should comprise the same cyclic planning process including all OLPP steps as for a newly developed OPLAN. Therefore, this process can, in some cases, take up to a number of months involving all levels of the operation. Similarly, an OPLAN revision will require approval in

---

40 See Paragraphs 0389 and 0390.
accordance with the procedures detailed for newly developed plans.

0393. **Periodic review of operations planning products.** Periodic review and revision of operations planning products is mainly aimed at advance planning. However, it could also be applied to crisis response OPLANs. Periodic review must be conducted in order to evaluate and confirm the planning products’ continued suitability, feasibility and viability. Plan review should occur when:

a. There is a significant alteration to the situation.

For example, a major international, contributing nation, host nation or theatre-specific event which causes significant change to the operating environment.

b. A period of 24 months has elapsed since initial approval or the last comprehensive review.

c. Any related plan or operations planning document is superseded or when a ‘major change’ to it is issued. For the purposes of operations planning, a ‘major change’ is:

(1) For a CONPLAN, generic CONPLAN, SDP or OPLAN, whenever there is a significant change that alters the basic concept or affects the force proposals/commitments to the plan.

(2) For other operations planning documents, whenever a change alters the basic thrust or concept contained in the document.

Plan review should also occur when:

• assessment is showing a lack of progress; and
• key assumptions in the planning process are invalidated.

The review will dictate the degree of revision required or cancellation of plans as appropriate.
Plans that survive first contact

Moltke the Elder wrote that ‘no plan of action reaches with any certainty beyond the first encounter with the enemy’s main force’. Yet military planners have continued to try to plan in detail for events beyond first contact and continue to be unsuccessful. War and conflict are inherently unpredictable. The unpredictability increases as an adversary reacts to the situation. Successful armed forces tend to show the same pattern: they stop planning in detail; they do not expect the enemy to behave in a given way; and their orders become significantly shorter.

The US VII Corps landed in France on D-Day in June 1944. It, and one of its divisions (9th Infantry), then fought continuously for many months. Analysing their orders and records, they show the pattern described and also show how the two headquarters coped with the complexity and uncertainty of war.

Corps headquarters assessed and analysed the situation continuously. It produced periodic assessments roughly every second day. By September 1944, it and its divisions had a good working knowledge of the situation. Divisional staff also assessed and analysed the situation. At times, Divisional assessments varied from the Corps’; any such variance was noted and explored. These assessments were independent of orders and contained no estimation of the enemy’s likely or most dangerous courses of action. They merely listed the enemy’s capabilities and the courses of action open to him. Attempting rigidly to predict a course of action had left staffs unprepared when the enemy did something else.

As a result, the orders which the Corps/Division produced were not documents to be scrutinised and analysed. The deep analysis had already been done. Instead, they were just a page or two of concise instructions. A Corps or Divisional operation order was typically two pages long, with a few annexes.

VII Corps and 9th Infantry Division fought a highly competent enemy, but were generally successful. They did not win every battle and engagement. They had, however, learned that long and detailed orders simply did not work. In such cases, failure was often written into the plan – it did not arise out of the situation or the enemy. The key to producing short, timely and above all, effective, orders was for the staff to assess and analyse continuously.
Planning for conflict termination and transition

0394. **General.** Through the periodic mission review process SACEUR will advise the NAC when exit criteria are close to being met, the end state is in sight and planning for transition is required. Once the NAC issues a NAC initiating directive, this will start formal transition planning with a return to OLPP Step 1. Planning for the disengagement of NATO forces must be initiated well in advance and may involve a large number of non-NATO actors in order to minimize the negative effects that the departure of NATO troops may have on the overall stability of the theatre. Basic LoOs for transition and termination may have been developed in earlier cycles of OPLAN modifications / changes / revision.

0395. **Planning focus of the transition/termination.** In effecting a coordinated and deliberate transition, detailed systemic analysis of the operational environment is necessary. This systemic analysis should place a particular emphasis on the interdependencies that involve the presence of NATO forces in-theatre. It will be essential that all relevant non-NATO actors be identified early. Proper liaison and coordination must be implemented to enable these actors to inform and contribute wherever appropriate to the strategic and operational planning for transition. OPLAN development will further amplify the preconditions for the success of transition and the general flow of forces out of theatre. It will also identify critical requirements such as strategic lift capabilities. Disengagement planning is designed to identify and mitigate to the maximum extent possible the risks and undesired effects resulting from the disengagement of NATO troops. It also allows the JFC and his staff to coordinate, in detail, the transfer of authority to non-NATO actors, still allowing enough freedom to develop ideas and concepts while ensuring necessary political and military direction over the entire process. The authority to de-activate and redeploy forces, as well as to execute OPLANs is retained by the NAC and delegated incrementally through the MC to SACEUR. The related coordination requirements are as follows:

a. **Collaborative/parallel planning.** The development of strategic and operational-level disengagement OPLANs requires
collaboration and continuous coordination at the political/military (NAC/MC and nations) and at strategic, operational and tactical levels with relevant non-NATO actors.

b. **Coordination with participating nations.** Coordination with participating nations should take place as soon as authorised. This should include the early exchange of information with HN(s) to facilitate comprehensive planning by the HN as well as with TCNs to coordinate detailed OPLAN development. The NAC will issue a force deactivation directive authorising SACEUR to negotiate with NATO and non-NATO Nations in order to ensure a coordinated and deliberate forces disengagement that will contribute to preserving stability in the theatre.

c. **Coordination with the civil environment.** Early and continuous liaison and coordination between Allied HQ and civil authorities and agencies is essential to the success of the NATO disengagement. They can assist in maintaining stability and mitigating the negative effects possibly created by the departure of NATO forces from the TOO. Planning by the JFC and his staff must provide for effective cooperation with these civil organisations within the JOA.

d. **Strategic communication plan.** Well researched and implemented StratCom guidance will be critical to the successful disengagement of NATO forces from a crisis area. Supplementary StratCom guidance may be required.

Transition/termination planning must also consider any requirement to move to an austere footing to enable the backload of equipment. Any such drawdown needs to be conducted with **proof of good order**, to assess the impact on, and risk to, the deployed force.
Section X – Operational-level planning process integration

0396. This section’s consideration of integrating aspects of the OLPP encompasses:

a. **The eight-step OLPP in its interface function** between the strategic-level and tactical-level OPP. Receiving planning inputs from and delivering contributions and planning products to the other relevant levels of operations planning constitutes the core of the OLPP and summarizes the performance of the entire process.

b. **The fast track decision-making process as a unique method.** It is a NATO operations planning effort where full cooperation between two planning levels is formally prescribed. Therefore, this represents the method by which planning achieves its most extensive degree of integration.

c. **OPP controls.** The main actors, political and military decision makers, are described with their respective controls showing policy as the principal shareholder in the process.

0397. **Operational-level planning process in its interface function.** The generic description of the OLPP consists of eight steps which find their responding planning phases at the strategic and the high end tactical levels, respectively. The OLPP steps can be arranged and phased by the SC to serve the low-friction functioning of the overall OPP. A consideration of the inputs and the outputs to the OLPP shows its central role as translator of strategic objectives into tactical actions. The inputs and outputs are depicted in Figure 3.6.

---

41 See Paragraph 0301.
Planning elements is complemented Figure 3.6 below.

Refer also to COPD V2.0 Figure 4.1 which provides more detail of the NATO crisis response.
a. **Main inputs.** The main inputs to the OLPP are largely coming from the strategic level and, to a lesser degree from the tactical level (nine from SHAPE, five from subordinate commands). The inputs from the strategic level have been described before\(^{42}\) in detail and are not repeated here. The inputs from the tactical level are:

1. Tactical advice to support the operational advice for the development of the MROs.
2. The component CONOPS and OPLAN for approval, including the planning products for transition and termination.
3. The assessments during execution.

The JFC and his staff will not only compile and transfer these inputs, but process them within their own operational-level planning and, thus integrate them into the OPP as a whole.

b. **Main outputs.** Conversely, the majority of the OLPP’s main outputs are directed to the tactical level and, to an only lesser degree the strategic level (nine to-subordinate commands, five to SHAPE).

1. The outputs towards the strategic level are:
   
   (a) The operational advice for the development of the MROs.
   
   (b) The operational-level CONOPS and OPLAN for approval, including the planning products for transition and termination.
   
   (c) The assessments and periodic mission review during execution.

---

\(^{42}\) See Paragraph 0125.
(2) This array corresponds completely with the inputs from the tactical level. The outputs towards the tactical level are:

(a) Orders and directives.

Warning order.

Operational-level planning directive.

Activation order.

(b) Planning inputs.

Draft operational advice.

Operational-level CONOPS and OPLAN.

Approved component CONOPS and OPLAN, including intermediate products of transition and termination planning.

c. **Information sharing**. The OLPP inputs and outputs described above represent only the more important formatted parts of the information flow for planning. A vast and constant information acquisition and fusing process linked up and down with the political, strategic and tactical levels has to provide for a broad situational understanding and awareness which will support the further planning and execution of operations as described before. Altogether a functioning OLPP builds the centrepiece of information and knowledge exchange for planning and preparation of Alliance combined joint operations.

**0398. Fast track decision-making process and operational-level planning.** NATO’s fast track decision-making (FTDM) process, exceptionally invoked by the NAC, enables a timely implementation of a NAC decision for the deployment of rapidly deployable forces such

---

43 See Paragraphs 0125 a. and 0306 to 0308.
as the NATO Response Force. The availability of a CONPLAN or a generic CONPLAN is a prerequisite for such a process. Figure 3.7 depicts on the top of the diagram, normal crisis response planning and, on the bottom of the diagram, planning using the FTDM process. When the NAC decides that NATO should respond to a crisis, and that the FTDM process is required, it gives political guidance, tasking the NMAs to urgently provide an OPLAN, and authorising SACEUR to conduct specific enabling activities. The OPLAN will be based on a MC approved CONPLAN or generic CONPLAN, including a CJSOR and a ROEREQ. In the normal process, SHAPE would develop a CONOPS that would only be further developed into an OPLAN after MC endorsement and NAC approval of the CONOPS. It is here that the fast-track approach ensures a consistent gain in time.

Figure 3.7 – Gain from fast track
Upon reception of the political guidance from NAC, SHAPE provides strategic planning guidance to the JFC and rapidly develops a strategic OPLAN from the relevant CONPLAN / generic CONPLAN without being required to present a CONOPS in advance. The JFC, in turn, is required to rapidly:

a. Conduct a mission analysis based on a revised operational estimate.

b. Consider the availability and readiness of deployable forces.

c. Conduct planning to adapt the CONPLAN / generic CONPLAN to the situation and mission.

d. Tailor the illustrative CJSOR to the mission based on the requirements of the components.

This is supported through a collaborative planning approach. SACEUR will, as early as possible, forward the strategic OPLAN, including a draft CJSOR, with identified requirements and contributions, and draft ROEREQ for MC endorsement. Upon MC endorsement, the OPLAN will be forwarded together with ROEREQ for NAC approval. Upon NAC approval of the OPLAN and issue of the NAC execution directive, the activation of forces, transfer of authority and deployment of forces will take place in accordance with existing procedures. It can be appreciated that OPLAN approval requires only two political level decisions instead of the normal three, from which a gain of time will result.

0399. **Operations planning process controls.** The OLPP is designed to provide the maximum freedom for the JFC and his staff to develop ideas and concepts, while ensuring necessary political and military control over the entire process. It is therefore important that clear direction from the political-military and military-strategic levels, including strategic objectives and the end-state as well as planning timelines, be articulated during OLPP Step 2 ‘Problem and Mission Analysis’ to ensure that the planning process is properly oriented within the OPP at the outset. Issuing planning directives to subordinates, and approving their CONOPS and plans will control the
subsequent stages of the planning process. The authority to activate and deploy forces, as well as to execute plans, is retained by the NAC and delegated incrementally through the MC to SACEUR, and hence to the JFC.

a. **Political controls.** The NAC maintains political control of the OPP and, therefore, of the OLPP by:

   (1) Issuing an initiating directive.

   (2) Approving strategic CONOPS and provisional SOR for strategic OPLAN/SDPs.

   (3) Approving target categories and illustrative target sets.

   (4) Approving ROE.

   (5) Authorising force activation.

   (6) Approving strategic OPLAN/SDPs.

   (7) Authorising force deployment.

   (8) Authorising execution.

   (9) Delegating or retaining coordinating authority for planning.

   (10) Approving narratives and/or key messages.

b. **Military controls.** NATO military commanders maintain control of the OPP and the OLPP included by:

   (1) Issuing warning orders and planning directives.

   (2) Delegating or retaining coordinating authority for planning.

   (3) Approving subordinate CONOPS and provisional SORs.
(4) Approving subordinate OPLANs/SDPs/CONPLANs.

(5) Issuing activation messages and execution orders (when authorised by the NAC).
(Intentionally blank)
### UK Supplement 1 – Example course of action formats

#### Option 1

<table>
<thead>
<tr>
<th><strong>Develop and validate course(s) of action</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course of action (Number/Name):</strong></td>
</tr>
<tr>
<td><strong>Mission(s):</strong></td>
</tr>
<tr>
<td><strong>Concept of operations</strong></td>
</tr>
<tr>
<td><strong>Key themes and messages:</strong></td>
</tr>
<tr>
<td><strong>Synchronisation of forces and functions:</strong></td>
</tr>
<tr>
<td><strong>Main effort:</strong></td>
</tr>
<tr>
<td><strong>Decisive condition(s)/effect(s)</strong></td>
</tr>
<tr>
<td><strong>(as appropriate to aspect of campaign covered by course of action):</strong></td>
</tr>
<tr>
<td><strong>Other planning concepts (phase, etc):</strong></td>
</tr>
<tr>
<td><strong>Joint action:</strong></td>
</tr>
<tr>
<td><strong>Fires</strong></td>
</tr>
<tr>
<td><strong>Manoeuvre</strong></td>
</tr>
<tr>
<td><strong>Information activities</strong></td>
</tr>
<tr>
<td><strong>Outreach activities</strong></td>
</tr>
<tr>
<td><strong>Supported/Supporting Commanders:</strong></td>
</tr>
<tr>
<td><strong>Logistic/deployment concept:</strong></td>
</tr>
<tr>
<td><strong>Operational reserve:</strong></td>
</tr>
</tbody>
</table>
### Option 2

#### Develop and validate course(s) of action

<table>
<thead>
<tr>
<th>End-state: Information effect:</th>
<th>Strategic risks:</th>
<th>Critical operational centre(s) of gravity</th>
<th>Critical capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission:</td>
<td>Operational risks:</td>
<td>Critical requirements</td>
<td>Critical vulnerabilities</td>
</tr>
<tr>
<td>Concept of operations</td>
<td>Deception plan:</td>
<td>Course(s) of action measure(s) of effect:</td>
<td>Staff validation check:</td>
</tr>
<tr>
<td>Key themes and messages:</td>
<td></td>
<td></td>
<td>Feasibility:</td>
</tr>
<tr>
<td>Synchronisation of forces and functions:</td>
<td></td>
<td></td>
<td>Acceptability:</td>
</tr>
<tr>
<td>Main effort:</td>
<td></td>
<td></td>
<td>Completeness:</td>
</tr>
<tr>
<td>Logistic concept:</td>
<td></td>
<td></td>
<td>Exclusivity:</td>
</tr>
<tr>
<td>Force levels:</td>
<td></td>
<td></td>
<td>Suitability:</td>
</tr>
<tr>
<td>Deployment concept:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational reserve:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spare:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
S2.1. Throughout the planning process, a Joint Force Commander (JFC) and his staff need to clearly communicate and comprehend intent and scheme of manoeuvre (both in course of action development and for the selected plan). There are a number of tools and techniques, many using the campaign planning concepts, which offer effective ways to present aspects of a course of action or plan.

**Tools and techniques**

S2.2. A common set of planning concept symbols, for use in schematics, is at Appendix 1.

S2.3. Various options for drawing up schematics, describing the course of action (or plan) through a series of decisive conditions that will achieve the objectives (and hence the end-state), are at Appendix 2.

S2.4. Analysis of decisive conditions leads to the effects necessary to create them. Decisive condition/ effect tables, an example of which is at Appendix 3, provide a useful means of depicting these relationships and visualising the contribution required, by both the joint force and other non-military organisations.

S2.5. Effects are an important part of the planning process and the development of courses of action; they also form the foundation of a JFC’s synchronisation of forces and functions (scheme of manoeuvre) included within operation plans and operation orders. One or more effects schematics are a useful technique to describe, by time and/or space, the intended effects – see Appendix 4.

S2.6. A vital yet complex part of the planning process is identifying activities that will support achieving each effect. The use of joint action tables, to determine the range of activities across the joint force and, where appropriate, by multiple agencies to meet each supporting effect not only captures the extent of the effort required; it also stimulates alternative activities and is key to the early identification of risk.
An example joint action table is at Appendix 5.

S2.7. Clarification of intended activities is aided through using joint action schematics to describe one particular aspect of the course of action (or operation plan and orders) – see Appendix 6.

S2.8. Synchronising activities is key to mission success. The joint action table will drive the development of joint action synchronisation matrices – see Appendix 7.

**Using schematics/tables/matrices**

S2.9. Any single schematic, table or matrix can only communicate a finite amount of information. A combination of several of the tools and techniques listed above, and described in greater detail at the appendices to this supplement, may be necessary to convey the complete picture of what could be planned. These tools and techniques are not prescriptive; selecting and adapting one or more to best suit the context, and predominant types of military activity, faced by a JFC is encouraged.

Appendix 1 – Campaign planning concepts symbols.
Appendix 2 – Operations schematics.
Appendix 3 – Decisive conditions/effects tables
Appendix 4 – Effects schematics
Appendix 5 – Joint action table
Appendix 6 – Joint action schematics
Appendix 7 – Joint action synchronisation matrix
Appendix 1 – Campaign planning concepts symbols

**End-state**
- Brief narrative equates to the sum of the objectives

**Centre of gravity (CoG)**
- *Centre of gravity*
  - Description

**Decisive condition (DC)**
- *DC (number)*
  - DC descriptor expressed as a noun or verb in its completed form

**Effect**
- *E (Number)*
  - Effect descriptor expressed as a noun or verb in its completed form

**Line/grouping of operation**
- *Line*
  - *Line/grouping*
  - *Grouping*

**Phase**
- *Line*
  - *Line/grouping*

**Contingency plan**
- Branch
- Sequel

**Operational pause**
- " 

**Culminating point**
- " 
Appendix 2 – Operations schematics

Planning concepts provide a ‘toolset’ to plan and communicate operations. While there is a defined set of planning concepts, there is no similarly finite rule to schematics. A schematic is used to aid understanding in the planning and execution of an operation. A Joint Force Commander finds it particularly useful while developing, and expressing, his theory of change. It is of use to the staff in transforming ideas into viable courses of action. Finally it is also useful to the staff when they are monitoring and reviewing the plan’s progress. Hence, its utility extends across operational design and operations management.

Creativity in schematics design is encouraged and variations will emerge dependent upon the nature of the crisis and the personal preferences of key commanders and staff. This appendix provides a number of examples of operations schematics. They serve to offer alternative options and to stimulate staff to develop schematics best suited to a particular set of circumstances.

- Schematic option 1 – Lines of operation/bi-polar centres of gravity.
- Schematic option 2 – Groupings of operation/bi-polar centres of gravity.
- Schematic option 3 – Lines of operation/focal centre of gravity.
- Schematic option 4 – Lines/groupings of operation/focal centre of gravity.
- Schematic option 5 – Groupings of operation/focal centre of gravity.
Option 1 – Lines of operation/bi-polar centres of gravity

End-state: Information effect

Country ‘X’ rejects aggressive acts and obeys the norms of international relations

Objectives

<table>
<thead>
<tr>
<th>Objective</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Defeat ‘X’ conventional forces</td>
</tr>
<tr>
<td></td>
<td>DC 1 ‘X’ C2 neutralised</td>
</tr>
<tr>
<td></td>
<td>DC 2 Air superiority gained</td>
</tr>
<tr>
<td></td>
<td>DC 3 Seas denied</td>
</tr>
<tr>
<td></td>
<td>DC 4 ‘X’ Land forces defeated</td>
</tr>
<tr>
<td>B</td>
<td>Secure ‘X’ withdrawal</td>
</tr>
<tr>
<td></td>
<td>DC 5 Air control established</td>
</tr>
<tr>
<td></td>
<td>DC 6 ‘X’ Land forces repatriated</td>
</tr>
<tr>
<td>C</td>
<td>Restore essential services</td>
</tr>
<tr>
<td></td>
<td>DC 7 Potable water provided</td>
</tr>
<tr>
<td></td>
<td>DC 8 Electric power restored</td>
</tr>
<tr>
<td>D</td>
<td>Re-establish HN (‘Y’) authority</td>
</tr>
<tr>
<td></td>
<td>DC 9 ‘Y’ Armed forces and police reasserted</td>
</tr>
<tr>
<td></td>
<td>DC 10 ‘Y’ Governing authority reinstated</td>
</tr>
</tbody>
</table>

Legend

\[\text{\textbullet} \text{ Branch} \]
\[\text{\textbullet} \text{ Command and control} \]
\[\text{\textbullet} \text{ Centre(s) of gravity} \]
\[\text{\textbullet} \text{ Critical vulnerability} \]
\[\text{\textbullet} \text{ Decisive condition} \]
\[\text{\textbullet} \text{ Host nation} \]
Option 2 – Groupings of operation/bi-polar centres of gravity

End-state: Information effect
Country 'X' rejects aggressive acts and obeys the norms of international relations

<table>
<thead>
<tr>
<th>Objective</th>
<th>Objective</th>
<th>Objective</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
<td><strong>C</strong></td>
<td><strong>D</strong></td>
</tr>
<tr>
<td>Defeat 'X' conventional forces</td>
<td>Secure 'X' withdrawal</td>
<td>Restore essential services</td>
<td>Re-establish HN ('Y') authority</td>
</tr>
<tr>
<td>DC 1 'X' C2 neutralised</td>
<td>DC 5 Air control established</td>
<td>DC 7 Potable water provided</td>
<td>DC 9 'Y' Armed forces and police reasserted</td>
</tr>
<tr>
<td>DC 2 Air superiority gained</td>
<td>DC 6 'X' Land forces repatriated</td>
<td>DC 8 Electric power restored</td>
<td>DC 10 'Y' Governing authority reinstated</td>
</tr>
</tbody>
</table>

Legend
- C2 Command and control
- CoG Centre(s) of gravity
- CV Critical vulnerability
- DC Decisive condition
- HN Host nation
Option 3 – Lines of operation/focal centre of gravity

End-state: Information effect
Security conditions in which the threat of violence and civil war has been curtailed and effective infrastructure developed.
Country 'X' generating mature political structures to enable effective and representative governance

Favourable situation
End-state: Information effect
Security conditions in which the threat of violence and civil war has been curtailed and effective infrastructure developed.
Country 'X' generating mature political structures to enable effective and representative governance

Current situation
End-state: Information effect
Security conditions in which the threat of violence and civil war has been curtailed and effective infrastructure developed.
Country 'X' generating mature political structures to enable effective and representative governance

Focal CoG
Ability to govern

Legend
CoG Centre(s) of gravity
DC Decisive condition(s)
### Option 4 – Lines/groupings of operation – focal centre of gravity

#### Current situation

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Sustainment</td>
<td>Transition and withdrawal</td>
</tr>
</tbody>
</table>

#### End-state: Information effect

Security conditions in which the threat of violence and civil war has been curtailed and effective infrastructure developed. Country 'X' generating mature political structures to enable effective and representative governance.

### End-state: Information effect

Security conditions in which the threat of violence and civil war has been curtailed and effective infrastructure developed. Country 'X' generating mature political structures to enable effective and representative governance.

<table>
<thead>
<tr>
<th>Objective A</th>
<th>Objective B</th>
<th>Objective C</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Provide security across country 'X'</td>
<td>B: Establish governance across country 'X'</td>
<td>C: Restore country 'X' infrastructure</td>
</tr>
<tr>
<td>DC 1 Secure environment maintained</td>
<td>DC 3 Interim governance provided</td>
<td>DC 7 Key infrastructure restored</td>
</tr>
<tr>
<td>DC 2 Self-sustaining security established</td>
<td>DC 4 Self-governance established</td>
<td>DC 8 Sustainable infrastructure established</td>
</tr>
<tr>
<td>DC 5 Electoral process reformed</td>
<td>DC 6 Electoral process reformed</td>
<td>DC 8 Sustainable infrastructure established</td>
</tr>
<tr>
<td>DC 6 Elected government empowered</td>
<td>DC 6 Elected government empowered</td>
<td></td>
</tr>
</tbody>
</table>

### Legend

- CoG: Centre(s) of gravity
- DC: Decisive condition(s)
Option 5 – Groupings of operation/focal centre of gravity

End-state: Information effect
Security conditions in which the threat of violence and civil war has been curtailed and effective infrastructure developed. Country ‘X’ to generating mature political structures to enable effective and representative governance

<table>
<thead>
<tr>
<th>Objective</th>
<th>DC1 Secure environment maintained</th>
<th>DC2 Self-sustaining security established</th>
<th>DC3 Interim governance provided</th>
<th>DC4 Self-governance established</th>
<th>DC5 Electoral process reformed</th>
<th>DC6 Elected government empowered</th>
<th>DC7 Key infrastructure restored</th>
<th>DC8 Sustainable infrastructure established</th>
</tr>
</thead>
</table>

Legend
CoG Centre(s) of gravity
DC Decisive condition(s)
## Appendix 3 – Decisive conditions/effects tables
### Option 1 – Summarised tables

<table>
<thead>
<tr>
<th>DC 1</th>
<th>E 1.1 ‘X’ Air defence neutralised</th>
<th>E 1.2 Key ‘X’ communication nodes destroyed</th>
<th>E 1.3 ‘X’ radar/early warning nodes destroyed</th>
<th>E 1.4 ‘X’ Operational level C2 nodes destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC 2</td>
<td>E 2.1 ‘X’ Airfields denied</td>
<td>E 2.2 ‘X’ Air defence neutralised</td>
<td>E 2.3 Air policing established</td>
<td>E 2.4 Own airfields protected</td>
</tr>
<tr>
<td>DC 3</td>
<td>E 3.1 ‘X’ Ports blockaded</td>
<td>E 3.2 Sea control established</td>
<td>E 3.3 Own SLOCs protected</td>
<td></td>
</tr>
<tr>
<td>DC 4</td>
<td>E4.1 ‘X’ ISTAR destroyed</td>
<td>E4.2 ‘X’ Lt Bde contained</td>
<td>E4.3 ‘Y’ Capital city seized</td>
<td>E4.4 Amphibious assault ‘Y’ capital port</td>
</tr>
<tr>
<td>DC 5</td>
<td>E 5.1 Air policing maintained</td>
<td>E 5.2 Air space control measures established</td>
<td>E 5.3 Own airfields protected</td>
<td></td>
</tr>
<tr>
<td>DC 6</td>
<td>E 6.1 ‘X’ Land forces disarmed</td>
<td>E 6.2 ‘X’ Land forces redeployed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC 7</td>
<td>E 7.1 Sufficient water sourced</td>
<td>E 7.2 Filtration systems established</td>
<td>E 7.3 Water storage established</td>
<td>E 7.4 Water distribution system established</td>
</tr>
<tr>
<td>DC 8</td>
<td>E 8.1 Sufficient electric power generated</td>
<td>E 8.2 Electricity grid storage established</td>
<td>E 8.3 Power distribution established</td>
<td></td>
</tr>
<tr>
<td>DC 9</td>
<td>E 9.1 ‘Y’ Armed Forces regrouped</td>
<td>E 9.2 ‘Y’ Police Force regrouped</td>
<td>E 9.3 C2 of Armed Forces and Police re-established</td>
<td>E 9.4 ‘Y’ Armed Forces equipped and trained</td>
</tr>
<tr>
<td>DC 10</td>
<td>E 10.1 ‘Y’ Ministries empowered</td>
<td>E 10.2 ‘Y’ Presidency regained</td>
<td>E 10.3 ‘Y’ Democratic process re-established</td>
<td>E 10.4 International community re-engaged</td>
</tr>
</tbody>
</table>

**Effects related to**
## Option 2 – Effects sequenced over phases

<table>
<thead>
<tr>
<th>DC</th>
<th>E</th>
<th>Phase 1 – shape</th>
<th>Phase 2 – attack</th>
<th>Phase 3 – transition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DC 1</strong></td>
<td><strong>E1.1</strong> ‘X’ Air defence neutralised</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘X’ C2 neutralised</td>
<td><strong>E1.2</strong> Key ‘X’ communication nodes destroyed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E1.3</strong> ‘X’ Radar/early warning nodes destroyed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E1.4</strong> ‘X’ Operational level C2 nodes destroyed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DC 2</strong></td>
<td><strong>E2.1</strong> ‘X’ Airfields denied</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air superiority gained</td>
<td><strong>E2.2</strong> ‘X’ Air defence neutralised</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E2.3</strong> Air policing established</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E2.4</strong> Own airfields protected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DC 3</strong></td>
<td><strong>E3.1</strong> ‘X’ Ports blockaded</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seas denied</td>
<td><strong>E3.2</strong> Sea control established</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E3.3</strong> Own sea lines of communication protected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DC 4</strong></td>
<td><strong>E4.1</strong> ‘X’ ISTAR destroyed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘X’ Land Forces defeated</td>
<td><strong>E4.2</strong> ‘X’ Lt Bde contained</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E4.3</strong> ‘Y’ Capital city Seized</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DC 5</strong></td>
<td><strong>E5.1</strong> Air policing maintained</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air control established</td>
<td><strong>E5.2</strong> Air space control measures established</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E5.3</strong> Own airfields protected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DC 6</strong></td>
<td><strong>E6.1</strong> ‘X’ Land Forces disarmed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘X’ Land Forces repatriated</td>
<td><strong>E6.2</strong> ‘X’ Land Forces redeployed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DC 7</strong></td>
<td><strong>E7.1</strong> Sufficient water sourced</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC 8</td>
<td>Electric power restored</td>
<td>E8.1</td>
<td>Sufficient electric power generated</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------</td>
<td>-------</td>
<td>-------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E8.2</td>
<td>Electricity grid storage established</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E8.3</td>
<td>Power distribution established</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E 9.1</td>
<td>‘Y’ Armed Forces regrouped</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E 9.2</td>
<td>‘Y’ Police Force regrouped</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E 9.3</td>
<td>C2 of Armed Force and Police re-established</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E 9.4</td>
<td>‘Y’ Armed Forces equipped and trained</td>
<td></td>
</tr>
<tr>
<td>DC 9</td>
<td>‘Y’ Armed Forces and Police re-asserted</td>
<td>E10.1</td>
<td>‘Y’ Ministries empowered</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E10.2</td>
<td>‘Y’ Presidency regained</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E10.3</td>
<td>‘Y’ Democratic process re-established</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>E10.4</td>
<td>International community re-engaged</td>
<td></td>
</tr>
</tbody>
</table>

Running water restored

E7.2  Filtration systems established
E7.3  Water storage established
E7.4  Water distribution system established

DC 10  ‘Y’ Governing Authority re-instated

E10.1  ‘Y’ Ministries empowered
E10.2  ‘Y’ Presidency regained
E10.3  ‘Y’ Democratic process re-established
E10.4  International community re-engaged

S2-3-3

Original + National elements
Option 3 – Supporting effects synchronised over time

E1.1 ‘X’ Air defence neutralised
E1.2 Key ‘X’ communication nodes destroyed
E1.3 ‘X’ Radar/early warning nodes destroyed
E1.4 ‘X’ Operational level C2 nodes destroyed
E2.1 ‘X’ Airfields denied
E2.2 ‘X’ Air defence neutralised
E2.3 Air policing established
E2.4 Own airfields protected
E3.1 ‘X’ ports blockaded
E3.2 Sea control established
E3.3 Own SLOC Protected
E4.1 ‘X’ ISR destroyed
E4.2 ‘X’ Light Brigade contained
E4.3 ‘Y’ Capital city seized
E5.1 Air policing maintained
E5.2 Air space control measures established
E5.3 Own airfields protected

OPLAN 1: D to D+40
OPLAN 2: D+40 to D+60
OPLAN 3: D+60 to D+80

Legend
C2 Command and control
E Effect
ISR Intelligence, surveillance and reconnaissance
OPLAN Operation plan
SLOC Sea lines of communication
Appendix 4 – Effects schematics

Effects make up a Joint Force Commander’s synchronisation of forces and functions (scheme of manoeuvre) – as they form the foundation of the operation plan (OPLAN). Effects schematics provide a useful means to visualise and communicate the scheme of manoeuvre, or at least one aspect, by time or space. They can be generated throughout the planning process, in the development, evaluation and selection of courses of action. They can also be included within OPLANs and operation orders (OPORDs) to aid subordinate understanding.

The effects included on schematics need not be confined to those from the physical domain; a schematic is enriched by inclusion of effects to be achieved in the virtual and cognitive domains.
Appendix 5 – Joint action table

Partially completed to demonstrate the tool and reinforce the relationship between decisive conditions, effects and actions, and the importance behind establishing supported/supporting command relationships.

<table>
<thead>
<tr>
<th>Decisive condition</th>
<th>Effect</th>
<th>Fires</th>
<th>Manoeuvre</th>
<th>Information activity</th>
<th>Outreach activity</th>
<th>Supported</th>
<th>Supporting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DC 1</strong>&lt;br&gt;‘X’ C2 neutralised</td>
<td><strong>E1.1</strong> ‘X’ Air defence neutralised</td>
<td></td>
<td></td>
<td>Conduct SEAD</td>
<td></td>
<td>JFAC</td>
<td>JFMC</td>
</tr>
<tr>
<td></td>
<td><strong>E1.2</strong> Key ‘X’ communication nodes destroyed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E1.3</strong> ‘X’ Radar/early warning nodes destroyed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E1.4</strong> ‘X’ Operational level C2 nodes destroyed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DC 2</strong>&lt;br&gt;Air superiority gained</td>
<td><strong>E2.1</strong> ‘X’ Airfields denied</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E2.2</strong> ‘X’ Air defence neutralised</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E2.3</strong> Air policing established</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E2.4</strong> Own airfields protected</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DC 3</strong>&lt;br&gt;Seas denied</td>
<td><strong>E3.1</strong> ‘X’ Ports blockaded</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E3.2</strong> Sea control established</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E3.3</strong> Own sea lines of communication protected</td>
<td></td>
<td>Interdict ‘X’ naval forces</td>
<td></td>
<td></td>
<td>JFMC</td>
<td>JFAC</td>
</tr>
<tr>
<td>DC 4</td>
<td>‘X’ Land Forces defeated</td>
<td>E4.1 ‘X’ ISTAR destroyed</td>
<td></td>
<td></td>
<td></td>
<td>Reassure indigenous population</td>
<td>JFLC</td>
</tr>
<tr>
<td>DC 5</td>
<td>Air control established</td>
<td>E5.1 Air policing maintained</td>
<td>E5.2 Air space control measures established</td>
<td>E5.3 Own airfields protected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC 7</td>
<td>Running water restored</td>
<td>E7.1 Sufficient water sourced</td>
<td>Secure key water sources</td>
<td>JFLC</td>
<td>DFID</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC 8</td>
<td>Electric power restored</td>
<td>E8.1 Sufficient electric power generated</td>
<td></td>
<td></td>
<td></td>
<td>Develop infrastructure and potable water</td>
<td></td>
</tr>
<tr>
<td>DC 9</td>
<td>‘Y’ Armed Forces and Police re-asserted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E8.3</strong> Power distribution established</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E 9.1</strong> ‘Y’ Armed Forces regrouped</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E 9.2</strong> ‘Y’ Police Force regrouped</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E 9.3</strong> C2 of Armed Force and Police re-established</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E 9.4</strong> ‘Y’ Armed Forces equipped and trained</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DC 10</th>
<th>‘Y’ Governing Authority re-instated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>E10.1</strong> ‘Y’ Ministries empowered</td>
</tr>
<tr>
<td></td>
<td><strong>E10.2</strong> ‘Y’ Presidency regained</td>
</tr>
<tr>
<td></td>
<td><strong>E10.3</strong> ‘Y’ Democratic process re-established</td>
</tr>
<tr>
<td></td>
<td><strong>E10.4</strong> International community re-engaged</td>
</tr>
</tbody>
</table>

- Broadcast ministerial announcements
- FCO
- JFLC

Support development of governance structures
Legend

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2</td>
<td>Command and control</td>
</tr>
<tr>
<td>FCO</td>
<td>Foreign and Commonwealth Office</td>
</tr>
<tr>
<td>ISTAR</td>
<td>Intelligence, surveillance, target acquisition and reconnaissance</td>
</tr>
<tr>
<td>JFAC</td>
<td>Joint Force Air Component</td>
</tr>
<tr>
<td>JFLC</td>
<td>Joint Force Land Component</td>
</tr>
<tr>
<td>JFMC</td>
<td>Joint Force Maritime Component</td>
</tr>
<tr>
<td>Lt Bde</td>
<td>Light brigade</td>
</tr>
<tr>
<td>SEAD</td>
<td>Suppression of enemy of air defences</td>
</tr>
</tbody>
</table>
Appendix 6 – Joint action schematics

A Joint Force Commander (JFC) uses joint action as a framework with which to plan, coordinate and synchronise, and then execute activities to realise effects. JFCs should use the full range of available capabilities, joint and multinational, and orchestrate fires, information activities, outreach activities and manoeuvre together to optimise their coherent impact. They should consider those multi-agency activities which, while not under their control, could be coordinated with their own actions to better achieve the desired effects. JFCs may establish supported/supporting relationships between their component commanders for each effect, while delegating the maximum freedom of action as to how these activities are conducted.

Joint action schematics are a useful means to describe and communicate plans. It is unlikely that a single schematic could depict the entirety of an operation. More likely is that respective operation orders (OPORDs) (and associated fragmentary orders (FRAGOs)) will use joint action schematics to depict the key actions involved in a particular phase.
Appendix 7 – Joint action synchronisation matrix

Partially complete, using those limited actions derived in previous appendices, to demonstrate the tool. Supplement 1 – Example course of action formats.

<table>
<thead>
<tr>
<th>Deploy</th>
<th>D</th>
<th>D+20</th>
<th>D+40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fires and manoeuvre</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JFSFC</td>
<td>Planned activity...</td>
<td>Planned activity...</td>
<td>Planned activity...</td>
</tr>
<tr>
<td>JFMC</td>
<td>Interdict ‘X’ naval forces</td>
<td>Planned activity...</td>
<td></td>
</tr>
<tr>
<td>JFLC</td>
<td>Planned activity...</td>
<td>Secure key water sources</td>
<td>Planned activity...</td>
</tr>
<tr>
<td>JFAC</td>
<td>Planned activity...</td>
<td>Conduct SEAD</td>
<td>Planned activity...</td>
</tr>
<tr>
<td>JFLogC</td>
<td>Planned activity...</td>
<td>Planned activity...</td>
<td>Planned activity...</td>
</tr>
<tr>
<td>Influence activities</td>
<td>Planned activity...</td>
<td>Reassure indigenous population</td>
<td></td>
</tr>
<tr>
<td>Multi-agency</td>
<td>Planned activity...</td>
<td>Planned activity...</td>
<td>Planned activity...</td>
</tr>
<tr>
<td>FCO</td>
<td>Planned activity...</td>
<td>Planned activity...</td>
<td></td>
</tr>
<tr>
<td>DFID</td>
<td>Planned activity...</td>
<td>Planned activity...</td>
<td></td>
</tr>
</tbody>
</table>

Legend
- DFID: Department for International Development
- FCO: Foreign and Commonwealth Office
- JFAC: Joint Force Air Component
- JFLogC: Joint Force Logistic Component
- JFLC: Joint Force Land Component
- JFMC: Joint Force Maritime Component
- JFSFC: Joint Force Special Forces Component
- SEAD: Suppression of enemy air defences
- DFID: Department for International Development
- FCO: Foreign and Commonwealth Office
- JFAC: Joint Force Air Component
- JFLogC: Joint Force Logistic Component
- JFLC: Joint Force Land Component
- JFMC: Joint Force Maritime Component
- JFSFC: Joint Force Special Forces Component
- SEAD: Suppression of enemy air defences
LEXICON

PART I – ACRONYMS AND ABBREVIATIONS

The Lexicon contains abbreviations relevant to AJP-5 and is not meant to be exhaustive. The definitive and more comprehensive list of abbreviations is in AAP-15. Abbreviations introduced in AJP-5 are annotated.

AAP    Allied administrative publication
ACO3   Allied Command Operations
AJP    Allied joint publication
AOI    area of interest
AOO    area of operations

Bi-SC   of the two Strategic Commands

C2     command and control
CBRN   chemical, biological, radiological and nuclear
CC6    component commander
CCIR2  commander’s critical information requirement
CEP    civil emergency planning
CIMIC  civil-military cooperation
CIS    communication and information systems
CJSOR  combined joint statement of requirements
COA    course of action
COG    centre of gravity
CONOPS concept of operations
CONPLAN contingency plan
COPD   Comprehensive Operations Planning Directive
CPOE   comprehensive preparation of the operational environment
CRM    crisis response measure

DC     decisive condition (within AJP-5 only)

FP     force protection
FPG    functional planning guide
FTDM   fast track decision-making
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>GO</td>
<td>governmental organization (within AJP-5 only)</td>
</tr>
<tr>
<td>HN</td>
<td>host nation</td>
</tr>
<tr>
<td>HNS</td>
<td>host-nation support</td>
</tr>
<tr>
<td>HQ</td>
<td>headquarters</td>
</tr>
<tr>
<td>I&amp;W</td>
<td>indications and warning</td>
</tr>
<tr>
<td>Info Ops</td>
<td>information operations</td>
</tr>
<tr>
<td>IO</td>
<td>international organization</td>
</tr>
<tr>
<td>JFC</td>
<td>joint force commander</td>
</tr>
<tr>
<td>JFHQ</td>
<td>joint force headquarters</td>
</tr>
<tr>
<td>JLRT</td>
<td>joint logistic reconnaissance team (within AJP-5 only)</td>
</tr>
<tr>
<td>JOA</td>
<td>joint operations area</td>
</tr>
<tr>
<td>JOC</td>
<td>joint operations centre</td>
</tr>
<tr>
<td>JOPG</td>
<td>Joint Operations Planning Group</td>
</tr>
<tr>
<td>LO</td>
<td>liaison officer</td>
</tr>
<tr>
<td>LOC</td>
<td>lines of communications</td>
</tr>
<tr>
<td>LoO</td>
<td>line of operation</td>
</tr>
<tr>
<td>MC</td>
<td>Military Committee</td>
</tr>
<tr>
<td>Med</td>
<td>medical</td>
</tr>
<tr>
<td>MEDAD</td>
<td>medical advisor</td>
</tr>
<tr>
<td>MedEvac</td>
<td>medical evacuation</td>
</tr>
<tr>
<td>MILENG</td>
<td>military engineering</td>
</tr>
<tr>
<td>MN</td>
<td>multinational</td>
</tr>
<tr>
<td>MOE</td>
<td>measure of effectiveness</td>
</tr>
<tr>
<td>MRO</td>
<td>military response option</td>
</tr>
<tr>
<td>NA5CRO</td>
<td>non-Article 5 crisis response operation</td>
</tr>
<tr>
<td>NAC</td>
<td>North Atlantic Council</td>
</tr>
<tr>
<td>NATO</td>
<td>North Atlantic Treaty Organization</td>
</tr>
<tr>
<td>NCMP</td>
<td>NATO crisis management process</td>
</tr>
<tr>
<td>NCRS</td>
<td>NATO Crisis Response System</td>
</tr>
<tr>
<td>NCRSM</td>
<td>NATO Crisis Response System Manual</td>
</tr>
<tr>
<td>NCS</td>
<td>NATO Command Structure</td>
</tr>
<tr>
<td>NDPP</td>
<td>NATO defence planning process</td>
</tr>
</tbody>
</table>
NGO: non-governmental organization  
NIC1: national intelligence cell  
NIWS: NATO intelligence warning system  
NMA: NATO military authority  
NTMS: NATO Terminology Management System  

OA3: operational analysis  
OLPP: operational-level planning process (within AJP-5 only)  
OLRT: operational liaison and reconnaissance team  
OPFOR: opposing forces  
OPLAN: operation plan  
OPP: operations planning process  

PA: public affairs  
PIR2: priority intelligence requirement  
PME: political-military estimate (within AJP-5 only)  
POL: petroleum, oils and lubricants  
PS: planning situation  
PSO: peace support operation  
PsyOp: psychological operation  

RFI: request for information  
ROE: rules of engagement  
ROEREQ: rule-of-engagement request  
RSOM: reception, staging and onward movement  

SACEUR: Supreme Allied Commander Europe  
SC: strategic commander  
SDP: standing defence plan  
SHAPE: Supreme Headquarters Allied Powers Europe  
SMO: senior medical officer  
SOF1: special operations force  
SOR3: statement of requirements  
SOPG: Strategic Operations Planning Group (within AJP-5 only)  
SPD: strategic planning directive (within AJP-5 only)  
SPOD: seaport of debarkation  
SSA: SACEUR’s strategic assessment (within AJP-5 only)
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>StratCom</td>
<td>NATO Strategic Communications (within AJP-5 only)</td>
</tr>
<tr>
<td>SUPPLAN</td>
<td>support plan</td>
</tr>
<tr>
<td>TCN</td>
<td>troop-contributing nation</td>
</tr>
<tr>
<td>TCSOR</td>
<td>theatre capability statement of requirements</td>
</tr>
<tr>
<td>TOA</td>
<td>transfer of authority</td>
</tr>
<tr>
<td>TOO2</td>
<td>theatre of operations</td>
</tr>
</tbody>
</table>
PART II – TERMS AND DEFINITIONS

adversary
A party acknowledged as potentially hostile to a friendly party and against which the use of force may be envisaged. (NATO Terminology Management System (NTMS) - NATO Agreed)

aeromedical evacuation
AEROMEDEVAC
The movement of patients to and between medical treatment facilities by air transportation. (NTMS – NATO agreed)

area of interest
AOI
The area of concern to a commander relative to the objectives of current or planned operations, including his areas of influence, operations and/or responsibility, and areas adjacent thereto. (NTMS - NATO Agreed)

area of operations
AOO
An area defined by the joint force commander within a joint operations area for the conduct of specific military activities. (NTMS - NATO Agreed)

assessment
A considered process of appraisal to support decision making. (New definition harmonized in accordance with the two Strategic Commands (Bi-SC) letter, CPPSPL/7740-73/10-271642; 5000 FEF 0070/TT 6518/Ser: NU0008 dated 31.01.2011. Will be processed for inclusion in the NATO Terminology Management System (NTMS) and AAP-6 in accordance with the procedures defined in C-M(2007)0023-AS 1, 23 April 2007, ‘Guidance for the Development and Publication of NATO Terminology’. For the NTMS – NATO agreed definition see footnote¹.)

¹ assessment
The process of estimating the capabilities and performance of organizations, individuals, materiel or systems. (NTMS - NATO Agreed)
**battlespace**  
The environment, factors and conditions that must be understood to apply combat power, protect a force or complete a mission successfully.  
Note: It includes the land, maritime, air and space environments; the enemy and friendly forces present therein; facilities; terrestrial and space weather; health hazards; terrain; the electromagnetic spectrum; and the information environment in the joint operations area and other areas of interest. (NTMS - NATO Agreed)

**campaign**  
A set of military operations planned and conducted to achieve a strategic objective within a given time and geographical area, which normally involve maritime, land and air forces. (NTMS - NATO Agreed)

**centre of gravity**  
**COG**  
Characteristics, capabilities or localities from which a nation, an alliance, a military force or other grouping derives its freedom of action, physical strength or will to fight. (NTMS - NATO Agreed)

**civil-military cooperation**  
**CIMIC**  
The coordination and cooperation, in support of the mission, between the NATO Commander and civil actors, including the national population and local authorities, as well as international, national and non-governmental organizations and agencies. (NTMS - NATO Agreed)

**combined**  
Preferred term: *multinational*. (NTMS - NATO Agreed)

**combined operation**  
**multinational operation**  
(admitted)  
An operation conducted by forces of two or more nations acting together. (NTMS - NATO Agreed)
**combined joint operation**
An operation carried out by forces of two or more nations, in which elements of at least two services participate. (NTMS - NATO Agreed)

**command**
1. The authority vested in an individual of the armed forces for the direction, coordination, and control of military forces.
2. An order given by a commander; that is, the will of the commander expressed for the purpose of bringing about a particular action.
3. A unit, group of units, organization or area under the authority of a single individual.
4. To dominate an area or situation.
5. To exercise command. (NTMS - NATO Agreed)

**communication and information systems**
**CIS**
Collective term for communication systems and information systems. (NTMS - NATO Agreed)

**communication system**
An assembly of equipment, methods and procedures and, if necessary, personnel, organized to accomplish information transfer functions.
Notes:
1. A communication system provides communication between its users and may embrace transmission systems, switching systems and user systems.
2. A communication system may also include storage or processing functions in support of information transfer. (NTMS - NATO Agreed)

**component command**
**CC**
1. In the NATO military command structure, a third-level command organization with specific air, maritime or land capabilities that is responsible for operations planning and conduct of subordinate operations as directed by the NATO commander.
2. A functional component command or service component command responsible for the planning and conduct of a maritime, land, air, special or other operation as part of a joint force. (NTMS - NATO Agreed)
component commander
CC
1. A single-service or functional component commander at the third level of
the NATO military command structure.
2. A designated commander responsible for the planning and conduct of a
maritime, land, air, special or other operation as part of a joint force. (NTMS -
NATO Agreed)

certainty of operations
CONOPS
A clear and concise statement of the line of action chosen by a commander
in order to accomplish his mission. (NTMS - NATO Agreed)

conduct of operations
The art of directing, coordinating, controlling and adjusting the actions of
forces to achieve specific objectives. (NTMS - NATO Agreed)

contingency plan
CONPLAN
A plan which is developed for possible operations where the planning factors
have been identified or can be assumed. This plan is produced in as much
detail as possible, including the resources needed and deployment options,
as a basis for subsequent planning. (NTMS - NATO Agreed)

control
The authority exercised by a commander over part of the activities of
subordinate organizations, or other organizations not normally under his
command, that encompasses the responsibility for implementing orders or
directives. (NTMS - NATO Agreed)

course of action
COA
In the estimate process, an option that will accomplish or contribute to the
accomplishment of a mission or task, and from which a detailed plan is
developed. (NTMS - NATO Agreed)

---

2 The term contingency operation plan is not defined in NTMS and AAP-6, only an abbreviation (CONOPLAN) is given in
AAP-15.
deception
Those measures designed to mislead the enemy by manipulation, distortion, or falsification of evidence to induce him to react in a manner prejudicial to his interests. (NTMS - NATO Agreed)

decisive condition
A combination of circumstances, effects, or specific key event, critical factor, or function that when realised allows commanders to gain a marked advantage over an opponent or contribute materially to achieving an operational objective. (New definition proposed by AJP-1(D), will be processed for inclusion in the NTMS in accordance with the procedures defined in C-M(2007)0023-AS 1, 23 April 2007, ‘Guidance for the Development and Publication of NATO Terminology’.) Not NATO Agreed)

decisive point
A point from which a hostile or friendly centre of gravity can be threatened. This point may exist in time, space or the information environment. (NTMS - NATO Agreed)

direct action
DA
A short-duration strike or other small-scale offensive action by special operations forces or special operations-capable units to seize, destroy, capture, recover or inflict damage to achieve specific, well-defined and often time-sensitive results. (NTMS - NATO Agreed)

doctrine
Fundamental principles by which the military forces guide their actions in support of objectives. It is authoritative but requires judgement in application. (NTMS - NATO Agreed)
effect
A change in the state of a system (or system element) that results from one or more actions, or other causes.

electronic warfare
EW
Military action to exploit the electromagnetic spectrum encompassing: the search for, interception and identification of electromagnetic emissions, the employment of electromagnetic energy, including directed energy, to reduce or prevent hostile use of the electromagnetic spectrum, and actions to ensure its effective use by friendly forces. (NTMS - NATO Agreed)

definition
end state
The NAC statement of conditions that defines an acceptable concluding situation for NATO’s involvement.

---

3 end state The political and/or military situation to be attained at the end of an operation, which indicates that the objective has been achieved. (NTMS - NATO Agreed)
engagement space
That part of the strategic environment relevant to a particular crisis in which the Alliance may decide, or has decided, to engage.

force protection
FP
All measures and means to minimize the vulnerability of personnel, facilities, equipment and operations to any threat and in all situations, to preserve freedom of action and the operational effectiveness of the force. (NTMS - NATO Agreed)

functional command
A command organization based on military functions rather than geographic areas. (NTMS - NATO Agreed)

health and medical support
A set of actions which contribute to the preparation and preservation of the human potential by full and coherent care. (NTMS - NATO Agreed)

host nation
HN
A nation which, by agreement:
  a. receives forces and materiel of NATO or other nations operating on/from or transiting through its territory;
  b. allows materiel and/or NATO organizations to be located on its territory; and/or
  c. provides support for these purposes. (NTMS - NATO Agreed)
host-nation support
HNS
Civil and military assistance rendered in peace, crisis or war by a host nation to NATO and/or other forces and NATO organizations which are located on, operating on/from, or in transit through the host nation’s territory. (NTMS - NATO Agreed)

information requirement
IR
In intelligence usage, information regarding an adversary or potentially hostile actors and other relevant aspects of the operational environment that needs to be collected and processed to meet the intelligence requirements of a commander. (NTMS - NATO Agreed)

information system
IS
An assembly of equipment, methods and procedures and, if necessary, personnel, organized to accomplish information processing functions. (NTMS - NATO Agreed)

infrastructure
In NATO, the static buildings, facilities and other permanent installations required to support military capabilities. (NTMS - NATO Agreed)

intelligence
Int.
INTEL (admitted)
The product resulting from the processing of information concerning foreign nations, hostile or potentially hostile forces or elements, or areas of actual or potential operations. The term is also applied to the activity which results in the product and to the organizations engaged in such activity. (NTMS - NATO Agreed)

interoperability
The ability to act together coherently, effectively and efficiently to achieve Allied tactical, operational and strategic objectives. (NTMS - NATO Agreed)
**joint multiservice**
Adjective used to describe activities, operations and organizations in which elements of at least two services participate. (NTMS - NATO Agreed)

**joint fires**
Fires applied during the employment of forces from two or more components, in coordinated action toward a common objective. (NTMS - NATO Agreed)

**joint operations area**
**JOA**
A temporary area defined by the Supreme Allied Commander Europe, in which a designated joint commander plans and executes a specific mission at the operational level of war. A joint operations area and its defining parameters, such as time, scope of the mission and geographical area, are contingency- or mission-specific and are normally associated with combined joint task force operations. (NTMS - NATO Agreed)

**line of operation**
**LoO**
In a campaign or operation, a line linking decisive points in time and space on the path to the centre of gravity. (NTMS - NATO Agreed)

**logistics**
**Log.**
The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, the aspects of military operations which deal with:

a. design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposal of materiel;
b. transport of personnel;
c. acquisition or construction, maintenance, operation, and disposition of facilities;
d. acquisition or furnishing of services; and
e. medical and health service support. (NTMS - NATO Agreed)

---

Belgium, Czech Republic, Germany, Poland, Slovakia and the United States do not consider medical support to be a logistic function (see MC 0319/2, footnote 1).

---
**logistic sustainment**
The process and mechanism by which sustainability is achieved and which consists of supplying a force with consumables and replacing combat losses and non-combat attrition of equipment in order to maintain the force's combat power for the duration required to meet its objectives. (NTMS - NATO Agreed)

**measurement of effectiveness**
The assessment of the realisation of specified effects. (New definition proposed by AJP-1(D), will be processed for inclusion in the NTMS in accordance with the procedures defined in C-M(2007)0023-AS 1, 23 April 2007, ‘Guidance for the Development and Publication of NATO Terminology’.) Not NATO Agreed)

**military assistance**
MA
MA is a broad range of activities that support and influence critical friendly assets through training, advising, mentoring or the conduct of combined operations. (New definition contained in MC 0437/2, Special Operations Policy, 2011. Not NATO Agreed)

**military engineering**
MILENG
Engineer activity, comprising both force support engineering and combat support engineering, undertaken regardless of component or service to shape the physical operating environment. (NTMS - NATO Agreed)

**mission**
Msn
A clear, concise statement of the task of the command and its purpose. (NTMS - NATO Agreed)

**multinational**
combined (admitted)
MN
Adjective used to describe activities, operations and organizations, in which elements of more than one nation participate. (NTMS - NATO Agreed)
NATO military authority
NMA
The Military Committee, the Supreme Allied Commander Europe or the Supreme Allied Commander Transformation. (NTMS - NATO Agreed)

NATO military public affairs
NATO military PA
The function responsible to promote NATO's military aims and objectives to audiences in order to enhance awareness and understanding of military aspects of the Alliance. This includes planning and conducting external and internal communications, and community relations. (New definition contained in MC 0457/2. Not NATO Agreed)

NATO Strategic Communications
The coordinated and appropriate use of NATO communications activities and capabilities – Public Diplomacy, public affairs, Military Public Affairs, information operations and psychological operations as appropriate – in support of Alliance policies, operations and activities, and in order to advance NATO's aims. (New definition contained in PO(2009)0141. Not NATO Agreed)

non-governmental organization
NGO
A private, not for profit, voluntary organization with no governmental or intergovernmental affiliation, established for the purpose of fulfilling a range of activities, in particular development-related projects or the promotion of a specific cause, and organized at local, national, regional or international level.
Notes:
1. A non-governmental organization does not necessarily have an official status or mandate for its existence or activities.
2. NATO may or may not support or cooperate with a given non-governmental organization.
(NTMS - NATO Agreed)
**Objective**

*Obj*

A clearly defined and attainable goal for a military operation, for example seizing a terrain feature, neutralizing an adversary's force or capability or achieving some other desired outcome that is essential to a commander's plan and towards which the operation is directed. (NTMS - NATO Agreed)

**Operation**

*Op*

*OP (admitted)*

A military action or the carrying out of a strategic, tactical, service, training, or administrative military mission; the process of carrying on combat, including movement, supply, attack, defence and manoeuvres needed to gain the objectives of any battle or campaign. (NTMS - NATO Agreed)

---

**Operation (revised NTMS – NATO Agreed)**

*Op*

*OP (admitted)*

A sequence of coordinated actions with a defined purpose.

Notes: 1. NATO operations are military.

2. NATO operations contribute to a wider approach including non-military actions.

**Operational Art**

The employment of forces to attain strategic and/or operational objectives through the design, organization, integration and conduct of strategies, campaigns, major operations and battles. (NTMS - NATO Agreed)

**Operational Environment**

*OE*

A composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander. (NTMS - NATO Agreed)

**Operational Level**

The level at which campaigns and major operations are planned, conducted and sustained to accomplish strategic objectives within theatres or areas of operations. (NTMS - NATO Agreed)
**operational-level planning**

**operational planning** (deprecated)

Note: The preferred English term to designate the planning of military operations at the operational level is “operational-level planning”. The term “operational planning” is not to be used so as to prevent confusion with “operations planning”. (NTMS - NATO Agreed)

**operation plan**

**OPLAN**

A plan for a single or series of connected operations to be carried out simultaneously or in succession. It is usually based upon stated assumptions and is the form of directive employed by higher authority to permit subordinate commanders to prepare supporting plans and orders. The designation “plan” is usually used instead of “order” in preparing for operations well in advance. An operation plan may be put into effect at a prescribed time, or on signal, and then becomes the operation order. (NTMS - NATO Agreed)

**operations assessment**

The activity that enables the measurement of progress and results of operations in a military context and the subsequent development of conclusions and recommendations in support of decision-making. (New definition harmonized in accordance with Bi-SC letter, CPPSPL/7740-73/10-271642; 5000 FEF 0070/TT 6518/Ser: NU0008 dated 31.01.2011. Will be processed for inclusion in the NATO Terminology Management System (NTMS) and AAP-6 in accordance with the procedures defined in CM(2007)0023-AS 1, 23 April 2007, Guidance for the Development and Publication of NATO Terminology)

**operations planning**

**operational planning** (deprecated)

The planning of military operations at the strategic, operational or tactical levels.

Note: The preferred English term to designate the planning of military operations at all levels is "operations planning". The term "operational planning" is not to be used so as to prevent confusion with operational-level planning. (NTMS - NATO Agreed)
opposing forces
OPFOR
Those forces used in an enemy role during NATO exercises. (NTMS – NATO Agreed)

peace support operation
PSO
An operation that impartially makes use of diplomatic, civil and military means, normally in pursuit of United Nations Charter purposes and principles, to restore or maintain peace. Such operations may include conflict prevention, peacemaking, peace enforcement, peacekeeping, peacebuilding and/or humanitarian operations. (NTMS - NATO Agreed)

rules of engagement
ROE
Directives issued by competent military authority which specify the circumstances and limitations under which forces will initiate and/or continue combat engagement with other forces encountered. (NTMS - NATO Agreed)

special operations
Military activities conducted by specially designated, organized, selected, trained and equipped forces using unconventional techniques and modes of employment. (NTMS - NATO Agreed)

Special Operations Forces
SOF
Designated active or reserve component forces of national military services specifically organised, trained, and equipped for special operations. (New definition contained in MC 0437/2, Special Operations Policy, 2011. Not NATO Agreed)

strategic level
The level at which a nation or group of nations determines national or multinational security objectives and deploys national, including military, resources to achieve them. (NTMS - NATO Agreed)
**supported commander**
A commander having primary responsibility for all aspects of a task assigned by a higher NATO military authority and who receives forces or other support from one or more supporting commanders. (NTMS - NATO Agreed)

**supporting commander**
A commander who provides a supported commander with forces or other support and/or who develops a supporting plan. (NTMS - NATO Agreed)

**sustainability**
The ability of a force to maintain the necessary level of combat power for the duration required to achieve its objectives. (NTMS - NATO Agreed)

**system**
A functionally, physically, and/or behaviourally related group of regularly interacting or interdependent elements forming a unified whole. (New definition harmonized in accordance with Bi-SC letter, CPPSPL/7740-73/10-271642; 5000 FEF 0070/TT 6518/Ser: NU0008 dated 31.01.2011. Will be processed for inclusion in the NATO Terminology Management System (NTMS) and AAP-6 in accordance with the procedures defined in C-M(2007)0023-AS 1, 23 April 2007, ‘Guidance for the Development and Publication of NATO Terminology’.)

**tactical level**
The level at which activities, battles and engagements are planned and executed to accomplish military objectives assigned to tactical formations and units. (NTMS - NATO Agreed)

**targeting**
The process of selecting and prioritizing targets and matching the appropriate response to them, taking into account operational requirements and capabilities. (NTMS - NATO Agreed)

**transfer of authority**
TOA
Within NATO, an action by which a member nation or NATO Command gives operational command or control of designated forces to a NATO Command. (NTMS - NATO Agreed)
(Intentionally blank)
## REFERENCE PUBLICATIONS

<table>
<thead>
<tr>
<th>Reference</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-M(2009)0048 (INV)</td>
<td>NATO’s Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats, 31 Mar 2009.</td>
</tr>
<tr>
<td>C-M(2011)0022</td>
<td>Political Guidance, 14 Mar 2011</td>
</tr>
<tr>
<td>PO(96)64(Revised)</td>
<td>Framework for Alliance Politico-Military Coordination</td>
</tr>
<tr>
<td>PO(2000)0030-REV2</td>
<td>Role of Civil Emergency Planning in NATO</td>
</tr>
<tr>
<td>PO(2009)0141</td>
<td>NATO Strategic Communications Policy</td>
</tr>
<tr>
<td>PO(2010)0143</td>
<td>Comprehensive Approach Report, 13 October 2010</td>
</tr>
<tr>
<td>PO(2011)0141</td>
<td>Political Military Framework for Partner Involvement in NATO-Led Operations</td>
</tr>
<tr>
<td>MC 0133/4</td>
<td>NATO’s Operations Planning</td>
</tr>
</tbody>
</table>

Ref-1

Original + UK National elements
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC-0161/NSIE/</td>
<td>NATO Strategic Intelligence Estimate (NSIE) / NATO</td>
</tr>
<tr>
<td>NIAT/NIAP/ series</td>
<td>Intelligence Assessment on Terrorism (NIAT)/ NATO Intelligence Assessment on Proliferation (NIAP)</td>
</tr>
<tr>
<td>MC-0165/ series</td>
<td>Significant Technological Developments and their Military Implications</td>
</tr>
<tr>
<td>MC-0166 (Final)</td>
<td>NATO Intelligence Warning System</td>
</tr>
<tr>
<td>MC 0319/2</td>
<td>NATO Principles and Policies for Logistics</td>
</tr>
<tr>
<td>MC 0324/2</td>
<td>The NATO Military Command Structure</td>
</tr>
<tr>
<td>MC 0326/3</td>
<td>NATO Principles and Policies of Operational Medical Support</td>
</tr>
<tr>
<td>MC 0327/2</td>
<td>NATO Military Policy for non-Article 5 Crisis Response Operations</td>
</tr>
<tr>
<td>MC 0334/2</td>
<td>NATO Principles and Policies for Host Nation Support</td>
</tr>
<tr>
<td>MC 0362/1</td>
<td>NATO Rules of Engagement</td>
</tr>
<tr>
<td>MC 0400/3</td>
<td>MC Guidance for the Military Implementation of NATO’s Strategic Concept</td>
</tr>
<tr>
<td>MC 0402/2</td>
<td>NATO Military Policy on Psychological Operations</td>
</tr>
<tr>
<td>MC 0411/1</td>
<td>NATO Military Policy on Civil-Military Cooperation (CIMIC)</td>
</tr>
<tr>
<td>MC 0422/4</td>
<td>NATO Policy on Information Operations</td>
</tr>
<tr>
<td>MC 437/2</td>
<td>Special Operations Policy, 2011</td>
</tr>
<tr>
<td>MC 0457/2</td>
<td>NATO Military Policy on Public Affairs</td>
</tr>
<tr>
<td>MC 0472</td>
<td>NATO Military Concept for Defence against Terrorism</td>
</tr>
<tr>
<td>MC 0526</td>
<td>Logistics Concept for NATO Response Force Operations</td>
</tr>
<tr>
<td>MC 0536</td>
<td>MC Policy for Infrastructure Engineering for Logistics</td>
</tr>
<tr>
<td>MC 0560</td>
<td>MC Policy for Military Engineering</td>
</tr>
</tbody>
</table>
MC 0586/1  MC Policy for Allied Forces and their Use for Operations
MC 0593/1  The Minimum Level of C2 Services, Interoperability and Connectivity Required to Ensure Effective Coordination, C2 of Forces and Elements Deployed on Land, Involved in a NATO-led Operation
MCM-0077-2000  MC Guidance on the Relationship between NATO Policy and Military Doctrine
MCM-0164-2009  NATO Strategic Communications Policy
MCM-0041-2010  MC Position on the Use of Effects in Operations
MCM-0085-2010  NATO Military Concept for Strategic Communications, 28 July 2010
AAP-03(J)  Production, Maintenance and Management of NATO Standardization Documents, Edition J, Version 1, 10 Nov 2010
AAP-6(2011)  NATO Glossary of Terms and Definitions
AAP-15(2011)  NATO Glossary of Abbreviations Used in NATO Documents and Publications
AAP-47  Allied Joint Doctrine Development, Supplement to AAP-3
AJP-01(D)  Allied Joint Doctrine
AJP-2  Allied Joint Doctrine for Intelligence, Counter-Intelligence and Security
AJP-3(B)  Allied Joint Doctrine for the Conduct of Operations
AJP-3.4.1  Peace Support Operations
AJP-3.8  Allied Joint Doctrine for CBRN Defence
AJP-3.9  Allied Doctrine for Joint Targeting
AJP 3.5  Allied Joint Doctrine for Special Operations
AJP-3.10  Allied Joint Doctrine for Information Operations
AJP-3.10.1(A)  Allied Joint Doctrine for Psychological Operations
AJP-3.12(A)  Allied Doctrine for Military Engineer Support to Joint Operations
AJP-3.13  Allied Joint Doctrine for the Deployment of Forces
AJP-3.14  Allied Joint Doctrine for Force Protection
AJP-4(A)  Allied Joint Doctrine for Logistics

Ref-3
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJP-4.10(A)</td>
<td>Allied Joint Medical Support Doctrine</td>
</tr>
<tr>
<td>AJP-3.4.9</td>
<td>Allied Joint Doctrine for Civil-Military Cooperation (CIMIC)</td>
</tr>
<tr>
<td>AJMedP-1</td>
<td>Allied Joint Medical Planning Doctrine</td>
</tr>
<tr>
<td>AMedP-13(A)</td>
<td>NATO Glossary of Medical Terms and Definitions, 06 May 2011</td>
</tr>
<tr>
<td>STANAG 2014</td>
<td>Military Agency for Standardization (MAS), STANAG 2014 (Ed. 9) Formats for Orders and Designation of Timings, Locations and Boundaries, 17 October 2000</td>
</tr>
</tbody>
</table>