



A Practical Guide for Developing and Writing NATO Concepts - Part III : Elements of Future Concepts

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Elements of a concept

What topics should a good concept address? This part provides a minimum, but, depending on the nature of the concept, others may be added. This part is not about prescribing a template or outline for a concept, but describes only the elements that a concept should contain.

Purpose

Every future concept should begin with a statement of purpose that lays out the intended uses of the concept. Often a concept will have more than one purpose. The purpose or purposes of a concept at any given time will likely depend on the concept's stage of development. Early in the development of a concept, the purpose may be to generate thinking about how to cope with new operating challenges, or how to exploit potential opportunities provided by technology or other developments. Later on, the purpose may be to provide the basis for military experiments and exercises, or to explore approaches for conducting operations in certain circumstances in order to affect thinking about potential concepts of operations. At later stages, after the concept has been validated, the purpose may be to provide guidance to the capability development process or context for the development and evaluation of lower-order concepts.

Time horizon, assumptions and risks

A future concept should explicitly specify the future time period within which it is meant to apply. After a concept has started to gain validation, in order to assist the capability development process, the concept may identify milestones when elements or implications of the concept are meant to take effect.

To the extent possible, a concept should explicitly identify any critical assumptions upon which the concept is dependent. These establish the limits of the concept. The less restrictive the assumptions, the wider the applicability the concept will have.

Additionally to the extent possible, a concept should specify any identified risks so that these may be explored and addressed during continued concept development.

Description of the military problem

In most basic terms, a future concept supposes a military problem and then proposes solutions to it. A future concept must therefore include a description of the military problem the concept is meant to solve. This provides the context within which the

concept applies. Equally important, it establishes the conditions under which the concept does not apply. The problem description should include the broader context within which the problem exists. In the case of a strategic concept this would be the wider political situation. In the case of an operational concept, it would be the envisioned political-strategic situation. In the case of a tactical concept, it would be the operational situation. The problem description must include a statement of the type of mission to be accomplished. The mission type may be as broad as defeating enemy military forces in conventional combat, or it may be more narrowly defined. To the extent that geography or physical environment are factors in the concept, it should describe them. A central element of the problem description should be a description of the security environment envisioned to apply in the timeframe of the concept. This environment includes a description of the character and form of the envisioned threat, including organization, tactics, and weaponry and other key types of equipment and technology. It also includes any governmental, economic, societal or other factors that may impact on the conduct of military action. A concept may explicitly take its context from a higher-order concept, in which case it need not restate that context in full, but need only amplify where necessary.

Synopsis of the central idea

The centrepiece of any future concept is a high-level description that encapsulates the "how" of the concept in a paragraph or two. Think of this as a concept of the concept. It captures the "big idea" of the concept, ideally in terms that differentiate the concept clearly from others. This synopsis should aim to capture the essence of the concept in the most fundamental and widest terms possible that retain practical meaning.

Included in this synopsis should be a description of the 'success mechanism', a statement of how it envisioned this concept would accomplish the stated mission. This success mechanism should be stated in terms sufficiently broad that it could be widely applied. Basing a future concept on the eventuality of a single, narrowly conceived success mechanism neglects the friction that is a primary and timeless attribute of war.

Application and integration of military functions

A concept should include a description of how the various military functions, are applied and, importantly, how those capabilities are integrated per the concept into a cohesive operating system. Again, these functions traditionally consist of command and control, fires, manoeuvre, sustainment and security, although a concept may include others. It may be possible to conceive of a radical new construct for describing the conduct of military operations that does not include the traditional military functions - this would probably constitute a truly revolutionary concept-. If so, the burden is on the concept to make the case that this is a valid construct. In any event, this description should clarify each of the pertinent functions. This is not a generic description of those functions, but a description of how they apply specifically within the context of the concept. These provide the basis for the subsequent development of supporting functional concepts. A concept may rely on a particular approach to logistical support or a particular use of fires, which would be summarized in the concept and then fleshed out supporting functional concepts.

Included in this description of functions should be the relative importance of the various functions, and their relationships to one another. For example, the relative balance and interaction between manoeuvre and fires has often been a defining characteristic especially of tactical concepts - with wide variances through history. The functional

activities are the basic components of the concept - they are what military forces do - and these synopses constitute the primary substance of the concept. In this sense, a concept can be thought of as the unique combination of the various military functions and sub-functions applied to some military problem. In fact, one criterion for deciding if a new concept is needed is whether the combination of functional requirements is so unique in the given set of parameters that a new description of the integration of those functions is necessary. In the end, however, a concept must be more than merely a collection of functional synopses without any higher idea to provide cohesion.

Necessary capabilities

The concept should describe the capabilities that it is envisioned will be required to implement the concept successfully. This description refers to the general capabilities of the force rather than to any particular doctrinal, materiel, organizational or other capabilities as might be specified in requirements documents. The description should be made in qualitative vice quantitative terms. The concept generally should not dictate how the capability is to be created and should not specify any particular branch, service, system or organization. Examples of such capabilities descriptions might include "the ability to engage two enemy echelons simultaneously," "the ability to neutralize enemy air defences," "the ability to conduct forcible entry," or "the ability to operate almost exclusively from sea bases."

Spatial and temporal dimensions

Military actions occur in time and space, and a concept should discuss these dimensions. It is difficult to describe distances, ranges, tempo and duration with precision because these factors are situationally dependent, but a future concept should provide at least a general appreciation for the scale of these dimensions as they apply within the concept, even if that appreciation is only relative or qualitative. For examples, a concept might describe actions taking place at "tactical standoff distances" or as "maintaining a higher operating tempo than the enemy." Where appropriate, a concept should describe any envisioned sequence of actions, not necessarily as the designated phases of an operation, but as a description of the expected general flow of events over time. For example, the concept should describe any required build-up phase or envisioned preliminary actions.

The last four elements (the synopsis of the central idea, the application and integration of military functions, the qualitative description of necessary capabilities, and the spatial and temporal dimensions) together provide the essential description of how the force will operate. The synopsis of the central idea provides context for the functions, capabilities and dimensions. The descriptions of functions, capabilities and dimensions provide substance to the synopsis. The synopsis is a top-down description of the concept, while the others describe the concept from the bottom up. The four are complementary elements, and a tight and direct linkage should exist between them. In the case of the functions, capabilities and dimensions, it may not be possible or even desirable, to describe these elements separately of one another.

Attributes of a good future concept

The following attributes, rhetorical and structural qualities, tend to make for a good future concept.

Serves stated purpose

The foremost quality of a good future concept is that it serves its own stated purpose (as discussed in paragraph above). That is, it provides meaningful guidance that can support the developmental activities described by the purpose of the concept. This guidance should be sufficiently specific that it can be acted upon, but not so specific that it permits no latitude in interpretation.

Stated in language that can be acted upon

Future concepts do not exist for their own sake, but are meant to serve the combat development process. As such, they should be written in unambiguous language that can be acted upon. A future concept starts as an untested hypothesis. It should be written as a hypothesis rather than as a bald assertion, which is to say it should set up criteria for testing its feasibility through experimentation. The concept must be falsifiable; it cannot be written in such a way that is impervious to historical or experimental evidence. The ultimate objective is not the approval of the concept regardless of its merits, but rather an unbiased examination of its merits. Only after the concept (or part of it) has been validated does it begin to drive requirements. Here the concept must be acted upon in other ways. At this point, the implications as to capabilities required to implement the concept ought to be clearly deducible in the concept.

Accepts the burden of proof

A future concept should be written in language that acknowledges its burden of proof. A new concept warrants no assumption of validity, but recognizes that it will meet with scepticism and must make its case. It should reflect depth of thought and research. It should be written in language that recognizes its hypothetical nature rather than in pronouncements that suggest the concept is axiomatic or manifestly true. In other words, a good concept is written in language that is open to criticism. A concept that survives to eventual acceptance will be stronger as a result. As evidence accumulates through experimentation and analysis that the concept is valid, later iterations of the concept will naturally take on a more assertive language.

Differentiated

A good future concept is clearly differentiated from other concepts. It may do this by describing a unique operating problem that it addresses, or it may do this by describing a unique approach to a common operating problem. In either case, the synopsis of the central idea and the description of the application and integration of military functions are the primary areas in which a concept can differentiate itself. A concept can generally distinguish itself by presenting its essential characteristics clearly in stark, fundamental terms. In this sense, broad descriptions are often better than numerous details, which can tend to obscure the basic themes. A concept may also differentiate itself by explicitly comparing and contrasting itself with other historical and current concepts as well as other future concepts. In other words, it may often be more effective to describe a new concept in relation to a known reference point than to describe the new concept purely on its own terms.

Explicit relationships to other concepts

A future concept should establish its relationships with other concepts in the same general concept space. Those relationships may be:

- Subordinate: describing one part of a higher-order concept in greater detail;
- Superordinate: containing one or more lower-order concepts;
- Adjacent: generally on the same order as other concepts, with a common superordinate concept;
- Superseding: succeeding or replacing another concept;
- Competing: offering an alternative to another concept defined by the same set of parameters.

Clarity and precision of language

A future concept should be presented in clear and precise language. The concept should generally avoid the invention and use of new terms, using accepted and well-understood terms as much as possible. Terms should generally be defined on first usage and used consistently thereafter. Concepts should likewise minimize the invention and use of acronyms and catchphrases. Concepts should use simple, straightforward language, avoiding elaborate phraseology and artistic descriptions that are meant to evoke meaning rather than express it directly.

Concise

A future concept should be presented concisely and economically so its message can be absorbed and kept in mind while being acted upon. It should provide no more explanation than is necessary to serve its stated purpose. Additional explanation rarely serves to clarify, but instead tends to obscure the message and can unnecessarily restrict judgment in application. Instead, brevity rather than comprehensiveness is usually a sign of a good concept. The concept should make its points and move on; a concept that tries several different ways to communicate its message is likely still searching for its message. There are no rules as to length, but some well-founded concepts have ranged from about 10-20 single-spaced pages. A concept that is significantly longer than this likely contains too much detail or too many subordinate concepts. In such cases, it is often better to create several more concise, hierarchically related concepts.

Robust

Some future concepts may accurately predict the operating environment in which they are eventually applied, but predicting the specific future is not a necessary quality of a good concept. A good concept should apply to a variety of possible futures. That is, it should deal successfully with multiple possible scenarios within its defining parameters, as opposed to applying only to a specific combination of conditions. A concept that applies only to a specific combination of conditions, or that is easily invalidated if one or more conditions are not met, especially unlikely conditions, is fragile rather than robust. A concept with a very narrow range of applicability borders on being a concept of operations as opposed to a concept.

Promotes debate

Open and meaningful debate is an essential element of the concept development process, and a future concept should promote this. Debate is the means by which

concepts are evaluated, strengthened, validated and eventually accepted by an institution. Concepts can promote debate, first, by providing their descriptions in clear, fundamental terms that are readily understood, allowing interested parties to get to issues of substance rather than haggling over meaning. Using established, commonly understood terminology helps in this way, whereas invented terms often necessitate clarification. Concepts need not be intentionally overstated or ideological in order to promote debate, which is not the same as provoking reaction. In fact, an overstated concept can inhibit meaningful debate by encouraging overstated reactions. An even-handed concept with a strong intellectual foundation, a clearly differentiated view of future military operations, and a concise and precise description of its essential elements is likely to promote debate naturally.

Conclusion

Very few concepts are created initially in full form or fully realized in their first incarnations. Like most ideas, concepts tend to form iteratively and incrementally over time. This is no criticism of concept developers, but simply a reflection of the limits of human foresight and the acceptance of the nature of concept development. It is not an orderly, sequential process. Concepts are not engineered solutions. Developing a concept is not like building a house, in which the final result is fully blueprinted at the beginning of the process. A concept is not created to exist by itself, but should drive a broader process.

The purpose of this series of 3 articles was to provide practical guidelines for developing and writing NATO concepts and for evaluating the validity and quality of those concepts, with the ultimate goal of encouraging the development of more, thoughtful and useful concepts. I hope that I have fulfilled my promise.