



UNITED STATES MARINE CORPS
COMMANDING GENERAL
MARINE CORPS COMBAT DEVELOPMENT COMMAND
DEPUTY COMMANDANT FOR
COMBAT DEVELOPMENT AND INTEGRATION

IN REPLY REFER
CG MCCDC/DC CD&I
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MARINE CORPS COMBAT DEVELOPMENT COMMAND/COMBAT DEVELOPMENT AND
INTEGRATION INSTRUCTION 5401.1

From: Commanding General/Deputy Commandant
To: Distribution List

Subj: CONCEPT DEVELOPMENT

Ref: (a) MCO P3121.1, Marine Corps Planning and Programming Manual,
1 Oct 1991
(b) *Webster's II New Riverside University Dictionary*, U.S.
Government edition, 1994
(c) CJCSI 3010.02D, Guidance for Development and Implementation
of Joint Concepts, 22 Nov 2013
(d) OPNAVINST 5401.9A, Navy Concept Generation and Concept
Development (CGCD) Program, 24 Jun 2014

Encl: (1) Comment Resolution Matrix

1. Purpose. Reference (a) establishes a concept-based process for identifying and prioritizing required warfighting capabilities. It is essential that personnel engaged in the concept-based process understand the distinctions between different types of concepts, purposes they serve, and who develops them. This instruction promulgates the terminology, hierarchy, numbering convention, responsibilities, standards and authorities associated with concept development in order to promote unity of effort in accomplishing the CD&I mission.

2. Background. Reference (b) defines a "concept" as "A general idea or understanding, esp. one derived from specific instances or occurrences; a notion or thought." Within the Marine Corps, concept (idea) generation has historically been unbounded by organization; concepts may be generated from the "top down" or the "bottom up." In either case, it is important to understand the distinction between unofficial and official concepts.

a. Unofficial concepts may come in the form of magazine articles, white papers, or "think pieces" designed to espouse ideas and generate discussion. The Marine Corps has long enjoyed a culture of innovation, and unofficial concepts provide a means to promote that culture.

b. Official concepts are those formally published by the Service to inform wargaming, modeling and analysis, experimentation, and other

capability development activities. If and when validated, official concepts provide the basis for capabilities-based assessments (CBA) and, eventually, changes to doctrine, organization, training, materiel, leadership and education, personnel, facilities and policy (DOTMLPF-P). First and foremost among these, in many cases, are the doctrinal changes that generate changes in other areas.

3. Concept Definition. Reference (c) provides guidance for joint concept development but does not define the term. Reference (d) guides Navy concept development and does provide a definition. To promote consistency within the Department of the Navy, this instruction promulgates a MCCDC/CD&I definition that is aligned to the Navy's:

Concept—An expression of how something might be done; a visualization of future operations that describes how warfighters, using military art and science, might employ capabilities to meet future challenges and exploit future opportunities.

4. Concept Hierarchy

a. The "capstone operating concept" provides the primary description of how the Marine Corps intends to operate. It articulates, in broad terms, the basic ideas to be applied across the widest range of military contexts. The capstone operating concept provides the framework for subordinate operating concepts and functional concepts.

b. "Subordinate operating concepts" provide more detailed descriptions of how Marine Corps forces will accomplish a given mission or range of missions within a particular situation or set of situations. At a minimum, the family of subordinate operating concepts will cover the Marine Corps' Title 10 responsibilities.

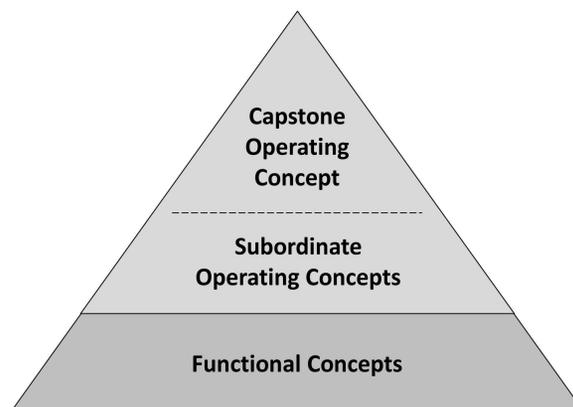


Figure 1: Concepts Hierarchy

c. "Functional concepts" provide detailed descriptions of how certain activities will be performed in order to drive CBA and, ultimately, detailed DOTMLPF-P solutions. At a minimum, the family of

functional concepts will cover the warfighting functions plus any other topics of critical importance to warfighting effectiveness.

d. "Concepts of operation" (CONOPS), when used in the context of force development, apply operating concepts against specific scenarios in order to provide the basis for the wargaming, modeling, experimentation, and assessment activities that are used to refine concepts, inform CBA and, ultimately, support investment decisions.

e. "Concepts of employment" (COE) describes how an organization, platform, weapon, or piece of equipment is intended to be used.

5. Execution

a. Commander's Intent

(1) Purpose. Concept development is the cornerstone of Marine Corps force development, as it provides the means to translate decentralized innovation into a unified and cohesive set of products that will guide how future Marine Corps forces are organized, trained, educated, equipped and employed.

(2) Method. Concept development encompasses those activities associated with critically examining and refining ideas, and then capturing the results in formally published form so they can be subjected to even more rigorous analysis to assess their validity. Done correctly, the personnel involved become immersed in a mutually educational series of events that inform development of the future force. Collectively, we become a learning organization. The drafting of an official concept will commence only after ideas are robustly researched, adequately developed and critically examined. Being in a hurry to write usually produces incomplete, ineffective or misaligned concepts and ultimately slows the force development process. Concept developers should conduct detailed research and learn from the past. For initiatives that are genuinely new, thorough research is also required to learn as much as possible about the topic. Current doctrine and established terminology are the starting point for expressing ideas; if we deviate we need to explain how and why. Operating concepts should be crafted to present a hypothesis to be tested, rather than as an idea assumed to have merit. Once an operating concept has been drafted and approved for use, it serves as the basis for seminars, wargaming, modeling, analysis, and experimentation. These efforts may lead to a formal refinement of the operating concept to inform further critical examination, or a recommendation to the approval authority that the concept be validated or invalidated as a basis for subsequent force development actions. Informed by the family of validated operating concepts, functional concepts should describe the overarching approach for performing that function along with more detailed descriptions of the required capabilities in order to drive CBA and DOTMLPF-P solutions.

(3) End-state. An integrated, validated, and regularly updated family of concepts that provides a sound basis for refining how Marines are organized, trained, educated, equipped, and employed.

b. Concept of Operations. Official concepts will be centrally controlled, but primary development responsibilities will be distributed. The Commanding General, Marine Corps Warfighting Laboratory/Director, Futures Directorate (CG MCWL/DIR FD) provides overall concept management, to include content integration and publication control. When directed CG MCWL/DIR FD will be the MCCDC/CD&I lead for development of the capstone operating concept. Additionally, CG MCWL/DIR FD is responsible for developing subordinate operating concepts. The Director, Capabilities Development Directorate (DIR CDD) serves as the content lead for functional concepts. CG MCWL/DIR FD and DIR CDD may produce CONOPS and/or COE, as required, to support their respective force development roles. Official concepts will be reviewed periodically to determine if: The concept has merit and should remain in effect; the concept requires revision; or the concept should be replaced or deleted without replacement.

c. Tasks

(1) MCWL/FD

(a) When directed, revise the Marine Corps capstone operating concept.

(b) Develop and maintain the family of subordinate operating concepts. As required, conduct an assessment of the subordinate operating concepts in order to determine which should be continued, revised, replaced, or deleted, as well as to identify unofficial concepts or other new topics that merit development into official concepts.

(c) Conduct wargaming, experimentation, and science and technology integration, and sponsor modeling and analysis in order to test, refine, and validate/invalidate official concepts. Develop detailed CONOPS and/or COE as necessary to support such analysis.

(d) Lead Marine Corps participation in CONOPS development activities associated with strategic planning by the Office of the Secretary of Defense (OSD), the Joint Staff (JS), and Department of the Navy (DON) integrating Marine Corps concepts where applicable.

(e) Articulate Marine Corps concepts and capabilities in professional journals and force development venues, to include wargames, experiments, seminars, and think tanks.

(f) When directed, coordinate with CDD to transition validated concepts into Marine Corps doctrine.

(g) Lead Marine Corps participation in the development of Naval, Joint, and coalition concepts.

(h) Review draft functional concepts developed by CDD in order to ensure consistency with the capstone operating concept and validated subordinate operating concepts.

(i) Biennially, in coordination with CDD, review functional concepts in order to determine which should be continued, revised, replaced, or deleted, as well as to identify new topics that merit development into official concepts.

(j) Establish and maintain portions of the Concepts and Programs website and mobile device application as repositories for all extant, unclassified, and non-For Official Use Only (FOUO) Marine Corps operating and functional concepts.

(k) Establish and maintain a classified Share-Point site for any Marine Corps concepts that are marked SECRET or FOUO.

(l) Support the MCCDC/CD&I public affairs and congressional liaison sections by providing concepts-related input for public events and congressional testimony.

(2) CDD

(a) Develop the family of functional concepts, submitting drafts to CG MCWL/DIR FD for review in order to ensure consistency with the capstone operating concept and validated subordinate operating concepts.

(b) Biennially, in coordination with MCWL/FD, conduct an assessment of the functional concepts in order to determine which should be continued, revised, replaced, or deleted, as well as to identify new topics that merit development into official concepts.

(c) Employ validated functional concepts as the basis for CBA and DOTMLPF-P solution implementation.

(d) Develop CONOPS to support CBA and analytic activities.

(e) Develop COE, as necessary, to support materiel solution implementation.

(3) Analysis Directorate

(a) When appropriate, provide analytical support to concept development and refinement activities.

(b) Lead Marine Corps incorporation of CONOPS (with support from MCWL/FD planners) into strategic analysis for OSD, the JS, and the DON.

(c) Ensure analytic models used for joint analysis, which form the basis for jointly approved products, adequately represent Marine Corps concepts.

(4) Training and Education Command

(a) When directed, provide subject matter expertise in support of concept development and refinement activities, to include informal review of unofficial concepts and participation in the official concept review process.

(b) Promote understanding of the Marine Corps concept hierarchy and its content among students enrolled in professional military education.

(c) Establish an environment within professional military education and training venues that encourages the generation of unofficial concepts.

d. Coordinating Instructions

(1) Procedure for Initiating an Official Concept. There are four concept initiation sources: concepts directed by CMC or CG MCCDC/DC CD&I; subordinate operating concepts proposed by CG MCWL/DIR FD; functional concepts proposed by DIR CDD; and subordinate operating or functional concepts proposed by any Marine Corps organization via the appropriate chain of command. Regardless of the initiating source, all new concept development projects will follow the same process (see figure 2). This process begins with drafting a concept prospectus, as follows:

(a) In the case of top-down directed concepts, an action officer within MCCDC/CD&I will be assigned to prepare the prospectus. In all other cases the prospectus will be prepared by the organization making the proposal.

(b) The concept prospectus will be written in standard naval letter format and will specify: the purpose and scope of the concept; a short rationale explaining why it is needed; internal and external stakeholders; and a plan of actions and milestones (POA&M) tailored to the nature of the topic.

(1) A relatively abbreviated POA&M may suffice for a well-understood challenge with an already well-developed central idea.

(2) A more complete POA&M will be required for a well-understood challenge with an undeveloped central idea.

(3) An extensive POA&M will be required for a poorly understood challenge or an emerging technology with unknown military implications.

(c) The concept prospectus will be submitted for approval to CG MCCDC/DC CD&I via CG MCWL/DIR FD.

(d) CG MCCDC/DC CD&I will promulgate his decision via a formal return endorsement. Positive endorsements will direct development of the concept and assign responsibility for associated tasks. They may also include additional guidance or modifications to the prospectus. Positive endorsements, together with the concept prospectus, collectively serve as the planning order driving concept development. In the case of a proposed concept that is not accepted, the return endorsement will provide a rationale for that decision.

(e) When developing concepts in collaboration with another Service or a unified command, the above procedure will be modified to account for approval by multiple authorities. (Such projects should not be confused with joint concept development conducted under the auspices of the Joint Staff, which is governed by reference (c)).

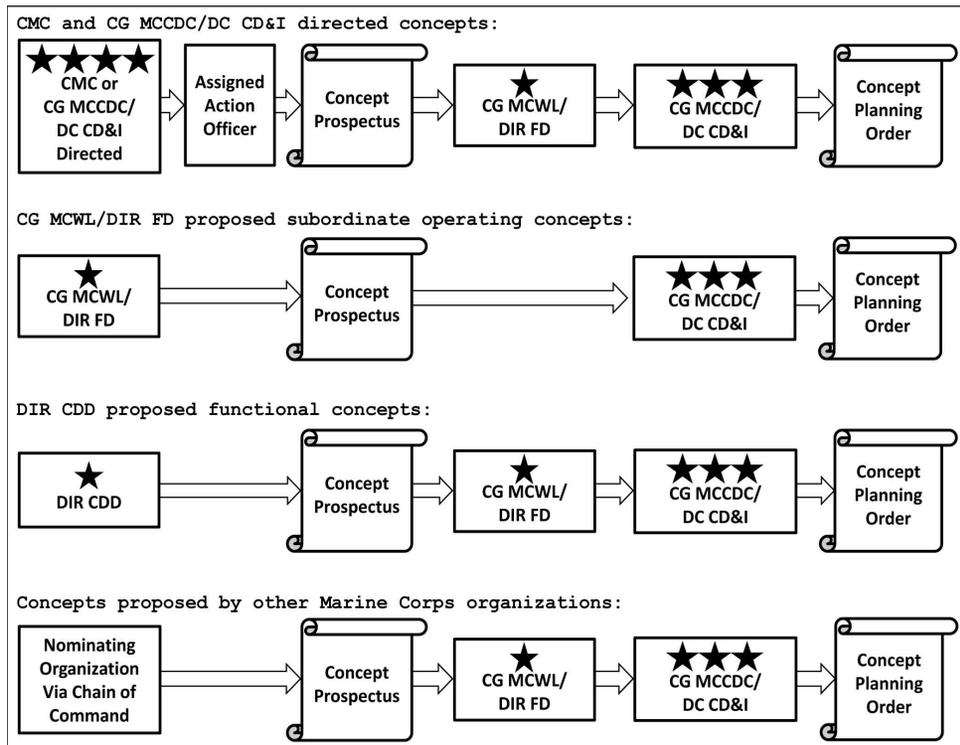


Figure 2: Concept Initiation Flow Chart.

(2) Assignment of Alpha-Numeric Designators. In order to promote clarity of the concepts hierarchy, each Marine Corps operating and functional concept shall be distinguished by an alpha-numeric designator and publication date (Day Month Year), as follows:

(a) The capstone operating concept will be designated Marine Corps Operating Concept (MCOC). For example: MCOC 1, *Expeditionary Force 21*, (4 March 2014).

(b) Subordinate operating concepts will be assigned a two digit number, with the first reflecting its nesting under MCOC 1 and the second the sequence of publication. For example: MCOC 1-2, *Enhanced MAGTF Operations*, and MCOC 1-7, *Expeditionary Advanced Base Operations*.

(c) Each Marine Corps Functional Concept (MCFC) will be assigned a two digit number. The first digit will indicate the Joint Capability Area (JCA) it supports, as follows: 1-Force Support; 2-Battlespace Awareness; 3-Force Application; 4-Logistics; 5-Command and Control; 6-Net Centric; 7-Force Protection; 8-Building Partnerships; 9-Corporate Management and Support. The second digit will indicate the sequence of publication. For example: MCFC 5-1, *Command and Control*; MCFC 6-1, *Cyberspace Operations*; and MCFC 6-2, *MAGTF Cyber and Electronic Warfare Coordination Cell*.

(3) Required Concept Content. Concepts will vary in length and detail depending on their place in the hierarchy and the subject matter being addressed. Shorter is better. At a minimum, all Marine Corps operating and functional concepts will contain the following:

(a) Background. This section will lay out the context for the concept. It will address the security environment, or particular aspect of the security environment, in sufficient detail as to promote understanding of the problem or opportunity statement that follows. For example, while a capstone concept will do this in a very broad and general way, a functional concept may only need to focus on some particular aspect of the security environment that is most germane to the topic. The background section will normally state the time horizon of the concept, and may also include any assumptions underlying the concept.

(b) Problem or Opportunity. This will be a concise statement that conveys what problem the concept seeks to overcome or what opportunity it is attempting to exploit.

(c) Central Idea. This will be a tightly worded statement of the "big idea" regarding how the problem will be solved or opportunity exploited.

(d) Supporting paragraphs elaborate on the central idea. This may include a discussion of risks associated with the concept.

(e) Identification of key capabilities required to execute the concept.

(4) Content Standards. MCDP 5, *Planning*, states "orders exist for those who receive and execute them, rather than those who write them." The same maxim applies to concepts, which will be written for those who receive and test them. An effective concept will:

(a) In the case of operating concepts, express the central idea as an unambiguous hypothesis, which is "an explanation accounting for a set of facts that can be tested by further investigation" per reference (b).

(b) In the case of functional concepts, express the central idea as a succinct, overarching statement of the approach for performing that function.

(c) If and when required, explicitly state what assumptions are made in the absence of key facts.

(d) Break down complex topics, to the maximum extent possible, into simpler, easier-to-grasp sub-elements and present them in a logical sequence.

(e) Employ clear, precise, and consistent use of terms.

(f) Avoid jargon, excessive acronyms, and unnecessary adjectives.

(g) Avoid needless redundancy and employ an economy of prose.

(5) Staffing Procedures. During the development process draft concepts will usually undergo several rounds of staffing, with the copies clearly marked "draft of DD MMM YYYY" to maintain version control. Staffing responsibilities, along with specific stakeholders the draft must be routed to, will be identified in the POA&M.

(a) Staffing will normally involve four levels of review: action officer (major/lieutenant colonel/GS-13/14); principal staff officer (colonel/GS-15); brigadier general/major general/senior executive service; and lieutenant general.

(b) These reviews will be conducted using the primer and format promulgated in the comment resolution matrix (CRM) contained in enclosure (1).

(c) In all cases, concept action officers will maintain a master copy of the CRM for each round of staffing, to include the results of comment adjudication, and upon request make this information available to the organizations that provided input. Action officers will make direct liaison with any organizations submitting a critical or major comment that may cause non-concurrence with the draft in order to resolve the issue, assisted by the chain of command as necessary.

(d) During the final round of staffing, any unresolved critical or major comments constitute overall non-concurrence with the draft and must be briefed to CG MCCDC/DC CD&I for adjudication.

6. Approval Authorities

a. CMC is the approval authority for the capstone operating concept.

b. CG MCCDC/DC DC&I is the approval authority for subordinate operating concepts, functional concepts, CONOPS, COE, and Marine Corps input into the CONOPS associated with OSD, JS, and DON force development planning and analysis.

c. CG MCCDC/DC DC&I is the validation authority for determining if and when subordinate operating concepts and functional concepts become authoritative source documents that inform subsequent force development actions. Subordinate commanders and directors may make validation/invalidation recommendations via a draft decision memorandum submitted through the appropriate chain of command. They may make such recommendations at any point in the force development continuum, depending on the nature of the topic, situation, insights from the campaign of learning, and their professional judgement.



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