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INSTITUTE FOR DEFENSE ANALYSES

Defense Governance and Management:

Promoting a Joint Armed Forces Culture and Improving the Capability of Foreign Defense Institutions through Joint Concept and Doctrine Development

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IDA

The Institute for Defense Analyses is a non-profit corporation that operates three federally funded research and development centers to provide objective analyses of national security issues, particularly those requiring scientific and technical expertise, and conduct related research on other national challenges.

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Executive Summary

This paper draws upon the work of the Institute for Defense Analyses (IDA) on behalf of the United States Government (USG) to build institutional capacity in the defense sectors of USG partners and allies. IDA researchers observed that the policies, processes, and procedures of nearly every recipient of USG capacity-building assistance moved toward a more joint orientation, and that this was an underlying indicator of success. This was a significant challenge, as the majority of nations that receive USG assistance are dominated by parochial, individual military services.

IDA researchers observed that a more joint orientation or jointness can be advanced through the development of concepts and doctrine. A concept is how the armed forces intend to operate, in whatever temporal context that operation might take place. A joint concept is how the armed forces intend to operate collectively. Joint concept and doctrine development promote growth of a joint culture within defense institutions. In turn, a joint culture – or jointness – is important for implementing a more effective and efficient force development process and lends itself to better force employment, and thus more effective operations.

The intent of this paper is to provide USG representatives engaged in institutional capacity-building projects with information and methodology that can be adapted to the unique situations and requirements of partner nations they support. This paper describes the role of joint concepts and doctrine in the force development and force employment process. It provides a methodology for developing joint concepts and doctrine. Finally, this paper ties joint concept and doctrine development to improving a military's joint culture.

IDA researchers apply an inductive approach to make general observations based on specific work in Colombia, Taiwan, and Indonesia related to developing concepts and doctrine, using specific examples from these nations to provide context to the general insights offered.

Topics covered include:

- The idea and importance of jointness;
- Definition and description of joint concepts and doctrine;
- Roles and relationships of concepts and doctrine to force development;
- How joint concepts and doctrine are developed; and
- Lessons learned from assisting partner nations with their development and use.

Finally, this paper provides supporting presentations that explain how to use joint concept and doctrine development to advance jointness as part of a broader campaign to advise partner nations' development and institutionalization of multi-year force planning processes.

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Preface

In 1990, the Institute for Defense Analyses (IDA) began its work to build capacity within defense institutions of United States Government (USG) partners and allies. From the beginning, an underlying indicator of success of most capacity-building efforts was that the policies, processes, and procedures of the recipient of USG capacity building assistance moved toward a more joint orientation.

This is a significant challenge. Ministries of Defense or Armed Forces Headquarters that desire to rationalize the utilization and allocation of scarce resources usually start from a position of playing referee in a competition for resources among individual military services. Each military service does its own planning and analysis to shape the future and direction of its own service. Each service prepares its own budget submission in light of its own operational needs and future force plans. How does a defense ministry or a joint staff move from a referee of parochial service requests to a conductor that focuses the priorities of military services' force planning and budgeting? Through our experience, we have learned that conceptualizing and analyzing joint operations or activities prior to or in parallel with an attempt to rationalize the allocation of resources is a good way to move defense institutions from referees to conductors and to move the defense sector toward jointness.

Colombia is a good example of this. From 2011 to 2013, the Colombian Ministry of National Defense, with assistance from the USG, led an effort to design and implement a capability-based planning process. The intent of this effort was to connect defense policy objectives to the defense sector's budget requests. All of Colombia's military services participated in design and implementation of the capability-based planning process.[1] By early 2014, a joint working group, led by the Ministry of National Defense, had successfully defined the capabilities of their armed forces and analyzed and prioritized their capability gaps. The next step in the process – to propose and agree to solutions to close capability gaps – proved to be an obstacle they could not overcome. As a result, the 2015 budget was not significantly different from previous budgets. What happened? Why did they fail in implementing the last steps of their new capability-based planning process?

The reason was Colombia's lack of jointness and, more specifically, its lack of joint concepts and joint doctrine. It is one thing to identify a capability gap; it is another to reach a bureaucratic agreement to close that gap. Those agreements require resources be allocated and expended and that creates inter-service competition. In Colombia's case, the solutions proposed to close its identified capability gaps were all service-centric. Each service proposed to close gaps that addressed its needs or aligned with its

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[1] For a first-hand account of this effort, see Lina M. Gonazalez, Aaron C Taliaferro, and Wade P. Hinkle, *The Colombian Ministry of National Defense's Transformation and Future Initiative. Retrospective on a 9-year Cooperative Effort Between the United States Department of Defense and the Colombian Ministry of National Defense*, IDA paper NS P-8588, (Alexandria, VA: Institute for Defense Analyses, October 2017).

future aspirations. Service concepts or doctrine was the basis of service proposals. Sometimes, multiple services proposed different solutions to the same gap or set of gaps. The Ministry of Defense had a limited basis to judge among competing service proposals. The General Command of the Armed Forces of Colombia (CGFM) could do little more than pass through service proposals to the Ministry and verify that they complied with the rules of the designed process.

In other words, the Colombian Defense Ministry wanted to connect its ends (defense policy objectives) to the allocation of resources (a budget) to create means (military capability). However, there were no joint ways to judge whether the proposed service means could achieve the ends. In 2015, realizing this gap in their own institutional capability, CGFM requested USG assistance to review and update joint doctrine and to develop joint concepts.[2]

IDA projects in Chad and Cameroon faced similar obstacles. To improve the military capability of these nations, some movement in the direction of jointness had to occur. In Chad and Cameroon, the USG transferred new equipment sets to these partners with the intent that it would lead to improved air-to-ground and air-to-air operations. However, there were no existing concepts of operation to describe how the equipment could be used. Consequently, there was no agreement on which units would be involved in military operations with the use of new equipment, and no analysis of the doctrine, organization, training, materiel, leadership, education, personnel, or facility needs of existing units to realize an intended capability objective. No amount of reform or redesign of existing personnel, training or logistic management practices will build sustainable capacity in such a situation. Partner defense institutions must first agree on the ways they will operate with new equipment and that requires a joint conceptualization of operations and perhaps the development of some joint doctrine before spending money on personnel, training, or supplies.

In 2012, IDA worked with the Ministry of Defense in Guinea to help it develop defense policy and strategy and to conduct force planning that could set priorities for the allocation of resources within the defense budget. However, it was necessary to demonstrate the purpose and utility of concepts and to develop concepts specific to the Guinean context to help the Guinean Defense Ministry conduct its own force planning.[3]

One more example, in 2020, IDA was asked to assist the Joint Staff of Uruguay to improve joint operational planning and to learn how to make better spending decisions in support of joint activities with the existing budget. The impetus for the request is a new law that gives responsibility to the Armed Forces of Uruguay to support law enforcement activities within 20 km of Uruguay's land borders. The Joint Staff of Uruguay must direct border deployments and manage dedicated appropriations for this purpose. A question the Joint Staff has is, "What is the best way to spend money in support of border

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[2] Joint Statement of the Colombian General Command and the United States Joint Staff from U.S.-Colombian Joint Staff Talks, 2015. IDA has a copy of the joint statement on file.

[3] Martin Neill, Paul Clarke, Aaron Taliaferro, and Wade Hinkle, *Applying Capability Based Planning in Lower Capacity Defense Institutions, The Republic of Guinea A Case Study,* IDA paper NS P-9043, (Alexandria, VA: The Institute for Defense Analyses, May 2018).

deployments intended to enhance border security?" Like Colombia, before Uruguay can connect its end to its means, it must consider the following and connect ends to means through ways:

- What is border security in Uruguay?

- What is the joint military concept for border security?

- Is there doctrine for joint military operations?

This paper argues that a move toward jointness is a condition for building capacity in cultures dominated by individual military services. It offers ways to help nations develop joint concepts and joint doctrine in pursuit of jointness. In many highly developed countries, joint concepts have evolved to focus on the development of future capabilities. For example, in the United Kingdom (UK), the Development, Concepts, and Doctrine Center "writes future operating concepts that look beyond current policy and fiscal horizons at the likely ways defence might operate 20 years from now."[4] These concepts shape and inform the UK's design and development of the future force. [5]

For most partners and allies who receive direct USG assistance, we propose that this definition of concepts is unnecessarily restrictive. For many USG partners and allies, it is unnecessary and overly complicated to try to distinguish between future and near-term concepts. Therefore, this paper takes a simple approach. A concept is how the armed forces intend to operate, in whatever temporal context that operation might take place. A joint concept is how the armed forces intend to operate collectively.

To effect a modest transition from service-based planning to joint planning, a good advisor should ask, "Do you have what you need to operate jointly?" To answer this question, defense institutions should reference joint concepts, or to the degree it exists, joint doctrine. These are important references, whether the planning horizon is next month, next year, or many years from now. For this reason, no serious foray into joint force planning or joint operations can begin without an effort to discover and document the most import joint concepts and doctrine for defending and securing the nation. With all this in mind, this paper will describe the role of joint concepts and doctrine in developing and employing armed forces. We provide a methodology for developing joint concepts and doctrine and argue that joint concept and doctrine development can move armed forces to a joint orientation.

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[4] UK Development, Concepts and Doctrine Centre, "Concepts," https://www.gov.uk/government/groups/development-concepts-and-doctrine-centre#concepts, accessed on November 27, 2020.

[5] For a description of the UK's force development process, see Martin Neill, *Capability Based Planning – UK Ministry of Defence Approach 2017,* IDA paper P-8721, (Alexandria, VA: The Institute for Defense Analyses, September 2017).

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Contents

1. Introduction

A. Background

On behalf of the United States Government (USG), the Institute for Defense Analyses (IDA) has participated in institutional capacity building (ICB) activities with USG partners and allies since 1990. In a majority of the nations where IDA was sent to build institutional capacity, the theory of change was that building or improving institutional capacity would lead to improved operational effectiveness. Our experience led us to a methodology that asserts that the existence of core institutional capabilities are necessary for a defense institution to develop, employ, and sustain capable armed forces. Further, this is true regardless of the type of operations or supporting operations (ground, air, maritime, intelligence, supply, mobility, etc.). These core institutional capabilities appear in Figure 1.

- **Policy and Strategy**
    - Establishes defense objectives (ends) and links defense to national policy and strategy
- **Concepts and Doctrine**
    - Describes the *ways* the force will operate (doctrine) or may wish to operate (concepts)
- **Resource Management**
    - Plans affordable future defense capabilities (means) based on policy and strategy
- **Human Resource Management**
    - Manages human resources needed to create the force and sustain it
- **Logistics**
    - Manages material resources needed to create the force and sustain it

Defense Policy and Strategy

Defense Concepts & Doctrine

Defense Resource Management

Human Resource Management

Logistics

Operations

Figure 1. Core Institutional Responsibilities

These core institutional capabilities or domains relate to planning or developing the future force, and to employing the current force. Figure 2 illustrates the idea.
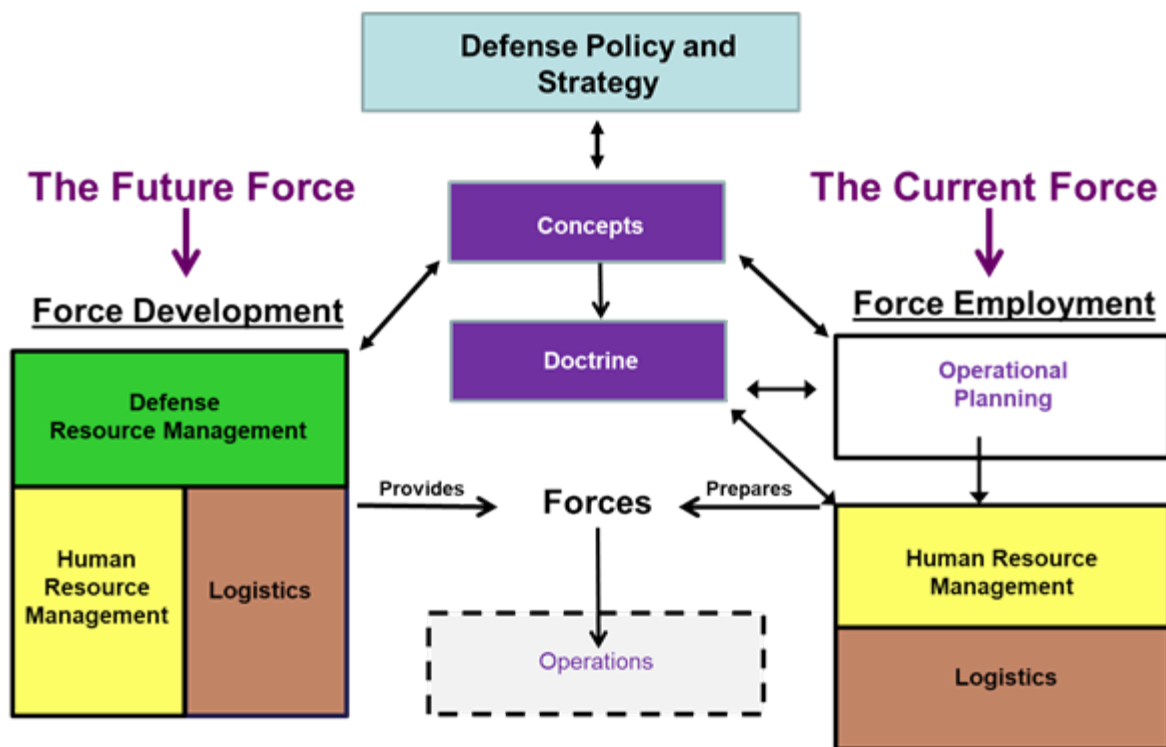
**Figure 2. Core Institutional Responsibilities – Develop the Future Force;
Employ and Sustain the Current Force**

This paper dives into the details of the Defense Concepts and Doctrine domain[1] and its relationship to force development and force employment.

B. Purpose

This paper draws upon specific experience from IDA's work on behalf of the USG in Colombia, Taiwan, and Indonesia. From these experiences, we derive general insights and approaches on how to assist foreign defense institutions to develop joint concepts and doctrine. In turn, joint concept and doctrine development promote development of a joint culture within defense institutions. In turn, a joint culture – or jointness – is important for implementing a more effective and efficient force development process and lends itself to better force employment.

The intent of this paper is to provide USG representatives engaged in institutional capacity building projects with information and methodology that can be adapted to the unique situations and requirements of partner nations they support. The paper will describe the role of joint concepts and

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[1] Previous formal IDA publications cover the Policy and Strategy domain and the Resource Management domain. Informal papers and presentations that describe IDA's view of the Human Resource Management and Logistics domains are available.

doctrine in the force development and force employment[2] process. It will provide a methodology for developing joint concepts and doctrine. Finally, it will tie joint concept and doctrine development to improving a nation's joint culture.

C. Approach

The paper applies an inductive approach to make general observations. As they apply, it uses specific examples from the Colombia, Indonesia, and Taiwan projects to provide context and support to the general insights offered. As required, the paper augments country-specific examples with information gleaned from literature reviews and interviews with other IDA personnel who have participated in concept or doctrine development in other countries.

Topics covered include:

- The idea and importance of jointness;
- Definition and description of joint concepts and doctrine;
- Roles and relationships of concepts and doctrine to force development;
- How joint concepts and doctrine are developed; and
- Lessons learned from assisting partner nations with their development and use.

Finally, the paper provides supporting presentations that USG-appointed advisors assigned to help build institutional capacity can use or adapt to promote the idea of jointness and the development of a joint culture. In particular, the supporting presentations explain how to use joint concept and doctrine development to develop jointness as part of a broader campaign to advise partner nations' development and institutionalization of multi-year force planning processes.

D. Background in Concept and Doctrine Development

1. General

IDA's observation is that an absence of a joint culture hindered efforts to improve how USG partners and allies made decisions to allocate and expend scarce resources. However, we also observe that guiding partners through a joint concept or doctrine development process promotes a more joint culture.

Eventually, any type of force planning must rationalize the allocation of resources across an entire force structure. This is because no nation can afford to pay for all of its defense needs. Thus, force development should be a joint process so allocated resources develop capabilities that benefit the entire force structure and not just the parochial needs of an individual military service. Such conditions lead to

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[2] Whenever the terms "force development" and "force employment" are used in this paper, the authors intend them to mean "joint force development" and "joint force employment."

inefficiency and sacrifice the synergistic effects of multi-service integration. Therefore, an important aspect of IDA's approach to building force development capacity is to promote jointness. Developing joint concepts and doctrine engenders jointness because they describe how armed forces jointly apply capabilities to address threats and challenges.

In Colombia, IDA supports efforts by the Ministry of National Defense and the General Command of the Armed Forces to develop and institutionalize multi-year force development processes. This includes the development and institutionalization of processes to create joint concepts and doctrine.

In Taiwan, IDA supported the Ministry of National Defense to create a concept-based approach to develop future force structure, and to improve its joint doctrine hierarchy and joint doctrine development process.

Finally, IDA supports the Indonesian Ministry of Defense in its development of joint concepts as a key input to their force development process.

In all three countries, IDA introduced the use of joint concepts as a key input to the force-development process, and used joint doctrine as a way to guide current force employment and to inform joint concept development. Through these efforts, armed forces can create a joint culture and instantiate jointness because joint concepts and doctrine require armed forces to describe fundamental ideas and principles for how to employ forces in support of joint operations.

2. Jointness

Faculty at National Defense University's Joint Forces Staff College define jointness as, "a psychological state characterized by the willingness of members of each branch of Service to trust, collaborate, and operate interdependently with each other to accomplish a shared mission."[3] Jointness is important because it enables joint force commanders to integrate the forces and capabilities of the different military services in an optimal manner, unhindered by Service parochialism.[4] For the purpose of this paper, the authors will use jointness to mean "the effective integration of the combat capabilities of the [military] services."[5]

Joint forces emerge on the foundation of individual service culture and competencies. Jointness transcends service culture to one where service members believe that operating jointly leads to more effective application of military force.[6] In a joint force, each military service needs a common understanding of the roles of the others (how they intersect and support each other). A joint force requires the capabilities, skills, and knowledge to collaborate, plan, coordinate, integrate, and synchronize operations across the services. Joint doctrine and the resultant conduct of joint training and

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[3] Davis, Charles and Smith, Kristen E., *The Psychology of Jointness*, Joint Forces Quarterly, Volume 98, Sep 2020. https://ndupress.ndu.edu/Media/News/News-Article-View/Article/2340620/the-psychology-of-jointness/.

[4] Ibid.

[5] Snider, Don M., *Jointness, defense transformation, and the need for a new joint warfare profession,* Parameters, Strategic Studies Institute, Carlisle Barracks, Carlisle, PA., Autumn 2003, 17.

[6] Davis and Smith, 2020.

joint education inculcates jointness. Joint concepts, which guide future joint force development, also promote jointness.

The transition from a service-centric focus to developing joint operational capabilities takes time. Jointness begins with services progressing from service domain operations (ground, air, maritime[7]) to cooperation within the domains. As joint planning tools, information management processes, and command and control procedures improve, the services progress to mutual coordination as part of the joint force. Finally, as joint doctrine, joint education, and joint culture gains acceptance, joint forces should be able to collaborate on a real-time basis.

3. Defense Resource Management

Defense resource management processes connect defense policy to budget execution.[8] Collectively, capability planning, program planning, and budget planning direct how defense resources – money, personnel, equipment, facilities, etc. – are allocated to produce capability. Figure 3 shows the inter-connected nature of defense resource management processes. Policy objectives provide the strategic ends for planners to help them assess and determine future required capabilities. Once determined, program and budget planners then allocate available resources to develop the prioritized capabilities over a multi-year period. To be efficient, a defense resource management process should be a joint process so resources are applied to develop capabilities that benefit the entire force structure and not just the needs of any individual service.
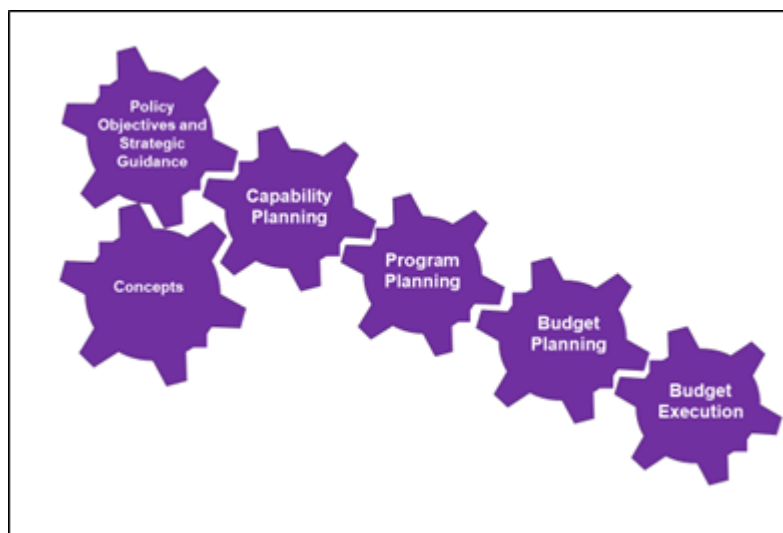
Figure 3. Defense Resource Management - Linking Policy and Strategy to Budget Execution

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[7] Domains may also include space, cyber, information, and electronic,

[8] Taliaferro, Gonzalez, Tillman, Ghosh, Clarke and Hinkle, *Defense Governance and Management: Improving the Defense Management Capabilities of Foreign Defense Institutions – A Guide to Capability-Based Planning,* NS D-10369, (Alexandria, VA: Institute for Defense Analyses, Feb 2019), 14.

4. Joint Concept and Doctrine's Relationship to Resource Management

Joint concepts and doctrine play important roles in defense resource management. Figure 4 illustrates the roles and relationships of joint concepts and joint doctrine. Joint doctrine provides the current force with authoritative guidance about the best ways to operate with existing capabilities, while joint concepts describe how the future joint force might operate to address key challenges in the future operational environment. Joint concepts propose an improved solution to an operational problem that joint doctrine and existing capabilities do not adequately address.
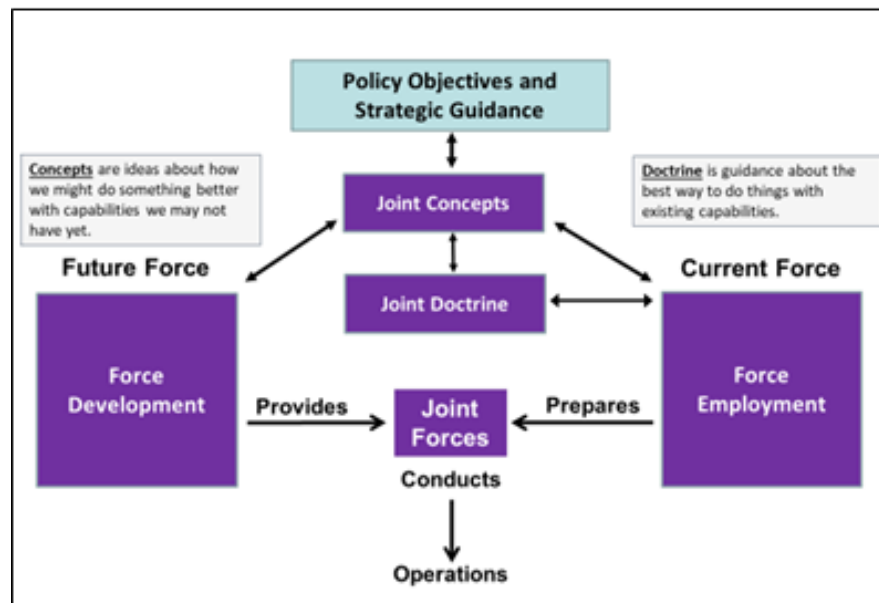
Figure 4. The Roles of Joint Concepts and Doctrine

In terms of military strategy, concepts describe the way to achieve policy's ends, answering the question, "how?" They provide capability planners with a credible basis to discern what they may or may not need in terms of future capabilities. Without joint concepts, solutions proposed by an individual military service to an operational challenge or capability gap cannot be evaluated from a joint perspective.

According to the United Kingdom's (UK) Ministry of Defence, doctrine "sets out the fundamental principles by which military force is employed."[9] Further, they state, "while UK Defence Doctrine is authoritative, it requires judgement in its application. Doctrine draws on the lessons of history, upon

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[9] *Joint Doctrine Publication 0-01: United Kingdom Defence Doctrine (UKDD) (5th Edition), Development, Concepts and Doctrine Centre*, Ministry of Defence, November 2014, iii, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/389755/20141208-JDP_0_01_Ed_5_UK_Defence_Doctrine.pdf.

original thinking, and from experiences gained from training and operations."[10] The UK recognizes that "Joint doctrine offers the operational glue to bind the activities of the Services."[11] This is a particularly important point for ICB teams, as the military partners they advise are likely to be service-centric.

5. Challenges in Developing Joint Concepts and Doctrine

In assisting and advising Colombia, Taiwan, and Indonesia on their efforts to develop or improve concepts or doctrines within their militaries, IDA teams faced the following challenges:

- Limited staff capacity, especially at ministry of defense and joint staff or general command level
- A joint staff/general command with weak authority and lack of legitimacy due to existing culture and weak legally assigned responsibility
- Service-centric armed forces structure and a lack of joint doctrine
- A focus on current operations and exigent challenges
- No formal force development process to link defense policy to budget planning and execution
- Limited budgets
- A focus on material solutions (e.g., new equipment) to close perceived capability gaps
- Inadequate or non-existent command and control mechanisms that allow for cross-service communication and coordination

In the following sections of this paper, the authors discuss the foundational idea of jointness in detail. Jointness is integral to some ICB efforts, and a guiding principle regarding force characteristics that should guide advisory teams and their foreign military partners on an evolving path toward improved military effectiveness and efficiency. This paper will then focus on describing joint concept and joint doctrine development and the relationship of each to the development and employment of joint forces.

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[10] Ibid, iii.

[11] Ibid, 43.

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2. Jointness

A. What is Joint and Jointness

Speaking to the U.S. Congress in 1958, President Dwight Eisenhower said, "separate ground, sea and air warfare is gone forever. If ever again we should be involved in war, we will fight it in all elements, with all services, as one single concentrated effort."[1] Today, this is doctrinal truth for the U.S. Armed Forces – there are only joint operations. U.S. military doctrine defines "joint" as activities, operations, organizations, etc., involving elements from two or more U.S. Military Departments.[2] Likewise, many western militaries have a similar definition for "joint." The North Atlantic Treaty Organization (NATO) defines joint as "activities, operations, and organizations in which elements of at least two services participate."[3] In the UK, joint is "activities, operations, and organizations in which elements of at least two Services participate."[4] Australian military doctrine uses the same definition as the UK.[5]

The idea for the conduct of "joint" operations – that is, military operations involving elements of ground, maritime, and eventually aviation and other domain capabilities in a coordinated effort – has been around for centuries. In 415 BCE, an Athenian expeditionary force consisting of 134 triremes (warships), 130 transport ships, 5,000 hoplites (infantry), and 1,300 archers went to Sicily in a sea and land campaign to attack the city-state of Syracuse.[6] During the American Civil War, a joint land and naval campaign in the spring and summer of 1863 isolated Confederate forces at Vicksburg, Mississippi, leading to the city's surrender.[7] These operations fit within the broad definition of "joint" used by the

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[1] Special Message to the Congress on Reorganization of the Defense Establishment, *4/3/58.*
     https://www.eisenhowerlibrary.gov/eisenhowers/quotes.

[2] Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*, current as of Jan. 2020, 113,
     https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/dictionary.pdf?ver=2020-01-24-100230-123.
     The U.S. Department of Defense is comprised of three Military Departments – Department of the Army, Department of the Navy, and Department of the Air Force. The Department of the Navy includes Navy and Marine Corps units. Forces from the Army and Air Force conducting an operation together would be considered a "joint" operation, as it includes units from two different departments. Similarly, an air strike involving Naval or Marine Corps Aviation and the Air Force is a joint operation. However, a Navy and Marine Corps operation would not be considered joint, as both organizations are part of the same Military Department.

[3] AAP-06, *NATO Glossary of Terms and Definitions* (English & French), NATO Standardization Office, 2019, 72.

[4] Ministry of Defence United Kingdom, Joint Doctrine Publication 0-01, *UK Defence Doctrine*, Nov. 2014, 43.

[5] Australian Defence Doctrine Publication ADDP-D, *Foundations of Australian Military Doctrine*, Headquarters Australian Defence Force, May 2012, Glossary, 4.

[6] Davis, Paul K., *100 Decisive Battles*, Oxford University Press, 1999, 18-23.

[7] U.S. Department of Defense, Joint Military Operations Historical Collection, July 15, 1997, I-1 – I12.

U.S. UK, Australia, and NATO. However, by our definition, these operations are multi-service, coordinated operations not joint operations.

Jointness, as already defined, is about effective integration of capabilities. Doctrine from other nations support the idea. For example, NATO doctrine states that military success "relies on a joint effort, usually with components and other force elements brought together under a unified command structure."[8] UK doctrine describes jointness as a way to "plan, sequence and execute activity to achieve a desired end-state." Joint activities comprise "fusing capabilities to deliver more than the sum of parts…"[9]

Australian concepts and doctrine envision exceling at "joint, interagency and coalition operations."[10] Australian Defence Doctrine Publication 3.0, *Campaigns and Operations*, specifies that when Australian military forces are employed, campaigns and operations will be "constituted and executed by an appropriately designed and enabled joint force, comprising force elements from two or more Services operating together under a single commander."[11] Cooperation is required "at all levels within each Service, between Services, with the government and the community, and with allies" and enhanced by the maintenance of joint and combined interoperability.[12]

The nature of modern military operations is such that no single service is capable of doing everything by itself. Creating an effective joint force requires consideration of the types of missions the forces undertake, the capabilities needed to accomplish those missions, and the command relationships between the various elements of the joint force. This requires jointness.

1.   Path to Jointness

As previously stated, the transition from a service-centric approach to true joint operations requires a cultural change.[13] As Figure 5 shows, jointness begins with services progressing from service domain operations (ground, air, maritime[14]) to cooperating with one another. As joint planning tools, information management processes, and command and control procedures improve, the services gradually progress to mutual coordination. Finally, as joint doctrine, joint education, and joint culture gains acceptance, joint forces able to collaborate emerge, and operations with joint command and control become possible.

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[8] A NATO, JP-01, *Allied Joint Doctrine, Ed. E, Version 1*, NATO Standardization Office, Feb 2017, 4-1.

[9] Joint Doctrine Publication 0-01, "UK Defence Doctrine," Ministry of Defence, Nov 2014, 43.

[10] *Joint Operations for the 21st Century,* ADDP D.3, May 2007, https://www.defence.gov.au/publications/docs/FJOC.pdf.

[11] Australian Army Publication, Land Warfare Doctrine 3-0, *Operations,* 2018, 8.

[12] Australian Defence Doctrine Publication ADDP-D, *Foundations of Australian Military Doctrine*, Headquarters Australian Defence Force, May 2012, 6A-2.

[13] The culture change process has taken years, even decades, in the United States and many western countries. It may be more difficult today when, aside from service domain competencies, space, information, electronic, and cyber domain capabilities may need to be integrated into joint operations.

[14] A nation with concerns about space, cyber, information, and electronic domains may have a more complicated and difficult path to jointness.
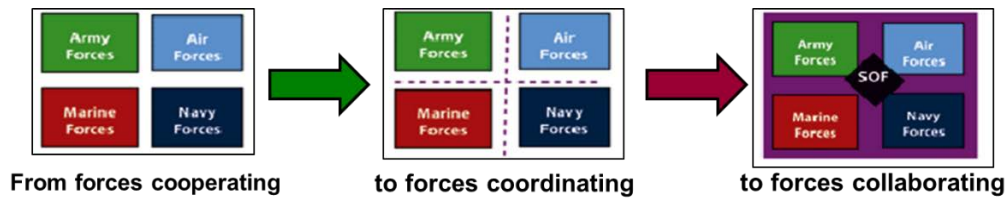
Figure 5. Types of Integration on Path to Jointness

Achieving jointness requires a deliberate process for military forces to improve integration over time by moving from cooperation to coordination to collaboration. Many western nations achieve these changes through enhancements in their joint doctrine, joint organization, joint training, and education, along with materiel, leadership, personnel, facilities, and policy improvements.

Many partner nations see value in developing joint forces and joint capabilities to deal with their current and future security threats. For example, in Colombia, Joint Task Force (JTF) Omega operated against armed insurgent groups for many years. To provide joint command and control of these forces, JTF Omega fell under the command of the General Command of the Armed Forces of Colombia, rather than under the command of any particular military service. In recent years, Colombia has created a number of regional joint commands (also under the command and control of the General Command), and increased the number of JTFs to respond to external threats and illegally armed groups within the country.

While the emphasis on creating joint units is laudable, institutional challenges exist. The pathway to developing joint capabilities requires that organizational changes be accompanied by broader systemic changes – such as joint concept and doctrine development, joint training and education, and joint capabilities development and integration.

2. Institutional Challenges

While partner countries desire to develop or improve joint capabilities, institutional issues are an impediment. In many cases, a challenge is the inherent tension between the role of the military services and joint operational commands. Military service commanders are generally the most senior officers in the country. They see themselves as the warfighter and are reluctant to cede their authority for employing their service's forces to a joint force commander not in their chain of command. Additionally, in some countries, depending on their history or geography, the dominant military service views "joint" primarily in the context of how the *other* services can provide support for them.

Another institutional challenge relates to how "joint" is defined. Rather than the integration of the combat capabilities of the services, a nation may define joint as a coordinated series of service specific actions within the battlespace – each service doing its part. This approach misses the key point about employing service and other capabilities to achieve synergy.

Small military forces within partner nations may preclude the creation of joint commands. These countries may create joint task forces when a contingency arises, which is okay. However, without

foundational joint concepts and joint doctrine to drive requirements for joint training and education, ad-hoc joint task forces end up merely cooperating or coordinating. They fall short of the goal of the integration of combat capabilities of the services.

Finally, another difficulty relates to personnel management policies. In many nations, service command and staff assignments take priority over joint assignments. Joint assignments are secondary or a pathway to retirement. As a result, the joint headquarters or joint operational commands are short of people and experience frequent turnover.

To solve these issues, partner nations must strengthen joint institutions. To do this, nations must develop joint concepts and doctrine to describe how the joint force will conduct operations; create a mechanism to ensure joint systems and equipment are compatible and interoperable; staff joint commands adequately to facilitate joint training for the conduct of joint operations; and ensure appropriate joint education is incorporated at service and joint academic institutions.

3. Institutional Capacity Building

Multiple agencies of the United States government are concerned with the defense and security capabilities of our partners. Within the Department of Defense (DoD), the Defense Security Cooperation Agency (DSCA) has a mission to advance U.S. national security and foreign policy interests by "building the capacity of foreign security forces to respond to shared challenges"[15]. Within DSCA, Institutional Capacity Building (ICB) programs are "security cooperation projects that enhance the capacity of partner nations to exercise responsible civilian control of its national security forces, contribute to collective security, and absorb, apply and sustain national security capabilities."[16]

Within the State Department, the Office of Global Programs and Initiatives (GPI) within the Bureau of Political-Military Affairs seeks to "build the capacity of partner nations to responsibly and effectively employ their forces to address security concerns, in line with U.S. national security objectives.[17]" One way GPI accomplishes this objective is through its Global Defense Reform Program (GDRP) that "seeks to build the institutional capacity of select U.S. partners' security sectors at the service, ministerial, and national levels to ensure security is provided in an effective, transparent, and accountable manner."[18]

A means to accomplish these objectives is through helping a partner nation to develop its defense planning processes. The Defense Planning model shown in Figure 6 is one that IDA practitioners tailored for use during engagements with Indonesia.[19] Broadly, it starts with a partner nation having a

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[15] Defense Security Cooperation Agency, "Mission Statement," DSCA website, https://www.dsca.mil/about-us/mission-vison-values.

[16] Defense Security Cooperation Agency, – see program tab. https://www.dsca.mil/institutional-capacity-building

[17] U.S. Department of State, Office of Global Programs and Initiatives website, https://www.state.gov/key-topics-office-of-global-programs-and-initiatives/.

[18] Ibid.

[19] The planning model depicted has aspects particular to Indonesia's existing processes (e.g., a white paper).

realistic defense strategy, articulated through a defense white paper that provides a description of the anticipated future security environment and the character of current and anticipated future threats and challenges. Guidance from defense policy makers also outlines requirements and priorities for force structure development. Based on the guidance, concepts that inform capability planning are developed. For the near term, joint operational planning and the use of concepts of operations (CONOPS) enable planners to assess near-term capability gaps against existing threats, and to formulate means to improve the training and employment of the current force. For the longer term, joint concepts support capability planning.
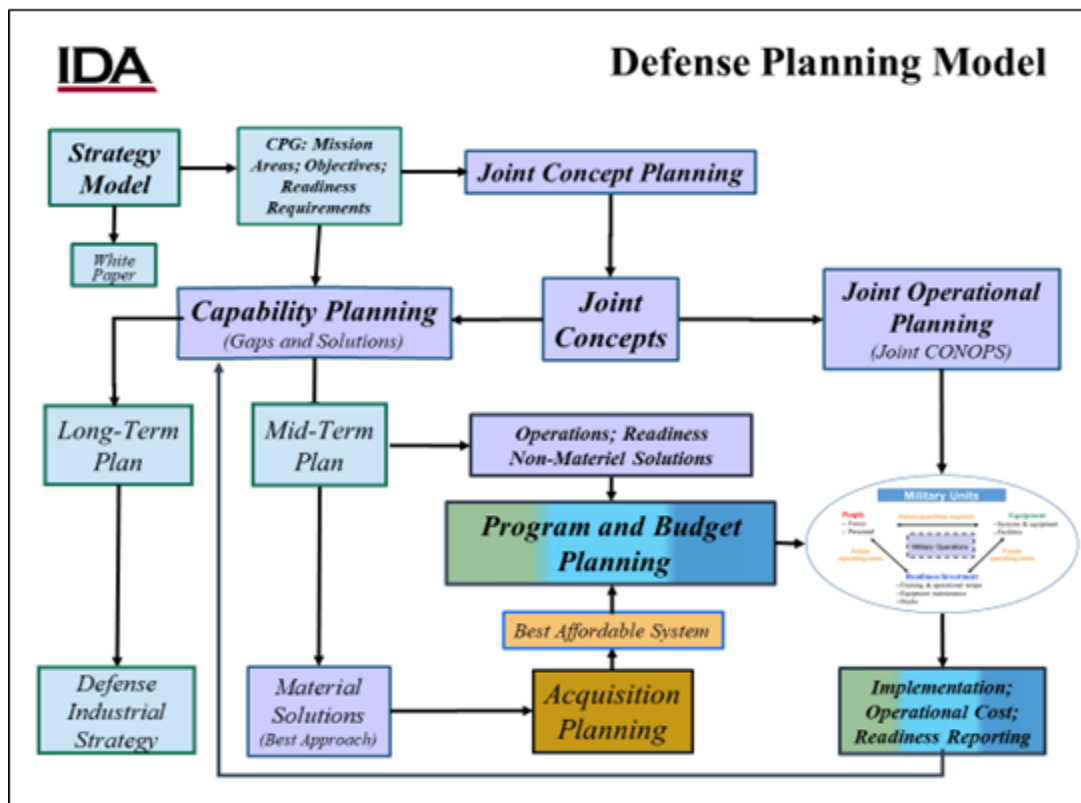
Figure 6. A Defense Planning Model

Within this model are planning efforts that take place within a defense sector's resource management processes. Defense resource management includes planning, analyzing, executing, and reporting defense requirements. Resource Management ultimately seeks to connect defense policy to budget execution.[20] Collectively, these planning processes develop the future force.

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[20] Aaron Taliaferro et al., *Defense Governance and Management: Improving the Defense Management Capabilities of Foreign Defense Institutions – A Guide to Capability-Based Planning,* IDA document NS D-10369, (Alexandria, VA: Institute for Defense Analyses, Feb 2019), 14.

Collectively, capability planning, program planning,[21] and budget planning direct how defense resources – money, personnel, equipment, facilities, etc. – are allocated to produce capability. Figure 7 shows the inter-connected nature of these processes. Defense policy provides guidance for capability planning. Based on policy guidance, capability planning assesses the sufficiency of the force to respond to priority challenges and proposes improvement to existing capabilities or the development of new capabilities so the force is sufficient and aligned to the priorities of defense policy makers. Program and budget planners plan the allocation of available resources to develop prioritized capabilities over a multi-year period. Joint concepts provide a foundation for joint capability planning. The result should be resources allocated to capabilities that benefit the entire force structure and not just the needs of any individual service.
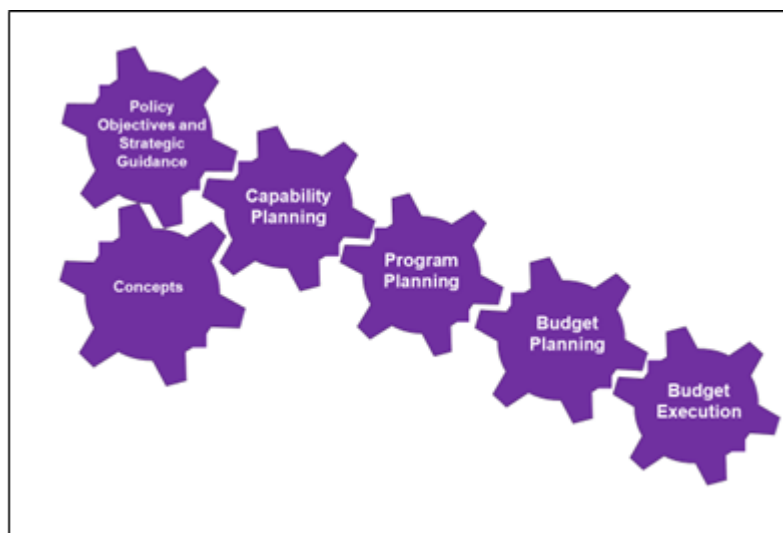

Figure 7. Linking Policy Objectives to Budget Execution

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[21] For a detailed discussion of program planning, see Taliaferro et al., *Improving the Defense Management Capabilities of Foreign Defense Institutions, Program Budgeting*, IDA paper NS P-5317, (Alexandria, VA: Institute for Defense Analyses, 2017).

B. Role of Joint Concepts and Joint Doctrine

As shown in Figure 8, defense policy and guidance serve to provide direction and focus, through joint concepts, for force development and force employment. Force development seeks to provide future forces with the capabilities needed to achieve the nation's policy objectives.
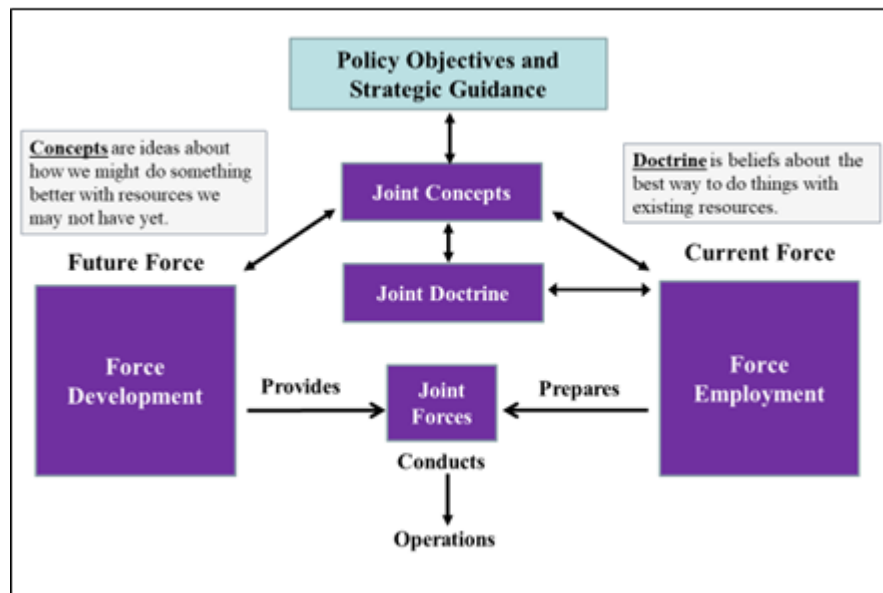

Figure 8. Roles of Joint Concepts and Joint Doctrine

The connecting link between defense policy and joint force development is joint concepts. Joint concepts guide future force development by describing how joint forces may operate to address key threats and challenges in the future. In a broad sense, joint concepts examine military problems and propose solutions that describe how the joint force may operate to achieve policy goals within the context of the anticipated future security environment.[22] Joint concepts also provide capability planners with a basis to discern what capabilities are required to meet future challenges. Properly developed and validated, joint concepts lead to the development of solutions that improve the ability of the joint force to overcome future challenges. Concurrently, joint concepts inform the current force on the direction of future force development.

Force employment focuses on near-term use of existing force elements to support and achieve national security objectives. Joint forces, organized and trained according to doctrine, plan, execute, and leverage the competencies of the military service components to achieve mission success.

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[22] U.S. Department of Defense, Joint Publication 1 (JP1), "Doctrine for the Armed Forces of the United States," March 25, 2013, xxv.

Joint doctrine serves as a link between defense policy and force employment. Joint doctrine consists of fundamental principles that guide the employment of military forces in coordinated action toward a common objective.[23] Doctrine could be broad principles, such as U.S. Joint Publication 3-0, Joint Operations, or it could include very specific tactics, techniques, or procedures.

Both joint doctrine and joint concepts describe how joint forces may operate. The key difference is that joint doctrine provides the current force with authoritative guidance about the best ways to operate with existing capabilities, while joint concepts describe how the future joint force might operate to address key challenges in the future operational environment.

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[23] U.S. Department of Defense, Joint Doctrine Development System, CJCSI 5120.02, January 5, 2015, A-1.

3. Joint Concept Development

A. Types of Joint Concepts

Joint concepts should play a role in the development of military forces. A concept links the *ways* the Armed Forces will accomplish objectives to the *ends* specified in policy guidance, and to the *means* defense resource management processes produce.[40] Concepts describe how the armed force may operate or how the leadership of the armed forces desire to operate, given an expected future environment and its attendant challenges.[41] Joint concepts provide the resource management process with a basis to analyze the planned force against future requirements. For this reason, concepts are a prerequisite for using capability based-planning (CBP) to develop future forces.[42]

Fundamentally, concepts are ideas for how to do something. In the context of force development, concepts describe ideas for how joint forces might operate or perform a function. Concepts propose these ideas to address challenges and threats anticipated in a future operating environment. In turn, ideas drive the development of military capabilities.

The Canadian Forces have a similar idea of concepts. Dave Allen of the Canadian Forces Warfare Center writes, "Within the force development context, a concept is defined as a notion or statement of an idea, expressing how something might be done or accomplished, that may lead to an accepted procedure. More precisely, the concepts describe the method (ways) for employing military capabilities (means) to accomplish given missions (ends). Military concepts inform the CBP process by providing a prescriptive way of employing future capabilities to meet future missions."[43]

The United Kingdom (UK) Ministry of Defence elaborates on the purpose, role and relationships of concepts to force development stating, "ideas, in the form of concepts, matter in Defence because they bring coherence to the development of a future force across all of the Defence lines of development…. It is the interaction between future concept, future force development, and today's force

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[40] Taliaferro et al., *Defense Governance and Management: Improving the Defense Management Capabilities of Foreign Defense Institutions – A Guide to Capability-Based Planning,* IDA document NS D-10369, (Alexandria, VA: Institute for Defense Analyses, Feb 2019), 24.

[41] Ibid, 24.

[42] Ibid., 17. Besides concepts, this paper describes the following prerequisites for CBP: an approved definition of defense capability and a framework that describes the components of capability; leadership, a joint culture, and a planning staff with high analytic capability; strategic policy guidance; scenarios; and risk assessment using a risk matrix.

[43] Dave Allen, "Joint Concept Development and Experimentation: A Force Development Perspective," Canadian Forces Warfare Centre, February 2012, 16.

experimentation, training, and our lessons learned, which will increasingly flag up the choices we need to make to insert new capability at the tempo required, within resources."[44]

As this paper defined earlier, concepts are the description of a method or scheme for employing specified military capabilities in the achievement of a stated objective or aim. Included within this broad definition are different types of concepts. This paper's focus is on the use of *joint* concepts to inform *future* force development. This means the variables of time and purpose are key to distinguishing the relevant types of concepts. In particular, future force development requires concepts that focus on future timeframes for supporting CBP. In John Schmitt's paper, "A Practical Guide for Developing and Writing Military Concepts," he describes a hierarchy of military concepts that distinguishes types of concepts and offers useful terminology.[45] As illustrated in Figure 9, he describes four levels of concepts. "Institutional concepts, which describe military institutions; operating concepts, which describe how military forces operate; functional concepts, which describe the performance of individual military functions or sub-functions; and enabling concepts, which describe the capabilities required in order to perform military functions or sub-functions."[46] Institutional concepts are too high for future force development, though they are useful references for joint concept development if they provide a vision for

Figure 9. A Hierarchy of Military Concepts

warfighting during a relevant future timeframe. Militaries can use joint operating, functional, and enabling concepts to recommend required capabilities to the capability planning process and support their future force development.

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[44] United Kingdom Ministry of Defence, "Joint Concept Note 1/17: Future Force Concept," 2017, iii.

[45] John F. Schmitt, "A Practical Guide for Developing and Writing Military Concepts," Defense Adaptive Red Team Working Paper #02-4, Hicks & Associates, Inc., McLean, VA: December 2002, 5.
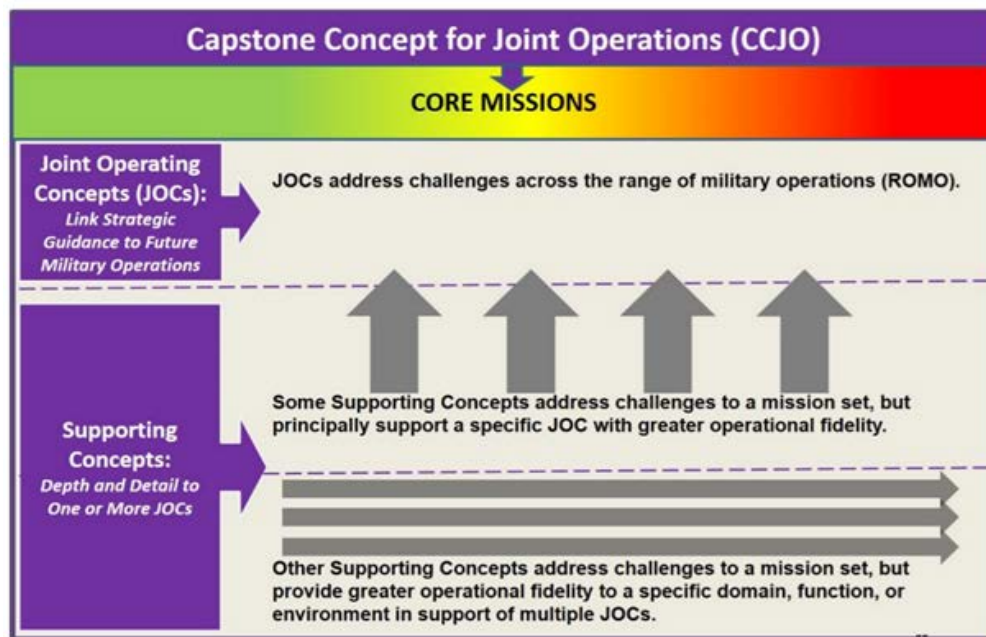
[46] Ibid., 5.

Figure 10. U.S. Family of Joint Concepts

Building on Schmitt, Figure 10 illustrates the U.S. Armed Forces hierarchy of joint concepts. Figure 10 shows nested types of joint concepts for linking strategic guidance to future military operations.[47] Each level provides different information. All joint operating concepts examine missions defined by guidance provided by the Chairman of the Joint Staff[48]. From this joint hierarchy, specific service, multi-Service concepts, and concepts of operation (CONOPS) are written within the joint community to address focused, limited scope topics, and may expand or implement ideas contained in joint concepts.[49]

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[47] Joint Chiefs of Staff, "Guidance for Developing and Implementing Joint Concepts," CJCSI 3010.02E, Washington, DC: J7, 17 August 2016 (Directive Current as of 16 Aug. 2018). https://www.jcs.mil/Portals/36/Documents/Library/ Instructions/CJCSI%203010.02E.pdf?ver= 2018-10-26-171040-997, A9.
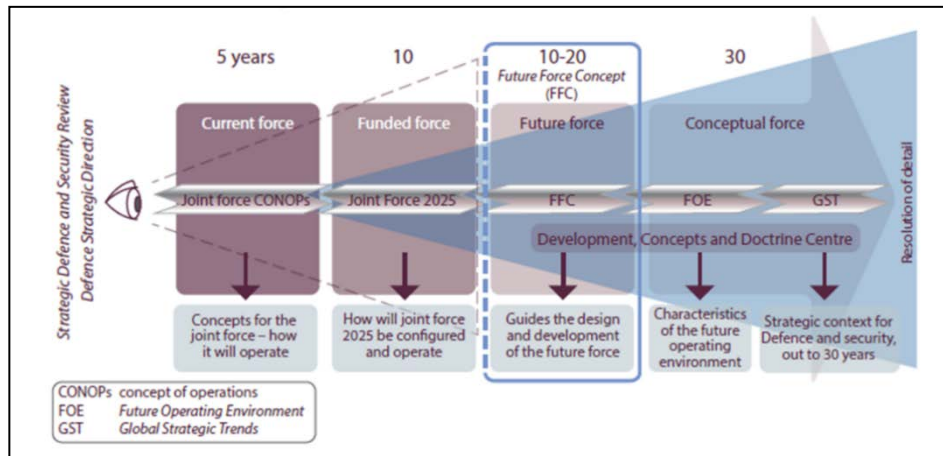
[48] Ibid.

[49] Ibid..

Figure 11. UK MOD's Continuum of Concepts

Figure 11 is the UK's continuum of concepts, distinguishing several types of joint concepts based on their purpose and timeframe in relation to current and future force development. A useful touchpoint for most militaries, based on their common application in operations planning, are concepts of operation or CONOPS. For force development purposes, the UK identifies "Joint Force CONOPS" as the type of concept required to describe how their current force operates (out to five years). Beyond CONOPS, the UK identifies a series of concepts related to the development of future joint forces, including the "Funded Force" (out to 10 years) and the "Future Force Concept" (10-20 years).

Figure 12 shows a graphic presented to Indonesian officers during a CBP seminar. The illustration describes different types of joint concepts. The timelines shown are in accordance with the Indonesian planning horizons.[50] The Indonesian military's timeframes for force planning are shorter than the UK's, but like the UK, the type of concept changes in accordance with the time horizon.

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[50] Mark Vinson, "Advanced Capability Planners Course: Module 13: Joint Concepts," 7 March 2019, 13.
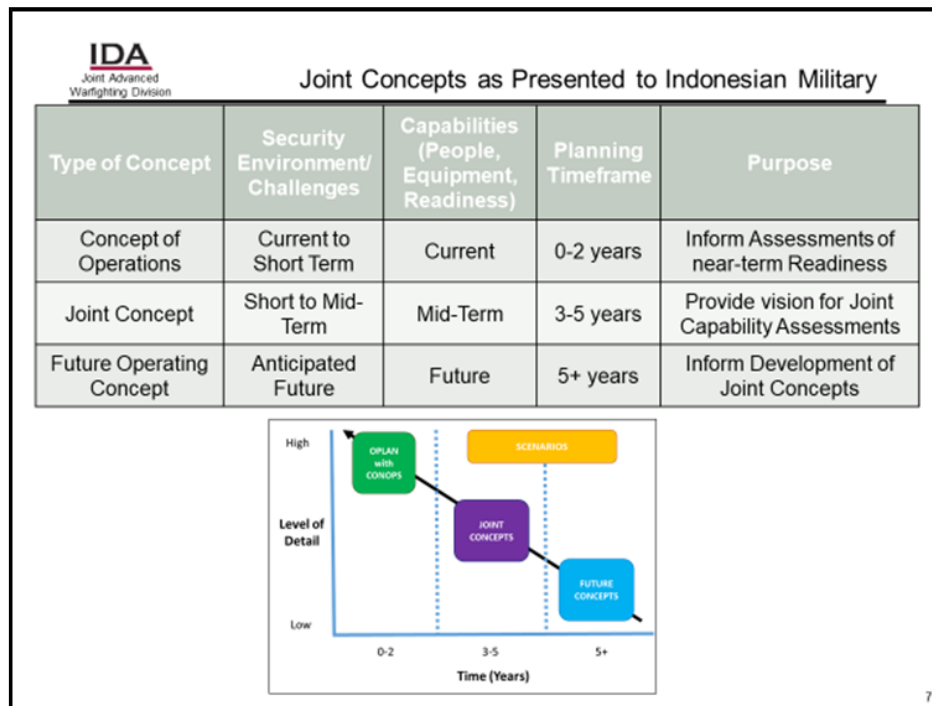
Figure 12. Types of Joint Concepts (Indonesian Use Case)

In Colombia, the ICB team helped the Colombian General Command (CGFM) to develop joint operating concepts and then identify capabilities required to enable the concepts. In 2015, based on an anticipated peace agreement with the leftist guerilla movement known as the Revolutionary Armed Forces of Colombia (FARC), the CGFM requested assistance with developing joint concepts to inform their future force requirements out to 2030. Prior to 2015, there were no Colombian joint concepts. With a major internal war coming ending, they decided to focus on a concept for national defense. However, this task was too great for an initial attempt at concept development. So, they started with a joint concept for humanitarian demining, which was easier and less controversial.

In Figure 13, an early version of Colombia's hierarchy of joint concepts shows their three types of concepts. The top row shows Colombia's eight mission areas.[51] These were intended to be joint strategic concepts. The middle level are subordinate concepts that provide depth and detail to joint strategic concepts. Finally, the Colombian armed forces identified six joint functional concepts that apply generally to all of the joint strategic and subordinate concepts. These include joint fires, intelligence, logistics, command and control, cyber defense, and strategic communications. Later, the Colombians

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[51] Colombia defines the mission areas of its defense and security sector, which is comprised of its Military Services, the National Police, and an organization similar to the National Oceanographic and Atmospheric Administration as National Defense, Public Security (i.e., internal security), Citizen Security (primary responsibility of the National Police), International Cooperation, Environmental Protection, Disaster Management, National Development, and Central Management Support.

added joint special operations to this list. Once the hierarchy was developed, the Colombian General Command was able to prioritize, sequence, and resource development of joint concepts.

Figure 13. Types of Joint Concepts (Colombian Example)

In the sections that follow, this paper will discuss two broad types of joint concepts most useful in a foreign nation's force development work. These are *joint concepts* and *joint CONOPS*. While both support future joint force development, they differ in time horizon, level of detail, and role relative to the force development process.

For this paper, *joint concepts* refer to concepts that inform future force development. Joint concepts inform force development, but their development is not tied to force planning or budget cycles.

CONOPS describe how the joint force would address challenges and threats with the already existing or already planned force. Often, CONOPS respond to a defense-planning scenario. They may also respond to commander's guidance with intent specific to a particular campaign or operation.

Schmitt offers a useful distinction between concepts and CONOPS, "…a [concept] describes operations generally by type, [CONOPS] describe a course of action chosen for execution in a specific situation. A [CONOP is] the instantiation of a [concept] under a specific, unique set of conditions."[52] For example, a concept may describe how to conduct irregular warfare operations. A CONOP will describe how the joint force may conduct an irregular warfare operation against a specific threat during a particular timeframe within a defined operating environment.

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[52] Schmitt, "A Practical Guide for Developing and Writing Military Concepts," 8.

B. Joint Concepts

This section focuses on joint concepts (concepts developed independently of force planning or budget timelines).

1. The Purpose of Joint Concepts

The U.S., UK, Australia, and NATO all use joint concepts to guide joint force development.[53] Concepts are a proposed *way* to employ joint force *means* to achieve a specified *end*. Joint concepts describe an integrated approach – connecting policy objectives to the development of required capabilities. In addition, concepts require context. This includes a description of the operating environment and the challenges that require a military response. Given the context, concepts propose ways to operate to overcome challenges, and they identify the capabilities required. Concepts are tested and validated through experimentation.[54] Validated concepts point to required capabilities, which become primary inputs to future force development.

Within a concept, a proposed list of capabilities is what connects the concept to capability planning, and then to the rest of the defense resource management process. Capability planning analyzes whether the force structure has sufficient capability to implement the concept, and then proposes changes across doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTMLPF-P) to "improve the ability of the joint force to overcome future challenges."[55]

Furthermore, concepts propose a new approach or they revise existing approaches, and they identify required capabilities to address gaps in the ways and means that exist to address a compelling challenge. To write concepts, a problem-solution method is a good way to proceed. The identification and refinement of a military problem, a proposed operational solution, and the capabilities required to implement the proposed solution…."[56] The concept provides new ways for addressing compelling challenges when current approaches (i.e., existing joint doctrine) and existing capabilities are ineffective, insufficient, or nonexistent. To identify new ways and means, the concept proceeds from an understanding of existing doctrine and capabilities. To be suitable for force development, the concept proposes an alternative to existing doctrine or it may propose to augment existing capabilities.

Joint concepts have to be jointly developed. Without a joint concept to describe the way military forces may operate, the contributions of each military service must be evaluated independently of one another. The Australian Defence Force reasons that, "if concepts are to inform the design of the force for

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[53]See JCN 1-17, ix; Tim McKenna & Tim McKay, "Australia's Joint Approach: Past, Present, and Future," Joint Studies Paper Series No. 1, Canberra: Defence Publishing Service, 2017, 62; Han de Nijs, "Concept Development and Experimentation Policy and Process: How Analysis Provides Rigour," HQ Supreme Allied Command Transformation, NATO, Norfolk, April 2010, 21-3.

[54] Concept test, validation, and experimentation are not covered in detail in this paper. These topics deserve separate treatment.

[55] DoD, Joint Publication 1 (JP1), "Doctrine for the Armed Forces of the United States," VI-9.

[56] CJCSI 3010.02D, A-1.

future operations, and these operations continue to be inherently joint then it seems logical to conclude that concepts to inform design of the future force should also be inherently joint."[57] This does not mean that individual services have no need to develop service-level concepts to address their specific challenges. However, they should nest under joint concepts so the service's ideas and capabilities align with and support higher-level joint operations.

Joint concepts are future focused. They provide ideas for overcoming unsolved challenges. They describe ways to achieve defense and security objectives set in policy or strategy. The challenges expressed in a concept may already exist in some form, or analysis of the future security environment may be the basis of challenges. In either case, new ideas are required because current capabilities or existing approaches are either inadequate or do not exist.

NATO policy is to use concepts to identify solutions to military problems involving "capability shortfalls or gaps," or "to propose a better solution than currently exists."[58] Further, it observes, "new problems may be brought about by some combination of political, social, economic, technological, doctrinal factors, or by the introduction of new objectives to a pre-existing situation."[59]

Similarly, U.S. joint doctrine states that the role of joint concepts is to "examine military problems and propose solutions describing how the joint force, using military art and science, may operate to achieve strategic goals within the context of the anticipated future security environment."[60] In other words, joint concepts connect the *ends* of policy objectives to the future-force development process by describing the ideas or *ways* and a list of required capabilities or *means* necessary to implement *ways*.

Finally, joint concepts also describe how a commander may integrate the capabilities of multiple military services and provide joint, unified action. In general, militaries face a complicated array of threats and challenges. Independent service solutions create a competition for limited resources that often belie coherent, affordable solutions. Joint concepts provide an integrated proposal for employing service capabilities jointly.

2. When is a Joint Concept Required?

When a new or anticipated security threat or challenge emerges, it is time to consider developing a new joint concept or revising an existing concept. For example, in Taiwan, the Ministry of National Defense observed the People's Republic of China (PRC) gradually acquiring force projection capability west of the Second Island Chain, adding uncertainties to the security environment in the region.[61] Concurrently, Taiwan faced difficulty in acquiring advanced weapons systems, increasing threats to

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[57] Tim McKenna and Tim McKay, "Australia's Joint Approach: Past, Present, and Future," Joint Studies Paper Series No. 1, Canberra: Defence Publishing Service, 2017, 62.

[58] Han de Nijs, "Concept Development and Experimentation Policy and Process: How Analysis Provides Rigour," HQ Supreme Allied Command Transformation, NATO, Norfolk, April 2010, 21-3.

[59] Ibid.

[60] JP1, "Doctrine for the Armed Forces of the United States," 23 March 2013, VI-9.

[61] Ministry of National Defense, "2017 Quadrennial Defense Review: Republic of China," 2017, 2.

cyber security, decreasing defense awareness in the public, and increasing incidents of complex emergencies.[62]

Militaries may also identify a new problem based on new policy objectives for an existing situation. For example, a situation may be unchanged, but political expectations may have increased, necessitating a new concept. John Schmitt observes:

> Current and future military concepts are not fixed, but evolve over time in response to various factors. These factors include technological, political, societal, cultural and other developments that necessitate changes in the concept…. A concept will also evolve in response to other concepts, our own related concepts as well as those of friends or potential enemies. This evolutionary dynamic is an essential element of the concept development process.[63]

As mentioned earlier in this paper, in 2015, Colombia's armed forces anticipated that a peace deal with insurgent forces was imminent. Internal security and counter-insurgency had been the focus for 50 years. With a peace deal in place, the Colombian General Command of the Armed Forces wanted to turn their attention to challenges they had not been able to address – challenges from external threats.

Another circumstance that should prompt a military staff to develop a joint concept is a significantly improved solution to an existing military problem is required or proposed. A new solution could result from a new technology that presents an opportunity for improving force capabilities.

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[62] Ibid, 2.

[63] Schmitt, 4.

3. Joint Concepts and the Joint Force Development Process

As discussed earlier and illustrated in Figure 14, joint concepts provide a connecting link to future force development processes. They provide the *ways* that connect policy's *ends*, to the development of *means* (joint capabilities), through the force development process.
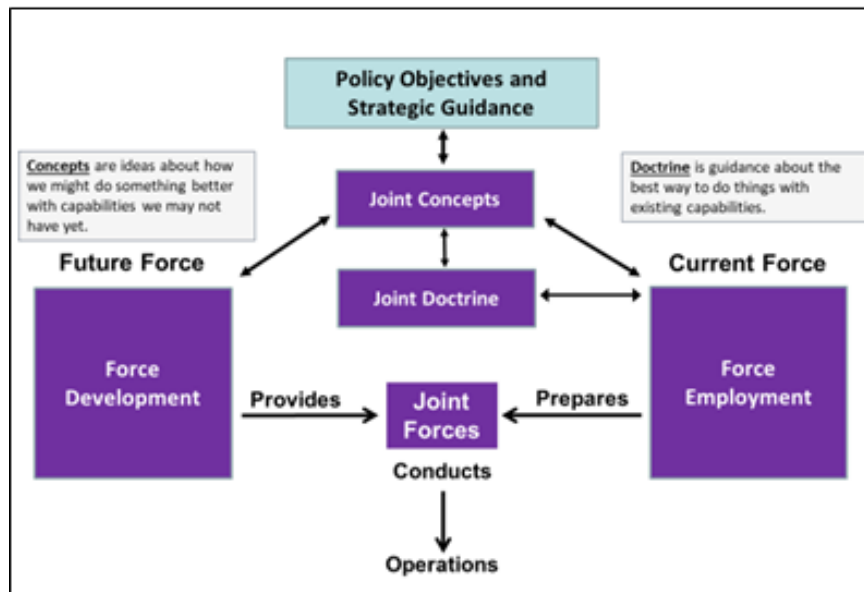

Figure 14. Role of Joint Concepts and Joint Doctrine

Joint concept development does not occur in sequence with a nation's budget calendar. They are developed when the need arises. The ideas they propose and capabilities required to enable those ideas, must be validated. If validated, then the ideas and their enabling capabilities can be described in a joint CONOPS. A CONOPS is tied to a particular scenario, which describes specific threats and challenges and is used as part of the force development process to develop more detailed capability requirements.

So, joint concepts provide for long-term thinking about how to address future military problems and joint CONOPS provide capability planners with a basis to determine what may or may not be needed in terms of future capabilities. In the next section, the paper describes the integral role of joint CONOPS to the force development process.

Joint concepts are a reference to the force development process and they may drive changes to joint force capabilities. Changes to capability happen through the integrated implementation of DOTMLPF-P[64] solutions. Figure 15 identifies the key relationships between DOTMLPF-P and joint concepts.

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[64] Different nations use different acronyms to describe the functions of capability. DOTMLPF-P is the U.S. Armed Forces acronym. The Colombian Defense and Security Sector uses DOMPI (Doctrine, Organization, Material, Personnel, and Infrastructure). Canada uses PRICIE (Personnel, Research and development, Infrastructure and Organization, Concepts, doctrine, and collective training, IT infrastructure, and Equipment, supplies and services).

Doctrine	• Informs concept development • May incorporate validated ideas as capabilities are developed
Organization	• Military units and organizations may change to enable implementation of validated concepts
Training	• Insights from exercises inform new concepts • Concepts may be validated by joint exercises
Materiel	• New technologies may drive requirements for new concepts • A capability gap that requires a materiel solution may also need a concept describing how new equipment may be utilized
Leadership and Education	• Education, perhaps most especially professional military education, should adapt to new conceptualizations of operations or warfare
Personnel	• New career fields may be needed implement a validated concept; more people in an existing career field may be needed
Facilities	• A new concept require new or additional facilities for deployment, reception, staging, movement, integration, or sustainment in order to implement it
Policy	• Policy objectives may require new joint concepts • Approving a new concept may have policy implications

Figure 15. Joint Concepts are Informed by and Drive Changes to Capabilities

In 2017 and 2018, while working with the Taiwan Ministry of National Defense, the Taiwanese officers had trouble understanding the temporal relationship between joint concepts, joint capability development, and joint doctrine development. Figure 16 illustrates this relationship. Based on Taiwan's 2017 Quadrennial Defense Review, which identified new threats and provided guidance to develop a new approach to deterrence and defense, new concepts were needed. Current doctrine (2017) described how Taiwan's joint force should operate using current capabilities. The notional concept focused on future challenges and threats in the 2025 timeframe. Once the concept was developed and validated, the capabilities required to implement the concept were assessed in comparison to the capability of the existing force structure. Gaps were identified and new or improved capabilities were programmed for development from 2019 to 2025 to close the gaps. As new capabilities are developed, joint doctrine should be updated to describe how the joint force operates with the new capabilities.
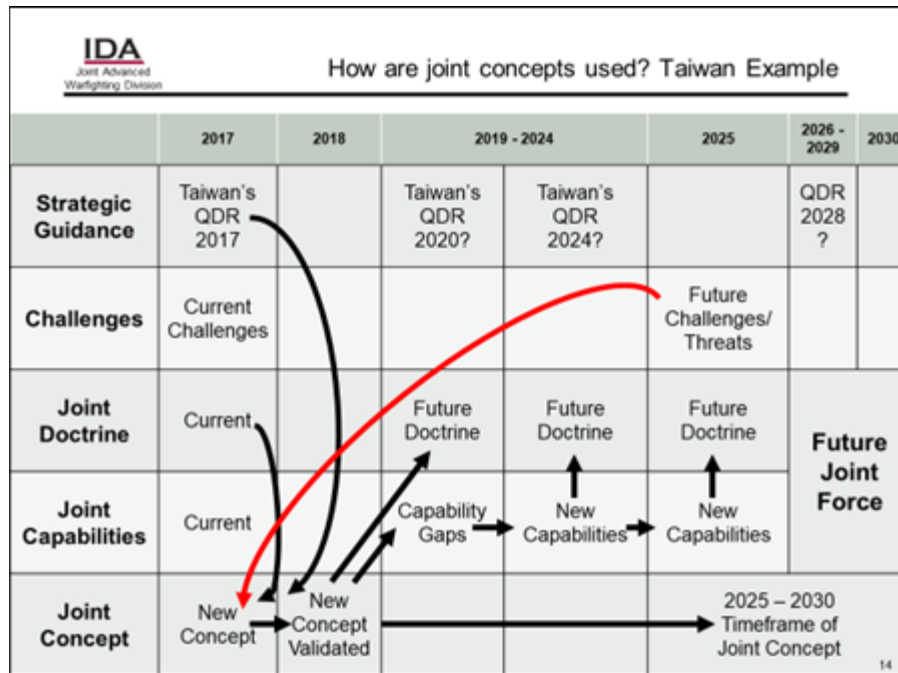
Figure 16. Relationship between Concept and Force Development

4. How to Develop Joint Concepts

Generally, staff capacity will be a significant issue in establishing a joint concept development process. Therefore, a process that identifies roles and responsibilities and a standard methodology managed by the defense sector's senior military staff (ideally a joint staff, if one exists) is necessary. This enables a centrally managed approach that leverages expertise from across the military's joint staff or general command and its military services.

UK Joint Concept Note 1/17 provides a good description of where to start in the development of a joint concept. It says, the Future Force Concept is evidence-based, policy and resource aware, and promotes a joint mindset and common purpose. Operational lessons inform force concepts; training and experimentation conducted by NATO, international partners, Joint Forces Command, the Royal Navy, British Army and Royal Air Force; as well as the views from a broad academic and industry network.[65] In other words, concept development starts with research, which includes input from all of the organizations with a direct interest in the implementation of the concept, as well as subject-matter experts from academic institutions and other external sources.

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[65] JCN 1/17, v.

5. Foundations of a Joint Concept

While every concept is unique, joint concepts must:

- Be adequate, feasible, and acceptable
- Be derived from the policy or strategy they support
- Reflect historical awareness (lessons learned, best practices)
- Be consistent with the nature and theory of war
- Reflect a balance between military art and science
- Be written at a level of detail suitable to enable capability planning

Joint concepts describe ways of achieving strategic ends, so strategic guidance informs them. Guidance such as:

- National and defense strategies
- Capability planning guidance
- National intelligence estimates
- Defense planning scenarios

Joint concept development requires four main steps (Figure 17). For any defense and military staff, the detail behind these activities needs to be written down to facilitate a standard approach.

Figure 17. Joint Concept Development Process

Concept proposal: A new concept starts with a proposal that describes a compelling military problem that existing concepts or doctrine do not address. The proposal needs to identify the lead and supporting organizations to develop the concept, stakeholders, and the approval authority.

Research and Writing: The lead organization identifies the concept development team. Supporting organizations contribute personnel at the request of the lead organization. Work begins with thorough research of the problem that led to potential ideas for solutions. Writing is an iterative process. At a minimum, writers should produce at least two drafts with a review process used after each iteration to gain stakeholders' feedback and ultimately approval to proceed to validation.

Concept Validation: Conceptual ideas are unproven and must go through a process of examination to validate their feasibility and suitability. Concept validation can occur through experimentation, studies, analyses, simulations, war games, or exercises (live or virtual).[66] NATO

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[66] CJCSI 3010.02E, C1-C5.

integrates "experimentation" into its concept-development process. NATO describes experimentation as "controlled investigation to discover information, [and to] confirm, or disprove a hypothesis," to validate concepts.[67]

Coordination and Approval: Finally, concepts must be coordinated across the military establishment to identify and resolve issues at the lowest level possible. The concept should be approved at the highest level possible to give it authority and credibility.

6. Key Components of a Joint Concept

A joint concept's structure may differ, but basic components are standard. Fundamentally, a concept describes *how* a problem may be solved. Its focus is to describe the problem, the ways to address the problem, and the capabilities required to enable the ways. To frame the problem, concepts provide context in terms of purpose, scope, assumptions, and environment. A concept should also describe implications and risks if it is implemented. Figure 18 provides a standard structure for a joint concept, with explanations for each component.

1. **Introduction**:
   a. **Purpose**:
      a. Why is the concept needed?
      b. Summarizes the applicable strategic guidance
      c. Describes the operational challenge(s) and the context.
   b. **Scope**: Identifies the future time horizon and conditional applicability for use of the concept.
   c. **Key Planning Assumptions**: In the absence of facts, assumptions identify what is unknown, but must be assumed to continue planning (e.g., future security environment). Concepts are revised as facts replace assumptions.
2. **Future Operating Environment**: Describes the operating context. This includes the joint operations area and threats and challenges to military operations.
3. **Military Problem**: Describes a compelling military problem for which no adequate solution exists. Includes key challenges and other factors that affect the ability of the joint force to conduct military operations and explains why a joint concept is necessary.
4. **Central Idea**: Describes the main idea to address the military problem;

Key Components of a Joint Concept
1. Introduction
a.   Purpose
b.   Scope
c.   Planning Assumptions
2. Future Operating Environment
3. The Military Problem
4. Central Idea
5. Supporting ideas
6. Required capabilities
7. Implications and risks
8. Concept Sketch

Figure 18. Key Components of a Joint Concept

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[67] https://www.act.nato.int/application/files/6715/9598/0974/NATO-ACT-CDE-Handbook_A_Concept_Developers_Guide_to_Transformation.pdf.

5. **Supporting ideas**: Describes functions necessary to support the central idea; U.S. joint functions are a way to describe supporting ideas.[68]
6. **Key required capabilities**: Delineates military capabilities necessary to enable the central and supporting ideas; functional categories are sufficient (e.g., fires, mobility, logistics)[69].
7. **Implications and risks**: Describe the force development implications of required capabilities. Identifies such implications as required changes to people, equipment, and readiness. Frames implications DOTMLPF-P. Also, identifies operational risks resulting from a concept and ways to mitigate risk.
8. **Concept sketch (optional)**: Provides a set of sketches that illustrate the joint concept, and illustrates how capabilities may be used to overcome problems.

7. Common Challenges and Mitigation Measures

Joint concepts are not commonplace in nations that receive USG ICB assistance. Joint doctrine that guides how militaries employ joint capabilities is also not common. These conditions reveal a lack jointness, and indicate a need to assist partner nations (PNs) to develop their ability to produce joint concepts and doctrine.

The first task for an advisor is to gain senior-leader understanding and advocacy for building jointness and for producing joint concepts and doctrine. A common initial requirement is to clearly define joint concepts, explain their utility, and then assist the PN staff to create a joint concept development process and the capacity to implement and manage the process.

In the process of assisting and advising Colombia, Taiwan, and Indonesia, ICB teams faced some common challenges. In each case, the teams addressed the challenges based on the unique situation and requirements of their foreign partners. The table below lists some common challenges encountered, along with some mitigation measures ICB teams can adapt for their use.

> **Adapting to Partner Nation Realities**
>
> In Indonesia, the Ministry of National Defense has a two-year planning timeframe to inform their assessments of, and subsequent budgeting for, near-term military readiness. We proposed they develop joint CONOPs to support near-term decisions that could improve readiness. Though the Indonesian military had no existing joint concepts or doctrine, their officers understood how to develop CONOPS in the context of operations planning. Therefore, the ICB team focused on initial development and use of joint CONOPS.

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[68] Joint Functions are command and control, information, intelligence, fires, movement and maneuver, protection, and sustainment. Joint functions help joint force commanders synchronize, integrate, and direct joint operations. JP 3-0, January 17, 2017, https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_0ch1.pdf?ver=2018-11-27-160457-910 accessed on September 1, 2020.

[69] Some nations have an existing capability partition or taxonomy that describe the capabilities of the Armed Forces. This is a good reference. If a nation does not have this, there will be work required to define what a capability is and then define a working taxonomy of capabilities.

Table 1. Common Challenges when developing Joint Concepts or Doctrine

Common Challenges	Mitigation Measures
Limited staff capacity, especially at the ministry of defense and joint staff/general command level	Assist with development of methodology which enables a small staff-led organization to manage an enterprise process
Service-centric militaries, including a lack of joint doctrine	Promote an incremental approach to building a joint culture; include services in the development of joint concepts and doctrine; start with something where collaboration already occurs (e.g., disaster relief or humanitarian assistance)
Current operations focus; joint concepts that provide a credible basis for identifying capabilities required to enable a future joint force to address risks posed by future challenges and threats do not exist	Identify potential future threats or challenges and ask senior military leaders to prioritize them.[70] Then determine which challenges cannot be met by the current force and focus JCD on a challenge not addressed by existing service doctrine or concepts
A focus on fielding equipment or systems without consideration of solutions across the DOTMLPF-P.	Promote development of joint concepts that describe how to address challenges in the future security environment. Identify capabilities required to implement the concepts; identify capabilities in terms of DOTMLPF-P and not just material and equipment

C. Joint Concepts of Operation (CONOPS)

Joint concepts project a response to general threats or challenges. They provide useful context to defense ministries and armed forces headquarters charged to manage the defense sector. However, many USG partners, by necessity, focus on specific, near-term challenges. For example, the President of Colombia tasked the General Command of the Armed Forces to support humanitarian demining activities. The military services in Colombia had no previous experience with this mission. Before they could respond, there were questions to answer.

> Colombia is a signatory to the Mine Ban Treaty, a United Nations convention. As a signatory to the treaty, former President Juan Manuel Santos pledged that Colombia would be free of mines before the end of 2021. To meet this goal, he charged the Armed Forces of Colombia to assist in the effort. In 2016, IDA team members working with the Ministry of National Defense and the Colombian General Command helped to develop demining CONOPs, analyze the capability of the existing force structure to implement CONOPs, and prepare cost estimates for each CONOP.

- What kind and how much support could the military provide?

- Does this mission require special equipment?

- Does it require special units, or can infantry units be repurposed for demining?

- How much will it cost to provide this support?

- Do we have the budget? If not, where is the money coming from?

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[70] Risk analysis is a useful tool for identifying priorities. For more information on how to use risk analysis to identify priorities, see Neill, Taliaferro, Tillman, Morgan, and Hinkle, "Defense Policy and Strategy Development for Foreign Defense Institution," NS P-5350, (Alexandria, VA: Institute for Defense Analyses, March 2017).

- How long were the Armed Forces required to provide support?

- Is there a specific sector or region the military will be responsible for?

A CONOPS proposes specific ways to address specific challenges and provides information to answer necessary questions.

1. Developing CONOPS

Military forces do not become joint by decree. Joint capabilities derive from a foundation of service capabilities. Achieving jointness requires the services to work together over time – developing the common doctrine as well as tactics, techniques and procedures (TTPs) to enhance cooperation, coordination and collaboration at tactical and operational levels. A Joint CONOPS enables a partner nation to understand the tasks required to make forces ready for Joint operations and promotes jointness.

While joint concepts generally describe operations by type, Joint CONOPS describe a joint course of action in a specific situation.[71] Joint CONOPS developed in response to a scenario are references to evaluate the capability and capacity of a joint force to implement a proposed solution or solutions. Scenarios highlight priority threats or challenges, which require a response from the defense sector. CONOPS are proposed, specific ways Armed Forces leaders propose to meet priority threats and challenges. By analyzing CONOPS, force planners can determine whether the force is capable of implementing the CONOPS. More specifically, the analyst evaluates the force structure across the DOTMLPF-P to determine what gaps exist and how to close them. Without CONOPS, there is nothing against which to analyze the force.

Because a CONOP is a specific response to a specific situation at a specific time and place, CONOPS also support force employment. A CONOP developed in response to Commander's guidance and intent proposes how to achieve a Commander's intent and identifies specific tasks required. Also, Because CONOPS focus on near term, specific challenges, doctrine is a reference to develop a CONOP.

Developing CONOPS begins with a real-world challenge or a scenario (or several scenarios) that outline the assumptions and conditions that require the use of military forces. These challenges or scenarios provide a set of circumstances for the military to respond to – like an incursion from an unfriendly neighboring country – or they could be more specific, like armed violence in a particular neighborhood in a city. A scenario may also include challenges associated with air and missile defense or the integration of air and maritime surveillance capabilities. As shown in Figure 19, a scenario needs to provide the planning staff the context, the expected operational environment, the timeframe and the underlying assumptions of the situation.[72]

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[71] Schmitt, John F., *A Practical Guide for Developing and Writing Military Concepts,* (McLean, VA: Hicks and Associates, Inc., 2002, 8. http://www.navedu.navy.mi.th/stg/databasestory/data/youttasart/youttasarttalae/bigcity/United%20States/1.dart_paper.pdf.

[72] For a more detailed description of scenario development, see Hinkle, Morgan, Neill, and Oh Hassig, *Defense Planning Scenarios: Best Practice and International Comparison,* IDA document D-5434, (Alexandria, VA: Institute for Defense Analyses, 2015).
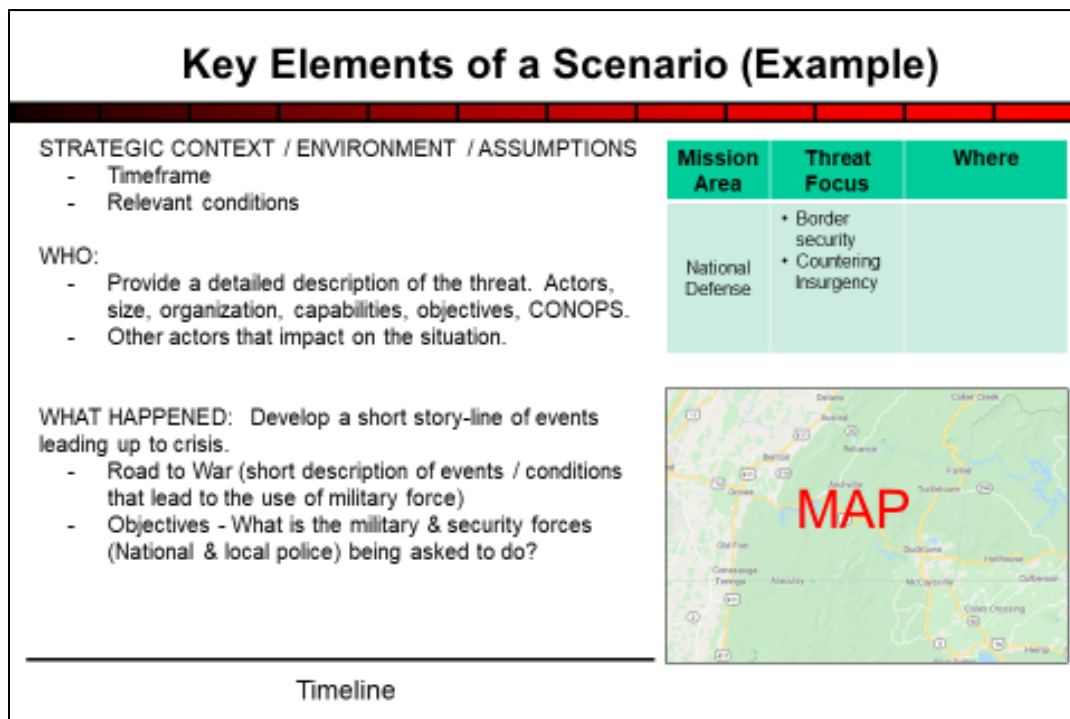
Figure 19. Key Elements of a Scenario

To develop a CONOPS, the planning staff conducts a mission analysis using a scenario or real-world situation, and Commander's guidance as the basis for the analysis. A CONOP should be consistent with the nation's policy and existing, applicable Armed Forces doctrine.
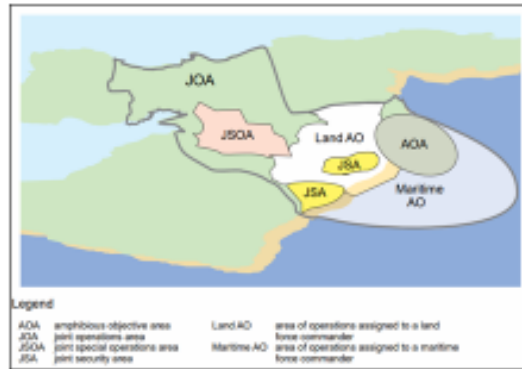
Mission analysis identifies operational challenges, essential tasks, and capabilities required. Based on mission analysis, a Joint CONOP describes how the joint force will use its capabilities to complete its tasks and accomplish its mission.

Figure 20 provides the key elements of a CONOP. If developed in response to a real-world challenge, the CONOP needs to provide a description of the current forces and capabilities available to respond to the challenge. If in response to a scenario as part of force development, a CONOP can include the programmed force structure. A joint CONOP should also describe how the joint force intends to integrate, synchronize, and phase actions of military service components and supporting organizations to accomplish the mission[73]. Finally, a CONOP should include a diagram that outlines the basic scheme of maneuver and coordination measures.

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[73] Joint Publication 5-0, Planning, June 2017.

Figure 20. Elements for Developing a CONOPS

2. Partner Engagement - Observations and Lessons

Every partner nation's challenges, capabilities, and needs are different. If the partner's focus is near-term priorities, then long-term institution building tasks like creating joint organizations or units may not be a priority. Tasks that require the defense ministry or a joint staff to expend time and energy to reduce the role or authority of a military service or services may not be possible given pressing security challenges. Though many partner militaries talk about the importance of jointness, the dominant military service in any nation tends to view jointness as a means for all the other services to support it. The willingness and ability to understand how to develop joint capabilities requires acceptance of a joint culture. Joint concept and doctrine development facilities the emergence of a joint culture.

Using joint concepts or CONOPS to guide force development and employment is a useful and cost-effective approach to ensure military capabilities support the nation's defense needs. The General Command of the Colombian Armed Forces developed joint operational and joint functional concepts to identify capabilities necessary for both current and future defense priorities. In Indonesia, similar efforts to develop joint concepts that support the integration of tactical capabilities have also been successful.

D.   Fundamentals of Joint Doctrine Development

1.   Joint Doctrine Defined

Joint doctrine guides current force employment using existing capabilities. According to the U.S. definition, "joint doctrine consists of fundamental principles that guide the employment of military forces in coordinated action toward a common objective and may include tactics, techniques, and procedures."[74] While doctrine is authoritative, it is not intended to be prescriptive. It describes and guides the employment of forces. Doctrine's authority rests on its derivation from time-tested principles, such as the principles of war, and it reflects best practices derived from lessons learned through operations, training, and exercises. Doctrine can develop from validated concepts.

Doctrine is a component of warfighting power or military capability because it provides the philosophy, principles, practices, and procedures of a nation's military fighting power. To be useful, doctrine must be organic, not borrowed from another nation, and it must be taught and understood.[75]

Finally, doctrine is not dogma. It aids thinking; it does not replace operational art, the responsibility of commanders to lead, or the need for forces to be trained and educated. Doctrine focuses on how to think, not what to think.

2.   Purpose of Joint Doctrine

Militaries write, teach, train, and use joint doctrine to enhance the operational effectiveness of joint forces. Joint doctrine guides the employment of, or support to, joint forces. Without joint doctrine, each unit must plan and conduct operations without the benefit of documented experience. For example, in Colombia, their General Command's doctrine development element received an urgent request for joint doctrine to guide a new joint task force commander's employment of his unit. At the time, the Colombian military only had service doctrine. Service doctrine does not describe how a Joint Task Force commander should employ joint forces in a coordinated and integrated way. Moreover, before the forces can conduct joint operations, they should use joint doctrine to prepare their forces through training and education of leaders and units. In Colombia, as in many military partner nations, lack of joint doctrine is a cause for insufficient joint training and education. Joint doctrine also serves to standardize how joint forces operate through documenting standard terms, command and support relationships, responsibilities, and processes.

3.   Joint Doctrine Roles and Relationships

Figure 21 illustrates the roles and relationships of doctrine to other areas of responsibility in defense ministries and armed forces' headquarters. Definitions of the roles and relationships follow Figure 21.

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[74] CJCSI 5120.02.

[75] Ideas developed by IDA during its work developing institutional capacity in foreign partner nations.
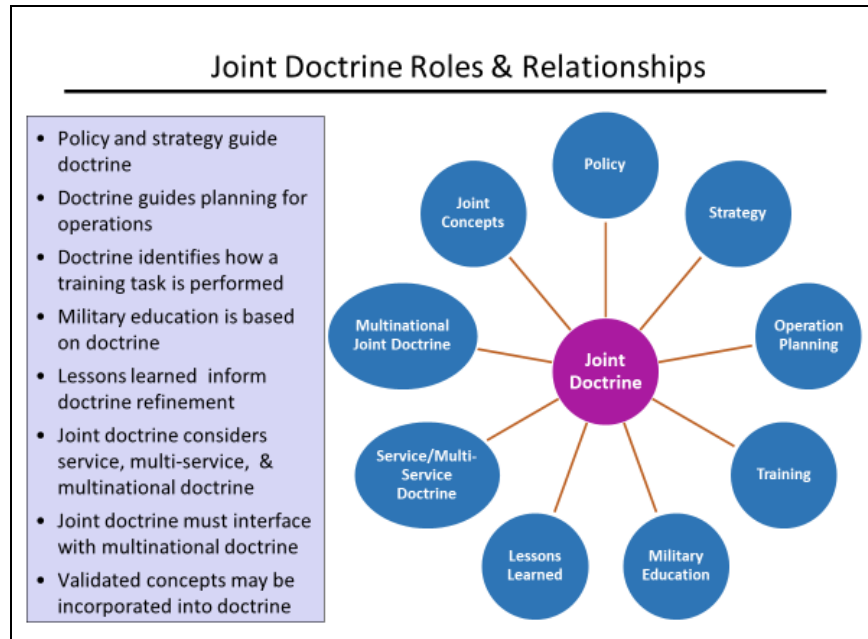
Figure 21. Key Joint Doctrine Roles and Relationships

- **Policy:** Policy indirectly drives doctrine. Policy directs and assigns tasks, prescribes desired capabilities, and provides guidance for ensuring the military is prepared to perform its assigned roles. Policy can drive the creation of new roles for the armed forces, which may create requirements for new capabilities and thus new or revised doctrine. In turn, doctrine describes the application of military power in service of policy. Force planning that responds to policy guidance may discover gaps in the capability of the force structure. Sometimes a gap in doctrine is responsible for the gap in capability. It is not always clear whether an identified capability gap is doctrine, policy, or both. As a rule, if a gap can only be addressed by using prescriptive words such as "will," "shall," and "must," then the gap is in policy.

- **Strategy**: Joint doctrine provides guidance for unified action in the employment of military power. Doctrine describes how capabilities (means) are used to achieve strategy's ends. It links ends (what must be accomplished) to means by providing ways for joint forces to apply current capabilities to accomplish military objectives. Joint doctrine informs senior leaders responsible for the development of strategy, as well as other government departments and agencies and nongovernmental organizations, on to the roles, core competencies, capabilities, procedures, and limitations of military forces.

- **Operations Planning**: Joint doctrine provides guidance on how to conduct operations.

- **Training**: Joint doctrine is a guide for joint training. It describes how to perform joint tasks. Doctrine assists commanders and their staffs to develop standards for joint training, exercises, and operations. A doctrinal joint task list is a hierarchical menu of joint tasks in a common lexicon. Experiences gained over numerous training events and analysis of training and exercise

37

programs can influence the revision or development of joint doctrine, especially those portions containing tactics, techniques, and procedures.

- **Military Education**: Joint doctrine is a basis for joint education, and reflects the deliberate, iterative, and continuous nature of joint force development.

- **Lessons Learned**: Joint operations or exercises provide a test of joint doctrine. A lessons-learned process observes and analyzes operations and exercises and then refines doctrine.

- **Service, Multi-Service, and Multinational Doctrine**: Joint doctrine informs and is informed by service and multinational doctrine. Where no joint doctrine exists, initial development will depend on service doctrine as a foundation. Once joint doctrine is established, service doctrine should describe how a military service supports joint forces in accordance with joint doctrine. A nation's joint doctrine is a basis for national contributions to multinational doctrine development.

- **Joint Concepts**: There is a complementary relationship between concepts and doctrine. Fundamentally, joint concepts support the development of capabilities required to meet national policy objectives. Joint doctrine describes how to employ existing capabilities. As concepts gain institutional acceptance and requisite capabilities are developed, doctrine may borrow from concepts. Concepts may even become doctrine once validated. Concept development proceeds from an understanding of existing doctrine and capabilities. Concepts must propose a clear alternative to existing doctrine or augmentation of existing capabilities and include evidence of significant operational value relative to the challenges under consideration.

4. Types and Structures of Joint Doctrine

To develop joint doctrine, develop a logical framework, such as a hierarchy, to identify joint doctrine requirements. This helps to manage the development and maintenance of the doctrine. A common framework is one that follows typical staff lines of responsibility.

The US, UK, Australia, and NATO doctrine structure all have an overarching joint doctrine publication, commonly called a *capstone manual*. This links national strategy to joint doctrine.[76] These countries' capstone manuals include broad descriptions of their theory of war and foundations of joint doctrine. The capstone document also includes descriptions of how the armed forces achieve unified direction from civilian leadership through the military chain of command, a description of their military functions and organizational components, and a description of how they conduct command and control of joint operations.

Below the capstone joint manual, as by illustrated Figure 22 (U.S.) and Figure 23 (NATO) is a series of publications aligned with staff functions. These doctrinally explain the role and purpose of the function. Below the staff functions are series of joint operational or joint functional (or support) doctrine

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[76] The following are the capstone joint doctrine manuals for the US, UK, Australia, and NATO: US Joint Publication 1: Doctrine for the Armed Forces of the United States; UK Joint Doctrine Publication 01: Joint Operations Doctrine; Australian Defense Doctrine Publication (ADDP-D): Foundations of Australian Military Doctrine; and NATO Standard AJP-01: Allied Joint Doctrine.

aligned to the staff function. Note how NATO has doctrine for Intelligence/Counter-Intelligence (J2), Operations (J-3), Logistics (J-4), Planning (J-5) and Computer Information Systems (J6) and how additional publications appear below each staff function.
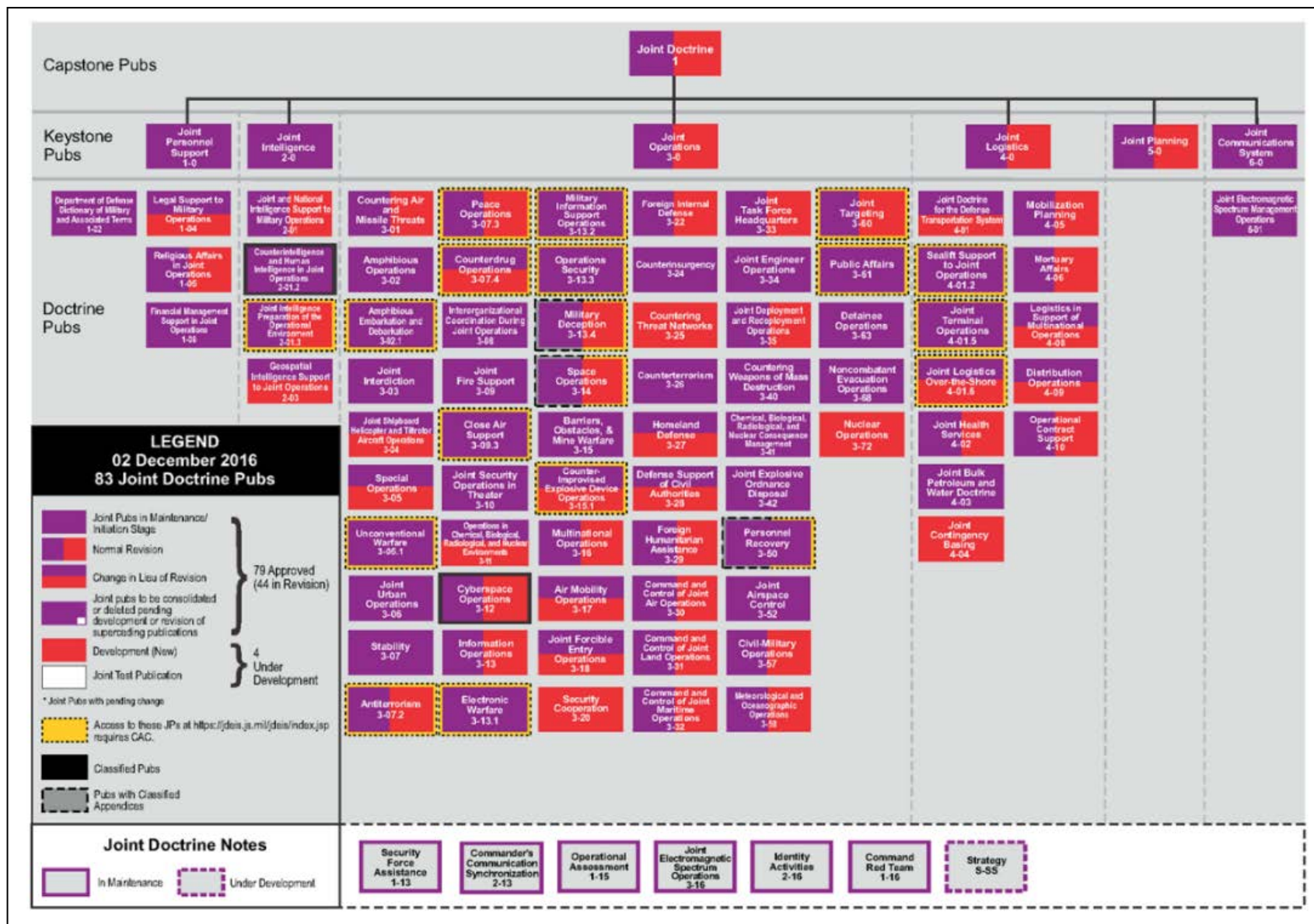
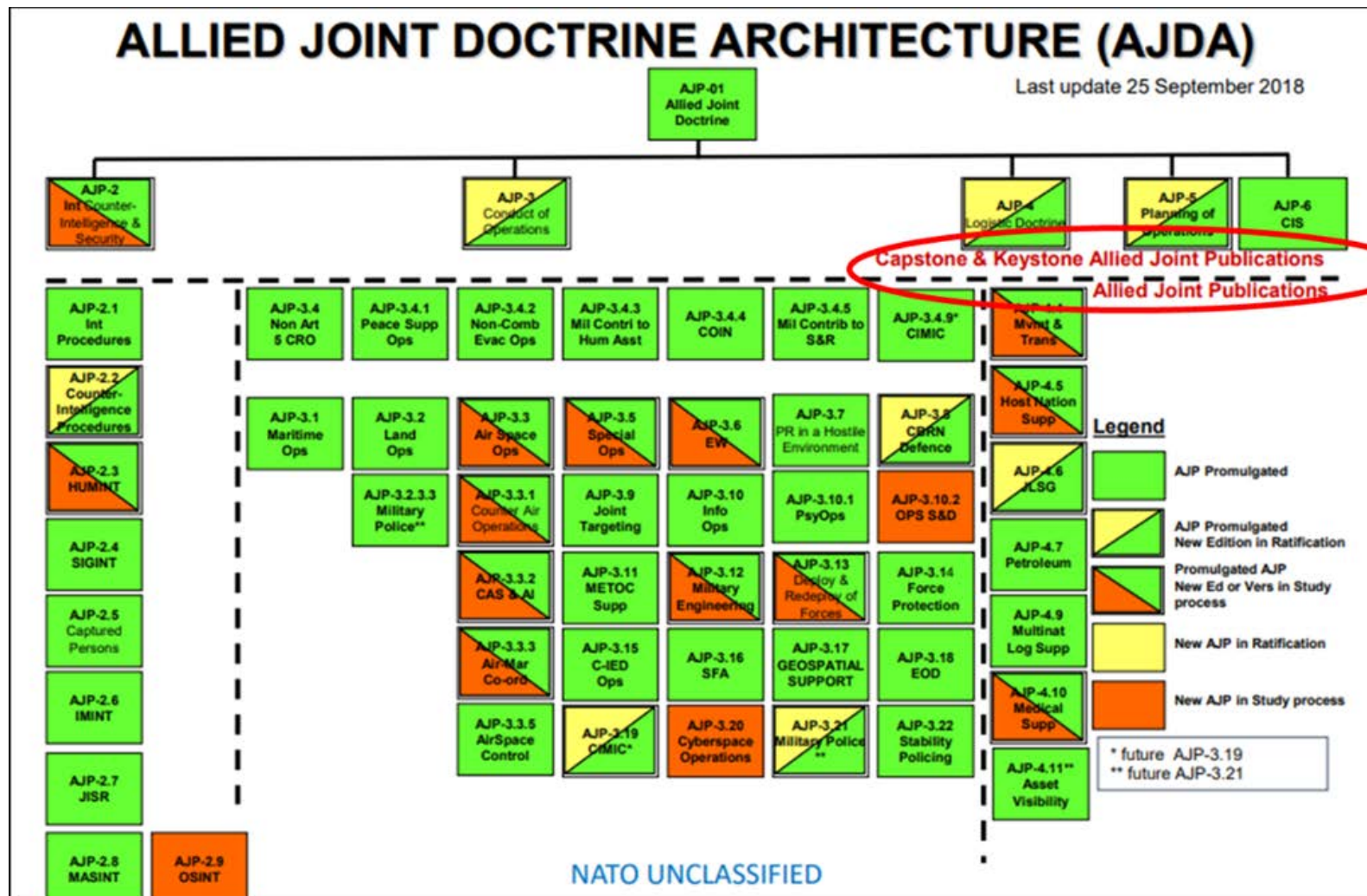**Figure 22. U.S. Joint Doctrine Hierarchy**

Figure 23. Example of NATO Joint Doctrine Hierarchy

In working with partner nation militaries, we often find that current and useful joint doctrine does not exist. Partner nations often use the U.S. doctrine hierarchy for their military's joint doctrine hierarchy. This includes U.S. manuals that do not apply to their military forces' operating environment, missions, or capabilities. Further, due to a lack of staff capacity and an effective doctrine development process, the only doctrine some partners have are translated copies of U.S. doctrine provided through some historical foreign assistance program. In these cases, institutional capacity-building teams should urge their military partners to establish a joint doctrine hierarchy and to develop their joint doctrine based on their unique ways of conducting joint operations.

5. Joint Doctrine Development Process

Developing joint doctrine has to start with guidance that directs roles and responsibilities for joint doctrine development and maintenance. The more senior-level official that this guidance comes from, the better. In the United States Armed Forces, this authority rests with the Joint Staff's Director for Joint Force Development (J7), which is a 3-Star position.

A joint doctrine development process needs a framework to organize its key activities. Figure 24 illustrates a four-stage framework our ICB teams recommend. Each stage includes key actions and deliverables. A brief description of the purpose, actions, and deliverables of each stage follows:

- **Initiation**: This is the entry stage for developing a joint doctrinal publication. It begins with a proposal to develop a new publication. It includes an assessment to validate that a doctrinal void exists. The stage ends with the decision to develop a new doctrinal publication.

> **The Value of Joint Doctrine**
>
> Joint Doctrine Development serves to increase both institutional and warfighting capability because doctrine is an expression of how a nation will use its Armed Forces. In Taiwan, with help from USG ICB advisors, the Armed Forces reorganized their joint doctrine hierarchy and revised their joint doctrine publications. Historically, both the organization of the hierarchy and the content of the publications borrowed heavily from U.S. Armed Forces Doctrine. At the end of the project, both the hierarchy and the publications were a Taiwanese expression of joint military operations.

- **Development**: This is the research and writing stage. It includes a directive that outlines the content of the publication (title, scope, chapters, major section headers), and identifies the lead and supporting doctrine development organizations and stakeholders. Based on research, the lead organization conducts writer's workshops with stakeholder organizations, operators, and subject-matter experts, to draft the doctrine. Periodically, stakeholders review draft versions and provide critical comments to the writing team. Comments and issues should be resolved at the lowest level possible. Joint doctrine development requires that stakeholders be involved. Stakeholders are those organizations or units that will be principal users of joint doctrine. Gaining consensus among stakeholders and resolving divergent views during development is critical or for the doctrine to be accepted. This stage ends with the completion of a coordinated draft.

- **Approval**: The country's senior joint military leader or their representative should approve and sign joint doctrinal publications. By this signature, the doctrine receives the authority it requires for promulgation to the joint force. If the senior leader does not approve the draft, then his or her comments go back to the lead organization and it continues work on developing the doctrine.

- **Maintenance**: As doctrine is used, the force should provide feedback on the doctrine. After a specified period (about five years), the joint doctrine development community should assess each joint doctrinal manual to verify its continued utility, relevance, and quality. Assessment occurs by observing how forces use doctrine during operations or exercises, and by interviewing and surveying users. The assessment should determine whether the doctrine is still valid, needs updating, or is obsolete. If doctrine need to be updated, then the cycle begins again.
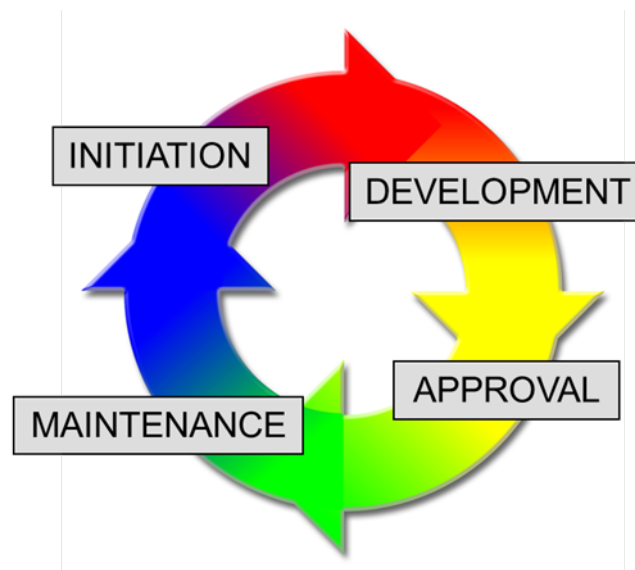
Figure 24. Framework for a Joint Doctrine Development Process

6. Establishing a Joint Doctrine Management Process

Most of our military partners either do not have a joint doctrine development capability or one exists but it is ineffective or not utilized. Many nations have a service-centric culture, so establishing the ability to produce joint doctrine requires a long-term, deliberate effort.

As noted above, the first step in joint doctrine development is to produce guidance that directs roles and responsibilities for joint doctrine development and maintenance. U.S. military partners generally have limited staff capacity, so the process must leverage the entire joint community, including the services, to support the development of joint doctrine. Under the management oversight and guidance of the lead staff organization, each joint doctrinal publication should be developed by a writing team formed by the staff section with responsibility for a doctrinal series (e.g., the J4 should be responsible for writing the logistics publications with support from the services and other logistics organizations). To assist in their management of this distributed approach to joint doctrine development, we advise lead

staff organizations to develop a methodological guide. Figure 25 shows a general outline for a methodological guide; however, it is important that each military partner develop and adopt an approach tailored to their unique capabilities, capacities, and limitations.

I. Introduction
  o State purpose of the methodological guide
  o State applicability of joint doctrine
II. Responsibilities
  o Specify responsibilities for joint doctrine development
  o Describe working-level & senior- level joint doctrine governance responsibilities
III. Joint Doctrine Development Process
  o Explain the joint doctrine development process (overview and stages)
  o Describe the organizations and actions required at each stage of the doctrine development process – initiation, development/revision, approval, maintenance
  o Provide sample formats for each process document (e.g., proposals, assessments)
IV. Joint Doctrine Organization Framework
  o Describe the framework for the joint doctrine structure
V. Joint Doctrine Formatting and Distribution
  o Provide instructions and samples for the formats of joint doctrine manuals
  o Describes the distribution process for joint doctrine publications

Figure 25. Joint Doctrine Development Methodological Guide-Example

4. Summary

This paper describes the idea of jointness. Jointness occurs when two or more services integrate their ways and means to produce synergies. Jointness is important because it facilitates the convergence of capabilities to gain the initiative on the battlefield. Militaries can achieve jointness, in part, through a cultural change from a service-centric approach to a joint mindset. Developing joint concepts and joint doctrine can promote a cultural change.

This paper defines two types of joint concepts: joint concepts and joint concepts of operation (CONOPS). Joint concepts are ideas for how joint forces may operate or perform a function to address compelling challenges and threats anticipated in a future operating environment. Joint concept development occurs independently of an annual or biennial planning and budgeting timelines. They describe a general approach.

Joint CONOPS describe a specific approach to specific problems in the context of specific environments. They support force development as inputs to the force planning process. They support force employment by describing how the joint force may accomplish the commander's intent and address challenges and threats with the forces available.

Joint doctrine is a guide for employing existing joint force capabilities. It is also a reference for training and educating joint force leaders and units, and establishes standard terminology for the joint force.

Based on research and IDA's experience in support of military partners in Colombia, Taiwan, and Indonesia, the intent of this paper is to provide ICB teams with a practical approach (tailored to the nation they are advising) to support a foreign military partner's journey on the path to jointness.

Finally, the publication provides presentations that advisors may reference if their assignment is to promote the idea of jointness and the development of a joint culture. In particular, the presentations explain how to use joint concept and doctrine development as key lines of effort as part of a broader effort to improve the development and institutionalization of multi-year force planning processes.

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Appendix A. Joint Concept Development Charts

Joint Concept Development
Supporting Slides Presentations

The purpose of these presentations is to provide institutional capacity building (ICB) advisors material in support of joint concept development and management.

Supporting Presentations

I. Fundamentals of Joint Concept Development

II. Organizational Approach for Developing a Joint Concept

III. Slide Templates for Facilitating Discussion during Joint Concept Framing and Writing Workshops

IV. Conceptual Slides to Support CONOPS and Scenario Development

2

I. Fundamentals of Joint Concept Development

3

Focus on 'Joint' in 21st Century Military Operations

- **Joint capabilities are built on the foundations of service competencies**
- Jointness = principles and processes that enable the effective **integration** of the combat capabilities of two or more services
- Jointness implies cross-service combinations where the sum of the capabilities of the joint force is greater than that of individual Service components

Campaigns and operations will be constituted and executed by an appropriately designed and enabled joint force, comprising force elements from two or more Services operating together under a single commander.
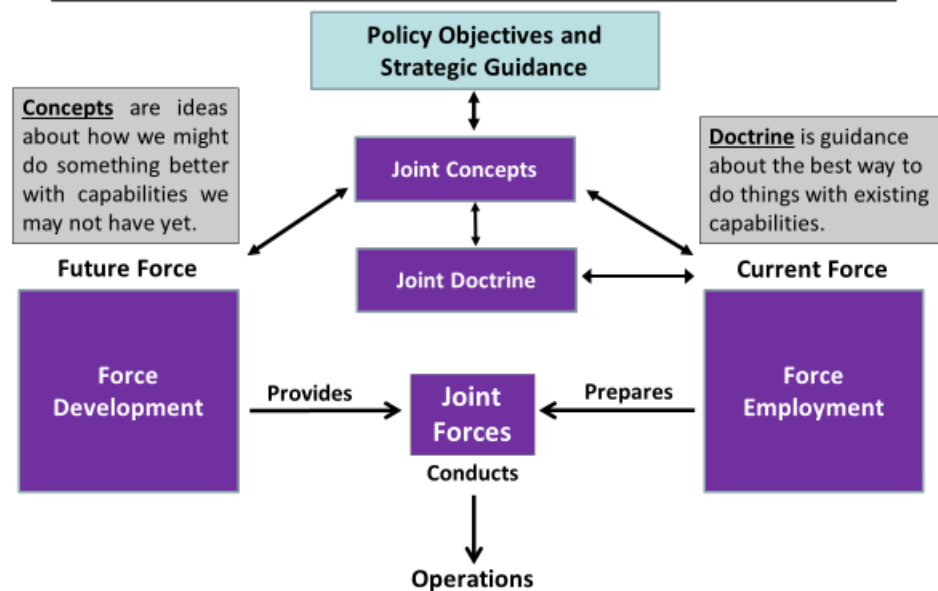*Land Warfare Doctrine 3-0, Operations, Australian Army Publication 2018*

4

Background

- Joint concepts and doctrine provide a conceptual basis for continuous improvement of joint capabilities
- Joint concept development (JCD) and joint doctrine development (JDD) guide integration of Service capabilities to enable effective joint warfighting
- JDD/JCD describes how joint capabilities (means) are applied to achieve joint objectives (ends)
- **Joint concepts** provide a vision for future joint warfighting
  - Provide conceptual basis for joint experimentation to validate concepts and identify required capabilities and capability/capacity gaps
  - Validated concepts drive joint force development
- **Joint doctrine** provides the fundamental principles for the development and employment of the joint force capabilities

5

Relationship of Joint Concepts and Joint Doctrine to Force Development and Force Employment

Policy Objectives and Strategic Guidance

Concepts are ideas about how we might do something better with capabilities we may not have yet.

Joint Concepts

Doctrine is guidance about the best way to do things with existing capabilities.

Future Force

Joint Doctrine

Current Force

Force Development — Provides → **Joint Forces** ← Prepares — **Force Employment**

Conducts

↓

Operations

A-3

What is a Concept?

- Concepts describe how the armed forces and security elements in a society integrate capability among themselves and (when applicable) other elements of national power in order to achieve national objectives.

- Concepts can be organized:
  - at different levels
  - as joint or single-service

  Capstone level joint concept   Joint (UK)   (AU) Service land operating concept   Single-service

Pre-requisites:

- A (Joint) concept must <u>start with a challenge or challenges</u> that require a military or security response
  - Either a scenario that describes how those challenges may present themselves or;
  - Challenges presented by current operations that no existing concept addresses
- Acknowledgement of the roles and missions of the nations military and security services and of the capabilities that can or may contribute to joint operations

What is a (Joint) Concept designed to do?

Joint concepts examine military **problems** and propose **solutions** that describe **how** the joint force, using military art and science, may operate to achieve strategic goals within the context of the anticipated **future** security environment. Joint concepts lead to military **capabilities**, both non-materiel and materiel, that improve the ability of the joint force to overcome **future** challenges.

- Guide future force development
- Concepts should:
  - Respond to *strategic guidance*, support defense sector *objectives*, and identify required *capabilities*
  - Identify and address *compelling operational challenges*
  - Propose *new approaches* for addressing compelling challenges – current or envisioned – for which existing approaches or capabilities are insufficient or nonexistent.
  - *Present rationale* for why new joint concept is better than current approach to addressing challenge
  - Identify joint force development *implications* and *risks*

8

The key elements of a joint concept

1. <u>Introduction</u>: Describe the operational challenge(s) and the operational context this joint concept addresses.
2. <u>Purpose of the Joint Concept</u>: Within the operational context
3. <u>Scope and Planning Assumptions</u>: Identify the time horizon for use of the joint concept. State assumptions about what is unknown and must be stated to continue planning. These statements shape the joint concept.
4. <u>Description of the Challenge</u>: Describe the joint force challenge(s) and other factors that may impact the conduct of military operations and why a joint concept is necessary.
5. <u>Central Idea</u>: What is the central idea of the joint concept to address the challenges?
6. <u>Supporting ideas</u>: What ideas are necessary to support the central idea to fully describe the concept?
7. <u>Key required capabilities</u>: Describe the broad military capabilities required to enable the central and supporting ideas.
8. <u>Implications and risks</u>: Describe the likely implications and operational risks for joint force development.
9. <u>Sketch</u> (optional): Provide a set of sketches that illustrate the joint concept
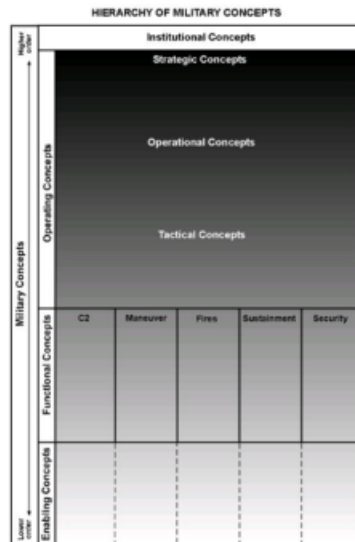
Types of Joint Concepts

- **Institutional concepts** - a description of the features and functioning of a military institution or institutions. Describes the institution's policies, to include operations, manpower, training, educational, materiel, morale & welfare and other policies.

- **Operating concepts** - describe in broad terms the application of military art and science within a defined set of parameters. Can be arranged according to mission types (deterrence, peacekeeping, irregular warfare, etc.)
  - <u>Concept of operations (CONOPS)</u> – The instantiation of an operating concept under a specific, unique set of conditions. A statement of commanders' assumptions and intent in regard to an operation of series of operations. A proposed course of action chosen for a specific situation.

- **Functional concepts** – describes the performance of a military field of specialization (e.g logistics, targeting, personnel, intelligence) within a broader operating context. Maritime prepositioning is an example of a functional concept that was implemented

- **Enabling concepts** – describes how a particular task or procedure is performed, within the context of a broader functional area, using a particular capability. An enabling concept describes the accomplishment of a particular task that makes possible the performance of a broader military function or sub-function.

10

Joint Concepts Organizational Construct – Some Examples

The joint concepts organizational construct has to fit the needs of the partner nation

US organizational construct for its family of joint concepts

Joint concepts organizational construct - Schmitt

11

Joint Concepts Organizational Construct – Some Examples
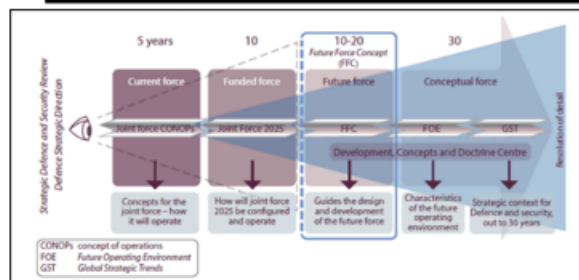
UK MOD's Continuum of Concepts
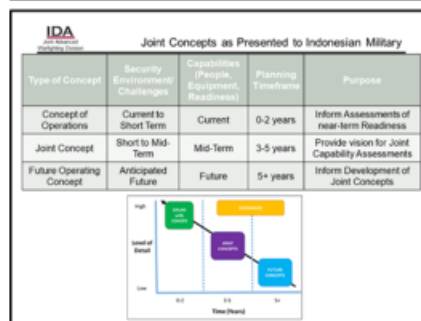
Types of Joint Concepts (Indonesian Use Case)

Joint concepts should inform and drive development of Service concepts

12

A-6

Some Example of Joint Concepts

UK Future Force
Concept

Example of Joint
Operating Concept

Australia Future Air &
Space Operating Concept

Example of Joint
Supporting Concept

13

II. Organizational Approach for Developing a Joint Concept

14

Joint Concept Development (JCD)

- JCD is a deliberate and repeatable process
- JCD consists of five major activities:

Concept Proposal Development	→	Research and Writing	→	Concept Evaluation	→	Coordination and Approval	→	Concept Implementation
➢ Framing Workshop		➢ Writing Workshops		➢ Red-team / Wargame Planning & Execution		➢ Formal Review and Staffing		➢ Capability Planning

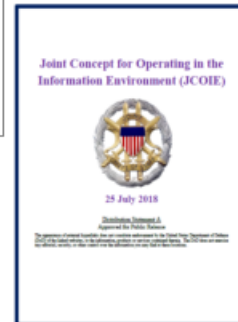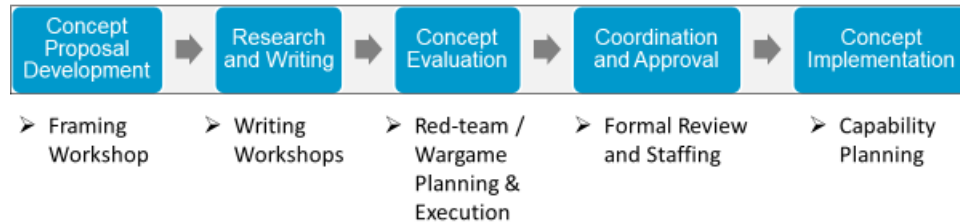Concept development team should include:

- A core (~2-3) writing team
- Participants from key stakeholder organizations who will provide subject matter expertise, review concept drafts, provide feedback

Concept Development Planning Considerations

Concept Development Planning and Preparation

- Form core writing team:
  - Writing team must gain wide range of perspectives: Joint Force, Government Agencies, nongovernmental organizations, academia, industry, multinational partners
- Identify broader stakeholder team
  - MND & joint staff offices/directorates
  - Major Operational Commands
  - Subject Matter and Academic experts (e.g., War College)
- Determine and assign organizational responsibilities
- Develop plan of action & milestones
- Conduct research to establish baseline of knowledge
  - What are sources to gain the baseline of knowledge?
  - What briefings can be presented at a "framing workshop"?
- Conduct Framing & Writing workshops to develop initial & subsequent drafts

Concept Proposal Development

- The sponsoring organization should develop concept proposal and submit to Armed Force Staff (e.g. Joint Staff) for evaluation
- Proposed concept should:
  - Respond to *strategic guidance*, support defense sector *objectives*, or address *validated capability requirements*
  - Identify and address *compelling operational challenges*
  - Offer an *initial conceptual idea* for a new or alternative way of addressing the challenges
  - *Present rationale* for why new joint concept is better than current approach to addressing challenges
  - Present *detailed action plan and milestones*
  - *Identify costs, risks, and impact* associated with developing the concept

Research and Writing

- The writing process employs a systematic methodology that:
  - Incorporates real-world observations, concerns, or issues
  - Considers a wide range of innovative ideas for more effective future operations.
- Concept writing begins with research to establish a baseline of knowledge
  - Strategic guidance
  - Joint and Service doctrine
  - Studies
  - Assessment of operational environment
  - Lessons learned
  - Training and exercise reports
  - Scholarly journals
- Conduct an initial framing workshop to provide common understanding
  - Outline strategic guidance, rationale for concept, concept development timeline
  - Define / discuss future operational environment and future trends; challenges; implications & opportunities
  - Stakeholders (e.g., Services, Police, others) brief on their roles and responsibilities
- Conduct periodic writing workshops to discuss ideas and provide updates
  - Develop process for stakeholders to review / comment on concept drafts

Concept Evaluation

- Assesses the viability of the concept ideas through their application across a likely set of relevant operational challenges
- Focuses on adequacy, feasibility, acceptability, distinguishability, and completeness of the ideas, capabilities, implications, and risks
- Supports concept refinement and follow-on testing and assessment
- Provides objective and transparent analytical evidence to support informed decisions about advancing the capabilities of the future Joint Force
- Concept evaluation approach includes:
  - Independent Red Team review
  - Series of in-stride assessment events

19

Coordination and Approval

- Draft concept must receive informal and formal coordination.
  - *Informal coordination* among the writing team and stakeholders occurs throughout the writing process.
  - After concept evaluation/revisions, *formal staffing* of joint concepts across the joint force ensures transparency and gains the broadest feedback on the end product.
    - Concept and issues briefed to senior defense leaders to resolve issues and gain endorsement before final review and approval
- The Minister of Defense or the joint force commander or his designated representative should *approve and sign the* joint concepts following a thorough staffing process

20

Concept Implementation

- Concept sponsors and key stakeholders:
  - Develop implementation plan: overarching plan to implement concept
  - Conduct capability analysis: conduct assessments to identify capability needs/gaps
  - Inform force development priorities and recommendations: capability shortfalls examined for recommended solutions
  - Execute and assess: actionable recommendations tracked to completion

III. Slide Templates for Facilitating Discussion at Joint Concept Framing and Writing Workshops

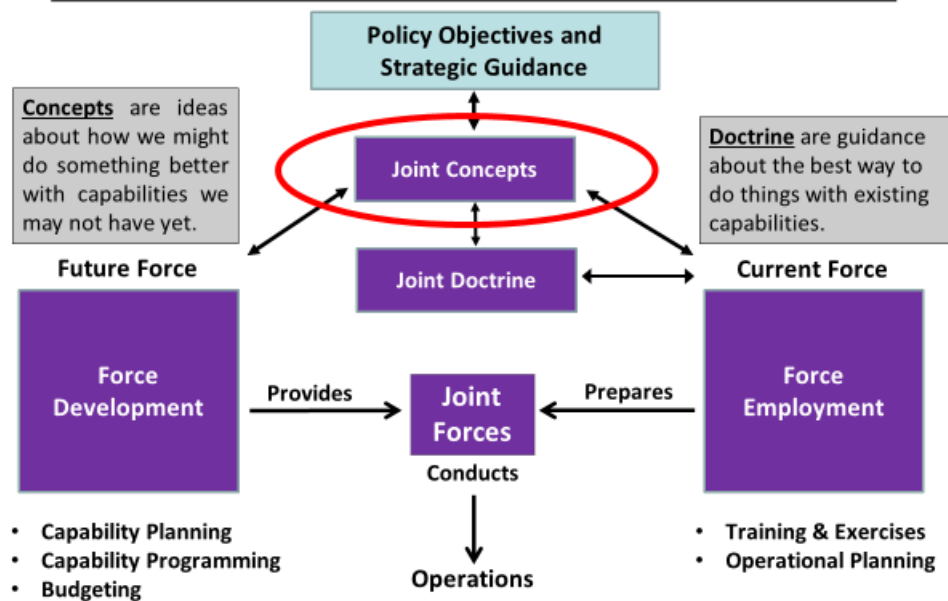## Provide Workshop Background, Purpose and Objectives

Purpose:

Background:

Objectives:

Joint concepts describe how the joint force may conduct operations, functions, and activities, in response to a range of future challenges. The concepts should describe the solution to a potential challenge and the capabilities required to implement the proposed solution.

Discuss Relationship of Joint Concepts and Joint Doctrine to Force Development and Force Employment

Policy Objectives and Strategic Guidance

Concepts are ideas about how we might do something better with capabilities we may not have yet.

Joint Concepts

Doctrine are guidance about the best way to do things with existing capabilities.

Future Force

Joint Doctrine

Current Force

Force Development

Provides

Joint Forces

Prepares

Force Employment

Conducts

Operations

- **Capability Planning**
- **Capability Programming**
- **Budgeting**

- **Training & Exercises**
- **Operational Planning**

Outline the key elements of a joint concept

1. <u>Introduction</u>: Describe the operational challenge(s) and the operational context this joint concept addresses.
2. <u>Purpose of the Joint Concept</u>: Within the operational context
3. <u>Scope and Planning Assumptions</u>: Identify the time horizon for use of the joint concept. State assumptions about what is unknown and must be stated to continue planning. These statements shape the joint concept.
4. <u>Description of the Challenge</u>: Describe the joint and coordinated force challenge(s) and other factors that may impact the conduct of military operations and why a joint concept is necessary.
5. <u>Central Idea</u>: What is the central idea of the joint concept to address the challenges?
6. <u>Supporting ideas</u>: What ideas are necessary to support the central idea to fully describe the concept?
7. <u>Key required capabilities</u>: Describe the broad military capabilities required to enable the central and supporting ideas.
8. <u>Implications and risks</u>: Describe the likely implications and operational risks for joint force development.
9. <u>Sketch</u> (optional): Provide a set of sketches that illustrate the joint concept

Purpose of the Joint Concept

- What is the purpose of the new joint concept? Discuss why a new joint concept is better than the current approach to address the challenge(s).

26

Scope and Assumptions

- Scope – consider timeframe, operational environment, threats, relationship of the joint concept to other concepts

- Outline the planning assumptions associated with the new concept

27

Challenges

- Identify and discuss the *compelling operational challenge(s)* which requires a new operational approach / new joint concept

- State the key operational challenge – identify the military problem that this concept must address.

28

Develop the Main Idea and Supporting Ideas

- Discuss / outline the main idea to address the key challenge

- Identify the supporting ideas that are required in order to support the main idea for addressing the challenges identified.

Required Capabilities

- Identify the required capabilities needed to enable the main and supporting ideas.
    - Note: A capability can be achieved through changes in doctrine, organization, training, or some other non-materiel approach. Avoid the tendency among some planners to immediately default to buying new equipment or weapon systems.

Joint Functions	Required Capabilities
• Command & Control • Intelligence (Battlespace Awareness) • Maneuver • Fires • Logistics • Protection	• The ability to….. • The ability to…. • The ability to….

Implications

Discuss the potential implications associated with the identified capabilities

Topical Area	Implications
Doctrine	
Organization	
Training	
Materiel	
Personnel	
Infrastructure	
Policy	

31

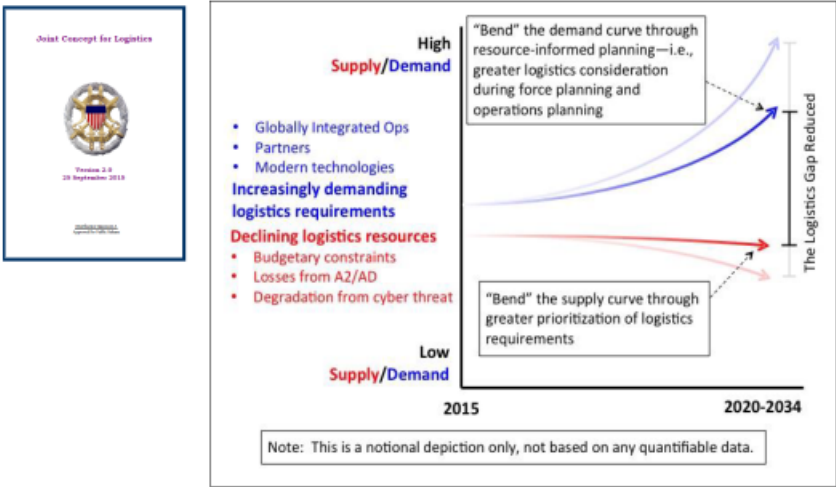## Risks

- Discuss the potential risks and the mitigation efforts to minimize those risks

Risks	Proposed Mitigation Means

32

Example of Concept Sketch (optional)

Example: from US Joint Concept for Logistics. Concept sketch depicts the approach for easing the future logistics dilemma by increasing resources and decreasing demand

Examples

Table of contents for two joint concepts
- US Joint C2 concept follows outline
- UK Future Force Concept provides general description of required capabilities

UK Future Force Concept

US Command & Control Joint Integrating Concept

IV. Supporting Scenario and Concept of Operations (CONOPS) Development

Why Concepts of Operations (CONOPS)

- A CONOPS describes a course of action chosen for execution in response to a specific situation.
- A CONOPS expresses what needs to be accomplished and how it will be done.
- CONOPS are used to support operational planning. However, they can be used to inform the force development process by highlighting capability shortfalls needed to execute operational plans.
- The Elements of a CONOPS are similar to a joint concept. However, CONOPS need specific context based on real world events or a specific scenario

Key Elements of a Scenario (Example)

CONOPS respond to real-world events or a plausible, realistic scenario

STRATEGIC CONTEXT / ENVIRONMENT / ASSUMPTIONS
- o Timeframe
- o Relevant conditions

WHO:
- o Provide a detailed description of the threat. Actors, size, organization, capabilities, objectives
- o Other actors that impact on the situation.

WHAT HAPPENED: Develop a short story-line of events leading up to crisis.
- o Short description of events / conditions that lead to the use of military forces
- o Objectives - What is the military being asked to do?

Mission Area	Threat Focus	Where
National Defense	• Border security • Countering Insurgency	

MAP

Timeline

37

Key Elements of a CONOPS (Example)

- Outline the **challenges** posed by the scenario or real world event
- Determine **mission** and **tasks** that has to be accomplished to overcome challenges
- Describe **HOW** - are tasks sequenced or in parallel; who does them; how are they done.
- **WHAT and WHO** – what are the **required capabilities** and which **units** provide them or which units are requested

- o What types of units are you using to provide the required capabilities? What is the composition of the units?
- o What are the mission / tasks assigned to the units?
- o How will they deploy? How long will it take to get them to the crisis?
- o How will they maneuver? Protection requirements?
- o What is the C2 structure? How about Intelligence / ISR?
- o How will they be sustained?
- o Relationship / cooperation / coordination between various elements of the force

Operational graphic – with appropriate details

38

A-19

39

Appendix B. Joint Doctrine Development Charts

Joint Doctrine Development
Supporting Slides Presentations

The purpose of these presentations is to provide institutional capacity building (ICB) advisors material in support of joint doctrine development and management.

Supporting Presentations

I. Fundamentals of Joint Doctrine Development

II. Developing a Joint Doctrine Publication
 - *Example: US Doctrine Development Process*

III. Establishing a Joint Doctrine Management Process

2

I. Fundamentals of Joint Doctrine Development

3

Focus on 'Joint' in 21st Century Military Operations

- **Joint capabilities are built on the foundation of service capabilities**
- Joint is defined as principles and processes that enable the effective **integration** of the combat capabilities of two or more services
- Jointness implies cross-Service combinations where the sum of the capabilities of the joint force is greater than that of individual Service components

Campaigns and operations will be constituted and executed by an appropriately designed and enabled joint force, comprising force elements from two or more Services operating together under a single commander.
Land Warfare Doctrine 3-0, Operations, Australian Army Publication 2018

4

Background

- Joint doctrine and joint concepts provide the conceptual basis for continual improvement of joint capabilities required to prepare the joint force for an uncertain future
- Joint doctrine development (JDD) and joint concept development (JCD) are required to integrate Service's capabilities to enable effective joint warfighting
  - o Western military fights as a joint force, yet Services are responsible to organize, train, equip and develop Service / multi-service doctrine
  - o JDD/JCD describes <u>how</u> joint capabilities/resources (means) should be applied to achieve joint objectives (ends)
- **Joint concepts** provide the vision for future joint warfighting
  - o Provides conceptual basis for joint experimentation to validate concepts and identify required capabilities and capability/capacity gaps
  - o Validated concepts drive joint force development
- **Joint doctrine** provides the <u>fundamental principles for the development and employment of the joint force's capabilities</u>

5

Relationship of Joint Concepts and Joint Doctrine to Force Development and Force Employment
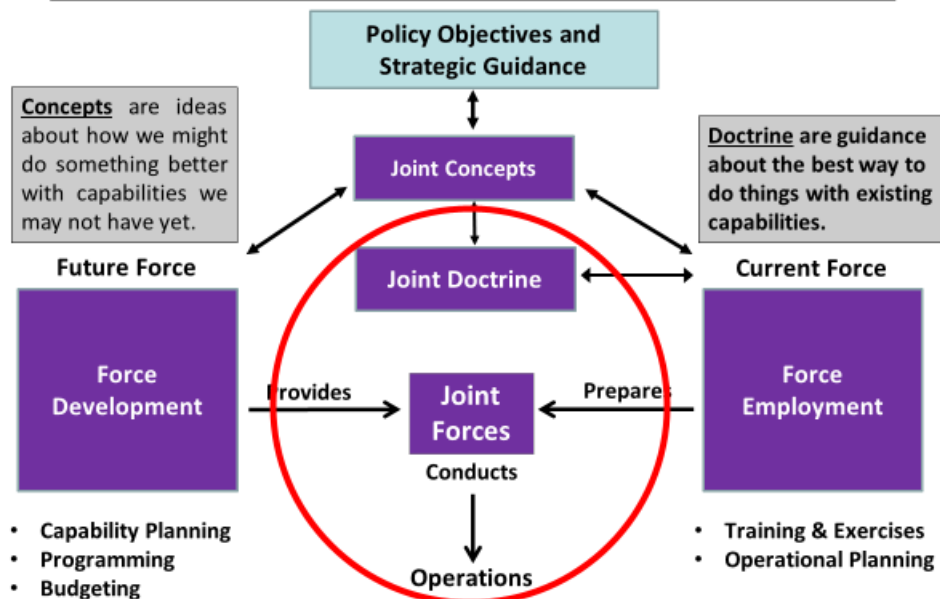
What is Joint Doctrine – US Perspective

- Joint doctrine consists of fundamental principles that guide the employment of military forces in coordinated action toward a common objective and may include tactics, techniques, and procedures (TTP).

- Time-tested principles (principles of war, operational art)
- Reflects best practices.
- Based on <u>existing capabilities</u>.
- Applies changes derived from:
  - <u>Past</u>: lessons learned during operations
  - <u>Present</u>: training and exercises
  - <u>Future</u>: validated concepts
- Provides foundation for unified action and training; basis for inter-agency & multinational coordination during joint operations
- Provides partner nation's position for development of multinational doctrine
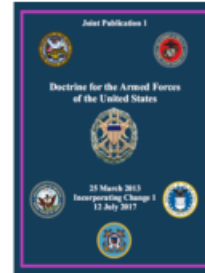
Joint Publication 1
Doctrine for the
Armed Forces of the
United States

Joint Doctrine guides <u>current</u> force employment

What is Joint Doctrine – UK Perspective

- Informs, educates, and guides military personnel and provides:
  - A framework for a common approach to joint operations
  - A guide to the conduct of operations
  - A body of professional knowledge and a common basis for understanding the nature and conduct of conflict
  - A means of educating military officers at key points of their career
  - A means of describing training requirements for members of the armed forces
  - A wide civilian audience (including other government departments employees, academics, industrialists, journalists and members of the general public) with a legitimate insight into how UK approach warfare

Joint Doctrine Publication 0-01
UK Defence Doctrine

- Guides armed forces on how to conduct themselves during operations

Why Joint Doctrine?

Joint Doctrine:
- Enhances the operational effectiveness of joint forces
- Enables:
  - Strategic direction to joint force;
  - Employment of or support to joint forces;
  - Preparation of joint forces; training and education of joint force leaders and units
- Standardizes terminology, training, relationships, responsibilities, and processes among all forces
- Is not dogmatic; is intended to aid thinking, not replace it; focuses on <u>how</u> to think

JP 3-0 Joint Operations

JP 5-0 Joint Planning

ADDP-D Foundations of Australian Military Doctrine

AJP-3 Allied Joint Doctrine for the Conduct of Operations

9

Joint Doctrine Roles & Relationships

- Policy and strategy guide doctrine
- Doctrine guides planning for operations
- Doctrine identifies how a training task is performed
- Military education is based on doctrine
- Lessons learned inform doctrine refinement
- Joint doctrine considers service, multi-service, & multinational doctrine
- Joint doctrine must interface with multinational doctrine
- Validated concepts may be incorporated into doctrine

Joint Concepts

Policy

Strategy

Multinational Joint Doctrine

Joint Doctrine

Operation Planning

Service/Multi-Service Doctrine

Training

Lessons Learned

Military Education

10

Types of Joint Doctrine

- Doctrine can be service-focused or joint-focused
- Basic Doctrine
  - States the most fundamental and enduring beliefs that describe and guide the proper use, presentation, and organization of forces in military action; provides broad and continuing guidance on how forces are organized, employed, equipped, and sustained.
- Operational Doctrine
  - Describes more detailed organization of forces and applies the principles of basic doctrine to military actions. Operational doctrine guides the proper organization and employment of forces in the context of distinct objectives, force capabilities, broad functional areas, and operational environments. Operational doctrine provides the focus for developing the missions and tasks to be executed through tactical doctrine.
- Tactical Doctrine
  - Describes the proper employment of specific force assets, individually or in concert with other assets, to accomplish detailed objectives.

Levels and Topics of Joint Doctrine – NATO Example

Levels and Topics of Joint Doctrine – U.S. Example

Partner Nation Engagement Considerations

- What joint staff or armed forces hq directorate is responsible for joint doctrine development? Is there a responsible directorate?

- What joint doctrine documents exist? How current are the joint publications? How are these publications organized?

- Is there an existing process for managing joint doctrine? How do they determine when a new joint doctrine is needed or needs to be updated?

- Is there a process for drafting, editing and approving a new or revised joint doctrine document?
    - How do they determine which organization has the lead for drafting or revising a joint doctrine publication?
    - How is the writing team formed? How do they determine which organizations are appropriate stakeholders? What are the roles and responsibilities of the stakeholders?
    - What is the editing and reviewing process for developing or updating a joint doctrine document?

- How should the nation organize for joint doctrine development?

II. Developing a Joint Doctrine Publication

Example: U.S. Doctrine Development Process

> Objective is NOT to advocate for US system, but to provide an example and inform on the US approach to Joint Doctrine Development so nations can adapt as necessary to suit their needs

15

Partner Nation Engagement Considerations

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16

Joint Doctrine Development Process - An Overview

- In the US, the Director of the Joint Staff J7 – a 3-Star position - is responsible for development, review, approval, and maintenance of joint doctrine. Assigned to J7 Directorate.
- Joint doctrine development requires active involvement by all principal users
  - Provides means to work towards <u>consensus</u> among doctrine developers
  - Provides method for <u>resolving key issues</u> or divergent views
- Joint doctrine development assessments usually accomplished by:
  - Observing operations and exercises – how is doctrine used
  - Interviewing and surveying users

- <u>Four stages</u> comprise the joint doctrine development cycle:
  - Systematic way create, validate, and revise joint doctrine.
  - Each stage contains discreet phases that include key actions and deliverables.

17

Joint Doctrine Development Community

Example: U.S. Joint Doctrine Development Community

- Consist of stakeholders from joint staff, services, combatant commands, supporting agencies
- Meets semiannually to:
  - Address and vote on project proposals
  - Discuss key joint doctrinal and operational issues
  - Discuss potential changes to the JDD process
  - Discuss the status of joint doctrine publication projects

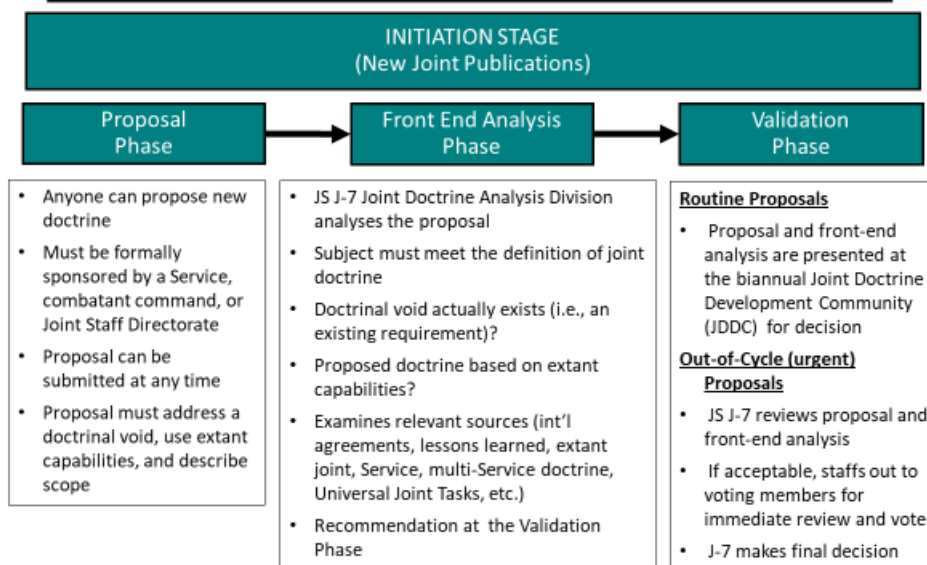**What commands and organizations should comprise the partner nation's Joint Doctrine Development community?**
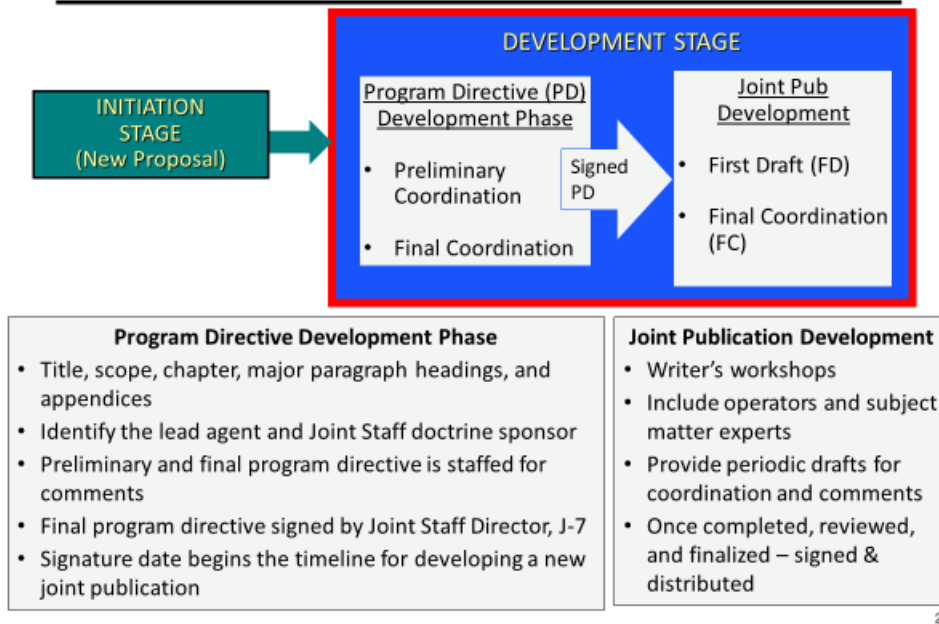
18

Joint Doctrine Development Cycle

Proposal
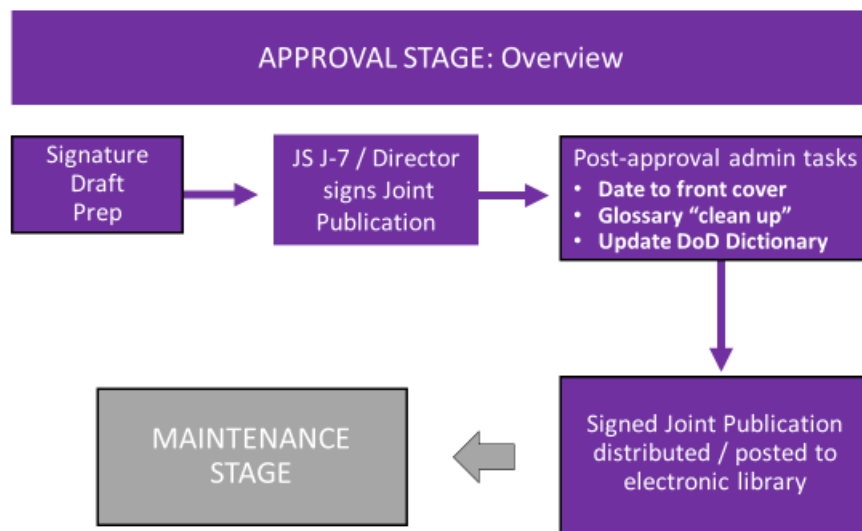Front-end Analysis
Validation

INITIATION

ENTRY POINT

DEVELOPMENT

Program Directive
Lead Agent
Joint Staff Sponsor

Draft Joint Doctrine
Issue Resolution
Development Status

MAINTENANCE

APPROVAL

Assessments
Changes
Revisions, Cancellation or
Consolidation

Approval Authority
Signature Draft

19

Initiation Stage

INITIATION STAGE (New Joint Publications)		
Proposal Phase	Front End Analysis Phase	Validation Phase
• Anyone can propose new doctrine • Must be formally sponsored by a Service, combatant command, or Joint Staff Directorate • Proposal can be submitted at any time • Proposal must address a doctrinal void, use extant capabilities, and describe scope	• JS J-7 Joint Doctrine Analysis Division analyses the proposal • Subject must meet the definition of joint doctrine • Doctrinal void actually exists (i.e., an existing requirement)? • Proposed doctrine based on extant capabilities? • Examines relevant sources (int'l agreements, lessons learned, extant joint, Service, multi-Service doctrine, Universal Joint Tasks, etc.) • Recommendation at the Validation Phase	**Routine Proposals** • Proposal and front-end analysis are presented at the biannual Joint Doctrine Development Community (JDDC) for decision **Out-of-Cycle (urgent) Proposals** • JS J-7 reviews proposal and front-end analysis • If acceptable, staffs out to voting members for immediate review and vote • J-7 makes final decision

20

B-10

Development Stage

DEVELOPMENT STAGE

INITIATION STAGE
(New Proposal)

Program Directive (PD) Development Phase

- Preliminary Coordination
- Final Coordination

Signed PD

Joint Pub Development

- First Draft (FD)
- Final Coordination (FC)

Program Directive Development Phase

- Title, scope, chapter, major paragraph headings, and appendices
- Identify the lead agent and Joint Staff doctrine sponsor
- Preliminary and final program directive is staffed for comments
- Final program directive signed by Joint Staff Director, J-7
- Signature date begins the timeline for developing a new joint publication

Joint Publication Development

- Writer's workshops
- Include operators and subject matter experts
- Provide periodic drafts for coordination and comments
- Once completed, reviewed, and finalized – signed & distributed

21

Approval Stage

APPROVAL STAGE: Overview

Signature Draft Prep

JS J-7 / Director signs Joint Publication

Post-approval admin tasks
- **Date to front cover**
- **Glossary "clean up"**
- **Update DoD Dictionary**

Signed Joint Publication distributed / posted to electronic library

MAINTENANCE STAGE

22

Maintenance Stage

- Joint publications require maintenance. This includes request for feedback and assessment.
- Typically the assessment begins 24-27 months after the joint publication has been signed and distributed to determine the utility and quality of the approved publication.
- The assessment should focus on whether the joint publication has out-of-date material, inconsistencies with other joint publications, doctrinal voids, and the readability of the publication. They also will address recommendations for whether the publication should be reorganized, consolidated, updated or deleted.

- Begins with the signature and distribution of the Joint Publication
- Purpose: monitor efficacy of new or revised Joint Pub after approval

Assessment Phase

Request for Feedback → Assessment Report

23

III. Establishing a Joint Doctrine Management Process

Developing Joint Doctrine

- Joint doctrine consists of fundamental principles that guide the employment of military forces in coordinated action toward a common objective and may include tactics, techniques, and procedures
    - Time-tested (principles of war, operational art)
    - Reflects best practices
    - Based on existing capabilities
    - Applies changes derived from:
        - Past: lessons learned during operations
        - Present: training, and exercises
        - Future: validated concepts
    - Basis for inter-agency and multinational coordination during joint operations

25

Managing Joint Doctrine

- The joint doctrine development cycle shows the process for creating a joint doctrinal publication

- The joint doctrine development community identifies key stake holders that have to be included in the development of joint doctrine publications

Joint Doctrine Development needs its own 'doctrine.' Is there a directive or instruction that describes the development process

26

Elements of a Joint Doctrine Management Directive
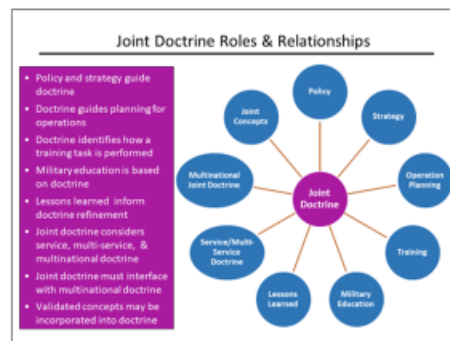
I. Introduction
   - State the purpose of the instruction
   - Provide overview; Explain the role and purpose of joint doctrine;

II. Define and assign responsibilities
   - Outline roles and responsibilities for the joint doctrine development community

III. Joint Doctrine management & governance
   - Describe joint doctrine governance and oversight

IV. Joint Doctrine organizational framework
   - Describe the structure or hierarchy of joint doctrine

V. Joint Doctrine development process
   - Explain the joint doctrine development cycle
   - Describe the organizations and actions required at each stage of the doctrine development cycle – initiation, development, approval, maintenance.

VI. Joint Doctrine publications' formatting
   - Instructions for format and administrative elements in a Joint Doctrine publication

> Joint Armed Forces HQs need a directive outlining policy, responsibilities, management process, and procedures for joint doctrine development

27

Section I - Introduction

I. Introduction
   - State purpose of the instruction
   - Provide overview; Explain role and purpose of joint doctrine;


> Slides provide some ideas and words that can be included in the text of the Joint Doctrine Development Directive

28

B-14

II. Roles and Responsibilities

- Outline roles and responsibilities for joint doctrine development
  - Role of joint staff, Services, operational commands, supporting agencies, etc.
- Describe the joint doctrine development community and their role in joint doctrine development
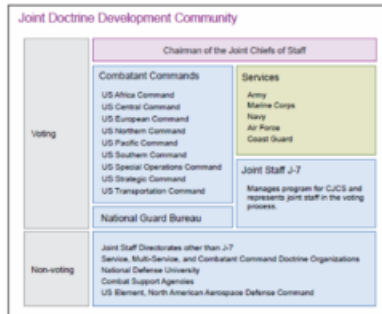
Example: U.S. Joint Doctrine Development Community

- Consist of stakeholders from joint staff, services, combatant commands, supporting agencies
- Responsibilities:
  - Address and vote on project proposals
  - Discuss key joint doctrinal and operational issues
  - Discuss potential changes to the JDD process
  - Discuss the status of joint doctrine publication projects

What commands and organizations should comprise the nation's Joint Doctrine Development community?

29

III. Joint Doctrine Management & Governance

- Who is responsible for managing joint doctrine development?
- What are the processes and procedures for managing the program?
  - Who are the members of the working group? Senior oversight members?
  - How often do working groups meet? Senior oversight?
  - How is the agenda determined? By whom?
  - What is the process for reviewing and determining the current and future status of joint publications

JDD Senior Review Group
- Who are the members?
- What are their tasks / responsibilities?
- How often do they meet?

JDD Working Group
- Who are the members?
- What are their tasks / responsibilities?
- How often do they meet?
- Who sets the agenda?
- What are their deliverables?

What is the nation's joint doctrine management & governance architecture?

30

IV. Joint Doctrine Organizational Framework

- Describe the partner nation's doctrine organizational hierarchy
- U.S. Joint Staff and NATO hierarchy is:
  - Capstone Document: Theory of war and foundations of joint doctrine
  - Staff doctrine (NATO Example)
    - AJP 2-0 Intelligence / Counter-Intelligence
    - AJP 3-0 Operations
    - AJP 4-0 Logistics
    - AJP 5-0 Planning (J-5)
    - AJP 6-0 Computer Information Systems
 - More specific doctrine is organized under each staff function

Example: NATO Joint Doctrine

V. Joint Doctrine Development Process

- Describe the nation's Joint Doctrine Development Process
  - Developing joint doctrine - the role of the sponsor, lead agent, the writing team, initiation of a new manual, review and approval process
  - Incorporating lessons-learned into joint doctrine
  - Process for updating, revising, cancellation of joint doctrine manuals
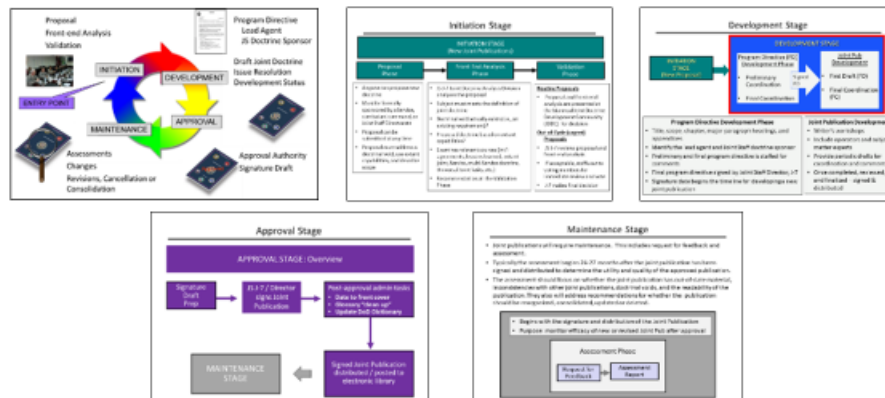
VI. Joint Doctrine Publications

- Describe the nation's Joint Doctrine Publications' Formatting
  - Organization and details of each joint doctrine publication will differ depending on the topic
  - Provide instructions for standardizing administrative formats such as:
    - Sample formats for doctrine project proposal; program directive
    - Joint doctrine research sources
    - Format matrix for joint doctrine publication review and comments

Example: Cover of US Joint Publication 5-0 (Joint Planning)

Example: Cover of UK Developing Joint Doctrine Handbook

Example: Cover of Australia's Defence Doctrine Publication

33

34

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Appendix C. Illustrations

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Appendix E. Glossary

Capability: The wherewithal to complete a task or produce an effect within specified performance standards and environmental conditions.

Capability-based Planning (or Capability Planning): A force planning process to determine an efficient and effective mix of military forces and to provide ample logic and evidence in support of defense budget requests.

Concepts: The description of a method or scheme for employing specified military capabilities in the achievement of a stated objective or aim.

Capability Statements: Detailed descriptions of the tasks that force elements must accomplish to implement the concepts.

Defense Resource Management: The planning processes to ensure that the resources (money, personnel, equipment, facilities, and so forth) of defense organizations are used in the most efficient and effective manner to achieve desired objectives.

Doctrine: Fundamental principles that guide the employment of military forces in coordinated action toward a common objective.

Force Development: An organizing construct of processes, policies, organizational information, and tools that informs senior leader decision maker on how to organize, train, equip, resource, and provide capability to force elements in support of policy objectives within allocated resource limits to carry out armed forces' activities and operations.

Force Employment: The strategic, operational, or tactical use of force elements.

Jointness: The effective integration of the combat capabilities of the services.

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Appendix F. Abbreviations

CBP	Capability-Based Planning
CCJO	Capstone Concept for Joint Operations
CGFM	Colombian General Command's staff
CJCSI	Chairman of the Joint Chiefs of Staff Instruction
CONOPS	Concept of Operations
DOD	Department of Defense
DOTMLPF-P	Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy
DSCA	U.S. Defense Security Cooperation Agency
FARC	Revolutionary Armed Forces of Colombia
ICB	Institutional Capacity Building
IDA	Institute for Defense Analyses
JCD	Joint Concept Development
JDD	Joint Doctrine Development
JMET	Joint Mission Essential Task
JOC	Joint Operating concept
JOE	Joint Operating Environment
JTF	Joint Task Force
MND	Ministry of National Defense
MOD	Ministry of Defence
NATO	North Atlantic Treaty Organization
OSD	Office of the Secretary of Defense
PLA	People's Liberation Army
PRC	People's Republic of China
TTP	Tactics, Techniques and Procedures
UK	United Kingdom
UKDD	United Kingdom Defence Doctrine
U.S.	United States

USG   United States Government

USSOCOM   U.S. Special Operations Command

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14. ABSTRACT

This Institute for Defense Analyses (IDA) paper draws upon the experiences, challenges, and observations from IDA's work on behalf of the United States Government (USG) in Colombia, Taiwan, and Indonesia. From these experiences, we derive general insights, ideas, and approaches on how to assist foreign defense institutions to develop joint concepts and doctrine. In turn, joint concept and doctrine development promote development of a joint culture within defense institutions. We find a joint culture – or jointness – is important for implementing a more effective and efficient force development process. Jointness also lends itself to better employment of the current force.

15. SUBJECT TERMS

Concepts; doctrine; joint; CONOPS; CONOP; security cooperation; defense; defense institutions; capacity building; building partner capacity; defense management; institutional capacity building

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