

By John T. Correll

takes a great leap into the digital age.



 \mathbb{Y} the time this appears in print, the long-standing structure of Air Force doctrine-paper documents, often years out of date and sometimes

contradicting each other-will be gone. In its place will be a streamlined digital library, easy to access from a computer, smartphone, or tablet.

The website, https://doctrine.af.mil, was scheduled to go online in November. The new format will be instantly familiar to anyone accustomed to using the internet, search engines, and hyperlinks.

Instead of the 30 stand-alone doctrine documents of the past, the material is now modular, arrayed into five basic volumes and 29 annexes, constructed from 893 building blocks called "Doctrine Topic Modules," each of which can be called up individually. The breakout into individual DTMs enables revision in detail without broader disruption, so keeping doctrine current is no longer the forbidding chore it used to be.

The overall word count has been reduced by about 30 percent. Background material-such as definitions and explanation of recurring conceptspreviously repeated in document after document is now broken out and stashed elsewhere. The product is consistent throughout.

For the first time ever, terms and concepts are defined the same way

PREVIOUSLY, dispute over a lone issue could hold up doctrine revisions for years.

wherever they appear in doctrine. With no lag in updates, there are no internal contradictions.

Just as doctrine evolves to reflect changing theory, technology, and use of airpower, "so must the means of delivering doctrine to airmen evolve to leverage the increased capability, speed, and flexibility of digital media," said Maj. Gen. Walter D. Givhan, commander of the Curtis E. LeMay Center for Doctrine Development and Education at Maxwell AFB, Ala.

The conversion to digital doctrine was accomplished in a massive project called "Doctrine Next," which took more than a year to complete. It gained the support of senior Air Force leaders and approval by the Chief of Staff at a doctrine summit held at the Air Force Academy in October 2012.

There was considerably more to Doctrine Next than a change in format. It was paired up with a general review and revision of major doctrine documents, already in progress, so the body of material that went online in November is fresh from top to bottom.

Those who have not looked at doctrine for a while may be surprised to discover—among other things—that the way the Air Force refers to its "Airmen" (with a capital A) is now used to refer to both military and civilian members of the Air Force.

The construct of "air and space power," officially endorsed for the past decade, has been dropped in favor of a return to the traditional term, "airpower."

The Leverage of Doctrine

The Air Force did not publish its own doctrine for its first seven years as a separate service. When USAF Basic Doctrine appeared in April 1953, it measured only four by six-and-a-half inches and was just 17 pages long. The 1955 revision was even smaller, cut to 10 pages.

In those days, Air Force doctrine put overwhelming emphasis on strategic nuclear operations to the exclusion of everything else. The 1959 version of Basic Doctrine said that "the best preparation for limited war is proper preparation for general war." That perspective was moderated somewhat after Vietnam but did not fade away completely until the end of the Cold War.

It was a simplistic approach that pushed strategic analysis to the side and contributed to a lack of interest in doctrine within the Air Force, which has traditionally put less emphasis on it than the other services did. That has enabled the others, notably the Army, to use doctrine as a venue to imprint joint operations with their own concepts and theories.

In the 1980s, the AirLand Battle construct advanced by the Army's Training and Doctrine Command (TRADOC) established the primacy of the ground forces, relegating airpower to a secondary and supporting role. It went without doctrinal challenge by the Air Force and persisted until the Gulf War demonstrated the error of it.

More recently, retired Army Gen. David A. Petraeus, former commander of US and coalition forces in Afghanistan, and his followers made TRA-DOC's Combined Arms Center at Fort Leavenworth—home base for Army doctrine—their springboard for launching counterinsurgency of the boots-onthe-ground variety as the centerpiece of joint operations.

Responsibility for doctrine in the Air Force moved around from place to place until the LeMay center was established at Maxwell in 1997 and given the job. The center is now the Air Force's executive agent for doctrine.

"Doctrine reflects and embodies our core beliefs about the nature of airpower and unifies us as airmen while articulating our capabilities to our joint and international partners," Givhan said.

"In doctrine, words are vital," said Col. Todd Westhauser, director of doctrine development at the LeMay center. "Specific terms have far-reaching effects if not used accurately and consistently. While some revisions appear to be focused on minor 'happy to glad' changes, those changes often have an impact on operational missions. Also, precision becomes important when introducing concepts across service lines we strive to reduce ambiguity."

What may look like an obsession with terms and definitions, in fact, sets the assumptions with which the force would go to war. Words can also have a fundamental effect on strategy.

In 2008, Marine Corps Gen. James N. Mattis and his subordinates at US Joint Forces Command used word definition as a means to purge "Effects-Based Operations" from joint lexicon and then from joint doctrine.

EBO, which held that the purpose of a military operation was to achieve a chosen strategic effect, originated in the Air Force and had gained joint and international recognition. However, critics saw it as diminishing the role of the ground forces.

Mattis announced that JFCOM no longer recognized EBO or related concepts and called for a "return to timehonored principles and terminology." Practically overnight, EBO disappeared from joint operational thinking.

Problems With the Old System

Doctrine Next was kick-started in 2011. A revision to Air Force basic

THE other services put more emphasis on doctrine and have used it as a means for imprinting joint concepts and practices. doctrine—the first since 2003—was nearing completion at the LeMay center, but the new commander, Maj. Gen. Thomas K. Andersen, wondered why it had taken so long. "One of my first questions was how we make doctrine more relevant by making it current and shorter," Andersen said.

The arteries of doctrine had been hardened by a combination of bureaucratic practices and pre-internet technology limitations.

"We have historically been constrained by bureaucratic publication limitations that forced us to an 'all or nothing' approach," said LeMay center senior analyst Robert Christensen. "Even minor administrative changes required full coordination of a full publication. Under this approach, a single office could hold up a document almost indefinitely, often over a single issue."

A lone issue was sufficient to clog up the works. "The definition of 'Airman' was delayed four years due to disagreements among Air Staff organizations as to whether Department of the Air Force civilians should be included in the definition," said Westhauser. "Since the word was key to AFDD 1-1, Leadership and Force Development, the whole document was held up until that single item was resolved. With Doctrine Next, only the individual DTM containing the Air Force definition and discussion will be opened for debate while the rest of the volume will remain untouched and usable by the service."

"As another example," Westhauser said, "a revision of the 2003 edition of Basic Doctrine was delayed for several years when senior leaders in 2008 failed to resolve the combining of certain 'operational functions' of airpower (creating intelligence, surveillance, and reconnaissance, or ISR). Resolution of these descriptions finally happened in 2010, and publication occurred in 2011."

Because of the sheer difficulty of moving the iceberg, Air Force doc-

USAF has completed the circle: from "airpower" to "aerospace power" to "air and space" and back to "airpower."

trine routinely lagged the evolution of concepts and the terminology used by operational planners. Thus destruction of enemy air defenses (DEAD) remained in USAF doctrine after the joint definition of suppression of enemy air defenses (SEAD) was changed to incorporate both suppression and destruction.

A similar change happened in the case of the air expeditionary task force (AETF). "Its description has evolved as we have experienced different command arrangements over the years," said senior analyst Robert Poynor. "Much was driven by the Air Force's move to a single air operations center per theater. Since, as a matter of policy, the Air Force was no longer attaching a separate Air Force component to subordinate joint task forces, we experimented with different ways to provide those JTFs with on-hand airpower expertise. We've found some solutions work better than others; Doctrine Next will allow us to get that word out promptly."

"With our new process, we can selectively target those DTMs that need revision based on feedback from the field or from our research," Christensen continued. "We can now post the material that's agreed upon, while resolving the outstanding issue separately."

"One caution," said Andersen, who is now retired. "We have to resist the temptation to change doctrine at a whim just because we can. We still need debate and deliberate thought—albeit shorter."

Tool Kit

The Air Force now has the best tool kit in the doctrine business. None of the other services have anything like the digital library produced by Doctrine Next, and neither does the J-7 doctrine shop on the Joint Staff.

Over the past year, the LeMay center liaison office in the Pentagon has been showing a demonstration version of the website to assorted Air Staff agencies. Col. Frank Link, who heads the office, says the reaction has been universally positive.

The opening screen of the website presents six main choices. The user can choose one of five volumes (Basic Doctrine, Leadership, Command, Operations, or Support) or click on annexes, which leads to a drop-down menu with 29 options. On the opening screen, the user can also select "recent changes to doctrine," go to "frequently asked questions," call up a doctrine search engine, or consult the ultimate sources with "contact us."

"All the doctrinal material in Volumes and Annexes is constructed from Doctrine Topic Modules, the building blocks that contain the key discussion points for any given subject area of doctrine," Christensen explained. "DTMs come together to build Annexes, which are the supporting material for the key complications called volumes." A DTM may be as short as a single paragraph or as long as five pages.

The new configuration eliminates repetitive scene-setting and boilerplate. "When our doctrine was in individual stand-alone books, each one had to have a separate foreword, a separate introduction, a separate glossary, etc.," said Poynor.

"Since Doctrine Next contains doctrinal material unencumbered by traditional book structure, these repeated boilerplate pieces are no longer necessary. Separate glossaries are now replaced with an easily updated single glossary that all volumes and annexes link to for their definitions."

Adjusting the Perspective

Much of the content in the new doctrine library will be familiar but there are some changes, many of them reflecting the radical change in perspective since the Sept. 11, 2001, terrorist attacks and subsequent operations in Iraq and Afghanistan.

In times gone by, irregular warfare was regarded as "a lesser included form of traditional warfare." It is now recognized as a kind of conflict that can exist on its own or escalate into something bigger. Irregular warfare is a regular part of the range of military operations, not an offshoot.

"The character of contemporary and immediately foreseeable conflict has been driven by a significant shift in the US approach to warfighting," the Basic Doctrine volume says. "The large-scale, complex, force-on-force scenarios that drove much of Cold War planning, which were seen during Operation Desert Storm and in the early stages of Operation Iraqi Freedom, are now viewed as the exception, replaced by the complex and unpredictable pace of irregular war against nontraditional enemies."

A DTM on "Culture in War" adds a new element in Basic Doctrine.

"In a number of non-Western societies around the globe, the cultural motiva-

THERE are Airmen (capital A) and then there are airmen (lowercase).

tion for war is more deeply felt, causing them to fight in ways and for reasons that may seem strange to Americans," it says. "Some adhere to a warrior ethos, in which the act of waging war provides its own important psychological reinforcements. Some do not separate church, state, and popular culture in the Western manner, but see religion, politics, warfare, and even trade as a seamless whole. Thus, the wars they wage may take on the single-mindedness and ferocity of religious or civil wars.... The causes of conflict will likely vary from rational political calculation to uncontrolled passion."

Current Air Force doctrine recognizes the same nine Principles of War—unity of command, objective, offensive, mass, maneuver, economy of force, security, surprise, and simplicity—espoused by Napoleon more than 200 years ago with one exception. In 1997, the Air Force moved unity of command to the top of the list, ahead of objective.

All the Way Back to Airpower

The latest revision of Basic Doctrine may have finally resolved half a century of anguish over the terms airpower, aerospace power, and air and space power. In the early days, it was airpower, no question about it. Then in 1959, Air Force doctrine switched to aerospace power, defining aerospace as "the total expanse beyond the earth's surface."

However, "aerospace" did not gain full acceptance until 1998, when the Air Force declared it unequivocally to be the preferred term. That did not last long. In 2003, Basic Doctrine threw out aerospace in favor of "air and space."

Current doctrine, recognizing cyberspace as yet another regime, completes the full circle and goes all the way back to "airpower" as what it calls the "unitary construct," using "concepts and language that bind airmen together instead of presenting the Air Force as a collection of tribes broken out in technological stovepipes according to the domains of air, space, and cyberspace."

"Doctrine is about warfighting, not physics," it says. "Air, space, and cyberspace are separate domains requiring different sets of physical laws to operate in, but are linked by the effects they can produce together."

In recent years, the Air Force had toned down its advocacy of airpower in a gesture toward joint service harmony. Now, in the face of undiminished promotion of ground force hegemony, Air Force doctrine takes a strong position on airpower:

"Airpower has a degree of versatility not found in any other force. Many aircraft can be employed in a variety of roles and shift rapidly from the defense to the offense. Aircraft may conduct a close air support mission on one sortie, then be rearmed and subsequently used to suppress enemy surface-to-surface missile attacks or to interdict enemy supply routes on the next.

"Historically, armies, navies, and air forces massed large numbers of troops, ships, or aircraft to create significant impact on the enemy. Today, the technological impact of precision guided munitions enables a relatively small number of aircraft to directly achieve national as well as military strategy objectives."

"Within the broad sweep of history, the benefits of this instrument of military power are relatively new. Up until the latter part or the 20th century, naval forces provided the primary symbol of American military power and resolve; powerful warships making port calls throughout the world were visible symbols of the strength and capability of the US. Today, airpower plays a very similar role—and not just in those nations with major seaports."

At the same time, there is a warning against excessive parochialism. "A study of airpower should also distinguish between doctrine and public relationslike pronouncements concerning the Air Force's role," Basic Doctrine says. "There have been many of the latter since the Air Force's inception."

The Capital Letter

There are Airmen and then there are airmen. "The term Airman has historically been associated with uniformed members of the US Air Force (officer or enlisted; Regular, Reserve, or Guard) regardless of rank, component, or specialty," the doctrine explains. "Today, Department of the Air Force (DAF) civilians are incorporated within the broader meaning of the term when there is a need to communicate to a larger audience within the service, either for force development purposes or for clarity and inclusiveness by senior leaders when addressing a larger body of personnel.

"The broader meaning does not, however, mean or imply that anyone other than uniformed members of the US Air Force are members of the armed services in other contexts." The rights and obligations imposed by law of armed conflict regulations "are not uniformly applied to both Service members and civilians."

As for airmen, "The Airman's perspective may be shared by members of the other services and other nations who apply airpower. To differentiate US Air Force Airmen from these like-minded individuals, the term *Airman* [capitalized] is reserved for US Air Force personnel, while *airman* [not capitalized] is used as a general term for those from various services and nations."

This leaves out a certain amount of background. Several years ago, dis-

MITH one exception, USAF espouses the same Principles of War that Napoleon did 200 years ago.

gruntled by the unilateral capitalization of *Marines* by the news media and others, the Army and the Air Force directed their official publications to spell *Soldier* and *Airman* with capital letters. In 2004, the Air Force asked the Associated Press to make a similar change, but AP declined to do so.

The 2013 edition of *The Associated Press Stylebook*, used by most newspapers and magazines, still prescribes lower case for airman and soldier, but capitalization for Marine. For reasons of consistency, *Air Force Magazine* also dropped the capital letter from "marines."

It's Effects That Count

When Mattis and JFCOM banished "Effects-Based Operations" in 2008, the Joint Staff went along meekly, saying that the bulk of the EBO "construct" had never been officially adopted in joint doctrine. There was no objection or public response from USAF, which was still reeling from the "decapitation" in July 2008 when Secretary of Defense Robert M. Gates fired both the Air Force Secretary and Chief of Staff for reasons widely understood to be related to their advocacy of airpower.

The new Air Force doctrine replants the flag for EBO, now rephrased as the Effects-Based Approach to Operations. According to EBAO, the purpose of a military operation is to achieve a desired strategic effect, such as neutralizing the enemy or holding him in check but does not in every instance require destruction of the enemy force at the expense of high casualties on both sides.

It adds up to a ringing endorsement for the concept, declaring that "the purpose of military strategy is not just to 'win' or conquer, it is to resolve the conflict" and, it adds, "the attainment of military aims, even at the strategic level, should be subordinate to the attainment of a set of conditions that needs to be achieved to resolve the situation or conflict on satisfactory terms and gain continuing advantage. ... Victory in battle does not equal victory in war."

EBAO, it says, is "not a planning methodology; it is a way of thinking about operations. ... Operations are driven by desired ends (objectives and end states) and should be expressed in terms of desired effects, not defined by what available forces or capabilities can do. ... EBAO is comprehensive—it cuts across all domains, dimensions, levels, and IOPs [instruments of power]."

It remains to be seen whether the improved product and ease of use introduced by Doctrine Next will stimulate a greater interest in doctrine on the part of Air Force members at large.

"We're excited about Doctrine Next," said Westhauser. "While it's far from a dramatic change in how information is presented in general, it is a new way of thinking for presenting approved service doctrine. We believe this flexibility will allow us to lead turn emerging issues in joint doctrine by more quickly attaining a service consensus. When we make this work, we anticipate being able to support allowing this process to proliferate, making coordination and updating more kinds of documentation easier and more accessible across the service."

"Doctrine is a living, evolving part of us that reflects who we are," Givhan said. "Doctrine Next will enable us to keep it fresh, relevant, and connected to our experience as airmen in a digital age."

John T. Correll was editor in chief of Air Force Magazine for 18 years and is now a contributor. His most recent article, "Glenn Miller's Air Force Odyssey," appeared in the November issue.