

# Aviation Apportionment

Failing to unify the MAGTF

by Maj Anthony N. Sama

From Guadalcanal to Marjah, the Marine Corps wins its battles with its MAGTFs fighting as cohesive formations. The MAGTF is a combined arms organization with organic air, ground, and logistic elements under a single command element, promoting unity of effort among all elements to achieve MAGTF objectives.<sup>1</sup> The ACE provides the MAGTF with air power through its strike, reconnaissance, and tactical mobility capabilities. With finite aviation resources, the ACE must employ its air power in unison with the MAGTF commander's priorities in order to create the unity of effort required for optimal effectiveness and lethality. To achieve this, the MAGTF commander provides top-down guidance and direction for employing aviation efforts through aviation apportionment. *The current Marine Corps framework for apportioning aviation capabilities, however, fails to directly support MAGTF objectives, does not afford the MAGTF commander the ability to apportion aviation effort towards achieving MAGTF objectives, and prohibits the assessment of overall effectiveness.* This article briefly describes the current aviation apportionment framework, identifies how it fails to effectively support the

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MAGTF, and proposes recommendations for instituting an objective-based apportionment framework in Marine Aviation planning.

## How the ACE Fights: Six Functions of Aviation

Current Marine Corps doctrine recommends planning aviation apportionment using the six functions of Marine aviation. Joint and Marine doctrine define aviation apportionment as the determination and assignment of the total expected effort by percentage and/or by priority that should be devoted to the various air operations for a given period of time.<sup>3</sup> While planning aviation operations, the ACE commander recommends aviation apportionment to the MAGTF commander for apportionment decisions. This allows the MAGTF commander to ensure efficient and effective employment of limited aviation assets to achieve MAGTF objectives. Marine aviation

doctrine directs planners to apportion aviation effort by percentage or priority of the six functions of Marine aviation.<sup>4</sup> These publications are the foundation for Marine Aviation planning and direct how MAWs and MAGTF ACEs plan for aviation operations.

Utilizing the six functions of Marine Aviation in apportioning aviation effort restricts the MAGTF commander to dictate “how” the ACE will accomplish its assigned tasks. Our warfighting doctrine—maneuver warfare—tells us that proper tasks dictate a task and purpose (“what” and “why”) but avoid the method (“how”); it is the responsibility of the subordinate to determine “how” to best accomplish the task. Yet, aviation publications guide ACEs to recommend and MAGTF commanders to decide “how” the ACE will accomplish tasks and objectives via aviation apportionment. Let us explore this with an example of a MAGTF task to its ACE in a major combat operation.

The MAGTF tasks the ACE to “interdict the 128th Multiple Rocket Launcher (MRL) Brigade (BDE) to enable main effort maneuver.” The “what” (or task) is “interdict the 128th MRL Brigade”; the “why” (or purpose) is “to enable main effort maneuver.” The MAGTF does not dictate “how” the ACE should accomplish this task; instead, the ACE commander will determine “how” to best accomplish the task by utilizing some or all of the six functions of aviation. However, using the current apportionment framework, ACE apportionment assigns aviation effort for “how” an ACE will accomplish MAGTF tasks or objectives. An example of aviation apportionment using the current framework is in Table 1. This

***“We leave the manner of accomplishing the mission to the subordinate, thereby allowing the freedom—and establishing the duty—for the subordinate to take whatever steps deemed necessary based on the situation.”<sup>2</sup>***

<b>Deep Air Support (DAS)</b>	<b>30%</b>
<b>Close Air Support (CAS)</b>	<b>20%</b>
<b>Anti-Air Warfare (AAW)</b>	<b>15%</b>
<b>Electronic Warfare (EW)</b>	<b>10%</b>
<b>Assault Support</b>	<b>15%</b>
<b>Air Reconnaissance</b>	<b>5%</b>
<b>Command and Control (C2)</b>	<b>5%</b>

**Table 1. Example MAGTF aviation apportionment in current framework.**

apportionment framework only enables the MAGTF commander to direct the ACE “how,” not “what” and “why,” to execute aviation operations.

The MAGTF’s unity of effort begins to fragment as a MAGTF apportions aviation effort utilizing the six functions of Marine Aviation. During all operations, a MAGTF defines one or more objectives and tasks subordinate elements with missions that support the achievement of these objectives.<sup>5</sup> For major combat operations, the MAGTF commander’s chief concerns will be targeting objectives that achieve MAGTF shaping conditions, maneuver objectives that achieve MAGTF, or joint force operational objectives, and sustainment objectives that enable MAGTF combat operations. An example is listed in Table 2.

an aviation mission does not directly support the achievement of MAGTF objectives and, therefore, fails to provide the MAGTF commander the ability to weight aviation efforts directly toward achieving MAGTF objectives. If the MAGTF commander wants to place more effort to achieve any of his objectives, the commander must guess how the ACE’s operations (Deep Air Support [DAS], Close Air Support [CAS], etc.) will support that MAGTF objective. The six functions of aviation do not logically align or support the MAGTF objectives, thus failing to unify ACE efforts with MAGTF objectives.

Not only does the current framework fail to unify ACE and MAGTF efforts, but it only facilitates performance-based assessment of specific aviation tasks.

<b>MAGTF Objective</b>
<b>1. 12th MRL BDE unable to interfere with main effort maneuver. (Targeting)</b>
<b>2. 312th Armored Division unable to maneuver above company level. (Targeting)</b>
<b>3. Seize Joint Task Force (JTF) Objective B. (Maneuver)</b>
<b>4. Sustain MAGTF combat operations. (Sustainment)</b>

**Table 2. Example MAGTF objectives.**

These objectives synchronize the efforts across the MAGTF by articulating the purpose (or “why”) for subordinate commanders and staffs. The ACE defines its efforts to support these objectives through its apportionment. The current apportionment framework—six functions of aviation (Table 1)—simply states “how” the ACE plans to execute aviation sorties or missions. Articulating “how” the ACE plans to execute

MAGTF commanders require assessment of operations to evaluate progress of achieving objectives and to enable decision making.<sup>6</sup> While combat assessment is focused at the MAGTF level, all elements conduct assessment to varying degrees. The ACE conducts combat assessment to determine its progress toward achieving ACE objectives in support of MAGTF objectives. However, when apportioning aviation efforts by

the six functions of Marine aviation, assessment only measures execution. Continuing with the example of the ACE’s apportionment of “30 percent DAS and 20 percent CAS,” the ACE can measure how well it performed its DAS and CAS missions with multiple execution-based metrics: percentage of planned sorties flown; percentage of sorties that delivered ordnance against planned targets; or percentage of sorties that effectively delivered ordnance to destroy/neutralize/suppress targets. Unfortunately, none of these will assess effectiveness of achieving the MAGTF objective: “MRL BDEs unable to interfere with main effort maneuver.” Apportioning aviation effort with six functions of Marine aviation inhibits assessment of achieving ACE and MAGTF objectives prevents the MAGTF commander from weighting aviation effort toward achieving MAGTF objectives and does not directly align with MAGTF objectives. The current apportionment framework fails to directly support the MAGTF and dismantles unity of effort.

### Objective-Based Apportionment

An objective-based model corrects the deficiencies in the current apportionment framework and nests directly with MAGTF objectives, enabling the

**“Pursue one great decisive aim with force and determination—a maxim which should take first place among all causes of victory.”<sup>7</sup>**  
**—Carl von Clausewitz, Principles of War, 1812**

MAGTF commander to weight aviation effort in support of achieving overall objectives. As discussed earlier, the MAGTF develops multiple objectives that will be achieved through targeting, maneuver, and sustainment. In an objective-based framework, the ACE de-

velops ACE objectives that align directly with the MAGTF objectives—focused on the “what” and “why” of MAGTF objectives. An example of MAGTF objectives and nested ACE objectives are in Table 3.

These ACE objectives, when accomplished, directly support the achievement of MAGTF objectives—the “what” and “why.” This allows the MAGTF commander to weight aviation effort commensurate with the

toward ACE Objective 3. With the current apportionment framework, the MAGTF commander has limited ability to ensure focus and weight of effort towards his priorities. However, with an objective-based approach, the MAGTF commander’s apportionment decision directs the ACE commander to weight aviation operations in support of specific MAGTF tasks and objectives (“what” and “why”) but delegates to the ACE the freedom to determine “how” to accomplish them. An objective-based framework enables MAGTF unity of effort, empowering the commander to focus the MAGTF’s resources toward “one great decisive aim.”<sup>10</sup>

Additionally, employing an objective-based apportionment framework strengthens unity of effort by facilitating ACE assessment in achieving ACE and MAGTF objectives. ACE planners, understanding the ACE and MAGTF objectives, can develop measures of ef-

MAGTF Objective	ACE Objective
<b>1. 12th MRL BDE unable to interfere with main effort maneuver. (Targeting)</b>	<b>1. 12th MRL BDE unable to interfere with main effort maneuver.</b>
<b>2. 312th Armored Division unable to maneuver above company level. (Targeting)</b>	<b>2. 312th Armored Division unable to maneuver above company level.</b>
<b>3. Seize JFC Objective B. (Maneuver)</b>	<b>3. Enable MAGTF maneuver.</b>
<b>4. Sustain MAGTF combat operations. (Sustainment)</b>	<b>4. Enable MAGTF to sustain combat operations.</b>

Table 3. Example MAGTF objectives and nested ACE objectives for a major combat operation.

The preponderance of MAGTF targeting and shaping capacity resides in the ACE.<sup>8</sup> Therefore, the ACE receives all MAGTF targeting objectives and develops matching ACE objectives (*objectives 1 and 2*). The ACE furnishes the MAGTF with more than (kinetic and non-kinetic) strike capabilities; it provides tactical maneuver and mobility, tactical logistic transport (TOT/TOP), reconnaissance, and command and control (C2).<sup>9</sup> For this reason, the ACE must develop additional objectives that nest within MAGTF maneuver and sustainment objectives (*objectives 3 and 4*), which the ACE directly supports. With an objective-based framework, the MAGTF apportions aviation effort utilizing these ACE objectives. An example of aviation apportionment with this framework is in Table 4.

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**Apportioning aviation with an objective-based framework enables the ACE and MAGTF to measure progress towards achieving overall MAGTF objectives and facilitates MAGTF decision making**

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overall MAGTF effort toward achieving specific objectives. If the MAGTF commander desires to achieve greater progress for MAGTF Objective 2, he can direct the ACE to apportion greater effort toward this objective. Additionally, if the MAGTF is faced with significant enemy strength and requires greater aviation support to seize JFC Objective B, the MAGTF commander can apportion increased aviation effort

effectiveness and key indicators for each ACE objective. For example, in measuring the post-strike ACE effectiveness for ACE Objective 1 “12th MRL BDE unable to interfere with ME maneuver,” the ACE must assess the number of combat effective enemy batteries, observers, C2 nodes, and if the enemy has the capability to interfere with the MAGTF’s maneuver. This enables the ACE to assess its effectiveness in achieving MAGTF objectives, thereby facilitating MAGTF measures of effectiveness. The ACE continues to maintain the ability to measure its performance (number of sorties flown, percentage of ordnance delivered, etc.). Apportioning aviation with an objective-based framework enables the ACE and MAGTF to measure progress towards achieving overall MAGTF objectives and facilitates MAGTF decision making. The ob-

<b>ACE Obj 1. 12th MRL BDE unable to interfere with main effort maneuver.</b>	<b>40%</b>
<b>ACE Obj 2. 312th Armored Division unable to maneuver above company level.</b>	<b>10%</b>
<b>ACE Obj 3. Enable MAGTF maneuver.</b>	<b>30%</b>
<b>ACE Obj 4. Enable MAGTF to sustain combat operations.</b>	<b>20%</b>

Table 4. Example MAGTF aviation apportionment in objective-based framework.

jective-based apportionment framework strengthens unity of effort by directly aligning ACE and MAGTF efforts, allowing the MAGTF commander to weight aviation efforts toward achieving overall objectives, and facilitating the assessment of ACE and MAGTF effectiveness.

### Strengthening the MAGTF through Doctrine and Education

To correct the problem with current aviation planning and apportionment, the Marine Corps must update aviation doctrine and training to implement an objective-based apportionment framework to strengthen the MAGTF. The first priority is to update *MCWP 3-2, Aviation Operations* and *MCTP 3-10A, MAGTF Aviation Planning*, with the objective-based apportionment framework concept and describing why it directly aligns with and supports MAGTF objectives. The publications need to detail how to plan with the MAGTF objectives and develop supporting ACE objectives. Additionally, they must include how to develop the ACE objectives to facilitate assessment. Rewriting aviation publications is the first step in guiding and directing ACE planners in how to better plan and assess aviation operations.

In addition to updating aviation publications, Marine Corps Aviation must educate and train its planners charged with developing the Air Battle Plans, consisting of the Air Tasking Order, Airspace Control Order, and Special Instructions. The best organization to institute this undertaking is the Marine Corps' aviation center of excellence—Marine Aviation Weapons and Tactics Squadron One (MAWTS-1). MAWTS-1 should implement the objective-based apportionment framework in its weapons and tactics instructor courses. Training the Marines (weapons and tactics instructors) who develop and implement the Air Tasking Order in the objective-based framework will facilitate its implementation across the Marine Corps. In addition to MAWTS-1 implementation, the MAGTF Staff Training Program should incorporate objective-based apportionment framework instruction for MEF and Major

Subordinate Command staffs during MEF-level exercises. Warfighting seminars and practical planning applications prior to exercise execution provide an appropriate venue for this instruction. The Marine Corps will strengthen the MAGTF's lethality by updating appropriate doctrinal publications and educating aviation planners in the objective-based apportionment framework.

As our Nation's adversaries grow stronger and our military technological capability gap narrows, the Marine Corps must improve the lethality of the MAGTF by developing greater unity of effort among its elements. The

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Marine Corps' current aviation apportionment framework fails to unify ACE and MAGTF efforts. Implementing an objective-based aviation apportionment framework unifies ACE and MAGTF efforts by allowing the MAGTF commander to weight aviation effort to achieve MAGTF objectives, aligning aviation and MAGTF efforts, and enabling accurate assessment of MAGTF effectiveness. Changing Marine Corps aviation planning and apportionment framework is a simple yet powerful method that will make the MAGTF a more lethal and effective fighting organization.

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### Notes

1. Headquarters Marine Corps, *MCDP 1-0 (with change 1)*, (Washington, DC: July 2017).
2. Headquarters Marine Corps, *MCDP 1, Warfighting*, (Washington, DC: 1997).
3. Office of the Joint Chiefs of Staff, *Joint Publication (JP) 3-0*, (Washington, DC: January 2017).

4. *MCWP 3-20* uses percentages. *MCTP 5-10A* uses priority; Headquarters Marine Corps, *MCWP 3-20*, (Washington, DC: May 2016); and Headquarters Marine Corps, *MCTP 5-10A*, (Washington, DC: May 2016).

5. Milan N. Vego, *Joint Operational Warfare: Theory and Practice*, (Newport, RI: U.S. Naval War College, 2009). "An objective is expressed as a clearly defined purpose of the actions one carries out with respect to the friendly, enemy, or environmental situation."

6. *MCDP 1-0*.

7. *Joint Operational Warfare*.

8. MAGTF targeting and shaping in major combat operations is focused in the MAGTF deep area (or security area) to shape the battlefield for the close area. In most situations (area of operations dependent), the only MAGTF fire assets possessing the range and capability to shape the MAGTF deep area are fixed-wing strike aircraft, (in some situations) rotary-wing strike aircraft, and HIMARS. The ACE currently has significantly greater capacity to sustain MAGTF deep area strike than HIMARS.

9. The Air Force defines air power as "the ability to protect military power or influence through control and exploitation of air, space, and cyberspace to achieve strategic, operational, and tactical objectives." Air Force air power focuses on strike and operational/strategic mobility. Marine Corps (or MAGTF) air power remains undefined in doctrine. MAGTF air power is focused more at the tactical level. MAGTF air power has the ability to project combat power, conduct air operations, and contribute to battle space dominance. MAGTF air power is integrated into the single battle concept delivering the largest form of MAGTF fires to the battlespace while also providing the MAGTF commander the ability to rapidly build-up combat power at the time and place of his choosing. MAGTF air power provides the MAGTF with deep and close strike, tactical maneuver and mobility, tactical logistic transportation, reconnaissance, non-kinetic strike and support, and command and control. It is an important distinction, as MAGTF air power supports the MAGTF and its objectives. Air Force air power supports the joint force and its joint objectives.

10. *Joint Operational Warfare*.

