JAGIC 101 – An Army Leader's Guide

by MAJ James P. Kane Jr.

The emphasis placed on readying the Army for a decisive-action (DA) combat scenario has been felt throughout the force in recent years. The Chief of Staff of the Army and the U.S. Army Forces Command commander have both focused on the ability of leaders and staffs to wage large-scale tactical operations on a magnitude not seen since the invasion of Iraq in 2003. One of the effects of this effort has been the implementation of the Joint Air-Ground Integration Center (JAGIC) at every division headquarters in the Army.

The JAGIC is a modular, scalable joint coordination center that now resides within the division current operations integration cell (COIC).[1] By co-locating representatives from all the division's airspace users and putting them under the direction of a single person (the JAGIC chief), the division creates an organization to synchronize joint fires and deconflict the use of the airspace within the division's area of operations.

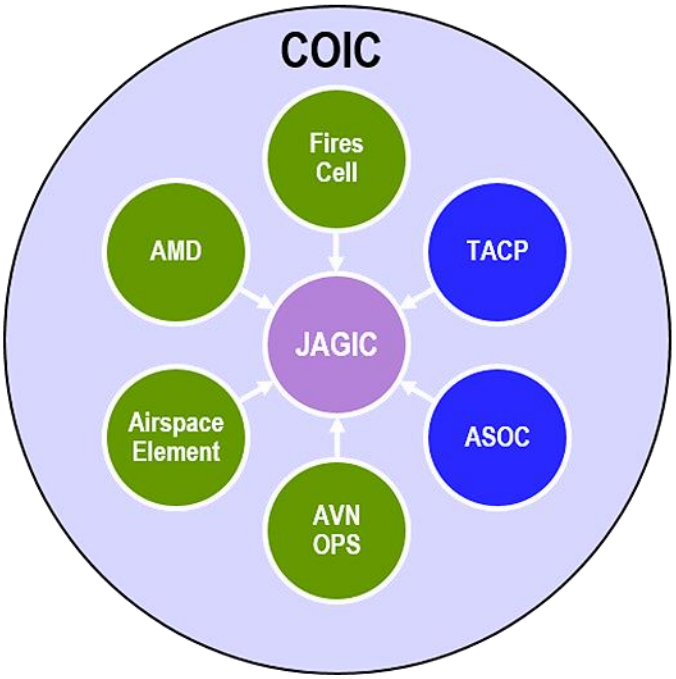

Figure 1. The JAGIC co-locates airspace users in the division COIC.

This article's purpose is to familiarize Armor Branch leaders with the JAGIC. It sits at the center of division operations in DA, and any Armor officer who works at division level will either interact with the JAGIC or directly employ the JAGIC to enable combined-arms maneuver. Leaders at brigade and lower echelons are also directly affected by the JAGIC's ability to deconflict airspace and provide air and artillery support to maneuver. Understanding the JAGIC helps leaders see how maneuver forces fit within the modern three-dimensional battlefield, and it helps junior leaders understand how the division fights in DA.

History

The JAGIC, as described in Army Technical Publication (ATP) 3-91.1, ***The Joint Air-Ground Integration Center***, and Air Force Tactics, Techniques and Procedures Publication 3-2.86, also ***The Joint Air-Ground Integration Center***, is the combination of two separate efforts – one from the Air Force and the other from the Army – to find common ground and a common solution with the JAGIC.

The Air Force effort began in response to the Army's transformation to a brigade combat team-centered modular force starting in 2004. Before then, the Air Force supported Army forces by aligning a tactical air-control party (TACP) at every echelon from battalion through corps, and an air support-operations center (ASOC) at the senior

tactical ground command headquarters (typically with each Army corps). The Air Force created the ASOC/TACP Transformation tiger team to evaluate Army force structure and strategy. This included visiting forces in Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) to capture lessons-learned and best practices. In January 2005, the tiger team recommended aligning ASOCs with each active division, based on the Army's concept that a corps headquarters would primarily function in the role of a joint task force or joint force land component command.[2]

On the Army side, the Chief of Field Artillery at Fort Sill, OK, created the Joint and Combined Integration (JACI) Directorate to spearhead the integration of joint fires into Army operations. The issues of employing joint fires in support of targeting and deconflicting airspace above ground forces (an especially important issue for the field artillery) became the driving impetus behind efforts for JACI, which also studied lessons-learned from Army forces in both OEF and OIF.

After coordination between the services, the JAGIC proof of principle was endorsed by the chiefs of staff of the Army and the Air Force at the 2009 Army-Air Force Warfighter Talks. Following the talks, the Air Force began the re-alignment of ASOCs to divisions in 2011. More than just aligning ASOCs, this effort required the Air Force to expand the number of ASOCs within the force from six to 10. The process of expansion is projected to continue into 2019.

Based on lessons-learned in OEF and OIF, the Army and Air Force developed the idea of integrating the newly-aligned ASOC crewmembers into a single center with representatives from all the division's airspace users capable of controlling airspace and employing joint fires. After seven years of experimentation, testing and analysis, the JAGIC became a reality with the publication of ATP 3-91.1 in 2014.[3]

Organization

At its most basic level, the JAGIC is a seating arrangement (Figure 2) that consolidates several pre-existing elements of the division current operations battle staff into one location. The division's fires-support cell, airspace element, aviation operations and the air- and missile-defense section co-locate in a seating arrangement that facilitates collaboration for the use of the airspace they all share.

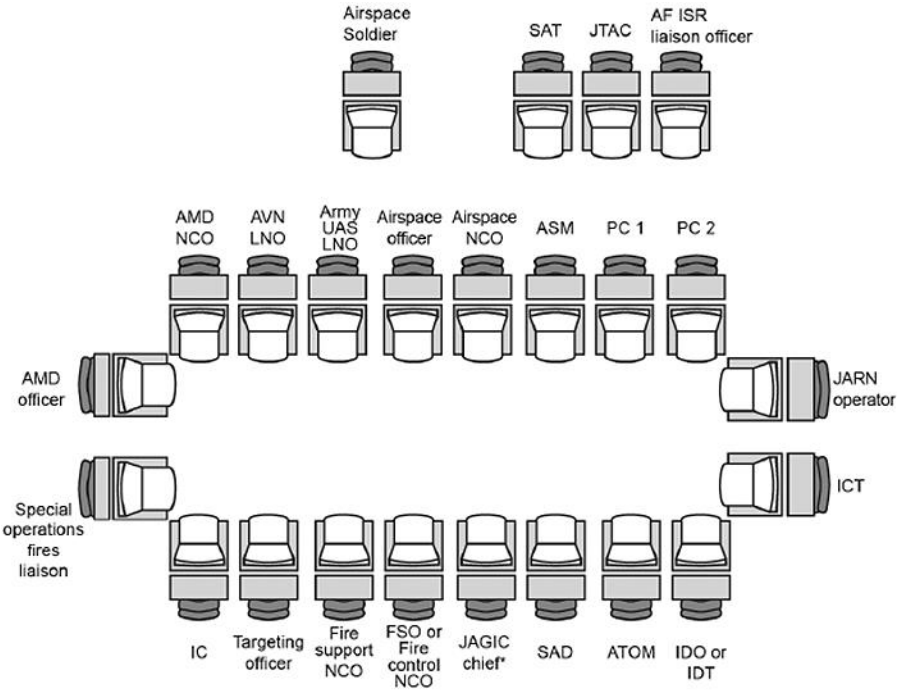

Figure 2. JAGIC layout per ATP 3-91.1.

In addition to co-locating several of the division's organic assets, the JAGIC includes members of the division's TACP and the ASOC.

The ASOC's role is to distribute strike aircraft (close air support (CAS) and air interdiction) and to control airspace through procedural control. Procedural control differs from positive control (as with an air-traffic-control radar) in that aircraft are deconflicted using a separation of space and/or time. To illustrate the difference in procedural and positive control from an Army perspective, imagine the difference between controlling the movement of subordinates through the use of unit boundaries (procedural control) vs. controlling their movement by watching a Blue Force Tracker feed and providing guidance over the radio (positive control). The ASOC has no way to "see" airspace users in real time and so instead controls airspace by organizing the airspace and manually tracking aircraft.

The addition of the ASOC is critical from the perspective of the airspace-control authority (ACA) because it provides an Air Force control center the ACA trusts to control airspace. With the ASOC in the JAGIC, the ACA delegates authority to control a section of airspace (i.e., division assigned airspace) and requires all aircraft entering the airspace to coordinate with the JAGIC. This means that through the ASOC, the JAGIC can deconflict and clear all airspace users, including indirect fire, immediately in the COIC.

When delegating authority to control a block of airspace to a ground unit, the ACA takes into account the effect of this delegated airspace on other airspace users and on the capacity of the controlling organization to track aircraft and deconflict airspace. These two considerations limit the size of the airspace the ACA will allocate for the division's use.

The ACA recognizes an Air Force ASOC as an organization capable of managing airspace and will allocate airspace to a JAGIC because it includes an ASOC. This is an important nuance for Army divisions because as divisions organize "JAGIC-like" configurations that do not include a functioning ASOC (when only part of an ASOC is deployed with a division tactical-actions center, for example, or for divisions that have not yet received their aligned ASOC), the ACA may not recognize the division JAGIC's ability to control airspace or may limit it to a lower altitude.

Even with a fully ASOC-enabled JAGIC, the ACA will not provide unlimited airspace for the division to use. The ASOC's ability to manage/control airspace is limited compared to an Airborne Warning and Control System (AWACS) or a Control and Reporting Center (CRC). Accordingly, the ACA will limit the maximum altitude the JAGIC controls; 18,000 to 20,000 feet has been used as a general rule of thumb as an altitude high enough to encompass most cannon artillery and mortar fire but is not so high that it would require the ASOC to control the large number of aircraft that may transit over the division's battlespace at higher altitudes.[4] This altitude is designated as the *coordinating altitude* and marks the transition from JAGIC-controlled airspace to AWACS/CRC-controlled airspace.[5]

Controlling the airspace above the division area of operations at the JAGIC inherently simplifies airspace deconfliction and makes actual integration possible. Specifically with regard to firing artillery, the JAGIC can either verify that fire missions are clear of aircraft as they arise or can organize the airspace so that aircraft and indirect fires are pre-cleared to operate within boundaries without having to coordinate each action with the JAGIC.

When division-controlled airspace users or indirect fire leave the JAGIC-controlled airspace (such as when the trajectory of artillery goes higher than the maximum altitude of division airspace), the JAGIC must coordinate with the ACA's controlling agency, either an AWACS or CRC, to clear the airspace. This becomes a serious issue for Army indirect-fire systems that fire higher than the coordinating altitude. Using 20,000 feet as a reference, some cannon fires will break the coordinating altitude, and almost all Army rocket and missile field-artillery munitions (Army Tactical Missile System (ATMS), Guided Multiple-Launch Rocket System and M26 Multiple-Launch Rockets) will travel higher than the coordinating altitude.

The take-away for maneuver leaders here is that indirect fire that goes higher than the coordinating altitude will usually be less responsive than lower-angle artillery because clearance authority will be higher than the division. Therefore precision cannon and rocket artillery may take significantly longer to clear than traditional low-angle cannon artillery, which should become far more responsive with a JAGIC present.

Capabilities

The JAGIC allows the division to manage its own airspace. With a functioning JAGIC, the division has enough situational awareness of the location of airspace users within the assigned airspace that the division can know with certainty that aircraft and indirect fires do not occupy the same airspace at the same time. The call on whether or not airspace is clear resides at the JAGIC for all airspace users within the division assigned airspace. This simplifies deconfliction and integration immensely since the division is not required to contact external agencies for airspace clearance. In this role, the JAGIC is the final clearinghouse for the synchronization of airspace use throughout the division.

The JAGIC also becomes the primary tool for the division commander to shape the battlefield with lethal fires. By controlling and coordinating all the division's joint-fires delivery assets (field artillery, Army attack aviation, CAS and air interdiction) into one location with representation from targeting and collection management, the division has consolidated all the assets that directly affect the battlefield at division level. The organization of these assets into one place (the JAGIC) under the leadership of a single JAGIC chief (usually the division deputy fire-support coordinator) synchronizes the efforts of these enablers in support of division objectives. In this role, the JAGIC is able to synchronize and mass joint fires to destroy the enemy.

Limitations

The JAGIC is limited in the amount of airspace that it controls; this means that anything that travels outside the division assigned airspace still requires coordination with higher echelons. ATMS fire missions, for example, usually travel far over the top of the division assigned airspace and require coordination with the ACA before firing (Figure 3). The ASOC located in the JAGIC will assist with coordination, but the division may end up competing with the needs of airspace users working directly for three- and four-star headquarters.

The orbit of the refueling tanker is an example of an airspace user whose priority usually trumps that of division indirect-fire missions. If the tanker is forced to move, it could potentially disrupt air support throughout the joint operations area (JOA).

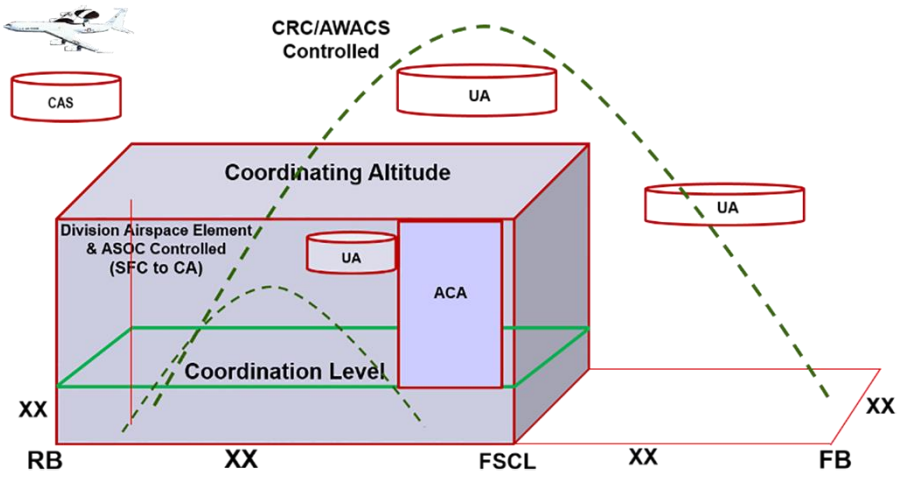

Figure 3. JAGIC-controlled airspace is depicted in blue. All other airspace is controlled by Combined Forces Air Component Command assets.

The existence of the JAGIC does not eliminate the need to deconflict and integrate joint fires and airspace users within the division-controlled airspace. Because there is a JAGIC at the division, commanders should not expect that airspace no longer needs to be cleared. If planning and coordination has not been conducted ahead of time to pre-clear missions, the JAGIC must still check each mission to ensure that aircraft and artillery rounds do not occupy the same location at the same time. This degrades the responsiveness of air and artillery support for ground forces.

The JAGIC is also not a planning organization. It is located on the COIC floor, and it is designed for execution in the current fight. If coordination measures are not created during planning prior to execution, this forces the JAGIC to determine if there is a conflict of airspace use at the moment of execution, causing delays. At best the JAGIC will

create hasty coordination measures to facilitate airspace use, but this adds to the workload of a JAGIC, which is already busy managing the current fight and is often not detailed enough to integrate the use of joint assets.

Taking to next level

The JAGIC should always be able to manage the division's airspace and deconflict joint fires and air operations. That being said, there is a significant difference between a JAGIC which operates by solving problems as they arise (dynamic) vs. a JAGIC that manages a detailed fires and airspace plan that is prepared ahead of time (pre-planned) in support of the maneuver plan. This difference is not a minor one. Enough fire support and airspace planning that establishes rules for airspace use and right-of-way prior to execution will reduce or eliminate the JAGIC's processing time.

For instance, if fire support and aviation planners establish ingress and egress routes for aviation, field-artillery units will know they are clear to fire as long as they don't fire into those routes or other restrictive measures. This pre-planning changes the JAGIC's role to one of maintaining situational awareness of the current airspace plan and managing any changes to the plan as they arise. Armor officers working as division planners should expect this kind of detail out of their fires and aviation representatives, and should make sure the plan for the third dimension of the division's battlespace gets attention alongside the plan for ground maneuver.

Likewise, having a clear delineation of the authorities given to the JAGIC is important for the employment of responsive and effective joint fires. The JAGIC needs to know what level of authority the JAGIC chief has to authorize the employment of strike assets on targets, to order airspace users to move and possibly to order the movement of collection assets. These authorities also need to be defined outside the JAGIC to staff organizations that are required to support the JAGIC in the current fight. Beyond the level of the staff, the JAGIC may be given authority to provide direction to some of the division's subordinate commands, frequently the division artillery and the combat aviation brigade. Whatever the level of authority delegated to the JAGIC, this must be clearly communicated to the division by the commander or conflicts will arise.[6]

Conclusion

The JAGIC adds new capabilities to the division headquarters and reorganizes staff elements to focus them on the division fight. This is especially important in DA when the pace and scale of combat requires the division to take an active and immediate role in shaping the battlefield. By understanding how the division employs joint assets to support the division through the JAGIC, Armor officers will gain a better understanding of how the division fights in decisive action.

The JAGIC will not solve every challenge faced by the division commander in combat, but it helps. Especially as the Army struggles to overcome the cultural biases learned in 15 years of decentralized counterinsurgency warfare, the JAGIC becomes a coordinating, integrating and controlling tool[7] not just for joint fires and airspace control, but also a tool for the division commander to focus the staff on fighting as a division and shaping the enemy at the division level.

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Notes

[1] ATP 3-91.1, ***The Joint Air Ground Integration Center***, June 2014. In some cases, the JAGIC may be located within the corps COIC. The ATP states that the JAGIC will be located at the senior tactical echelon, which is where the Air Force will align the ASOC supporting ground forces. In a scenario employing the corps in a tactical role, such as during large-scale DA operations, the ASOC will migrate to the corps level and doctrinal JAGIC functions will move with it.
[2] Field Manual 3-94, ***Theater Army, Corps and Division Operations***, April 2014.
[3] Conversation with Curtis Neal, Air Combat Command's A-3 Joint, June 7, 2016. Neal is the senior Theater Air-Control System analyst and former ASOC/TACP Transformation tiger team lead. (A-3 is the Air Force equivalent of G-3 on an Army staff. The "joint" section is the section of the A-3 that integrates with the other services.)
[4] In addition, the ACA considers the impact a large block of airspace may have on other airspace users.
[5] Joint Publication 3-52, ***Joint Airspace Control***, November 2014. *Coordinating altitude* is defined as "An [airspace coordination measure] that uses altitude to separate users and as the transition between different airspace-control elements."
[6] In addition to authorities granted by the division commander to the JAGIC, the ACA will provide guidance that must be adhered to by the JAGIC in the form of the airspace-control order and special instructions. These two pieces of guidance apply to all airspace users in the JOA, and JAGIC personnel must be familiar with them and able to communicate them to the rest of the division staff.
[7] ATP 3-91.1.