Chapter 4
Execution

The goal of MAGTF SEAD execution is the accomplishment of the supported MAGTF mission. Each MAGTF element must understand its role to guarantee the suppression of appropriate targets, prevent duplication of effort, and prevent friendly interference or fratricide.

Intelligence Collection and Dissemination

Effective SEAD requires aggressive, continuous intelligence collection and responsive dissemination of target data. Timely and accurate threat assessment permits decisive attacks by the MAGTF. The collection plan for SEAD targets must use all ground and aviation assets available. The MAGTF links its collection effort to joint, theater, and national-level collection resources. Table 4-1 identifies sources of collection to include in the collection effort.

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<th>Table 4-1. Sources of Collection/Dissemination.</th>
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<td>JTF</td>
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<td>National Theater Collection Assets</td>
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<td>Adjacent Units</td>
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Collection/Dissemination of Targets

Collection/dissemination of targets is critical to effective SEAD planning and execution. The MAGTF ACE and GCE G-2 maintain liaison with the JTF J-2. The MAGTF ACE can receive imagery intelligence (IMINT) through the use of aerial reconnaissance assets (FA-18D ATARS, UAVs); ELINT from VMAQ squadrons (in the form of EA-6B ES, national systems data from the Tactical Electronic Reconnaissance Processing and Evaluation System [TERPES]); and HUMINT from aircrew mission reports and FAC(A)s. The MACCS agencies collect, maintain, and exchange information on enemy air defenses, including damage assessment and targeting information from all of these sources. The GCE can receive HUMINT from forward observers, FACs, naval gunfire spotters, and various combat/reconnaissance units. The GCE can receive ELINT from the radio battalion. Intelligence information must be compiled on the four components of the enemy IADS: command posts, sensors, weapons systems, and C2 networks.

Command Posts

Where are enemy IADS command posts located? Are they critical? Are they vulnerable? Do they control enemy air defenses in the area where MAGTF operations will be conducted?

Sensors

Where are enemy sensors located, to include ground-based radars, likely fighter and airborne early warning (AEW) CAPS, radio-electronic combat assets, and visual observers? Are they critical? Are they vulnerable? What frequencies are enemy radars
and AEW assets using? What friendly systems are enemy passive REC assets searching for?

*Weapons Systems*

Where are enemy SAM/AAA systems located? Are they critical? Are they vulnerable? What are the electromagnetic parametrics of enemy weapons systems radars? Do enemy weapons systems have an IR/EO/laser capability? What friendly systems are enemy REC assets attempting to conduct EA against?

*C2 Networks*

Where are enemy IADS C2 nodes? Are they critical? Are they vulnerable? Do they control enemy air defenses in the area where MAGTF operations will be conducted? How are IADS command posts, sensors, and weapons systems connected?

*Target Location Accuracy*

Target locations must be determined as accurately as possible. Intelligence sections provide target location and the accuracy and reliability of their source to appropriate agencies. These agencies use this information to confirm preplanned SEAD targets and determine attack means for RSEAD targets. Required location data accuracy will depend on the friendly weapon system in use. The employment of EA (jamming, HARM, bulk chaff) will require different threat locations data accuracy than the employment of CBU's, laser-guided bombs (LGBs), PGMs or artillery.
Damage Assessment

Intelligence collection must determine damage assessment. The assets delineated in table 4-1 can be used to determine damage assessment. If the MAGTF mission cannot be continued until SEAD (preplanned or reactive) has destroyed and/or suppressed a target(s), it is absolutely essential that timely damage assessment is passed to the MAGTF commander.

Requesting SEAD

Preplanned SEAD

Preplanned SEAD is primarily a fire support planning issue. The unit requesting an air mission begins by identifying known or suspected enemy air defenses affecting the supported air mission. Requesters list threats in the remarks block of the joint tactical air strike request (JTAR), CAS briefing form or assault support request (ASR) form along with organic SEAD assets available. The FSCC assesses SEAD requirements and assigns appropriate and available SEAD assets. When the preplanned air request reaches the Marine TACC, the ACE decides if more SEAD support is necessary. The ACE may assign a SEAD package to support the mission. It may request additional SEAD support from the GCE, ground unit support or indirect fire support. If the GCE or combat service support element (CSSE) cannot support ACE SEAD requirements because of higher priorities or limited assets, the ACE passes the SEAD requirement to the MAGTF commander. The MAGTF commander may reorder priorities or re-quest external SEAD support.
Suppression of Enemy Air Defenses

Reactive SEAD

Reactive SEAD is primarily a fire support coordination issue. The chance of duplicating efforts are highest for RSEAD. Rapid coordination is essential to execute RSEAD while threat location is known. Standardized procedures, such as RSEAD strike cards, simplify rapid coordination and execution.

Coordination

Timing and Delivery of Fires

MCWP 3-16.6, Supporting Arms Observer, Spotter, and Controller, describes three techniques for timing the delivery of fires: synchronized clock, elapsed time, and event-oriented. One technique at a time must be selected. All units and agencies providing or coordinating SEAD must know and understand this technique. SOPs and operation orders identify their preferred order of use.

Coordination with Ground Forces

Coordination with ground forces may be necessary because of target location in relation to friendly forces, the presence of fire support coordination measures such as the FSCL or fire support restrictions. Examples include coordination of EW to prevent interference from friendly operations and coordination of SEAD fires to prevent fratricide.
Airspace Coordination

Airspace coordination integrates aviation with surface-delivered fires and other combat forces without restricting fires or unnecessarily delaying ground operations. Airspace coordination offers a reasonable measure of protection to aircrews from friendly fires.

Airspace coordination methods include formal airspace coordination areas (ACAs) and separation techniques (informal ACAs). Formal and informal ACAs should be designed to allow the greatest freedom of action for air missions and surface fire support. Airspace coordination methods also depend on the aircraft delivery profile.

Airspace coordination requirements and methods are different for preplanned and RSEAD because of time available. Preplanned SEAD allows enough time for planners to conduct detailed airspace coordination, to include changing aircraft routing and artillery fire mission assignments, and establishing formal ACAs. The lack of time available for RSEAD usually means the use of more informal airspace coordination, the use of already existing airspace coordination measures, or rapid coordination through the DASC or FSCC.

MCWP 3-25, Control of Aircraft and Missiles, and MCWP 3-16, Techniques and Procedures for Fire Support Coordination (under development), contain detailed discussions of methods, techniques, and procedures for airspace coordination.

Separation Techniques

Aircraft and SEAD fires may be separated by distance (lateral, altitude or a combination of altitude and lateral) or by time.
Suppression of Enemy Air Defenses

Separation by distance is preferred because it may permit the continuous attack of SEAD targets and require less detailed coordination. If distance separation is too restrictive on aircrews, time separation may be used to provide protection from friendly fires. Time separation requires the most detailed coordination. Select the separation technique that requires the least coordination but still provides adequate flexibility and protection to aircrews.

Lateral Separation

Lateral separation is effective for coordinating SEAD against targets that are safely separated from flight routes. This technique is used when aircraft can be routed away from SEAD trajectories and targets and when they will not cross gun-target lines. Terminal controllers must know the gun-target line so they can restrict aircrews from crossing trajectories. Establishing a temporary, informal ACA is one method of maintaining lateral separation.

Altitude Separation

Altitude separation is effective when aircrews can safely remain above or below direct or indirect fire trajectories, i.e., gun-target line. Altitude separation can be limited to a specific area to give aircrews more freedom to maneuver. Establishing a temporary ACA is one method of maintaining altitude separation.

Altitude and Lateral Separation

This technique requires aircrews to remain laterally displaced and above or below direct or indirect fire trajectories, i.e., gun-target line. Aircraft maneuvering requirements may dictate that firing
units deliver SEAD by high angle or reduced charge. A temporary ACA is one method of maintaining altitude and lateral separation.

**Time Separation**

Time separation requires the most detailed coordination and may be required when aircraft cannot be routed away from indirect fire trajectories or SEAD targets. This technique requires the timing of SEAD fires to be coordinated with the routing of aircraft so that even though aircrews and SEAD fires may occupy the same space, they do not do so at the same time. Timing for SEAD fires is based on a specific aircraft event time; e.g., time-on-target/time-to-target, L-hour, or UAV mission area arrival time. In immediate SEAD missions, the aircraft event time becomes the “zero hour” for scheduling. The preferred method for coordinating timing is to use a previously established synchronized clock. If a synchronized clock is not available, an elapsed time may be used to coordinate timing.

**Combined Arms**

The MAGTF achieves a combined-arms effect by using all its combat capabilities. As part of this combined-arms team, aviation can have a decisive role in assuring success in battle. To use aviation in combined-arms operations, the MAGTF—

- Defines aviation goals and SEAD requirements. Planners set SEAD requirements that increase friendly capabilities and exploit threat weaknesses.
- Develops an aggressive targeting plan.
Suppression of Enemy Air Defenses

- Identifies and attacks high-payoff enemy air defense targets early and continuously.
- Identifies and reports all elements of the enemy air defense system upon detection.

Enemy air defenses can influence aviation’s ability to contribute to the combined-arms effort. Effective SEAD can reduce or eliminate enemy interference with MAGTF air operations, thus allowing the MAGTF commander to accomplish his mission.