



## ELECTRONIC WARFARE ORGANIZATION

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[Electronic warfare](#) (EW) forces are task organized on the doctrinal tenet of centralized control and decentralized execution. Air Force EW is normally controlled at the component level and executed at the lowest level providing responsiveness to the [Commander, Air Force Forces](#) (COMAFFOR). Appropriate expertise should be available at all levels of [command and control](#) (C2) where EW coordination, planning, and execution occur.

When required, the COMAFFOR may form an electronic warfare coordination cell (EWCC). The EWCC plans, manages, and assesses air component EW operations and also ensures effective coordination and synchronization with other joint force components. The EWCC is responsible for ensuring control and access to the [electromagnetic spectrum](#) (EMS) through coordination of [electronic attack](#) (EA), [electronic warfare support](#) (ES) and [electronic protection](#) (EP). Synchronization of EW activities occurs through [electromagnetic battle management](#) (EMBM) to enable freedom of action.

The EWCC is normally organized into plans and operations divisions led by experienced electronic warfare officers. EW uses EM energy and [directed energy](#) (DE) to control the EMS and create effects contributing to objectives associated with a variety of mission types that include but is not limited to: counterair; counterland; cyberspace operations; information operations; and intelligence, surveillance, and reconnaissance (ISR). Therefore, to promote unity of effort and prevent electromagnetic (EM) fratricide, the EWCC should integrate across [air operations center](#) (AOC) divisions.<sup>1</sup>

### EW and COMAFFOR Headquarters Organization

The COMAFFOR headquarters is usually comprised of normal staff directorates, A-1 through A-6, as well as a special staff. The core of the EW function is located in the A-3 as part of the AOC and its IO cell. The entire IO operation must be integrated with A-2/3/5/6. The EW personnel will provide these functions:

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<sup>1</sup> For more on EW organization and processes within the Air Operations Center see [JP 3-13.1, \*Electronic Warfare\*](#); and [AFTTP 3-3.AOC, \*Operational Employment Air Operations Center\*](#).

## Intelligence Surveillance and Reconnaissance (A-2)

- ✦ Provide to the ISR staff the A-2 related EW objectives, intent, and plans.
- ✦ Coordinate EW ISR support from JFC fusion centers, major command (MAJCOM) ISR staffs, theater intelligence agencies, national intelligence agencies, and coalition ISR sources.

## Operations/Plans (A-3/A-5)

- ✦ Organize the operational EW aspects of the headquarters staff.
- ✦ Coordinate operational EW issues with the JFC and component staffs. Typical issues would include:
  - ✦ ✦ Rules of engagement for EW air component forces.
  - ✦ ✦ Assist in unit [beddown](#) requirements for EW forces.
  - ✦ ✦ EW development requirements for ATO and airspace control order (ACO).
  - ✦ ✦ Requirements for additional EW forces/capabilities.
  - ✦ ✦ Requirements for force protection.
- ✦ Identify essential elements of information (EEI) to A-2.
- ✦ Apprise the ISR team chief of EW capabilities and limitations of all components and the potential effects on operations.
- ✦ Assist ISR team chief with EW ISR support requirements of subordinate units.
- ✦ Develop and coordinate the EW plan and integrate it into the IO plan that accomplishes the JFC's objectives.
- ✦ Identify Service-specific EW training requirements and coordinate joint training with other components.
- ✦ Advise COMAFFOR on concepts of EW employment, force planning, and management of EW resources for which he has [operational control](#) (OPCON) and/or [tactical control](#) (TACON) or has established supported/supporting relationships.
- ✦ Provide information on the number and location of all EW air assets.

## Communications and Information (A-6)

- ✦ Coordinate for the A-3 to ensure that frequency allocations and assignments meet technical parameters under host-nation agreements.
- ✦ Deconflict frequencies and coordinate the joint restricted frequency list (JRFL) with J-6.
- ✦ Provide communications-electronics operating instructions for air component forces.
- ✦ Plan, coordinate, and monitor EW related communications security (COMSEC) procedures and assets.

## Joint and Multinational Operations

**EW is an integral part of joint and multinational operations. Planning and execution of [multinational force](#) (MNF) EW is made more difficult because of security issues, different cryptographic equipment, differences in the level of training of involved forces, and language barriers.** An increasing dependence on the EMS requires close coordination between all joint force and MNFs, in addition to other organizations that may be impacted like civil air traffic control facilities and civil defense activities.

Joint force and Service component EW capabilities are employed in supported and supporting roles. For example, Air Force ES capabilities may be employed to identify and locate a surface-to-air threat which subsequently may be targeted and engaged by Army surface-to-surface fires as a [suppression of enemy air defense](#) (SEAD) mission in order to establish a degree of [air superiority](#) for [close air support](#). To promote the effectiveness of joint EW actions, air component EW personnel should be familiar with joint force commander's and other Service/functional component EW organization and be prepared to directly coordinate. See [JP 3-13.1, Electronic Warfare](#), for a discussion of the joint and Service component EW organization.

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