

# *Chapter 10*

## *Coordination of Airspace*

### **I. Introduction**

The wide variety of airspace arrays and local interagency relationships across the nation pose unique coordination challenges where no one method or timeline fits all situations. While selected airspace arrays or flight operations may be conducive to coordination through a committee process others may be more appropriately handled with basic straight-line, one-on-one coordination.

Effective interagency coordination at the local level consistently focuses affected agencies airspace user and management technical expertise to cooperatively resolve aviation and environmental issues. Regardless of the level of formality established to achieve interagency coordination, a consistent, organized approach creates the greatest potential for all parties to develop mutual respect and understanding of agency mandates which fosters team building and balanced resolution of issues.

Aviation and airspace managers are the key communication links between all airspace users and agency managers. As that link, airspace managers facilitate interagency communication so all parties involved may better understand and cooperatively resolve issues of mutual concern. Effective interagency coordination starts with thorough, timely internal dialogue between airspace users and managers. With prioritized user needs clearly understood by aviation/airspace managers, interagency coordination processes can be initiated that seek a balanced resolution of issues. Military representatives (MILREPS), military airspace managers, resource agency aviation managers, and unit managers typically form the core of interagency teams. A wide variety of tools are available to facilitate dialogue and issue resolution between the varied airspace users and resource agency manager.

Interagency tools that have proven effective in assisting the coordination efforts for these events include:

- |                       |  |
|-----------------------|--|
| # Informal Agreements | # Training                             |
| # MOU's/LOA's         | # Videos/Publications                  |
| # TFR's               | # Prepared Checklists                  |
| # Advisory NOTAMS     | # Completed Crash/Search Rescue Guide  |
| # Temporary Towers    | # Critical Airspace Contact Phone List |
| # Educational Tools   | # Standardized/Customized Forms        |
| # Site Visits         | # Training Drills or exercises         |
| # Brochures           |  |

There are many recurring or non-disaster operations that can and will effect the airspace, but do not need a TFR nor meet the criteria for a TFR. Not all of these operations will use aircraft but their operations could impact aircraft or aircraft could impact the project.

The location of these projects, duration, timing, size or area, altitudes, hazards, and many other factors must be considered. These factors plus others will influence who needs to be contacted, when to make contacts and how to contact the required entities.

Selected ground operations also affect airspace. Logging operations that use the high lead method could place cables in a location that could be on a MTR or an area that has or may have aerial use, such as hang gliders, sailplanes, student practice area or approach or departure paths to an airport.

Another example of a ground activity affecting aerial activity is blasting operations. Further information regarding blasting activity is in Chapter 4, Airspace Hazards. Advance notice of 24 hours of planned blasting activity should be forwarded to the appropriate MTR or SUA scheduler.

Aerial activities, such as a large spray project, aerial seeding, photography, monitoring resources, prescribed fire, VIP flights, research flights, wildlife and horse/burro flights, require thorough and timely coordination with effected agencies. On such projects, preplanning must be done in a timely manner. The more lead time the better for all entities involved. Early coordination minimizes conflicts with military activities which may be scheduled months in advance. If your project affects MTRs/SUA's, the greater the lead time the better to accommodate scheduling activities.

## **II. Agency Issues**

Within agency programs, there may be additional impacts to natural or cultural resources. Agency representatives involved in airspace coordination should be aware of impacts on the following activities and should follow agency guidelines when appropriate.

- # Bird Migratory Routes
- # Breeding Grounds
- # Historical Artifacts
- # Tribal Ceremonies/Vision Quest
- # Noise Issues
- # Breeding seasons
- # Recreational Issues

## **A. Land Ownership/Use Patterns**

Land ownership provides an indication of the number of potential partners who may be involved in the development of MOUs which should alleviate past and future potential airspace conflicts. Activities associated with specific resources should be coordinated with resource specialists as well as administrative contracting (eg, service or job contracts). Each source is a valuable asset to developing a complete evaluation.

An example of this process would be a review of a land ownership map to determine agency ownership and significant management uses, such as seismic exploration, wild horse collection, or aerial seeding. Airspace "ownership" and users could then be overlaid (eg, using GIS systems) to determine impacts and potential conflicts. Additional aviation information as identified above could then be added to present a fairly complete picture of the specific geographic area in which airspace conflict might occur.

## **B. Trend Analysis**

Each unit aviation manager in concert with their respective aviation safety officer should review historical aviation uses and determine future potential. This evaluation will identify conflict areas that may exist between land management needs and current airspace parameters.

Sources for this analysis may include historical files of flight scheduling forms and project air safety plans, contract files, use/cost data, resource survey project files, and SAFECOMs. These sources should include military as well as civilian sources.

Agencies with contiguous borders should coordinate with each other. The intent is to capture a complete historical overlay of aviation use. This information, coupled with mapping information, will provide a base for primary determinations of airspace conflict.

## **C. Risk Management**

Historical review of aviation problems (incident/hazard and accident reports) provides a trend analysis of patterns which may be contributing to operational problems. Trends identified through incident reporting systems provide the basis for risk management decisions concerning specific and long-term agency aviation projects. Risk reduction, which may involved implementation of MOUs, following the processes and procedures contained in this Guide, coordinated training programs, etc., can then be accomplished to reduce the risk.

### III. Airspace Activities

There are three kinds of airspace events to prepare for:

- # Scheduled airspace event - An airspace event that is being proposed or planned.
- # Reoccurring airspace event - Day to Day, on going events.
- # Time Critical airspace event - emergency event such as wild land fire, SAR, etc.

#### A. Scheduled Airspace Activities

There are scheduled airspace events that are planned in advance. Airspace coordination is dependent on the scale and type of operations involved which are not considered an emergency. Contact should be made with involved military units. This facilitates coordination between agency contacts and the military airspace managers. If conditions warrant it, a LOA or MOU would assist in cooperation and coordination with the affected Military facility. These have proven very helpful in the past by formalizing procedures and contacts. Contacting the local Flight Service Station (FSS) or other local FAA facilities for information and assistance is also very helpful.

Examples of Events which may require preplanned airspace coordination are as follows:

- |                                |                             |
|--------------------------------|-----------------------------|
| # Aerial Spray Projects        | # Seeding                   |
| # Photo Projects               | # Hang Gliding Competitions |
| # Movie Flights                | # Research Flights          |
| # Photo Projects               | # Wildlife Flights          |
| # Balloon Gatherings           | # Telemetry Flights         |
| # Recon Flights                | # Mitigation Monitoring     |
| # Prescribed Burning Flights   | # Air Tour Operations       |
| # Dignitary/VIP Flights        | # Blasting                  |
| # Helicopter Logging           | # Cables/Towers             |
| # Military Exercises           | # Bird Migratory Routes     |
| # Horse and Burro Mgt. Flights |                             |

#### B. Reoccurring Events

These are events that are on going, day to day activities. Risk mitigation factors could include sharing maps of planned flights with DoD Scheduling Activities or Scheduling Agencies. Many events happen that are reoccurring within an agency. It could be a time limited project (14 flights in the same area in a 2 week period) or a planned daily event such as a fire reconnaissance flight. The following do not necessarily require the deconfliction of airspace nor do they normally require the closure of involved airspace. FAA and DoD reports have stated that if two aircraft are aware of each others presence, the risk of a mid air collision is reduced. In many cases, DoD will voluntarily deconflict involved airspaces but are not required unless there is a TFR established.

The following are examples of reoccurring events:

- |  |                                      |
|--|--------------------------------------|
| # Aerial spray project,  | # Helicopter/high lead logging       |
| # Aerial photo project   | # Cables                             |
| # Normal recon flights   | # Military exercises                 |
| # Special events: balloon gatherings,<br>hang gliders, movies, etc | # Mitigation monitoring flights      |
| # Prescribed fire projects, dignitary<br>or VIP flights            | # Research flights                   |
| # Blasting   | # Aids to research study development |
|  | # Open skies flights                 |
|  | # Horse and burro management flights |

### C. Time Critical Activities

These are events that require immediate response and coordination. In this category, prioritization and timing are key. There are many events that happen in airspace coordination that are considered “time critical” in that they require an immediate response. A proven tactic for emergency response is pre-planning so that a unit or individual is prepared to deal with the given situation. Previous sections in this guide have dealt with long range planning for scheduled events. An unscheduled event presents a different scenario. Preparedness for events such as temporary flight restrictions, temporary towers, near mid airs and intrusions enable units to respond in a standardized coordinated effort to ensure maximum success. Units are encouraged to periodically test their emergency responses to ensure they know “who to call” and “when to call” when reacting to time critical coordination.

The following are examples of time critical events:

- |                                   |                           |
|-----------------------------------|---------------------------|
| # NOTAM Coordination              | # Intrusions              |
| # Wildland Fire Aviation Activity | # Near Mid-Air Collisions |
| # Search and Rescue               | # Media Flights           |
| # Selected Law enforcement        | # Border Incursions       |
| # Unsafe Aircraft Operations      |                           |

The following represents some factors that should be considered when coordinating an airspace issue requiring a time critical response. Consulting the following list of different factors is critical to ensure maximum success. The list is not all inclusive but is meant as a guide and will influence who needs to be contacted as well as when and how the contact is to be made.

- # Who is approval authority and what has been approved?
- # The location and geographic boundaries of the project
- # When did event happen? Projected timeframe
- # Project complexity
- # Media interest
- # Notification procedures - chain of command
- # Previous process in place
- # Mitigation measures in place
- # Is a temporary tower needed
- # The need for a TFR/ or Advisory NOTAM
- # If an intrusion, See Chapter 8, Airspace conflicts
- # Are airports, SUA or MTRs effected?
- # What are the known airspace hazards?
- # Is there a communication plan?
- # Frequencies plan?
- # What other aircraft have been dispatched and are in route?

When an unplanned event occurs, the appropriate response may be time critical. In some cases, it will be the application of pre-arranged operating procedures applied to the unplanned activity; i.e., wildland fires, search and rescue, some law enforcement and media inquiries. Determination of the appropriate response normally leads to checklists and prescribed procedures required to accomplish that response.

In other cases, very little response action is possible, except to document and report the situation. These situations are generally incidents where something has happened to decrease safety and although immediate action may be taken on the spot; i.e., cease activity to protect resources; the dispatcher, aviation manager, or other user of this guide may be more involved with documenting the incident to provide the appropriate information for further investigation and external action.

Local coordination agreements with military units may provide an informal process for reporting and investigation of incidents involving military aircraft. These procedures may be used instead of a formal FAA reporting process. However, it is the agency's responsibility to determine what level of report is appropriate and forward this information in a timely manner.

## IV. Airspace Proposals

There are many factors to consider when dealing with airspace proposals that may impact an agency or its operations.

Airspace actions and proposals could include the following:

- # Special Use Permits
- # Air Tour Proposals
- # Environmental Proposals
- # Reviewing/Creating Air Tanker Bases/Helibases
- # Campground/Wilderness Proposals
- # Reviewing/Creating Retardant Abort Sites

The following represents some factors that should be considered when coordinating an airspace issue, whether planning for long term or recurring events. The list is not all inclusive but is meant as a guide and will influence who needs to be contacted as well as when and how the contact is to be made.

- # Status of airspace (MTR, SUA, etc)
- # The effect the proposal has on other airspace
- # The location and geographic boundaries of the project
- # Any hazards present (cables etc)
- # Hazards/conflicts to airspace from this proposal
- # Airports and limitations
- # Weather considerations
- # Status of other scheduled events
- # The duration and when is the project planned
- # The type, speed and altitude of operation and number of aircraft involved
- # Type of load - internal or external
- # NEPA considerations (See Chapter 9)
- # Land ownership for the land the project will be on plus adjacent ownerships
- # Land use allocations and zoning categories
- # Existing agreements and the need for additional agreements
- # Approval authorities/State agencies
- # Level of public participation and summary of input from the public
- # FAA Circularization process
- # Communications plan (internal and external)
- # Coordination needs
- # Status of internal coordination.
- # Agency processes and requirements
- # Status of alternative plans
- # Mitigation measures in place
- # Media interest
- # Any political issues- internal or external

## **V. Military Readiness Training Exercise Coordination (Within Permanent Airspace)**

This section of the Interagency Airspace Coordination Guide focuses on military training exercises within existing permanent special use airspace.

Military readiness training exercises are the key link and building block between routine day-to-day readiness training and demanding theater/worldwide contingency operations. Readiness training exercises provide the requisite level of simulation of these contingency operations and is the only arena capable of validating, as well as developing, operations concepts to ensure military units are properly trained and capable of fulfilling their mission(s).

Since readiness exercises are more intense and complex than routine training, more in-depth planning and coordination within military channels as well as with potentially affected resource management agencies is required. This level of coordination is necessary in order to enhance flight safety and reduce potential environmental impacts to resources within the designated exercise area.

An important element of this coordination effort is between the military and natural resource management agencies, each possessing an environmental stewardship role and responsibilities within their respective mandates. Military airspace managers are the key link between military exercise planners and the natural resource community's managers/aviation coordinators. As that link, military airspace managers facilitate interagency communication so all parties involved may better understand and jointly resolve issues raised by the conduct of the readiness exercise.

This portion of the chapter provides military airspace managers and exercise planners suggested guidelines that can be tailored to specific airspace(s) and the particular needs of a wide variety of interagency relationships that exist across the nation. Some military airspace arrays, exercises, and interagency relationships may be conducive to coordination through a committee process while others may be more appropriately handled with basic straight-line, one-on-one coordination. An interagency process is normally most effective when it provides the proper breath and depth of coordination at the appropriate level and time.

### **A. Exercise Coordination**

No single coordination timeline or method fits every region or locale's military readiness exercise needs or interagency relationship. Rather, the exercises within each region or locale pose a unique challenge to exercise planners based upon specific airspace architectures, the degree of interaction or concern a particular exercise may create with affected resource management agencies, and the potential environmental and aeronautical impact of the exercise. Although each exercise is unique, a basic framework of coordination can still be identified that facilitates cooperation through effective focus of military and resource agencies technical expertise. The timing and integration of these two phases of coordination should be tailored to ensure that both are completed prior to the military's final exercise planning conference.

The key phases and components of this coordination include:

1. Exercise Concept Coordination Phase
  - a. Between Exercise Planners and Military Airspace Managers
  - b. Between Exercise Planners/Military Airspace Managers and Resource Management Agency Leadership & POC's.
2. Exercise Technical Coordination Phase
  - a. Between Exercise Planners and Military Airspace Managers
  - b. Between Exercise Planners/Military Airspace Managers and Resource Management Agency coordinators/representatives.

## **B. Concept Level Coordination**

Concept level coordination provides the basic framework of the military exercise, allowing each resource agency potentially affected by the exercise to first view it from a broad organizational perspective. Timely, properly targeted interagency coordination of exercise concepts often precludes the late identification of issue(s) by resource agency leadership or key field level personnel. Late inputs can unnecessarily harm interagency relationships while disrupting completed technical level planning or military exercise planning conference processes.

Coordination between military airspace managers and exercise planners should include the following:

1. Exercise POC(s)
  - a. Names
  - b. Telephone/Fax Numbers
  - c. Addresses
  - d. E-Mail Addresses
2. Airspace
  - a. Dates/Times
  - b. Special Use Airspace
  - c. Military Training Routes
3. Aircraft
  - a. Types
  - b. Estimated Numbers
4. Activities
  - a. Estimates of proportion of flight activities
    - (1) Low Altitude
    - (2) Supersonic
  - b. Chaff & Flares
5. Potential resource agency environmental or aeronautical concerns
6. Plan for concept & technical level coordination with resource agencies

Coordination between military airspace exercise planners and resource management agencies should include the following:

1. Military Exercise and Resource Management Agency POC(s)
  - a. Names
  - b. Telephone/Fax Numbers
  - c. Addresses
  - d. E-Mail Addresses
2. Airspace
  - a. Dates/Times
  - b. Special Use Airspace
  - c. Military Training Routes
3. Aircraft
  - a. Types
  - b. Estimated Numbers
4. Activities
  - a. Estimates of proportion of flight activities
    - (1) Low Altitude
    - (2) Supersonic?
  - b. Chaff & Flares
5. Potential resource agency environmental or aeronautical concerns
6. Military Exercise and Resource Management POC(s).
7. Schedule for technical level coordination

### **C. Technical Level Coordination**

Technical level coordination further refines and focuses the earlier conceptual exchange between the military and resource management community. This refinement includes more detailed explanations of the exercise's conduct from military planners and airspace managers as well as more specific inputs from resource agency technical experts on its potential for impacts. This refined dialogue is geared toward the mutual preservation of military and resource agency mandates and core needs through the timely development of a mitigation package that adequately addresses interagency issues in a balanced fashion.

Coordination between military airspace exercise planners and resource management agencies should include the following:

1. Exercise POC(s)
  - a. Names
  - b. Telephone/Fax Numbers
  - c. Addresses
  - d. E-Mail Addresses
2. Airspace
  - a. Dates/Times
  - b. Airspace
3. Aircraft
  - a. Types
  - b. Numbers
4. Activities
  - a. Proportion of flight activities
    - (1) Low Altitude
    - (2) Supersonic
  - b. Chaff & Flares
5. Potential resource agency environmental or aeronautical concerns
6. Plan for technical level coordination with resource agencies

Coordination between airspace managers/exercise planners and resource management agency technical representatives should include the following:

1. Military Exercise & Resource Management POC(s)
  - a. Names
  - b. Telephone/Fax Numbers
  - c. Addresses
  - d. E-Mail Addresses
  
2. Airspace
  - a. Dates/Times
  - b. Special Use Airspace
  - c. Military Training Routes
  
3. Aircraft
  - a. Types
  - b. Numbers
  
4. Activities
  - a. Proportion of flight activities
    - (1) Low Altitude
    - (2) Supersonic
  - b. Chaff & Flares
  
5. Potential aeronautical and/or environmental impacts
  
6. Mitigation Plan