INCIDENT COMMAND SYSTEM

NATIONAL TRAINING CURRICULUM

MODULE 10

AIR OPERATIONS

October 1994

INSTRUCTOR GUIDE

PREFACE

This module is one of seventeen modules which comprise the Incident Command System (ICS) National Training Curriculum. The entire curriculum has been developed by an interagency steering group and a contract consultant. The curriculum was sponsored by the National Wildfire Coordinating Group, and development was directed and supported by the National Interagency Fire Center, Division of Training. The Steering Group was represented by several application areas (Search & Rescue, Law Enforcement, Structural Fire, Wildfire, etc.) which guided the work of the contractor in the development of this package.

The Steering Group was:

David P. Anderson - USDA, Forest Service
Mike Colgan - Orange County Fire Department
Dave Engle - USDI, Bureau of Land Management
Dan Francis - California Department of Forestry
Ken Mallette - New Jersey State Police
Mike Munkres - USDI, Bureau of Land Management
Gary Nelson - Los Angeles County Fire Department
Bill Vargas - State of New Mexico Department of Public Safety

The Contract Consultant was:

The Terence Haney Company
Woodland Hills, California

IT IS ESSENTIAL THAT INSTRUCTORS OF THIS MODULE READ THE INFORMATION CONTAINED IN THE **INSTRUCTOR CURRICULUM GUIDE** AND MEET THE QUALIFICATIONS DESCRIBED THEREIN.

Detailed Lesson Outline

COURSE:	Module 10 - Air Operations
SUGGESTED TIME:	4 Hours
TRAINING AIDS:	Overhead projector, overhead pens, reference text
SUBJECT:	This module describes the role of the Air Operations Branch and how to set up an effective aviation organization to support incidents. (This module may not be applicable for some user groups.)
OBJECTIVES:	1. Describe the function and general duties associated with each element of the Air Operations Branch organization. 2. Diagram a full Air Operations Branch organization using a simulated scenario. 3. Describe the function and use of the ICS Form 220, Air Operations Summary Worksheet.

OUTLINE	AIDS & CUES
THERE ARE TWO OPTIONS AVAILABLE FOR PRESENTATION OF THIS MODULE'S MATERIAL. 1. HAVE STUDENTS READ THE MATERIAL AND COME TO CLASS PREPARED TO DISCUSS THE MATERIAL USING THE TOPICS LISTED ON PAGE 10-3 OF THE INSTRUCTOR GUIDE. 2. THE CLASSROOM INSTRUCTIONAL METHOD. THE DETERMINATION OF WHICH IS THE BEST APPROACH WILL BE INFLUENCED BY WHETHER THE STUDENTS TAKING THIS MODULE ARE: 1. PERSONNEL WHO WILL BE FUNCTIONING WITHIN THE AIR OPERATIONS BRANCH. (USE THE PRE-COURSE STUDY AND CLASS REVIEW METHOD.) 2. PERSONNEL WHO WILL BE OUTSIDE OF THE AIR OPERATIONS BRANCH BUT NEED TO HAVE SOME KNOWLEDGE OF AIR OPERATIONS. (USE CLASSROOM PRESENTATION - LIMIT POSITION DESCRIPTIONS AS APPROPRIATE.) AN OPTIONAL EXERCISE HAS BEEN PREPARED FOR THE MODULE, AND THE BACKGROUND FOR IT HAS BEEN INCLUDED AS PART OF THE INSTRUCTOR'S MATERIAL. THE EXERCISE, IF USED, SHOULD BE FOR STUDENTS WHO WILL FUNCTION WITHIN THE AIR OPERATIONS ORGANIZATION. FOR THE PRE-COURSE STUDY GROUP'S CLASS REVIEW, YOU WILL: 1. REVIEW THE INSTRUCTIONAL MATERIAL USING THE TOPICS ON PAGE 10-3 OF INSTRUCTOR GUIDE.	

OUTLINE	AIDS & CUES
2. HAVE STUDENTS PARTICIPATE IN THE OPTIONAL SMALL GROUP EXERCISE. THE EXERCISE IS DESCRIBED ON PAGE 10-4 OF THE INSTRUCTOR GUIDE.	
3. HAVE STUDENTS COMPLETE THE MODULE TEST.	
TOPICS FOR INSTRUCTOR TO USE DURING CLASSROOM REVIEW OF MODULE MATERIAL:	
1. Have students give examples from their experiences of different ways aircraft are used on incidents. List on board, and compare against list in module materials.	
2. Discuss the major reasons for establishing a separate Air Operations Branch at an incident. See list in module materials.	
3. Diagram the Air Operations Organization. You can do this using an open framework on a board, and have students fill in the spaces. Note the reporting relationships especially in the Air Support Group.	
4. Review and discuss the primary responsibilities for each of the air operations positions shown on the organization chart.	
5. Discuss the use of Temporary Flight Restrictions, cover what they are, why they are used, how they are put into place, and who does it.	
6. Show and discuss the ICS Form 220, Air Operations Summary. Discuss its purpose, contents, how it is used and who does it. (When using the ICS Form 220, it would be best to have at least a partially complete form ready. It is important that the contents of the sample form be appropriate to the students' background.	

OUTLINE	AIDS & CUES

7. Discuss the role of a helibase and helispots at an incident. Make sure the students know the differences between them. Cover the factors that must be considered. See lists in the module materials.

8. Discuss various uses for incident assigned aircraft other than for primary tactical or logistical support. See examples in module materials.

9. Review the role and duties of:

   Air Tactical Group Supervisor
   Air Support Group Supervisor

   Discuss (as appropriate to the students' agencies) where these positions would function during an incident.

10. As appropriate, review roles and responsibilities of the Helibase Manager and Helispot Managers.

11. Review and discuss other positions as needed or as time is available.

Module 10 Exercise

An optional management exercise related to the instructional material in Module 10 on Air Operations. The exercise should take approximately 1 hour.

The exercise objective relates to the following instructional Objective:

Diagram a full Air Operations Branch organization using a simulated scenario.

During the exercise, small groups of students will be asked to make an initial determination regarding an appropriate Air Operations organization for a simulated incident.

OUTLINE	AIDS & CUES
Emphasize to the students that this is not a tactical problem solving exercise. It deals strictly with establishing an initial appropriate management structure. All groups will be using the same scenario. At the completion of their work, they will reconvene and provide their organizations and give the rationale for the decisions they have made.	

MODULE 10 AIR OPERATIONS

Exercise Scenario:

This incident occurs on a Sunday afternoon. A twin engine aircraft with eight passengers is overdue on a flight from _____ to_____. On board is the Governor of _____, his wife, the Japanese consulate representative and his wife, and the Governor's daughter who is five months pregnant and her husband. The plane had a crew of two.

Last contact with the aircraft was at 1400 hours this date, over The Wenatchee, a 26,000 square mile mostly wilderness area in the northern part of the state. The pilot was obtaining weather information at the time of the last contact, and gave no indication of any problems. So far, there has been no emergency signal from the aircraft. Rain and high winds have precluded any search attempt until Monday.

You were notified at 1600 on Sunday, that you were to be a part of an ICS management team being assembled for this incident. You will be the Air Operations Branch Director.

You are to report to the Bigelow Municipal Airport which is on the southwest edge of the Wenatchee area. The Bigelow Airport will be the Base and Incident Command Post.

The airport has a 5000-ft. runway and plenty of parking for other aircraft. Limited fueling and mechanical services are available. It will accommodate a C-130. In addition to Bigelow, there are two other smaller airstrips in the Wenatchee. Both are 3500-ft. dirt strips with no services.

OUTLINE	AIDS & CUES

When advised of your assignment, you were told that a state national guard C-130 is available for use. The national guard, and the Civil Air Patrol have been notified.

Three helicopters and three other fixed-wings, all from different agencies, are being readied for the search. Ground search teams are also being assembled.

The Japanese Embassy in Washington has been notified and has requested to help in any way possible.

The first planning meeting will be at 0300 hours on Monday at the Bigelow ICP. You are scheduled to arrive at 0200 hours with other members of the team. You have been advised that the initial search activity will be conducted from the air using all available aircraft.

Weather in the area is in the 40s during the night with occasional rain showers. A high pressure area is scheduled to move across the area within the next 24 hours. Weather for tomorrow should be clear.

Exercise Requirement:

Based on the above information, you are to:

1. Be prepared to state your recommendation for an Air Operations organization adequate to initially support this incident. It should include all organizational positions, facilities, and support services that may be needed.

2. Be prepared to provide recommendations to the Operations Section Chief on what additional aviation equipment and personnel resources may be useful or necessary. It is recognized that some of this may not be fully known until the overall plan is developed.

Additional Background

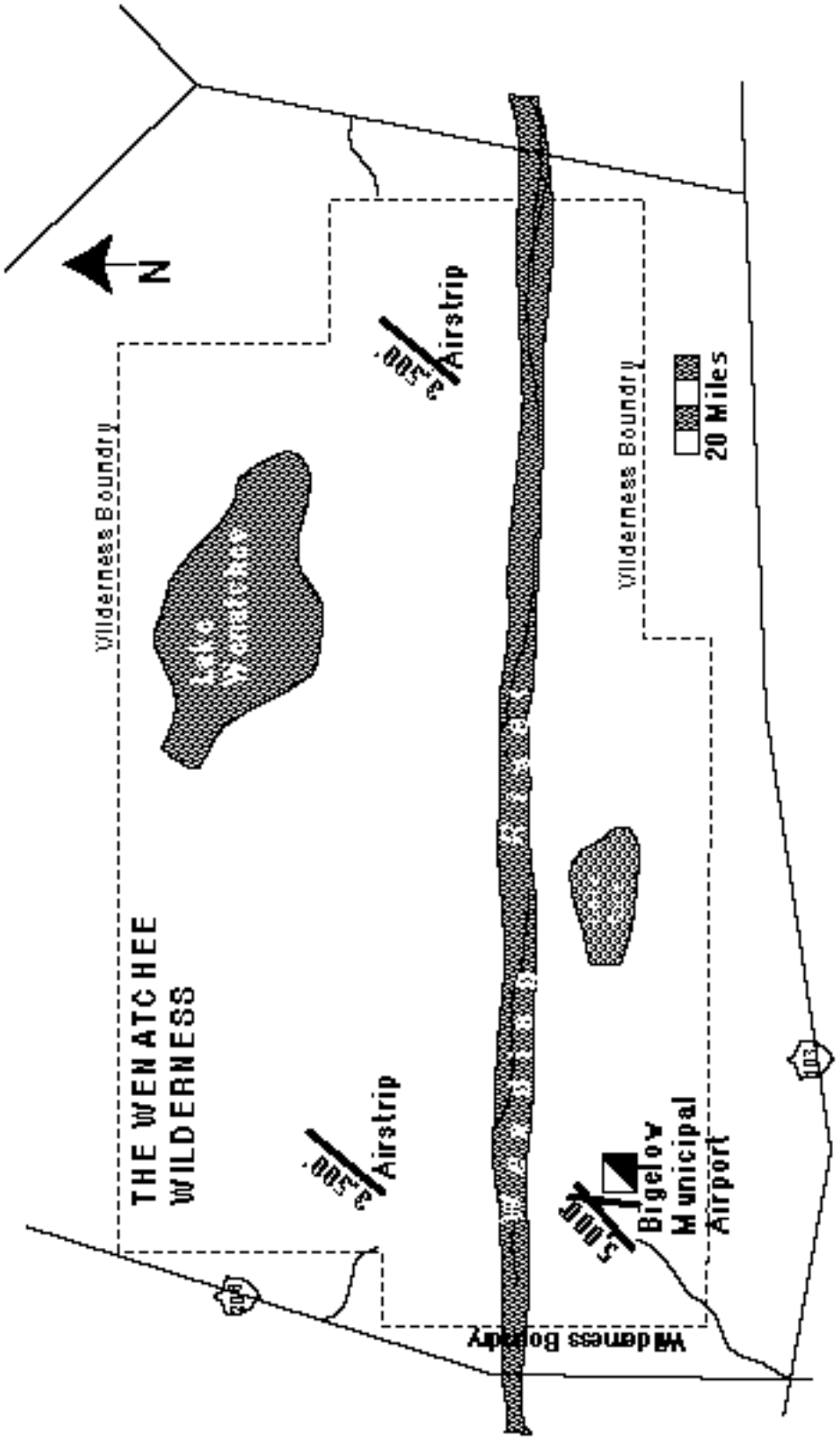
Prior to the exercise you should determine the kinds (and types) of fixed-wing and helicopter aircraft to be available.

Helicopters	Fixed-wing
_____	_____
_____	_____
_____	_____

In addition, depending upon the agencies involved, the students may require some additional information as necessary for making their decisions. These could include:

- Airspace jurisdiction - Federal, state, private, a mix, etc.
- Ownership and certification of available aircraft for use.
- Ground rules regarding incident responsibilities for fueling, etc.
- Who has responsibility for Medivac?
- Whose standards are to be followed for qualifications, fiscal arrangements, maintenance, etc.

You should be prepared to provide some level of background information on these items if necessary.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Airstrip
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Bigelow Municipal Airport
5,000'
Wilderness Boundry

INCIDENT COMMAND SYSTEM

NATIONAL TRAINING CURRICULUM

MODULE 10

AIR OPERATIONS

October 1994

REFERENCE TEXT

PREFACE

This module is one of seventeen modules which comprise the Incident Command System (ICS) National Training Curriculum. The entire curriculum has been developed by an interagency steering group and a contract consultant. The curriculum was sponsored by the National Wildfire Coordinating Group, and development was directed and supported by the National Interagency Fire Center, Division of Training. The Steering Group was represented by several application areas (Search & Rescue, Law Enforcement, Structural Fire, Wildfire, etc.) which guided the work of the contractor in the development of this package.

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This module describes the role of the Air Operations Branch and how to set up an effective aviation organization to support incidents. (This module may not be applicable for some user groups.)

Objectives:

1. Describe the function and general duties associated with each element of the Air Operations Branch organization.

2. Diagram a full Air Operations Branch organization using a simulated scenario.

3. Describe the function and use of the ICS Form 220, Air Operations Summary Worksheet.

I. Introduction to Incident Air Operations

An increasing number of incidents and events involve the use of aircraft in tactical assignments and/or providing logistical support. This is a trend that will undoubtedly increase. Some examples are:

Search and Rescue - Fixed-wing and helicopters for flying ground and water search patterns, medical evacuations, and logistical support.

Earthquakes, floods, etc. - Reconnaissance, situation and damage assessment, rescue, logistical support, etc.

Law Enforcement - Reconnaissance, surveillance, direction, and control.

Fire Control - Fixed-wing and helicopters for water and retardant drops, use of helicopters for transporting personnel to and from tactical assignments, for reconnaissance, and for logistical support.

Forest and other land management programs - Pest control programs.

Maritime incidents - Hazardous materials spills, accidents, searches.

Other applications - For example, communications relay, airborne command and control, photo mapping, etc.

Information in this module will describe the Air Operations Branch organization, and provide information on major responsibilities and duties of personnel assigned to various Air Operations Branch positions within the ICS organization.

What are the primary reasons for establishing a separate Air Operations Branch within the incident organization? Consider the following:

1. The Incident Commander's or Operations Section Chief's (if that position has been established) workload or span of control necessitates it.

2. Both tactical and logistical air support activity is needed at the incident.

3. Aircraft from other agencies or private aircraft have become involved.

4. Helicopters and fixed-wing aircraft are involved within the incident air space.

5. Safety, environmental, weather or temporary flight restriction issues become apparent.

6. A helibase or several helispots are required to support incident operations.

7. Agency policy and/or flight operations SOPs require it.

Aviation operations at an incident may be very simple, consisting of only a helicopter working in a tactical operation or providing logistical support. On some incidents, air operations can become very complex involving many helicopters, and/or a combination of helicopters and fixed-wing aircraft operating at the same time.

On large incidents, such as a large scale search or a major wildland fire, an incident helibase may be established at or near the incident. Some incidents will also have one or more helispots designated.

As the incident grows in complexity, additional "layers" of supervision and coordination may be required to support effective and safe air operations. It is important to recognize that, in air operations like any other part of the ICS organization, it is only necessary to activate those parts of the organization that are required.

II. Air Operations Organization

When activated, the Air Operations Branch is responsible for managing all air operations at an incident. This includes both tactical and logistical operations. Prior to activation of the Air Operations Branch, management of aviation operations (including the use of aircraft for logistical support) is the responsibility of the Operations Section Chief or Incident Commander if the OSC position has not been activated.

It is not necessary to activate Air Operations positions if the function can be adequately managed at the Operations Section Chief level.

The following material describes responsibilities of various positions within the Air Operations Branch. It is important to remember that this

is a minimum list and would generally apply to any agency involved in the use of the Incident Command System. Your agency may have additional requirements which must be considered.

A. Air Operations Branch Activities

The Air Operations Branch is managed by the Air Operations Branch Director, who reports to the Operations Section Chief. The Air Operations Branch Director for an incident is always ground-based. Under the Air Operations Branch Director are two supervisors, the Air Tactical Group Supervisor and the Air Support Group Supervisor.

1. Air Tactical Group Supervisor

Is responsible for coordinating the airborne tactical operations of fixed- and/or rotary-wing aircraft operating on an incident. Helicopter Coordinators and Air Tanker/Fixed-Wing Coordinators may be assigned as required to manage their respective aircraft. If assigned, they will report to the Air Tactical Group Supervisor.

2. Air Support Group Supervisor

Provides logistical support to helicopters operating on an incident or at an event, and manages helibase and helispot operations. The Air Support Group Supervisor is also responsible to maintain liaison with fixed-wing air bases.

B. Major Responsibilities of the Air Operations Branch Director

1. Obtain Briefing from Operations Section Chief

The following information should be obtained as a result of this briefing:

- Determine current air operations activity from the Operations Section Chief.
- Determine the number, kind and type, and current status of all air resources presently assigned to the incident.
- Determine the status of current air traffic control operations and any flight restrictions.
- Consider aircraft "down time" (e.g., required maintenance, pilot flight restrictions, scheduled days off, etc.) in making status assessment.
- Consider the need for additional aircraft based on the status of the incident and incident objectives.

2. Organize Preliminary Air Operations

This is an important first step based on information obtained in the briefing and current actions underway. It includes confirming the arrival of additional aircraft (if ordered), coordinating their assignments and communications on the incident, briefing of supporting staff, and direct participation in current and future operational period planning.

3. As Appropriate, Initiate Request for Temporary Flight Restrictions

Temporary Flight Restrictions (TFRs) may be necessary in and around some incidents and/or events in order to control

non-incident flight activity. The Air Operations Branch Director will request Temporary Flight Restrictions (Federal Air Regulation 91.137) from the closest Federal Aviation Administration's Air Route Traffic Control Center.

When activated by the FAA, Temporary Flight Restrictions prohibit all flights in a designated air space except those participating in hazard relief activities. The following information is required by the FAA before approving a request for Temporary Flight Restrictions:

- Name and organization of person requesting the TFR.

- Brief description of the situation.
- Estimated duration of restrictions.
- Agency responsible for on-scene activity and communications contact.
- Description of the affected area (distance and altitude above ground level).
- Description of potential hazards to persons and property in the air.
- Description of the hazard that would be compounded by aircraft use.
- Type of activity, proposed aircraft operations, and location of aircraft base.
- Contact point or radio frequency for handling news media flight requests.

All appropriate incident and air operations personnel should be notified of Temporary Flight Restrictions. It is important to recognize that TFRs may not necessarily eliminate all flights. It is best to assume that there will be air space violations around an incident or event.

TFRs should be promptly lifted when no longer needed.

4. Participate in the Preparation of the Incident Action Plan
The Air Operations Branch Director will review current air operations, and assist in determining air operations tactical support and logistical plans for the next operational period. The Air Operations Branch Director should attend all planning meetings as requested by the Operations Section Chief.

5. Perform Operational Planning for Air Operations
This involves determining what elements of the air operations organization should be activated, what personnel requirements will be needed, and what logistical support will be necessary to maintain effective air operations.

6. Prepare and Distribute the Air Operations Summary Worksheet (ICS Form 220)

The Air Operations Worksheet contains essential information related to air activity scheduled for the incident. After completion, it is distributed to the Air

Support Group and to any airbase or airport facilities supporting the incident.

7. Supervise Air Operations Branch Personnel and Coordinate with Incident and Off-Incident Personnel and Agencies

   This is an ongoing activity for the Air Operations Branch Director who must ensure that the Operations Section Chief, Air Tactical Group Supervisor, and other incident personnel are well informed regarding the status of the incident air operations. Coordination may be required with Logistics if essential supplies, food, etc., are being transported to the incident by aircraft.

   In addition, close coordination is always required with off-incident agencies and locations such as the FAA, local airports, and agency dispatch centers supplying tactical or support resources by air.

8. Evaluate Helibase and Helispot Locations

   Working with the Air Support Group Supervisor, the Air Operations Branch Director must determine if present helibase and helispot locations are adequate, and assign new locations as necessary. Several factors may influence this decision:

   - Safety -- is the landing area safe? What are the approach and departure obstructions?
   - Flight routes -- do helicopters fly over the incident base, camps, or residential, or other flight sensitive areas?
   - Will existing helibase and helispot locations allow expansion and 24-hour operations?
   - Is there adequate fuel, maintenance and resource access to the helibase?

9. Establish Procedures for Emergency Reassignment of Aircraft

   The Air Operations Branch Director must assure that an aircraft is assigned or available for diversion to an emergency. The Director should know at all times which

helicopters may be diverted for medical emergencies at the incident, and have a plan for how this may be accomplished.

10. Schedule Approved Flights of Non-Incident Aircraft Into the Incident Area

    This activity will require the Air Operations Branch Director to coordinate directly with the Air Tactical Group Supervisor to ensure that such flights do not constitute a hazard to incident tactical operations. An example might be military training flights. Restricted areas and altitudes must be fully coordinated.

11. Evaluate Requests for Non-Tactical Use of Incident Aircraft

    Requests for non-tactical use of incident aircraft may be made for such purposes as:

    - VIP and Media Flights
    - Logistical Support
    - Reconnaissance/Situation Assessment
    - Damage Assessment
    - Medical Transportation

12. Resolve Conflicts Concerning Non-Incident Aircraft Involved in Incident Over-Flights

    The Air Operations Branch Director must identify potential problems or violations, obtain information on violators, and coordinate with the Air Tactical Group Supervisor and FAA as necessary.

13. Monitor for Accidents or Special Incidents

    All accidents or special incidents must be well documented. The Air Operations Branch Director will conduct and/or arrange for an investigation team as necessary. Agencies will each have special investigation procedures to follow.

14. Maintain Unit Log

The Unit Log (ICS Form 214) will be maintained for each organizational unit within the Branch, and turned in at the end of each Operational Period.

C. Air Tactical Group

1. Air Tactical Group Supervisor

The Air Tactical Group Supervisor, under the direction of the Air Operations Branch Director, is responsible for the coordination of all fixed and/or rotary-wing aircraft operating in incident air space. For most agencies and applications, the Air Tactical Group Supervisor will operate from an airborne location.

Major responsibilities of the Air Tactical Group Supervisor:

- Check-in and receive incident assignment (usually via radio).

- Obtain briefing from Air Operations Branch Director or Operations Section Chief. If possible, obtain a copy of the current Incident Action Plan.
- Determine type and quantity of aircraft (fixed-wing and helicopters) operating on the incident; report to Air Operations Branch Director.
- Determine potential availability of additional aircraft resources and their approximate flight time to the incident.
- Make recommendations to Air Operations Branch Director regarding adequacy of available aircraft to accomplish incident objectives.
- Based upon the Incident Action Plan, manage all air tactical activities.

- Establish and maintain communications with (as appropriate):
  Pilots
  Air Operations
  Helicopter Coordinator
  Fixed-Wing Coordinator
  Air Support Group (e.g., Helibase Manager)
  Fixed-wing bases
- Coordinate flights in restricted air space by non-incident aircraft or non-tactical flights (flight approval to be granted by the Air Operations Branch Director).
- Report on violations of restricted air space area by non-incident aircraft.
- Receive briefing from the Air Operations Branch Director on air traffic external to the incident.
- Recommend tactical strategy to approved ground contact (Operations Section Chief, Branch Director or Division/Group Supervisor).
- Advise Air Operations Branch Director of tactical recommendations, and keep the Director updated on all air activities.
- Report conflicts or potential conflicts in the air traffic control system caused by incident air activities.
- Report accidents and incidents to the Air Operations Branch Director.
- Supervise the Helicopter Coordinator and the Fixed-Wing Coordinator.

2. Helicopter Coordinator

Activation of this position is dependent on the complexity of the incident and the number of helicopters assigned to it. More than one Helicopter Coordinator may be assigned to a very large incident.

The Helicopter Coordinator is responsible for the coordination of all tactical or logistical helicopter missions while in flight over the incident. The Helicopter Coordinator may operate from the air or from a high vantage point on the ground.

Major responsibilities of the Helicopter Coordinator:

- Check-in and receive incident assignment.

- Obtain briefing from the Air Tactical Group Supervisor or Air Operations Branch Director.
- Determine type and quantity of aircraft (fixed-wing and helicopter) operating within incident assignment area; report to the Air Tactical Group Supervisor.
- Determine whether available helicopters are capable of accomplishing incident objectives; report to the Air Tactical Group Supervisor.
- Survey and report on potential problems within incident assignment area (other aircraft hazards, ground hazards, etc.).
- Coordinate air traffic control procedures with:
  - Pilots
  - Air Operations Branch Director
  - Air Tactical Group Supervisor
  - Fixed-Wing Coordinator
  - Air Support Group (usually Helibase Manager)
- Coordinate the use of communications frequencies for ground-to-air and air-to-air communications with:
  - Air Tactical Group Supervisor
  - Incident Communications Unit
  - Local agency dispatch center (as necessary)
- Assign and ensure use of appropriate operating frequencies by incident helicopters. Frequencies will be in the Incident Communications Plan or established by the Air Tactical Group Supervisor.
- With the Air Tactical Group Supervisor, coordinate and make geographical assignments for helicopter operations.
- Implement and monitor all air safety requirements and procedures.
- Ensure that approved night flying procedures are being followed.
- Supervise all helicopter activities:
  - Receive assignments
  - Brief pilots
  - Assign missions

Report on mission completion; reassign as directed

- Coordinate activities with:
  Air Tactical Group Supervisor
  Fixed-Wing Coordinator
  Air Support Group Supervisor
  Ground Personnel
- Maintain continuous observation of assigned area and inform Air Tactical Group Supervisor of problems or potential problems (e.g., aircraft malfunction, maintenance difficulties).
- Request equipment or assistance as needed.
- Immediately report accidents or incidents to Air Tactical Group Supervisor and Air Operations Branch Director.
- Maintain records of activities.

3. Air Tanker/Fixed-Wing Coordinator

Activation of this position is dependent on the complexity of the incident and the number of fixed-wing aircraft assigned to it. More than one Air Tanker /Fixed-Wing Coordinator may be assigned to a very large incident. The Air Tanker/Fixed-Wing Coordinator has primary responsibility for coordinating all assigned airborne fixed-wing aircraft operations at the incident. The Fixed-Wing Coordinator, who is always airborne, reports to the Air Tactical Group Supervisor.

Major responsibilities of the Air Tanker/Fixed-Wing Coordinator:

- Check-in and receive incident assignment (usually via radio).
- Obtain briefing from Air Tactical Group Supervisor or Air Operations Branch Director.
- Determine type and quantity of aircraft (fixed-wing and helicopter) operating within incident area of assignment.
- Determine fixed-wing aircraft capabilities and limitations.
- Maintain continuous observation of assigned area and inform Air Tactical Group Supervisor of problems or potential problems (e.g., hazards, aircraft malfunctions, maintenance difficulties).
- As needed, coordinate air traffic control procedures with:
    - Pilots
    - Air Operations
    - Air Tactical Group Supervisor
    - Helicopter Coordinator
    - Air Support Group (usually Helibase Manager)
- Coordinate the use of communications frequencies for ground-to-air and air-to-air communications with:
    - Air Tactical Group Supervisor
    - Incident Communications Unit
    - Local agency dispatch center

- Implement all air safety requirements and procedures.
- Supervise all fixed-wing aircraft activities:
  - Receive assignments
  - Brief pilots
  - Assign missions
  - Report on mission completion; reassign as directed
- Coordinate activities as appropriate with:
  - Air Tactical Group Supervisor
  - Helicopter Coordinator
  - Ground operations personnel
- As necessary, provide information to ground resources.
- Request equipment or assistance as needed.
- Immediately report accidents or incidents to the Air Tactical Group Supervisor and the Air Operations Branch Director.
- Maintain records of activities.

D. Air Support Group

The Air Support Group Supervisor, under the direction of the Air Operations Branch Director, is responsible for supporting and supervising the management of helibase and helispot operations, and maintaining liaison with fixed-wing air bases. This position may also support and supervise fixed-wing bases if they are not at established airfields. Many of the activities listed below would pertain to providing support to fixed-wing bases if these are not at airports.

Major functions performed at helibases, helispots, and air bases include:

- Providing fuel and other supplies
- Maintenance and repair of aircraft (not at helispots).
- Supplies, equipment, and personnel loading and off-loading
- Retardant mixing and loading
- Maintaining records of aircraft activity
- Enforcement of safety regulations

Helibase or helispot managers, under the direction of the Air Support Group Supervisor, are responsible for all helicopters on the ground and during take-off and landing.

1. Air Support Group Supervisor

   Major responsibilities of the Air Support Group Supervisor:

   - Check in and obtain briefing from Air Operations Branch Director or Operations Section Chief.
   - Review Incident Action Plan and Air Operations Summary Worksheet (prepared by Air Operations Branch Director).
   - Provide input to Air Operations Branch Director for incident planning.
   - Keep the Air Operations Branch Director updated on Air Support Group activities.
   - Identify resources/supplies on order for Air Support Group; review adequacy of retardant and dust abatement chemicals for use at helibases and helispots.

- Request special air support items from Logistics Section.

- Working with the Air Operations Branch Director, identify helibase and helispot locations, taking into consideration:
  Safety -- Is the facility safe for operation? Are approach and departure routes clear of obstructions?
  Flight routes -- Do helicopters fly over residential areas?
  Will locations allow expansion and 24-hour operations?
  Are adequate and easily accessible fuel, maintenance, safety and support resources in close proximity to the base?
- If helibases are located adjacent to major roads, determine need for traffic control and implement control measures.
- Determine personnel and equipment needs at each helibase and helispot; review with the Air Operations Branch Director.

- Monitor and ensure compliance with each agency's requirements for day and night operations.
- Inform Air Operations Branch Director of night flying capability.
- Coordinate special requests for air logistics.
- Coordinate with airbases supporting the incident.
- Obtain assigned ground-to-air frequency for helibase and helispot operations from Communications Plan (ICS Form 205) or Communications Unit Leader.
- Ensure the establishment and activation of air traffic control procedures between helibase and helispots and the Air Tactical Group Supervisor, Helicopter Coordinator and Fixed-wing Coordinator.
- Supervise the implementation of dust abatement procedures at helibase and helispots.
- Provide crash/rescue service for helibases and helispots.
- Maintain Unit Log (ICS Form 214).

2. Helibase Manager

Some of the positions which may be established in support of helibase operations are listed below. These positions, if activated, report to the Helibase Manager. Not all will be required for all incidents or by all agencies. Specific responsibilities for each position are included below.

- Deck Coordinator -- manages helibase landing area for personnel and cargo movement.
- Loadmaster -- responsible for the safe loading and unloading of cargo and personnel at a helibase.
- Parking Tender -- responsible for the takeoff and landing of helicopters at an assigned helicopter pad.
- Takeoff and Landing Controller -- coordinates arriving and departing helicopters at a helibase and all helicopter movement on and around the helibase.

- Helibase Radio Operator -- establishes communication between incident assigned helicopters and helibases, Air Tactical Group Supervisor, Air Operations Branch Director, and Takeoff and Landing Controller.
- Helicopter Timekeeper -- records time for all helicopters assigned to the helibase.
- Helispot Managers -- report to the Helibase Manager.

Major responsibilities of the Helibase Manager:

- Receive briefing from the Air Support Group Supervisor.
- Review Incident Action Plan, including Air Operations Summary Worksheet (ICS Form 220).
- Participate in Air Support Group planning.
- Upon reporting to assigned helibase, brief pilots and assigned personnel.
- Keep Air Support Group Supervisor updated on helibase activities.
- Ensure that helibase is adequately posted and cordoned.
- Manage resources/supplies dispatched to helibase; as needed, order additional resources from Air Support Group Supervisor.
- Coordinate air traffic control procedures at the helibase with:
    - Pilots
    - Air Support Group Supervisor
    - Air Tactical Group Supervisor
    - Helicopter Coordinator
    - Takeoff and Landing Controller
- Post copies of work schedule and other organizational information at each helibase, including assigned radio frequencies and helispot organization.
- Supervise loading operations, including any retardant mixing that might be required.
- Supervise helicopter fueling, maintenance, and repair services.
- Supervise manifesting and loading of personnel and cargo.
- Ensure that dust abatement procedures are in use at helibases and helispots.
- Ensure that adequate security is in place at each helibase and helispot.
- Ensure that crash/rescue services are provided for the helibase.
- Respond to special requests for air logistics.
- Supervise the maintenance of all agency records, including reports of helicopter

activities, Check-In Lists (ICS Form 211) and Unit Log (ICS Form 214).

- Solicit and record pilot input concerning selection and adequacy of helispots, communications, air traffic control, operational concerns, and safety problems.

3. Helispot Manager

Major responsibilities of the Helispot Manager:

- Receive briefing from Helibase Manager.
- Review Incident Action Plan, including Air Operations Summary Worksheet (ICS Form 220).
- Report to assigned helispot.
- Review and take steps to alleviate potential hazards/problems, including:
    - Adequate dust control
    - Debris that may blow into rotor systems
    - Excessively steep touchdown slope
    - Insufficient rotor clearance
- Coordinate with pilots for safe and efficient landing and takeoffs, and loading and unloading.
- Manage all resources/supplies assigned to helispot.
- As needed, request special air support items from Helibase Manager.
- Keep Helibase Manager informed of all helispot activities.
- As needed, coordinate air traffic control and communications with:
    - Pilots
    - Helibase Manager
    - Helicopter Coordinator
    - Fixed-Wing Coordinator
    - Air Tactical Group Supervisor
- Ensure the availability of crash/rescue resources.
- Supervise or perform retardant or other resource loading.

- Manifest and load personnel and cargo as required.
- Maintain agency records and reports regarding helicopter activities.

4. Deck Coordinator

Major responsibilities of the Deck Coordinator:

- Receive briefing from Helibase Manager.
- Review Air Operations Summary Worksheet (ICS Form 220).
- Establish and mark landing pads.
- Establish emergency landing areas.
- Ensure that crash/rescue procedures are fully understood by deck personnel.
- Ensure that deck area and emergency landing areas are posted.
- Review adequacy of personnel to safely load and unload personnel and cargo; order additional staff as needed.
- Supervise deck management personnel (Loadmasters and Parking Tenders).
- Ensure that all assigned personnel are posted to the daily organization chart.
- Maintain vehicle control procedures.
- As needed, perform or supervise dust control procedures.
- Ensure proper manifesting and load calculations.
- Ensure that air traffic control is coordinated with the Landing and Takeoff Coordinator.
- Maintain appropriate agency records.

5. Loadmaster

Major responsibilities of the (personnel/cargo) Loadmaster:

- Obtain briefing from Deck Coordinator.
- Review Air Operations Summary Worksheet (ICS Form 220).

- Ensure the proper posting of loading and unloading areas.
- Manifest and load personnel and cargo; supervise loading and unloading crews.
- Review crash/rescue procedures with loading and unloading crews.
- Ensure that sling load equipment is safe.
- Coordinate with Takeoff and Landing Controller.

6. Parking Tender

Major responsibilities of the Parking Tender:

- Receive briefing from the Deck Coordinator.
- Supervise landing pad activities (e.g., personnel and helicopter movement, vehicle traffic, etc.).
- Review crash/rescue procedures.
- Tend fire extinguisher during any fueling operations.
- Ensure that any required agency procedures and checklists are being followed.
- Review safety procedures with passengers.
- Ensure that the landing pad is properly marked and maintained (e.g., dust/debris abatement).
- Ensure that helicopter pilot support needs are met.
- Check personnel seatbelts, cargo restraints, and helicopter doors.

7. Take-off and Landing Controller

Major responsibilities of the Takeoff and Landing Controller:

- Receive briefing from Helibase Manager.
- Review Air Operations Summary Worksheet (ICS Form 220).
- Perform thorough check of radio system.
- Coordinate helicopter flight routes and patterns with Helibase Radio Operator.

- Maintain communications with all incoming and outgoing helicopters.
- Maintain constant communications with Helibase Radio Operator.
- Coordinate with Deck Coordinator and Parking Tender prior to commencing operations and during operations.

8. Helibase Radio Operator

Major responsibilities of the Helibase Radio Operator:

- Receive briefing from Helibase Manager.
- Review Air Operations Summary Worksheet (ICS Form 220).
- Establish helibase communication system.
- Ensure that orders/communications from Air Operations Branch Director are relayed to Helibase Manager.
- Verify daily radio frequencies with Helibase Manager.
- Establish and post helicopter identification call numbers.
- Establish and enforce proper radio procedures.
- Receive clearance from Air Tactical Group Supervisor prior to launching helicopters.
- Maintain constant communications with helicopters and Takeoff and Landing Controller.
- Maintain a log of all helicopter takeoff/landings, ETAs, ETDs and flight route check-ins.
- Supervise helicopter time keeping.
- Immediately notify Helibase Manager of any overdue or missing helicopters.
- Review crash/rescue procedures.

9. Helicopter Timekeeper

Major responsibilities of the Helicopter Timekeeper:

- Receive briefing from the Helibase Radio Operator.

- Review Air Operations Summary Worksheet (ICS Form 220).
- Determine number of assigned helicopters (by agency).
- Determine agencies' helicopter time keeping needs.
- Record operating time for all helicopters.
- Obtain required timekeeping forms from agencies.
- As necessary, complete all agency time reports.

MODULE 10

AIR OPERATIONS

ICS Form 220
Exercise Scenario

MODULE 10 AIR OPERATIONS

Exercise Scenario:

This incident occurs on a Sunday afternoon. A twin engine aircraft with eight passengers is overdue on a flight from _____ to_____. On board is the Governor of _____, his wife, the Japanese consulate representative and his wife, and the Governor's daughter who is five months pregnant and her husband. The plane had a crew of two.

Last contact with the aircraft was at 1400 hours this date, over The Wenatchee, a 26,000 square mile mostly wilderness area in the northern part of the state. The pilot was obtaining weather information at the time of the last contact, and gave no indication of any problems. So far, there has been no emergency signal from the aircraft. Rain and high winds have precluded any search attempt until Monday.

You were notified at 1600 on Sunday, that you were to be a part of an ICS management team being assembled for this incident. You will be the Air Operations Branch Director.

You are to report to the Bigelow Municipal Airport which is on the southwest edge of the Wenatchee area. The Bigelow Airport will be the Base and Incident Command Post.

The airport has a 5000-foot runway and plenty of parking for other aircraft. Limited fueling and mechanical services are available. It will accommodate a C-130. In addition to Bigelow, there are two other smaller airstrips in the Wenatchee. Both are 3500-foot dirt strips with no services.

When advised of your assignment, you were told that a state national guard C-130 is available for use. The National Guard, and the Civil Air Patrol have been notified.

Three helicopters and three other fixed-wings, all from different agencies, are being readied for the search. Ground search teams are also being assembled.

The Japanese Embassy in Washington has been notified and has requested to help in any way possible.

The first planning meeting will be at 0300 hours on Monday at the Bigelow ICP. You are scheduled to arrive at 0200 hours with other members of the team. You have been advised that the initial search activity will be conducted from the air using all available aircraft.

Weather in the area is in the 40s during the night with occasional rain showers. A high pressure area is scheduled to move across the area within the next 24 hours. Weather for tomorrow should be clear.

Exercise Requirement:

Based on the above information, you are to:

1. Be prepared to state your recommendation for an Air Operations organization adequate to initially support this incident. It should include all organizational positions, facilities, and support services that may be needed.

2. Be prepared to provide recommendations to the Operations Section Chief on what additional aviation equipment and personnel resources may be useful or necessary. It is recognized that some of this may not be fully known until the overall plan is developed.

Additional Background

Prior to the exercise you should determine the kinds (and types) of fixed-wing and helicopter aircraft to be available.

Helicopters	Fixed-wing
_____	_____
_____	_____
_____	_____

In addition, depending upon the agencies involved, the students may require some additional information as necessary for making their decisions. These could include:

- Airspace jurisdiction - Federal, state, private, a mix, etc.
- Ownership and certification of available aircraft for use.
- Ground rules regarding incident responsibilities for fueling, etc.

- Who has responsibility for Medivac?
- Whose standards are to be followed for qualifications, fiscal arrangements, maintenance, etc.

N
Airstrip
3,500'
Wilderness Boundry
Lake Wenatchee
Wilderness Boundry
20 Miles
THE WENATCHEE
WILDERNESS
Airstrip
3,500'
Bigelow
Municipal
Airport
5,000'
Wilderness Boundry