United Nations
International Strategy for Disaster Reduction

International Fire Aviation Working Group – Practice Guide

Aircraft Management

AM 4.1 – Incident Control Systems (ICS)

This voluntary Practice Guide forms part of a series in the International Fire Aviation Guidelines.

1. Purpose

1.1. To provide guidance to Fire Agencies and Aircraft Operators about the control of aircraft operations at emergency incidents.

1.2. To outline the key elements, functions and responsibilities of Incident Control System (ICS).

2. Application

2.1. Fire Agencies that manage and use aircraft.

2.2. Pilots, Air and Ground Crews

2.3. Aircraft Operators engaged fire management activities.

2.4. Aircraft Operators providing aircraft under bi-lateral or multi-lateral resource sharing agreements.

3. General

3.1. Fire Agencies around the world generally operate under a variation of the Incident Control System (ICS) to ensure consistency and a structured approach to emergency management.

3.2. An Incident Control System must be adopted to control all aircraft operations at fires.

3.3. The Incident Control System (ICS) may need to be adapted to suit a particular country's political, administrative or cultural systems, customs and values.

3.4. Under an ICS, the control of aircraft is ultimately the responsibility of the Incident Controller/Commander.

4. Incident Control Systems - Principals

4.1. The Incident Controller (Incident Commander) is responsible to develop and approve an Incident Action Plan (IAP) that sets out the key goals and integrates the activities of all responders and jurisdictions to an incident.

4.2. The ICS team is responsible for the collaborative development, sharing and then commitment to one set of objectives and strategies set out in an IAP.

4.3. information flow must be enabled between all levels of the ICS structure

4.4. An ICS requires common terminology, consistent communications plan, standard operating procedures, clear text and common frequencies.

4.5. The ICS structure can be scaled seamlessly to respond to the size, complexity and extent of the incident with no loss of capability.

4.6. A manageable span of control must be maintained for individuals and units of the ICS. A manageable span of control for any person falls within a range of three to seven resources, with five being the optimum.

4.7. The rotation of staff and limiting of shift lengths must me planned to reduce fatigue at prolonged incidents.

4.8. Comprehensive resource management and logistics at an incident must be planned to meet changing circumstances.

5. Incident Action Plan (IAP)

5.1. The Incident Controller must develop and articulate a single set of goals and objectives in an Incident Action Plan (IAP or equivalent), which leads to the formulation of specific tasks.

5.2. An approved IAP which clearly sets out the role of aircraft and their management must be produced for each incident.

5.3. All firefighting activities (ground and air) must adhere to a well-considered fire control strategy determined by the Incident Controller and set out in the Incident Action Plan.

5.4. Sometimes an individual Incident Shift Plan (ISP) can be prepared to give more details of tactics and resources, including aircraft deployments, for separate work shifts of the firefighting effort.

6. ICS - Structure

6.1. A key feature of the ICS structure is that a clear and consistent chain of command is maintained. The basic ICS organisational structure is normally comprised of three levels, as illustrated in Figure 1.

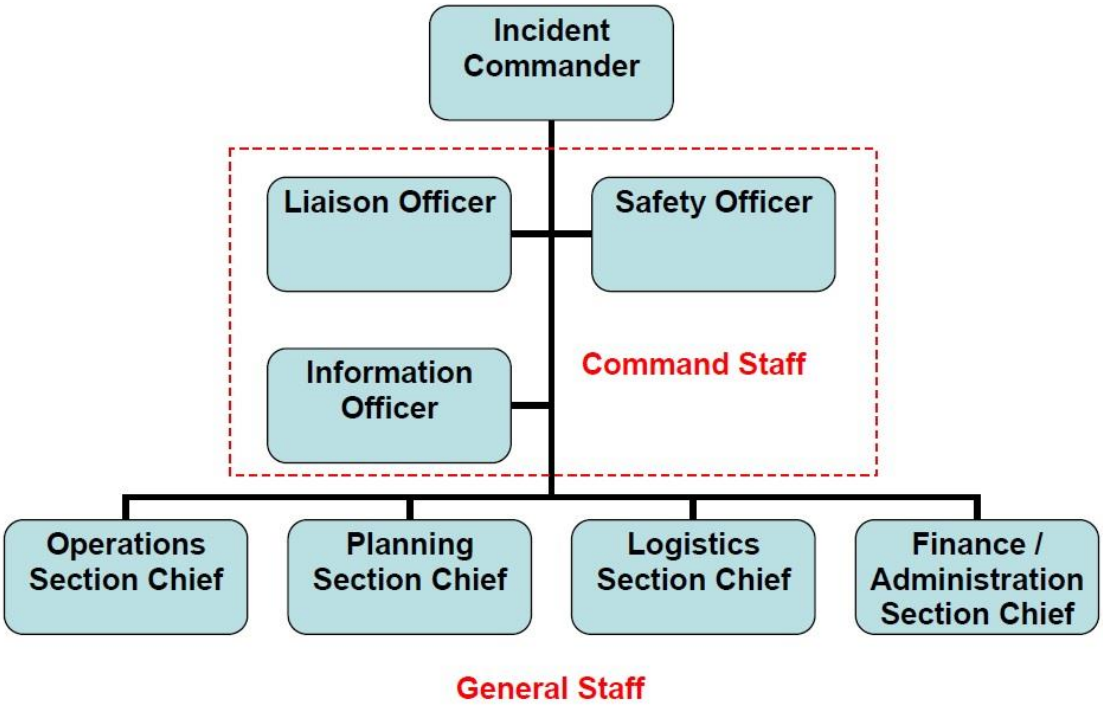

Figure 1. Incident Command System structure, showing the three levels – Incident Command, Command Staff and General Staff

6.2. The highest level of the ICS structure is Incident Commander / Controller (IC), who is ultimately responsible for the entire incident response.

6.3. A small number of Command Staff often support the IC and the rest of the team. These positions and their responsibilities include, but are not strictly limited to:

- Liaison Officer;
- Safety Officer
- Information Officer.

6.4. Four core elements of an Incident Management team (IMT) are normally provided:

- **Operations** – all activities related to the immediate response to the incident, saving lives and property, establishing situational control and restoring normal conditions. Aircraft operations are normally included in the Operations Unit;
- **Planning** – collects, evaluates and disseminates all information and intelligence to the IC/UC. Prepares the initial Incident Action Plan (IAP) as well as status and progress reports and monitors the status of resources. Provides documentation based on expertise that operational decisions can be made upon. In some jurisdictions this group is sometimes known as the **Intelligence** unit.
- **Logistics** – all service support requirements such as facilities, supplies, transportation, maintenance, fuel, staging areas, food, accommodation etc. Some aspects of aircraft management like aviation fuel, servicing, support for pilots and aircrew, helibases are often included in the Logistics Unit.

- **Finance** – recording personnel time, ensuring security of external contractor and vendor contracts; recording accrued and overall costs and compensations required of the entire incident.

7. ICS - Terminology

7.1. For the proper functioning of ICS common terminology should be established to assign specific and unique names and definitions to all aspects of incident management, including:

- organisational functions:
- structures
- roles of personnel
- incident status or situation
- operational goals and tasks
- organisational unit names.
- resource descriptions
- hardware, software and human resource descriptions, including type
- capabilities expected of all resources
- equipment levels
- training and competencies held by particular personnel
- incident facilities.

8. ICS - Scalability and Transfer of Command

8.1. A key strength of the ICS model is that it can be scaled and adapted to suit the nature, size and complexity of the incident as it progresses. Individual units can be expanded, or contracted as needed and new units added like recovery and rehabilitation as the response phase winds down.

8.2. The continued functioning of the ICS is highly dependent upon standardised processes being undertaken at all phases of the incident.

8.3. Some key processes include establishment and transfer of Incident Command. As soon as an incident is identified as requiring a response, the governing agency must immediately appoint an appropriately trained and experienced Incident Commander.

8.4. When an incident extends beyond one shift of Incident Command or required a change of Incident Commander there must be a formal transfer process and, the following shift must be fully briefed on the goals of the incident response, with specific reference to the status of objectives outlined in the Incident Action Plan.

9. ICS - Span of Control

9.1. Branches, Divisions and Groups can be added in order to maintain the manageable span of control for all supervisory personnel. The number of resources being utilised at the ground level is continually assessed as a guide to maintain an appropriate number of personnel acting in supervisory roles. As a general rule, one supervisor should be directly managing between three and five immediate subordinates or modules (up to 10 for police operations). De-escalation

of the incident and the size of the response is equally important as the escalation and expansion phase.

9.2. In cases where multiple incidents require simultaneous response within a broader geographic area, the facility exists to add another layer to the ICS structure above the Incident Command. For example Incident Complex or Area Command structure may be established which maintains a complete, but separate ICS structure for each defined incident. These incidents are then overseen at a higher level with the particular goals of managing competing resources for similar types of incidents and identifying the possibility for the separate incidents and their respective response efforts to interact.

9.3. A key feature of ICS is that the appointment of any person to undertake a defined ICS role or position is based on their competency to undertake the position, and not necessarily their rank or standing in their normal organisation. This is particularly true for aviation roles

10. ICS – Aircraft Operations

10.1. An Aircraft Unit should be established within the ICS structure as soon as fire situation escalates and multiple aircraft are deployed.

10.2. An Aircraft Unit may consist a number of specialists including Air Attack Supervisors (tactical supervision), Aircraft Officers (management of ground support), Airbase Manager, refuelers and Air Observers.

10.3. At larger incidents an Air Operations Manager may be engaged to provide oversight over all air operations.

10.4. Safe and effective air operations require trained and competent personnel, adequate ground support, good administration systems and effective integration into the total fire organisation.

10.5. Consideration should be given to the appointment of a communications planner and technicians within the IMT structure to establish effective communication systems for fires in remote areas of larger more complex fires involving multiple aircraft/airbases.

11. Basic principles of fire aviation operations:

11.1. Aircraft do not extinguish fires. While aircraft can assist with ‘knocking down’ flame intensity and reducing the Rate of Spread (ROS), ground crews are critical to ensure containment and control.

11.2. All air operations must be fully integrated with ground operations and set out in incident management plans (IAP’s) to ensure safety and maximise effectiveness.

11.3. Incident Action Plans need to set realistic and achievable objectives and strategies for aircraft operations. Input from aviation specialists to the IAP process is essential.

11.4. Operations also need to maintain a degree of flexibility to accommodate changing circumstances. Aircraft effectiveness can be significantly compromised by many factors, including:

- weather conditions
- fire behaviour
- fuel types and loadings
- terrain and elevation
- adequacy of logistical support
- turnaround times for aircraft to and from water sources
- communications
- aircraft and pilot capability, or
- level of supervision.

11.5. Suitably experienced and qualified aviation specialists must provide direct advice to the Incident Management Team as well as direct air operations.

11.6. Air operations need to be continually monitored for effectiveness, with objectives and strategies modified accordingly. All fire personnel need to be encouraged to provide continual feedback on operations.

11.7. Air operations must be stopped or stood down when they are unsafe or become ineffective.

11.8. The following questions need to be considered and regularly reviewed to determine the initial and ongoing use of aircraft:

- Will an aircraft increase the effectiveness of the firefighting operation?
- What role will the aircraft play in the suppression strategies?
- What sort of aircraft will best do the job?
- Is the proposed use of aircraft cost-effective?
- Are suitable aircraft available?

12. ICS – Aircraft Unit

12.1. Effective and efficient air operations require competent aviation management personnel, adequate ground support, good administration systems and effective integration into the total fire organisation.

12.2. Establishing an Aircraft Unit within the Incident Management Team (IMT) should be considered as soon as multiple aircraft are deployed. Strong linkages with the planning function are essential to ensure feedback on strategy development and implementation.

12.3. A diagram of the main components of a typical fully developed ICS structure is provided in Figure 2.

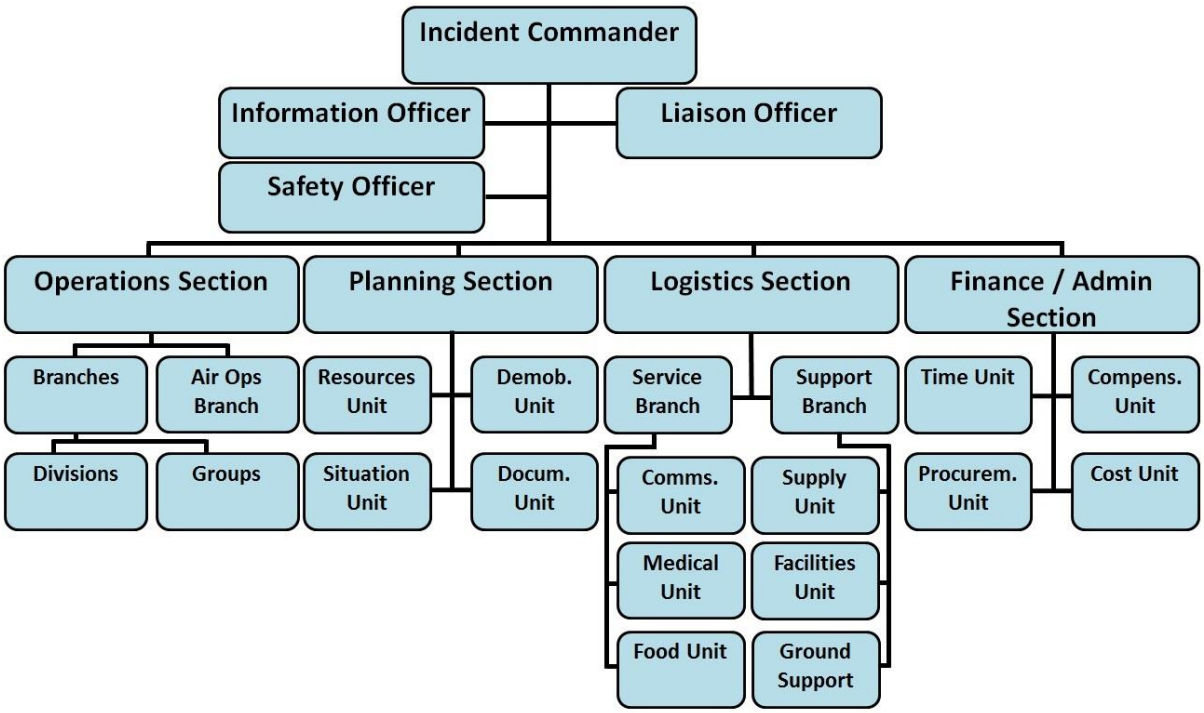

Figure 2. The structure of the Incident Command System expanded to include the key components. Note that Air Operations acts as a Branch of the Operations Section. The sub-structure of the Air Operations Branch is expanded in Figure 3.

12.4. The principal function and roles of air operations are normally managed through the Air Operations Branch of the Operations Section. The Operations Section is the component of ICS that is responsible for all physical efforts to control the incident and restore usual conditions.

12.5. The complex and specialised nature of the tasks undertaken require that an Air Operations Branch is established as soon as any aircraft is assigned to tactical operations (i.e. other than routine transport of personnel or equipment).

12.6. The Air Operations Branch is divided directly into two groups:

- Tactical Group – this group and its subordinates manage missions in order to safely and efficiently achieve the goals assigned to them based on the Incident Action Plan. It includes roles like Air Attack Supervisors (AAS).
- Support Group –this group manages all support functions for the aircraft operation such as communications, bases, ground handling and immediate support of aircraft operations with requirements such as crew, suppressant, retardant and fuel. It includes roles like Airbase Managers.

12.7. Each of the two groups is then divided appropriately to the circumstances of the incident and to maintain a suitable span of control. For an incident occurring over a wide area, division along geographic lines may be required. A division of functions by aircraft types (i.e. helicopters and fixed-wing aircraft) is also often used.

- A diagram of a typical Air Operations Branch is provided in Figure 3.

- It is important to note that a number of positions in a typical ICS that are closely associated with aircraft operations may not necessarily reside in the Air Operations Branch. For example an Air Observer, whose principal function is to gather intelligence from than airborne platform, will often report through the Planning Branch. In such a case, close liaison and communication must obviously be maintained with the Air Operations Branch.
- Air Operations are always designated as a dedicated Branch in the ICS structure

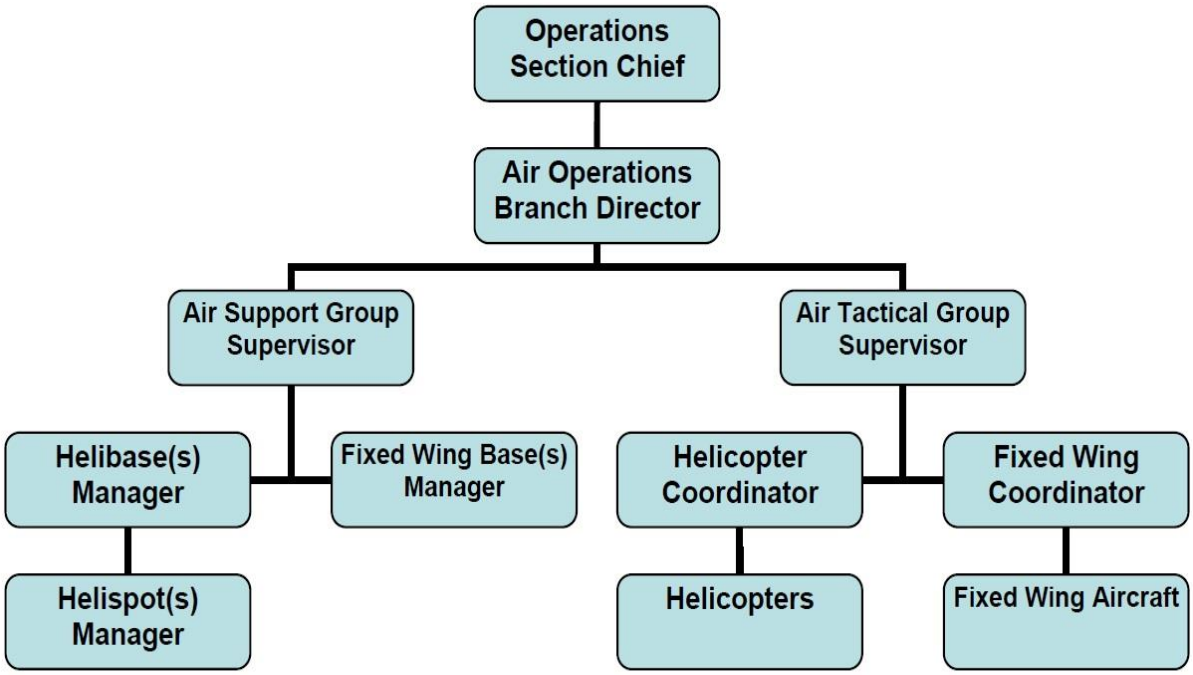

Figure 3. Typical Air Operations structure

13. Related Documents and References

13.1. The application of this Practice Guide should be read and applied in conjunction with the following related documents:

14. References

- Attachment 1 - Summary information for key ICS Air Operations roles
- Attachment 2 - Additional information regarding ICS Air Operations roles
- Attachment 3 - Additional information regarding ICS

15. Review Process

15.1. Participating Fire Agencies shall ensure maintenance and adherence of this Practice Guide.

15.2. Reviews shall be conducted as required and other participating Fire Agencies will be consulted on any amendments as part of the review process.

15.3. Date approved (this version):

15.4. Date due for review: TBA

16. Attachment's

Attachment 1 - Reference:

FAO Fire management: voluntary guidelines. Principles and strategic actions. Fire Management Working Paper 17. Rome (2006).
Available on line at: http://www.fao.org/forestry/site/35853/en

This Attachment is provided to further illustrate the roles and duties of some selected key positions in ICS that are involved in aircraft operations. This list of positions is not exhaustive and the descriptions and lists of duties are intended to be illustrative only. Attachement 2 provides a list of possible positions related to air operations that could be defined in an ICS, depending on the requirements of the particular jurisdiction, and provides position titles that are currently in common use around the world.

1. Manager of Air Operations Branch

(Note: refer to Attachment 2 for titles that are typically used to refer to this position)

Role summary

The Manager is responsible for the overall coordination of air operations and for the management of the Air Operations Branch. The Manager is responsible for ensuring safety standards are maintained at all times; for the provision of specialist aviation advice to the Incident Commander (IC) and other Sections; and for leading preparation of the air operations component of the Incident Action Plan (IAP). The Manager normally operates from the same location as the IC. When this role is established, the Manager reports to the chief of the Operations Section. The supervisors of the Air Tactical Group and the Air Support Group report to this position.

Key duties for the role

The Manager of the Air Operations Branch:

- is responsible to the chief of the Operations Section;
- is responsible for implementing air operations component of the IAP;
- responsible for the overall coordination of the air operations and
- manages the Air Operations Branch;
- provides specialist aviation advice;
- leads the preparation of the air operations component of the IAP as required to achieve the overall incident objectives;
- determines the procedures for coordinating air operations with the Operations Section;
- liaises with the Chief of the Operations Section regarding aircraft activities;
- ensures safety standards are maintained at all times.

2. Supervisor of the Air Tactical Group

(Note: refer to Attachment 2 for position titles that are typically used)

Role summary

The supervisor of the Air Tactical Group is responsible for the safe and efficient coordination of firebombing and other tactical aircraft activity in support of the incident. The position maintains air-to-ground communications and liaison; selects the fire bombing targets in consultation with ground crews; directs the aircraft over the fire and modifies the air tactics if necessary; suspends operations if they are unsafe, ineffective or if conditions are unsuitable. The supervisor of the Air Tactical Group often operates from an aircraft above the fire to direct firebombing and other tactical aircraft. The position reports directly to the Manager of the Air Operations Branch, or directly to the Chief of the Operations Section if the Air Operations Branch is not yet fully established.

Key duties for the role

The supervisor of the Air Tactical Group:

- manages subordinate tactical supervisors;
- maintains air-to-fire communications and liaison;
- selects firebombing targets in consultation with ground firefighters;
- directs firebombing aircraft over the fire to achieve IAP objectives;
- modifies air tactics as necessary;
- suspends operations if conditions are unsafe, unsuitable or operations are ineffective;
- ensures operational safety standards are maintained;
- provides incident intelligence to personnel on the ground;
- evaluates and records effectiveness of aerial operations.

3. Supervisor of Air Support Group

(Note: refer to Attachment 2 for position titles that are typically used)

Role summary

The supervisor of the Air Support Group is responsible for the provision of operational and logistical support for air operations at an incident. This role includes supervising support operations, monitoring the safety and efficiency of ground operations, and the communication of information to pilots and ground personnel. The position is involved in planning aircraft operations and, in consultation with the relevant personnel, must react strategically to changes in the operational requirements and priorities. The position provides specialist advice to the Branch Manager and to the IC as required, and contributes to the preparation of the Air Operations Plan component of the Incident Action Plan. The position normally operates from the incident management centre where the IC and other Section managers or commanders are situated. The supervisor of the Air Support Group reports directly to the Manager of the Air Operations Branch, or directly to the Chief of the Operations Section if the Air Operations Branch is not yet fully established.

Key duties for this role

The supervisor of the Air Support Group:

- manages subordinate staff, such as airbase managers;
- obtains/orders aircraft necessary to implement the IAP;
- contributes to the development of the Air Operations Plan part of the IAP;
- ensures the necessary facilities and systems to support the operation of aircraft are in place and that they are properly manned and operated;
- establishes an aircraft communication and management plan to support an air operation;
- determines and allocates tasks, and schedules all aircraft;
- coordinates the aerial requirements of specialist operations and non-operational aerial activities;
- ensures the welfare of Air Operations Branch personnel and pilots;
- where appropriate maintains contact and co-ordination with any aircraft dispatch facility, SCCF and RCCF;
- ensures safety standards are maintained.

4. Airbase Manager

(Note: refer to Attachment 2 for position titles that are typically used)

Role summary
(Note: in this Guide, Airbase Manager refers generically to any position managing a base of operations for aircraft operating at an incident, including a Helibase Manager; likewise the term 'airbase' includes 'helibase').

The Airbase manager is responsible for the safety, supervision and coordination of activities and personnel at an airbase; for supervising the layout and operation of the airbase, and for coordinating pilot information services at the base. The Airbase Manager reports to the supervisor of the Air Support Group, but will normally maintain close co-ordination with the Logistics Section and the Planning Section especially for managing movements of personnel by aircraft and for managing supplies of consumables such as fuel

Key duties for this role
The Airbase Manager:

- manages airbase operations;
- arranges the layout of the airbase;
- arranges pilot information services and briefings;
- monitors safety standards and ensures safe systems of work at the Airbase;
- manages storage facilities on the base (e.g. for fuels, retardant, suppressants);
- supervises support staff for air operations (e.g. marshals and retardant-mixing and loading crews);
- ensures welfare of all personnel at an airbase (.g. rest facilities, food and water);
- arranges airbase security, if required;
- arranges the timekeeping and records of aircraft and base staff;
- maintains a log or record of airbase activities;
- ensures all airbase personnel receive timely and appropriate debriefing.

5. Air Observer

(Note: refer to Attachment 2 for position titles that are typically used)

Role summary
The Air Observer is responsible for obtaining and communicating accurate and precise intelligence information of fire or emergency activity and incident control progress from an airborne platform. The Air Observer reports directly to the appropriate position in the Planning Section – often this will be an officer in the Situation unit. Although not a member of the Air Operations Branch under the ICS structure, the Air Observer maintains close communication with the Air Operations Branch.

Key duties for this role
The Air Observer:

- obtains information from an airborne platform;
- interprets and communicates incident intelligence to ground units;
- undertakes incident mapping and plotting of control progress;
- detects and locates incidents;
- monitors safety of ground crews.

5. Supervisor of Incendiary Operations

(Note: refer to Attachment 2 for position titles that are typically used).

Role summary
The supervisor of Incendiary Operations is responsible for the safe, effective and efficient conduct of aerial ignition operations to specified prescriptions, including provision of instructions to the aircraft direction of the Pilot and supervising the operator of the incendiary dispensing device. Incendiary operations maybe conducted either for planned burning purposes (e.g. for hazard management or ecological objectives) or for wildfire suppression (e.g. backburning or burning out). For fire suppression operations, the supervisor of Incendiary Operations normally reports to the manager of the Air Operations Branch.

Key duties for the role
The supervisor of Incendiary Operations:

- orders aerial ignition equipment;
- conducts briefings of personnel involved in the operation;
- provides directions to pilots;
- maintains communication with ground and support crews
- adjusts ignition patterns as required to achieve objectives;
- ensures burn is conducted in accordance prescriptions;
- monitors safety and compliance with safety standards;
- supervises subordinate staff (e.g. incendiary dispenser operator).

Attachment 3 -Additional information regarding ICS Air Operations roles

This Attachment provides:

a) a list of possible roles related to air operations that could be defined in an ICS. Jurisdictions will need to tailor or adapt the list to suit individual requirements, however it is strongly recommended that the fundamental division the Air Operations Branch into a “tactical” group and a “support” group be retained;

b) position titles for that are commonly used around the world for key roles.

1. ICS roles related to Air Operations

Role	**Part of ICS structure where this role normally resides**
Manager of the air operations branch	Air Operations Branch
Supervisor of tactical group	Air Operations Branch
Aircraft co-ordinator (airborne, tactical supervision role)	Air Operations Branch
Supervisor of support group	Air Operations Branch
Aircraft manager (administrative, ground based role)	Air Operations Branch
Manager of airbase	Air Operations Branch
Airborne observer	Planning Section
Pilot	Air Operations Branch
Pilot Observer	Air Operations Branch
Lead pilot (i.e. pilot of lead plane for firebombing)	Air Operations Branch
Supervisor of incendiary operations	Air Operations Branch
Airbase marshall	Air Operations Branch
Airbase radio operator	Air Operations Branch
Aircraft refueller	Air Operations Branch
Aerial suppressant mixing/loading crew member	Air Operations Branch
Aircrew (may include winch operator, rappel dispatcher/spotter)	Air Operations Branch
Air specialist firefighter (may include parachutist, hover-exit, rappeller, winch crew)	Operations Section

Specialist equipment operator - airborne (e.g. may include infra-red, GPS or camera or scanner operator)	Air Operations Branch
Incendiary equipment operator - airborne	Air Operations Branch

2. Titles commonly used for key ICS roles related to Air Operations

Manager of the air operations component of the ICS	• Australia: Air Operations Manager (AOM) • Canada: Air Operations Branch Director (AOBD) • NZ: Air Division Commander • US: Air Operations Branch Director (AOBD) • • [To be completed for other countries] •
Supervisor of the air operations tactical group, (normally an airborne, tactical role, but may be ground based for large, complex incidents)	• Australia: *Air Attack* Supervisor *(AAS)* • Canada: Air Tactical Group Supervisor ATGS • NZ: Air Attack Supervisor • US: Air Tactical Group Supervisor (ATGS) • • [To be completed for other countries] •
Aircraft co-ordinator (airborne, tactical role)	• Australia: Air Attack Supervisor - [Aircraft type] • Canada: F/W - Air Attack Officer (AAO); R/W - Helicopter Coordinator HLCO • US: Helicopter co-ordinator (HELCO); SEAT co-ordinator etc • • [To be completed for other countries]
Supervisor of the air operations support group (ground based role)	• Australia: Aircraft Officer (AO) • Canada: Air Support Group Supervisor (ASGS) • NZ: Air Support Supervisor • US: Air Support Group Supervisor (ASGS)

	• • [To be completed for other countries]

Manager of specific aircraft (ground-based, administrative role)	• Australia: [not normally defined] • Canada: [not normally defined] • US: Helicopter Manager, SEAT Manager etc • [To be completed for other countries] •
Manager of airbase	• Australia: Airbase Manager • Canada: Helibase Manager HEBM or F/W Base Manager FWBM • US: Airbase Manager or Helibase/Helispot Manager • • [To be completed for other countries]
Airborne observer	• Australia: Air Observer • Canada: [Not normally defined] • US: Air Observer • • [To be completed for other countries]
Supervisor of incendiary operations	• Australia: Incendiary Operations Supervisor • Canada: Firing Boss (FIRB) • • • [To be completed for other countries]

This Attachment provides additional reference information regarding the operation of ICS.

Note: This is attachment is not intended to be a comprehensive guide to ICS, but rather an indicative outline of some common concepts. More detailed guidance is available from emergency response agencies in jurisdictions that have adopted ICS as a principle incident management system.

1. General operation

1.1. Establishment of Incident Command

a. As soon as an incident is identified as requiring a response, the governing agency (usually that which manages emergency response in the jurisdiction of the incident) must immediately appoint an appropriately trained and experienced Incident Commander (IC) or establish Unified Command, as outlined below.

b. Initially, the IC manages the entire ICS structure, but should immediately identify the particular needs of the incident, establish an appropriate structure and appoint suitable personnel to fill out the Command and General Staff positions of the ICS structure.

1.2. The appointment of any person to undertake a defined ICS role or position should be in accordance with their competency to undertake the role or position.

1.3. In incidents involving only one responding agency the Incident Commander will be one appropriately qualified person acting in the interests and within the bounds of their agency's mandate.

1.4. In the case that two or more agencies are cooperatively responding to an incident, a Unified Command (UC) will be established, including representatives of each agency.

1.5. No position below the IC should be duplicated. The idea of ICS is that a Unified Command will cooperatively agree to the goals that must be achieved depending upon the priorities of each organisation. All staff at lower levels, regardless of Agency, will then operate to achieve these goals.

1.6. At an early stage of incident response a single Incident Command Post (ICP) should be established.

1.7. When an incident extends beyond one shift of Incident Command Staff, the following shift must be briefed on the background, progress and immediate goals of the incident response, with specific reference to the status of objectives outlined in the Incident Action Plan.

2. Description of other key positions and units in ICS

2.1. Liaison Officer – works between the agencies and other organisations (private, NGO) involved in the response or affected by the incident to identify capabilities, priorities and issues requiring resolution.

2.2. Safety Officer – advises IC on matters of safety specific to the incident. Safety procedures of specialised tasks (i.e. rappelling) are not normally the responsibility of the Safety Officer. Specialist assistants to the Safety Officer may be appointed to advise on specific risks and liaise with the Operations and Logistics Sections dealing with these risks.

2.3. Information Officer – liaises with the public, media and other agencies on matters of information, including public awareness of the situation and dissemination of response-specific information between agencies.

2.4. Operations Section

a. There are a number of options available to the Operations Section Chief for structuring the Operations Section depending on the type(s) of incident being dealt with, the geographical extant and character of the incident grounds and the variety of agencies and strategies being deployed.

b. Operations Section Chief

The Operations Section Chief (OSC) directly manages all incident tactical activities and implements the Incident Action Plan. The OSC may have one or more deputies, preferably from other agencies in multijurisdictional incidents. An OSC should be designated for each operational period and will have direct involvement in the development of the IAP for the next operational period of responsibility.

c. Branches

The term 'Branch' is used when the ICS structure is split directly below the level of the OSC. Branches within the Operations Section may be established for a number of reasons depending on the characteristics of the incident and the response requirements. In most cases this will occur because:

- the number of units, groups or divisions directly under the command of the Operations Sector Chief exceeds the manageable span of control;
- a number of fundamentally different agencies are involved in the response without a great need to interact directly;
- the response is over such an extensive geographic area that working as one unit is impractical.

d. Divisions and Groups

Aside from the special treatment of the Air Operations Branch, the structure of ICS is divided in a number of ways that reflect the type and complexity of incident. Additionally, the following functions (Divisions and Groups) may be used to further divide the Air Operations Branch to maintain manageable span of control.

Divisions and Groups are established when the number of resources exceeds the Operations Section Chief's manageable span of control. Divisions separate physical or geographical areas of operation within the incident area. Groups separate functional areas of operation for the incident.

The use of the two terms is necessary, because Division always refers to a geographical assignment and Group always refers to a functional assignment. Both Divisions and Groups may be used in a single incident.

2.5. Planning Section

a. The Planning Section is responsible for collecting, evaluating, and disseminating operational information pertaining to the incident. This Section maintains information and

intelligence on the current and forecasted situation, as well as the status of resources assigned to the incident. The Planning Section prepares and documents Incident Action Plans and incident maps, and gathers and disseminates information and intelligence critical to the incident. The Planning Section may also include technical specialists to assist in evaluating the situation and forecasting requirements for additional personnel and equipment.

b. Planning Section Chief

The Planning Section Chief oversees all incident-related data gathering and analysis regarding incident operations and assigned resources, conducts Planning Meetings, and prepares the IAP for each operational period in cooperation with the Operations Section Chief. This individual will normally come from the jurisdiction with primary incident responsibility and may have one or more deputies from other participating jurisdictions.

c. Resources Unit

The Resources Unit keeps track of all assigned personnel and resources and their presence, capability and status in relation to the incident. This is where the clear definition of resource type is important to estimate the requirements of the Operations Section to deal with given circumstances.

d. Situation Unit

The Situation Unit collects, processes, and organises ongoing situation information, prepares situation summaries and develops projections and forecasts of future events related to the incident. The Situation Unit prepares maps and also gathers and disseminates information and intelligence for use in the IAP. This Unit should be prepared to provide timely situation reports as scheduled or at the request of the Planning Section Chief or IC. This Unit may also require the expertise of technical specialists such as fire behaviour specialists.

e. Documentation Unit

The Documentation Unit maintains complete incident files, including a record of major steps undertaken and their results in reference to the Incident Action Plan and objectives. This Unit compiles and publishes the Incident Action Plan and organises and maintains all supporting documentation.

f. Demobilisation Unit

The Demob Unit develops plans for rostering of personnel including specific instructions for demobilisation as personnel and teams reach fatigue thresholds and the incident de-escalates. Demobilisation instructions must be distributed at the incident.

g. Technical Specialists

The planning unit has the freedom to enlist the assistance of technical assistance in response to special incident situations. This assistance may come from specialists not normally serving in an emergency response role. In relation to fire aviation, experts in fire behaviour or the tactical use of specific aircraft may be employed by the Planning Section Chief. Although the Planning Section is responsible for contracting Technical Specialists, they may actually be assigned to work between the Planning Section and

the Operations Section of the ICS to deal with the planning and implementation of tasks related to their field.

h. Incident Action Plan

A key responsibility of the Planning Section is the assembly of the Incident Action Plan (IAP), which addresses the overall incident objectives and strategies as established by Incident Command. This Plan should be a written document and is generally valid for a period of 12 to 24 hours and is revised and reissued at such periods to deal with changes in the situation as the incident develops. A typical IAP will contain the components shown in Table 1.

Table 1. Components typically included as part of the Incident Action Plan

Usual Component	**Normally prepared by**
Incident Objectives	Incident Commander
Organisation Assignment List or Chart	Resources Unit
Assignment List	Resources Unit
Incident Radio Communications Plan	Communications Unit
Medical Plan	Medical Unit
Incident Maps	Situation Unit
General Safety Message / Site Safety Plan	Safety Officer

Other Potential Components	**Normally prepared by**
Air Operations Summary	Air Operations
Weather Forecast	Planning Section
Traffic Plan	Ground Support Unit
Demobilisation Plan	Demobilisation Unit
Security Plan	Law Enforcement or Security Manager

2.6. Logistics Section

a. The Logistics Section provides for all the support needs for the incident, such as ordering resources and providing facilities, transportation, supplies, equipment maintenance and fuel, food service, communications, and medical services for incident personnel.

b. The Logistics Section may be branched to the degree necessary for practical management, including achievement of manageable span of control. In any case, the following units and their brief responsibilities should be considered as part of the ICS structure.

c. Supply Unit

- The Supply Unit orders, receives, stores, inventories and distributes all incident-related resources and supplies (including personnel)

d. Facilities Unit

- The Facilities Unit sets up, maintains and demobilises all facilities supporting incident operations, including the security of staging, food and hydration, sleeping and sanitation facilities.

e. Communications Unit

- The Communications Unit coordinates the general Communications Plan (part of the Incident Action Plan) to make the most effective use of the equipment and facilities available to the incident as a whole and to each of the participating agencies.

f. Catering (Food) Unit

g. The Catering Unit ensures sufficient food and drink of high quality and security is provided to the responding agencies and, where appropriate, others affected by the incident.

h. Medical Unit

- The Medical Unit provides medical assistance for all personnel responding to the incident. This is separate from a Branch or Group of the Operations Division that would be tasked with dealing with casualties of the incident itself.

2.7. Finance Section

a. The Finance Section is tasked with forecasting and monitoring the financial aspects of the incident response. This section plays a particularly important role when funding is provided by several sources and when funding must be secured dynamically in order to avoid negatively affecting the response itself.

b. The following Units may be established as part of the Finance Section:

- Time Unit – recording of personnel and equipment times and their costs;
- Procurement Unit – arranges contracts with suppliers and vendors;
- Compensation and Claims Unit – begins the process (to be continued after the incident) for all injury and other compensation claims;
- Cost Unit – provides cost analysis data and projections for the incident to ensure that sufficient funds can be sourced in appropriate time.