AUSTRALIAN CAPITAL TERRITORY

BUSHFIRE ACT 1936

DETERMINATION FOR VARIATION OF THE RURAL FIRE CONTROL MANUAL

NO 188 OF 1996

Under section 5KA (7) of the *Bushfire Act 1936*, I approve the variation to the Rural Fire Control Manual for gazettal and tabling in the ACT Legislative Assembly as a disallowable instrument.

Date: 26 July 1996.

Gary John Joseph Humphries
Minister for Emergency Services

4. STAFFING AND ORGANISATIONAL STRUCTURE

4 1	Rural Firefighting Service organisational structure	4.2
4 2	Powers, functions and responsibilities of Rural Firefighting Service members	4 2
4 2.1	Chief Fire Control Officer	4 2
4 2 2	Manager Rural Firefighting Service	4 2
4.2.3	Deputy Chief Fire Control Officer	4 4
4 2 4	Group Captain	4.4
4 2 5	Deputy Group Captain	4 4
4 2 6	Captain	4 4
4.2 7	Deputy captain	4 5
4 2.8	Fire fighter	4 6
4 2 9	Secretary to Council	4.6
4 3	Volunteer and departmental bushfire brigades	4.7
4 3 1	Brigades in the ACT and Jervis Bay	4 7
4.3 2	Formation of a bushfire brigade	4 7
4 3 3	Membership of volunteer brigades	4 8
4 3 4	Membership of departmental brigades	4 8
4 4	Emergency volunteers	4.8
4.4 1	Meaning of emergency volunteers	4 9
4 4 2	Condition for emergency volunteers	4 9

4. STAFFING AND ORGANISATIONAL STRUCTURE

4.1 RURAL FIREFIGHTING SERVICE ORGANISATIONAL STRUCTURE

Staffing for the Rural Firefighting Service (RFS) and its organisation builds from the top down with responsibility for performance placed with the Chief Fire Control Officer (CFCO).

The Organisational Structural Chart is shown on the next page.

4.2 POWERS, FUNCTIONS AND RESPONSIBILITIES OF RURAL FIREFIGHTING SERVICE MEMBERS

The powers, functions and responsibilities of the RFS and its incident control system (see Chapter 10) are designed to be able to cope with the small to very large and complex incidents and emergencies. The powers, functions and responsibilities of each of the office bearers of the Rural Firefighting Service are detailed below.

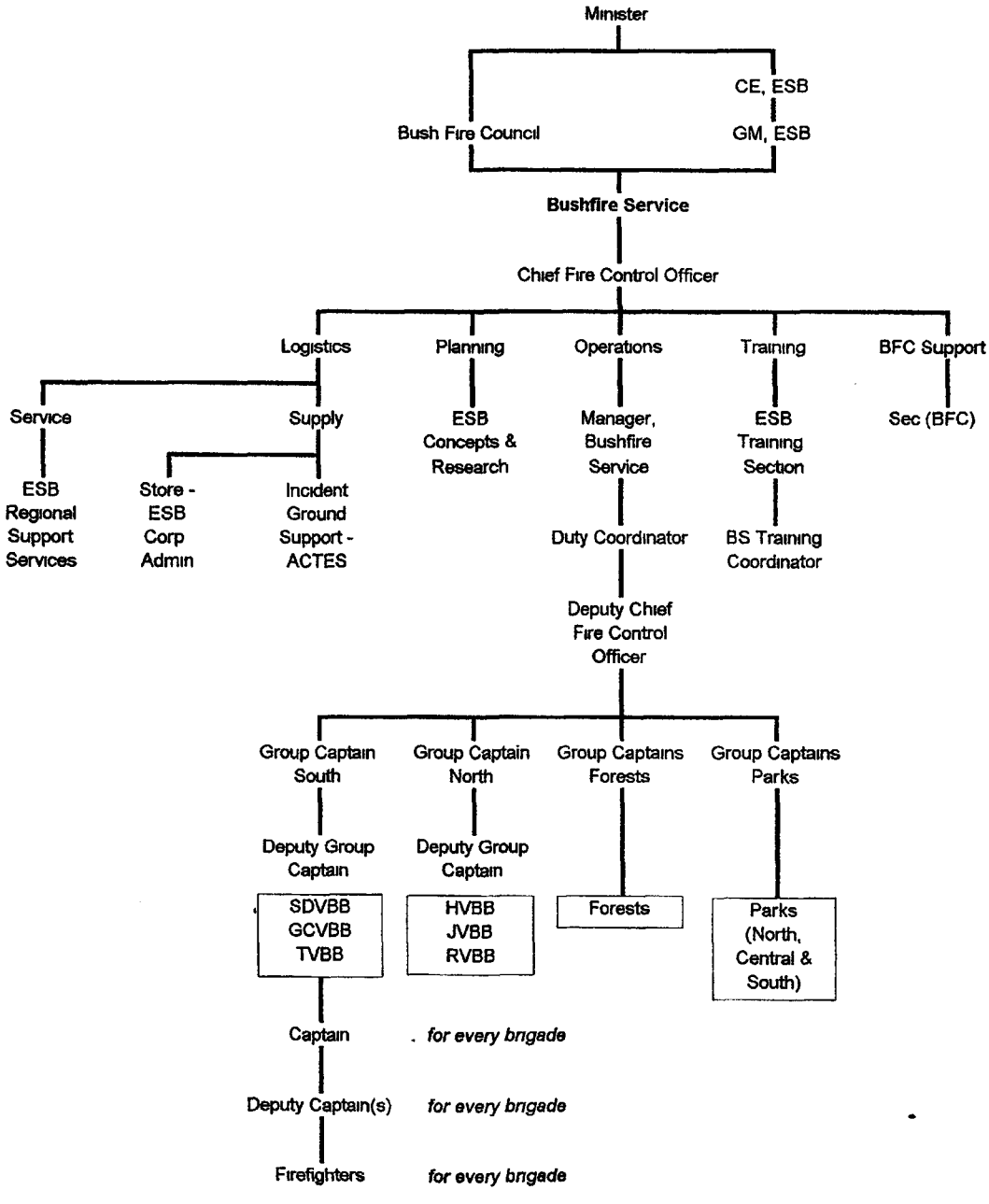
4.2.1 CHIEF FIRE CONTROL OFFICER (CFCO)

The CFCO has four primary functions:

* *provide executive assistance to the ACT Bush Fire Council (Council) and be responsible for the implementation of policy determined by Council;*
* *head the RFS and be responsible for coordination, control and direction of the overall management of the Service;*
* *manage the RFS financial sub-program to ensure efficient and effective financial planning, estimate preparation, administration and budget management;*
* *under the provisions of the* Bushfire Act 1936, *co-ordinate, control and direct the overall management of all fire control activities anywhere within the ACT, except the 'built up area', as defined in the ACT Government Gazette, or buildings, when the ACT Fire Brigade is in attendance. This function also includes the approval and issue of permits to burn under the Act, and as a delegate of the Air Pollution Act 1984, approve and issue permits regarding smoke management under conditions prescribed by the Pollution Control Authority.*

Under all incident control situations, unless otherwise delegated, the CFCO will occupy the position of Incident Controller under the Incident Control System, and will be responsible for overall safety, the development and implementation of strategy, and the ordering and release of resources. Provision for such delegation is to be made by standard operational procedure.

Bushfire Service Organisational Structure



4.2.2 DEPUTY CHIEF FIRE CONTROL OFFICER

The Deputy CFCO has two primary responsibilities:

* *as a senior officer of the RFS assume, in the absences of the CFCO or as delegated by the CFCO, the powers and responsibilities of the CFCO for incident control under the provisions of the* Bushfire Act 1936, and this Manual

* *fill the position allocated within the Incident Control System. The positions normally allocated to a Deputy Chief Fire Control Officer are: Incident Controller, Field Controller or Air Operations, but may include Logistics Officer, Assistant to the Incident Controller or Liaison Officer depending on the type of incident.*

There are two Deputy CFCOs within the RFS. These officers, with the CFCO as required, perform the Duty Coordinator role and work a week on, week off roster during the bushfire danger period, and as required outside the bushfire danger period, as the first contact for RFS callout.

4.2.3 GROUP CAPTAIN

Group captains are senior officers of the RFS. The role of group captains is to provide command and infrastructure support to the management of incidents In the case of volunteer group captains, an additional role is to provide administrative, volunteer management and support to volunteer brigades within their span of control. The operational functions of group captains are to:

* Assume control and direct tactical aspects for incident management when assigned to an incident or sector

* Activate and participate in the appropriate elements of the incident control system at the incident site

* Implement the agreed incident control plan

* Control and task all resources allocated to the incident or sector under the control of the Group Captain

* Identify and report major changes to operations

* Recommend general service and support requirements

* Continually monitor safety considerations

* Establish effective communication arrangements at the incident site or sector

* Participate in de-briefs

* Activate CISM practices as necessary

* Prepare, as soon as possible after the incident, a full incident report

* Assist with training as required

* Liaise and maintain continuous contact with all other agencies operating at the incident site or sector

* Keep the higher levels of control informed

4.2.4 DEPUTY GROUP CAPTAIN

Deputy Group Captains only exist in the volunteer parts of the RFS. In the absence of the volunteer Group Captain a volunteer Deputy Group Captain assumes all of the responsibilities and functions of Group Captain for operational procedures, and/or any other senior officer or ICS functions allocated by the Incident Controller

4.2.5 CAPTAIN

The captain is a bushfire brigade officer within the RFS. The role of the captain is to maintain a high operational efficiency level within the brigade, and command the incident control activities of the brigade There are currently 11 brigades in the ACT and Jervis Bay made up of 4 departmental and 7 volunteer brigades.

The captain's primary duties are to:

* maintain close liaison and co-operation with higher levels of control;

* when directed assume field controller or sector leader responsibilities,

* command incident control activities of the brigade;

* report incident control information to the Incident Controller or to an appointed Field Controller;

* be conversant with the location of access trails, water storage facilities, firebreaks, adjoining brigades and other relevant resources within and adjoining the brigade area of operations,

* liaise with the CFCO on matters relating to hazard reduction, strategic firebreaks and trails, protection of major hazards, safety matters and other matters that affect the brigade;

* ensure that all equipment allocated to the brigade is kept in the best possible order at all times

* ensure that the provisions of the Council's Occuptional Health and Safety Policy are enforced.

* Other duties for the Captain are as directed by the CFCO and, for volunteer brigades, the brigade committee.

4.2.6 DEPUTY CAPTAIN

Deputy Captains are officers of bushfire brigades within the Rural Firefighting Service. The role of the Deputy Captain is to assist the Captain, be a crew leader and act according to instructions and directions given by the Captain. In the absence of the Captain the most senior Deputy Captain available is to assume the role and responsibilities of the Captain.

4.2.7 FIREFIGHTER

Firefighters are a part of the RFS and are made up of both departmental and volunteer people. The ACT firefighter is part of a network of trained and dedicated men and women committed to ACT's bushfire safety. Each firefighter belongs to a brigade and undertakes a wide range of tasks under the command of their brigade officers. Firefighters are the vital link to the delivery of bushfire fighting practices to minimise the undesirable impacts of bushfire on the ACT community.

4.2.8 FIRE MANAGEMENT OFFICER

The Fire Management Officer is a part of the RFS management staff and provides support to the operational aspects of the RFS by occupying the position and performing the functions of Planning Officer as part of the ICS. The Fire Management Officer's duties also include:

* produce emergency and operational plans and procedures for the RFS
* review and make comment on land management plans and liaise with land managers and planners to ensure that fire management is properly considered
* assess fire hazard and risk levels on a broad scale over the whole area of the ACT
* provide technical support, including computer systems, mapping and fire records to the RFS
* maintain and continue to develop applications of Geographic Information Systems relevant to fire management and planning

4.2.9 SECRETARY TO COUNCIL

The Secretary to the Bush Fire Council is part of the RFS management staff. The duties of the Secretary are to:

* carry out administrative tasks associated with Council business
* provide research and support services for Council, Council members and all Council committees
* negotiate and liaise with government departmental areas, authorites and other organisations as required by Council

* provide support functions to RFS operations as requested

4 2.10 RFS TRAINING COORDINATOR

The RFS Training Coordinator is part of the RFS management staff, provide support functions to the RFS operations as requested. The RFS Training Coordinator duties include:

* assist the CFCO to develop training programs to cover all aspects of the field activities of the RFS

* conduct and coordinate training of all departmental and volunteer bushfire fighters in efficient and effective safe working practices

* provide support functions to the RFS operations as requested.

4.3 VOLUNTEER AND DEPARTMENTAL BUSHFIRE BRIGADES

There are 11 bushfire brigades in the Rural Firefighting Service with 9 in the ACT and 2 at Jervis Bay. The 9 brigades in the ACT are made up of 3 departmental and 6 volunteer brigades. The 2 brigades at Jervis Bay include 1 departmental and 1 volunteer brigade.

4.3.1 BRIGADES IN THE ACT AND JERVIS BAY

* Departmental (ACT)
  - Forests
  - Headquarters
  - Parks
* Volunteer brigades (ACT)
  - Guises Creek
  - Hall
  - Jerrabomberra
  - Tidbinbilla
  - Southern Districts
  - The Rivers
* Departmental (Jervis Bay)
  - Jervis Bay National Park.
* Volunteer (Jervis Bay)
  - Wreck Bay

4.3.2 FORMATION OF A BUSHFIRE BRIGADE

Volunteer bushfire brigades are formed by the desire of the community and by resolution of the Council. However, the total number of brigades within the ACT is determined by the Minister and notified in the ACT Government Gazette.

Departmental brigades are formed based on equipment deployment and availability of an appropriate human resource in a strategic area. A Council resolution is required and the

formation of the brigade must be within the number determined by the Minister and notified in the Gazette.

4.3.3 MEMBERSHIP OF VOLUNTEER BRIGADES

Membership of volunteer brigades consists of people accepted by and registered with, an approved volunteer bushfire brigade (see section 3.6 of this manual).

4.3.4 MEMBERSHIP OF DEPARTMENTAL BUSHFIRE BRIGADES

The ACT Government directly manages about 80% of the open space areas of the ACT which includes nature conservation areas, pine plantations and other open space areas adjacent to urban and rural development. The land management agencies of the ACT Government have a legal responsibility to take reasonable steps to prevent fire on land under their control. They also have their own land use management goals and objectives that provide for the protection of the resource under their management. As a consequence many of the land management agencies of the ACT Government are committed to bushfire management and control under the direction of the Rural Firefighting Service.

There are currently 4 departmental bushfire brigades in the ACT and Jervis Bay. These brigades are staffed by the relevant land management agency, or combination of agencies; however, the necessary fire control equipment is supplied and owned by the Rural Firefighting Service

Brigade membership is a matter for the employer, having regard to the person's type of work, availability, industrial award and organisational commitment. In many cases it is part of the duty statement for a position. Individual departments are responsible for training to the standards set by this manual and for the appropriate level of fitness of their brigade members.

The brigade captain is normally the overseer or foreman of a particular work area, while the deputy captain is normally the person who acts in the absence of the overseer or foreman. Brigade functions are divided up depending on industrial award agreements, except during an emergency when no appropriate award person is available. All appointments to operational positions of the brigade are subject to the approval of the Council.

4.4 EMERGENCY VOLUNTEERS

The Bush Fire Council recognises that there are many people including casual passers-by who may lend assistance to bushfire suppression particularly in its early stages Where a casual passer-by sees a fire starting he or she should be encouraged to take whatever action within their capabilities to suppress that fire and they therefore should be covered for any injuries sustained by him/her including a loss ofwages, unless it can be shown that they did not act in good faith. Council also recognises that there are many people in rural areas who will act in support of volunteer firefighters and while they may not be involved in direct firefighting at the flame front they may also sustain injuries through their role in supporting other firefighters. They too are entitled to compensation.

Council also recognises that when a fire has escaped from initial attack, (which may be defined by escape from the firefighting forces which are first sent to suppress it) then safe firefighting requires a degree of training and co-ordination that casual passers-by do not have and cannot have unless they are members of a bushfire brigade. Therefore, emergency volunteers include all people including passers-by who assist with the initial firefighting After an organised

brigade or incident controller arrives, he/she may asked to leave or asked to stay If asked to stay they remain a emergency volunteer.

Emergency volunteers also include - any person who assists with the support of firefighting provided they are asked to by a field controller or their delegate, or any person who responds to an emergency at the request of the Chief Fire Control Officer.

4.4.1 MEANING OF EMERGENCY VOLUNTEERS

Members of the public who are not members of a brigade, and who may not be qualified in firefighting or firefighting support, may act in these roles in an emergency, particularly in the early stages of a fire. The BFC recognises three categories of people who may be classified as emergency volunteers. They are:

Category 1. Any person, including nearby residents, local property owners and workers, and passers-by, who is in the vicinity of an outbreak of fire and who takes action to assist in the suppression of that fire, is deemed to be an emergency volunteer.

Category 2. Any person who responds to the request of a field controller for assistance is deemed to be an emergency volunteer.

Category 3. During incidents which required the organised assistance of volunteers, such volunteers be recruited by official announcement by the Chief Fire Control Officer. Those accepted are deemed to be emergency volunteer recruitment and will be subject to:

- registration of names and addresses at a specified registration point;
- being physically capable to perform the task required;
- preference being given to people who can prove previous training or experience.

4.4.2 CONDITIONS FOR EMERGENCY VOLUNTEERS

People in the above three categories are considered to be volunteer firefighters and are covered by workers' compensation and other provisions which cover volunteer bushfire brigade members.

Emergency volunteers in Category 1 should withdraw from the vicinity of the fire when replaced by brigade members, unless they are requested to remain by the field controller, or unless they have property in the vicinity. Brigade field officers in attendance at an incident must endeavour, either personally or through other firefighters, to make every effort appropriate in the circumstances to contact and register the names of those people attending as emergency volunteers.

The field controller at an incident who accepts emergency volunteers as firefighters under his/her control should allocate duties to each person for which that person is adequately clothed and is believed capable.

As a general rule, people who travel some distance to an obvious fire, who are unqualified, who are not associated with the vicinity of the fire in terms of residence, relationship to residents, employment or property ownership, and who are not responding to an organised call for volunteers by the CFCO or his delegate, are unlikely to be regarded as emergency volunteers.

8. PREVENTION AND MITIGATION

8 1	Overview	8.2
8 2	Publicity and public awareness	8.2
8 3	Roadside fire danger meters	8 3
8 4	Printed material	8.3
8 5	Media relations	8 3
8 6	Displays and promotional opportunities	8 4
8 7	Total fire bans	8.4
8 8	Inspectors - power and appointments	8.5
8 9	Fuel management	8.6
8 9.1	Prescribed burning	8.7
8 9 2	Hazardous fuel removal	8.7
8 9 3	Prescription fire plan	8 8
8 9 4	Notification to remove hazardous fuels	8.11
8 10	Smoke management	8.12
8 10 1	Steps to take to minimise smoke effect	8 13

8. PREVENTION AND MITIGATION

8.1 OVERVIEW

In relation to bushfire prevention and mitigation, the main forms of contact between the community and the RFS fall into two main groups:

a) information, awareness and motivational contact (sections 8.2 to 8.7); and

b) surveillance and enforcement contact (sections 8.8 to 8.10).

8.2 PUBLICITY AND PUBLIC AWARENESS

The Rural Firefighting Service (RFS) has and needs to maintain direct contact with the general community. The Service has developed communication and education programs which target specific current needs, and simultaneously build knowledge for future generations. To be most effective these programs have been designed for use in ACT region and reflect the fire safety and fire prevention subjects specific to the ACT laws and policies.

The publicity and public awareness function of the RFS includes the following:

* *publicising the services provided by the Rural Firefighting Service and the Emergency Management Group, including prevention efforts, and other programmes designed to help people protect their lives and property from fire, or recover after a fire has occurred. Publicity efforts can include brochures, posters, advertisements in local papers, radio and television spots or announcements;*

* *developing a relationship with the media, providing information to reporters, and responding to their inquiries;*

* *providing public information during an incident or emergency to explain what has occurred, what is being done about it, and if applicable, what measures have been taken to protect the community affected by the incident;*

* *explaining managerial and technological innovations that will improve the services provided. Such innovations might include current programs and activities and acquisition of new apparatus or equipment;*

* *serving as a liaison with the land managers, private sector, school system, and other people involved in the total fire protection system to help educate them about the role of the Service and secure their cooperation in prevention and other programs.*

8.3 ROADSIDE FIRE DANGER METERS

The RFS maintains a number of roadside fire danger meters as a means of informing the public about the level of fire danger on any one day during the bushfire danger period. These signs have been erected in locations that provide maximum viewing access.

The roadside fire danger meters are kept up to date by departmental staff and volunteer brigade members, following the fire weather forecast for the day.

8.4 PRINTED MATERIAL

The Council and RFS produce a variety of printed material such as leaflets and brochures They also have available some material developed nationally. These materials are distributed free. They are designed to be informative and not specific to any particular fire season or location

8.5 MEDIA RELATIONS

The press plays an important role in the RFS's relationship with the community. It relays information from the Service to the public and relays public opinion to the Service.

The following guidelines are to be used for establishing and maintaining good working relationships with the media - newspapers, radio and television:

* media statements are to made by one person only. This will be the Service Management Team Controller or a nominated officer;
* work with the media and set ground rules for restricted news coverage and be certain you both have the same understanding of such terms as 'off the record' and 'just background information';
* take time to orient reporters to the incident and supply them with background material on complex issues;
* be sure information given to reporters is accurate and complete. If you do not know the answer to a question, do not bluff or refuse to answer, but offer to find out;
* practice a genuine open-door policy with reporters. Incident Controllers should try to be available for interviews at times that will help reporters meet their deadlines;
* be sure you provide the same information to each reporter;
* if a news story is inaccurate, do not hesitate to tell the reporter But respect his or her news judgment and ignore minor inaccuracies.

8.6 DISPLAYS AND PROMOTIONAL OPPORTUNITIES

The RFS participates in a number of display opportunities within the ACT such as the Canberra Show, Canberra Festival and volunteer field days. Individual brigades also participate in local school and similar fetes and functions, by providing static displays. In preparing a display it is important that a goal is selected or a decision is made as to what is to be accomplished by the display.

Any display or promotional opportunity entered into by the Service will have the following objectives:

* *the viewer should have a better understanding of the consequences of inadequate fire safety precautions;*
* *the viewer should better understand the immense need for fire prevention;*
* *the viewer should better understand what constitutes a fire hazard; and*
* *the viewer should learn what her/his action would be in the event of fire.*

Procedures for notification of activities will be in accordance with standard operating procedures.

8.7 TOTAL FIRE BANS

Total fire bans are declared on days of very high to extreme fire danger or days with the potential for complex bushfire situations where the RFS resources are likely to be heavily committed. The degree of fire danger is calculated using forecast weather information from the Bureau of Meteorology, as in section 9.14 of this Manual.

Total fire bans are declared under Section 7A of the Bushfire Act 1936 This section provides that; '... a person shall not light, use or maintain a fire in the open air on a day or during a period in respect of which the Minister has caused·

a) to be published in a newspaper circulating in the Territory;

b) to be broadcast from a broadcasting station in the Territory, or

c) to be televised from a television station in the Territory,

a warning of the likelihood of the occurrence of weather conditions conducive to the spread of fire

This does not apply to the lighting, maintenance or use of one of the following classes of fire:

a) a fire in a building,

b) a fire for the repair or maintenance of services or equipment essential for continuance or restoration of the supply of heat, light power, sewerage, transportation or communication where the CFCO has been notified of the intention to light the fire and reasonable steps have been taken to prevent the escape of a source of fire; and

c) a fire for the purpose of using a heating appliance eg barbeques (using only liquefied petroleum gas or electricity) providing:

i) it is under the direct control of a responsible adult,

ii) the area around the heating appliance is cleared for 3 metres of all material which could burn, and

iii) there is a continuous supply of water available at all times.

Any or all of the above three classes of fire may be included in the total fire ban if the weather is deemed extreme enough to warrant their inclusion. This will be clearly stated in the public warning.

The Minister's authority is delegated to the Chief Fire Control Officer (CFCO).

Total fire bans are declared whenever the CFCO considers that it is necessary to do so to prevent the outbreak or spread of fires. The following are the normal procedures adopted in the process of declaring a total fire ban, however the procedures may be varied at any time at the discretion of the CFCO, based on the circumstances at the time:

i) the forecast for the following day is received at about 1530 hours;

ii) if the CFCO considers the forecast warrants, or is nearing, a total fire ban situation, contact should be maintained with NSW bushfire and Meteorological authorities;

iii) based on the weather information and/or the decision for the adjoining weather district, a warning of the possibility, or the declaration of a ban, will be transmitted to the media and other organisations by fax or telephone at about 1600 hours;

iv) where a fire weather warning has been issued of the possibility of a declaration of a total fire ban for the next day, the morning weather forecast for the day in question (which is received at about 0630 hours) will be reviewed by the Chief Fire Control Officer and a total fire ban declared or not imposed. The media and affected organisations will be informed by 0700 as to the decision for the day.

The period of total fire ban will normally be 0000 to 2400 hours on the day in question, however, this may be altered by the Chief Fire Control Officer to suit the circumstances of the weather conditions and the decisions made concerning total fire ban provision in the adjoining weather districts.

8.8 INSPECTORS - POWERS AND APPOINTMENTS

Inspectors are appointed by the Minister under the provisions of section 5 of the *Bushfire Act 1936.*

The Minister's authority to appoint inspectors is currently delegated to the CFCO and the General Manager, Emergency Service Bureau.

Each inspector must carry an identity card that specifies the name and appointment of the inspector and on which appears a recent photograph of the inspector. An inspector must display his or her identity card whenever carrying out functions authorised by the Act. This

identity card must be returned to the Minister's delegate upon the cessation of the inspector's appointment.

The Bushfire Act 1936 *provides standard inspection procedures to protect the public interests including:*

* *where an inspector believes, on reasonable grounds, that it is necessary to do so to ensure compliance with section 5S or to issue a notice under section 5AC of the Act, he or she may enter land outside the built up area;*

* *before an inspector can enter land they must give written notice to the owner of the land at least 24 hours before entering;*

* *an inspector may issue directions to the land owner to take action that is reasonable in the circumstances to comply with subsection 5S(1). Before such directions are given by the inspector the following procedures must be followed:*

    . *the CFCO must be informed and his/her approval given;*

    . *the inspector must justify the reasons for the direction, either on the RFS's hazard assessment process, or a clearly defined site specific risk assessment;*

    . *the inspector and the CFCO before issuing, or approving, a direction must consider:*

    a) the amount and type of litter, timber or vegetation whether alive or dead on the land;

    b) the amount and type of other inflammable material on the land;

    c) climatic conditions affecting the land;

    d) the location and use of the land and any nearby land; and

    e) the possible effects of a fire on the land and nearby land.

* *an inspector may require any person committing or reasonably suspected of having committed or about to commit an offence against the Bushfire Act to give his or her real name in full and place of abode.*

8.9 FUEL MANAGEMENT

Bushfires are inevitable due to climate, vegetation types and the existence of many uncontrolled agencies which start fires, such as lightning The bushfire problem essentially is the destruction of assets on which individuals or the community place value and the community's ability to protect these assets, or minimise the potential for damage in the event of a fire burning through their area

In areas of potential high fire hazard fuel management practices to maintain low fuel levels are essential for effective fire management. These fuel management practices include prescribed burning or hazard removal, such as mowing, slashing or spraying.

Prescribed burning is the responsibility of the land manager and under section 5S(1) of the Act: 'The owner of land outside the built up area should take such measures as are reasonable in the circumstances to prevent and inhibit the outbreak and spread of fire on that land, and to protect property from fire on that land or spreading from that land ' This section of the Act places a responsibility on the land manager to remove hazards, that is, to reduce fuels. This

policy is actively supported by Council and in many cases it recommends that prescribed burning is the most efficient way of doing it. Under the Act land owners require a permit to burn if that burn is to be carried out during the proscribed bushfire period. It is sufficient to say in this manual that the RFS will assist land holders in the undertaking of burning operations and preparing prescriptions if required.

8.9.1 PRESCRIBED BURNING

Prescribed burning is also variously known as 'hazard reduction', 'controlled burning', 'hazard reduction burning' and 'burning off. It is the practice whereby combustible fuel is burnt under mild weather conditions to reduce the fuel available to subsequent bushfires.

Prescribed burning has a number of advantages: It modifies the only factor in bushfire behaviour that can be manipulated by management practices. The practice can also have a significant ameliorating effect on bushfire intensity in areas treated before severe fire weather Also it can retard the rate of spread of bushfire in suitably treated areas (however, this potential is significantly reduced the more extreme the fire weather conditions).

The decision to burn, once an area has been identified (either by the manager or the Service) as a high fire hazard, is the responsibility of the land manager. Where required the land owner must obtain a Permit To Burn, and this will require a prescription under which the burn will take place. The prescription must also take heed of the need to prevent the effect of smoke. The manager must decide the most appropriate way to reduce the potential effect of an identified hazard.

For example, if other land use management objectives conflict with the option to burn, then the onus is on the manager to reduce the potential effect of that hazard by some other means or by a documented management approach that supports the 'do nothing' management strategy.

Policies:

* *prescribed burning is regarded by the Council as a legitimate and practical management tool to alleviate the hazards of intense bushfire;*
* *the Council regards the responsibility for planning and carrying out prescribed burning as resting solely with the land owner, occupier and/or manager;*
* *land owners, occupiers and managers will be encouraged to undertake prescribed burning programs in those areas identified as potential hazardous areas and are also suitable for this management strategy;*
* *the Council will assist and advise all land owners, occupiers and managers to achieve their prescribed burning programs.*

8 9.2 HAZARDOUS FUEL REMOVAL

Hazard removal is the process of modifying the fuel complex by mechanical means; eg. mowing, slashing, rolling or by chemical spraying

Each year the RFS enters into an agreement with Agriculture and Landcare Sections of the Parks and Conservation Service to modify fuels adjacent to roadsides and established fire breaks for land outside the built-up area on a program basis. This is funded by the Service, and is restricted to those areas outside the normal management operations of a Government land management agency.

The funds allocated to the Service for this function are generally small, but allow for the determination of priority areas and the number of mowing rotations for any growing season; thereby ensuring that the areas that require priority treatment in some way to modify the fuels are rated high in the Bureau's general mowing program.

Policies:

* *a hazard removal program will be implemented based on availability of funds, and will be restricted to those areas outside normal management control of the Parks and Conservation Service and ACT Forests;*

* *RFS will liaise with the relevant sections of the Parks and Conservation Service and ACT Forests to maintain an effective and efficient fire hazard removal program for the ACT;*

* *RFS will assess, review and determine the areas and timing of the fire hazard removal program.*

8.9 3 PRESCRIPTION FIRE PLAN

Combinations of the following fire prescription elements are necessary to adequately plan and implement hazard reduction burning. The same elements are necessary for the evaluation and maintenance of air quality. The following check-list is to be used as a memory jogger for those items which will need to be considered. Wherever possible, details are to be shown on a map.

PART A THE PLAN

* Objective
  - reason for burn
  - expected achievements
  - consistent with land management objectives
* Description of proposed ignition area
  - aspect (eg 260 to 360 degrees = 52%)
  - slope (eg 0 to 10 = 42%, 10 to 20 = 58%)
  - elevation range
  - catchment area
  - size (gross and/or area to be treated)
  - location of fire control lines (map)
* Fuel
  - fuel type, by area as % of total
    - grass
    - native forest litter
    - pine
    - heath
    - other
  - fuel quantity in t/ha (state whether measured, estimated or modelled)
  - burning history
  - fuel arrangement (eg. suspended, ground litter, pruned, windrowed etc.)
  - moisture content (current, preferred for burning)

* Identification of potential effects

List any identified potential effects and/or constraints and what measures will be needed to deal with these problems. For example, consider

- air quality (smoke management)
  buildings
  fences
  recreation settings
  historic sites
  archaeological sites
- animal habitat
- weed infestation
  rare and endangered species
  soil stability
  landscape character
- research plots
  reference areas
- areas to be left unburnt
  adjoining property effects
  vegetation response

* Timetable

Timetable the action required to burn. Nominate who shall be responsible for each action. For example, consider

- public and neighbour notice requirements
- carry out preliminary check of area
- establish control lines and/or access
- rake around trees on the edge of the proposed burn
- ensure all equipment is functioning
- erect warning signs
- test burns
- evaluation (how long after the burn and by whom)

* Final check

Burning plans must be in accordance with:

Bushfire Act 1936
- *Air Pollution Act 1984*
  permit conditions
  approved plans of management (if any exist)
  government environment policy
  other relevant legislation (eg. Nature Conservation Act)
- Where appropriate, with the consent of the adjoining property owner and/or after public notification.

PART B THE BURNING PRESCRIPTION

* Objectives

  restate objectives

* Area

- identify proposed area
- identify areas to be left unburnt

* Fire behaviour

Describe the conditions under which the burn would be conducted to achieve the desired objectives.

maximum acceptable scorch height
. desirable fire intensity
. desirable wind direction to achieve burning objective and minimise smoke effect
. desirable air stability class
. desirable wind speed
. desirable relative humidity
. desirable temperature
desirable fire danger index
desirable drought index

* Control

Describe the control method that will be used

existing control lines
adjacent old burns
. control lines to be prepared on the day
. areas requiring special attention
. availability of back up suppression forces
. mop up requirements

* Ignition method

Describe exactly how the burn will be carried out.

desired commencement date
time needed to complete the burn
. time of day to commence
method
ground - along roads and tracks, grid pattern, strip lighting, ignition pattern direction of lighting and spacing between ignition points or lines
aerial - helicopter or fixed wing, direction of flight lines and spacing of ignition points and lines
. need for test burn
. stages of burn
. areas to be left unburnt

* Resource deployment

Describe how resources (personnel and equipment) will be deployed on the day of the burn.

fire tanker crews
. dozer operators
chainsaw operators
. weather monitoring
. hand tool crews
. command location
. communications
. contact for public inquiries
. patrol method and duration

* Estimated costs

Describe completely, and as accurately as possible, all costs likely to be incurred.

- overtime
- wages
- aircraft hire
- burning fuel (ie. drip torch fuel)
- incendiaries
- equipment hire or recovery costs
- rehabilitation (eg. tracks, control lines, fences)
- site preparation
- publicity

8.9.4 NOTIFICATION TO REMOVE HAZARDOUS FUELS

Section 5AC of the *Bushfire Act 1936* allows inspectors appointed under the Act to give directions requiring the landowners to take such action as is reasonable in the circumstances to prevent and inhibit the outbreak and spread of fire on that land. The powers and procedures to be adopted by an inspector are described in section 8 7 of this manual.

8.10 SMOKE MANAGEMENT

On the 21 February 1990 delegation was given to the CFCO and the two Deputy CFCOs to issue permits under section 27A of the Air Pollution Act 1984 for approval to burn plant matter. This delegation eliminates the need to obtain two permits before carrying out hazard reduction burns during the prescribed period Outside the prescribed period the delegated officers will still issue Pollution Control Authority permits for hazard reduction burning.

The delegation places the accountability with these officers of ensuring the avoidance of unwanted smoke pollution effects from hazard reduction burning on the community. As a result, the way in which approvals are prepared and burning carried out, must be formalised

A burning plan in writing, will be prepared in advance for each area or material to be burnt. Permits to burn will not be given without a written plan similar to that described in section 8.8.3 of this manual.

Apart from the obvious fire management planning related issues of why you are burning, what you are burning, how you are going to burn it, and when it is to be burnt, it is necessary to also predict and evaluate the potential air quality effects of the proposed burn This involves exercising some smoke management practices as well as identifying potential air quality effects

Smoke management is now, more than ever, critical to maintaining community acceptance of hazard reduction burning. The more smoke put into smoke sensitive areas of the ACT, and the surrounding environs, the greater the community pressure that will be focused on the RFS and land managers to use less effective alternative methods. There can be no doubt that the community also must be prepared to accept that, in order to reduce the risk of bushfire damage, smoke from hazard reduction burning is inevitable from time to time. That does not, nor should it, lessen responsibility to demonstrate good management.

The number of days during the burning season with conditions fitting both resource management objectives and air quality objectives is limited. As a consequence, it is likely that a number of burns may be programmed on those few days when both sets of constraints are met. Smoke from several sources could easily tax the air quality thresholds acceptable to the community within the ACT on these days. Therefore, a need for systematic and careful

scheduling of burns may be called for. The judgment used to approve, and if necessary schedule, such burns will depend upon the quality of the burning plan and the ability to meet the desired objectives under the weather conditions at the proposed time of burning

The need for such planning detail is that smoke plumes from burning plant matter contain a bewildering array of solid, liquid, and gaseous intermediate hydrocarbons and inorganic residues. As the surface of the solid fuel chars and erodes, particles of carbon and ash are carried through the flame zone to the convection column above. It is these small particles of condensed hydrocarbons, charcoal and ash that are the primary adverse ingredients in bushfire smoke.

Investigations in widely separated parts of Australia and the United States show that particular matter emissions are largely independent of the type of fuel burned As particular matter, except the inorganic ash, is the product of incomplete combustion, it is not surprising that the emission yield of particulars from fires will vary markedly with fire intensity and other burning characteristics.

Hence, emission of particulate matter in smoke is influenced by many variables. In an effort to minimise the particular matter, and therefore reduce the effect of smoke, some general practices are listed below and recommended, and should be considered when planning and preparing an area for burning.

8.10.1 Steps To Take To Minimise Smoke Effect

General practices to reduce the effect of smoke are·

* fires moving up slope are not preferred as they produce about three times more particular matter than fires moving down slope,
* consideration should be given both to the total fuel consumption and the moisture content of the fuel;
* burn scattered logging debris rather than piled debris;
* windrow burning is the most polluting hazard reduction practice, and is to be avoided,
* consider smoke sensitive areas, look several kilometres downwind and along possible smoke drainage paths for potential effect areas,
* preferred atmospheric stability classes are moderately unstable, slightly unstable or neutral,
* do not burn when air stability is reported to be in one of the 'stable' classes;
* do not burn under temperature inversions, for the ACT this usually will occur around sunset, so don't light up after 3 pm;
* if smoke drift is likely to affect the Canberra Airport in any way, burning should be avoided;
* avoid smoke drift over roads that may reduce visibility or create traffic hazards;
* where it is possible and reasonable, when preparing an area for burning, cut stumps low and fell dead stags where they can't be prevented from igniting;

* plan to mop up promptly to minimise smoke hazards, even if this means that additional resources are required than that normally used for hazard reduction burning;

* always bear in mind that smoke that goes somewhere safe today could end up somewhere sensitive tomorrow as the winds change, be aware of wind forecasts for at least 3 days after the proposed ignition day;

* if there is any doubt about what action to take, ask the RFS office.

10. INCIDENT CONTROL SYSTEM

10 1	The incident control system	10 2	10 3 1	Field controller	10 5
10.2	The incident control system in the ACT - Framework	10 3	10 3 2	Division leader	10 6
			10 3.3	Sector leader	10.7
10 2 1	Functional areas of ICS	10.3	10 3 4	Crew leader	10 7
10 2 2	Incident action plan	10 4	10 3 5	ICS-structure charts	10 7
10 2 3	Multiple agency incidents	10 5	10 4	Inter-agency co-operation and unified control	10 8
10 3	The incident control system in the field	10 5	10 5	Service Management Team	10 13

10. INCIDENT CONTROL SYSTEM

10.1 THE INCIDENT CONTROL SYSTEM

Throughout Australia a number of statutory authorities and government departments are responsible for the management and control of wildfire and other emergency incidents. In the early 1980s the Australian Association of Rural Fire Authorities (AARFA) was formed and is now a part of the Australia Fire Authorities Council. The charter of the Association, and now AFAC, includes the promotion of effective rural fire management throughout Australia; to establish national policies on all matters concerning rural fire management, and encourage co-ordination of fire research, fire education and fire training.

AARFA developed the Australian Inter-service Incident Management System (AIIMS) from the National Interagency Incident Management System currently operating in North America. AIIMS is intended to be used as a national system.

AIIMS consists of five sub-systems which collectively provide a total systems approach to incident management. The sub-systems are.

*Incident Control System (ICS)

The combination of personnel, facilities, equipment and communication operating within a common organisational structure, with responsibility for the management of allocated resources to effectively accomplish stated objectives relating to an incident. All other sub-systems of AIIMS are in support of the Incident Control System;

*training

AIIMS contains a standardised training sub-system, which supports ICS. The AIIMS training sub-system is provided to support incident management with standardised training;

*qualifications and accreditation

AIIMS is capable of providing for the qualification and accreditation (i.e recognition) of personnel who complete the Incident Control System training program;

*publications management

the publications management sub-system includes development, publication and distribution of AIIMS material;

*supporting technology

software packages, communication systems, fire danger rating systems, infra-red photography and other orthophoto mapping will become more accessible and economical with multiple sharing of these resources;

10.2 THE INCIDENT CONTROL SYSTEM IN THE ACT - FRAMEWORK

The Rural Firefighting Service uses a slightly modified version of the ICS, defined as per the ICS Operating system, to suit the particular needs of the ACT The system used is a structure of delegation to ensure that all vital management and information functions are adequately provided

For ACT purposes ICS uses, and distinguished between, the incident management team, which is in the field and responsible for command and control, and the services management team, which operates out of a central operations area at headquarters and is responsible for coordination.

10.2 1 FUNCTIONAL AREAS OF ICS

The structure is divided into four functional areas. These functions and the persons or bodies responsible for them are.

*incident control - undertaken by the incident controller;

*operations - undertaken by the operations section;

*planning - undertaken by the planning section;

*logistics - undertaken by the logistics section;

The Incident Controller and the Officer-in-Charge of each functional area are referred to as the Incident Management Team.

During the initial response to an incident, the Incident Controller may perform all of these functions. If an incident grows, and the management functions become more demanding, the functions of operations, planning and logistics will be progressively delegated. The Operations Officer will normally be the first position appointed.

Two of the principles on which the Incident Control System is based are.

*management by objectives - a process of consultative management where the management team determine the desired outcomes of the incident. These outcomes or objectives are then communicated to those involved, so they know and understand the direction being taken during the operation,

*span of control - a process which limits the number of groups or individuals controlled by one person.

An understanding of a number of key terms is essential to appreciate the roles and functions of the ICS Included in these terms are coordination, control and command

The meaning of these terms are as follows:-

CO-ORDINATION - the bringing together of agencies and resources to ensure effective emergency management;

CONTROL - the overall direction of response activities in an emergency,

COMMAND - the direction of an agency's own personnel and resources at an incident.

At incidents, the nature of the environment in which supervision at any level is undertaken can be rapidly changing and dangerous For this reason, no more than five reporting groups or individuals is preferred, as this maintains the supervisor's ability to effectively task, monitor and evaluate performance. Practical operational practices may on occasions exceed this number.

The functions and responsibilities of the Incident Management Team are·

*Incident Controller

. a Group Captain or, at a smaller incident, a Brigade Captain is the Incident Controller and, subject to the direction of the services management team, has responsibility for the combating of the incident

. the Incident Controller ensures objectives are prepared to be the foundation upon which action planning is then based. All requests for the ordering and releasing of resources are also subject to the approval of the incident controller;

*Operations Officer

the Operations Officer will be appointed by, and be responsible to, the Incident Controller and will take over the responsibility for control of operations in accordance with the incident action plan, assist with development of the Plan, ensure that attention is paid to safety and Occupational Health and Safety needs and assist with keeping up-to-date records of the status of resources deployed at the incident;

*Planning Officer

. the Planning Officer is responsible to the Incident Controller and manages the Planning Section

the Planning Section is established in support of the incident and is responsible for.

- collection and analysis of incident information
- prediction of incident behaviour
- maintaining a register to record the location and tasking of resources
- preparation of alternative strategies to control the incident;

*Logistics Officer

. the Logistics Officer, is responsible to the Incident Controller and manages the Logistics Section

. the Logistics Section is established in support of the incident, and is responsible for providing

- service functions, provided through the Ground Support Unit
- supply functions, provided through the Supply, Facilities, Air Support, Communications, Medical, Catering and Finance Units

10.2.2 INCIDENT ACTION PLAN

An Incident Action Plan may be written or, at smaller incidents, oral and reflects the overall strategy developed by the IMT It contains objectives and strategies within specific time frames which are reviewed continually at subsequent planning meetings or discussions. When

adopted the whole or parts of the incident action plan are conveyed to various levels of the management structure and to support agencies and the services management team.

The plan is designed to.

*describe the overall operational objectives and strategy;

*ensure continuity of control operations, especially during shift change;

*provide effective use of resources,

*identify total expected resources.

10.2.3 MULTIPLE-AGENCY INCIDENTS

The ICS is suitable at all incidents involving the RFS within its jurisdiction but some modification for multiple-agency incidents may be required due to legislation, or agency policies and procedures, may be required. In these situations local agreements and systems operate. Nevertheless, the system principles and terminology of ICS for multiple-agency incidents is regarded as advantageous, as any potential confusion is reduced when these processes are used within all attending agencies.

Some of the additional advantages, and reasons why the ICS is used by the RFS, are·

*the system strengthens and formalises inter-service control while at the same time ensuring that individual agency responsibility or command is not compromised;

*increased understanding and communication result within and between agencies through the acceptance and use of uniform terminology, procedures and incident organisational structures;

*the system is designed to accommodate a variety of incident types, sizes and operational environments. Particular functions and operational elements are activated only at the time and to the extent dictated by the operational requirements of each specific incident. The system applies from the small to the very large incidents and provides for a logical and smooth expansion of structures and functions as the incident grows;

*the system can be applied effectively to all emergency services,

*all agencies at an incident benefit from sharing resources, improving communication and working together on a local, Territory and regional basis.

10.3 THE INCIDENT CONTROL SYSTEM IN THE FIELD

10 3.1 FIELD CONTROLLER

The Field controller is the field representative of the Operations Officer, allowing the Incident Action Plan to be implemented without distracting the Operations Officer.
The Field controller's main responsibilities include:

*obtaining briefing from the Operations Officer;

*confirming allocation to resources deployed to the incident;

*supervising the overall control operations;

*where appropriate, coordinating the creation of sectors or divisions.

* reporting incident control progress at specified times or when requested by the Operations Officer.

*ensuring that liaison with other attending agencies is maintained through efficient communication arrangements;

*ensuring that safety considerations are paramount in incident control operations;

*reporting special occurrences or events to the Operations Officer

Such reports should contain:

. summary of resource use

. work progress

deviations from agreed attack plan

conditions affecting operations

hazardous conditions

. size of incident

10.3.2 DIVISION LEADER

Whenever the number of sectors exceeds the limit on span-of-control, or where terrain or other factors necessitate different objectives across the sectors, then a new level of management, intermediate between the Operations Officer (or Field Controller) and the Sector Leaders is created, based around grouping sectors into divisions, each under the control of a Division Leader. The Division Leader is an officer of the Incident Control System and is responsible to the Operations Officer for the implementation of their allocated portion of Incident Action Plan The responsibilities include the allocation of resources to sectors, reporting progress, ensuring safe working practices, and establishing common communication within the division.

A general checklist for Division Leaders is as follows:

*obtain briefing and instructions from the Operations Officer,

* provide briefings to Sector Leaders;

*monitor work progress and, when necessary, make changes,

*co-ordinate activities with adjacent divisions and single sectors,

*submit situation and resources status information to the Operations Officer;

*manage special events, eg accidents, sickness, etc.;

*manage logistics problems within the division

10.3.3 SECTOR LEADER

The Sector Leader is an officer of the Incident Control System and is responsible to the Operations Officer or Field controller for the implementation of their allocated portion of an incident control operation. The responsibilities include the assignment of resources allocated to the sector, reporting progress, ensuring safe working practices, establishing common communication within the sector, and providing direct supervision and command of crews allocated to the sector
A general checklist for Sector Leaders is as follows:

*obtain briefing and instructions from the Operations Officer;

*review sector assignment and allocate tasks;

*monitor work progress and, when necessary, make changes,

*determine the need for assistance, and what type;

*co-ordinate activities with adjacent sectors and single resources,

*submit situation and resources status information to the Operations Officer;

*report special events, eg accidents, sickness, etc.,

*resolve logistics problems within the sector.

10.3.4 CREW LEADER

The Crew Leader is an officer of the Incident Control System and is responsible to Operations Officer through the field controller if that position is in place, or to the Sector Leader if the incident is sectorised. The Crew Leader is responsible for performing tactical assignments allocated to a crew. The Crew Leader reports progress, and other important information on incident behaviour

A general checklist for Crew Leaders is as follows·

*obtain briefing from the Field Controller or the Sector Leader, whichever applies to the incident;

*review incident assignment and allocate tasks;

*determine the need for assistance;

*co-ordinate activities with adjacent crews,

*submit situation information as requested,

*ensure safe working practices within the crew.

10.3.5 ICS STRUCTURE CHARTS

The key to operational success of an incident revolves around an ability to effectively implement clear lines of communication through an established command structure. The examples set out below show the incident control system structure chart with the appropriate management structures for different incident requirements.

In interpreting the diagrams relating to these examples, the flexibility of the ICS must be taken into account. In general, blank boxes contain roles that are carried out by the next named

officer above them in the control structure Those boxes marked with an asterisk are to be carried out as a priority

10.4 INTER-AGENCY CO-OPERATION AND UNIFIED CONTROL

The need for unified control is brought about because·

*incidents have no regard for jurisdictional boundaries;

*individual agency responsibility and authority normally is legally confined to a single jurisdiction.

The concept of unified control simply means that all agencies who have a jurisdictional responsibility at a multi-jurisdictional incident contribute to the process of·

*determining the overall incident objective,

*selection of strategies,

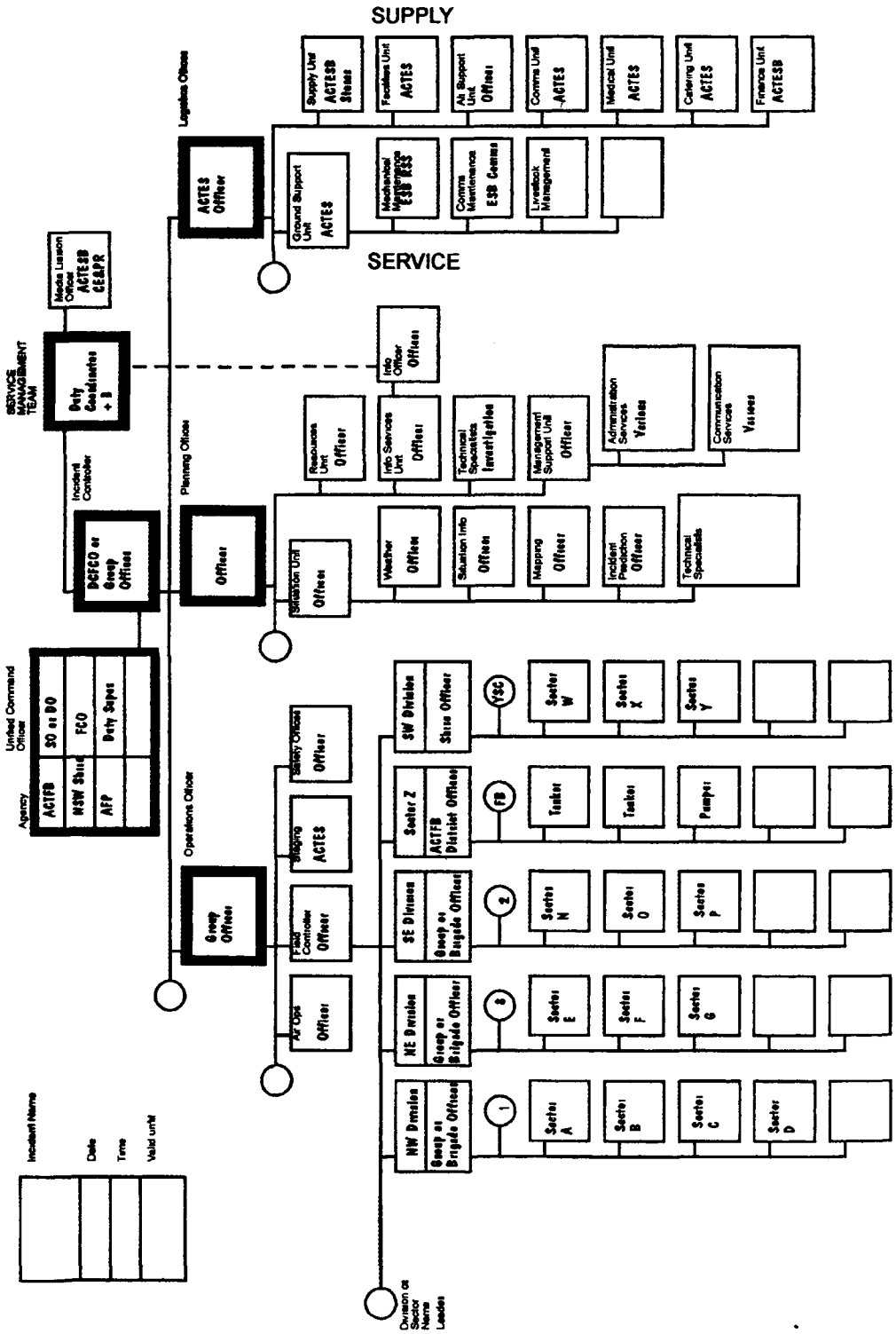
*ensuring that joint planning for tactical activities will be accomplished;

*ensuring that integrated tactical operations are conducted,

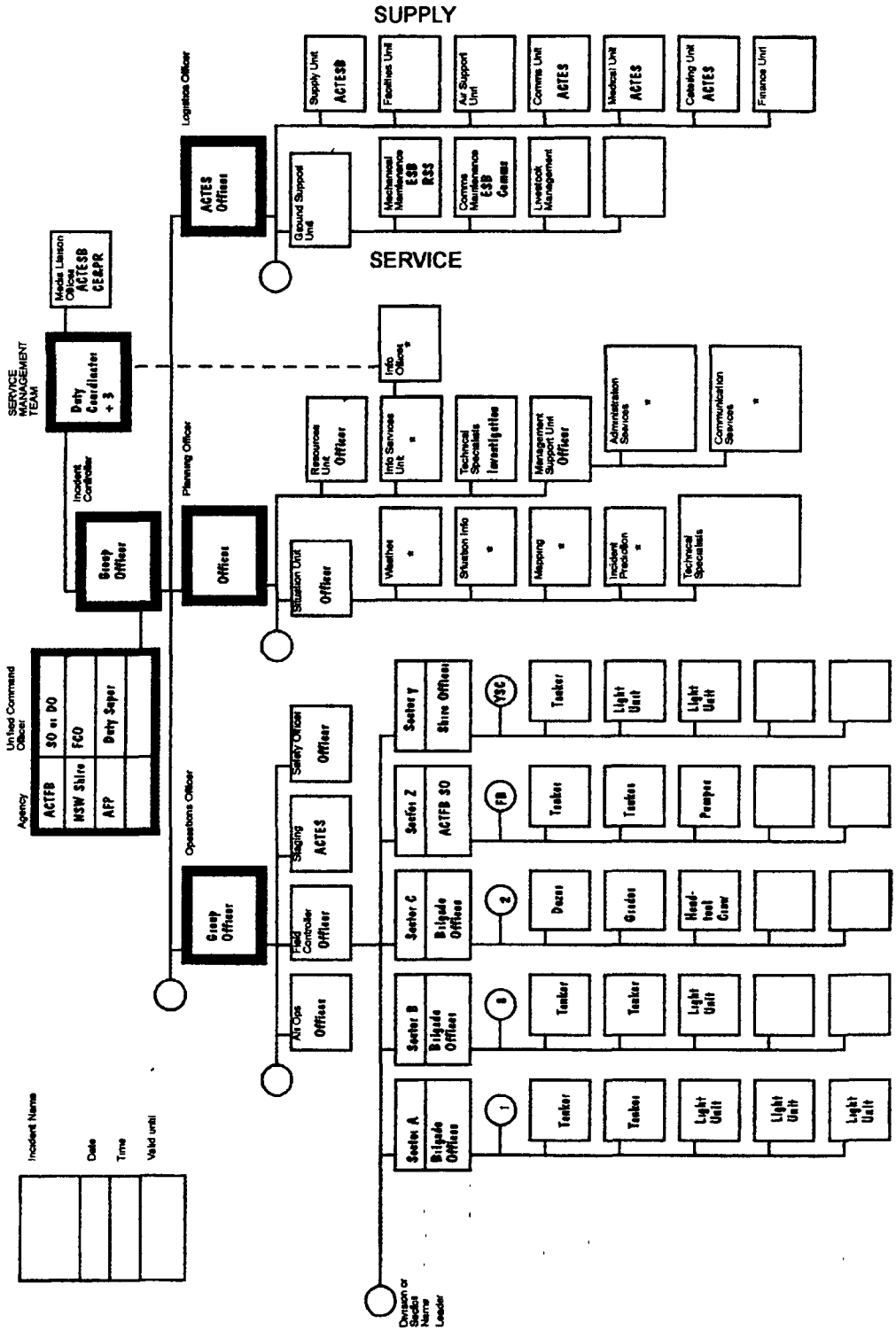
*making maximum use of all allocated resources

The RFS will co-operate with the concepts of the unified control approach wherever such situations arise. Also, where appropriate, the RFS will enter into formal co-operative arrangements that clarify the unified control concept

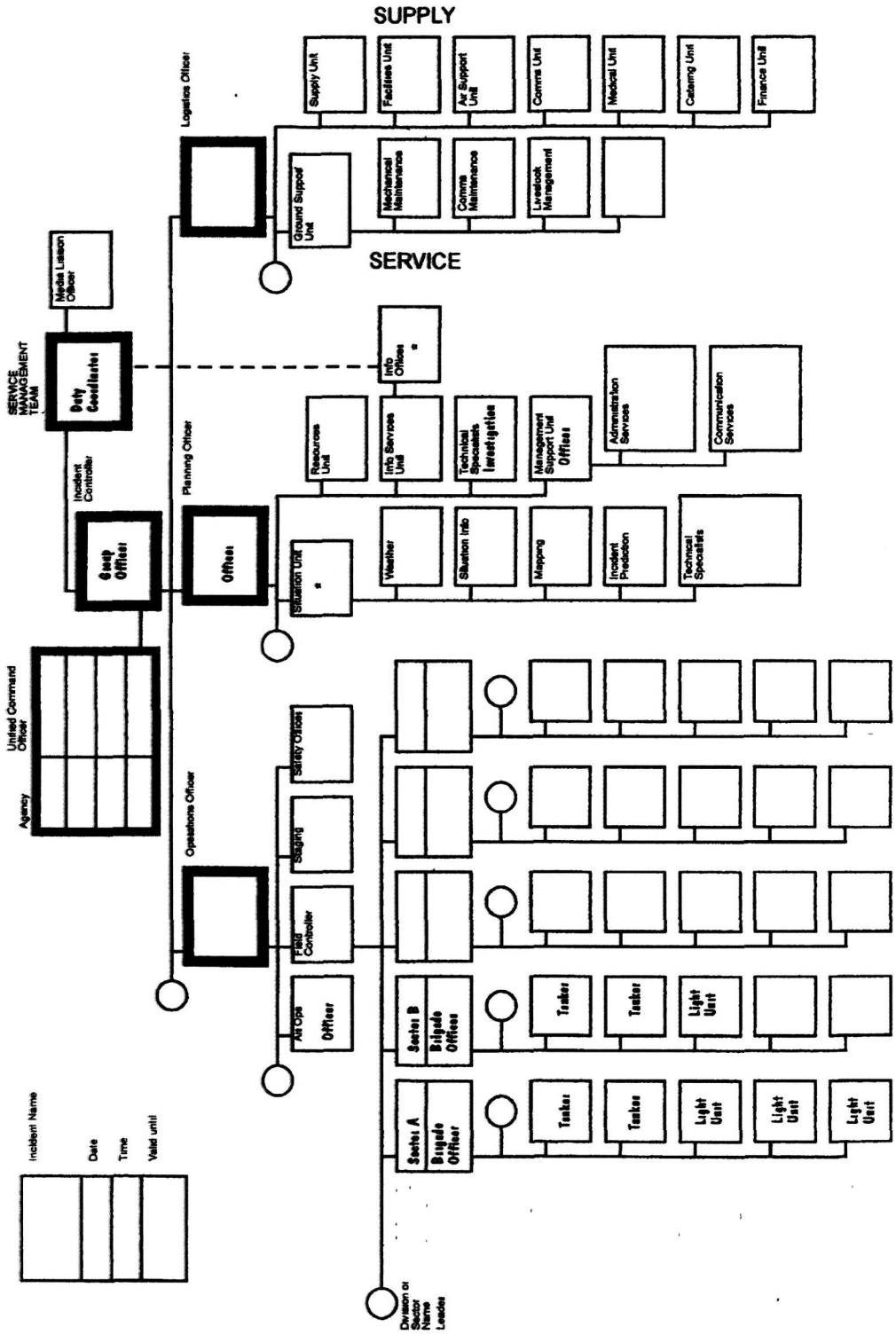
LARGE, MULTI-AGENCY INCIDENT



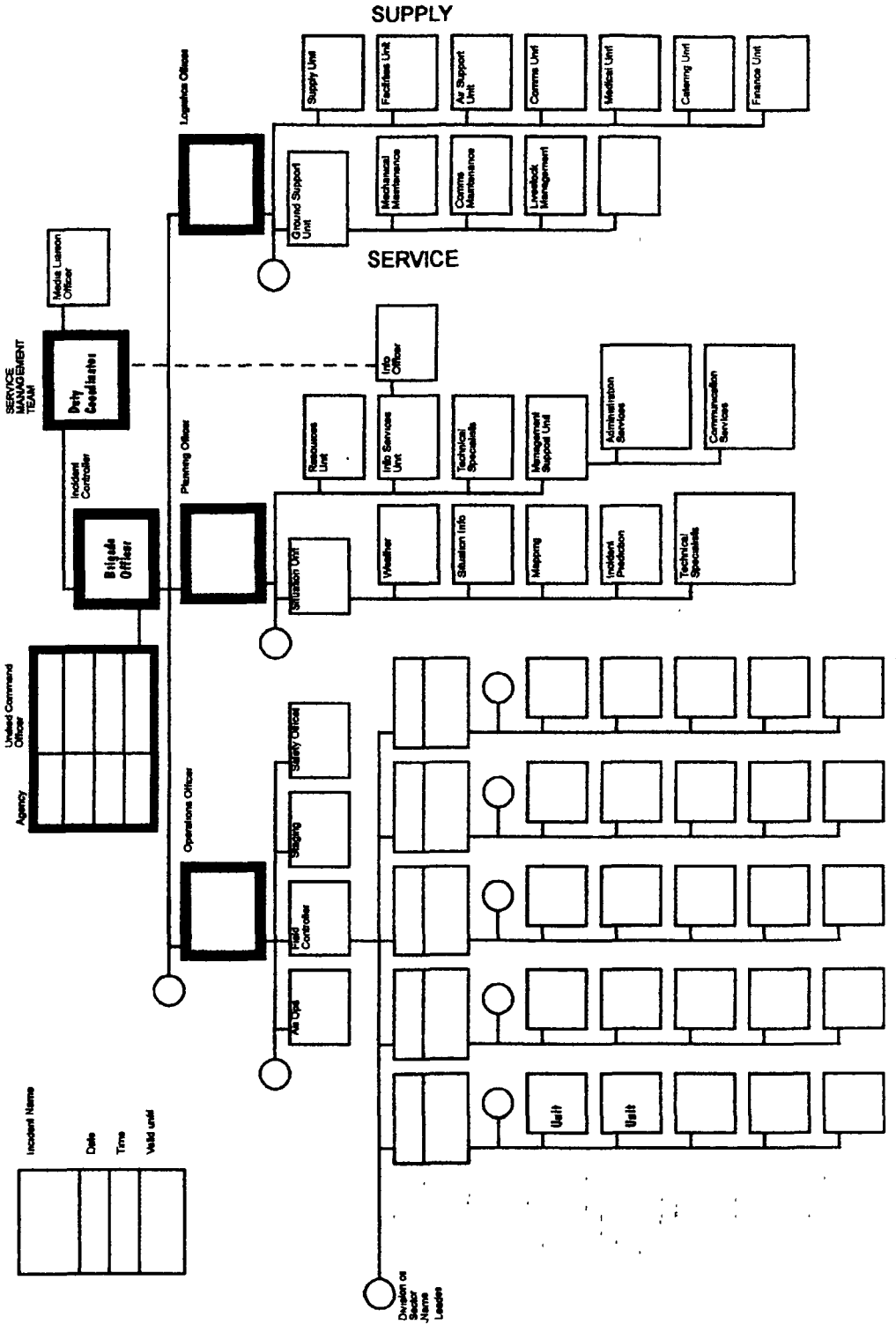
MEDIUM TO LARGE AND/OR MULTI-AGENCY INCIDENT



MEDIUM SIZE, SINGLE AGENCY INCIDENT



SMALL INCIDENT



10.5 SERVICE MANAGEMENT TEAM

In order to provide coordination during large incidents or multiple incidents, a Service Management Team will be used and based at the Operations Room adjacent to the Communications Centre

The services management team has two functions, the first is the combating of incidents, the second reporting to Government, Bush Fire Council and, where appropriate, the wider community

The roles of the Service Management Team in relation to incidents will be similar to those of the Incident Management Team·

*Services controller has the following roles:

- coordinating all resources not allocated to an incident
- servicing requests from on-going incidents for more resources
- being always available to manage initial response to any incidents reported to RFS, covering both operational dispatch and putting in place an Incident Management Team as required
- carrying out Incident Management Team roles until officers responded to do those roles arrive on scene
- calling out officers to fill roles in the Service Management Team
- managing the Service Management Team

*Operations Officer will:

- provide coordination and control during initial response to new incidents
- service requests for additional resources from on-going incidents
- ensure continuing stand-by coverage of the Territory through back-fill operations

*Planning Officer provides unified access to external information, such as weather, and liaison with external agencies

*Logistics Officer ensures effective allocation of service and support facilities across RFS activities.