



THE SCOTTISH OFFICE

Home and Health Department

# **Her Majesty's Chief Inspector of Fire Services for Scotland**

## **Report for 1993**





THE SCOTTISH OFFICE HOME AND HEALTH DEPARTMENT

# Her Majesty's Chief Inspector of Fire Services for Scotland

Report for 1993

Presented to Parliament by the Secretary of State for Scotland  
by Command of Her Majesty  
September 1994

Report 1993

of A N Morrison Esq QFSM D. Tech. FIFire to The Right Honourable Ian  
Lang MP,  
Her Majesty's Secretary of State for Scotland.

Sir

I have the honour to submit my Report on the Fire Services in Scotland for  
the year ended 31 December 1993.

I have the honour to be,  
Sir,  
Your obedient Servant,

A. N. MORRISON

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# SECTION A: GENERAL

## Introduction

1. This report covers the work of fire brigades in Scotland in respect of their operational, technical and administrative performance during the calendar year 1993.
2. During the year the total number of emergency calls to which Scottish brigades responded was 116,962, the highest number recorded and 3.5% more than in 1992, which was itself the previous peak in terms of these calls.
3. Just over 48% of the total number of emergency calls involved actual fire incidents - a slightly higher proportion than in the previous year; 44.6% were false alarm calls and approximately 7% were special service incidents such as road traffic accidents or other non-fire emergencies.
4. The number of fires attended by Scottish brigades during the year was 56,800, 7.6% more than in 1992 and a figure which equates to 155 outbreaks of fire each day of the year. The overall increase in the number of fires in 1993 was due mainly to the number of secondary fires, that is outbreaks occurring out-of-doors, of which there were 4,313, 18.5% more than in the previous year. The number of property fires fell slightly during the year, but there was an increase in the number of chimney fires.
5. Although the number of false alarm calls decreased in 1993, the reduction was only marginal and with a total of 52,131, maintained the rising trend of the past 5 years. Within the 3 categories of false alarm call, those recorded as being of Good Intent rose to a new peak of 11.2% above last year's figure, while those which were due to Apparatus fell slightly, as did the number of Malicious calls which dropped to 19,528, 13% below the high level of 1992. When taken together, Malicious calls and those due to faults in fire warning apparatus accounted for 55% of the total number of false alarm calls. Five out of the eight Scottish brigades had reductions in the number of Malicious calls during the year, with the Lothian and Borders Fire Brigade now having had reductions in each of the past 3 years.
6. In 1993, 127 people were killed in fires to which brigades were called, 8 more than in 1992. Out of the total number of fire victims, 109 (84.5%) died in 92 incidents involving house fires, 11 of which resulted in more than one death. Although, as in previous years, those in the elderly age groups experienced the highest proportion of the total number of fire deaths, in 1993 the difference in the number of fatalities in the 20, 30, 40 and 50 age groups was less marked than before. Of the 92 fatal fire incidents in dwellings only 39 (42.3%) premises had been fitted with a smoke alarm and of these only 21 installations were considered to have operated correctly at the time of the fire. The major causes of the fatal domestic fires in 1993 were:- carelessness in the use of smokers' materials; faulty heating appliances or the misuse of heaters; the overheating of pans left on a cooker; and faulty electric blankets.
7. The total number of fire safety inspections carried out during the year by brigade personnel was 81,450, 5.2% more than in 1992. This figure includes 9,414 plans which were examined and reports prepared on fire precautions for the properties. In addition, all brigades were involved in a wide range of educational projects having fire safety themes.
8. The annual programme of brigade inspections was carried out during the year as well as the inspection of the Scottish Fire Service Training School (SFSTS) at Gullane. This year the reports on individual brigades were published for the first time following the inspections. The exercise will indicate to the persons served by the brigades the performance achieved as well as any recommendations made in respect of their operation.
9. It was indicated in the Annual Report for 1992 that a number of performance indicators for brigades were being developed by The Scottish Office Home and Health

Department (SOHHD), with the assistance of representatives from each Scottish brigade. Progress on this development is reported in paragraphs 14 to 21 below.

10. In this report, Appendix 1 indicates the area covered by each of the Scottish fire brigades as well as giving information on the number of emergency incidents attended, the population served, the number of fire stations and volunteer units, and an outline of the types of appliances within the operational fleet.

## **DEVELOPMENTS IN 1993**

### **Local Government Reform in Scotland**

11. Reference was made in the Annual Report for 1992 to the consultation procedures the Government had initiated on the reform of local government in Scotland. The consultation paper "The Structure of Local Government in Scotland: Shaping the New Councils", issued in October 1992, recommended a move towards a unitary system of local government in Scotland. "Shaping the New Councils" recognised that the Inspectorate regarded Scottish fire brigades as being effective and capable of meeting their administrative and operational responsibilities. It also indicated there was no need for the structure of the fire service to be altered in consequence of any changes which might be made in the structure of local government. The consultation paper did, however, seek comments on the scope for amending the structure of the fire service with a view to improving efficiency and functional effectiveness, perhaps by reducing the current disparity in the sizes of fire brigades or by reducing the number of those brigades. Comments on "Shaping the New Councils" required to be submitted by the end of January 1993.

12. Almost 300 comments were submitted on the fire service aspects of "Shaping the New Councils". These comments were wide-ranging from support for the current arrangements to proposals for a national fire brigade - with some suggestions that fire services should be removed from local government control. A large majority of respondents opposed changes to the current arrangements on the basis that the existing fire brigades operated well and provided an effective service to communities throughout Scotland. Having considered all the comments submitted, the Government announced in July 1993 in "The Structure of Local Government in Scotland: Shaping the Future - the New Councils" that they proposed to retain the existing fire brigades in Scotland. The White Paper also recognised the need for a greater number of joint administrative arrangements in areas where existing brigades will cover the areas of 2 or more new local authorities.

13. The Local Government etc (Scotland) Bill was introduced in the House of Commons on 9 December 1993. The Bill provides for the 8 Scottish fire brigades to continue in existence on and after 1 April 1996, and for administration schemes to be made to establish joint boards for the brigades covering 6 combined areas. Two of the joint boards will be successors to the existing joint boards, for Lothians and Borders and for Highland and Islands. Four further joint boards will be required in Central, Grampian, Strathclyde and Tayside. The new unitary authorities will be the fire authorities for their areas, but where joint boards are established - that is, except in Fife and Dumfries and Galloway - the administration schemes will provide for the transfer to the joint boards of virtually all the functions of the individual fire authorities. The Bill also makes new provision for any future restructuring of the fire service which may be considered necessary. Such further restructuring is to be made possible by means of amendment of administration schemes or their replacement by new schemes.

### **Performance Indicators for Scottish Fire Brigades**

14. Work on establishing performance indicators for Scottish fire brigades has been progressing since mid-1992, when the Scottish Fire Indicators Group (SFI Group), comprising representatives from the 8 fire brigades in Scotland, SOHHD and HM Fire Service Inspectorate, had its first meeting.

15. In May 1993 the report of the SFI Group was submitted to the Scottish Central Fire Brigades Advisory Council (SCFBAC) and approval was granted to introduce the performance indicators as set out in the report.

16. Of the 16 performance indicators detailed, 12 are associated mainly with operational matters such as:

- i. The percentage of fire calls when the attendance of pumping appliances met set criteria;
- ii. the total net revenue cost of service per 1,000 population; and
- iii. the total number of fire incidents per 1,000 population.

17. The 4 remaining indicators contained in the report related to fire safety matters, but since the SFI Group recognised that these would require some important changes in the current arrangements for collecting and submitting statistical returns, it was proposed that a working group should be formed to examine these matters and report back to the SFI Group.

18. The SCFBAC agreed the contents of the report and the timing proposed for the introduction of performance indicators other than those relating to fire safety.

19. It is intended that as from April 1994 all statistical returns from brigades to SOHHD and the Inspectorate will be on a financial year basis and brigades in Scotland have been requested to forward a return on the performance indicators to cover the financial year 1993-94. It is recognised, however, that detailed information on all aspects of the indicators may not be available from each brigade.

20. Since the task of the SFI Group had, in the main, been completed it was considered that it would be of assistance to the Scottish Office and to brigades to reconvene the Group as the SFI Implementation Working Group (SFIIWG) to monitor the introduction of the policy and, where appropriate, to highlight any difficulty experienced. The first meeting of the SFIIWG was held in October 1993.

21. In February 1993 the Commission for Local Authority Accounts in Scotland (the Accounts Commission) became aware of the work of the SFI Group and in considering its duty to make an official Direction to local authorities in Scotland requiring them to publish information on their standard of performance on local services, examined the indicators proposed by the SFI Group with a view to adopting a number of them. The Accounts Commission consultation process for their 1993 Direction began in April of that year with the final Direction being issued in December. Four performance indicators on fire-related matters are sought by the Commission. These are not in the event closely related to the performance indicators adopted for fire brigades in Scotland.

## **Compulsory Competitive Tendering**

22. Although it had been determined that the maintenance and repair of fire service vehicles and associated equipment should meantime remain exempt from compulsory competitive tendering, the Government proposed that, with the exception of those brigades whose maintenance staff also undertake firefighting duties, the fire service should address the possibility of market testing, vehicle and equipment maintenance.

23. Fire authorities were therefore by a SOHHD Circular invited to assess the feasibility of subjecting fire service vehicle maintenance and repair to outside competition, by first determining the scope and nature of their requirements in this field and then identifying existing firms with sufficient competence and credibility to justify inviting tenders. An analysis of the information received from brigades will be completed during 1994 and this will provide the basis for any further development.

24. In order to enable a tendering process to be assessed, a circular was issued to brigades seeking information on the costs of any current in-house activity relating to vehicle repair and maintenance, the details of any specification to be applied, the standard of work expected and the associated time scales. An analysis of the information received from brigades will be completed during 1994 and this will provide the basis for any further developments.

## **The National Core Curriculum in Fire Safety Studies**

25. Following the publication in 1990 of a report by Bickerdike Allen Partners into the interaction of fire and building regulations the National Core Curriculum in Fire Safety Studies was produced to enable the educational development of all those involved in fire safety, building regulations and design. The National Core Curriculum in Fire Safety Studies which provides the required common syllabus was developed following wide consultation with the membership of professional bodies, the fire service, local government authorities, educational institutions and those concerned with the education of members and potential members of the professions. To further the aims of the Core Curriculum, a chair on Fire Engineering was established and based at the University of Central Lancashire from where a national network of professional development courses is being encouraged in other Universities and Colleges across the United Kingdom (UK). This networking process is already established in Scotland at the Robert Gordon University in Aberdeen where students are currently working towards, in the first instance, the Higher National Certificate in Fire Engineering which is validated by the Scottish Vocational Educational Council. Negotiations are underway to repeat this course provision at the Glasgow College of Building and Printing and it is hoped to commence the programme there in August of 1994.

## **Review of the Fire Precautions Act 1971**

26. In March the Government announced that a review of the Fire Precautions Act 1971 (the 1971 Act) would be carried out. The 1971 Act is the principal instrument for the control of fire safety in occupied premises, and although it is generally accepted that the legislation has worked well, there had been some concerns about the over-prescriptive nature of the law, when compared for example with the more general format of the Health and Safety at Work etc Act 1974.

27. The terms of reference of the review were:

### *Phase 1*

- i. To review the operation and effectiveness of the Fire Precautions Act 1971, with particular reference to the form of control used, and the costs involved for both fire authorities and those subject to the legislation; in the course of the review to examine the limitations of the powers of fire authorities to charge for fire safety work and the justification for Crown immunity from enforcement action.
- ii. To consider whether the aim of the existing legislation is still appropriate, in the light of the Health and Safety at Work etc Act 1974, the fire safety provisions of other legislation and the fire safety requirements of European Council Directives.
- iii. To consider the extent to which self-compliance could be used as a basis for fire precautions legislation.
- iv. To consider the continuing need for fire safety provisions in licensing legislation if self-compliance were to form the basis of fire safety legislation.

### *Phase 2*

- v. To consider the scope for removing duplication with the Building Regulations and the possibility of making fire safety matters the responsibility of one Department and the feasibility of one stop shops.
- vi. To consider which body or bodies should enforce fire safety legislation.

28. Phase 1 of the review was completed during 1993 and a report was published by the Home Office in December of that year. Phase 2 of the review, which was due to start in January 1994, was overtaken by the establishment at that time of an inter-departmental scrutiny of fire safety legislation and its enforcement.

## **Fire Deaths in Scotland**

29. During 1993, 2 major research projects which examined fire deaths in Scotland were concluded. The first by Professor A Busuttill and Dr T Squires of the Forensic Medicine Unit at Edinburgh University was entitled "A Survey of Fire Fatalities in Scotland 1980-1990", and examined data obtained from the reports on fire deaths of the procurators fiscal, police and fire brigade and if available autopsy and toxicology reports.

30. Among the key findings were:

- i. A higher number of dwelling fires occur at the weekend, in the winter and in the early hours of the morning.
- ii. The age groups most at risk in fires in dwellings are the very young and the elderly. Also more than twice as many men than women in the age range 20-29 becoming fatalities.
- iii. Smoking materials, that is cigarettes and matches, caused 44% of the fatal fires in dwellings; electrical appliances caused 25% and chip pan fires led to the deaths of 6% of all fire victims.

31. Although no new factors in the statistical data were highlighted, the research confirmed much of what had previously been assumed. The recommendations in the report have been studied and may influence future fire safety strategies.

32. The second study was by Miss M G Hills, Dr R E Kempson and J Salkeld of the Applied Statistics Research Unit of the University of Kent and examined the data provided by the Home Office for all dwelling fires attended by fire brigades in 1987.

33. The aim of the research was to examine why the number of fatal casualties caused by dwelling fires, when expressed per million of the population, was higher in Scotland than in England and Wales.

34. The results of this very complex and wide ranging report confirmed:

- i. That there were 70% more fires per million population in Scotland than in England and Wales. This may have been because of the larger proportion of the population which is housed in purpose built flats or in other multiple occupancy buildings; because of the greater use of electricity in Scotland for cookers and space heaters; and because more people in Scotland smoke; and
- ii. that a higher percentage of those involved in fires in Scotland became fatalities. A number of reasons for this were suggested including the feature that a higher proportion of persons appeared to be trapped by fire, unaware of its development.

35. The two reports provide useful background data and analyses of this unfortunate Scottish phenomenon.

## **Fire Protection Measures for Royal Palaces**

36. Following the fire at Windsor Castle in November 1992 an inquiry was established under the chairmanship of Sir Alan Bailey to assess the adequacy of fire protection measures for Royal palaces and residences for which the Secretary of State for National Heritage has financial responsibility. The report was published in 1993 and outlines the circumstances surrounding the fire at Windsor Castle and presents a system of fire safety strategies for buildings of this type.

37. Although the report makes specific reference to individual palaces and castles, the inquiry did not include the Palace of Holyroodhouse which is the responsibility of the Secretary of State for Scotland, nor the Queen's private residence at Balmoral.

## **Health and Safety**

38. On 1 January 1993, six new sets of regulations came into force to cover a broad range of Health and Safety matters. The documents are designated:

- i. Health and Safety (Display Screen Equipment) Regulations 1992;
- ii. Provision and Use of Work Equipment Regulations 1992;
- iii. Manual Handling Operations Regulations 1992;
- iv. Personal Protective Equipment at Work Regulations 1992;
- v. The Management of Health and Safety at Work Regulations 1992; and
- vi. Workplace (Health, Safety and Welfare) Regulations 1992.

39. The regulations, collectively and colloquially known as “the six pack”, were the subject of discussion at the CFBAC meeting in May 1993 where it was decided to convene a separate meeting of the constituent organisations of the CFBAC in order that these matters could be considered more comprehensively. At a subsequent meeting of the CFBAC, held in November of 1993, it was intimated that this group had identified a number of possibilities for improvement in the manner of handling these health and safety issues.

40. It was considered that all existing joint committees of the CFBAC and fire brigade management in general should give proper consideration to health and safety matters. Equally, it was determined that the fire brigade managements and representative bodies should consider the promulgation of best practice found in individual brigades to others throughout the service and the Health and Safety Executive (HSE) were to be asked to ensure the comprehensive distribution of any advice or new proposals envisaged. The reinforcement of the importance of health and safety as an integrated part of training was seen as a central issue. The CFBAC endorsed the recommendations of the group as a proposed way forward at that point. The recommendations were expected to be put before the SCFBAC in March 1994.

41. Fire Service Circular 9/1993 on the subject of First Aid Training and Casualty Handling, highlighted the revised guidance contained in a recent Approved Code of Practice (ACOP) and also that endorsed by the Joint Training Committee (JTC) of the CFBACs. The JTC recommendations were comprehensive and wide ranging and revolved around the principle that 25% of all firefighters, both wholetime and retained, should be qualified to “Trained First Aider” standard. Separate and modified provisions were recommended for volunteer personnel. All remaining firefighters would be trained to the slightly lower standard of “Emergency First Aider”. Details of the form of initial and refresher training were also covered by the recommendations.

42. A subsequent study of the financial implications for brigades in adopting the guidance has revealed a wide variation in the anticipated costs. From the Scottish perspective it would appear that those brigades with the highest proportion of remotely based retained and volunteer units will be faced with the highest levels of expenditure in both the initial and refresher training costs. Discussions are continuing with the HSE to determine the optimum method of reaching the desired target.

## **Fire Service Inspectorate**

43. After a period of 4 years as HMCIFS, Mr A Winton CBE QFSM MIFireE retired in December 1993. Mr Winton joined the Fire Service in 1958 at Perth before moving to Lancashire in 1967, then East Riding in 1969. He returned to the more native pastures of Angus in 1972 and remained there eventually to become Firemaster of the Tayside Fire Brigade. Mr Winton has been an excellent ambassador for the Fire Service and I would like to record my thanks for his sterling work, particularly as my predecessor at The Scottish Office.

44. Mr D Wilson, who held the post of HM Inspector for over 20 years, retired in early January 1993. This vacancy was filled by Mr H Hunter, formerly an Assistant Firemaster with Strathclyde Fire Brigade, who took up his duties on 11 January 1993.

45. The Senior Assistant Inspector of Fire Services, Mr J McCafferty, has indicated his intention to retire in the early part of 1994. I wish also to convey my thanks to Mr McCafferty, a consistently stalwart servant of the Inspectorate for a period of 22 years and wish him well in his retirement. Mr H W Robbie, currently Deputy Firemaster with

Strathclyde Fire Brigade, has been appointed to fill the vacancy for a Senior Assistant Inspector and is due to take up his duties on Thursday, 31 March 1994.

46. Mr J Ritchie, Assistant Inspector of Fire Services, who worked within the Crown Premises Inspection Group has also indicated his intention to retire at the start of 1994 after 14 years in the post. My thanks are, therefore, due to Mr Ritchie for his service and contribution to the work of the Inspectorate.

47. The Fire Service Inspectorate establishment is as follows:

Her Majesty's Chief Inspector of Fire Services	1
Her Majesty's Inspector of Fire Services	1
Senior Assistant Inspector of Fire Services	1
Assistant Inspector of Fire Services	2

## **Firemasters and Fire Authorities**

48. At the end of the year the following Firemasters were in post:

Central	—	Firemaster I S T Adam QFSM GIFireE
Dumfries and Galloway	—	Firemaster J B Stiff QFSM GIFireE
Fife	—	Firemaster J White QFSM BA MIFireE
Grampian	—	Firemaster A J Lobban MIFireE
Highland and Islands	—	Firemaster D Grant QFSM GIFireE
Lothian and Borders	—	Firemaster P D Scott QFSM MIFireE
Strathclyde	—	Firemaster J Jameson FIMgt
Tayside	—	Firemaster D S Marr FIFireE

49. Only one change in the rank of Firemaster is recorded for the year 1993, with Mr A J Lobban being appointed to that position in Grampian Fire Brigade following my retiral there in September. Mr J C McCall was subsequently appointed as Deputy Firemaster of that Brigade.

50. I would wish to record my thanks to Firemasters and their principal officers for the way in which they have co-operated with the members of the Inspectorate during their visits and for the valuable contributions to the many discussions held throughout the year.

## **Honours and Awards**

51. The following received recognition in The Queen's 1993 Honours Lists:

*Commander of the Most Excellent Order of the British Empire (CBE)*

Alexander Winton, QFSM MIFireE, Her Majesty's Chief Inspector of Fire Services for Scotland (now retired).

*Member of the Most Excellent Order of the British Empire (MBE)*

Robert J A Dick, Divisional Officer, Central Region Fire Brigade.

Donald M MacKenzie, Volunteer Sub-Officer, Highland and Islands Fire Brigade.

*British Empire Medal (BEM)*

Charles W McKinnon, Volunteer Leading Firefighter, Strathclyde Fire Brigade.

*Queen's Fire Service Medal (QFSM)*

Peter D Scott MIFireE, Firemaster, Lothian and Borders Fire Brigade.

*Fire Brigade Long Service and Good Conduct Medal*

Awarded to 197 members of the Scottish Fire Service.

52. I offer my sincere congratulations to all those whose contribution to the fire service was recognised during 1993.

## **Obituary**

53. It is with very deep regret that I report that Retained Firefighter Ian R Bruce, of Kelso Fire Station, died as a result of a road traffic accident in Kelso on 14 January 1993 when the fire appliance he was driving was responding to an emergency fire call in the Jedburgh area.

54. The fire appliance, with 6 retained firefighters on board, was heading towards Jedburgh when it was involved in an accident on Kelso Bridge, crashed through the parapet of the bridge and plunged into the River Tweed below. Five members of the crew managed to climb on top of the partially submerged appliance, but Firefighter Bruce was unfortunately trapped inside the cab and had died by the time his colleagues from Kelso Fire Station and other emergency service crews succeeded in releasing him.

55. Firefighter Bruce is survived by his wife Catherine and I extend our condolences to her and to his family.



# SECTION B: PERSONNEL AND ADMINISTRATION

## Establishments and Strengths

56. The establishments and actual strengths of Scottish fire brigades are given at Appendix 2 of this Report.

## Wholetime Personnel (Operational)

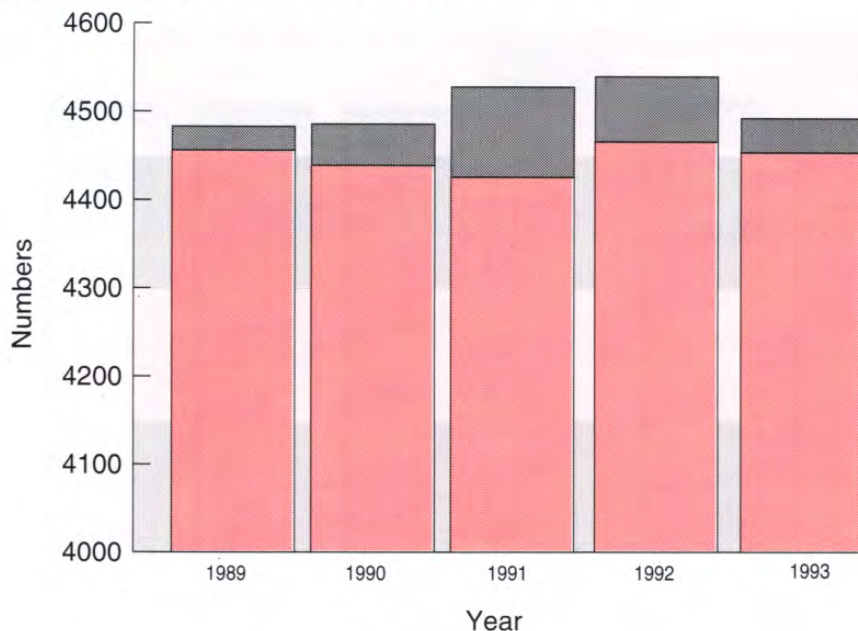
57. The total establishment of wholetime operational members of Scottish fire brigades at 31 December 1993 was 4,493, a decrease of 47 from the figure for the previous year with the main area of reduction being in the Strathclyde Fire Brigade (44). The actual strength of Scottish brigades, as opposed to the authorised establishment, was 4,454, making a difference between establishment and number actually in post of 39. Bearing in mind, however, that brigades normally have personnel ready to join the first recruit training course in 1994, the difference between the figures is not a cause for concern. All brigades have, over a period of years, been staffed at or near their wholetime establishment figures and the overall pattern for both establishment and strength figures has remained broadly constant over the years.

58. No problems were experienced by brigades in attracting suitable personnel to fill vacancies that arose during the year but, as has been the case in recent years, the number of applications from females and members of ethnic minority groups to join the fire service in Scotland was again disappointingly low, in view of the efforts made by brigades to attract such applicants. Out of a total of 6,898 applications processed by brigades in 1993, only 336 (4.9%) were from females or members of ethnic minority groups.

59. The number of female firefighters serving in brigades remained at 7, while the number of members of ethnic minority groups serving as firefighters in brigades is recorded as being 20, the majority of whom are employed within the Strathclyde Fire Brigade.

60. Graph No. 1 shows the authorised wholetime establishment and actual strength of the Scottish Fire Service at 31 December for each of the past 5 years.

**GRAPH 1 - WHOLETIME ESTABLISHMENT AND ACTUAL STRENGTH 1989-1993**



61. During the year 200 wholetime operational personnel left the service for various reasons. This figure was 37 more than in the previous year. In contrast 178 firefighters joined the service in 1993, 24 fewer than in 1992. Since the figures relating to discharges and recruitment fluctuate from year to year, the apparent difference in the 1993 levels do not give cause for concern. Details of the gains and losses of personnel in each brigade are shown in Appendix 3.

62. During 1993 there were 87 retireals from the Scottish Fire Service on medical grounds. Nine of these were as a result of failing the over-40 medical and 78 personnel retired on other medical grounds. These figures are a further reduction on the previous lowest recorded in 1992 in each category. It should also be noted that the number of personnel who were able to retire on ordinary pension during the year was 10 more than last year's figure of 57 and the highest number recorded for many years. The figures are most welcome since they indicate some improvement in the health of brigade personnel.

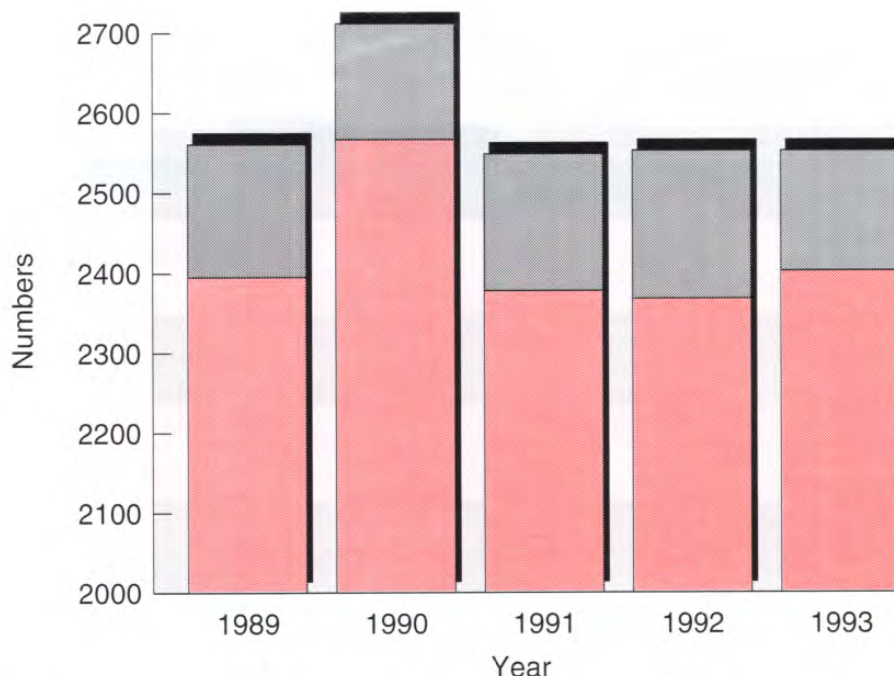
63. In general terms compulsory retirement on pension occurs when, in the case of senior officers, personnel attain the age of 60 years, or in other cases 55 years. The full pension entitlement is, however, payable after having completed 30 years service, and a reduced pension may be paid when shorter terms are served, due to age, medical grounds or other reasons for leaving the service. As the name suggests, the over-40 medical applies to firefighters who have reached the age of 40, and is re-applied at 3 yearly intervals thereafter. With the introduction of occupational health schemes, however, a number of brigades have extended this form of medical to personnel under the age of 40 years. Retirement on medical grounds, other than failing the over-40 medical, applies to personnel who are considered by the Brigade Medical Officer to be unfit to continue with firefighting duties, notwithstanding their age or length of service.

64. The Fire Services (Appointments and Promotion) (Scotland) Regulations 1989 outlines steps that brigades should take to improve the general level of fitness of firefighters and to date, all but one brigade have introduced occupational health schemes, and all have fitness training as part of the normal watch training programme.

## Retained and Volunteer Personnel

65. The figures relating to the retained establishment and the actual strength as at 31 December for the past 5 years are shown in Graph No. 2.

**GRAPH 2-RETAINED ESTABLISHMENT AND ACTUAL STRENGTH 1989-1993**



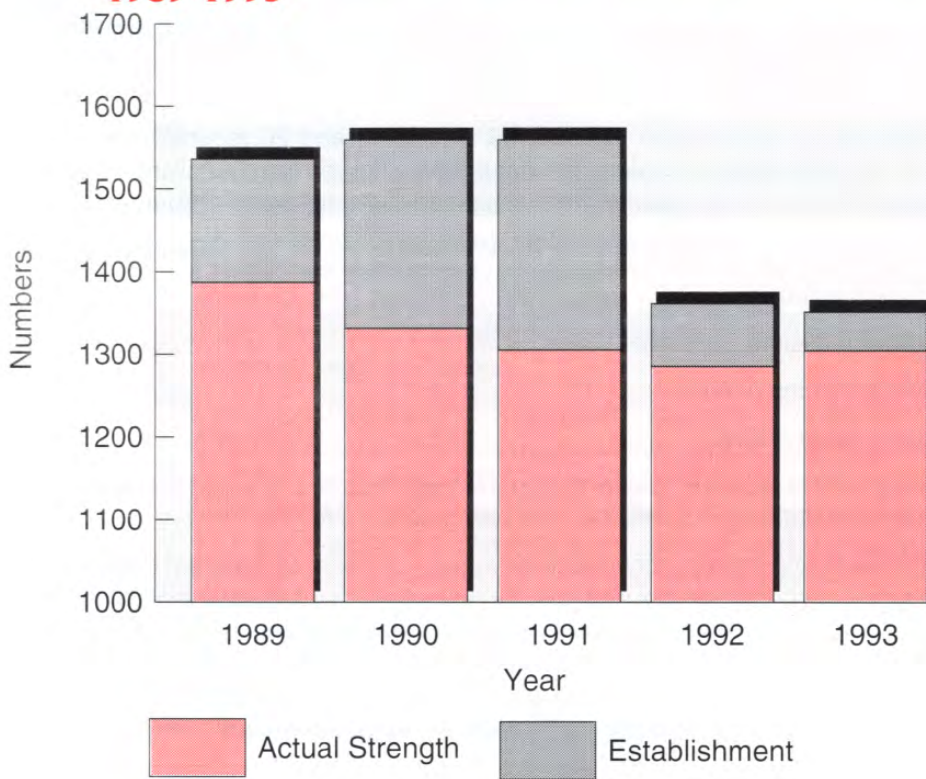
66. Graph No. 2 indicates that the establishment of retained personnel has not varied greatly in recent years and that it is in fact at the same level as 1992. In 1993 the establishment was 2,553, although the actual number of firefighters in post was 2,403, 45 more than in the previous year.

67. During the year approximately 900 applications were received from persons seeking to join the Fire Service on a part-time basis from which 221 firefighters were subsequently recruited into the retained service. As stated in previous reports, while the total number of personnel in post is satisfactory, it is becoming increasingly difficult to recruit retained personnel who can provide cover during the working day.

68. The number of female firefighters within the retained service of Scottish brigades is 25, an increase of 5 over last year's total.

69. Details of the volunteer establishment and actual strength as at 31 December for each of the last 5 years are shown in Graph No. 3.

**GRAPH 3-VOLUNTEER ESTABLISHMENT AND ACTUAL STRENGTH  
1989-1993**



70. In 1993 the total establishment of volunteer firefighters fell again by 10 to 1,351. This was due to the Highland and Islands Fire Brigade amalgamating 4 of its volunteer units into 2, but with no detrimental effect on the fire cover provided in the areas concerned. Overall however, the actual number of volunteers in post throughout Scotland rose by 19 to 1,304.

71. At the end of 1993 there were 35 female volunteer firefighters on brigade strengths, 4 more than the previous year.

**Control Room Staff**

72. In 1993 the establishment figure for Control Room staff at 31 December remained at 207. There was however, an increase in the actual strength of 3, to a total of 211 which comprises 181 females and 30 male staff.

73. Replacement Control Rooms have been built recently in the Tayside, Fife and Highland and Islands Fire Brigades who are currently in the process of installing the command and control equipment within their new facilities.

## Health

74. The proportion of the total number of working days lost in Scottish brigades due to sickness affecting wholetime personnel was 5.06%, the lowest since 1989. While there can be wide differences in the levels of sickness between brigades, the Scottish average has not varied significantly over the past 5 years, as shown below.

Year	1989	1990	1991	1992	1993
%	5.00	5.67	5.65	5.36	5.06

75. Brigades continue to monitor sickness levels and analyse the problem as it effects both individuals and the brigade as a whole. As mentioned in the Report for 1992, the Inspectorate continued to monitor the matter and also seeks information from brigades on the number of serious injuries to operational personnel. The term "serious injury" has been taken to be an injury which resulted in the person being hospitalised for a period of at least 2 weeks, or which caused an absence from duty for more than one month.

76. The returns indicate that in 1993, 49 wholetime and 20 retained operational personnel received serious injuries. The comparable figures for 1992 were 46 and 11 respectively. These serious injuries were sustained in the following circumstances:

	<i>Wholetime</i>	<i>Retained</i>
at fire incidents	16	12
at special service incidents	7	3
during training periods	9	4
during other duties	17	1

Unfortunately there was one fatality during the year, that of a retained firefighter from the Lothian and Borders Fire Brigade (see paragraphs 53 to 55).

77. Accidents and injuries continue to be a major concern and a great deal of effort is still required to counteract this problem. Seven out of the 8 brigades in Scotland now have an Occupational Health Scheme in operation; sickness monitoring has also been introduced and the majority of operational personnel take part in structured fitness training routines. Hopefully this together with a closer examination of the circumstances in which accidents occur and the application of safety techniques will reduce the incidence of both injury and illness.

78. The level of absence due to sickness affecting Control Room staff was 6.07% of the total number of working days, a reduction of 6.42% from the 1992 figure. Control Room staff absences are normally covered by the adjustment of shift sizes or by the employment of temporary staff on short-term contract. The training of temporary staff remains of great importance in view of the complexities of the modern computer based command and control mobilising systems.

## Discipline

79. During the year, 23 persons were charged with a total of 29 offences under the Fire Services (Discipline) (Scotland) Regulations 1985. The corresponding figures for last year were 31 and 39 respectively.

80. The punishments awarded in respect of the charges were:

Dismissal	2
Requirement to resign as an alternative to dismissal	1

Stoppage of pay	9
Reprimands	10
Caution	1

## Pension Scheme for Firefighters

81. A small Working Group was set up by the Joint Pensions Committee late in 1992, to review the medical appeals procedures set out in the Firemen's Pension Scheme Order 1992. The Working Group's recommendations were presented to and noted by the SCFBAC in December 1993. The most substantive change recommended by the Group was that Appeal Boards should be set up, to replace the current "single-referee" system for dealing with medical appeal cases. The Working Group is continuing to operate in order to consider other aspects of the procedures, and monitor the implications of change.

## Equal Opportunities Joint Committee

82. This Committee continues to provide a focus on equal opportunities issues in the fire service, to develop policies and initiatives, and to advise Ministers in the Home Departments. The main areas of the Committee's ongoing programme of work in 1993 were as follows:

- i. *One-day equal opportunities seminar* - This seminar at the NEC, Birmingham was attended by representatives from 54 brigades in the UK including designated equal opportunities officers and several Firemasters from brigades in Scotland. The seminar sought to raise understanding of the need for equal opportunities initiatives, and to increase the knowledge and awareness of both the legislation and the assorted Codes of Practice.
- ii. *Equal opportunities objectives, goals and targets* - Fire Service Circular 6/1993 embodied the Committee's statement of objectives for equal opportunities policies in the fire service and set all brigades targets of having in place by 30 June 1993 their own written opportunities policies and procedures for monitoring by gender and ethnic grouping applications, recruitment and staff management arrangements. The Circular also brought to brigades' attention the fact that the adoption of selection procedures which limited recruitment to candidates resident in a brigade's own area could run counter to Article 48 of the European Economic Treaty which guarantees freedom of movement for workers in the Community. The Committee also endorsed a proposal that the Home Departments, with the assistance of the Equal Opportunities Commission and the Commission for Racial Equality, should prepare a checklist for use as an aid to the Inspectorate in assessing each brigade's performance on equal opportunities.
- iii. *Research* - Since it was established the Committee has endorsed research work on various areas affecting equal opportunities in the fire service. Research is also being carried out by the Home Office Research and Planning Unit and Harris Research on the public perception of the image of the fire service. This project is examining what may or may not deter applicants or potential applicants from ethnic minority groups or women from pursuing careers in fire service. The project is nearing completion and the results are expected to be presented early in 1994. Research has also been commissioned into the minimum and maximum height requirements for fire service recruits. The project seeks to establish whether there is an operational need for the height limits currently in use in the fire service and whether the physical requirements of the work could be tested in a more appropriate way. This project too is expected to be completed early in 1994.

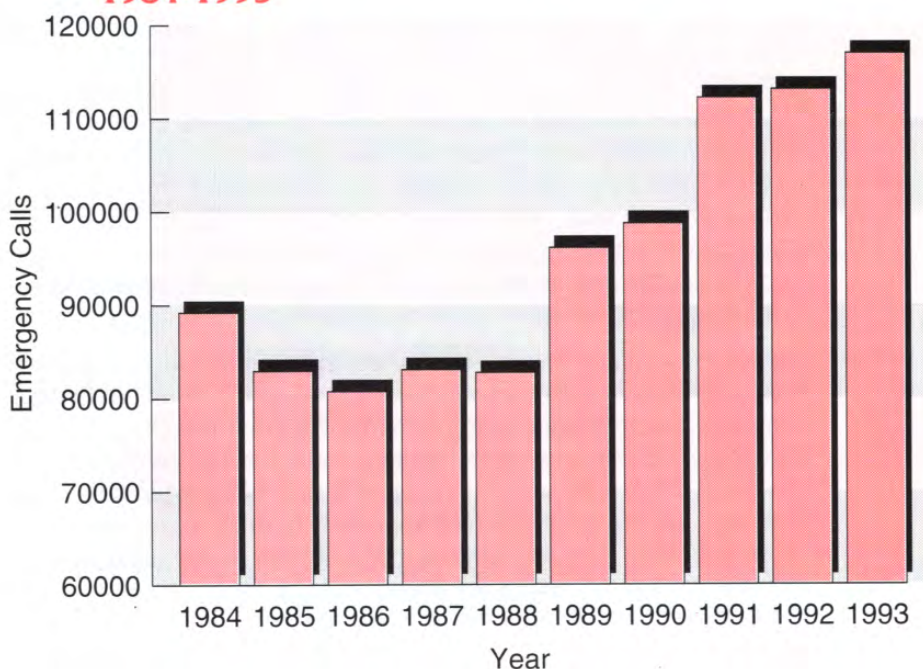
# SECTION C: OPERATIONS

## Fires and Other Emergencies

83. The total number of emergency calls requiring the attendance of the fire brigade continues to rise with the figure of 116,962 for 1993 being 3.5% higher than in 1992 and the highest number of such calls recorded in Scotland. Information contained within Appendix 4 of this report details the number and types of call attended by Scottish fire brigades during the year. The total number of property fires recorded is supplemented by the additional categories of chimney and secondary fires, whilst the false alarm calls are sub-divided to show those due to good or malicious intent or due to a fault within fire warning apparatus. The operational workload, including special service incidents, of each fire brigade is detailed in this Appendix. Further information contained within this table relates to the weight of attendance, in terms of the number of fire appliances, at operational incidents. This provides a broad indication of the size of the fires or the extent of the emergencies with which brigades had to deal. To identify more clearly the larger fire situations occurring in 1993, that is where an attendance of 6 or more fire appliances and crews were required, a chronological list of incidents is recorded at Appendix 5. In 1993 the total number of fires attended by fire brigades was 56,800, a figure which represents a 7.6% increase on the 1992 total of 52,790. The rise in the level of calls received can be attributed mainly to the substantial increase in the number of secondary fires to a total of 27,593, 18.5% above the 1992 figure of 23,280.

84. The histogram styled information contained in Graph No. 4 indicates the total number of emergency calls requiring the attendance of fire brigades in Scotland during the 10 year period 1984 to 1993, during which time the number of calls has risen by 31.3%. It should be noted, however, that whilst the figures remained mainly static in the first half of that decade the latter 5 years have shown a marked increase, with a 41.5% rise in the number of calls attended.

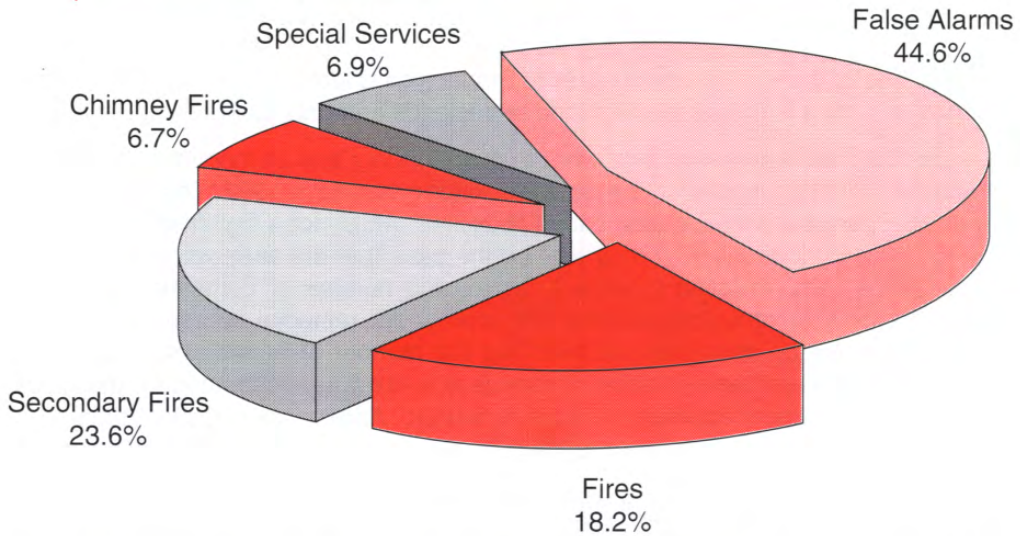
**GRAPH 4-TOTAL EMERGENCY CALLS TO SCOTTISH BRIGADES  
1984-1993**



85. The categories of the operational incidents and their proportions within the total number of emergency calls responded to in 1993 are shown in Graph No. 5. The

composite of all fire categories reveals that they form 48.5% of the total, an increase of 1.8% over the previous year's figure, whilst the proportion attributed to false alarm calls registers 44.6%. It is encouraging to note, however, that the number of false alarm calls fell below the total for 1992 by 2%.

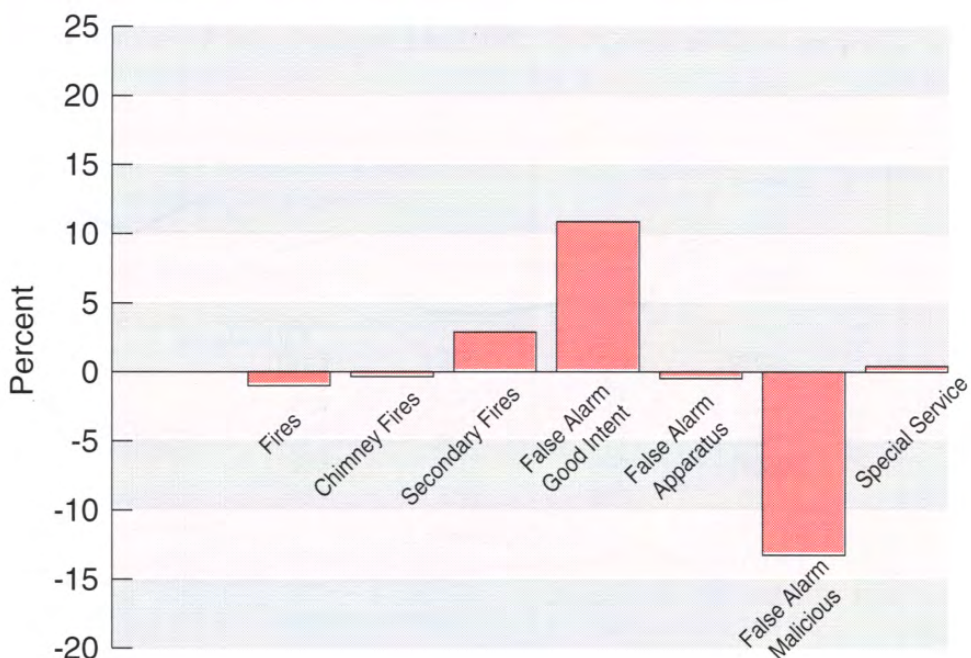
### GRAPH 5- TYPES OF CALL IN 1993



86. As recorded in Graph No. 6, marginal reductions of both fires and chimney fires were realised in 1993 whilst a fairly significant rise in the level of secondary fires is registered. It is pleasing to note the decrease in the number of calls due to apparatus and malicious intent. Special service incidents form the final part of this Graph with the rising trend of recent years being maintained.

87. Secondary fires are, in the main, outbreaks occurring out of doors and affecting grassland, refuse containers, derelict buildings and similar outdoor features. Significant

### GRAPH 6- PERCENTAGE OF INCREASE/DECREASE IN CATEGORIES OF CALL BETWEEN 1992 AND 1993



fluctuations can occur in the figures recording the level of secondary fires on a year by year basis as weather conditions can greatly influence the number of calls to this type of incident. An example of the volatility of this statistic can be instanced by comparing the 1992-93 differential, showing an increase of 18.5%, with that of 1991-92 where a corresponding decrease of approximately 15% was recorded.

88. Chimney fires are those outbreaks which are restricted to or contained within a chimney or flue pipe. Figures recorded for this type of incident in the current year show a marginal reduction (0.2%) on that registered for 1992. The proportion of chimney fires varies greatly from brigade to brigade, with the more rural areas seemingly attracting a higher incidence. As an example, in 1993 the proportion of chimney fires expressed as a percentage of the total number of fires in Strathclyde is identified as being 6%, whilst the corresponding figure for the Highland and Islands amounts to 61.5% of the total.

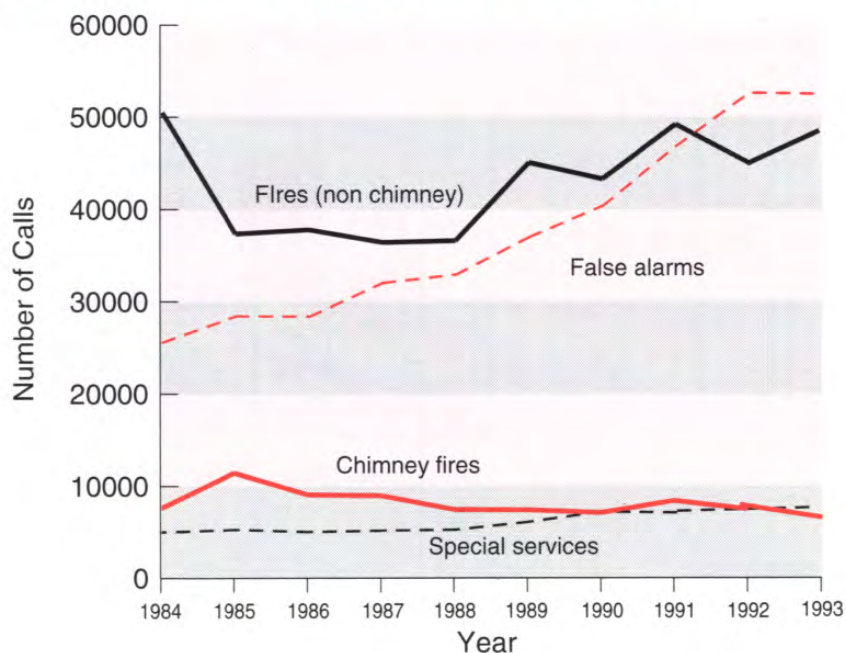
89. In 1993 the number of fires, other than secondary and chimney fires, attended by Scottish brigades continued the downward trend started in 1992. The reduction of 37.1 (1.7%) from the previous year's total of 21,743, whilst not a significant change, is moving in the right direction. It may well be the case that the early warning given by smoke alarm units, installed in an ever increasing number of domestic properties, enables owners or occupiers to take the appropriate remedial measures before a potential emergency develops, so reducing the number of recorded fire incidents. During the year a positive indication of change is in the figures recorded for malicious fire alarm calls where a reduction of 13.2% is realised. Appendix 4 gives statistical data for 1993 in the 3 categories of false alarm call - Good Intent, Apparatus and Malicious.

90. Good Intent calls are those where the caller is genuinely, although mistakenly, concerned that an outbreak of fire has occurred; Apparatus calls are those where the brigade is called due to a fault in a fire warning system; and Malicious false alarm calls are those where the person calls the brigade knowing that a fire or other emergency does not exist.

91. In spite of the reduction in the total number of false alarm calls, from 52,750 in 1992 to 52,131 in 1993, a fall of 1.2%, the number of such incidents remains unacceptably high. When taken together, Malicious calls and those due to faults in fire warning apparatus account for 55% of the total false alarm calls. Brigades are seeking to reduce the incidence of these calls by public education, maximising the use of new technology in tracing calls and seeking to prosecute those who offend by making Malicious calls.

92. The information contained in Graph No.7 is designed to portray the incidence of call to fires, chimney fires, false alarms and special services over the past decade.

**GRAPH 7- BREAKDOWN OF CALLS 1984-1993**

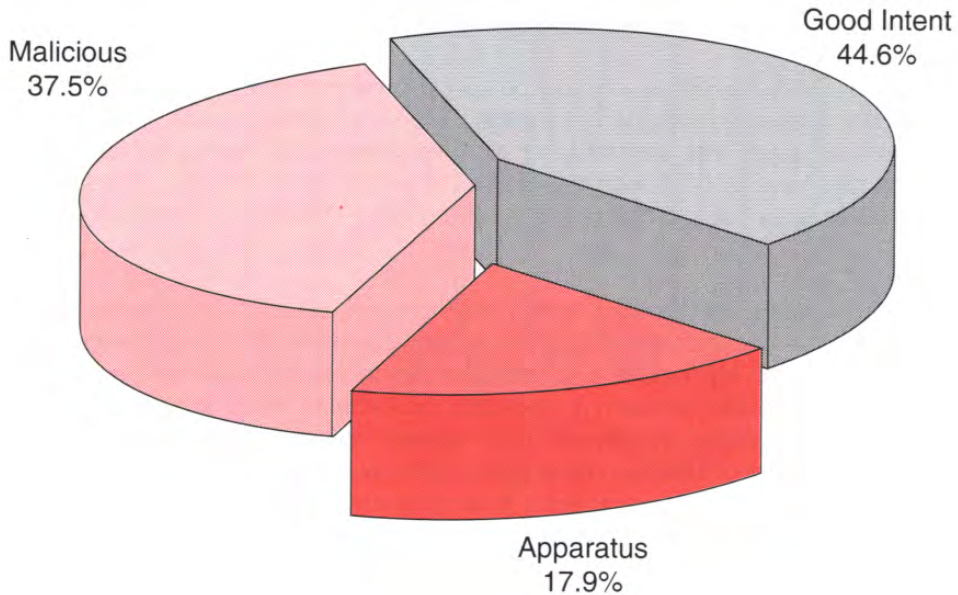




Trends can be readily identified over such a timescale and, although it is too early to forecast an arrest of the ever increasing level of false alarms, it is nevertheless encouraging to see some slight reversal to that particular pattern in 1993.

93. The pie-chart information included as Graph No. 8 denotes the level of Good Intent, Apparatus and Malicious false alarm calls received in percentage terms.

### GRAPH 8- FALSE ALARM CALLS IN 1993



94. The higher profile educational campaigns adopted by brigades to generate an awareness within the public of the dangers posed by fire are achieving success on several fronts. Forearmed with smoke alarm protection in many cases, a more concerned and alert public are quick to inform the fire brigade of any suspicious circumstance. Where that suspicion is genuinely held it would be remiss of brigades to discourage public spirited action of this nature, although it is realised that the continuing increase - a rise in false alarms with good intent over last year's figure of 5% to 44.6% in 1993 - is a strain on brigade resources and needs to be monitored.

95. The number of calls generated through malfunctioning or faulty apparatus has remained at an almost static level for the years 1992 and 1993. It is quite clear that the key to achieving a reduction in such calls lies in identifying the installations most commonly at the source of the problem and advising the owners or occupiers about the appropriate care and maintenance programmes to adopt, so enabling the systems to function in an effective and proper manner.

96. The number of Malicious false alarm calls received by Scottish brigades over the last 5 years is shown in Table A.

Table A - Malicious False Alarm Calls 1989-1993

	1989	1990	1991	1992	1993
Central	693	623	595	567	694
Dumfries and Galloway	239	255	283	255	280
Fife	886	707	997	1,108	976
Grampian	431	530	613	616	628
Highland and Islands	183	259	395	347	334
Lothian and Borders	2,705	3,724	3,206	2,107	1,916
Strathclyde	7,889	8,179	11,370	16,349	13,970
Tayside	769	964	1,022	1,136	730
Totals	13,795	15,241	18,481	22,485	19,528

97. It is encouraging to note that the unremitting rise in the incidence of Malicious false alarm calls was checked in 1993. The composite return from all brigades shows a reduction of almost 3,000 calls in the current year, a 13% decrease from the 1992 high of 22,485. Only 3 of the 8 brigades have shown increased figures in this area; Central, with an unfortunate reversal in trend after 2 particularly successful years; and Dumfries and Galloway and Grampian, where the increases were marginal. Of the 5 remaining brigades showing a declining statistic, major reductions were made by both the Strathclyde and the Lothian and Borders Fire Brigades, with the latter having experienced a decreasing return over the last 4 years. During that period the 48.5% reduction in such calls reflects the very commendable efforts of the Lothian and Borders Fire Brigade where it is considered that education is once again the catalyst of success, and in particular the educational campaign which targets schoolchildren.

98. It is of course an offence for any person to knowingly give, or cause to be given, a false alarm of fire to a fire brigade and, as stated in previous reports, it was the view of the Joint Working Party on the Audit Commission's Occasional Paper No. 1 that the most effective means of deterring potential offenders would be the introduction of communications systems which improved the means of identifying the source of the call.

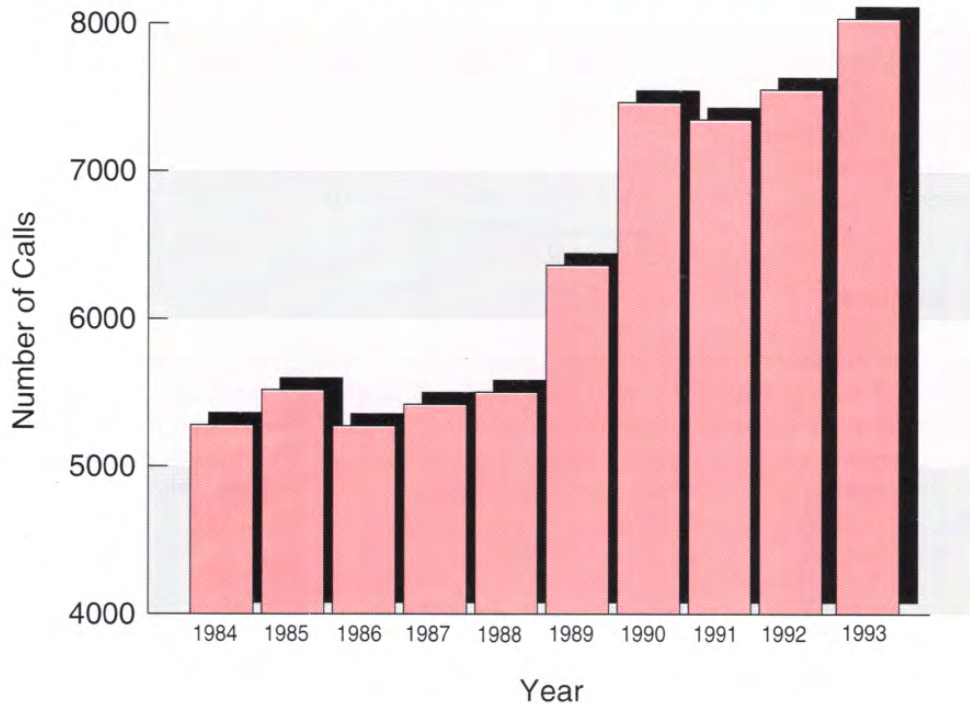
99. That means of identification is now available and, to date, with a few exceptions, telephone exchanges throughout Scotland covering the majority of telephone users are provided with digital equipment. It is expected that this programme will be completed by 1994. It is of course too early to evaluate the benefits which may come from the provision of these digital exchanges. They appear, however, to be the best hope of reducing the number of Malicious false alarm calls made to brigades, particularly if their introduction is supported by campaigns to bring to the attention of schoolchildren and others the problems and the penalties which can arise from making such calls.

## Special Services

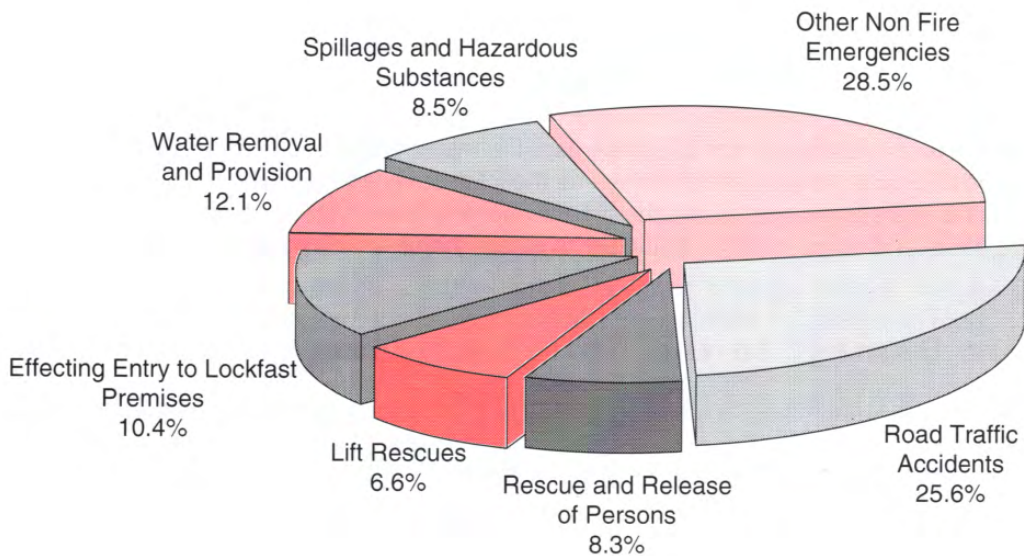
100. Part of the operational workload of any brigade lies in the area designated special services. This category encompasses incidents such as road traffic accidents, the rescue and release of persons, effecting entry into lockfast premises and carrying out lift rescue; all of which can be broadly described as humanitarian services. In addition, because of their expertise and specialist equipment carried, brigades are also recognised as the emergency service best suited to deal with incidents involving the provision or removal of water, spillages of hazardous substances and other non-fire emergencies. The complexity and range of this broad category of work continues to increase as does the incidence of such calls. In 1993 fire brigades in Scotland attended 8,031 such special service calls, 6.9% of the total emergency calls received and an increase, in this particular sphere, of 6% over the 1992 figure of 7,562. Details of the increase in special service calls over the past decade is contained in Graph No. 9.

101. Graph No. 10 shows the percentage and number of calls in each category of special service. It is interesting to note that the category of this Graph relating to "water removal and provision" has significantly increased in its percentage of brigade's operational workload, moving from 8.3% of the total in 1992 to 12.1% in the current year. The overwhelming proportion of incidents responded to concerned the removal of water from flooded premises when in the early part of 1993 flooding posed a significant problem on the east coast of Scotland, with the Tayside area being particularly badly affected. 855 incidents were responded to with 25.8% of all such emergencies being concentrated at Perth and the surrounding low lying areas of the River Tay. The specialist equipment carried by the fire brigade is used to good effect in such emergencies, bringing relief to the public in the mitigation of damage to property and, in some cases, the protection of life.

**GRAPH 9- SPECIAL SERVICE CALLS 1984-1993**



**GRAPH 10- SPECIAL SERVICE CALLS IN 1993**



**Road Traffic Accidents**

102. As shown in Table B a total of 2,061 attendances were made to road traffic accidents by brigades in 1993, a 5.6% reduction from the figure of 2,184 recorded for the previous year. Fire deaths arising from road traffic accidents were also significantly lower in this year. The 8 recorded deaths, occurring at 7 of the vehicular incidents, indicate a 33.3% reduction on the high of 12 registered for 1992.

TABLE B - Number of Road Traffic Accidents Attended and Resultant Fire Deaths

	1989	1990	1991	1992	1993
Number of road traffic accidents attended	2,086	2,170	2,141	2,184	2,061
Number of fire deaths as a result of a road accident	11	8	10	12	8

## Rescues

103. The number of persons rescued from emergency situations in 1993 amounted to 2,248. This figure is sub-divided in Table C to identify separately rescues from fire situations, other incidents where no fire was involved and from road traffic accidents. Each category has increased in comparison with that recorded for the previous year with the composite figure showing a 14.8% rise over the 1,957 rescues carried out in 1992.

TABLE C - Number of Persons Rescued from Emergency Situations 1989-93

Rescues	1989	1990	1991	1992	1993
Fires	659	766	654	559	634
Other dangerous situations where no fire was involved	495	526	987	706	838
Road Traffic Accidents	819	886	817	692	776
Totals	1,973	2,178	2,458	1,957	2,248

104. I take this opportunity to compliment the members of each of the 3 emergency services - Police, Ambulance and Fire - for the inter-service liaison which has developed over the years and which allows the organisations to work in close co-operation at road accidents and other emergency incidents where members of the public are at risk.

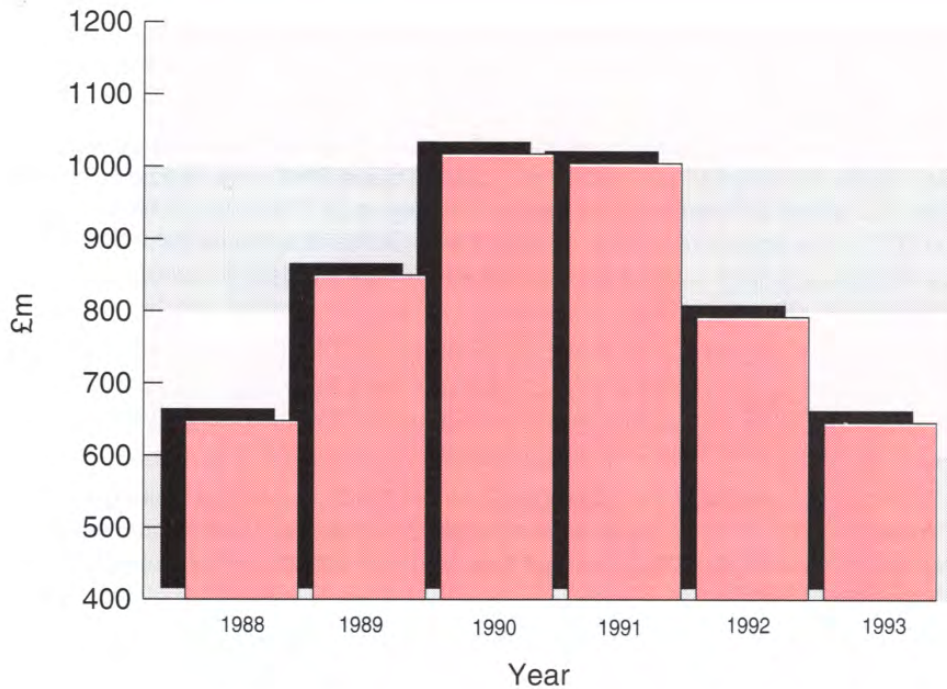
## Fire Damage in the United Kingdom

105. The monetary loss due to fires in the UK during 1993 has been estimated by the Association of British Insurers to be £648 million. This figure is 24% less than the total for 1992 and is the second year in which a reduction has taken place since the peak level of 1991. Unfortunately, figures showing the Scottish position are not available at this time.

106. Graph No. 11 shows the annual monetary losses due to fire damage in the UK since 1988 and indicates clearly the rising trend to 1991 and the subsequent and most welcome reduction from the high level of that year.

107. During 1993, 65% of the total fire losses were sustained by the commercial sector of the community and 34% in the domestic side. Although the highest proportion of these losses has always been borne by commerce, 1993 shows a higher proportion of the total being carried by claims from the domestic sector. However, no matter which section of the community has the highest fire loss, we are all affected by the costs either directly, in suffering the actual damage, or indirectly through increased insurance premiums or other charges, or through the consequential losses in the destruction of

**GRAPH 11- FIRE DAMAGE IN THE UNITED KINGDOM 1988-1993  
ANNUAL MONETARY LOSSES**



an amenity such as a school, a cinema, a library, a supermarket or the loss of employment.

108. For a number of years brigades throughout the UK have encouraged the installation of smoke alarms in domestic premises to give an early warning of an outbreak of fire, in the belief that not only could lives be saved but that, given the early warning, an early attack on the outbreak could limit its development and the cost of the fire damage. The same principles must apply in the commercial sector of the community where the monetary losses are substantially higher.

109. Today we have very sophisticated systems for the early detection of fire and these together with the early attack on the outbreak, which is possible through the use of active fire defence systems such as sprinkler installations, must be capable of reducing the cost of fire damage.

110. It is recognised that the installation costs of such systems can be high and if we are to encourage their use to a greater extent it would be appropriate to examine the specifications currently applying to ensure that they are in line with today's needs and show appropriate cost benefits.

### **The Arson Prevention Bureau**

111. The Arson Prevention Bureau is a company funded in the public interest by the Home Office and the Association of British Insurers. Since the company was established in 1991, it has instituted a number of initiatives to examine specific areas of fire raising. One of the projects is related to school fires and the Bureau commissioned a research report to be carried out by the Faculty of Law at the University of Sheffield to gauge the prevalence of arson in schools and to recommend future preventive strategies.

112. The work was based primarily on face to face interviews with headteachers at 450 schools in England, Scotland and Wales, although a postal survey was also carried

out. The research team also spoke to a number of persons or organisations with practical experience in the prevention of school fires - fire brigades, police and local authority departments - with a view to identifying priorities for future action.

113. The research found that, taking accidental as well as malicious fires, one in six of the schools in the survey had at least one fire each year. Fires were more likely to occur in secondary schools than in primary institutions and particularly in large schools. Outbreaks of fire proved to be highest among schools in Greater London and the north west of England, with an above average incidence in Scotland and the Midlands.

114. In the schools examined it was found that 4 in 10 of the fire incidents were not reported to the fire brigade and although many of these fires were considered to be minor in nature, half of them involved damage costing up to £50. It was considered that around 70% of the school fires involved arson, or in Scotland wilful fire raising, and that these outbreaks are more likely to occur out of school hours and particularly in the period leading up to 11 pm.

115. The report indicates that most of the fires started deliberately occur on the external face of the school building and that the arsonists are most likely to be pupils or ex-pupils of the school, or local youths whose motives appear in the main to be vandalism or malicious damage rather than due to a grudge or mental disorder.

116. The report concludes that there is no single solution which will bring about a reduction in the incidence of fire in schools and that strategies to check or rectify the situation will depend on local circumstances and the application of an action plan covering 4 main points:

- i. That local authorities establish a risk advisory service aimed at advising headteachers of the extent to which their schools are at risk and of preventive measures;
- ii. the distribution to headteachers of the Arson Bureau's guide "How to Combat Arson in Schools";
- iii. the further development of fire safety education; and
- iv. the counselling of children identified as having a tendency to set malicious fires.

In practice, a number of Scottish authorities have already taken action along the lines of the Bureau's proposals.

117. Scotland continues to experience an unacceptably high incidence of wilful fire raising in occupied buildings. During 1992, the year for which the most recent fire statistics are available, there were 23,537 fires in occupied buildings of which 5,210 (22%) were started deliberately.

118. As will be seen from the following table the incidence of these malicious fires has been increasing in recent years with the figure for 1992 being 44% higher than in 1991, thereby establishing a new peak in the number of such outbreaks.

1988	1989	1990	1991	1992
2,963	3,492	3,506	3,619	5,210

119. During 1992 the number of malicious fires in dwellings fell from the previous year's figure to 1,738, that is, 18% of the total number of fires in that occupancy and almost one fire in every six such outbreaks.

120. It is obvious that the potential risk to life in such fires and the needless cost of the fire damage justifies a major effort being made to bring to justice those found guilty of this criminal act. This will involve the co-operation of the police and fire services as well as members of the public, but it is an effort which must be made.

# SECTION D: FIRE SAFETY

## Background

121. The responsibility of fire authorities to deal with fire safety matters is derived mainly from 2 Acts of Parliament - The Fire Precautions Act 1971 (the 1971 Act) and the Fire Services Act 1947 (the 1947 Act). For practical purposes, however, the work is delegated to the fire brigades within these authorities who have the technical background and experience most suited to perform the functions.

122. Under the terms of the 1971 Act fire authorities are responsible for the enforcement of its statutory provisions in all premises falling within its scope, other than Crown premises. In general terms, the 1971 Act requires that premises put to a use covered by a designation order must have a fire certificate issued by the authority and relating to the fire precautions within the building. It is, of course, an offence to put the premises to a designated use without such a certificate being in force, or without having submitted a formal application for a fire certificate.

123. At present the uses of premises designated under the 1971 Act and for which a fire certificate is required are factories, offices, shops and railway premises in which persons are employed, and in which the aggregate number of persons at work at any one time exceeds the figures stated in the statutory instrument or, in the case of factories, in or under which highly flammable material is stored or used. In addition, hotels and boarding houses providing sleeping accommodation for guests or staff to the extent outlined in the designation order are also required to have a fire certificate.

124. Under the 1971 Act fire authorities are empowered to set aside, or grant exemption from, the requirement to have a fire certificate, but only in certain prescribed circumstances. This authority for example does not extend to premises used as a hotel or boarding house.

125. Factories, offices, shops and railway premises which are outwith the scope of the certification procedures or which have been the subject of the powers granted to the fire authority and referred to in the preceding paragraph, are still required to have basic fire precautions, such as the provision of adequate means of escape and firefighting equipment. Since the enforcement procedures in these premises are less formalised than for certifiable occupancies, guidance for occupiers in the standards which are likely to satisfy the basic requirements of the law, are set out in a code of practice issued by the Home Secretary and the Secretary of State for Scotland entitled "Code of practice for fire precautions in factories, offices, shops and railway premises not required to have a fire certificate".

126. Section 12 of the 1971 Act empowers the Secretary of State to make regulations about fire precautions in premises put to a prescribed use or any specified class of such premises. At present regulations are in force in relation to the fire precautions in sub-surface railway stations, but as mentioned in the HMCIFS's report for 1992, consideration is being given to the introduction of regulations which will cover fire safety in a wide range of premises used as workplaces.

127. Whilst the 1971 Act places detailed responsibilities on fire authorities for the enforcement of fire safety provisions, the 1947 Act encompasses within its provisions the duty of a fire authority to make efficient arrangements for giving, when requested, advice in respect of buildings and other property in the area, on fire prevention, restricting the spread of fire and means of escape in case of fire. The responsibility within the 1947 Act is more generalised and covers a wide range of subjects and also property types on which the advice may be sought. As in the case of the enforcement responsibilities under the 1971 Act, the responsibility for providing the advice required under the 1947 Act has been delegated to fire brigades.

128. The following are among the many matters in which Fire Safety Officers of brigades may become involved:

- i. Advising local authorities on appropriate fire precautions in premises to be licensed by them under various statutory instruments such as;

- a) The Caravan Sites Control of Development Act 1960.
  - b) The Gaming Act 1968.
  - c) The Safety of Sports Grounds Act 1975.
  - d) The Licensing (Scotland) Act 1976.
  - e) The Civic Government (Scotland) Act 1982.
  - f) The Cinematograph (Safety)(Scotland) Regulations 1985.
  - g) The Housing (Scotland) Act 1987.
- ii. Advising architects and designers on the fire safety precautions required for new building developments, or on those appropriate for existing premises.
  - iii. Giving advice to private or public organisations or to individuals on fire safety matters.

129. Fire brigades are also involved in the promotion of fire safety themes within the community generally, covering domestic, commercial and industrial premises as well as public occupancies. Since domestic premises have tended to have a higher incidence of fire and loss of life, due to fire, The Scottish Office Home and Health Department together with fire brigades have concentrated much of their campaigning towards fire safety in the home. Television commercials have encouraged the installation and proper maintenance of smoke alarms in dwellings while brigades have continued with local promotions having a similar theme.

130. Many brigades have also developed community education programmes targeting local problems in terms of fire safety matters and seeking the assistance of those resident in the area who may suffer as a consequence of an outbreak of fire affecting a school, cinema, library or place of work. The funding for such projects may be from the local authority, by sponsorship or through Urban Aid grants and it is important that support for this work should continue and where possible increase in order to address Scotland's poor fire safety record in terms of the lives lost and the incidence of fire.

## Fire Safety Inspections of Premises

131. During 1993 fire brigades inspected 81,450 premises, including 9,414 sets of plans, for fire safety purposes. The overall figure represents a 5.2% increase on the total for the previous year although there was a slight reduction in the number of plans inspected.

### Certi fiable Premises

132. Table D shows the total workload associated with the certification of factories, offices, shops and railway premises as well as hotels and boarding houses falling within the scope of Section 5 of the 1971 Act. The work discharged by fire brigades during the year, in terms of the issue of fire certificates and the re-inspection of certificated premises is also shown.

Table D - Certification of Premises Under Section 5 of the Fire Precautions Act 1971

	Total Certi fiable Premises	Total Certificates Issued	Total Certificates Issued in Current Year	Total Re-inspections of Certi fiable Premises in Current Year
Factories	4,659	4,322(92.7%)	168	2,240
Offices, Shops and Railway Premises	15,893	14,071(88.5%)	618	7,345
Hotels and Boarding Houses	4,692	4,574(97.5%)	176	4,356
Totals	25,244	22,967(91.0%)	962	13,941



133. At the end of 1993 the total number of certifiable premises without a fire certificate was:

Factories	—	337
Offices, Shops and Railway Premises	—	1,822
Hotels and Boarding Houses	—	118
		—
Total		2,277
		—

134. Although this overall total is only 12 fewer than at the end of the previous year, it must be recognised that changes brought about by the submission of new applications for fire certificates, the closure of existing certificated premises or the removal of such premises from the certification criteria, can lead to wide variations in the statistical data from year to year.

135. Out of the total of 2,277 premises without a fire certificate, 754 (33.1%) had been inspected by fire brigades, as the first stage in the procedure leading to the issue of a fire certificate.

136. Table D also indicates that during 1993, 13,941 certificated premises were re-inspected to ensure that the fire precautions detailed in the fire certificate were being maintained and that the terms and conditions of the document were being met. As a result of these inspections, or due to being notified of a change of circumstances in the premises, brigades amended or revised the contents of 1,291 fire certificates as well as issuing 962 such documents on a first issue basis.

137. Under the terms of Section 5A of the 1971 Act fire authorities are empowered to grant exemption from the requirement to have a fire certificate to those premises which qualify for this consideration by virtue of the nature of the occupancy and the construction of the property. The fire authority must have regard to all the circumstances of each case and, in particular, the degree of seriousness of the risk to persons on the premises in the event of fire. The objective is of course to release these specified and low fire risk premises from the certification procedures, in order that fire authorities can use their resources on other premises having a higher risk grading.

138. In Scotland, the total number of premises that have been granted exemption under the terms of Section 5A of the 1971 Act is 140, a figure which is surprisingly low, having regard to the potential number of premises that would qualify for consideration.

139. It has been stated that in view of the likely introduction of fire safety regulations that would apply to most workplaces, brigades had been discouraged from applying the statutory powers of exemption. During 1993, however, the Inspectorate urged brigades to review their policies on this matter as well as the manner in which the powers are applied.

#### Non-Certifiable Premises

140. Those factories, offices, shops and railway premises which are outwith the scope of the certification criteria, are subject to the basic provisions of Section 9A of the 1971 Act and the requirement to have means of escape and fire fighting equipment as may reasonably be required in the circumstances of the case. The responsibility for complying with the legislation rests clearly with those who operate the premises, but guidance on meeting and maintaining suitable standards which may be considered to satisfy the legal requirements is contained in the Home Office/The Scottish Office Home and Health Department publication referred to at paragraph 125.

141. During the year 6,610 premises were visited and subjected to an initial inspection, a routine visit or given assistance on a specific fire safety matter covered by the legislation.

## Other Inspections

142. The term "Other Inspections" relates to the inspections which are carried out by brigades in a wide range of premises, to advise local authorities, architects, industrial and commercial organisations and others on fire safety matters. In many instances the consultations between local authorities and fire brigades, on behalf of the fire authorities, is a requirement of the legislation being enforced by the local authorities as the licensing agency.

143. Table E shows a few of the statutory instruments through which the consultations take place, together with the number of premises visited by fire brigade inspecting officers during the year.

Table E - Other Premises Inspected in 1993

Legislation	Number of Premises Inspected
Safety of Sports Grounds Act 1975	85
Licensing (Scotland) Act 1976	6,929
Gaming Act 1968	508
Theatres Act 1968	243
Civic Government (Scotland) Act 1982	2,165

144. In addition, fire brigade officers carried out inspections in schools, hospitals, cinemas and residential homes etc., such that the total number of premises inspected during 1993, other than those visited under the terms of the 1971 Act, was 23,814.

145. The number of building plans examined and reports prepared on fire precautions totalled 9,414, a reduction of 5.8% from the previous year. These examinations, similar to the inspections listed in this part of the Fire Safety Section of the report, are only carried out following a request for advice and therefore, the overall totals are subject to annual variations.

## Offences and Prosecutions

146. During 1993 one prosecution was initiated under the 1971 Act in respect of a house in multiple occupation; the case was however unsuccessful.

147. Under the terms of Section 10 of the 1971 Act fire authorities are empowered to issue a prohibition notice, prohibiting or restricting the use of a building or part of a building where in the opinion of the authority the use of the premises presents a serious risk to persons in the event of fire.

148. During the year, 32 prohibition notices were issued by Scottish fire brigades in respect of the following types of premises.

Hotels or Boarding Houses	—	7
Shops	—	6
Houses in Multiple Occupation	—	6
Factories	—	4
Offices	—	2
Hostels	—	2
Exhibition Galleries	—	2
Churches	—	2
Agricultural Indoor Market	—	1

149. In addition, one hotel and one factory were found to have dangerous conditions, however, the immediate action taken by the occupier to rectify the condition negated the need to issue a formal notice.

## Fire Fatalities

150. During 1993, 127 people were killed in fires attended by brigades in Scotland. This total is 8 more than in the previous year although still at a level slightly below the average number of fire deaths in the previous 5 years.

151. Appendix 6 gives details of the fatalities analysed by brigade, age group, month of occurrence and the location of the outbreak of fire. Reductions in the total number of fire fatalities occurred in 4 Scottish brigades - Central, Grampian, Highland and Islands and Strathclyde, with the Central and Strathclyde Brigades recording their lowest incidence of fire deaths in the past 10 years. In contrast, the Fife Fire and Rescue Service total was the highest level experienced within the same period.

152. As in previous years the highest proportion of the total number of fire fatalities occurred in dwellings where 109 (85.8%) people were killed. The remainder were victims of fire in road vehicles (8), caravans (2), residential home/hostel (2), a guest house (1), commercial premises (1) and in miscellaneous locations (4).

153. In 1993 the number of fire outbreaks which resulted in more than one death was 11, almost twice as many as in the previous year. These multiple death incidents produced 29 fatalities; almost 23% of the total number of fire deaths, and in the main involved house fires.

154. Table F shows the total number of deaths due to fire at incidents attended by brigades in Scotland over the past 10 years.

Table F - Number of Fire Deaths by Brigade 1984-1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Central	9	5	9	17	11	4	4	9	8	2
Dumfries & Galloway	2	8	2	4	7	1	8	3	3	6
Fife	7	6	9	12	11	6	5	7	11	14
Grampian	8	18	11	12	12	12	11	11	13	11
Highland & Islands	10	11	9	5	10	9	6	12	10	6
Lothian & Borders	26	23	29	21	26	19	22	18	13	20
Strathclyde	89	89	87	83	69	56	72	72	53	52
Tayside	13	11	9	14	4	6	4	7	8	16
Totals	164	171	165	168	150	113	133	139	119	127

### Fatalities Due to Fires in Dwellings

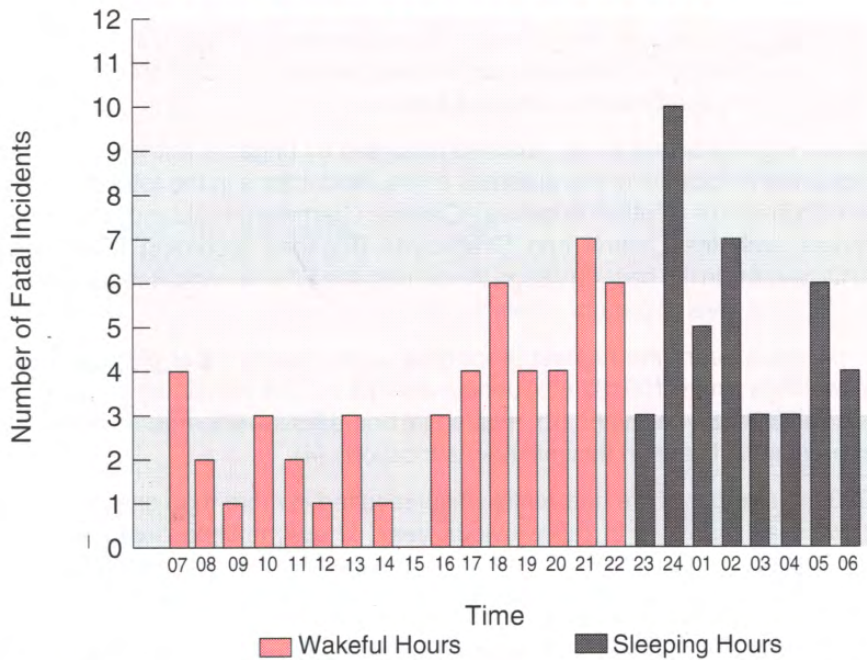
155. During the year there were 92 outbreaks of fire in dwellings which resulted in the deaths of 109 people. Most of the fires occurred in the months of January and March, with November and December also having a high incidence. Previous years have shown that the winter months have the potential to produce a greater number of fatalities and while 1993 shows a similar pattern, other months of the year, such as May and August, also show above average incidence levels.

156. Saturdays and Sundays are the days of the week with the highest numbers of fire deaths, with only minor differences shown between the other days. The previous pattern showing the weekend period of Friday, Saturday and Sunday as the most

vulnerable time, was not reflected completely in 1993 since Friday had the lowest incidence of all days.

157. Graph No. 12 shows the incidence of fatal fires in relation to the time at which

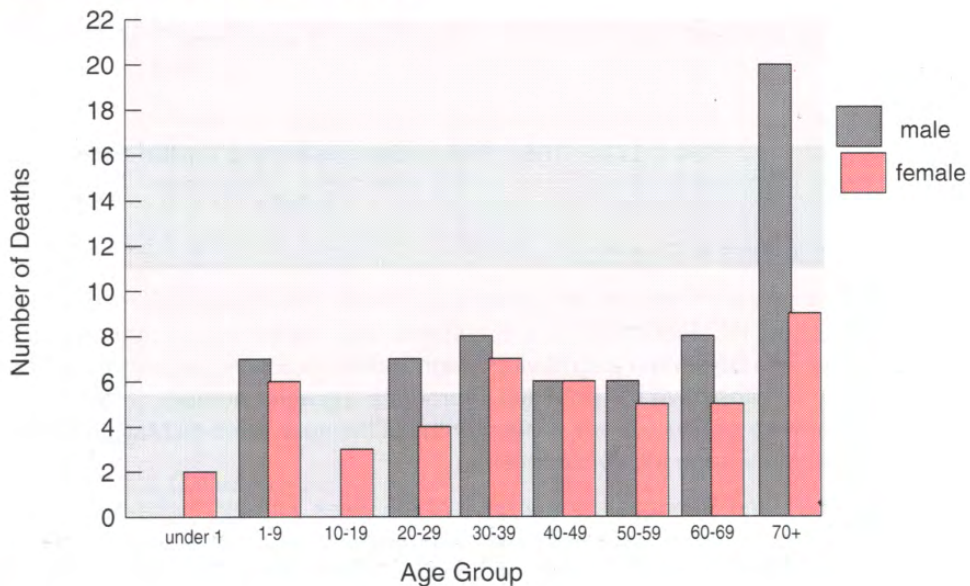
**GRAPH 12- NUMBER OF FATAL INCIDENTS RELATED TO THE TIME OF CALL IN 1993**



the call for the assistance was received by the fire brigade. The pattern for 1993 shows clearly the rising incidence from around mid-afternoon until the peak at midnight and subsequently the gradual decline as the morning progresses. Although the pattern differs from that of the previous year it is again noted that, assuming the "wakeful hours" to be between 0700 hours and 2259 hours and the "sleeping hours" as being between 2300 hours till 0659 hours, most of the calls to fire incidents which involved a death were received by brigades during the "wakeful hours"; indeed approximately 54% of the incidents were handled during that period. The number of people who died in fires during the wakeful hours was 53, while 56 were killed in incidents during the sleeping hours.

158. Graph No. 13 shows the number of fire deaths in each age group together with the sex of the victims.

**GRAPH 13- TOTAL FIRE DEATHS IN DWELLINGS BY AGE GROUP AND SEX IN 1993**



159. In 1993 a total of 62 males and 47 females died in fires in dwellings, and as Graph No. 13 shows, the over 70s age group suffered the greatest loss. Although this feature is similar to the experience of previous years, the Graph also shows that apart from the "under one" and the "10-19" age groups, there is no significant difference in the number of lives lost in each of the age groups 20 to 60. This is a change which will require to be monitored since it had previously been noted that the loss of life in fires appeared to increase with age from around the 40s age group.

160. The Graph also highlights the ongoing need for fire safety education within all age groups of our society both at national and local level, since we have to be concerned about the continuing high losses of life in Scotland.

#### Fatal Fires - Area in Which Fire Started

161. As in 1992 there were 92 outbreaks of fire in dwellings which resulted in a loss of life and brigade investigations have shown that the bulk of outbreaks started in the following locations:

	<i>Number of Incidents</i>	<i>Percentage of Total Incidents</i>
Living Rooms or Lounges	46	50.0
Bedrooms	20	21.7
Kitchen Areas	13	14.1
Bedsit Areas	3	3.3
Halls	3	3.3

162. It is obvious that with the amount of material in a house which will burn, any outbreak of fire unless detected and tackled in the very early stages will have a substantial quantity of fuel available for its development and spread. In living rooms for example it is well recognised that the nature of the furnishings such as untreated polyurethane foam in lounge suites, once ignited, can increase the growth of the outbreak of fire with great rapidity. Although regulations controlling the use of foam in upholstered furnishings have been in place for over 5 years, furniture with untreated polyurethane foam is likely to be found in peoples homes for some time. Clearly the further promotion of fire prevention advice and education is essential, as is the need for the early detection and warning of an outbreak of fire in the home.

#### Causes of Fatal Fires

163. During the year the most common causes of fire which killed people in dwellings were:

	<i>Number of Incidents</i>	<i>Percentage of Total Incidents</i>
Carelessness in the use of smokers materials	45	48.9
Faulty space heating appliances or the misuse of space heating appliances	15	16.3
Overheating of pans left unattended on cooker	10	10.9
Faulty electric blankets	6	6.5

164. It is most unfortunate that once again the statistical information shows the same general features of the past where the lack of commonsense precautions or the failure

to maintain equipment can be attributed to human frailty and carelessness. The persons ability to respond to the emergency can also have a bearing on the outcome of a fire incident, with factors such as age, infirmity and illness, as well as the consumption of alcohol or the use of drugs contributing, in some instances, to the tragic circumstances. As in 1992, more than half the total number of fire victims were alone at the time of the outbreak.

## Smoke Alarms

165. As in recent years The Scottish Office Home and Health Department's campaign to encourage the installation and proper maintenance of smoke alarms in dwellings continued during 1993 supported by each of the Scottish brigades whose ongoing efforts in this matter are commended.

166. Although detailed figures are not available it is estimated that around 60% of the total number of dwellings in Scotland are fitted with at least one smoke alarm. During the year further progress was made on this subject by the introduction of a requirement in the Scottish Building Regulations for the installation of mains operated smoke alarms in new dwellings. It is hoped that the "hard wire", mains operated system will avoid some of the problems associated with the battery operated smoke alarms where the lack of maintenance nullified the protection afforded by the devices.

167. In 1993, out of the 92 fatal fire incidents in dwellings 39 (42.3%) premises had been fitted with a smoke alarm. However, only 21 of these installations are considered to have operated correctly at the time of the fire. The reasons suggested for the failures included - battery missing, discharged battery or battery wrongly connected; all features which highlight the need for regular testing and maintenance of the smoke alarms. Brigade officers who investigated these fires have indicated that in most instances the fitting of a properly installed and maintained smoke alarm system could have given the early warning of an outbreak of fire to which the occupants could have responded.

168. It is recognised, however, that there were instances where due to the person's inability to respond to the warning, through illness, frailty or some other feature, the fatality could not have been avoided without early outside intervention.

## Education and Publicity

169. The Scottish Office Home and Health Department's 1992-93 fire safety campaign adopted the theme "maintain your smoke alarm". The campaign included the screening of a new 30 second television commercial entitled "Resuscitation" and a full page advertisement in selected newspapers at the beginning of the year.

170. The "Resuscitation" commercial, also used by the Home Office in their campaign, underlined the importance of maintaining battery operated smoke alarms and depicted the horror of a child being rescued from a house fire. The commercial advised the carrying out of 4 simple maintenance checks which are:

- Once a month check the battery by pressing the test button;
- test the sensor by carrying out a smoke test;
- once a year change the battery; and
- vacuum the inside of the alarm.

171. Market research was carried out to evaluate the new commercial by way of pre- and post-campaign interviews. This research sought to measure the awareness and understanding of the commercial and measure the impact of the commercial in terms of motivating the Scottish public to check and maintain their smoke alarms. The report on that research indicated clearly the success of the new commercial in raising public awareness that smoke alarms must be maintained and it also provided evidence that the commercial's subliminal message that smoke alarms should be installed had also

been successful. The research findings also suggested there would be merit in repeating the use of the "Resuscitation" commercial as part of the 1993-94 campaign.

172. The Department continued to support Scottish fire brigades with fire safety leaflets and other publicity material for their use locally in the course of the year. A new booklet presenting fire safety messages to primary schoolchildren and based on the Lothian and Borders Fire Brigade publication entitled "Find Out About .... The Fire Brigade" is being developed and it is hoped that supplies will be made available to brigades early in 1994.

173. Lord Fraser of Carmyllie, Minister for Health and Home Affairs at The Scottish Office issued a News Release supporting National Fire Safety Week which ran from 18-23 October 1993 under the slogan "Fire Costs ..." with each day of the Week having its own individual fire safety theme. Many activities were mounted locally by fire brigades in Scotland during the Week. A radio commercial on the need to install smoke alarms in homes was funded by the General Accident Insurance Company and broadcast on local radio stations in Scotland during the campaign. I welcome this direct involvement by the private sector with the Department's campaigns on fire safety.

174. As well as participating in national fire safety campaigns, Scottish brigades initiate and develop many local activities. The following are examples of the various projects carried out in 1993:

Central Region Fire Brigade continued with its campaign to seek funds in order to install smoke alarms free of charge in the homes of the elderly or the disabled. In addition the Community Education Unit, as well as having its programme for schools, has become involved in counselling young firesetters. A "Crucial Crew" project involving practical safety scenarios was held and was attended by over 900 schoolchildren.

Dumfries and Galloway Fire Brigade, in addition to its normal smoke alarms campaign and schools programme, used its Mobile Exhibition Unit to promote fire safety messages in various parts of the area. Support was also given to the local Fire Liaison Panel and a joint campaign with the Road Safety Unit.

Fife Fire and Rescue Service Community Education Unit gave talks to over 2,000 schoolchildren during the year and attended a number of galas and fetes. In addition projects on fire safety matters were held in areas considered to be most vulnerable to fire outbreaks.

Grampian Fire Brigade as part of their fire safety week activities presented displays in a number of major shops and libraries. Leaflets on various fire safety themes were also issued in areas of the City of Aberdeen with an above average incidence of fire.

Highland and Islands Fire Brigade continued with its successful primary schools fire safety quiz. This year it was held in the Western Isles where a campaign on the avoidance of chimney fires was also held. The Brigade also gave support to the Highland Home Safety Liaison Group in the presentation of seminars and other campaigning activities.

Lothian and Borders Fire Brigade's comprehensive fire safety programme for schools continued during 1993 to highlight not only fire safety themes but also measures to reduce hoax calls. A multi-agency project, which had been established and aimed at the problem of malicious fires in schools, has now been included for funding in the Education Department's annual budget. Schools considered to be at risk are visited annually with a view to reducing vandalism and malicious fire costs. The "Crucial Crew" concept of safety scenarios has been extended into a project called the "Safer Seniors Scheme", mainly for the elderly and designed to improve fire safety in the home.

Strathclyde Fire Brigade has been involved in a number of projects and campaigns with fire safety themes. One involved the more remote and rural parts of the Region, while the "Safe Communities" ongoing projects targeted areas where the problems of fire vandalism and malicious calls exist. A new project has also been developed with 2 companies whereby fire safety messages are introduced into

videos used in hospital waiting rooms. The "Crucial Crew" presentations continued during the year using 3 separate locations and involving a substantial number of schoolchildren in the various safety scenarios. The Brigade is also involved in fundraising for the "999 Call Appeal Trust", which developed from the Royal Anniversary Trust, to obtain finance from various sources to provide smoke alarms for those whose circumstances might deny them this form of protection. Finance is obtained from the Trust by the collection of aluminium drinks cans for recycling.

Tayside Fire Brigade has produced literature which highlights the fire hazards of smoking and the consumption of alcohol, which it has promulgated through the local press and radio. In addition, as part of its contribution to the year of the elderly, the Brigade participated in a multi-agency project on security and fire safety in the home. The annual event for schools called "Safe Taysiders" was also presented during the year and involved a practical course for children on safety matters.

175. The various activities referred to above relate only to a few of the projects and campaigns with which brigades are involved. It is hoped that these substantial efforts will develop a greater public awareness of the hazards associated with an outbreak of fire and the measures which can be taken to avoid or mitigate its effects both on people and property.

## **Joint Fire Prevention Committee**

176. During 1993 the "Report of the Working Group to Evaluate Options for Dealing with Problems Related to False Alarms Generated by Automatic Fire Detection Equipment" was published. The report was initiated because of concern at the increasing number of false alarm calls to which brigades were being called but also because of the judgement in the case of *Thorn Security Ltd v. Sackville* and others which confirmed that it is unlawful for fire brigades to levy charges for attendance at false alarms generated by automatic fire detection equipment.

177. The Working Group considered sixteen options put forward by various sources with a particular interest in the subject and the report contains a detailed assessment of each. Further work will be carried out on the proposals before the matter will be taken forward.

178. The launch of the National Core Curriculum in Fire Safety Studies took place during the year at the Palace of Westminster. Details on the subject are contained in paragraph 25 of this Report.

179. The revised edition of the "Guide to Fire Precautions in Existing Places of Work that Require a Fire Certificate - Factories, Offices, Shops and Railway Premises" was published in 1993 and replaced the first edition which had been in use for 4 years.

180. In order to supplement the guidance contained in the document "Guide to Fire Precautions in Existing Places of Entertainment and Like Premises", a new document has been published jointly by the Health and Safety Commission and the Home Departments for pop concerts. Entitled "Guide to Health, Safety and Welfare at Pop Concerts and Similar Events", the document gives guidance on a wide range of technical matters and is intended to help those involved in the organisation of pop concerts and other events such as "raves" or classical music concerts held out-of-doors. It is in four main parts:

- i. General advice on legal duties and on key points for event organisers;
- ii. health and safety matters;
- iii. fire safety matters; and
- iv. venue facilities mainly covered under conditions of licence.

The guide should also be of value to the various authorities involved in licensing this type of event.



## **Fire Safety in the Workplace**

181. The 1992 Annual Report contained reference to the proposal to revise the draft regulations relating to fire safety in the workplace which had been the subject of public consultation and comment. This resulted in the former Home Secretary announcing that the draft regulations and associated guidance would be revised to reduce burdens on businesses and on enforcing authorities.

182. It had been decided at the outset that premises occupied only by the self employed would be excluded from the regulations, and that the previous reference to the controls over the storage of combustible refuse and to the supervision of construction and maintenance work would be deleted since these matters can be addressed by existing Health and Safety legislation.

183. During the year detailed revisions have been drafted and the comments and advice of the Planning and Legislation Sub-Committee of the Joint Fire Prevention Committee have been sought. This will be assessed before seeking Ministerial approval for the issue of a consultation document.

## **Building Standards Advisory Committee**

184. The Building Standards Advisory Committee (BSAC) is appointed under Section 12 of the Building (Scotland) Act 1959, with its main task being to advise the Secretary of State on the continuing development of the Building Standards (Scotland) Regulations. In recent years much of the Committee's work has been its involvement in the complete review of the Regulations which were first introduced in 1964. Substantial changes have taken place since that time, both in the format of the Regulations and in the content of the Technical Standards which support the Regulations, to reflect the progress made in the use of modern materials and the research on various aspects of building construction and design.

185. The fire service has a particular interest in Parts D and E of the Technical Standards since they refer to "Structural Fire Precautions" and "Means of Escape, Facilities for Firefighting and Means of Warning of Fire in Dwellings". During 1993 changes in the technical content of these and other parts of the Technical Standards were issued in Amendment No. 1 (The Building Standards (Scotland) Amendment Regulations 1993). Among the changes introduced was a requirement relating to the installation of automatic fire detection in dwellings, a feature which was welcomed by the fire service. Also, during the year proposals associated with a comprehensive review of Parts D and E were considered by the Committee which led to the issue of a consultation document in June. A sub-committee of the BSAC has now been appointed to take this work forward.

## **National Fire Prevention Youth Quiz**

186. Each year the Fire Protection Association and the Chief and Assistant Chief Fire Officers Association (CACFOA) sponsor the National Fire Prevention Youth Quiz which is aimed at young people aged 11-14 years forming teams from groups such as schools, girl guides, scouts and youth clubs. The objective is of course to increase young people's knowledge of the risks and dangers of fire, in a challenging and entertaining way. After the issue of study material, in the form of leaflets, the participating teams compete within their local brigade areas. The winners move forward to the Scottish final from which the team to represent Scotland at national level will emerge.

187. In 1993, teams representing 7 of the 8 brigades in Scotland competed in the Scottish final, which was hosted by the Fife Fire and Rescue Service. The winning team was from the 1st Stonehouse Girls Brigade in Strathclyde who continued their success by winning the next stage at the National semi-final and moved on to the National Final which was held at the Fire Service College.

188. The overall winner of the Quiz in 1993 was the 1st Rickmansworth Girl Guides team from Hertfordshire but credit is also due to all members of the 4,104 teams within the United Kingdom who participated in the competition.

# SECTION E: TRAINING

## Scottish Fire Service Training School

189. The School's main function continues to be the training of recruit firefighters for Scottish fire brigades which is met by the provision of 3x16-week training courses for entrants to the fire service. Other more specialised courses are also arranged by the School to meet the needs of Scottish brigades and other organisations such as the Prison Service and Health Service Fire Safety Officers. In November 1993, the Home Office arranged a training course for Scottish brigades on the new FDR1 fire report form and related procedures, to be introduced from the beginning of 1994.

190. The number of students participating in courses at the School in 1993 were:

Recruits Course	202
Breathing Apparatus Instructor	29
Wholetime Leading Firefighter	50
Retained Firefighter	63
Retained Leading Firefighter/Sub-Officer	33
Retained Breathing Apparatus Operator	2
Retained Recruits	53
Hospital Fire Prevention (including Firecode)	42
Prison Officers Fire Prevention Course	30
Breathing Apparatus/Fire Prevention Recourses	3

191. The Fire Service Research and Training Trust generously provided funding in 1993 to update the audio visual equipment at the School. I welcome this support which will lead to enhanced standards in the preparation and showing of videos for training purposes and in the quality of study material provided to course participants.

192. The catering, housekeeping and cleaning work at the School was subject to competitive tendering during the year as part of the Scottish Office market testing programme. On this occasion, the contract was awarded to Gardner Merchant and the new contract came into force in January 1994.

## Fire Service College

193. Despite the ongoing restrictions in finance, Firemasters were able to raise the level of attendance at College courses and seminars from 212 in 1992 to 237 in 1993, an increase of 10.5%.

194. Out of the range of courses offered to students it is clear that those for Watch Commanders, Junior Officer Advancement, Specialist Fire Prevention and Fire Investigation were in the greatest demand. Although the 4 courses mentioned form only 11% of the total range of courses on offer at the College, 44% of all students attending in 1993 participated in these training subjects.

195. It is disappointing to note that only one place was obtained for a Scottish brigade officer on the premier course conducted at the College, that is the Brigade Command Course, although 8 applicants from Scotland participated in the extended interview selection procedures.

196. The development of a system that will recognise the skills inherent within the Fire Service is being pursued through the medium of National Vocational Qualifications

(NVQs) or Scottish Vocational Qualifications (SVQs). Based on standards set by the Emergency Fire Services Lead Body and evolving from competencies assessed and demonstrated at the workplace, vocational qualifications will provide incentive, recognise achievement and ensure that training is objective and effective. This will ultimately lead to improved standards, greater efficiency, a more motivated workforce and better customer care.

197. Developments at the College include attaining the status of an Accredited Development and Assessment Centre through the awarding body The Institute of Training Development. The College can now offer Assessor and Verifier training and, in time, will offer certain levels of NVQs in Training and Development programmes. It has already achieved Approved Centre status with the Institute of Supervisory Management and is running NVQ Level 3 Supervisory Management and NVQ 4 Management programmes using Management Charter Initiative standards.

198. A Fire Safety Technology and Management Programme is currently under development and will, when coming on stream in 1994, provide an academic path at the College to Ordinary BSc and BSc Honours levels in this subject. The programme will involve an enhancement of the existing programme and specialist courses, up to and including the 16 week Brigade Command Course. There will also be additional assignments and formal examinations, together with specialist units in mathematics and science. Qualifications can be gained at 3 levels within the programme with the first award being a Higher National Certificate in Fire Engineering followed by a Higher National Diploma in Fire Engineering at level 2, with BSc degrees in Fire Engineering forming the third and final level.

## **Brigade Training**

199. With the often complex and apparently ever-increasing range of emergency incidents with which brigades have to deal, it is essential that the technical knowledge and practical skills of firefighters is maintained at a high standard. It is also essential that the training incorporates safety techniques and procedures that will ensure the appropriate level of safety and protection for those involved in emergency incidents.

200. Because of the importance of recording the training given to individuals it was considered that guidance should be issued to brigades in developing a standard method of recording all aspects of brigade training. This was done in 1992, and during 1993 all brigades have been examining not only their training programmes but also the means by which their systems of recording brigade and personal training can be developed to be in line with the contents of the guidance documents.

201. During the year a technical bulletin was issued on the subject of acetylene gas. It is now estimated that there are almost one million cylinders of the gas in use at present, and with the increasing number of incidents involving the substance and to which brigades are called, it was considered necessary to update the technical data on the gas and the procedures for dealing with fires involving cylinders of this gas.

202. A second technical bulletin which was issued to brigades in 1993 was entitled "Operational Incidents in Tunnels and Underground Structures". The document highlighted the wide range of tunnels and underground complexes, having a range of uses, and for which pre-planning arrangements are necessary in order to deal with emergency incidents. It is recognised that because of the variation in the local factors and the characteristics of the tunnels or underground structures, contingency plans must be tailored to meet the specific circumstances. The technical bulletin was issued with "Dear Firemaster" letter 3/1993.

203. The hazards associated with uncontrolled ventilation in high risk buildings were also highlighted during the year because of experience from recent fires. The feature had led to an unexpected and rapid development of the fire and a potential danger to firefighters. Work has started on a research project to review the applicability of venting

at large fires and this will include a study of flashover and backdraught characteristics. Until the results of the project are known it has been suggested that the guidance contained in the Manual of Firemanship Book 11 Part 1 Chapter 5 and Book 12 Part 3 Chapter 10 should be drawn to the attention of operational personnel.

204. Guidance on the Management of Emergencies at Civil Airports and Aerodromes was issued to brigades during 1993. While the guidance deals with emergencies involving aircraft there is a need for brigades to consider the risks posed by ancillary buildings at airports such as hangars, terminal buildings, fuel farms and railway facilities either underground or surface rail transit systems. The document recommends that all personnel who are likely to attend emergencies at civil airports should receive training appropriate to their responsibilities.

205. The Pressure Systems and Transportable Gas Containers Regulations 1989 were introduced some time ago but have a phased time-scale for their full implementation. "Dear Firemaster" letter 8/1993 Part A gave prominence to some of the important aspects of the regulations with regard to features associated with the operational duties performed by the fire service. The overall intention of the regulations is to prevent the risk of serious injury from stored energy as a result of a failure of a pressure system. Once the regulations are in force, it will be necessary for brigades to liaise with the designers, manufacturers, suppliers and installers of such systems and who have responsibilities with the legislation.

206. All brigades have continued with their internal training programmes both at station and brigade level and they are commended for the wide range of subjects covered by the courses such as breathing apparatus, "hot fire" training, hydraulic rescue equipment, emergency fire appliance driver training as well as first aid and in some instances firefighting and rescue at sea, and fire safety. In addition, some brigades have developed courses for industrial and commercial organisations outwith the fire service. A few brigades have been involved in this activity for some time but now others see that their expertise can be used in this way to generate income for the authority.

207. During the round of brigade inspections in 1993 encouragement has been given to the adoption of the recommendation, made by the National Joint Council for Local Authorities' Fire Brigades, to increase the basic training and maintenance time for retained personnel from 2½ to 3 hours each week. Although some brigades have implemented the recommendation, others have had difficulty in funding the increase.

## **Fire Services Examinations Board**

208. To obtain qualifications for promotion to a higher rank, firefighters are required to be successful in examinations set by the Fire Services Examinations Board (FSEB). The examinations for promotion to the ranks of Leading Firefighter and Sub-Officer have both written and practical elements while the examination for promotion to the rank of Station Officer consists of written papers only.

209. In Scotland, 3 local boards administer both the written and practical examinations on behalf of the FSEB. Following success in the written examinations for Leading Firefighter and Sub-Officer, candidates generally apply for the related practical examinations in the next year.

210. The 1993 written examinations for Leading Firefighter, Sub-Officer and Station Officer ranks were held in September 1992, October 1992 and February 1993 respectively. Practical examinations for Leading Firefighter and Sub-Officer took place between March and June 1993. The numbers of candidates from Scottish brigades sitting and the numbers passing these examinations over the past 4 years are shown in Table G.

TABLE G - Fire Services Examinations Board Results 1990-1993

	1990			1991			1992			1993		
	No. of Candid- ates	No. of Passes	%	No. of Candid- ates	No. of Passes	%	No. of Candid- ates	No. of Passes	%	No. of Candid- ates	No. of Passes	%
<i>Written Examinations</i>												
<i>Leading</i>												
Firefighter	300	102	34.0	343	103	30.0	293	139	47.4	319	124	38.9
Sub-Officer	195	65	33.3	213	32	15.0	226	53	23.5	210	45	21.4
<i>Station</i>												
Officer	170	31	18.2	152	33	21.7	151	28	18.5	168	31	18.5
<i>Practical Examinations</i>												
<i>Leading</i>												
Firefighter	169	103	60.9	155	94	60.6	134	84	62.7	152	86	56.6
Sub-Officer	95	49	51.5	100	50	50.0	85	40	47.1	99	46	46.5

## Institution of Fire Engineers

211. This year members of the Scottish Branch of the Institution attended a number of meetings during which the subjects ranged from Oil Spill Responses, Robotics, Incident Command Training for Collapsed Structures and Heavy Tactical Rescues to National Vocational Qualifications in the Fire Service and an inter-branch visit from the Northern Ireland Branch at the Clyde Submarine Base.

212. Fife Fire and Rescue Service played host to the visit of the President of the Institution, Mr David Williams QFSM FIFireE, who addressed the Branch and presented certificates to the successful candidates in this year's Institution's examinations.

213. A total of 31 members of the Scottish Branch were successful in the 1993 examinations as follows:

Preliminary Certificate	—	10
Graduate Examination	—	7
Full Membership	—	11
Individual Member Papers	—	3

214. The following members were awarded Fellowships by the Council of the Institution following nomination from the Scottish Branch. These were:

Mr D S Marr	—	Firemaster, Tayside Fire Brigade
Mr C Robertson	—	Deputy Firemaster, Tayside Fire Brigade
Mr C McManus	—	Commandant, Scottish Fire Service Training School
Mr J White	—	Firemaster, Fife Fire and Rescue Service.

215. In 1993 the Scottish Branch was formally merged with those of Northern Ireland and Iceland to form a new Region, to be known as the Northern European Region, which is to be represented at council by Mr C Robertson FIFireE, formerly Deputy Firemaster, Tayside Fire Brigade.

216. The celebration of the 75th Anniversary of the Institution took place in 1993 and was marked in Scotland by the formal unveiling of a plaque at the premises in Lauriston Place, Edinburgh which are still the Registered Office of the organisation. The building is also the location of the Lothian and Borders Fire Brigade Museum and an apt setting to mark the foundation of the Institution.

217. During 1993, Scotland was also the location for another major event, the International Fire '93 Conference and Exhibition, which was held at the Scottish Exhibition and Conference Centre in Glasgow and opened by Lord Fraser of Carmyllie QC, Minister for Health and Home Affairs. The event was organised by the Federation of British Fire Organisations of which the Institution forms part and was considered to be a substantial success. The organisers paid tribute to the Strathclyde Fire Brigade whose efforts and assistance prior to and during the week contributed greatly to that success.

# SECTION F: SUPPLIES AND SERVICES

## Transport

218. Section 1(1)(a) of the 1947 Act states that it shall be the duty of every fire authority in Great Britain to make provision for firefighting purposes, and in particular every fire authority shall secure the services for their area of such a fire brigade and such equipment as may be necessary to meet efficiently all normal requirements. To assist in meeting that statutory responsibility in 1993, fire brigades in Scotland maintained 392 first line pumping appliances and 92 specialist vehicles, all fully equipped and available for call on a 24 hour basis.

219. The first line pumping appliances, supported by specialist vehicles such as turntable ladders, hydraulic platforms, emergency tenders and road rescue units, are strategically sited at fire stations throughout Scotland in such a way as to be capable of responding effectively and timeously to any fire emergency incident.

220. To ensure optimum reliability, it is essential to programme adequate and effective maintenance and servicing arrangements for all facets of the operational fleet. The majority of brigades maintain fully staffed and equipped workshops where specially trained operators deal with the mechanical, electrical, hydraulic and other technical problems which can arise, so keeping all appliances in a satisfactory state of readiness. In addition, brigades hold a wide range of ancillary vehicles - vans, lorries, personnel carriers, etc - as part of the service provision to the public and these units are included in the schedules of work in each brigade workshop. Where a vehicle workshop is not an inherent feature in the brigade, arrangements for servicing, maintenance and repair are made on a contractual basis with outside organisations.

221. With a view to assessing fire appliance requirements for the future, the Fire Experimental Unit (FEU), based at the Fire Service College is studying the specifications of the Joint Committee on Design and Development to determine their continuing validity in the ever changing fire emergency environment. Part of the FEU's work programme was to examine how best the appliances can carry the equipment needed by the fire service. The project focused primarily on type B water tenders, but also looked at emergency tenders and other specialist appliances. Staff from the FEU visited a range of UK brigades, in addition to manufacturers and fire service organisations in Sweden, Germany, Holland and France, to give as wide a range of views from engineers and project officers involved in the design of locker layouts and stowage systems. In general, the conclusions reached were that a more standardised approach to appliance design could be financially advantageous in providing value for money without necessarily incurring significant loss of individuality. It was considered unlikely that brigades, all with different equipment, could accept a single standard stowage layout, but by using flexible stowage systems their options can be kept open whilst still achieving a high level of standardisation.

## Premises

222. Although operating under strict financial constraints, all brigades have made some progress in their programmes for replacing stations or upgrading premises. Maintenance schedules for buildings have been met, in general terms, but caution has been urged where ongoing cuts in the finance for this work could result in a greater degree of deterioration and in consequence even higher costs.

223. In the Central Region Fire Brigade the main administration building at Headquarters has been extended to provide a range of facilities such as a lecture room, video and graphics room, as well as dining/mess room accommodation. At station level



the established programme of window replacements continued at Alloa and Tillicoultry but further progress was halted due to financial cuts.

224. The construction of the new station to replace the Whithorn unit of Dumfries and Galloway Fire Brigade was started during the year with the estimated completion date being early in 1994. The Brigade considers that a replacement for the New Galloway Fire Station is necessary and in spite of the fact that a site has been purchased, it has not been possible to allocate funds for the development of the project.

225. The Fife Fire and Rescue Service has continued with its phased programme for the Headquarters premises and has completed its first 2 projects, which included the construction of a new Control Room suite and the relocation of the Service Stores, to provide better and more readily accessible facilities. Although the Service's premises are generally sound, it is considered that Newburgh Fire Station should be replaced.

226. In the Grampian Fire Brigade a conversion was carried out during the year at King Street Fire Station in Aberdeen to provide accommodation for the Fire Safety Department. Planning approval has now been obtained to build a fire station to replace the premises at King Street and work on this project is due to commence in 1994. Work also continued on the construction of the new station at Peterhead which is estimated to be ready for occupation by mid-1994. Alterations have also been carried out at Elgin Fire Station, where an upgrading was necessary to the kitchen and dining room facilities.

227. The Highland and Islands Fire Brigade because of its development at Seafield Road, Inverness where the new Fire Control and Workshops are to be provided, has had to limit other capital projects. New garages for the Shawbost, Stronsay and Westray volunteer units of the Brigade have, however, been provided. The upgrading and refurbishment of the wholtime station at Inverness is being contemplated; such a project would be supported by the Inspectorate.

228. In the Lothian and Borders Fire Brigade the extension and alterations to the Sighthill Fire Station were completed during the year. The facilities now provided include a new lecture room, drying room and fitness room. The construction of the new Fire Station at Newcraighall in Edinburgh was also started during 1993; it has an estimated completion date of late 1994. At the Macdonald Road Fire Station work is progressing on the conversion of former auxiliary fire service accommodation into classrooms for Brigade and industrial training courses.

229. In the Strathclyde Fire Brigade work on the construction of the new Fire Station at Kilmarnock has been progressing and its completion is expected at the end of 1993. Work on the replacement for the North West Fire Station in Glasgow, using the same brief and design adopted at Kilmarnock, is due to start at the end of 1993. Alterations to the premises at Ardrossan Fire Station are also due to start at the end of the year. This will convert the premises into an Area Command, as part of the Brigade's restructure plan.

230. Although the construction of the new Fire Control building for Tayside Fire Brigade has been completed, the mobilisation equipment which it will use has not yet been installed. It is estimated, however, that the facility will be operational in early to mid-1994. Work on a new Divisional Headquarters unit at Perth Fire Station was started during the year and is due for completion early in 1994.

231. The various projects mentioned above indicate only a small selection of the work that brigades are carrying out in developing, renovating and maintaining their premises. Incorporated into the many schemes is the important subject of energy conservation which should not only save fuel but also provide a more cost efficient system of heating for the premises.

## **Equipment**

232. The move to provide hydraulically-powered rescue equipment on at least one first line pumping appliance on each station is now well advanced in most brigades. Where the programme is nearing completion, the need or advisability of augmenting

this facility with other forms of rescue equipment, such as air bag styled jacking units, is currently under consideration.

233. Volunteer units in the Highland and Islands and Strathclyde Fire Brigades continue to be upgraded in terms of personal protective clothing and in the provision of breathing apparatus. A number of units are now also equipped with suits designed to enable a response to chemical incidents.

234. Stores' records for transport, uniform and other equipment are now fully computerised in the Grampian Fire Brigade and a similar system is currently being established in Lothian and Borders Fire Brigade. This is a feature which should prove of considerable benefit in enabling a more accurate monitoring and closer control over the items issued and the stock carried, and which, in turn, should give a more efficient and cost effective system of operating.

235. The ever-increasing response by brigades to non-fire emergencies such as road traffic accidents or chemical-based incidents means, of necessity, that a correspondingly more comprehensive range of sophisticated specialist equipment is being carried for use in this area of operational activity. Ensuring staff are familiar with and trained in the use of any additional equipment carried is an important part of all brigade training programmes.

236. In July 1993, the Fire Research and Development Group based at the Fire Service College completed a survey of the usage, design and storage of ladders in a representative group of brigades. The results are still being analysed but some interesting facts are emerging. There was a relatively high usage of the longer ladders with the triple extension ladder being by far the most popular, having been deployed at more than half of all ladder incidents forming part of the study. Work is ongoing to distil and define the statistical information and further reports on this research will follow.

237. Existing breathing apparatus guideline procedures are presently the subject of review by the FEU. The study will examine what, if any, alternative solutions may be now available with the advent of modern technology. Trials were conducted on new lines being developed by Strathclyde and London Fire Brigades at the end of August 1993 as part of a project being organised by a steering group of the Joint Committee on Fire Brigade Operations. Reports will be made on any advances made as the research progresses.

## **Uniform**

238. The results of detailed and exhaustive evaluation of personal protective clothing for firefighters are now being manifested in the changes occurring on the fire ground. A new style of firefighting uniform consisting of tunics and over-trousers, fire boots, helmets and protective gloves - all subject to more exacting specifications - are now being issued by brigades and afford personnel a greater degree of protection from the hazards likely to be encountered.

239. It should be understood, however, that the increase in the heat insulation associated with the new generation of personal protective clothing imposes a greater thermal load on firefighters, such that their body heat is more difficult to dissipate. Whilst brigades have welcomed the textile industry addressing the needs of firefighters, there are concerns that the additional insulation achieved by garments meeting the performance requirements of Specification A26 (the Home Department's standard for the production of protective clothing) might result in an unacceptable increase in the thermal load on firefighters. A study has been commissioned to examine the balance of personnel protection against thermal loading and the work is being carried out by the Institute of Occupational Medicine based in Edinburgh. Since the study started, much valuable data has been compiled on the various research components and, following the final analyses, it is hoped that the researchers will be able to make recommendations concerning which of the existing forms of outer garments should be worn by firefighters and detail any design or material changes that would be of benefit.

240. In an almost parallel way, a research project is investigating whether there are any inherent dangers to firefighters wearing balaclava-style hoods due to the possibility of increases in heat stress, burn risk, or any compromise of the breathing apparatus face - mask seal. The possibility of firefighters becoming less sensitive to increases in the ambient temperature when wearing such a hood is yet another factor for consideration. Initial trials have taken place but more research is planned before the collation of meaningful results can be made and reported.

## **Telecommunications**

241. The Scottish Office Directorate of Telecommunications has continued throughout 1993 in its support of the communications activities of the Scottish fire brigades. As well as being the regulatory body for the brigades' radio spectrum allocations, the Directorate has contributed to the evolution of the brigades' systems to give improved usage and to the resolving of interference problems.

242. The review of Scottish Fire and Police Service radio communications, commissioned by the Directorate, has been completed and the resulting Fire Service requirements taken forward with the findings of the Home Office Major Review in the Public Safety Radio Communications Project (PSRCP). The Directorate and Scottish brigade representatives are participating fully in the PSRCP, which is working towards a long-term strategy for the replacement of Fire and Police radio systems with modern digital technology. The specific requirements of Scottish brigades are being addressed in the early consultancy stages of this work.

243. Radio channels for inter-agency use have been allocated for deployment at major incidents to provide direct communications between the emergency services. A protocol covering the use of these radio channels has been issued by the Directorate, with arrangements for operational deployment agreed on a regional basis between the services.

244. The Directorate is supporting the on-going development of radio based mobilisation communications' standards to ensure that a full range of standards covering the operational use of radio systems in Scotland is available to brigades.

# SECTION G: MISCELLANEOUS

## Scottish Central Fire Brigades Advisory Council

245. The SCFBAC meetings held on 11 June and 16 December 1993 were chaired by Mr J Hamill, Secretary, The Scottish Office Home and Health Department and considered reports from the range of Joint Committees of the Central Fire Brigades Advisory Councils. This provided an opportunity for full discussion on each of the summarised reports and allowed members to seek explanations for, and comment on, the work carried out by each of the Joint Committees.

246. At the June meeting of the Council, the Commandant presented a report of the work of the SFSTS covering the 12 month period up to 31 March 1993.

## Joint Committee on Fire Brigade Operations

247. Following the issue of the Health and Safety Commission's The Management of Health and Safety at Work Regulations 1992 the Home Office and the Chief and Assistant Chief Fire Officers' Association are jointly preparing guidance on risk assessment criteria. The recommendations will eventually be put to the Joint Committee for ratification prior to being issued as guidance to the fire service.

248. The Home Office consulted the HSE regarding specific exemption from certain requirements of the Noise at Work Regulations 1989 as applied to the fire service. It is expected that the HSE will concede the minimal changes sought and brigades will be notified in due course of the outcome of the discussions.

249. The Home Office Fire and Development Group is carrying out research into suggested amendments to the current guidance on the procedures governing the use of guidelines by breathing apparatus wearers. The Joint Committee will be notified of the results of the research.

250. Further guidance is to be issued to the fire service on the subject of Firefighting and Rescue Operations in Mines as there is a growing trend of local authority fire brigades being asked to assist at such incidents.

251. The Joint Committee on Special Appliances prepared a report to the Joint Committee on Fire Brigade Operations relating to the provision and siting of special appliances, with particular reference to aerial appliances. It was agreed by the Operations Committee that such advice would be promulgated to the fire service in a "Dear Firemaster" letter.

252. The Operations Committee agreed that a working group should be convened to review the current advice relating to the equipment to be carried on appliances providing the initial attendance to road accidents and other incidents having a rescue potential.

253. Other matters considered by the Operations Committee included the following:

- i. Major Incident Emergency Procedures.
- ii. Large Fires Project.
- iii. An Assessment of Personal Radiation Dosimeters for Fire Service use.
- iv. Review of Evacuation Procedures.
- v. Fatality Identification Systems.
- vi. Traffic Calming Measures (Road Humps).
- vii. Appliance Water Tank Capacity.
- viii. Smoke Control in Firefighting Shafts.
- ix. A general revision of Fire Service Circulars relating to Health and Safety matters.

## **Joint Training Committee**

254. The Committee agreed the issue to the fire service of advice on First Aid Training and Casualty Handling. Compliance with this guidance will enable brigades to meet the requirements of the Health and Safety at Work (First Aid) Regulations 1981 and the Approved Code of Practice on First Aid at Work. At the end of the year virtually all Scottish brigades had embarked on a programme to provide an adequate number of qualified first aid instructors and trainers. The 7 brigades with Occupational Health Schemes will have naturally benefited from the expertise of the Occupational Health staff who are qualified to both teach and examine students in first aid.

255. The Working Party on the Recruit Training Syllabus is preparing a framework syllabus which will take into account initial training needs, development skills and core competencies applicable to entrants to the fire service as well as additional material supplied by the Training Strategy Group. The final report on the framework syllabus for consideration by the Committee is not expected, however, until the autumn of 1994.

256. Good progress is being maintained by the Working Party on Realistic Training and again a framework document is nearing completion. The Working Party has also discussed the use of live casualties in training and guidance on this subject will be included in the final report to be considered by the Committee.

257. A consultant's report on the introduction of NVQs into the Local Authority Fire Service was issued to fire brigades towards the end of 1993. Brigades have been asked by the Home Office if they would participate in the pilot trials of the qualifications. Several brigades have indicated a willingness to take part in such trials which will commence in early 1994.

## **Joint Committee on Appliances, Equipment and Uniform**

258. To protect the exposed face and neck areas of firefighters in the event of a flash-over it was agreed that the issue of a balaclava type hood could possibly provide adequate protection. Consequently a research project was commenced to determine design features and performance requirements. It is expected that a suitable specification for this item will be available to the fire service by the autumn of 1994.

259. The HSE informed the Home Office that 3 organisations, namely the British Standard Institution, INSPEC Certification and SGS United Kingdom Ltd have been accredited for the certification and testing of respiratory protective equipment. In addition, British Coal (TSRE), and INSPEC Testing and Racal Health and Safety have been accredited to test breathing apparatus. As a result of this the HSE decided to withdraw from the routine certification of breathing apparatus with effect from 1 July 1993.

260. A specification has been prepared for an electronic evacuation signal device which will emit a sound similar to that of the ACME thunderer whistle. The electronic device could be carried by breathing apparatus wearers in place of the current whistle issue.

261. The Technical Sub-Committee of the Joint Committee are reviewing the guidance on the testing of fire brigade equipment. It is expected that the completed recommendations will be issued to the service as a Technical Bulletin rather than being an annex to the Fire Service Training Manual.

262. A Working Party set up to discuss the current specification for Control Room staff uniforms has held discussions with a range of manufacturers and trade outlets. A consultant has been engaged to assist with the evaluation of materials and design and it is hoped that the new specification will be available to the Fire Service in early 1994.

263. A recently completed research project into the design and layout of fire appliance locker storage systems was presented to the members of the Joint Committee. It was

agreed that the information should be issued to the fire service for the benefit of brigade engineers and those concerned with the design specifications of future fire appliances. Consideration needs to be given to the storage and removal of equipment in order to comply with the advice contained in the HSE's Manual Handling Operations Regulations 1992 which came into effect on 1 January 1993.

## **Joint Committee on Fire Brigade Communications**

264. The report of the "Major Review of Radio Communications in the Police and Fire Services" for England and Wales has concluded that in view of the number of areas where the user requirements of the Fire Service and Police Service coincide both services should proceed on the basis of common technologies and standards and shared system infrastructures where this is practicable and cost effective. These recommendations have now been endorsed by Ministers.

265. As stated in the 1992 Report consultants were appointed by The Scottish Office Directorate of Telecommunications to produce a Scottish Fire Service User Requirement for Radio Communications along with recommendations as to the implications for the Scottish Fire Service of the Major Review being carried out for England and Wales. The Consultant's report concluded that the differences in the requirements did not have any major implications for Scotland. However, when combined with issues such as frequency spectrum and radio traffic densities, the England and Wales strategy could impact significantly on Scotland. It was, therefore, decided to join forces with England and Wales in the development stage of the Major Review. The development programme, now known as the "Public Safety Radio Communications Project", will examine a wide range of technical and financial issues including the affordability and cost effectiveness of the technologies proposed in the review and the suitability of the technology and standards for the Police and Fire Service use.

266. A Technical Working Group has been established to support the Inspectorate which will advise on technical aspects of the Public Safety Radio Communications Project, which could have implications for the Fire Service in the United Kingdom.

267. A "Mercury Code of Practice" and a "Personal Communications Network (PCN) Code of Practice" have been issued to brigades during the year. These documents have been agreed between the respective operators and Emergency Authorities through the auspices of the 999 Liaison Committee and will be subject to regular review.

## **Joint Committee on Fire Research**

268. The Committee met twice during the year and considered various fire related projects, as set out in the Strategic Plan for Fire Research. The work of the Fire Research and Development Group is divided into 4 main categories: fire prevention and protection; firefighting equipment; fire service support; and other support.

269. During the year the Committee considered 2 Summary Reports and a research project, brief details of which are given below.

270. One of the recommendations made by the Joint Working Group on Chernobyl was that, "research be undertaken to identify or develop an electronic integrated (radiation sensing) device, preferably one which incorporates facilities for both personal and dose rate monitoring, suitable for use in the fire service". The research contract was awarded to the Dosimeter and Instrumentation Department of the National Radiological Protection Board (NRPB). However, they advised that a combined dosimeter and electronic integrated dose rate survey meter was impractical, as the dose rate elements of the meter would not be sufficiently sensitive or accurate for use as a survey meter. It was identified that 2 currently available dosimeters and 2 prototypes were appropriate for testing. The research programme conducted by the NRPB and the FEU revealed that none of the dosimeters met the specification, but 3 of the products were considered suitable provided appropriate modifications were made. These were

carried out and the dosimeters re-tested. Two are now available for purchase and the manufacturer of the remaining prototype is considering whether to go into production.

271. In the second Summary Report the Home Office estimates that only 10% of all domestic fires occurring in England and Wales ever come to the attention of the fire service, either because the remaining 90% extinguish themselves or are extinguished by home owners without professional assistance. Consequently such fires are not reflected in the United Kingdom Fire Statistics. Many of those who tackle fires in the home do so successfully and emerge without injury. Others are not so successful and receive burns or smoke injuries. Previously, most statistical analyses had been limited to fires attended by the fire service. A project was undertaken by the Research Institute of Consumer Ergonomics based at Loughborough University under contract to the Fire Research and Development Group of the Home Office, to investigate domestic fires in which injury was incurred but which did not necessarily come to the attention of the Fire Service. Although the sampling was much less than ideal the research produced results broadly in line with other findings. In particular, it showed that many casualties were willing to tackle a fire in their own home at the risk of injuring themselves, rather than have their dwelling burn down. The majority of casualties have since taken some action to prevent the same accident happening again. Many have bought thermostatically controlled chip pans and smoke alarms. Although the fire or smoke was the direct cause of many of the injuries received, it was often the action of the casualties that led to the injury, had they behaved differently, injury might not have occurred. Overall, the study provided a useful insight into people's behaviour when confronted by fire, which is often unattainable from fire brigade sources alone and highlighted areas of advice that need to be re-emphasised.

272. The research project was a study into the potential toxic hazards associated with fire involving materials based on polytetrafluoroethylene (PTFE). The high thermal stability of PTFE has been recognised for a number of years but major uncertainty existed about the toxicity of its decomposition products when it eventually thermally degraded. A series of small-scale experiments confirmed that, although PTFE has good fire resistance properties, when finally combusted it generates products that are approximately 10 times more toxic than those from other materials, ie the "normal" toxic products. Moreover, under certain conditions so called super toxic products are formed that are approximately one thousand times more toxic than those emitted from most other materials. Although all the questions concerning the toxic hazards from PTFE have yet to be answered a number of technical details have been identified which should assist in the understanding of the material's characteristics and the precautions that may be necessary in the protection of firefighters.

273. At present there are some 47 fire related studies being undertaken within the Strategic Plan, a few of which are listed below along with a brief explanation of the objective of the project.

- i. *Domestic Smoke Alarms (Tameside)* — To obtain information to assist in determining the extent to which the use of these devices can reduce fatalities and injuries, and hence to what extent fire safety resources should be channelled to this rather than other measures.
- ii. *A Study of the Degree of Protection Afforded by Firefighters' Clothing* — To investigate both the protection afforded to and any additional thermal load imposed on the firefighter by the wearing of tunics, complying with the Home Departments' standard, and over-trousers in hot environments. To study the practicality of adopting other forms of outer garments as tunics manufactured in accordance with the Home Departments' standard. To evaluate the available protective clothing systems based upon the layered approach.
- iii. *Foams, Tactics and Equipment for the Fire Service* — To survey the whole field of firefighting with foams, in order to bring together the existing knowledge and advice, and to assess the areas where further research is required. To initiate research into areas where such research is considered important.

- iv. *Effectiveness and Safety of Fire Hoods* — To ascertain the types of protective hoods worn by firefighters and the circumstances in which they are used and to investigate the inherent dangers to firefighters when wearing balaclava type anti-flash hoods.
- v. *Accidents to Firefighters* — To produce a report on the number, type and cause of injuries to firefighters.
- vi. *Firefighter Mortality Study — A Second Follow-Up* - To confirm the original findings of the mortality study covering the years 1965 to 1986 and to determine whether the incidence of contracting cancer amongst firefighters, is different to that expected for the general population.
- vii. *Computer Facilities* — To provide, and keep operational, equipment used on fire research.

## **Other Joint Committees**

274. For comments on the activities of the Joint Committee on Equal Opportunities see paragraph 82, of the Joint Fire Prevention Committee see paragraphs 176 to 183 and of the Joint Pensions Committee see paragraph 81.

## **Civil Defence and Emergency Planning**

275. In light of the changed international situation, particularly in Eastern Europe, the posts of Zone Fire Commander (designate) established at Firemaster rank, were de-designated from 9 September 1993. The funding for the 2 Regional Staff Officers, employed in support of the 2 Zone Fire Commanders (designate) will therefore cease from 31 March 1994.

276. Funding will continue to each brigade for a Brigade Emergency Planning Staff Officer who is responsible to his Firemaster for the preparation and updating of the Brigade's Civil Defence and other Civil Emergency plans.

277. In June all Scottish brigades were sent a copy of a model war plan produced for England and Wales and asked to comment on whether it was appropriate for use in Scotland. It was generally accepted as being suitable and would serve to standardise the plans throughout brigades. The acquisition of this model would also remove the heavy workload of continually updating existing plans.

278. Fire brigade personnel also participated in many local exercises in Scotland held under the auspices of Local Authorities, Control of Industrial Major Accident Hazards (CIMAH) site operators and others. The type of exercises undertaken varied from a ferry evacuation to simulated train crashes.

279. In the period October to November The Scottish Office Home and Health Department sponsored a third series of general emergency courses for Local Authority support and emergency services. A cross section of Scottish fire brigade personnel participated and Strathclyde Fire Brigade provided an input on each of the 6 courses in respect of the "Role of the Fire Brigade in Civil Emergencies". Brigade personnel also participated at other national and local training initiatives.

## **The Fire Information and National Database Service (FINDS)**

280. This service has been in operation since 1988 and in its present updated form since 1991. It is a computer network linking all United Kingdom Fire Brigades, the Fire Service College, the Fire Inspectorates and other fire-related organisations. The central computer and staffing is at CACFOA Headquarters, Tamworth.

281. FINDS includes an electronic mail facility which enables messages to be sent quickly to targeted users and is the recognised means of collecting information about



common activities. The databases are already extensive and steadily growing to become a valuable source of reference.

## **Fire Services National Benevolent Fund**

282. This year marked the 50th Anniversary of the Fund, whose first Chairman was Baillie (later Sir Andrew) Murray of the Scottish Home Department. In its Jubilee Year Scotland was privileged to provide the Chairman, with Firemaster Ian Adam QFSM, Central Region Fire Brigade being elected to the position at the National Annual General Meeting held at the Fire Service College.

283. Although the preliminary figure of income to the Benevolent Fund in the U.K. shows a 7.6% decrease compared to 1992, it is pleasing to note that in Scotland income has increased by 20.4% to £185,627. However, in 1993 expenditure in Scotland also increased from £69,241 in 1992 to £75,866.

284. The success of the Fund depends greatly on the many volunteers throughout the country who help not only in fund raising but also in visiting those in need and by carrying out work at the Fund's 2 convalescent centres. The Fund continues to assist widows, orphans and in many cases hardship and educational grants are disbursed in addition to grants to young disabled children and disabled former members.

285. During the year, in celebration of the Anniversary, a reception for approximately 900 dependants and supporters of the Fund was held in London's Guildhall in the presence of the Fund's Patron, Her Majesty The Queen. At the reception, which was hosted by the Corporation of the City of London, appreciation was expressed for the work of the Fund and its members. In Scotland, the Anniversary was marked by a Commemorative Service and reception in The Church of the Holy Rood and at Stirling Castle.

286. The decision that the Fund should embark on the provision of therapy and respite care, along with sheltered housing, resulted in the purchase of ground at Eamont Bridge, Penrith. A contract has been placed for the construction of a new centre and sheltered units there with a completion date expected in late 1994.

287. The support of the many volunteers and the public is greatly appreciated and I wish to record my thanks to all those who associate themselves with the good work of this essential Fund.

## **Competitions**

288. To test firefighters' knowledge and skills of fire technology and first aid CACFOA organises annual competitions on these topics. Teams from throughout the UK may enter at local level with the winners of the qualifying rounds progressing to District or National finals. This year the National Final of the First Aid Competition, which is open to Wholetime, Retained and Control personnel, was held at the Fire Service College with the Strathclyde Fire Brigade again providing the Scottish representation. Leading Firefighters Ruth and McLure of that Brigade were runners up to Staffordshire in the Men's Competition.

289. The Fire Service Technical Quiz has been held on an annual basis for the past 30 years, with entry restricted in alternate years to either Wholetime or Retained teams. The Quiz, which is funded by the Fire Research and Training Trust, is designed to encourage the acquisition of technical knowledge in relation to the work of the operational firefighter. In 1993 the competition was held for Retained personnel. Strathclyde Fire Brigade hosted the Scottish Final where 5 of the 8 Scottish brigades were represented. The winners, Kirriemuir Fire Station of Tayside Fire Brigade represented Scotland at the National semi-final. The eventual winners of the Quiz were Tarporley Fire Station of the Cheshire Fire Brigade.

## Fire Service Sports and Athletics Association

290. Perhaps more than many other professions, the Fire Service depends on good teamwork to secure an optimally effective service to the public. Although there are many facets to be considered in the development of the team and a team spirit, it must be said that the existence of an active and enthusiastic Sports and Athletics Association within our discipline serves to complement the building of that asset. Participation is undertaken, with not a small degree of success, in a wide range of sporting activities.

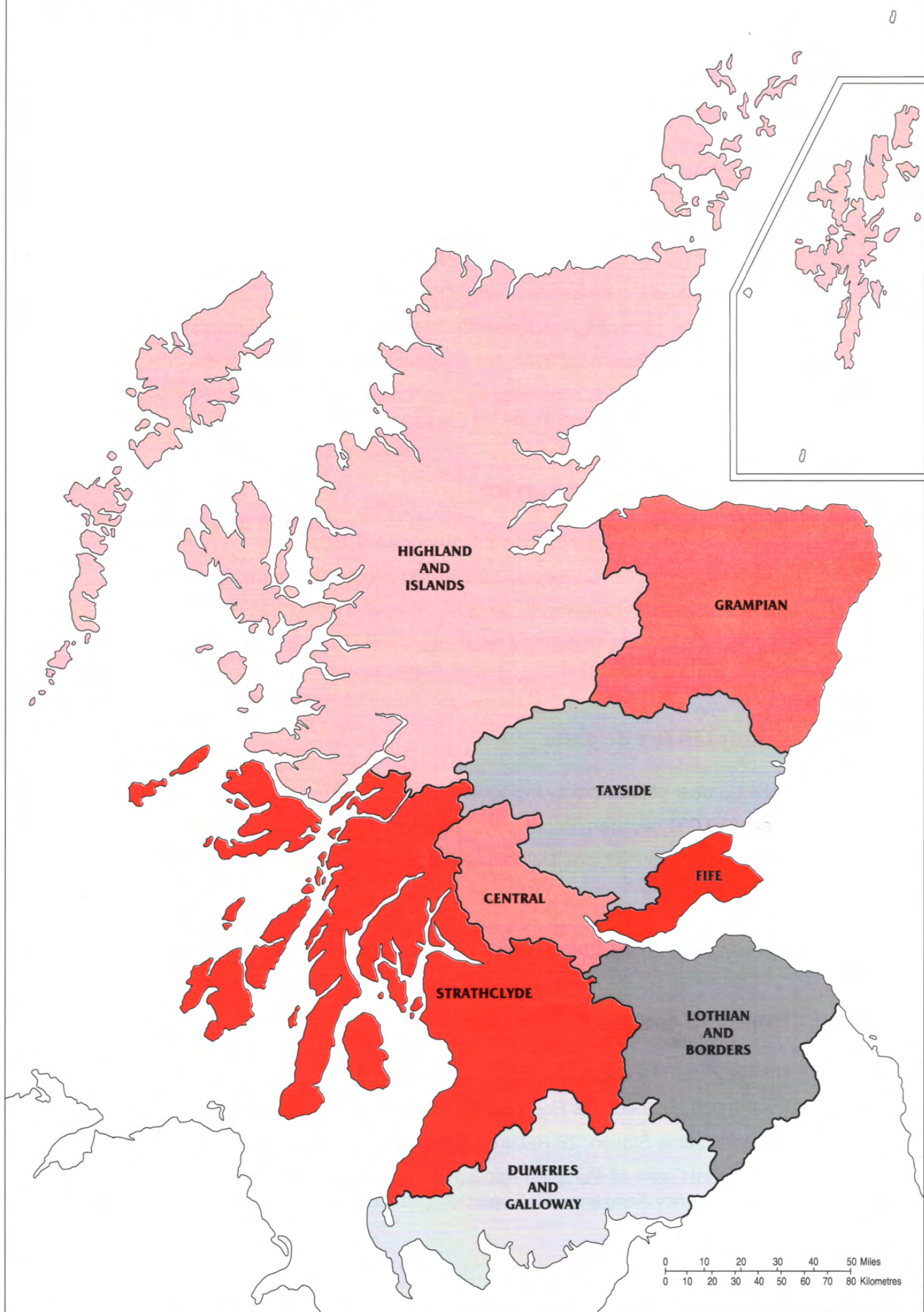
291. Angling section events attracted a significant participation by members of Scottish brigades and, in addition to the myriad of events conducted north of the border, the prestigious European Course Angling Championship, held in Northern Ireland, resulted in team honours going to the UK No 2 squad which included a Scottish element. Five anglers won 3rd team placings at the National Game Angling Championship and a Scots team held 4th position at the Pike National Championships in Dumfries and Galloway. Sea anglers were out in force with creditable placings by Lothian and Borders at Rhyl in Wales and Scots teams, for the second year in succession, won the "Skol" International Team Trophy and Retired Members' Tour Trophy at the National Championships at Ramsgate in Kent.

292. Athletic events, both at home and abroad, are going from strength to strength, thanks to new recruits and renewed interest. Scottish League participation remains very active with both road and cross-country events being well attended. International races in Holland, Germany and America witnessed Scots entrants in good finishing positions.

293. The Football Section chose Edinburgh as the venue for the Scottish Cup Final with teams from Tayside and Strathclyde in opposition. After a close competition the Tayside team emerged victorious. Strathclyde's 'C' Division team redressed the balance, however, by winning the Scottish League with a maximum of 16 points. A successful season was enjoyed by the Rugby Section, where participation at national and international level met with varying degrees of success. Cricket is slow to gain a foothold in Scotland, although the UK squad was captained by a member of Strathclyde Brigade in 1993. The Golf Section remains ever popular and, at the 4 Nations Gold Championship held in Manchester, prizes were won by golfers from Strathclyde and Dumfries and Galloway while, at a Glasgow venue, the Scottish Open was won by Tayside.

294. Bowling in Fire Service circles has, in the past, been very much a male dominated event and it is pleasing to note that in 1993, 2 female representatives from Dumfries and Galloway won their first event. In the Squash and Volleyball Sections some participants were selected for representation honours at UK level, whilst in Curling 6 brigades entered teams for a full day's competition in Perth. After a closely fought final, the Grampian team emerged narrow winners over Tayside.

# SCOTTISH FIRE BRIGADES



## **Central Region Fire Brigade**

Total Number of Emergency Incidents Attended: 4,680

Area: 263,609 hectares Population: 268,300 Population per hectare: 1.0

4 Wholetime Stations, 11 Retained Stations and 3 Volunteer Units.

Operational Fleet: 26 Pumping Appliances, one Aerial Appliance and 5 Special Appliances.

## **Dumfries and Galloway Fire Brigade**

Total Number of Emergency Incidents Attended: 2,595

Area: 637,006 hectares Population: 147,700 Population per hectare: 0.2

One Wholetime Station, 15 Retained Stations and 2 Volunteer Units.

Operational Fleet: 21 Pumping Appliances, one Aerial Appliance, 2 Emergency Tenders and 3 Special Appliances.

## **Fife Fire and Rescue Service**

Total Number of Emergency Incidents Attended: 6,158

Area: 130,006 hectares Population: 340,100 Population per hectare: 2.6

6 Wholetime and 8 Retained Stations.

Operational Fleet: 21 Pumping Appliances, 2 Aerial Appliances, 2 Emergency Tenders and one Special Appliance.

## **Grampian Fire Brigade**

Total Number of Emergency Incidents Attended: 7,816

Area: 870,000 hectares Population: 493,800 Population per hectare: 0.6

3 Wholetime Stations, one Day-manned Station, 34 Retained Stations and 2 Volunteer Units.

Operational Fleet: 55 Pumping Appliances, 3 Aerial Appliances, 3 Rescue Tenders and 6 Special Appliances.

## **Highland and Islands Fire Brigade**

Total Number of Emergency Incidents Attended: 5,173

Area: 3,069,200 hectares Population: 280,600 Population per hectare: 0.1

One Wholetime Station, 28 Retained Stations and 98 Volunteer Units.

Operational Fleet: 47 Pumping Appliances, one Aerial Appliance, one Emergency Tender and 3 Special Appliances.

## Lothian and Borders Fire Brigade

Total Number of Emergency Incidents Attended: 17,303

Area: 642,531 hectares Population: 827,400 Population per hectare: 1.3  
13 Wholetime and 22 Retained Stations.

Operational Fleet: 47 Pumping Appliances, 5 Aerial Appliances, 3 Rescue Tenders and one Special Appliance.

## Strathclyde Fire Brigade

Total Number of Emergency Incidents Attended: 64,267

Area: 1,386,127 hectares Population: 2,219,100 Population per hectare: 1.6  
38 Wholetime Stations, 44 Retained Stations and 31 Volunteer Units.

Operational Fleet: 121 Pumping Appliances, 11 Aerial Appliances, 9 Rescue Tenders and 6 Special Appliances.

## Tayside Fire Brigade

Total Number of Emergency Incidents Attended: 8,970

Area: 750,104 hectares Population: 385,100 Population per hectare: 0.5  
6 Wholetime Stations, 15 Retained Stations and 4 Volunteer Units.

Operational Fleet: 38 Pumping Appliances, 3 Aerial Appliances, 6 Rescue/ Emergency Tenders and 4 Special Appliances.

## Footnote:

Pumping Appliance -	General fire-fighting appliance with water carrying and pumping facilities
Aerial Appliance -	Turntable ladder or hydraulic platform used for rescue and water tower purposes.
Rescue Tender/ Emergency Tender -	Appliances carrying specialist equipment for support at fires, major incidents and special services.
Special Appliances -	Include foam tenders, salvage tenders, demountable pod systems, command and control units and other specialist appliances.

## ESTABLISHMENT AND STRENGTH OF FIRE BRIGADES AS AT 31 DECEMBER 1993

	Central			Dumfries & Galloway			Fife			Grampian			Highland & Islands			Lothian & Borders			Strathclyde			Tayside			Scottish Total					
	Estab- lishment	Actual Strength		Estab- lishment	Actual Strength		Estab- lishment	Actual Strength		Estab- lishment	Actual Strength		Estab- lishment	Actual Strength		Estab- lishment	Actual Strength		Estab- lishment	Actual Strength		Estab- lishment	Actual Strength		Estab- lishment	Male	Female			
		Male	Female		Male	Female		Male	Female		Male	Female		Male	Female		Male	Female		Male	Female		Male	Female				Male	Female	Male
<b>Wholtime Operational</b>																														
Firemasters	1	1		1	1		1	1		1	1		1	1		1	1		1	1		1	1		1	1		8	8	
Assistant Firemasters	1	1		1	1		1	1		2	2		2	2		2	2		2	2		2	2		1	1		15	15	
Senior Div. Officers																												14	14	
Div. Officers I	1	1		1	1		1	1		3	3		3	3		3	3		3	3		3	3		5	5	18	18		
Div. Officers II	4	4		2	2		4	4		1	1		4	4		4	4		4	4		1	1		6	6	35	38		
Div. Officers III				2	2		2	2		6	5		3	3		14	14		8	8		8	8		35	35	35	34		
Asst. Div. Officers	9	9		8	8		9	9		15	15		11	11		21	20		20	20		13	10		132	121				
Station Officers	17	17		10	10		37	33		37	35		8	8		53	48		48	48		37	35		391	331				
Sub-Officers	27	27		10	10		29	28		30	30		7	7		72	69		69	69		36	39		432	436				
Leading Firefighters	32	28		12	12		64	58		59	56		14	14		100	89		89	89		44	43		554	545				
Firefighters	148	151		52	51		234	236		179	181		52	51		477	459		459	459		263	258		2,859	2,887		7		
Totals	240	239		99	98		382	373		332	329		102	101		745	706		706	706		409	400		4,493	4,447		7		
<b>Control Room Staff</b>																														
PFC Officers																														
GFC Officers	1	1														1	1		1	1		1	1		1	1		3	2	
FC Officers				1	1		1	1		1	1		1	1		5	5		5	5		4	4		1	1		15	2	
SFC Operators	4	1		3	1		4	4		5	5		4	3		4	4		4	4		7	2		3	3		33	5	
LFC Operators	4	1		3	4		4	4		4	6		4	4		4	4		4	4		8	7		4	3		36	3	
FC Operators	8	2		6	9		12	5		12	11		8	8		16	3		3	12		12	45		5	40		9	119	
Totals	17	5		15	1		21	5		22	1		17	1		30	4		4	25		67	10		57	16		207	30	
<b>Part-time Retained</b>																														
Station Officers	3																													
Sub-Officers	14	12		16	16		8	8		35	36		28	28		25	25		25	25		19	17		198	195				
Leading Firefighters	17	18		20	20		10	9		60	84		56	57		32	29		29	29		31	36		289	313		1		
Firefighters	136	122		4	157		162	162		370	305		287	284		233	229		229	229		237	186		2,017	1,825		24		
Totals	170	152		4	193		198	198		476	437		394	382		295	287		287	287		294	246		2,553	2,378		25		
<b>Part-time Volunteer</b>																														
Asst. Div. Officers																														
Station Officers																														
Sub-Officers										3	3		95	94		2	2		2	2		31	28		4	4		99	98	
Leading Firefighters	3	2		2	2		5	5		5	5		87	88		8	8		8	8		4	4		132	129				
Firefighters	21	9		18	15		24	20		20	9		787	735		20	20		20	20		31	217		4	4		1,115	1,037	
Totals	24	11		20	17		32	28		32	9		974	922		22	22		22	22		265	245		4	4		1,351	1,269	
<b>GRAND TOTALS</b>																														
Wholtime	240	239		99	98		382	373		332	329		102	101		745	706		706	706		409	400		4,493	4,447		7		
Control Room Staff	17	5		15	1		21	5		22	1		17	1		30	4		4	25		67	10		57	16		3	16	
Part-time Retained	170	152		4	193		198	198		476	437		394	382		295	287		287	287		294	246		2,553	2,378		25		
Part-time Volunteer	24	11		20	17		32	28		32	9		974	922		22	22		22	22		265	245		4	4		1,351	1,269	
<b>GRAND TOTALS</b>	<b>451</b>	<b>407</b>		<b>327</b>	<b>314</b>		<b>515</b>	<b>478</b>		<b>862</b>	<b>795</b>		<b>1,487</b>	<b>1,406</b>		<b>39</b>	<b>997</b>		<b>997</b>	<b>997</b>		<b>757</b>	<b>695</b>		<b>8,604</b>	<b>8,124</b>		<b>248</b>		



## SUMMARY OF FIRES AND SPECIAL SERVICES WHICH HAVE OCCURRED IN 1993

Fire Brigade	Total Fires	Classification of fires by number of pumps used for firefighting purposes:						Chimney Fires	Second-ary Fires	False Alarms			Special Services	Totals
		(a) 1 pump	(b) 2 pumps	(c) 3/5 pumps	(d) 6/10 pumps	(e) 11/15 pumps	(f) Over 15			Good Intent	Appara- tus Faulty	Malicious		
Central	840	736	80	23	1			328	937	920	671	694	290	4,680
Dumfries & Galloway	502	447	37	17	1			584	282	531	163	280	253	2,595
Fife	1,185	1,162	21	2				565	1,241	1,170	559	976	462	6,158
Grampian	1,570	1,360	141	67	2			1,094	1,142	1,809	721	628	852	7,816
Highland & Islands	728	624	97	6	1			2,026	539	932	224	334	390	5,173
Lothian & Borders	3,809	2,426	652	729	2			883	3,711	4,532	1,380	1,916	1,072	17,303
Strathclyde	10,942	9,831	923	178	8	2		1,800	17,113	11,632	4,956	13,970	3,854	64,267
Tayside	1,796	1,608	122	65	1			555	2,628	1,738	665	730	858	8,970
<b>Totals</b>	<b>21,372</b>	<b>18,194</b>	<b>2,073</b>	<b>1,087</b>	<b>16</b>	<b>2</b>		<b>7,835</b>	<b>27,593</b>	<b>23,264</b>	<b>9,339</b>	<b>19,528</b>	<b>8,031</b>	<b>116,962</b>



## MAJOR FIRES 1993

### REQUIRING AN ATTENDANCE OF 6 OR MORE PUMPING APPLIANCES

Date	Address	Type	Brigade
<b>January</b>			
5	Everard Drive, Glasgow	School	Strathclyde
9	Corbieton House, Castle Douglas	Hotel	Dumfries and Galloway
<b>March</b>			
4	Evanton Place, Glasgow	Industrial Premises	Strathclyde
<b>May</b>			
9	305 Calendon Road, Glasgow	Flats	Strathclyde
22	Main Street, Cambusland	College	Strathclyde
25	3 Park Gardens, Glasgow	Offices	Strathclyde
<b>June</b>			
3	Millerfield Road, Glasgow	Warehouse	Strathclyde
9	Clyde Street, Glasgow	Offices	Strathclyde
29	Seedhill, Paisley	Industrial Premises	Strathclyde
<b>July</b>			
4	Brimmond Hill, Westhill, Aberdeen	Grassland	Grampian
25	Nairn	Hotel	Highland and Islands
30	Mill Street, Paisley	Industrial Premises	Strathclyde
<b>November</b>			
22	Victoria Road, Dundee	Industrial Premises	Tayside

**December**

11	Bo'ness	Goods Yard	Central
21	High Street, Banchory	Hotel	Grampian
26	Hillcrest Road, Carmyle, Glasgow	School	Strathclyde

## FATALITIES AT FIRE INCIDENTS ATTENDED BY BRIGADES DURING 1993

Fire Brigade	Age Groups						Location - Building Type, Etc												Monthly Summary																
	Up to 5 Years	6 to 16 Years	17 to 40 Years	41 to 60 Years	61 to 75 Years	Over 75 Years	Total Fatalities	House	Flat in Block	Flat in Terrace	Flat over Shop	Caretaker's Flat	Hotel/Boarding House	Hospital/Home/Hostel	Caravan/Mobile Home	Vehicle	Industrial Premises	Commercial Premises Shop etc.	Place of Public Entertainment	Outside Area	Miscellaneous*	TOTAL	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL
Central			1	1	1	2	2	1	1													2	2												2
Dumfries & Galloway		2	2	2		6	3								3							6	2	2		1	2					1			6
Fife	2	3	9	2		16	10	1						3	1						1 <sup>1</sup>	16	5		3			1	2		3	2			16
Grampian		1	5	2		3	7	2						1							1 <sup>2</sup>	11	1		1	3	1				1	2	2		11
Highland & Islands	1		3			2	6															6			4			1			1				6
Lothian & Borders			4	7	7	2	5	9	4			1						1				20	4	3	4			2	1	1		2	3	2	20
Strathclyde	6	1	11	10	16	8	14	30	2			1	1		2				1	1 <sup>3</sup>	52	8	4	4	9	1	7	3	1	5	3	2	4	5	52
Tayside	5	1	3	3	1	3	5	7	2						2							16	1			2		2	2		3	3	3	16	
<b>Totals</b>	<b>14</b>	<b>8</b>	<b>37</b>	<b>27</b>	<b>24</b>	<b>19</b>	<b>51</b>	<b>50</b>	<b>8</b>			<b>1</b>	<b>2</b>	<b>4</b>	<b>8</b>		<b>1</b>	<b>1</b>			<b>3</b>	<b>21</b>	<b>9</b>	<b>21</b>	<b>5</b>	<b>12</b>	<b>5</b>	<b>6</b>	<b>10</b>	<b>3</b>	<b>10</b>	<b>14</b>	<b>13</b>	<b>129</b>	

- \*1. Garage at rear of house  
2. Barn  
3. Garden shed











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