

HOME OFFICE



# Safer Communities: Towards Effective Arson Control

The Report of the Arson Scoping Study



# FOREWORD

1. Arson is the largest single cause of major fires in the UK. As a growing problem, it has attracted increasing attention to the efforts to tackle it. At its worst, arson leads to loss of life and significant financial damage. But persistent and pervasive minor arson also sets a strongly detrimental (and visually harmful) tone to deprived communities. Arson is a complex and serious crime and carries a maximum punishment of a life sentence. It has a wide variety of causes: vandalism; playing with fire; crime concealment; revenge; fraud; and mental illness to name just a few. The number of arson fires both in their own right and as a proportion of the total has been increasing at a startling rate for some time. The number of malicious primary fires attended by the fire service now stands at over 75,000. The number has more than doubled over the past decade, as indeed have arson casualties over the same period of time.

2. The Arson Scoping Study was established to scope the arson problem in England and Wales. This was not intended to be a full-scale review of such a multi-faceted crime. Instead it would seek to provide Ministers with a snapshot of the current arson problem and highlight where the current arrangements were falling down. From discussions held during the course of the study, this report has been able to show which areas require further consideration. It proposes that these are incorporated within a broad programme of work to enable an effective and concerted national arson prevention effort to be put in place.

## *Arson Scoping Study: terms of reference*

3. The terms of reference for the scoping study were as follows:

*“To assess the existing national and local approaches in England and Wales for tackling the problem of non-accidental fires and associated activities. The project will be expected to:*

- ◆ *identify the size and cost of the problem;*
- ◆ *identify the different agencies who have or might have an influence in tackling non-accidental fires and examine the various approaches taken by these key players;*
- ◆ *set out the variety of motivational factors which lead to non-accidental fires being started;*
- ◆ *outline the main issues of concern over existing approaches (why non-accidental fires appear to be on the increase and why enforcement action is on the decline).”*

4. The study was conducted by Lorraine Watson of the Home Office Research, Development and Statistics Directorate. Additional support was provided by the

Home Office Fire and Emergency Planning Directorate and Bill Gough of the West Midlands Fire Service. Information was gathered from a wide range of interested organisations and individuals from both the public and private sector. Appendix A sets out the full list of participants which fell into the following broad categories:

- ◆ *Home Office*
- ◆ *Police Forces*
- ◆ *Fire Brigades*
- ◆ *Forensic Scientists*
- ◆ *Crown Prosecution Service*
- ◆ *Other Government departments*
- ◆ *Insurers and Loss Adjusters*
- ◆ *Arson Prevention Bureau*
- ◆ *Local Authorities*
- ◆ *Social Services*
- ◆ *Psychologists*
- ◆ *Fire Investigation Trainers*
- ◆ *Legal professionals*
- ◆ *NACRO*
- ◆ *Academics (Criminologists & Psychologists)*

5. The fire brigades and police forces visited were chosen to reflect a representative sample of national activity. It should be pointed out that the initiatives referred to later in the report are by way of illustration of the type of programmes and liaison arrangements that are in operation. The list is by no means exhaustive. There are many other examples of excellent partnerships in practice which, because of the need for brevity, unfortunately cannot be reflected in this report.

## *Terminology*

6. Discussion on the question of arson control can get weighed down by different definitions of what is meant by arson. Arson in its truest sense is defined by the Criminal Damage Act 1971 and only those offences which meet that definition can be so attributed. Therefore, there is much circumventing of this definitional issue with talk about “fire-setting”, “deliberately-started fires”, “malicious fires” etc. In order to make it less cumbersome this report uses the word “arson” as a generic term for all deliberately started fires. It does not mean that the nuances mentioned above are not appreciated.

## *Scope*

7. The remit of the study relates to England and Wales only, although colleagues in the Scottish Office Home Department and HM Fire Service Inspectorate (Scotland) have been consulted. From time to time, reference may be made to the UK as a whole for purposes of illustration where information for just England and Wales alone was not readily available.



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# MANAGEMENT SUMMARY & KEY RECOMMENDATIONS

1. The arson scoping study was commissioned to provide Home Office ministers with a snapshot of the arson problem in England and Wales; to shed light on concerns about the arrangements to control the arson problem; and to point to current examples of success to inform future approaches. The study was established against a background of a rapidly increasing number of deliberately started fires but a falling number of police prosecutions and cautions.

2. The need to have effective arrangements in place to tackle arson is brought into focus when it is set in the context of the Government's aims of providing safer communities. Efforts to tackle arson fires contribute to two of the key Departmental aims of the Home Office. These aims are:

- i. *“the reduction of crime, particularly juvenile crime; and*
- ii. *“the reduction in the incidence of fire and related death, injury and damage”.*

3. Combating arson also supports the agenda on tackling social exclusion, research showing that those on the lowest incomes suffer rates of arson fires thirty-one times higher than elsewhere and are sixteen times more likely to die as a result of a fire.

4. The scoping study identified several key issues that need to be addressed. They are:

- ◆ **Leadership** - the need for a greater direction of arson control and prevention by central Government.
- ◆ **Ownership** - arson is not a crime which can just be disregarded as a very low priority and others, apart from the fire service, have vital roles to play.
- ◆ **Co-operation** - approaches to preventing and investigating arson at the local level are fragmented and often hampered by misunderstandings and a lack of information sharing by the many agencies involved.

## The Scoping Study Findings

5. The study shows the cost of arson fires to society has now reached over £1.3 billion a year. In the last ten years, there have been around 1.7 million arson fires, resulting in 22,000 injuries and 1,100 deaths. Between 1986 and 1996 the number of deliberately started fires increased every year. This now means that in an average week, arson results in:

- ◆ 3,500 deliberately started fires;
- ◆ 50 injuries;
- ◆ 2 deaths;
- ◆ and a cost to society of at least £25 million

6. The reason that arson is sometimes perceived as a lower profile problem is because its consequences fall to different agencies and result in no single agency seeing the whole picture. This means that no single agency appreciates the scale of the problem, nor is in a position to remedy the fault lines in the current arrangements. This is illustrated as follows:

- **fire service:** arson is a major problem for the fire service. It accounts for almost 45% of all serious fires. Brigades respond to all fires reported to them no matter what the size. Not only does arson have a major impact on fire service workload but it also endangers firefighter safety. However, the consequent impact of arson tends not to fall to the fire service
- **police:** the police service tend to perceive arson as a low priority. They tend only to devote additional resources to its investigation if a fatality or serious injury occurs, if a major property loss has arisen or if a serious fraud is suspected. Although there are good reasons why this is so, the study shows that the majority of the arson fires dealt with by the fire service are not accorded much status by the police nor recorded as crimes.
- **the insurers:** the insurers perceive arson for the purposes of insurance fraud, or where large commercial claims are concerned, as a major problem. But they are less concerned with the vast majority of deliberate fires which do not cause large financial loss.

7. Although the study has examined some excellent partnership initiatives between the police, fire service and insurers, these were few and far between. In the main there is no formalised structure for inter-agency working: many agencies are simply duplicating effort and wasting precious resources in doing so. The absence of a co-ordinated and cohesive arson control strategy means that there is no central leadership or direction. This is in part due to the disengagement of policy activity in this area after the Arson Prevention Bureau was established. But it is also due to a need for all those who should be contributing to arson prevention to recognise they have a role to play in developing approaches to combat deliberate fires. The result of this leadership vacuum is that agencies are working in isolation and in many cases the different agencies' actions can actually inhibit effective investigations. The damaging impact that these flaws have on the successful prosecution of arson is

borne out by one of the lowest clear-up rates of any crime. In fact, the study suggests that only 1% of all serious deliberate fires attended by the fire service result in a conviction.

8. Other issues that have to be addressed are confusions arising from the vocabulary and definitions used in the process of fire investigation. The confusion over what is meant by a fire classified by the fire service as “doubtful” is a case in point. The police take this to mean that the fire service do not know the cause when in fact “doubtful” in fire service terminology actually means “suspicious”. There are also problems surrounding the term “malicious”, used by the fire service to mean “deliberate”, in that it might presuppose the state of mind of the suspect.

9. A further point that must be addressed is the absence of information sharing. Several agencies have access to vital information concerning either fires or arsonists. Often the identification of the arsonist or a pattern of fraudulent fires only becomes known once the full picture can be seen. Agencies either will not share this information with others or are impeded from doing so by more formal requirements such as the Police and Criminal Evidence Act, Data Protection legislation or client confidentiality.

10. In addition, the study found that the police and the fire service are often not adequately resourcing what is required to carry out effective fire-related criminal investigations. There is a lack of nationally agreed training on fire investigation, although a growing number of courses jointly attended by the police and fire service, run both in-house and by private companies, are starting to emerge.

### *The Insurers*

11. The study found evidence that although parts of the insurance sector were concerned to make every effort to tackle fraudulent arson, there was a worrying level of complacency about arrangements that were more generally in place. Creation of recent anti-fraud measures such as databases and various Prevention Bureaux are not yet sufficient to combat insurance fraud by arson. Insurers appeared averse to sharing data among themselves on grounds of commercial confidentiality although sharing of information does occur in other areas of fraudulent activity such as motor vehicle accident repairs. Some liaison and communication exists between the police and insurers at the top level but at the operational level it is practically non-existent. Successful fraud investigations such as “Operation Nero” highlight

the gaps in the system which allowed one person to mastermind a £30 million arson insurance fraud but also what could be achieved by those tackling arson when co-operation and extra effort is applied.

### *Moving Forward*

12. Successful arson prevention and deterrence can only be achieved with much better local and national liaison and multi-agency working. The Home Office has recognised that with crime prevention and juvenile offending, proactive management of the agencies to prompt them to liaise and work together can make a difference. The Crime and Disorder Act 1998 provides a key new framework for multi-agency efforts to tackle crime and its causes. Its provisions offer important new structures which can contribute to a reduction in the incidence of arson fires. However, it is also therefore important that this opportunity is highlighted and recognised by the various agencies referred to in this report if the resultant crime reduction strategies are to make a difference.

13. The study proposes a programme of work to remedy the faults in the current arrangements that have been identified but also to help build upon the examples of good practice which it has also witnessed. It makes 22 detailed recommendations but the main strands of this work are:

- ◆ *that the Home Office should assume a central role for directing efforts to combat arson*
- ◆ *a continuing but revised role for the Arson Prevention Bureau*
- ◆ *a range of measures to deliver a much improved understanding of investigating and prosecuting arson for all the agencies involved (including joint-agency training)*
- ◆ *frameworks for enhanced information sharing, together with good-practice protocols for insurers*

14. It is suggested that the recommendations that follow on from this summary should form part of the work programme suggested above, forming a co-ordinated Home Office project. This would be further supplemented by a new central forum which would aim to bring the key players together to concentrate effort in a strategic and focused manner.

## ARSON SCOPING STUDY: Key Recommendations

Recommendation	Paragraph
1. Research should be undertaken to quantify the proportion of deliberate fires attributable to a particular motive in order to target intervention policies effectively. Any research should start from fire records (e.g. casualty fires) rather than police or court records. It is suggested that this type of research might usefully be undertaken by the Arson Prevention Bureau in conjunction with the Home Office.	1.26 - 1.33
2. A co-ordinated strategic approach to tackling arson needs to be led by the Home Office. The programme of work in this report should be drawn together to provide an arson prevention project for the Home Office.	2.4 - 2.6
3. Better measurement of the impact of arson prevention initiatives is required. New performance measures being developed for the fire service will assess the impact of prevention work across the board, but lower level indicators (for use by the Home Office Police and Fire Inspectorates) should be prepared to assess to what extent (and how well) arson prevention measures are being delivered.	2.4 - 2.6
4. The Home Office Research, Development and Statistics Directorate should increase awareness and understanding of arson and deliberate fires by bringing the information from its various sources together in one document (along the lines of the statistical analysis in this report).	2.7
5. There needs to be a much closer working relationship on arson fires between the police, fire service and forensic scientists. Each agency needs to be clear about its respective roles. The Home Office should lay down fresh guidance (by amending Home Office Circular No 106/1992) and its contents suitably publicised in order to make sure its provisions are fully understood and complied with. This links also with Recommendation 8.	2.8 - 2.9
6. Consideration should be given to the establishment of a protocol on forensic science investigation with a view to sharing common forensic information required by both criminal and civil investigations.	2.19 - 2.21
7. No national Governmental forum exists for highlighting and resolving the tensions and issues which are referred to in this report. The report proposes the creation of a new Arson Control Forum to encourage partnership and multi-agency resolution of issues which can be tackled at the national level. This might be developed from the Council of the Arson Prevention Bureau.	2.22 -2.24
8. There is a need to move away from measuring arson crime on police recorded crime statistics alone. A true measure of arson and deliberate fire setting encompassing all the various data sources (including secondary fires) is required. Terms such as “doubtful” and “malicious” add to the confusion associated with the arson problem and thus should be avoided. The proposed new national forum, in conjunction with the Home Office Research, Development and Statistics Directorate, should work on producing new definitions for data collection which overcome the terminology and vocabulary difficulties highlighted in the report.	2.25 - 2.31
9. Protocols for sharing information by relevant agencies on a local basis should be encouraged. There are significant benefits to be gained from developing local databases in order to prevent and control local problems. However, barriers such as data protection need to be addressed, especially with regard to the commercial interests of insurance companies, if effective intervention is to be achieved.	2.32 -2.36
10. To improve investigation and detection levels, further research is needed into the reasons for unsuccessful criminal prosecutions and for those cases that were discontinued before reaching court.	2.37 - 2.39
11. There is a requirement for national standards for fire investigation and training. Current plans for standardised fire investigation qualifications (such as the NVQ Forensic Science Level 4) need to be built upon. In addition, the recent emergence of cross-service training courses for the police, forensic scientists and fire investigators needs to be encouraged in order that each agency understands the investigation needs of others.	2.42 - 2.46

Recommendation (continued)	Paragraph
12. Loss adjusters and insurers should consider the merits of an Accreditation Scheme, which would indicate legitimacy of requests for information concerning suspicious fires to other agencies such as the police or fire service.	3.6 - 3.7
13. Any arson control strategy should incorporate equal representation from a range of insurers, loss adjusters and re-insurers.	3.8
14. The insurance industry should be supported in its efforts to extend anti-fraud measures such as CUE and MIAFTR to cover insurance claims emanating from the commercial sector.	3.9 - 3.11
15. It is suggested that the Arson Prevention Bureau, in conjunction with the insurers and loss adjusters, establish a trial national anti-fraudulent arson database for a period of not less than twelve months in order to demonstrate whether such a proposal would provide useful information. If this is the case then a wider database might be considered bringing in the other agencies although with due regard to data protection legislation.	3.12 - 3.20
16. Consideration should be given to the possibility of introducing a standardised investigation procedure/claim form to ensure consistency in insurance claim investigations.	3.25
17. The proposed new national forum should ensure that results from any evaluation of the Northumbria and Bedfordshire Arson Task Forces are disseminated and incorporated into any best practice guide produced.	4.2 - 4.6
18. The proposed new national forum should be notified of any new initiatives such as the West Yorkshire Protocol and should ensure that such initiatives are fully evaluated and the results disseminated.	4.7 - 4.9
19. The Home Office and the Arson Prevention Bureau should take stock of the many Fire Setter Intervention Schemes with a view to developing a "model" education package in parallel with work being undertaken on Community Fire Safety education. Any "model" should aim to include evaluation techniques and gather information on motives for firesetting.	4.16 - 4.20
20. The merits of establishing joint fire service and police teams more widely should be examined in the light of the Tyne and Wear (and now the Bedfordshire) experience.	4.25 - 4.26
21. The proposed new national forum should be given a remit to consider further research to assess the effectiveness of other arson control approaches (i.e. those referred to in the United States of America) and the extent to which the UK could follow and benefit from their experience.	4.28
22. Developing the role of the Arson Prevention Bureau. The Bureau is recognised as a vital cross-agency body which links Government with other agencies, particularly the insurance sector. The new lead for arson control strategy would rest with the Home Office but the Bureau would have a crucial role in delivering other aspects of the programme of work which the study has identified; co-ordinating the research programme, publicising the arson problem and the initiatives to tackle it and working with Government to reach those who should be in receipt of arson prevention guidance.	5.1 - 5.13



## The Impact of Arson Fires

**1.1** The cost of arson fires to society has now reached over £1.3 billion a year. In the last ten years, there have been around 1.7 million deliberately started fires, resulting in 22,000 injuries and 1,100 deaths. Between 1986 and 1996 the number of deliberately started fires increased every year although 1997 data did show a fall, year on year. This general increase has now meant that in an average week, arson results in:

- ◆ 3,500 deliberately started fires (including primary and secondary fires)
- ◆ 50 injuries
- ◆ 2 deaths
- ◆ and a cost to society of at least £25m

**1.2** The following section, which examines the nature of the arson problem, looks at three broad areas:

### A. *the size of the arson problem*

### B. *the financial cost of arson*

### C. *the motivation of arsonists*

## A. *The Size of the Arson Problem*

**1.3** Both the fire service and the police count the number of deliberately started fires which they come into contact with but with rather different outcomes.

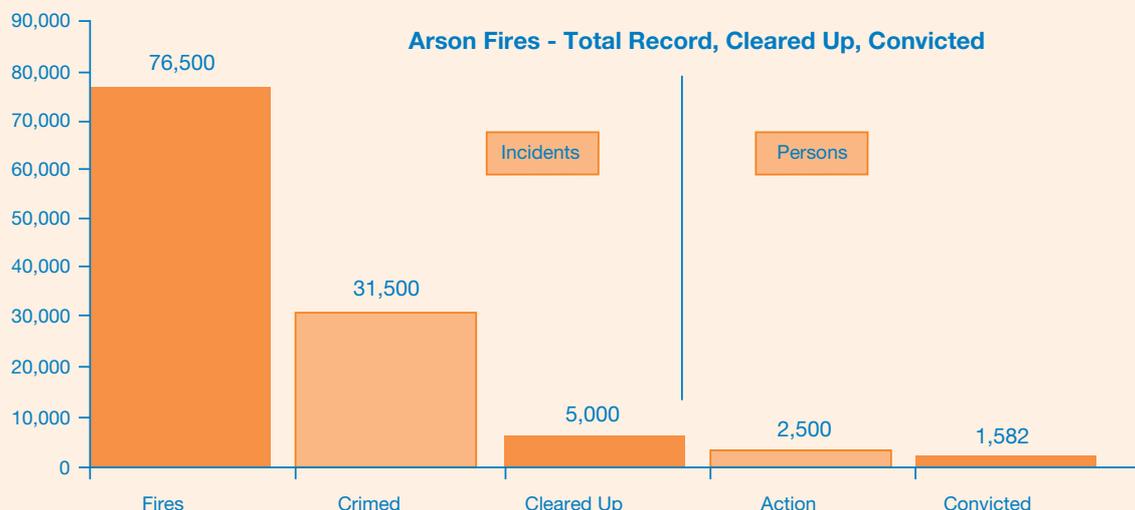
**1.4** In 1997, the fire service in England and Wales recorded 76,500 primary (i.e. significant) malicious fires. Around a further 104,000 secondary fires were also thought to have been deliberately started. For the same year, the police recorded 31,500 arson offences which represents only 41% of the malicious fires attended by the fire service. Only 7% (5,000) of these significant deliberate fires were cleared up (e.g. persons were charged, summonsed or cautioned or the offence was taken into consideration with other offences) and only 3% (2,500) were cautioned or prosecuted. Only 1.5% (1,500) were convicted.

## Fire Statistics

**1.5** The 76,500 malicious fires recorded by the fire service in England and Wales constitute 44% of all primary fires. There is no national measure of the number of malicious secondary fires<sup>1</sup>. However, of the 207,800 secondary fires reported in 1997, around a half are thought to be of malicious ignition. Some brigades estimate that as much as 80-90% of the secondary fires attended are deliberate. Taking account of secondary fires, it is estimated that overall deliberate firesetting activity is in the region of 47% of the total number of fires.

**Figure 1.1** Arson fires - Total attended by fire service, recorded by police, cleared up and proceeded against, 1997

England and Wales



<sup>1</sup> - secondary fires are mainly outdoor fires involving grassland and refuse and derelict buildings

## Location

**1.6** About half (51%) of all malicious fires occur in road vehicles (mainly cars). The remainder are as follows: dwellings (17%); other buildings (23%); and other outdoor fires (9%). Within the total number of fires (i.e. both accidental and deliberate), the buildings particularly prone to malicious ignition were schools, garages and sheds and construction industry premises. For dwellings, malicious ignition accounted for only 20% of all dwelling fires but for a higher proportion of casualties.

## Trends

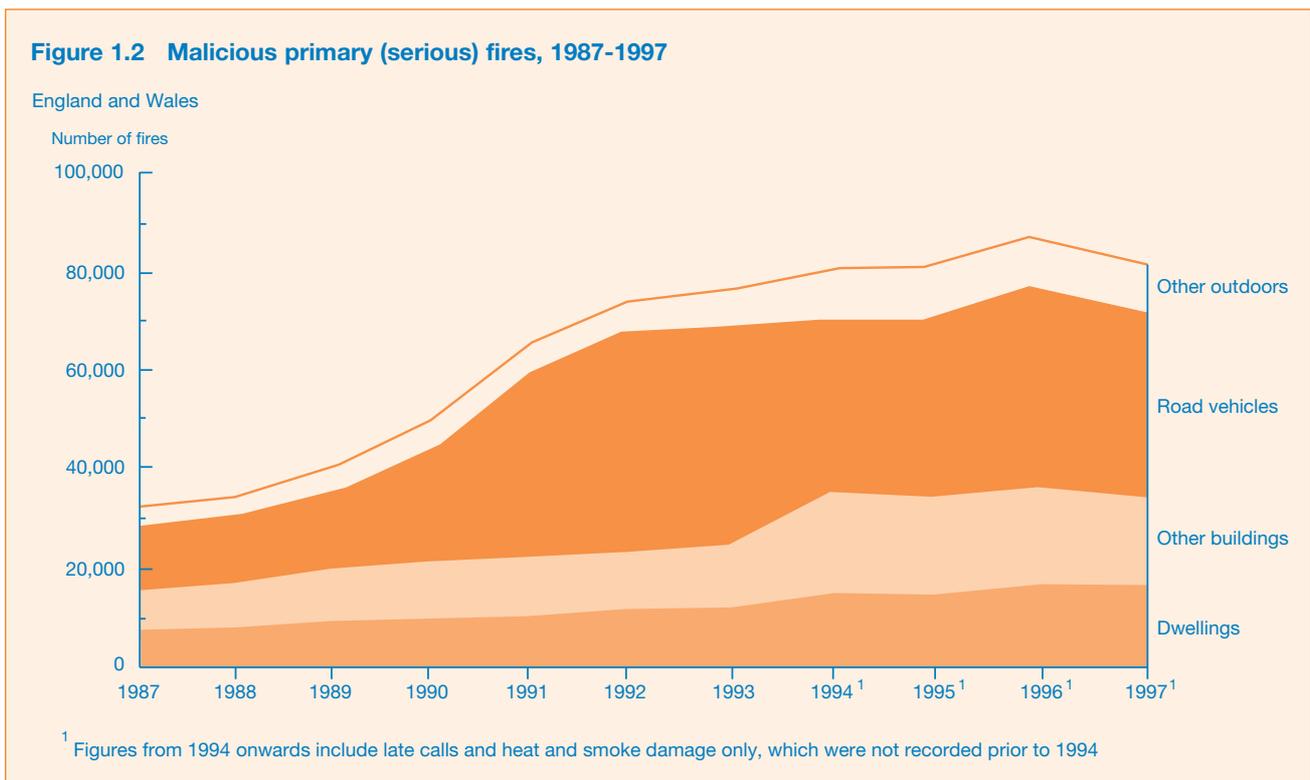
**1.7** There has been a continued long-term increase in the number of deliberate fires attended by the fire service. An element of this increase may be due to better fire investigation techniques by brigades and the concerted effort to move away from attributing the cause of fire as “unknown” in recent years. Nevertheless, these factors alone probably do not account for the very steep upward movement in the number of malicious or deliberate fires. For the purposes of this report, analysis has been kept to the most recent ten-year period and covers primary (i.e. significant) fires only.

**1.8** In 1987, there were 31,600 malicious fires representing about one-fifth of all primary fires.

By 1997, this had risen to a total of 76,500. This compares to a 23% increase for the overall number of fires and an 11% decrease for accidental fires over the same period. A proportion of the increase is attributable to deliberate car fires as this category has increased by almost 200%. This compares to increases of 91% in other buildings; 116% in dwellings and 131% in other outdoor fires and an 18% decrease for accidental car fires.

## Regional variations

**1.9** Analysis by fire brigade area shows that malicious fires are highly concentrated in the metropolitan brigades. Almost half of all malicious fires within England and Wales were concentrated within the seven metropolitan areas. The number of deliberate fires as a percentage of total fires showed that all the metropolitan brigades (except London) recorded over half of all fires as deliberate. The highest rates were recorded by Greater Manchester (56%), West Yorkshire (56%) and Tyne and Wear (55%). However, a number of non-metropolitan brigades reported significantly high percentages of malicious fires, as follows: Cleveland (56%), South Wales (55%), Cambridgeshire (54%) and Northumberland (52%). In contrast, Hereford and Worcester and the Isle of Wight recorded the fewest malicious fires (25% and 22% respectively).



## Police Statistics

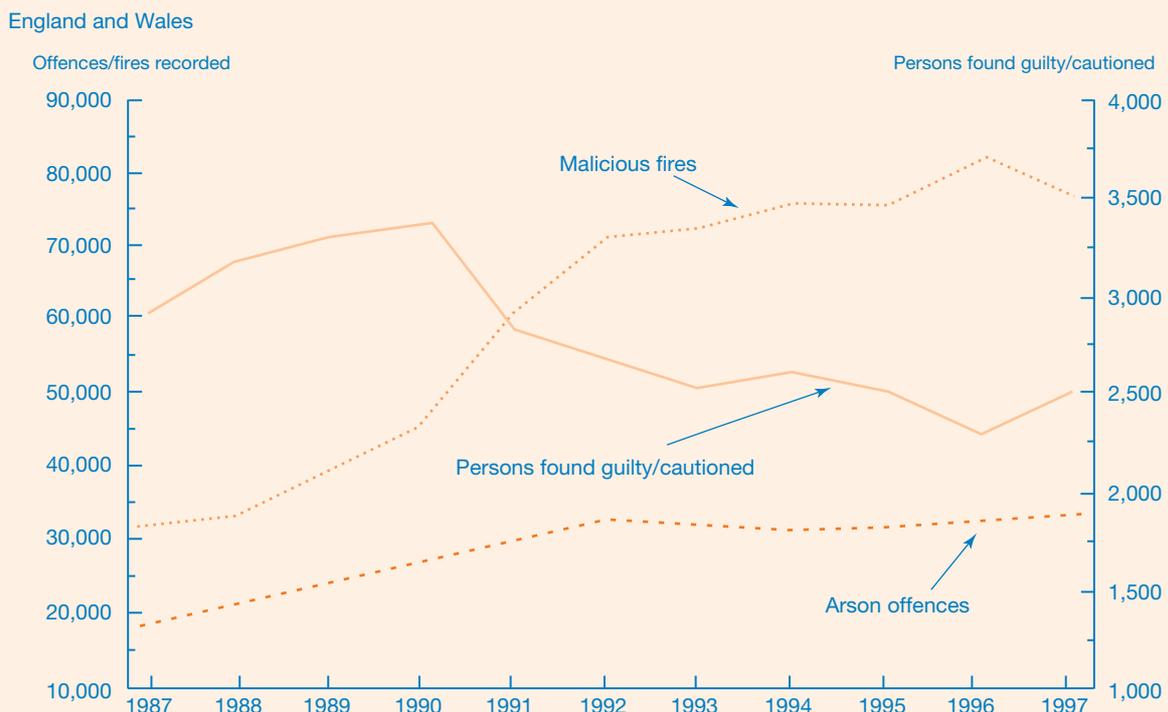
**1.10** The police record malicious fires as arson as defined by the Criminal Damage Act 1971 (sections 1-3). Section (1)1 of the Act makes it an offence to cause damage to property intentionally or recklessly; section (1)2 creates the offence of causing damage, which might endanger life, and Section 1(3) makes the damage by fire the offence of arson. Section 2 covers threats to damage property and Section 3 makes it an offence to possess objects with the purpose of damaging property. The marked difference between the different levels of malicious fires attributed by the police and fire services can in part be explained because:

- i. *the Criminal Damage Act has a higher level of proof that arson has been committed than is required for a brigade to attribute a fire as deliberately started.*
- ii. *the wording of the Criminal Damage Act. Intent or recklessness and the involvement of property have to be established by the police before an offence of arson can be recorded.*
- iii. *many deliberately started car fires may occur in stolen vehicles and due to police Counting Rules*

*usually appeared under police records as “thefts” or “taken without owner’s consent” (TWOC) and not ‘arson’. However, the method of recording offences changed in April 1998 meaning that an incident involving a vehicle which is stolen and then burnt should now take account of both the vehicle theft and the arson and hence TWO offences will be recorded (as opposed to ONE previously).*

**1.11** In 1997, there were around 31,500 arson offences recorded in England and Wales (only a small proportion of which were recorded as “arson endangering life”). Arson accounts for just less than 1% of total recorded crime and is overshadowed by other offence groups such as burglary and theft, which together make up almost 70% of police workload. There is no information collected nationally on the physical location of these offences (house, school, shop etc), so it is impossible to comment on where these recorded arson incidents may have taken place. The differences in the level of arson as measured by the fire service and the police are discussed in more detail in Section 2.

**Figure 1.3 Malicious primary fires, arson offences recorded and persons prosecuted or cautioned for arson offences, 1987-1997**



### Clear-up rates

**1.12** Statistically, arson has a low clear up rate. Only 16% of arson offences recorded by the police in 1997 actually resulted in a clear up. This compares with an average for all offences of 28%; and other offence groups such as; violent crimes against the person (78%); sexual offences (76%); robbery (27%); burglary (23%); theft (24%) and all criminal damage (including arson) (19%).

### Trends

**1.13** The long term picture is similar to that for deliberate fires in that the number of offences of arson has increased significantly over the last ten years, rising from 18,900 in 1987 to its current level of 31,500 (a 66% increase). This compares with an increase of 18% in the overall level of crime and increases of 13% and 6% in burglary and theft respectively. The picture is worsened further by a decline in the arson clear-up rate over the same period, falling from 27% in 1987 to 16% in 1997.

### Regional variations

**1.14** The variations between the brigades are mirrored by the police in that arson offences are concentrated in the metropolitan areas with 43% of all arson fires being recorded in these localities. There were also wide variations in the clear up rate across the police force areas. The national average in 1997 was 16%. Only 12 police forces cleared up more than one-fifth of all recorded arson offences. The forces with the highest clear up rates were Dyfed-Powys (38%); Cheshire (36%); Lincolnshire (34%) and Wiltshire (30%). Amongst the lowest were Northumbria (12%); the Metropolitan Police Service (11%); Merseyside (11%); West Yorkshire and Cleveland (9%).

### Prosecutions and cautions

**1.15** The number of people found guilty or cautioned for arson in 1997 was 2,500. The vast majority were for arson not endangering life. However, as illustrated in figure 1.3 above, the number of prosecutions and cautions has fallen over the past ten years. Other key points to be noted are:

- ◆ Over half of those found guilty or cautioned for arson were males under 18.
- ◆ The majority of those cautioned or found guilty are male juveniles aged 10 to 13 years old.

## B. The Financial Cost of Arson

**1.16** The estimate of the financial cost of arson arrived at in this report consists of the following elements:

- a. the cost to the insurance sector
- b. the cost of human casualties
- c. the cost to society in general
- d. the cost to retailers
- e. the cost to the fire service and other public agencies

**1.17** The standard information for estimating a cost for arson and deliberate fires is usually described in terms of insurance claims. The figure quoted most often is that of £1 million per day as estimated by the Association of British Insurers (ABI). Any attempt to establish the true cost of a problem such as arson will always tend to be understated. This report illustrates other areas for which a cost can be estimated in order to arrive at a more realistic total sum.

### a. Insurance

**1.18** At present, the only estimates for property loss are insurance costs based on ABI fire claims where malicious ignition was suspected. Although the ABI does not quantify the number of fire claims, it estimates that about 50% of such claims are due to arson, meaning that arson costs insurance firms about £370 million in 1997 (about £1.3m per day). To this figure should be added a cost of £77m for malicious car fires and estimated business interruption costs of about £102 million. This provides a total insurance cost of £549 million (£1.5 million per day). Insurers are most concerned by fraudulent arson where they are the ultimate victims. Although the insurance sector has no robust measure for fraudulent arson, it estimates that it costs them around 10% of property loss due to fire (i.e. £74 million in 1997). Even allowing for these additions, the insurance estimate for damage due to arson will still be understated due to a lack of financial consideration for the following items:

- ◆ *those claims paid by insurers not represented by the ABI such as Lloyds Insurance Syndicates;*
- ◆ *most LEA property has mandatory deductibles (i.e. policy excess) in the region of £100,000 each amounting to an annual total of £120m;*
- ◆ *losses dealt with by HM Government;*
- ◆ *claims which were not paid by insurers (due to suspicions of fraud);*
- ◆ *costs associated with the insurance investigation of suspicious fires;*
- ◆ *uninsured losses or underinsured losses.*

### b. *The Cost of Human Casualties*

**1.19** Arson fires can often devastate whole families to an extent not matched by other crimes. As the 1997 Community Fire Safety Task Force report *Safe as Houses* acknowledged, fire can leave victims with injuries which cause a lifetime of pain, leaving permanent physical and mental scars. Against such a background it is clearly difficult to attribute monetary value to fire casualties.

**1.20** Around one in every six casualties caused by fire occurs as a result of malicious ignition. This means that arson causes approximately 100 deaths each year and about 2,500 non-fatal casualties. The contingent valuation approach is a way of estimating the value of death or injury by establishing the amount which the Government or individuals are prepared to pay to avoid a given increase in the likelihood of death or injury. The research explains that the most widely accepted valuation figure is that for traffic accidents used by the Department of Transport, Environment and the Regions. This attached an amount of £780,000 per death and £92,000 per person for serious injuries. Using these valuations provides a very broad estimate of the human cost of arson of around £304 million.

### c. *The Cost to Society*

**1.21** It is extremely difficult to gauge the total social cost of arson fires. The outcome of widespread arson in the community can certainly create the general depreciation of an area, cause communities to lose pride and respect in their surroundings and provoke a loss of business and unemployment. There are parts of larger cities where arson vandalism and the physical efforts to try to prevent it (by boarding up empty or derelict buildings) deliver a severely detrimental tone to communities.

### d. *The Cost to Retailers*

**1.22** The British Retail Consortium Retail Crime Survey suggested that the 3,250 arson incidents recorded in 1996/97 cost retailers some £21 million. However, there is some risk in using these figures as some elements may have already been taken into account in the insurance costs set out above.

### e. *The Cost to the fire service and other public agencies*

**1.23** These estimates are based on calls to the fire service to attend deliberate fires, the contribution arson makes to the total workload of the police and some of

the costs associated with forensic science, which are borne by the police. It is estimated that responding to malicious fires costs the fire service £378 million a year. Police costs, based on the arson offences recorded, are a minimum of £71 million per year. To this can be added the costs of forensic science support (£0.8 million per year). These figures do not include associated training and investigation costs for the fire and police services nor do they take account of costs to other parts of the criminal justice system such as courts and prisons.

### *The Total Cost of Arson*

**1.24** This study has attempted to quantify the total cost of arson for the first time. The result of this exercise is illustrated below. Calculations for these estimated costs are shown in full in Appendix C.

**Table 1.1 Annual estimated cost of arson: 1996/97 England and Wales**

Element	£ million
i. Insurance	549
ii. Fire Service	378
iii. Police	71
iv. Forensic science support costs	1
v. Human costs (casualties)	304
vi. Retailers	21
<b>Total annual cost</b>	<b>1,324</b>

**1.25** As is clear from the table above, the total estimated cost of arson in the UK is over £1.3 billion per year. However, if the value of investigation time, uninsured losses and total social costs were included then the real cost is considerably higher.

## C. Motivations of Arsonists

**1.26** It is already clear that arson fires are started for a variety of reasons (vandalism, fraud, revenge, and crime concealment to name just a few). Given the different prevention/deterrence approaches that might be applied, it is essential to obtain some understanding of why people start fires deliberately if the policies then put in place are to have any significant impact on the problem. The study attempted to review most of the existing literature on the motivations behind arson but limits itself to those activities that may be open to intervention.

**1.27** A vast amount of material has been written about the possible motivations for arson and deliberate firesetting. Much of this research<sup>1</sup> is concentrated on the psychological 'mind-set' of the arsonist or fire-setter, an example being the many projects carried out on psychological offender "profiling" of those who have an unnatural fascination with fire. It appears that the social factors that may lead someone to start fires are often underplayed. There has been substantial research<sup>2</sup>

carried out which links deliberate firesetting with property crimes such as theft and burglary and with social deprivation in general. During the course of the scoping study, further examples of this type of research were seen at Cleveland Fire Brigade and Liverpool University.<sup>3</sup> Other studies<sup>4</sup> carried out in both the United States of America and the United Kingdom also suggest that in a number of cases, firesetting may be linked with a history of sexual abuse.

**1.28** It is clear that there are many possible reasons why someone may start a fire. Of the wealth of research material that is available, the categories into which arsonists and fire-setters fall can range - depending on the researcher - from 3 to about 200 sub-categories. This type of analysis does not always then feed through to the development of effective strategies to control the problem (other than perhaps to aid in the development of treatment programmes for the minority of fire-setters who have mental health problems).



1 - Prins, H (1994); Baker AF (1994); Muckley A (1997); Puri et al (1995); Rasanen, P (1994)

2 - Graham J (1998); Graham J and Bowling B (1995)

3 - Hirschfield, A and Bowers, K (1998)

4 - Jackson, H (1994)

Category of arson	Motivation
◆ Youth disorder and nuisance	<i>Vandalism and boredom</i>
◆ Malicious	<i>Revenge Racism Clashes of beliefs/rivalries (racial/cultural/religious) Personal animosities</i>
◆ Psychological	<i>Mental illness Suicide</i>
◆ Criminal	<i>Financial gain and fraud Concealment of other crimes (theft, murder etc.)</i>

1.29 Drawing upon the research seen and conducted during the study it is possible, **solely for the purposes of policy intervention**, to group the motivations as above.

### *Turning motives into strategy*

1.30 It is hoped that vandalism and arson brought on by boredom which has been classified above as ‘Youth disorder and nuisance’ can be tackled to a great extent by the various Youth Crime measures provided for in the Crime and Disorder Act 1998, as supplemented by a comprehensive education programme for schools to be devised by the National Community Fire Safety Centre<sup>1</sup>. In addition to this, it is suggested that best practice guidance be developed for existing fire authorities on juvenile fire-setting schemes.

1.31 Resolving and addressing the other three categories mentioned in the table is more involved. It is true that some of this arson will have been committed by juveniles and thus influenced by the Youth Crime measures outlined above. However, these other types of arson fires are almost certainly more likely be influenced by increased deterrents and greater certainty of detection and prosecution. This means having the right arrangements in place to deter the would-be arsonist by target-hardening (thereby making it more difficult to secure entry to the premises) or by the use of effective, high profile arrangements for the detection and prosecution of arson (thereby making such behaviour non-profitable).

1.32 A recent research project has highlighted that certain targets such as schools and houses are associated with a certain type of arsonist and a certain type of motive. The work by Canter and Fritzon of Liverpool University is one of the more relevant pieces of research in attempting to aid the police in establishing a likely profile of the suspect in an arson investigation. The research shows, for example, that if the target of an arson attack was a domestic property, then the motive is

more likely to be revenge and the suspect is more likely to be either male aged typically between 16-29 or a woman aged typically between 19-34. However males aged between 10 and 15 were more likely to target schools and be motivated by revenge. Another relevant finding is that most arson activity is carried out relatively close to where the arsonist lives (within 0.5 miles) unless the motive is revenge or financial gain in which case the arsonist seems prepared to travel any distance in order to achieve their objective.

1.33 Although much has been written on the reasons why people start fires, there does appear to be a lack of research carried out to quantify the proportion of incidents attributable to particular motives. The limited research of this kind that is available is not devoid of problems. Either the motivations have been subdivided into so many differing categories that results conflict with other research or the results are biased towards the sample of incidents taken. For example, most research has been done by examining solved police cases or court case histories. These findings may display characteristics of a certain type of arsonist but very little is known about the arsonists and fire-setters who are not taken through this process.

*Recommendation 1: Research should be undertaken to quantify the proportion of deliberate fires attributable to a particular motive in order to target intervention policies effectively. Any research should start from fire records (e.g. casualty fires) rather than police or court records. It is suggested that this type of research might be undertaken by the Arson Prevention Bureau in conjunction with the Home Office.*

<sup>1</sup> The new Centre established within the Home Office to reduce fires and injuries

### Introduction

**2.1** There are many agencies and organisations who come into contact with the arson problem or upon whom it has an impact. However, the main national and local contributors are the Home Office; the police; the fire service; forensic scientists; insurers; and loss adjusters. In recent years there have been some significant developments in respect of arson prevention as the relevant agencies recognise the increasing problem. A number of initiatives have been introduced and strategies developed which have increased our knowledge of arson and the extent of its effect on communities. Common denominators have now emerged from the mass of work available which many believe will provide direction and momentum to an overall arson control programme. Examples of some of these initiatives are discussed later in this report (Section 4).

**2.2** However, while there are some excellent examples of liaison and multi-agency approaches at the local level, there is also evidence of significant gaps and inefficiencies in the existing arrangements. This section attempts to bring together that evidence and attempts to identify a realistic and dynamic approach that will achieve the aim of reducing the level of arson in the community.

### Barriers to Progress

**2.3** A clear message to emerge from the scoping study is that, as with the Community Fire Safety Task Force exercise which examined approaches to accidental fires, a number of critical obstacles exist which are standing in the way of effective arson control. They are:

#### A. Ownership, Leadership

##### i. nationally

##### ii. locally

#### B. Confusion over Data and Measurement

#### C. Problems with Data and Intelligence Sharing

#### D. Resources and Training

### A. OWNERSHIP, LEADERSHIP AND DIRECTION

#### i. National

**2.4** Within the Home Office, there are several Directorates which can make a contribution to an effective arson control programme. These are the Fire and Emergency Planning Directorate (Fire Policy Unit and HM Fire Service Inspectorate); the Criminal Policy Directorate (Crime Reduction Unit, Criminal Policy Strategy Unit, Juvenile Offenders Unit and the Sentencing and Offences Unit); the Police Policy Directorate (Operational Policing, HM Inspectorate of Constabulary); and the Research, Development and Statistics Directorate.

**2.5** This multitude of possible contributors stems from the multi-faceted nature of arson. It also necessitates an active and co-ordinated input from all relevant areas of the office.

**2.6** Considerable work has been done over the past year and a half to re-focus fire service policy towards a prevention-based approach. This has been dominated by an increased profile for Community Fire Safety which is concerned with education and publicity efforts for reducing accidental fires in the home. The newly created National Centre for Community Fire Safety will be responsible for implementing strategies to reduce the fires (and resulting casualties) which start accidentally. However, as deliberate fires represent around half of all fires it is clear to see that strategies and resources need also to be devoted to reducing arson. But unlike accidental fires in the home, arson fires cannot be addressed by the Home Office Fire Directorate or the fire service alone. The influence of others needs to be brought to bear.

*Recommendation 2: A co-ordinated strategic approach to tackling arson needs to be led by the Home Office. The programme of work in this report should be drawn together to provide an arson prevention project for the Home Office.*

*Recommendation 3: Better measurement of the impact of arson prevention initiatives is required. New performance measures being developed for the fire service will assess the impact of prevention work across the board, but lower level indicators (for use by the Home Office Police and Fire Inspectorates) should be prepared to assess to what extent (and how well) arson prevention measures are being delivered.*

**2.7** The Research, Development and Statistics Directorate has a wealth of information on arson from various sources. Until now no attempt has been made to pull this together, mainly because of the lack of ownership or steer by policy units. RDS performs similar functions for other subjects such as domestic violence or drug related crime.

*Recommendation 4: The Home Office Research, Development and Statistics Directorate should increase awareness and understanding of arson and deliberate fires by bringing the information from its various sources together in one document (along the lines of the statistical analysis in this report).*

## ii. Local Issues

**2.8** The complex picture of arson prevention responsibilities apparent at the national level is mirrored locally. Each agency has different remits and often develops very different sets of skills and approaches to their aspect of any investigation. In theory the main agencies should contribute as follows.

### Fire Service

Although there is no legal requirement under the Fire Services Act 1947 to do so, the fire service investigate the majority of fires to determine the supposed cause of the fire. As the fire service is normally the first (and possibly the only) emergency service to attend a fire, where deliberate ignition is suspected it is their responsibility to preserve the fire scene and to seek the involvement of the police at an early stage.

### Police

Once called in by the fire service, the police should attend the fire scene to establish whether arson - in the legal sense - has been committed or the police officer should then normally request assistance from CID who will then decide whether a Scenes of Crime Officer/Examiner (SOCO) is required. The scene examiner will only request a forensic scientist if they are not happy with any part of their scene examination (i.e. if further support is required).

### Forensic Science

For criminal cases, the Forensic Science Service (FSS) is usually involved in fires involving a death or serious injury (regardless of cause); in fires where arson or arson with intent to endanger life is strongly suspected; in large fires

in industrial premises, offices or schools where size of financial loss merits a detailed examination; or in fires which appear to be part of a series (forensic examination may be able to show a definite link). Scientists are also often required to give expert evidence in criminal proceedings.

**2.9** In theory, all of the agencies have a specific, defined role to play. Although guidance to this effect is available from the Home Office (Home Office Circular 106/1992) in reality the approach to and organisation of investigations by fire brigades and police forces vary considerably and confusion arises over where the responsibilities of each agency start and finish.

*Recommendation 5: There needs to be a much closer working relationship on arson fires between the police, fire service and the forensic scientists. Each agency needs to be clear about its respective roles. The Home Office should lay down fresh guidance (by amending Home Office Circular No 106/1992) and its contents suitably publicised in order to make sure its provisions are fully understood and complied with. This links also with Recommendation 8.*

### The Fire Service / Police Service Interface

**2.10** Fire brigades have recently sought to develop their ability to investigate fires. Recognising the point at which they should seek the involvement of the police is a crucial first step in any arson investigation. It is essential that brigades not only have the capability to recognise a potential arson fire but also know to take appropriate steps to preserve the scene and maximise the potential for recovering forensic evidence. This can sometimes conflict with their primary purpose of ensuring that the fire is extinguished which can result in the crime scene being destroyed or considerably altered by the fire-fighters' fire-fighting activity.

**2.11** Because a fire does not become the responsibility of the police until arson, in the legal sense, has been suspected there is sometimes a "no man's land" between the "fire investigation" stage (the responsibility of the fire service) and the "criminal investigation" (the responsibility of the police). Because arson can be perceived as a difficult crime on which to secure a conviction, there may be reluctance on behalf of the police to commit significant resources to its investigation. Consequently, a significant number of incidents classified by the fire service as "doubtful", "deliberate" or "malicious" are not subject to any criminal investigation.

**2.12** It is apparent that the fire service would like the police to take more ownership of the arson problem. The majority of fire brigades spoken to were satisfied with the level of police investigation devoted to fatal and serious injury fires or those of an otherwise significant scale. But non-fatal fires, vehicle fires, other less serious primary fires and the majority of secondary fires were taken less seriously to a disproportionate extent. This is even though the fire may have had the potential to be very serious or that it may reveal escalating tendencies by an arsonist. Sometimes police will not call on SOCO support to attend the fire scene until the next day or even several days later by which time significant forensic evidence may be contaminated or no longer be apparent. Further forensic assistance is often not called upon resulting in some cases being left in limbo with the fire service believing or suspecting arson but with the police not arriving at the same conclusion.

**2.13** Most brigades have established some form of liaison with police and forensic scientists. At the most basic level this is achieved through joint attendance at fire scenes. Some brigades (such as London) have arson liaison officers and/or have regular meetings with police to discuss strategy issues etc. At the highest level, a few brigades work jointly with the police on some or all arson investigations (Cleveland; Tyne & Wear/Northumbria Police and Mid & West Wales/Dyfed-Powys are three such examples).

**2.14** One of the barriers to effective day-to-day liaison was due to the differences in geographical boundaries and organisational structures of the police and the fire service. Liaison was noticeably more difficult where, for example, a fire brigade encompassed more than one police force area or the police force (although geographically similar to the brigade) was divided into many different command units, all operating with a high degree of autonomy within the police force area. This may be the reason why the police have found it difficult to nominate a specific arson liaison officer for each force. Because the Scenes of Crime unit has remained a central support service in most police forces, it may be advantageous to appoint the Scenes of Crime Manager in each force as the contact point for arson prevention.

**2.15** There are some very good examples of local liaison which are achieved mostly on an informal basis by enthusiastic individuals. Unfortunately, due to the lack of formal liaison arrangements and other workload pressures, most of these informal arrangements and relationships are not sustained when these individuals change posts.

### *The Police / Forensics Interface*

**2.16** Anecdotal evidence from the Forensic Science Service (FSS) suggested that forensic scientists rarely meet the police investigating officer on a suspected arson case. FSS tended towards a view that the police perceive arson as very difficult to investigate and labour-intensive and therefore a poor return for the resources deployed unless the incident was extremely serious.

**2.17** The FSS evidence also drew attention to a perceived lack of understanding and appreciation among police officers of the difference in roles and responsibilities between FSS and fire service investigators. Difficulties sometimes arise when the police are asked for statements or forensic science evidence on cases which have not been investigated fully because the fire service correctly handed them over as “suspicious” but the police did not then ask a SOCO or FSS to investigate further thinking instead that the fire had already been “investigated” by the brigade.

**2.18** The police response to arson fires does of course need to be set in the context of their own ever expanding workload and the other priorities that have been established for them. The police are measured against performance indicators for theft, burglary and violent crime. Several forces said if they had more resources they would prefer to channel them into other areas rather than prevention of arson which was not seen as a priority.

### *The Role of Forensic Scientists*

**2.19** The Forensic Science Service has a long-established and important involvement with the investigation of fires through the support provided to the police and to the Criminal Justice System. The work undertaken by forensic scientists is extremely wide ranging but covers scene examination, laboratory examination and presentation of evidence (most of the criminal cases where a person is charged with arson will require an expert forensic witness). This latter aspect often involves the forensic scientist giving evidence and interpreting the results of laboratory and scene examinations. This includes their *opinion* of whether the witness and suspect statements are consistent with the scientific findings.

**2.20** The introduction of direct charging following the granting of agency status to the FSS (in 1988) would appear to have had an impact on the number of times that FSS support is called upon in arson cases. Although police guidance on this matter states that there should be no hesitation in calling on forensic assistance, figures

**Table 1.2 Arson offences recorded and cases submitted to the Forensic Science Service by the police England and Wales (excluding London).**

	1982	1991	1993/94 <sup>1</sup>	1996/97 <sup>1</sup>
Arson cases submitted to laboratory for examination	1,461	959	750	696
Arson offences recorded by police	12,452	24,437	26,817	26,803
Cases submitted as % of total arson offences	11.7	3.9	2.8	2.6

<sup>1</sup> Forensic data refers to financial years 1993/94 and 1996/97 whereas information on recorded arson offences refers to calendar years 1993 and 1996

in the table above show a marked fall in the number of arson cases submitted to the FSS as a percentage of the overall number of arson offences recorded. In 1982, around 12% of offences<sup>2</sup> were submitted to the FSS for examination, whereas in 1996/97, this figure had dropped to fewer than 3%. It is unclear how much of this decline is due to the police now having to pay directly for FSS services. Better fire investigation techniques by the fire service and the increased use of private forensic scientists may also be a factor.

**2.21** In most criminal cases there tends to be little duplication of effort between forensic scientists in the public and private sectors. However, in cases such as large warehouse fires, there will be a number of investigators working for different clients. Although they will, to some extent, have different remits (insurance company fire investigators may be trying to establish liability under the insurance policy, for example) it is argued that there is common information which is required by both the criminal investigation and the civil investigation. At present no information sharing protocol exists.

*Recommendation 6: Consideration should be given to the establishment of a protocol on forensic science investigation with a view to sharing common forensic information required by both criminal and civil investigations.*

### Who should take the lead?

**2.22** A first step to rectifying the need for greater local direction is via a new a national forum to bring together all the different public and private agencies to help drive the work programme which the study recommends. It will also enable any fresh issues or points of friction to be

resolved.

**2.23** Although the police at the national level, through ACPO, have recently shown a greater interest in approaches to tackling arson it is unlikely, because of other heavy demands, that they will ever be in position to give it the level of priority at the local level which the fire service and insurers would like. But that does not mean more cannot be done to assist others in their efforts to reduce malicious fires. The APB also report a heightened level of interest from insurers but it would be difficult for an insurance-led approach to influence the other public agencies with whom they need to work.

**2.24** The agency with most involvement with deliberate fires (dealing with nearly 4,000 a week) is the fire service. It would seem sensible that a certain amount of primacy should rest with them. Their evident enthusiasm in the face of apathy in other quarters means it would pose a serious risk to the existing level of effort were there an attempt to lodge the lead with someone else. For that reason, the report concludes that the lead of the arson control project should rest with the Home Office and that within that arrangement the initiative should be Home Office Fire Directorate-led but with a strong input from others, especially in the crime reduction and community safety arenas.

*Recommendation 7: No national Governmental forum exists for highlighting and resolving the tensions and issues which are referred to in this report. The report proposes the creation of a new Arson Control Forum to encourage partnership and multi-agency resolution of issues which can be tackled at the national level. This might be developed from the Council of the Arson Prevention Bureau.*

<sup>2</sup> excluding London

## B. CONFUSION OVER DATA AND MEASUREMENT

**2.25** It is evident that the different agencies involved have different perspectives on the size and impact of the arson problem. The reasons for this are mainly due to a mixture of recording and measurement differences and problems encountered with the different terminology used by the police and fire service. Most “deliberate” activity as dealt with by the brigades does not feature in the police recorded crime figures. The difference in the number of deliberate fires and arson recorded by the fire service (76,500 serious incidents in 1997) and the police (31,500 in 1997) is significant. Some of this can be put down to the following:

- i. Definitions and recording issues;
- ii. Police Counting Rules for offences;

### i. *Definitions and recording issues*

**2.26** All of the brigades contacted during the study found the particular vocabulary, terminology and recording practices surrounding arson fires to be a problem. As already stated, the fire service record non-accidental fires as either “malicious”; “deliberate” or “doubtful”. For the cause of a fire to be recorded under those terms, deliberate ignition has to be merely suspected, not proven. The police, however, are bound by the Criminal Damage Act 1971 and, to record an offence of arson, have to prove that persons behaved “recklessly” or “intended to damage property”. Throughout the course of the study no concrete information concerning the ratio of reported to recorded arson offences was obtained during the police force and fire brigade visits. However, in the West End area of Newcastle, comparison of statistics showed that Northumbria Police were recording only 9% of all deliberate incidents attended by Tyne and Wear brigade as arson. Other sources, such as the British Crime Survey, suggests that only two-thirds of *domestic* arson is reported to the police.

**2.27** Other problems arise from the definitions used by the fire service in that the term “doubtful” often fails to trigger the hoped for response by the police. There are indications that the police are often not aware what the fire service intend to convey by the term “doubtful”. The police and others, such as the Crown Prosecution Service and the courts, can take this to mean that the fire service do not know the cause when in fact “doubtful” in fire service terminology actually means “suspicious”. A further factor is that others working in the arson control field believe that the term “malicious” should not be used

either, as this presupposes that fire officers know the state of mind of an individual at the time of starting a fire. This is especially relevant when arson cases are put forward to the Crown Prosecution Service (CPS) or indeed are tried at court. When the current Fire Report Form (FDR1) was drawn up, the law concerned with evidence disclosure was different and thus it was not envisaged that the Fire Report would be considered as evidence or that all items referred to in the report form would have to be disclosed. Consequently, the terminology used does not follow that used by the police and is open to misinterpretation. There is no suggestion that the police move away from using the term “arson” but better, consistent definitions need to be arrived at between the recording of police statistics and fire statistics to narrow the discrepancy in the number of deliberate fires recorded by both agencies.

**2.28** There is anecdotal evidence which suggests that some court cases have failed in part because of the fire service practice of sometimes attributing percentage chances to the likely cause of the fire. A view might be taken by the investigating fire officer, for example, that they thought it 75% likely that the fire was deliberate, 25% accidental. This type of fire reporting offers considerable scope to cast doubt in the minds of the jury about the cause of the fire and the fire service’s ability to take an informed view about it.

**2.29** The void between fire statistics and police statistics is further widened when the number of deliberate secondary fires (those not involving property) is taken into account. Although there is no established national measure of their cause, it is estimated that around half of all secondary fires are deliberate (amounting to around 104,000 incidents in 1997). Some brigades have estimated that 80-90% of secondary fires in their area are deliberate. Such fires are often of the nuisance type and would count as neighbourhood vandalism and disorder, often being a precursor to more serious crimes. This is the type of data which needs to feed into the local crime audits being conducted under the Crime and Disorder Act 1998 but very few of these incidents would register in the police statistics and thus would severely understate any estimation of this type of local crime problem.

### ii. *Police Counting Rules for offences*

**2.30** Over half of the deliberate (serious) fires dealt with by brigades involve vehicles. As mentioned in paragraph 1.10 above, up until April 1998, these incidents would not generally have been regarded as arson by the police. Police counting rules stipulated that (in most circumstances) a car reported stolen before being found

burnt out was recorded as theft or taken without the owner's consent (TWOC) whereas if a car was reported as "burnt out" then found to be stolen, it was usually recorded as arson. There was no method for reconciling the differences in the police and fire statistics locally due to the ways in which information was held. However, following a change in the Counting Rules in April 1998, deliberate car fires should now be recorded by the police as TWO separate offences as opposed to ONE offence. Therefore, the impact of car arson may be re-assessed in 1999 following a complete year's data under the new offence recording basis.

**2.31** For the various reasons outlined above it is not difficult to understand why some police statistics do not present arson as a policing problem, especially when statistically recorded arson makes up on average under 1% of their total workload. It is important that a more realistic measure of arson is used if national and local initiatives are to be properly evaluated.

*Recommendation 8: There is a need to move away from measuring arson crime on police recorded crime statistics alone. A true measure of arson and deliberate fire setting encompassing all the various data sources (including secondary fires) is required. Terms such as "doubtful" and "malicious" add to the confusion associated with the arson problem and thus should be avoided. The proposed new national forum, in conjunction with the Home Office Research, Development and Statistics Directorate, should work on producing new definitions for data collection which overcome the terminology and vocabulary difficulties highlighted in the report.*

## **C. PROBLEMS WITH DATA & INTELLIGENCE SHARING**

**2.32** There are a significant number of agencies that hold information in relation to arson. These are:-

### **Insurance Industry:**

*information held relating to claims, customer profile, property, premises and costs that may be associated with arson.*

### **Police:**

*details held of criminals and criminal investigations.*

### **Criminal Justice System:**

*information held relating to prosecution and punishment of arsonists.*

### **Probation Service:**

*information held relating to prosecution, punishment, release and whereabouts of arsonists.*

### **Fire Service:**

*information held about fire trends, activities and patterns associated with deliberate, doubtful and malicious outbreaks of fire and the types of property affected.*

**2.33** At present, sharing of information between agencies on issues such as patterns of arson, *modus operandi* of offenders and the risks to communities of certain individuals is occurring in a piecemeal fashion. There is little formal data sharing and in many cases data protection concerns are used as an excuse. Many opportunities are lost because agencies are in possession of vital information yet are simply unaware that another agency would benefit from its dissemination. Useful information is often stumbled upon rather than resulting from agencies being part of a structured information system. Another hindrance to sharing data effectively is due to fire brigades and police forces having incompatible IT software. Although on a day-to-day basis this was not a major problem, there are implications for any longer term information sharing strategy on a larger scale.

**2.34** A common request from those consulted in the fire service, as well as from loss adjusters, is the creation of a national arson database. Although potentially a large administrative task, the concept of a national database cannot be dismissed out of hand. It would certainly assist arson control efforts by linking vital pieces of the jigsaw which are held by the various agencies, often in isolation. However, there are certain practical issues which would need to be addressed;

- who would control and manage such a database?
- who would contribute to it, what would this involve and what requirement would be placed on those agencies to comply?
- what compatibility issues would apply (e.g. definitions, technology)?
- who would have access to it?
- who would use it?
- who would pay for it?
- data protection issues.

**2.35** In reality a national database housing information to cover the interests of all agencies on every deliberate fire or suspected insurance fraud is likely to be too big and too expensive an arrangement to manage effectively. There would be too much information to deal with and the direction and purpose of proactive national intelligence would be lost. However, the benefits of *local*

databases to establish intelligence to detect and prevent *local* problems should be encouraged. The benefits of sharing such information were apparent from the various initiatives witnessed during this report, such as the collaboration of police and fire service in the targeting of car crime and subsequent deliberate car fires. The framework for creating such *local* databases should arise from the networks emanating from the Crime and Disorder Act 1998. Other matters such as the practical issues of sharing information in the face of Data Protection legislation are also being addressed through the Crime and Disorder framework.

**2.36** It is recognised that limiting information sharing to the local level alone fails to readily identify the nationwide patterns and trends of suspected *organised* fraudulent arson. This issue is dealt with in more detail in Section 3 which discusses the potential of building on the anti-fraud measures already established by the insurance industry. It should be borne in mind that in many cases, insurance is underwritten centrally and not regionally but this should not preclude the exploration of how information might be shared.

*Recommendation 9 - Protocols for sharing information by relevant agencies on a local basis should be encouraged. There are significant benefits to be gained from developing local databases in order to prevent and control local problems. However, barriers such as data protection need to be addressed, especially with regard to commercial interests of insurance companies if effective intervention is to be achieved.*

### **Crown Prosecution Service**

**2.37** Decisions about whether or not to prosecute a suspected arsonist are taken by the Crown Prosecution Service in accordance with the principles set out in the Code for Crown Prosecutors. Prosecutors must be satisfied firstly that there is sufficient evidence to provide a realistic prospect of a conviction, that is to say that a jury or bench of magistrates, properly directed in accordance with the law, would be more likely than not to convict the defendant of the charge alleged.

**2.38** Prosecutors must then decide whether a prosecution is in the public interest. They must balance factors for and against prosecution carefully and fairly in reaching a decision, although in cases of any seriousness, a prosecution will usually take place, unless there are public interest factors tending against prosecution that clearly outweigh those tending in favour.

Arson is regarded as a serious offence but the Crown Prosecution Service will only pursue a prosecution when both these tests have been satisfied.

**2.39** There does, however, seem to be some confusion at grass-roots level within the police and fire services and other relevant agencies as to why certain cases were discontinued. If detailed feedback of this nature was available, most agencies believed that valuable lessons could be learned and investigation and detection techniques improved.

*Recommendation 10: To improve investigation and detection levels, further research is needed into the reasons for unsuccessful criminal prosecutions and for those cases that were discontinued before reaching court.*

**2.40** The FSS are under some pressure from prosecutors to have statements ready for committal proceedings. This is to be expected as the time between committal and first hearing in the Crown Court is now a matter of weeks (four weeks for those in custody and six weeks for those on bail). The prosecutor must therefore ensure that the evidence is trial-ready at the committal stage. The defence needs to see the strength of the prosecution case and issues of disclosure need to be resolved. Custody time limits also require prosecutors to progress cases expeditiously and applications to extend custody time limits will only be granted if the prosecutor can show that there is good and sufficient cause and that the Crown has acted with all due expedition.

**2.41** The Crown Prosecutor in charge of the case must ensure that the evidence is sufficient to provide the realistic prospect of conviction before the case can proceed. Although to non-lawyers a case may appear strong with a “mass of evidence”, it is the prosecutor who is in the best position to judge the strength of the evidence. From the forensic science viewpoint, the evidence required would involve not only results from the examination of the scene but also a great deal of laboratory examination. However, in the majority of cases, the forensic evidence to prove that arson was committed is not unusually complex and can be as straightforward as other cases involving forensic evidence. Nevertheless, there are clearly some misconceptions of the weight of evidence necessary for a successful prosecution and of the roles and responsibilities of the fire service investigators and the forensic scientists. In particular, the FSS believed that the prosecution needed more understanding and appreciation of the time and effort required to produce a full report of a fire investigation.

## **D. RESOURCES AND TRAINING**

**2.42** There are currently only three dedicated full-time fire investigation teams in England and Wales with a further team in Scotland. The majority of brigades without dedicated fire investigation rely on multi-function teams (usually with a background in fire safety) with fire investigation being a secondary role.

**2.43** Brigades have trained their fire investigation staff in a number of ways. This is usually via a mixture of in-house courses, Fire Service College courses and some privately run courses. There is currently little standard guidance available on which competencies are required for effective fire investigation (although NVQ qualifications are being developed). Most brigades have trained or are attempting to train all officers in limited fire investigation to the point of being able to recognise suspected deliberate ignition.

**2.44** The police have little training in dealing specifically with the complexities of arson. Probationary officers receive only half a day of pertinent arson investigation/detection related work during their initial training. Sergeants and CID training courses do, however, schedule about two days training for arson investigation work.

**2.45** There has been a recent emergence of fire investigation courses for brigades, mainly stemming from the private sector, which have an input from a selection of relevant agencies including the police, forensic scientists and the legal profession. In addition to improving the understanding of the roles and responsibilities of each agency, these training techniques include practical sessions for both police and fire officers to work together on particular problem solving exercises. Such joint training techniques are to be encouraged. A



number of brigades have now successfully trained their police colleagues in fire investigation. In Cleveland, for example, all but two SOCOs have received fire investigation training.

### **Recognised national standards for Fire Investigation**

**2.46** There is a need for recognised competence levels for fire investigators as scene examiners. This is essential not only for the fire service but also for fire investigators once a case is heard in court. The draft Forensic Science NVQ at Level 4 contains a Unit in Fire and Explosion Investigation which, if accredited, would provide a basis for assessing the competence of a person engaged in this type of investigation (which might include fire officers, scenes of crime officers, insurance investigators and forensic investigators). The motivation for developing the forensic science NVQs (and for proposing a National Council and registration scheme for forensic practitioners) has been the elimination of unreliable forensic evidence. The particular benefits to arson investigation are an emphasis on scene preservation, integrity of samples, continuity of evidence, and peer review of findings and conclusions. In the past, cases have suffered when one or more of these aspects have been successfully challenged in proceedings.

*Recommendation 11: There is a requirement for national standards for fire investigation and training. Current plans for standardised fire investigation qualifications (such as the NVQ Forensic Science Level 4) need to be built upon. In addition, the recent emergence of cross-training courses for the police, forensic scientists and fire investigators needs to be encouraged in order that each agency understands the investigation needs of others.*

## Introduction

**3.1** The insurance sector has been proactive in recent years in trying to combat the various types of insurance fraud. Anti-fraud measures include the ABI's Crime and Fraud Prevention Bureau (established in 1995) and anti-fraud databases such as the Claims and Underwriting Exchange (CUE) and the Motor Insurance Anti-Fraud and Theft Register (MIAFTR). Liaison with the police and fire service and other agencies with an interest in fraud prevention, such as the Department of Social Security, has improved. However, the study suggests that there are still gaps in current strategies with regard to fire-related insurance fraud.

**3.2** The issues surrounding insurers and loss adjusters<sup>3</sup> are complex. Due to the time frame of this study, there are some areas that will require some further research and investigation. Throughout the following section reference will be made to those instances where further work or consideration is thought appropriate.

### Ownership and leadership

**3.3** Insurers have been responsible for supporting or sponsoring a range of arson control initiatives - the Arson Prevention Bureau, the Arson in Schools initiative, hydrocarbon detector dogs, donating computer equipment etc, for which they are to be commended. However, the resources devoted to these prevention initiatives still represent only a fraction of the cost of arson to the insurance industry (running at around £549m a year).

**3.4** The study concluded that greater impact could be made by insurers at the underwriting stage of the policy. There should be more encouragement for commercial policyholders to install fire prevention and protection measures such as sprinklers and alarms and a greater stipulation of minimum standards of security. Some of those who gave evidence to this study suggested that insurers are now inclined to undertake fewer checks at the underwriting stage by performing fewer and less detailed premises surveys.

**3.5** The police and fire service suggested that insurers need to adopt a more active role in preventing arson and need to demonstrate that they are not content to bear the current level of arson and fraudulent claims. Reinsurance was also pointed to as diluting the impact of fraudulent claims to individual insurers (which is, of course, the purpose of reinsuring the risk). Research carried out by Loss Adjusters 'Resolve International Ltd' suggested that some re-insurers give a very low priority

to the fraudulent claims issue and had no formal approach to the subject.

**3.6** The insurers and loss adjusters consulted during the study acknowledged that they had an important role to play in arson control. For example, insurers are entitled to survey risks (not just arson risks but for all types of fire) and seek improvements in buildings; are often in possession of data relative to motive; and are able to investigate claims. They can demand evidence, instigate fraud cases in the civil courts and can also support the police in criminal proceedings. Some felt that the potential of their input was either ignored or not understood.

**3.7** It also appears that confusion can exist over the identity and status of personnel acting for the insurers and the legitimacy of their presence, especially at the fire/crime scene. Loss adjusters advocated an Accreditation System for insurers or insurers' agents to overcome this problem, for example by issuing identity cards to be worn by insurers attending the fire/crime. This type of accreditation scheme could be extended to look at the "competence" of insurance investigators and ensure that the "right-skilled" companies undertake the right sort of investigation or are competent to deal with a certain sized claim. The possibility of some form of accreditation scheme was looked at recently by an ABI working group. It concluded that there were a number of practical difficulties to be overcome, not the least of which involves data protection law. Various alternative methods of achieving this goal were identified. Nevertheless, the idea has merit and should be re-examined in the context of this report.

*Recommendation 12: Loss adjusters and insurers should consider the merits of an Accreditation Scheme which would indicate legitimacy of requests for information concerning suspicious fires to other agencies such as the police or fire service.*

**3.8** The ABI is the insurers' association that represents the majority of the insurance market. It performs tasks such as liaising with Government, police and other bodies; establishes standardised insurance good practice; and considers legislation affecting property insurance. But it has explained that it cannot influence the underwriting approaches of its members. Membership of the ABI acts as an indication to the public of good practice by the insurance company. However, if an ABI member wished to underwrite policies without regard to arson assessment factors etc, the insurer would not be in breach of any ABI requirements.

<sup>3</sup> Loss Adjusters are those employed by insurance companies to investigate the larger claims which they receive. Their expertise tends to lie in "claims" stage as opposed to the "risk assessment" stage.

Because of this inability to directly influence the behaviour of the whole insurance industry, input on prevention and intervention from the insurance sector needs to be taken from a wider perspective than the ABI alone.

*Recommendation 13: Any arson control strategy should incorporate representation from a range of insurers, loss adjusters and re-insurers*

### **Data sharing and liaison**

**3.9** Data sharing and liaison has most relevance in the context of fraudulent arson where the insurance industry is the main victim. Information on fraudulent arson cases is not shared freely within the insurance industry or in a formally agreed way with the police. There are at least two stages where an exchange of information to reduce fraud is crucial. Firstly, at the underwriting stage of a new policy proposal. This would allow insurers to undertake a proper risk assessment of the new/existing customer (has this person/company made a previous claim, previous business histories of company director's etc). The second stage is at the investigation phase of a suspicious claim. This would enable loss adjusters to establish patterns in claims throughout the insurance industry (e.g. multiple claims, use of "known" associates etc.). Although such checks are performed by insurers and loss adjusters, they are not undertaken in a systematic fashion. It appears that many of the fraudulent cases identified are stumbled upon rather resulting from industry-wide intelligence.

**3.10** Insurers acknowledged that their main objective of trying to deliver a rapid and competitive premium quote for a customer could create an imbalance between securing custom and carrying out every desirable check on risk. Many loss adjusters felt that insurers were afraid of the negative effect on business which could result from insurers asking too many questions at the underwriting stage or when claims are being investigated. Insurers do not want to be seen as accusing honest, potential policyholders of having the capacity to commit arson. Because of this commercial risk, no company appears prepared to take a lead by endorsing a more robust and perhaps more costly underwriting procedure with regard to arson risk. However, other industries prone to fraud such as banks and financial institutions do appear to have overcome the "commercial" interest problem in trying to combat credit card fraud and mortgage fraud.

**3.11** Some significant steps have been taken in recent years to combat insurance fraud with databases such as

CUE (domestic and car claims) and MIAFTR (Motor Car Insurance Anti-Fraud and Theft Register) being set up and guidance on fraudulent arson to insurers being produced by the ABI. These measures are a step in the right direction but perhaps could go further. MIAFTR is now on-line, free to police forces and has a 100% take-up by insurers. The ABI has recently set up a commercial claims database to identify potentially fraudulent claims, including fire. All claims over £25,000 will be included.

*Recommendation 14: The Insurance industry should be supported in its efforts to extend anti-fraud measures such as CUE and MIAFTR to cover insurance claims emanating from the commercial sector.*

**3.12** As alluded to earlier in the report, it appears that existing fraudsters can exploit the fact that no national register of fire and arson claims exists. Without a suitable checking system in place there is no way of tracing the common links between fires and insurance claims. In the UK, insurers are faced with client confidentiality agreements and data protection legislation which, while not insurmountable, pose significant hurdles to voluntary data sharing.

**3.13** This problem was in part overcome in the USA by the introduction of an *immunity* law concerned with arson investigations which has been enacted (in one form or another) by all 50 states. Immunity laws eliminate risks of insurance companies incurring severe civil damages for violating the insured's rights to confidence.

**3.14** These immunity laws have several important components. They have an effect by:

(i) *requiring insurance companies to notify the state fire marshal or other authorised agency when the insurer suspects that a fire loss on property it insures was caused by deliberate ignition;*

(ii) *granting immunity from criminal prosecution or civil liability to these insurance companies for releasing information about these fires outside of their organisation;*

(iii) *enforcing fines or withdrawing the licence to operate from any insurance company if it intentionally withholds this kind of information.*

**3.15** In general, claims have been made that these immunity laws have increased the number of successful detections and prosecutions for insurance fraud cases.

**3.16** Other anti-fraud measures such as the central loss register, PILR (Property Insurance Loss Register), were introduced on a state basis. It authorises the State Department of Insurance to promote reporting requirements on property loss. The rules require insurance companies to report property insurance claims with a dollar loss of more than \$1000 (1995) to the PILR. PILR is administered by the American Insurance Association and is an automated database of claims information. Reports run against the database search for “matches” in four areas:

- ◆ *Name of insured;*
- ◆ *Location of loss;*
- ◆ *Insurance duplication;*
- ◆ *Combinations of “other parties to the loss” (a match occurs if, for example, insured and partner, or second mortgagee have reported previous losses).*

**3.17** If a match occurs PILR produces a search analysis report which is returned to the insurance company concerned and to the State Fire Marshal who forwards it to the appropriate law enforcement agency. Insurers all request the same information at underwriting stage, meaning that no one firm has a commercial disadvantage.

**3.18** The arrangements in the USA arose as a result of the country falling victim to very high levels of organised fraudulent arson in late 1970s when arson levels were running at three to four times the current UK level and involved significant financial losses. This attracted media attention and calls for action by Government and insurers at the local, state and federal level. The key to success in the USA was that arson became a high priority issue and insurers confronted the problems of working together rather than acting just as competitors.

**3.19** Loss adjusters have been the main advocates of such a database in the UK where there is nothing similar to the PILR system. Databases such as MIAFTR and CUE have only limited information because data are given by the insurers on a voluntary basis. However there is a commercial marketing company currently in the process of creating a similar UK system to PILR. Any new database would also need to include information on repudiated claims; cases which have been contested in court; and suspicious claims which were still paid.

**3.20** Creating an insurance database is a challenging issue and requires a willingness and ability to co-operate and share information, particularly on the part of the insurers. It is worth noting that it is the insurers who “own” the information not the loss adjusters. Without the full support of the insurers, the loss adjusters would not

therefore be able to participate in the formal sharing of information. It must surely be in the wider public interest for insurers to share information on a greater scale in order to prevent arson for the purposes of fraud with all its attendant risks to the general public and fire-fighters.

*Recommendation 15: It is suggested that the Arson Prevention Bureau, in conjunction with the insurers and loss adjusters establish a trial national anti-fraudulent arson database for a period of not less than twelve months in order to demonstrate whether such a proposal would provide useful information. If this is the case then a wider database might be considered bringing in the other agencies although with due regard to data protection legislation.*

### **The responsibilities of the police and fire service**

**3.21** Not all the difficulties referred to in this section are the sole concern of the insurers. There has also been unwillingness, particularly from the police but also sometimes from the fire service, to share data with the insurers. There is no obligation on the police to assist or co-operate with insurers. Information on specific cases can be made available via a written request to interview the police officers and fire-fighters concerned. This procedure is bureaucratic and means that vital information can be passed to insurers months after the original request.

**3.22** The practice for road accidents differs from this general approach. Under the terms of a national ACPO Traffic Committee agreement the police can supply a copy of the accident report to the solicitor or insurer of the parties involved. This supply of information takes place even though it inevitably means the disclosure of personal data relating to other people involved in the accident including witnesses.

**3.23** It is recognised that passing of certain information may compromise a criminal investigation and preventing this must be an overriding concern. But a protocol could be adopted where information can be exchanged with insurers with safeguards in place. Discussions are being held between ACPO and the ABI on formalising the exchange of information between the police and insurers for all crimes not just arson. This document is expected to be completed shortly.

### **Other issues**

**3.24** There are a host of other issues which the insurance sector and loss adjusting fraternity may wish to consider. These are considered below.

## Investigation procedures

**3.25** Many loss adjusters have commented on the need for standardised claim investigation procedures throughout the industry in order to ensure that thorough, consistent investigations are carried out. There has also been concern expressed that the financial threshold triggering investigations is too high and that fraudsters are aware of the inadequacies in the present investigation procedures. Concern has also been expressed that insurance companies are sometimes asking loss adjusters to perform cursory investigations on some of the smaller claims.

*Recommendation 16: Consideration should be given to the possibility of introducing a standardised investigation procedure/claim form to ensure consistency in insurance claim investigations.*

**3.26** Domestic claims are only infrequently investigated. Many loss adjusters believed that more domestic arson for the purposes of fraud was being committed than the insurers realised as this is often the “breeding ground” for larger fraudulent fires. Insurers tend to focus their attentions on the larger claims rather than the smaller and more numerous domestic claims.

## Loss Assessors

**3.27** Loss assessors are employed by the insured to act on their behalf when submitting an insurance claim. They are mostly employed for the bigger commercial insurance claims, but it is not uncommon for them to be used in domestic claims.

**3.28** Most insurers and loss adjusters agreed that loss assessors could be useful as they understood the insurance arrangements and knew what information and documentation is usually required by loss adjusters in the course of their investigations. This meant that claims could be processed more quickly. However, there are no professional qualifications needed for people to set up as assessors and there is no regulation of the industry. Loss assessors have a role to play but there is some evidence that the unregulated industry has led to a number of inflated claims and, in some cases to more serious fraud. Loss adjusters are now moving more into the role of assessors for some of the larger claims (i.e. insurance companies are paying for some clients to also be represented by adjusters).

**4.1** Although the study has focused attention on national fault-lines in the existing arson prevention arrangements, there are a number of local initiatives and programmes which provide evidence of good practice which might be built upon in the future. During visits to a selected number of fire brigades and police forces, some examples of multi-agency working, intervention schemes and other good practice models were found. All of these initiatives are aimed at increasing prevention and detection of deliberate fires and improving the liaison between those agencies involved. Such initiatives need to be fostered, evaluated and the results disseminated widely. The following section looks at good practice examples of multi-agency partnerships; police/fire service co-operation; intelligence gathering; and a range of other prevention schemes. It also reviews some other arson control options floated during the study.

## A. Multi-agency partnerships

### i. *The Northumbria Arson Task force*

**4.2** The Northumbria Arson Task Force was set up in October 1997 by Northumbria police, Tyne and Wear fire brigade and the Arson Prevention Bureau. It followed an increasing number of malicious fires in Newcastle, particularly in the West End district of the city where some 94% of all fires attended were malicious. The Task Force works on a multi-agency approach and brings together the skills of the fire service (including a hydrocarbon detector dog), the police and a psychologist. Its task is to investigate, detect and prevent arson attacks. In the first year of its operation the Task Force established formal working links with local communities including education authorities, housing and environmental health departments.

**4.3** An important facet of the work has been 'target-hardening' initiatives.

- ◆ *Unsecured premises - The City's Environmental Health Dept has granted the fire service and the police the power to have empty properties boarded up immediately after they were identified as insecure or following a fire.*
- ◆ *Removal of refuse - zero tolerance programmes have been introduced in the West End by the Local Authority to remove refuse and litter, the fuel for arsonists.*
- ◆ *Removal of derelict vehicles - the majority of abandoned or derelict vehicles are usually subjected to arson. Arrangements are now in place for removal of vehicles at the request of the Task Force*

**4.4** The Task Force has also had responsibility for other programmes which contribute to its goal of reducing deliberate fires. These include a schools and mental health education programme; local targeting of specific related issues such as hoax calls and rubbish fires; and work with the Young Firefighters scheme.

**4.5** The Task Force's work includes the profiling of arsonists and the collection of information on possible motives. This is the first time that this type of data collection exercise has been attempted at the fire scene and should provide some valuable results. This work has been carried out in conjunction with a clinical psychologist at a local hospital who deals with persistent juvenile arsonists.

**4.6** It may yet be too early to judge the success of the initiative but a formal evaluation of the Task Force will be taking place. However, early signs are encouraging. Before the Task Force was set up approximately 73% of all primary fires in the Task Force area were malicious. Extrapolating the first 6 months figures for 1998 suggests that this percentage has now dropped to 53%.

*Recommendation 17: The proposed new national forum should ensure that results from any evaluation of the Northumbria and Bedfordshire Arson Task Forces are disseminated and incorporated into any best practice guide produced.*

### ii. *The West Yorkshire Protocol*

**4.7** In an attempt to improve information sharing and liaison, a Protocol has recently been established between the West Yorkshire Police, West Yorkshire fire service and with solicitors, Messrs Wansbroughs, Willey Hargrave. A similar Protocol has been adopted by Lancashire Fire Service.

**4.8** The Protocol, created in November 1997, enables the insurance company to gain an early assessment of a fire (to see whether it was arson, fraudulent arson or a fire caused through negligence) and includes a provision for any results of forensic investigations initiated by the insurance company to be made available to the police and fire service. There is also acknowledgement of the difficulties of gaining evidence which, while admissible in a civil proceedings, may be considered inadmissible in a criminal proceedings because insurers' agents are not covered by the Police and Criminal Evidence Act (PACE). Among the objectives laid down in the Protocol are:

*"...to act within an agreed code of conduct to promote closer liaison between the police, fire service and insurers.*

*..to share information as far as possible without compromising either the Authorities' investigations or those of the insurers.*

*..to offer legal assistance and assistance in the form of forensic investigations in situations where the Authorities' budgets will not fund such investigations.*

*...to fight fraud and deliver a clear message to the community at large that insurers will vigorously investigate any claims which appear to be of a fraudulent nature."*

**4.9** Unfortunately, there are no statistics available at present from either the fire service or the police to demonstrate the effectiveness of the Protocol. The Protocol appears an excellent opportunity for data sharing and liaison between the three key organisations involved in tackling arson and deliberate fires.

*Recommendation 18: The proposed new national forum should be notified of any new initiatives such as the West Yorkshire Protocol and should ensure that such initiatives are fully evaluated and the results disseminated.*

## **B. Police service/fire service co-operation**

### ***The Criminal Investigation of Arson Policy Document - Dyfed-Powys Police***

**4.10** This 'Criminal Investigation of Arson Protocol' has been in operation in the Dyfed-Powys police area since May 1997. Similar Protocols for fire investigation exist or are being developed in other brigade and police areas (Merseyside, Hampshire and Bedfordshire).

**4.11** The Dyfed-Powys policy document is provided to all police officers and forms part of Police Standing Orders by which crimes are investigated. A pocket-sized card acting as an aide memoire has even been produced and is issued to all officers for use by them when attending a fire scene. The Protocol sets out guidelines and force procedures on a range of subjects, such as initial response by police officers; preservation of the fire scene; interviewing witnesses; scene investigation, the role of the scenes of crime officer, reasons for suspecting arson; indicators of fraudulent arson and liaison with other agencies.

**4.12** The document provides checklists for the police to ensure that certain procedures have been followed and the correct information sought. The need to "treat all fires of doubtful origin as possible arson" is made quite clear. Dyfed-Powys Police and Mid and West Wales Fire Service have particularly positive liaison and data sharing arrangements. Indeed, Dyfed-Powys Police have a unique attitude to investigating arson and deliberate fires and are prepared to support the fire service in all deliberate fires ranging from the small rubbish bin fires to the larger and generally more serious building fires.

**4.13** Their crime strategy is one where every crime is investigated. They do not screen any reported crimes and aim to nip all criminal activity in the bud. The 1997 statistics for Dyfed-Powys show an overall crime clear-up rate of 61% and a 38% figure for arson. This is comparatively much higher than the national averages of 28% and 16% respectively.

## **C. Intelligence gathering, targeting & sharing**

### ***Geographical Information Systems (GIS)***

**4.14** Excellent examples of intelligence gathering which have enabled the targeting of arsonists were seen in Cleveland, in Kent and through work done on a joint project by Dr Alex Hirschfield of Liverpool University with the Greater Manchester Fire Service. Through plotting data of fire and crime incidents geographically, links have been established in those areas where the majority of arson fires occur. This information ties in with those areas of highest deprivation in a given area along with other census data. Cleveland Fire Service also carried out offender profiling in conjunction with the police and has drawn up boundaries for known arsonists in the area.

**4.15** The work of Dr Hirschfield demonstrates that a small number of people were responsible for a large number of arson fires in a particular area of Manchester. Again, these fires were concentrated with the same types of activities such as car crime, burglaries, etc. Arson was far more geographically concentrated than any other type of fire risk. Vehicle arson was more concentrated than residential arson. In relation to social deprivation, the rate of fire risk for all fires in the 10 worst wards was seven times higher than in the best 10 wards. For arson the risk was 31 times higher.



## D. Other Prevention and Detection Initiatives

### i. Juvenile Fire-setter Intervention Schemes

**4.16** About three-quarters of brigades are running some form of firesetting intervention/ education programme to address the problem of juvenile fire-setters. Although there are no official guidelines or endorsed standard schemes, the majority of the current programmes seem to have their origins in one or more of the ideas and programmes developed by Merseyside Fire Brigade (FACE); Tyne and Wear Metropolitan Fire Brigade; or Andrew Muckley (educational psychologist, Redcar Social Services).

**4.17** Juvenile fire-setters often do not realise the potential damage that fire can cause to property and lives. Intervention schemes are designed to target differing age groups and can broadly be put into two camps: those aimed at very young children (child fire play) and those for older children (juvenile fire-setters). The FACE Programme, for example, is designed to

involve the whole family and, where appropriate, in the presence of a parent, to explain to young children and juveniles (on a one-to-one basis) the dangers and dynamics of fire. This type of education is an extension of the more general community fire safety education packages. A handful of brigades are offering educational/treatment firesetting programmes which can be (and are being) used as a direct alternative for juveniles facing a custodial sentence. One brigade is known to be developing a provision for reparation in their scheme. Merseyside, the first brigade to take the scheme into prison to convicted offenders, appears to be achieving some very positive results.

**4.18** The schemes work on a referral basis. Juvenile fire-setters are referred to brigades either by teachers, parents, youth justice workers, outreach workers or, in some cases, the courts. Brigades do not approach parents and offer to “tutor” their children, although the Northumbria Arson Task Force do undertake letterbox drops offering advice to surrounding houses when a deliberate fire has been started in the area.

**4.19** Many of the brigades believe their schemes are effective and often quote a very low rate of recidivism as evidence. However, there is little formal statistical evaluation of such programmes. About half of the brigades stated that they undertake simple evaluation exercises. For example, Merseyside are introducing a “Quality of Service” questionnaire for parents to complete. There are also competing methodologies being promoted by different brigades or organisations. Where evaluation does take place, this is most often done by way of a series of follow up phone calls to the child’s house to find out whether firesetting has continued after the tutoring session. In some cases the family has since moved on and no audit track can then be established.

**4.20** These interventions do appear to be an effective way of addressing firesetting behaviour in youngsters and appear to have a direct effect of reducing the majority of deliberate fires that are set (i.e. vandalism/disorder activity). While the importance of the problem and the value of the initiatives by individual fire brigades is acknowledged, there are a number of issues which need to be addressed, including the question of how exactly fire brigades should be involved in this specialised work. For this reason, dedicated and effective guidance is required. CACFOA has produced a report on the procedures currently being used by those fire brigades which undertake intervention work, including examples of good practice. This guidance is currently with the Home Office Fire Directorate for validation with a view to issuing guidance to brigades. It is intended that as part of this exercise the key components will be developed into a “model” program in order to avoid duplication and bad practice.

*Recommendation 19: The Home Office and the Arson Prevention Bureau should take stock of the many Fire-Setter Intervention Schemes with a view to developing a “model” education package in parallel with work being undertaken on Community Fire Safety education. Any “model” should aim to include evaluation techniques and gather information on motives for firesetting.*

**ii. The Arson in Schools Project - (Building) Design Against Arson**

**4.21** Guidance produced by the Arson Prevention Bureau on steps to combat the disproportionately high number of school arson attacks (estimated to cost insurers £43 million a year) was first published in 1993 and recently revised in July 1998. Substantial advice on building design against arson was produced by a

Working Group consisting of representatives from the insurance industry (Zurich Municipal), the fire service, the Association of Local Authority Risk Managers and the Department for Education and Employment (DfEE). It is a useful demonstration of multi-agency co-operation.

**4.22** Research indicates that much can be done to incorporate crime prevention measures into building design. Copies of the guidance ‘How to Combat Arson in Schools’ were distributed to every school in the country. The extensive advice included risk assessment procedures for schools to assess their vulnerability of an arson attack and practical steps to take to reduce such a risk such as:

*“...detering unauthorised entry into the premises, through measures such as fences and security lighting, securing doors and windows and installing intruder alarms and closed circuit TV systems;*

*“...reducing the scope for fire damage. Combustible material should not be left to accumulate. Refuse containers should ideally be in a secure compound. Installing combined automatic fire detection and extinguishing systems such as sprinklers.*

*“...reducing losses and disruption following a fire. These include having a recovery plan in place and staff trained in fire procedures.”*

**iii. Crimestoppers**

**4.23** These schemes were first launched by the APB in Tyne and Wear and Durham in December 1994. The schemes, which offer rewards for information on people starting fires, were run by the police and fire service and operated under the aegis of the Crimestoppers organisation. A further phase of Crimestoppers was launched in May 1996 by the Anglia Crimestoppers Trust. This scheme was operated as a joint venture by the police forces and fire brigades of Norfolk, Suffolk, Cambridgeshire, Hertfordshire, Bedfordshire and Northamptonshire. Similar schemes have been rolled out in other areas where there has been a particular spate of deliberate fires or a particular serious fire.

**iv. Hydrocarbon Detector Dogs**

**4.24** A small number of brigades are now using hydrocarbon detector dogs which can confirm or detect the presence of certain accelerants. Their introduction has been sponsored by Eagle Star Insurance, costing in the region of £20,000 each (assuming an average working life of 5-7 years). The dogs have only been used

for a relatively short period but so far they have been involved in a high number of incidents and have proved highly effective. These sorts of measures also help raise the profile of arson investigation as they present media-friendly stories and act as a positive signal to the would-be offender that the fire service and police have a suite of measures to detect their activities.

## Other Possible Prevention options

### Fire Marshals/Arson Squads

**4.25** A minority of those consulted advocated the introduction in the UK of a system similar to the Fire Marshal arrangements in the United States. Under such arrangements the Marshal has autonomy over the investigation of every (suspicious) fire. Under this arrangement, the Marshal stands separate from the State police and fire service and acts as a quasi-law enforcement officer. Adopting a similar approach in England and Wales would clearly require major legislative and organisational changes. It is very doubtful whether the fire service would welcome police powers or the police relinquish their responsibility for the criminal aspect of arson investigation.

**4.26** Similar considerations apply to the suggestion made by some of those consulted who advocated the establishment of Arson Squads - joint police and fire squads devoted solely to the investigation of arson. Although a similar approach is working well in places such as Newcastle where there is a geographically concentrated and major problem, it is doubtful whether there is a case for such dedicated joint ventures in every police/fire brigade area. But more schemes should be encouraged and fostered.

*Recommendation 20: The merits of establishing joint fire service and police teams more widely should be examined in the light of the Tyne and Wear (and now the Bedfordshire) experience.*

### A Statutory Duty to Investigate Fires

**4.27** A number of the fire service personnel interviewed felt that placing a statutory responsibility to investigate all fires, in addition to the existing fire service statutory responsibilities, would secure the necessary financial support to ensure that fire investigation is done properly (i.e. not on a shoestring); would deliver evidence for wider safer community work; and make sure that all fire investigation officers are fully trained. Many of those interviewed cited examples where increasing demand on

already tight budgets had led to non-statutory work such as fire investigation being reduced. In the light of proposals for the new statutory duty to perform community fire safety many have argued that the time was right to introduce a statutory *power* to investigate the cause of the fire. The study has not found overwhelming evidence that such a power is necessary but believes that the Home Office should examine the case for its inclusion with any future fire safety legislation.

### Overseas

**4.28** The preceding paragraphs have identified a number of options for addressing the problem of arson at the national level. These are by no means exhaustive, indeed there are a number of unquantified initiatives which have been undertaken overseas, especially in the USA. Lessons from the other countries' experiences should be learned and fed into any further intervention strategies planned here. It has not been possible during the course of this scoping study to examine these initiatives in detail but this may be an appropriate matter for further consideration.

*Recommendation 21: The proposed new national forum should be given a remit to consider further research to assess the effectiveness of other arson control approaches (for example, those referred to in the United States of America) and the extent to which the UK could follow and benefit from their experience.*

**5.1** The Arson Prevention Bureau has been a pivotal agency in the efforts to combat arson over the past eight years. Until now, the Home Office has channelled much of its focus on arson through support for the Bureau although this support, in a tangible sense, has rather withered in recent years.

**5.2** The Bureau was launched in February 1991 following proposals in the 1988 Report of the Working Group on the Prevention of Arson which was itself established by the Home Office-sponsored Standing Conference on Crime Prevention. The intention was for the Bureau to spearhead a national arson control programme campaign. Its main tasks would be:

- working closely with other organisations to ensure that the National Arson Control programme (recommended in the 1988 report) was implemented
- identifying scope for changes in that programme
- monitoring progress and issuing an annual report

**5.3** The Bureau's specific activities would include:

- ◆ *monitoring the incidence of arson in the UK*
- ◆ *seeking to improve the statistical base*
- ◆ *drawing together information on arson from all UK sources, in particular on arson prevention initiatives taken by Government Departments, local authorities, fire brigades and police*
- ◆ *disseminating information on the incidence of arson and on appropriate remedial measures*
- ◆ *organising and advising on publicity and education to combat arson*
- ◆ *suggesting areas requiring research, initiating such research or commissioning research projects*
- ◆ *monitoring the arson situation in other countries*

**5.4** The conclusion of the scoping study is that the specific activities of the Bureau in paragraph 5.3 are essential to any new approach and need to continue. The Bureau has certainly performed them to a high standard thus far. However, where the Bureau has perhaps been less successful is in the first of its main tasks, namely offering a guiding role for a national arson control programme or strategy which can corral support of all concerned. This has been down to its inability to lever the disparate organisations in the same direction because it has not had the authority or status to do so. At the same time, the creation of the Bureau, rather than galvanising the constituent agencies into action, has allowed those agencies to think they can take a back

seat, viewing the impetus for arson prevention work as solely a job of the Bureau without recognising that the Bureau can only do its job with their support and co-operation.

### *The work of the Bureau*

**5.5** The Home Office funded the Bureau jointly with the Association of British Insurers for an initial three-year period during which time its work programme, based upon the recommendations of the Working Group, was determined by an Executive Council. This work programme was monitored by the Home Office which was represented on the Executive Council by senior officials from both the police and fire departments. In addition, the Home Office provided assistance on technical matters and was also represented on a number of Working Groups engaged in the drafting of various circulars and guidance documents dealing with arson prevention measures. On that basis the work carried out by the Bureau was valued by the police and fire services.

**5.6** The Bureau sought to raise the profile of the arson threat. It undertook some useful research projects and helped to facilitate communication and the exchange of ideas between organisations and agencies through seminars and conferences. This work has included a forum for arson investigators which is held on an annual basis. It commissioned research into the incidence of arson in schools; the motivation and background of arsonists; the true cost of arson; and the level of fraudulent claims.

**5.7** Research instigated by the Bureau into the current procedures within fire brigades and police forces for dealing with suspected arson cases assisted the Home Office to produce revised guidance to Chief Fire Officers and Chief Officers of Police on best practice in the investigation of suspicious fires. The Bureau's general approach has been to identify areas demanding priority attention; to establish working parties of specialists; and to produce material based on the identification and assessment of risk which sets out remedial action. Its publications to date include:

- ◆ *Apr '92 Prevention and control of arson in industrial and commercial premises".*
- ◆ *Feb '93 "Arson Alert" leaflet for all types of premises.*
- ◆ *Sep '93 "Fraudulent Arson - insurers' Considerations".<sup>4</sup>*

- ◆ *Annual Dossier of Arson Statistics.*
- ◆ *Mar '93 Arson in Schools (Research Report)*
- ◆ *Mar '93 How to Combat Arson in Schools.<sup>5</sup>*
- ◆ *Jul '93 Prevention and Control of Arson on Farms.<sup>6</sup>*
- ◆ *Mar 94 Arson Prevention and Control in Healthcare Premises.<sup>7</sup>*
- ◆ *Jul 94 Fire Investigation: Guide to Good Practice.*
- ◆ *May '95 Prevention and Control of Arson in Retail Premises - A Management Guide.*
- ◆ *Nov '95 Prevention and Control of Arson in Places of Worship.<sup>8</sup>*
- ◆ *Jul '97 How Building Design Can Reduce the Threat from Arson*
- ◆ *Feb '98 Arson Alert for Shops and Stores*
- ◆ *Jul '98 Accommodating Arsonists in the Community.*
- ◆ *Sep '98 Malicious Car Fires (Research Report)*
- ◆ *Sep '98 Car Fires: The Growing Problem and How to Help Extinguish It.*

### Home Office Support

**5.8** When the initial grant period concluded in 1994, Departmental expenditure constraints prevented further financial support from the Home Office. With hindsight this was perhaps unwise as it stunted the Bureau's capabilities at an early stage in its development. The Bureau continued to enjoy non-financial Home Office support although it was henceforth funded wholly by the Association of British Insurers. As a consequence, the Home Office did not receive detailed work-plan proposals but senior officials continued to attend meetings of the Bureau's Executive Council at which various aspects of its work were discussed and the Home Office continued to assist in drafting the Bureau's publications and in providing technical advice.

**5.9** From 1995 onwards the Bureau's influence appeared to be on the wane. This manifested itself in a lack of focus in its work programme and a consequent degree of disengagement by its target audience and reduced Home Office confidence in its approach. This

drift was contributed to by a tailing off of the level of representation from the Home Office at the Bureau's important Executive Council meetings.

**5.10** In 1997, the Bureau was relocated back within the umbrella of the Association of British Insurers. This appears to have given the Bureau a new lease of life and an active programme of work and successful awareness-raising projects have since materialised. This improvement now needs to be built upon but in itself does not provide a solution to the lack of influence in pulling together the other agencies referred to earlier.

### Moving On

**5.11** Although the study recommends that ownership and responsibility for driving forward arson control at the strategic level should revert to the Home Office, it is suggested that the Bureau should continue to act as an important operational arm for the efforts to tackle deliberate fires. A much closer working arrangement with the Home Office has to develop outside of the formal Council meetings of the Bureau. The Home Office also needs to show a greater appreciation of the Bureau and its contribution to the Department's own aims and objectives. Future representation by officials and the respective Police and Fire Service Inspectorates at its Council meetings ought to reflect that.

**5.12** The study has not mapped a detailed specification of the possible future activities of the Bureau. However, it is suggested that the APB, in discussion with the Home Office, might look to fulfil the following functions (in addition to those set out in paragraph 5.3):

- i. develop a new research programme framed around the outcome of this study and the issues highlighted as warranting additional work;
- ii. utilise their ABI umbrella links to help fulfil the best practice and protocol implementation work for insurers as advocated in this report;
- iii. seek to develop and foster local arson control networks.

**5.13** In addition, the Bureau's specific activities on raising the profile of the arson problem and efforts to tackle it would remain valuable and it is recommended that the following continue to be part of its core functions (again with a closer involvement with the Home Office).

- ◆ *monitoring the incidence of arson in the UK*

<sup>4</sup> Revised October 1998

<sup>5</sup> Revised July 1999

<sup>6</sup> In Collaboration with the National Farmers' Union

<sup>7</sup> In Collaboration with NHS Estates

<sup>8</sup> Revised February 1998

- ◆ *seeking to improve the statistical base*
- ◆ *drawing together information on arson prevention initiatives*
- ◆ *organising and advising on publicity and education to combat arson.*

*Recommendation 22: The Arson Prevention Bureau is recognised as a vital cross-agency body which links Government with other agencies, particularly the insurance sector. The new lead for the arson control strategy would rest with the Home Office but the*

*Bureau would have a crucial role in delivering the other aspects of the programme of work which the study has identified; co-ordinating the research programme; publicising the arson problem and the initiatives to tackle it; and working with Government to reach those who should be in receipt of arson prevention guidance.*



# APPENDIX A - LIST OF CONTRIBUTORS

## EVIDENCE COLLATION: ORGANISATIONS AND INDIVIDUALS APPROACHED FOR CONTRIBUTION

### 1. Home Office

Fire and Emergency Planning Directorate

*Fire Policy Unit  
Her Majesty's Fire Service Inspectorate*

Criminal Policy Directorate

*Juvenile Offenders Unit  
Sentencing and Offenders Unit  
Criminal Policy Strategy Unit  
Crime Prevention Agency  
Probation Unit  
Her Majesty's Inspectorate of Probation  
Justice and Victims Unit  
Mental Health Unit*

Police Policy Directorate

*Her Majesty's Inspectorate of Constabulary  
Operational Policing Policy Unit  
Police Staff College (Bramshill)*

Research, Development and Statistics Directorate

*Crime and Criminal Justice Unit  
Offenders and Corrections Unit  
Immigration and General Unit  
Resources Allocation Unit  
Policing and Reducing Crime Unit*

Prison Service

*Psychological Services  
Parole Unit  
Lifers Section  
HMP Portland*

### 2. Fire Service

Fire Brigades

*Bedfordshire  
Cleveland  
Hampshire  
Kent  
London  
Merseyside  
Mid & West Wales  
South Wales  
Tyne and Wear  
West Midlands  
West Yorkshire*

Chief and Assistant Chief Officers Association

*President  
Fire Safety Committee  
Arson Working Group*

Fire Brigades Union

Retained Firefighters Union

Fire Safety Development Group

### 3. Police

Police forces

*Bedfordshire*  
*Cleveland*  
*Dyfed-Powys*  
*Hampshire*  
*Kent*  
*Merseyside*  
*Metropolitan Police (Fraud Squad)*  
*Northumbria*  
*West Midlands*  
*Surrey (Scientific Support)*  
*Derbyshire (Scientific Support)*  
*Thames Valley (Scientific Support)*  
*West Yorkshire (Scientific Support)*

Association of Chief Police Officers

*Crime Committee*  
*Crime Prevention Sub Group*

National Crime Squad

### 4. Other Govt Depts/Agencies/Local Government

Department of Health

Association of Chief Probation Officers

Chief Probation Officer

Scottish Office (Home Department)

Her Majesty's Inspectorate of Fire Services (Scotland)

Crown Prosecution Service

Local Government Association

Social Services

Local Authority Risk Managers

Department of Environment, Transport & the Regions

Department for Education and Employment

Forensic Science Service

National Criminal Intelligence Service

### 5. Insurers & Loss Adjusters

Insurers

*Association of British Insurers*  
*Zurich Municipal*  
*Eagle Star*  
*GAN Insurance*  
*Lloyds of London*

Loss Adjusters

*Crawford THG*  
*Ellis & Buckle*  
*GAB Robins*  
*Chartered Institute of Loss Adjusters*  
*Resolve International Ltd.*  
*Neil Kelly-Consultant*

Arson Prevention Bureau  
Stewart Kidd  
Douglas Woodward (Consultant to the APB)  
Fire Protection Association/Loss Prevention  
Council

## 6. *Others*

Dr John Basson (Broadmoor Special Hospital)  
Dr Anne Barker (Bexley Hospital)  
Dr Phil Sugarman (Maidstone Hospital)  
Andrew Muckley (Educational Psychologist)  
David Stotesbury (Barrister)  
Dr J Shapland (Sheffield University)  
Michael Clarke (Liverpool University)  
Dr Alex Hirschfield (Liverpool University)  
Mick Gardiner (Fire Investigation Training Consultant)  
Paul Cavadino (NACRO)  
John Webb (Crimestoppers)  
Dr J. H Burgoyne and Partners - Forensic  
Science Consultants

# APPENDIX B - STATISTICS

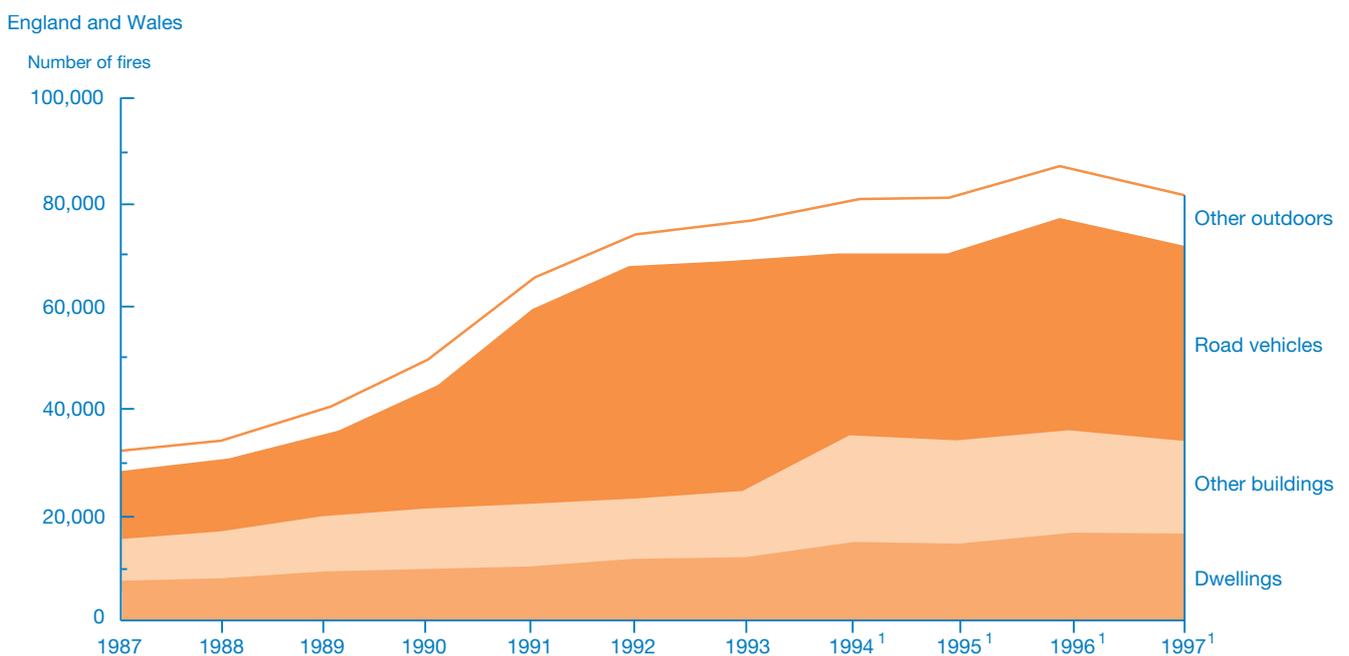
## i Fire Statistics

**Table 1.1 Primary (serious) fires, by motive and location of fire, 1987-1997**

England and Wales					Fires (thousands) <sup>1</sup>
Year	Total	Location			
		Dwellings	Other buildings	Road vehicles	Other outdoors
<b>Malicious fires</b>					
1987	31.6	6.0	9.2	13.2	3.1
1988	32.7	6.3	10.0	13.4	3.0
1989 <sup>2</sup>	38.7	7.3	11.3	15.9	4.3
1990 <sup>2</sup>	45.8	7.5	11.9	22.1	4.3
1991 <sup>2</sup>	60.5	7.7	12.8	35.6	4.4
1992	70.3	8.5	13.5	43.5	4.8
1993	71.3	8.8	14.7	42.5	5.3
1994 <sup>3,4</sup>	75.4	11.5	19.8	36.6	7.4
1995	75.9	11.5	19.2	37.8	7.4
1996	81.3	13.4	19.6	40.8	7.4
1997 <sup>5</sup>	76.5	13.0	17.6	38.8	7.2
<b>Accidental fires</b>					
1987	111.3	46.1	26.4	31.2	7.2
1988	110.9	46.4	27.1	30.8	6.5
1989 <sup>2</sup>	114.2	45.5	28.7	31.2	8.9
1990 <sup>2</sup>	109.1	43.9	27.6	29.4	8.2
1991 <sup>2</sup>	105.0	44.6	24.9	29.2	6.4
1992	102.6	44.6	23.9	28.1	5.9
1993	99.2	44.7	23.2	26.1	5.2
1994 <sup>3,4</sup>	94.6	43.3	21.3	25.3	4.7
1995	99.2	45.4	23.0	25.4	5.5
1996	98.5	46.3	21.9	25.7	4.6
1997 <sup>5</sup>	98.9	47.7	21.6	25.7	3.9

<sup>1</sup> Figures are rounded and the components do not necessarily sum to the independently rounded totals.  
<sup>2</sup> A small part of the increase in (non vehicle) malicious fires 1989-91 could be due to the inclusion of fires caused by children previously recorded as accidental.  
<sup>3</sup> There were changes in the recording of malicious and accidental fires, which affect comparisons, before and after 1994.  
<sup>4</sup> Figures from 1994 are based on sample data weighted to brigade totals and include 'late' calls and heat damage only incidents, which were not recorded prior to 1994.  
<sup>5</sup> Figures for 1997 are provisional and will be subject to revision.

**Figure 1.1 Malicious (serious) fires by location of fire, 1987-1997**



<sup>1</sup> Figures from 1994 are based on sample data weighted to brigade totals and include 'late' calls and heat and smoke damage only incidents, which were not recorded prior to 1994.

**Table 1.2 Malicious<sup>1</sup> (serious) fires by brigade area and location of fire, 1997**

	Malicious fires						
	Total Serious Fires	Total Malicious (%)	Total Malicious (number)	Dwellings	Other Buildings	Road Vehicles	Other Outdoors
<b>ENGLAND and WALES</b>	<b>175,444</b>	<b>44%</b>	<b>76,535</b>	<b>12,980</b>	<b>17,578</b>	<b>38,817</b>	<b>7,161</b>
<b>ENGLAND</b>	<b>164,170</b>	<b>43%</b>	<b>71,078</b>	<b>12,281</b>	<b>16,522</b>	<b>35,718</b>	<b>6,557</b>
<b>England - Non-Metropolitan counties</b>	<b>93,279</b>	<b>39%</b>	<b>36,820</b>	<b>5,403</b>	<b>9,141</b>	<b>18,007</b>	<b>4,269</b>
Avon	3,390	42%	1,438	157	281	867	133
Bedfordshire	1,749	46%	797	95	162	490	50
Berkshire	2,207	40%	876	93	213	522	48
Buckinghamshire	2,453	40%	983	154	186	579	64
Cambridgeshire	2,113	54%	1,137	214	236	579	108
Cheshire	3,050	38%	1,153	193	319	490	152
Cleveland	2,431	56%	1,350	273	362	576	140
Cornwall <sup>2</sup>	1,393	29%	399	36	111	182	70
Cumbria	1,638	37%	613	102	158	317	35
Derbyshire	2,471	41%	1,024	169	210	509	136
Devon	3,354	29%	983	111	259	475	138
Dorset	1,819	31%	564	47	195	220	102
Durham	2,296	51%	1,173	177	268	493	236
East Sussex	2,477	35%	862	136	190	465	71
Essex	3,672	43%	1,578	291	478	661	147
Gloucestershire	1,646	36%	593	90	149	274	79
Hampshire	3,899	31%	1,228	191	389	513	134
Hereford & Worcester	2,145	25%	540	102	144	259	34
Hertfordshire	2,939	29%	850	109	238	426	77
Humberside	3,176	47%	1,501	262	340	739	162
Isle of Wight	419	22%	91	8	60	17	6
Kent	4,820	40%	1,949	243	410	1,117	180
Lancashire	5,598	48%	2,661	590	701	1,083	286
Leicestershire	2,829	46%	1,303	175	298	664	166
Lincolnshire	1,571	38%	595	87	107	259	141
Norfolk	2,202	38%	843	91	228	366	158
North Yorkshire	1,727	36%	626	51	169	291	116
Northamptonshire	2,426	38%	911	123	170	520	98
Nothumberland	1,185	52%	614	77	140	280	117

<sup>1</sup> Figures include 'late' calls and heat and smoke damage only incidents, which were not recorded prior to 1994.

<sup>2</sup> Includes Isles of Scilly

**Table 1.2 Malicious<sup>1</sup> (serious) fires by brigade area and location of fire, 1997 (continued)**

	Total Serious Fires	Total Malicious (%)	Total Malicious (number)	Malicious fires			
				Dwellings	Other Buildings	Road Vehicles	Other Outdoors
Nottinghamshire	3,582	50%	1,796	265	325	866	340
Oxfordshire	1,777	38%	677	85	176	371	44
Shropshire	1,385	41%	572	49	135	337	51
Somerset	1,394	37%	512	48	148	244	72
Staffordshire	3,006	42%	1,267	135	338	681	114
Suffolk	1,620	26%	421	78	116	168	60
Surrey	2,311	26%	593	51	183	329	29
Warwickshire	1,483	40%	598	69	117	387	26
West Sussex	2,187	34%	738	112	264	276	85
Wiltshire	1,434	29%	412	64	167	115	65
<b>England - Metropolitan counties</b>	<b>70,891</b>	<b>48%</b>	<b>34,258</b>	<b>6,878</b>	<b>7,381</b>	<b>17,711</b>	<b>2,288</b>
Greater Manchester	13,346	56%	7,502	1,392	1,383	4,101	625
Merseyside	6,822	52%	3,527	942	810	1,520	256
South Yorkshire	4,635	53%	2,467	293	442	1,589	143
Tyne & Wear	5,668	55%	3,124	639	718	1,547	220
West Midlands	12,274	50%	6,151	1,244	1,441	3,088	379
West Yorkshire	8,502	56%	4,787	769	896	2,886	235
Greater London	19,644	34%	6,700	1,600	1,692	2,980	429
<b>WALES</b>	<b>11,274</b>	<b>48%</b>	<b>5,457</b>	<b>699</b>	<b>1,056</b>	<b>3,099</b>	<b>604</b>
North Wales	2,080	34%	698	135	192	276	95
Mid and West Wales	3,437	47%	1,608	178	243	994	192
South Wales	5,757	55%	3,152	386	621	1,828	316

<sup>1</sup> Figures include 'late' calls and heat and smoke damage only incidents, which were not recorded prior to 1994.

<sup>2</sup> Includes Isles of Scilly

**Table 1.3 Deaths and injuries in malicious fires, 1987-1997**

England and Wales

	Deaths					Injuries				
	Total	Dwellings	Other buildings	Vehicles	Other	Total	Dwellings	Other buildings	Vehicles	Other
1987	77	50	8	7	12	1,224	897	206	39	82
1988	98	62	7	13	16	1,330	906	302	31	91
1989	105	43	20	22	20	1,547	1,026	318	49	154
1990	107	49	9	23	26	1,764	1,039	452	57	216
1991	94	44	11	20	19	1,685	1,044	387	72	182
1992	104	50	15	19	20	1,902	1,246	392	118	146
1993	79	32	14	20	13	1,930	1,183	505	82	160
1994 <sup>1</sup>	101	50	13	18	20	2,692	1,656	687	86	263
1995 <sup>1</sup>	132	74	7	24	27	2,721	1,660	603	94	364
1996 <sup>1</sup>	120	68	11	21	20	2,672	1,625	676	104	267
1997 <sup>1,2</sup>	95	56	10	16	13	2,524	1,657	509	77	281

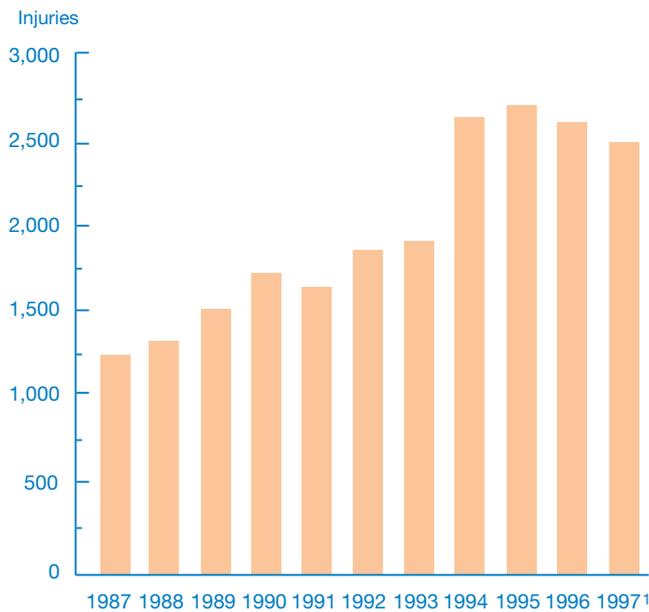
<sup>1</sup> Includes late call and smoke incidents which were not recorded prior to 1994.

<sup>2</sup> Figures are provisional and are likely to be revised downwards when further information from death certificates becomes available

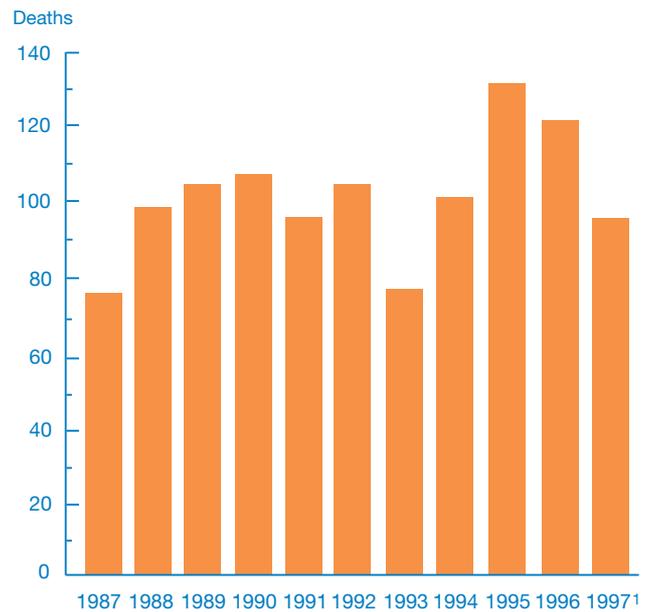
**Figure 1.2 Casualties in malicious fires, 1987-1997**

England and Wales

a) Injuries



b) Deaths



<sup>1</sup> Figures are provisional and are likely to be revised downwards when further information from death certificates becomes available.

## ii Police Statistics

**Table 2.1 Total offences and arson offences recorded by the police, 1987-1997**

England and Wales

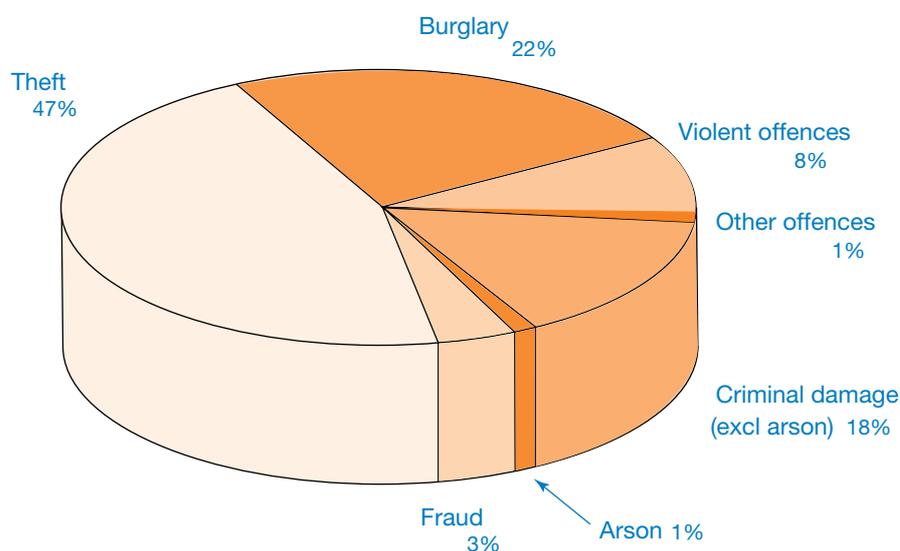
Year	Total offences <sup>1</sup>			Arson offences		
	Recorded	Cleared up	Clear-up rate	Recorded	Cleared-up	Clear-up rate
1987	3,716,185	1,229,429	33%	18,920	5,068	27%
1988	3,550,174	1,248,892	35%	21,045	5,052	24%
1989	3,706,217	1,246,959	34%	23,715	5,643	24%
1990	4,363,632	1,379,423	32%	26,469	5,653	21%
1991	5,075,343	1,479,490	29%	30,090	5,023	17%
1992	5,383,485	1,390,864	26%	33,748	5,029	15%
1993	5,317,110	1,328,155	25%	32,254	5,105	16%
1994	5,032,447	1,326,366	26%	30,595	5,219	17%
1995	4,885,944	1,276,875	26%	29,985	4,800	16%
1996	4,868,377	1,287,690	26%	31,068	4,870	16%
1997 <sup>2</sup>	4,466,956	1,257,236	28%	31,495	5,005	16%

<sup>1</sup> Excluding criminal damage offences under £20

<sup>2</sup> Figures are provisional

**Figure 2.1 Offences recorded by the police, 1997**

England and Wales



**Table 2.2 Offences recorded and cleared up<sup>1</sup> by police force area, 1997<sup>2</sup>**

**England and Wales**

Police Force Area	All Offences		Arson		% of all offences
	No. recorded <sup>1</sup>	Clear-up rate <sup>1</sup> (%)	No. recorded	Clear-up rate (%)	
<b>England and Wales</b>	<b>4,466,956</b>	<b>28.1</b>	<b>31,495</b>	<b>15.9</b>	<b>0.7</b>
<b>England</b>	<b>4,236,789</b>	<b>27.5</b>	<b>29,938</b>	<b>15.6</b>	<b>0.7</b>
Avon and Somerset	139,039	25.9	556	15.1	0.4
Bedfordshire	46,071	34.9	299	15.7	0.6
Cambridgeshire	58,334	27.1	619	18.4	1.1
Cheshire	58,638	35.6	174	35.6	0.3
Cleveland	62,604	24.5	396	8.6	0.6
Cumbria	34,787	39.6	457	16.8	1.3
Derbyshire	71,684	25.3	406	18.2	0.6
Devon and Cornwall	92,119	31.7	965	17.0	1.0
Dorset	42,844	29.1	380	12.6	0.9
Durham	46,605	30.6	407	17.0	0.9
Essex	87,582	27.1	1,000	16.6	1.1
Gloucestershire	46,175	23.7	322	16.5	0.7
Greater Manchester	298,621	19.8	1,449	16.6	0.5
Hampshire	120,755	30.1	720	24.2	0.6
Hertfordshire	48,620	32.3	240	19.6	0.5
Humberside	117,864	19.8	886	13.2	0.8
Kent	119,442	30.8	1,516	13.8	1.3
Lancashire	116,334	30.0	447	21.3	0.4
Leicestershire	78,937	34.2	347	22.5	0.4
Lincolnshire	42,142	48.0	394	33.8	0.9
City of London	4,983	24.4	3	33.3	0.1
Merseyside	122,380	30.7	631	10.6	0.5
Metropolitan Police District	769,113	25.5	4,493	11.3	0.6
Norfolk	51,808	36.8	436	29.1	0.8
Northamptonshire	52,503	35.5	496	16.5	0.9
Northumbria	136,162	26.3	1,490	11.6	1.1
North Yorkshire	48,816	26.5	238	12.6	0.5
Nottinghamshire	124,358	28.5	1,254	19.9	1.0
South Yorkshire	127,219	29.0	548	18.6	0.4
Staffordshire	87,387	35.2	522	21.6	0.6
Suffolk	34,621	37.3	236	22.9	0.7
Surrey	37,342	32.8	224	19.6	0.6
Sussex	108,435	25.6	636	16.2	0.6
Thames Valley	152,926	24.5	1,040	16.4	0.7
Warwickshire	34,704	27.0	167	18.6	0.5
West Mercia	74,569	28.0	455	18.0	0.6
West Midlands	271,005	23.7	1,944	15.6	0.7
West Yorkshire	237,167	27.1	2,907	9.2	1.2
Wiltshire	32,095	32.3	238	29.8	0.7
<b>Wales</b>	<b>230,167</b>	<b>40.6</b>	<b>1,557</b>	<b>21.8</b>	<b>0.7</b>
Dyfed-Powys	17,581	61.0	97	38.1	0.6
Gwent	45,918	50.9	481	23.5	1.0
North Wales	39,522	33.6	233	19.3	0.6
South Wales	127,147	36.4	746	19.4	0.6

<sup>1</sup> Excludes criminal damage offences under £20.

<sup>2</sup> Figures for 1997 are provisional

### iii Court Statistics

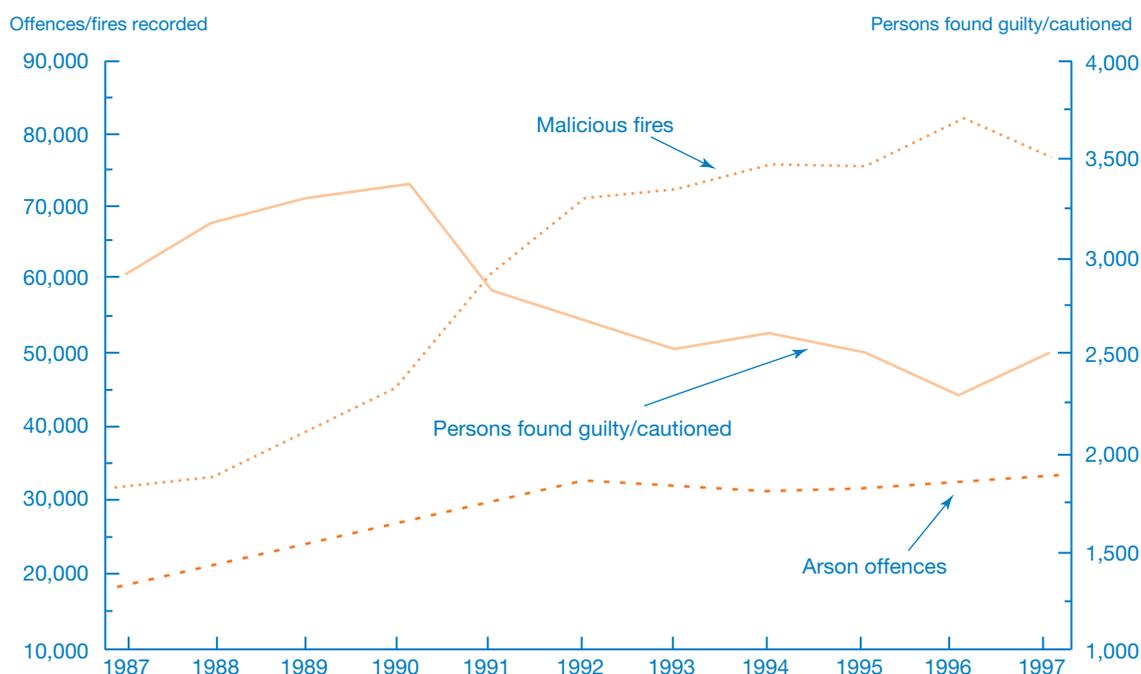
**Table 3.1 Persons cautioned or found guilty of arson offences, 1987-1997**

England and Wales

Year	Persons cautioned or found guilty	Males (%)	Females (%)
1987	2,896	88.7	11.3
1988	3,167	88.2	11.8
1989	3,315	88.3	11.7
1990	3,393	87.4	12.6
1991	2,831	87.3	12.7
1992	2,717	87.3	12.7
1993	2,598	87.2	12.8
1994	2,646	87.5	12.5
1995	2,492	88.8	11.2
1996	2,228	88.3	11.7
1997	2,500	87.6	12.4

**Figure 3.1 Serious malicious fires, arson offences recorded and persons cautioned or found guilty of arson, 1987-1997**

England and Wales



# APPENDIX C - COST OF ARSON: ANNUAL ESTIMATE

(based mostly on 1996/97 figures)

ELEMENT		£m	£m
<b>i. Insurance<sup>1</sup></b>			
Property loss due to deliberate fire damage		370	
Business interruption		102	
Deliberate car fires		77	549
<b>ii. Fire Service</b>			
Based on workload estimate of 27% of all incidents attended applied to annual budget of circa £1.4bn			378
<b>iii. Police</b>			
Based on workload: estimate <i>recorded</i> arson accounts for about 1% of police authority budget of £7.1 bn <sup>2</sup>			71
<b>iv. Forensic science support/attendance</b>			
Forensic Science Service	400 scene examinations @ £420 each	0.2	
Private companies <sup>3</sup>	400 scene examinations @ £1,500 each	0.6	0.8
<b>v. Human cost (casualties)<sup>4</sup></b>			
95 deaths	Contingent estimate: £780,000	74	
2,500 injuries	Contingent estimate: £92,000	230	304
<b>vi. Cost to retailers</b>			
Retail Crime Survey <sup>5</sup>			21
<b>TOTAL ANNUAL ESTIMATE</b>			<b>1,324</b>

## Notes

- 1 Source: Association of British Insurers and Arson Prevention Bureau.
- 2 Source: Home Office Annual Report 1998.
- 3 Source: Dr J.H. Burgoyne and Partners. Numbers of scene examinations are estimated.
- 4 Source: Department of Environment, Transport and the Regions.
- 5 Source: British Retail Consortium.

## Calculations exclude:

- i. cost for uninsured or underinsured property (for example LEA mandatory deductibles or policy excess of about £120 million.);
- ii. insurance losses borne by non ABI members, such as Lloyds of London;
- iii. investigation time or training for fire service, police service, Loss Adjusters etc.;
- iv. other Criminal Justice System costs, such as courts and prisons;

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