EAST SUSSEX FIRE AUTHORITY

INTEGRATED RISK MANAGEMENT

TECHNICAL APPENDIX TO ANNUAL ACTION PLAN 2005/06

DRIVING DOWN RISK

MAKING OUR COMMUNITIES SAFER

This Technical Appendix aims to add some additional detail to the information contained in the East Sussex Fire Authority Integrated Risk Management Annual Action Plan 2005/06.

It is split into 3 broad sections –

Section 1 describes historical risk, i.e. that risk that has been 'realised' by requiring an attendance by our operational crews.

Section 2 describes potential risk, i.e. risk that has a potential to be realised and may require the attendance of our operational crews in the future. Also contained in this section is an outline of our community safety strategy and related targets up to 2009/2010.

Section 3 describes our professional view of local risks, split by 'Station Ground'. In this context, Station Ground is the area that each fire station assumes responsibility for, both in terms of prevention of incidents before they happen as well as response to incidents that have occurred.

We trust that this technical appendix will assist those who have an interest to understand our perceptions of risk, as well as the actions that we take to prevent incidents from occurring.

This document only holds a small proportion of the wealth of data and analysis that we hold and act upon. Further data, analysis and information is available in a wide range of documents, each of which is available via our website at www.esfrs.org

Finally, should an incident occur despite our preventative efforts, we are confident that we have a sufficient reserve of high quality people, trained and equipped to a very high standard, who are able to successfully tackle any incident that we are called upon to attend.

If you have any comments, require a translated / different format version, would like to seek clarification or would like to ask us any questions about the contents of this Technical Appendix, please feel free to contact the IRM Team on 0845 130 8855, or write to us at Service Headquarters, 20 Upperton Road, Eastbourne BN21 1EU.

Section 1

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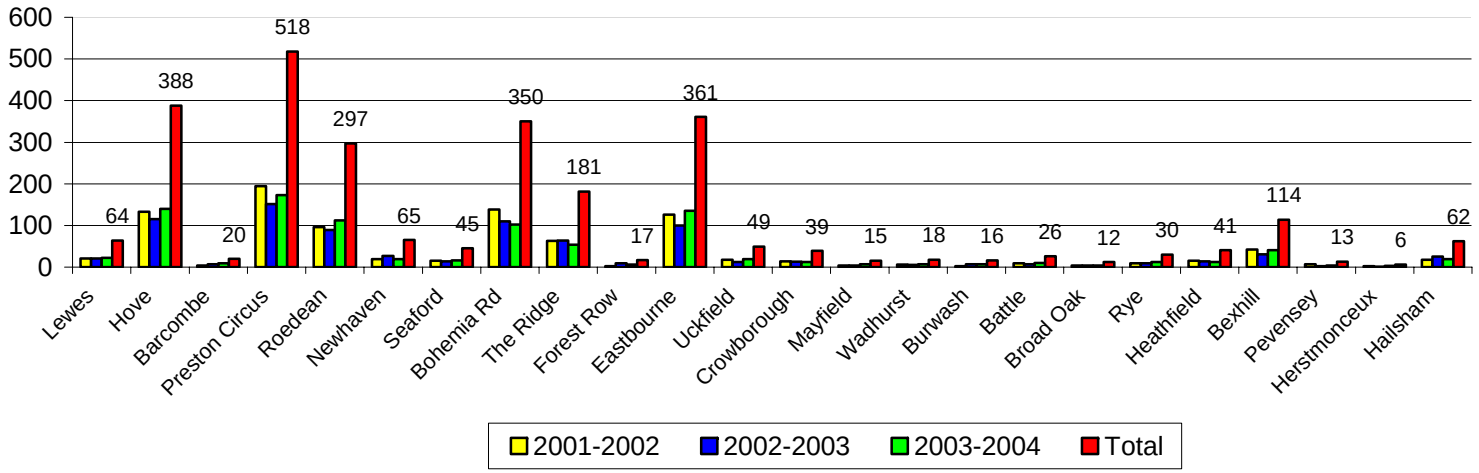
HISTORICAL RISK

The following sets of data describe 'risk that has been realised', i.e. the potential that is inherent in almost all buildings and activities for things to go wrong, has done so.

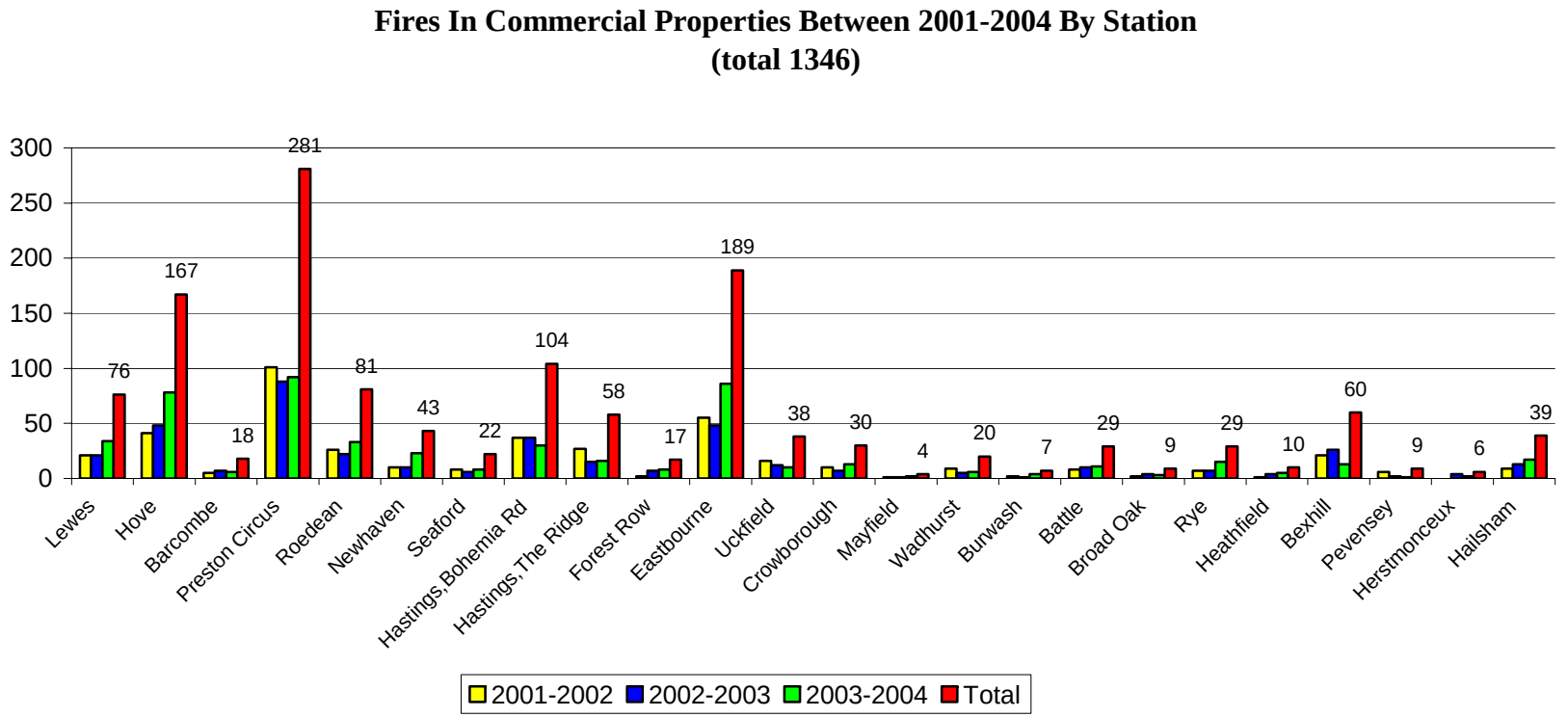
Our experience is that the greatest chance of injury or death from fire comes from residential fires. The following chart shows that risk within East Sussex and the City of Brighton and Hove, over the past 3 years. Note that the names along the base of the chart refer to the fire station in whose station ground the incident occurred.

Chart 1 – Fires in domestic properties



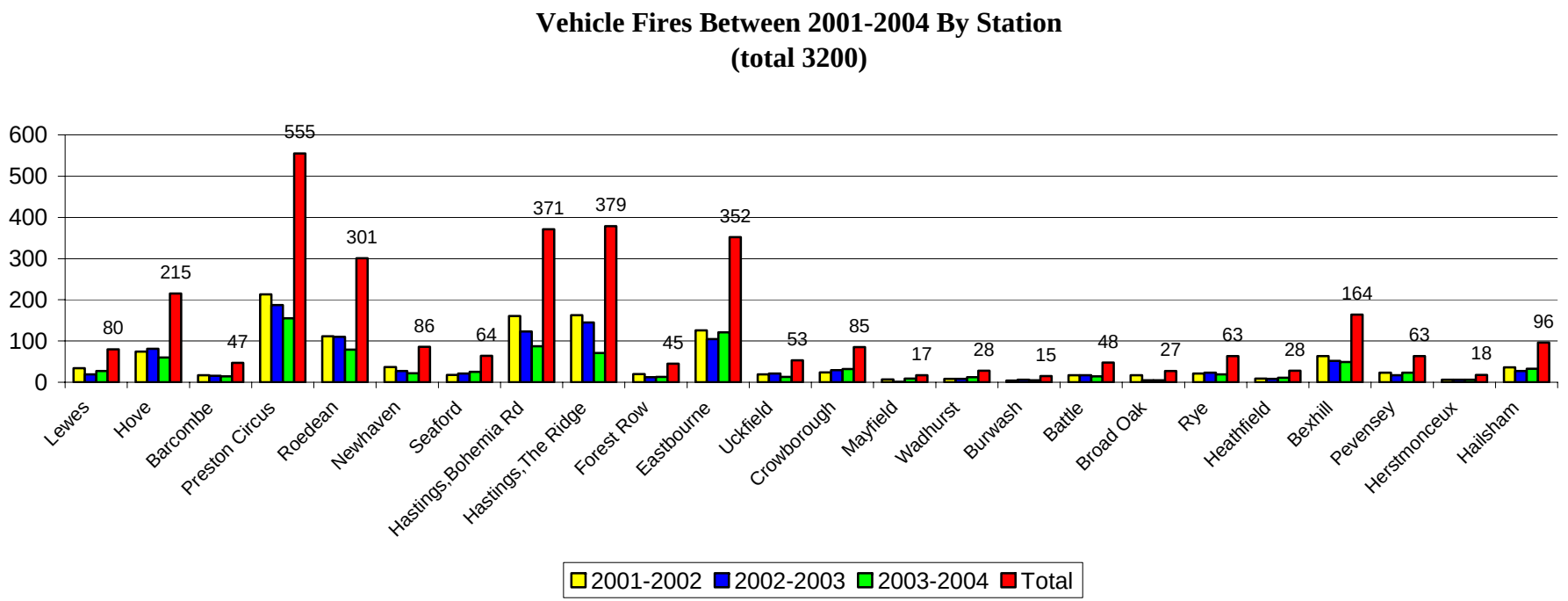
Following on from fires in residential property, the graph below shows fires that have occurred in non-residential property.

Chart 2 – fires in commercial properties



The following chart shows vehicle fires.

Chart 3 – Vehicle fires



A significant part of our workload, and a generally increasing trend over the last few years, is arson. A large and rising proportion of fires are caused deliberately, frequently after the commission of another crime. We are planning to create a local Arson Task Force, to tackle this and all other forms of arson. We have also entered into a partnership with Sussex Police, West Sussex Fire & Rescue Service, Sussex Ambulance and a wide range of Local Authorities to share data, with a view to identifying patterns and trends in such crimes. This project is known as CADDIE (Crime And Disorder Data Information Exchange) – further information is available at www.caddie.gov.uk

Chart 4 – Cause of domestic fires

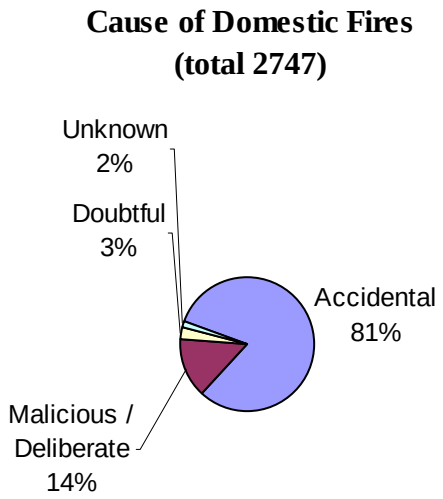


Chart 5 – Cause of commercial fires

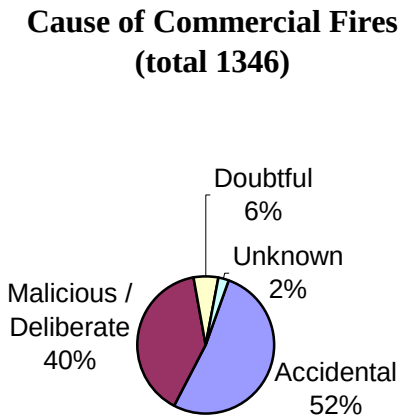
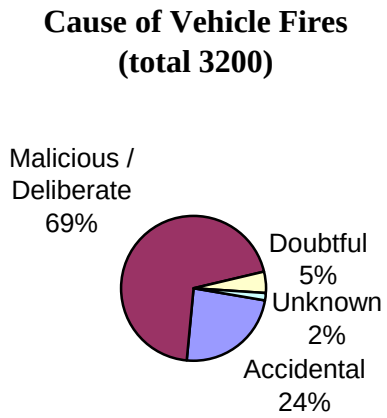
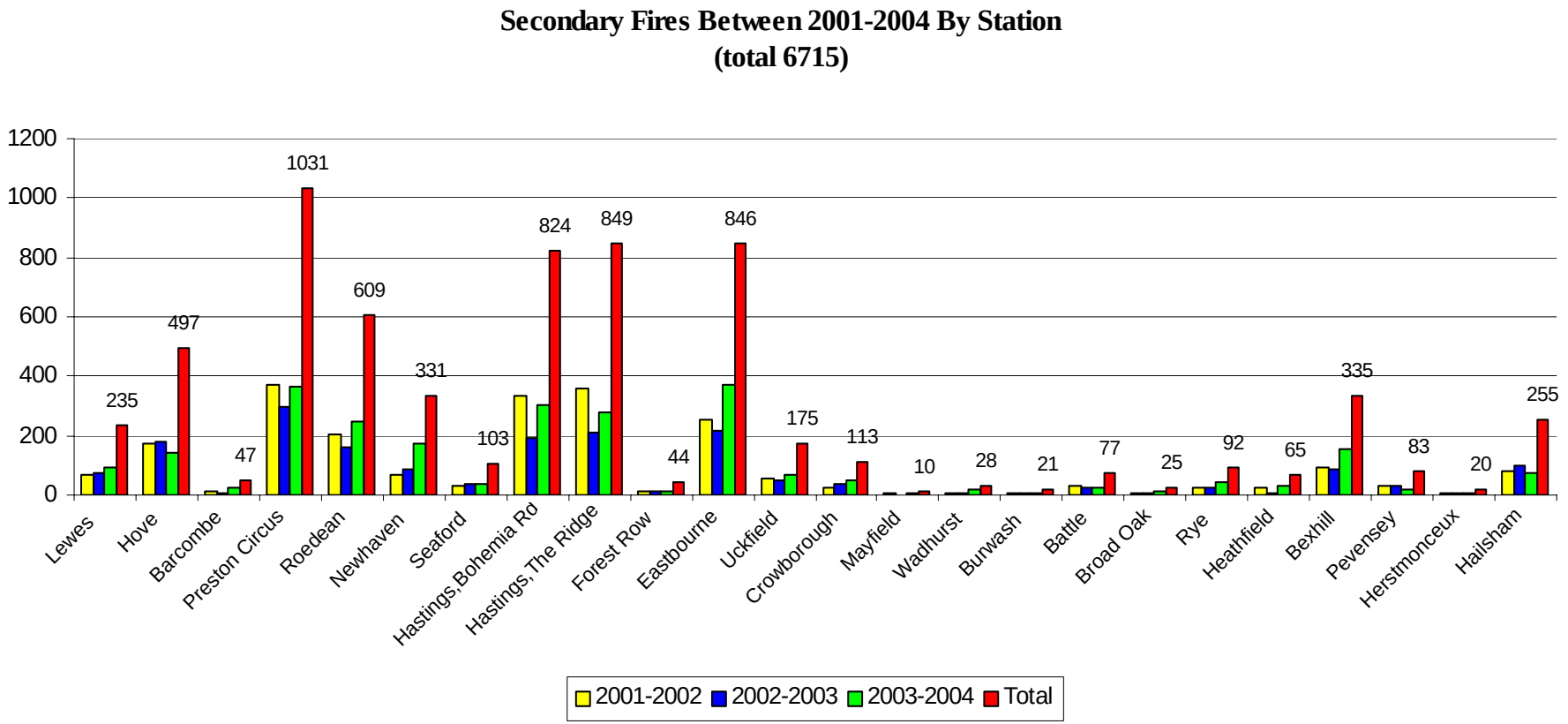


Chart 6 – Cause of vehicle fires



Rubbish fires are generally the result of deliberate firesetting, i.e. the crime of arson. They can be tackled at source, by better management of waste disposal / collection, or by increased public education about the dangers involved in setting fires. We are entering into an increasing number of arrangements with partner organisations to try to manage the frequency of this type of fire.

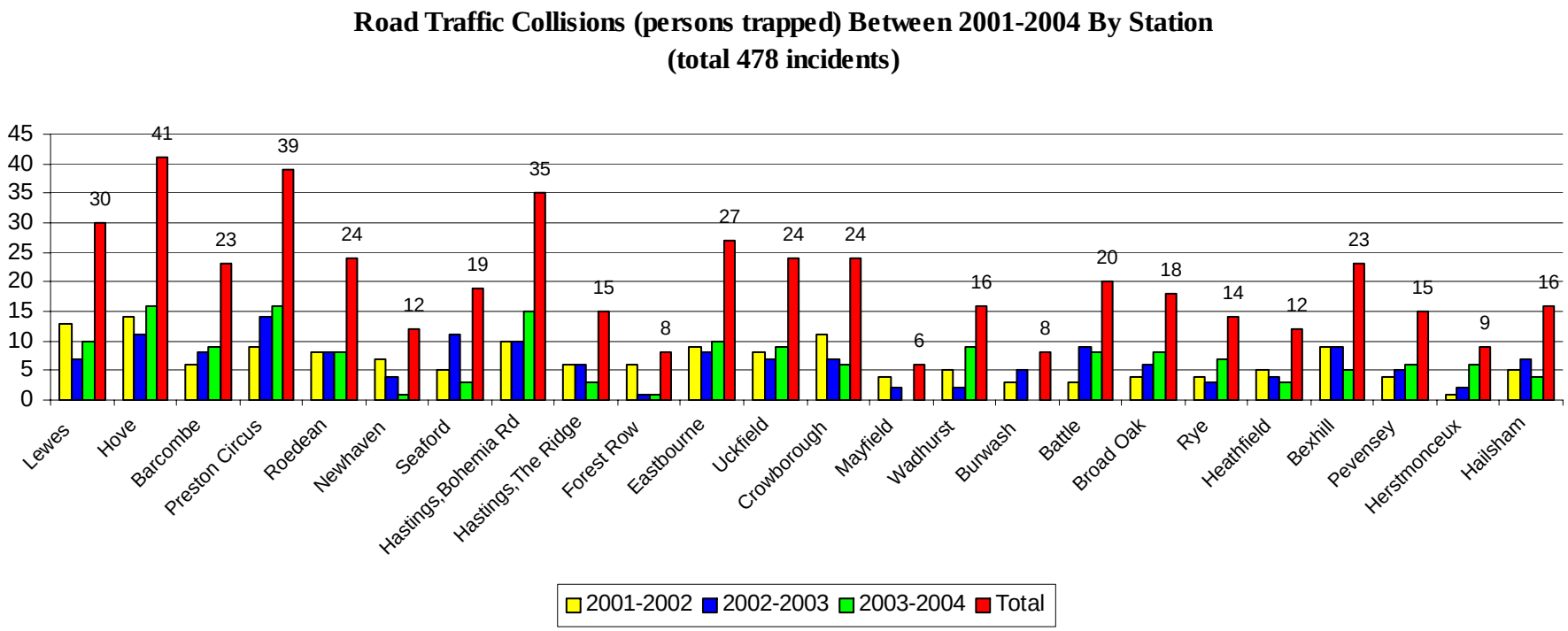
Chart 7 – Secondary fires



In terms of rescues from hazardous situations, we rescue fewer people from fires than we do from incidents that we collectively describe as 'Special Services'. Special Services incorporate a very wide range of incidents, ranging from people trapped following a Road Traffic Collision, by flood water, in a lift or by machinery. We also attend a wide range of Special Services relating to the spillage of Hazardous Materials.

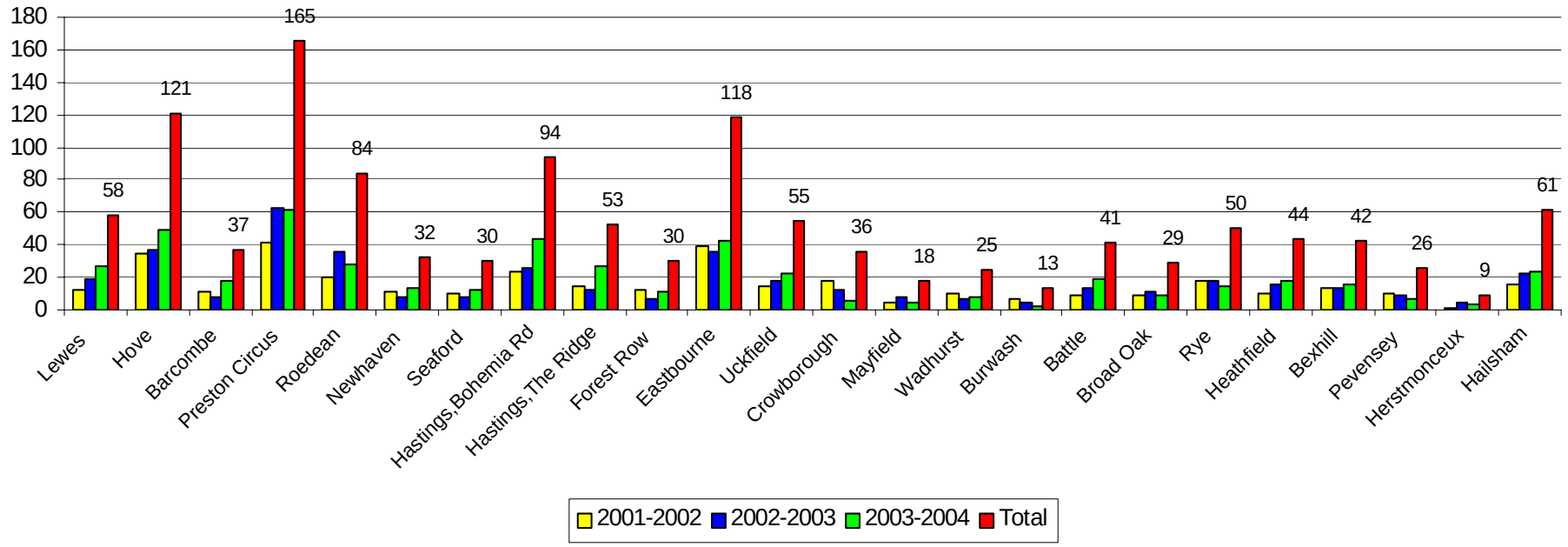
The following graph shows those Road Traffic Collisions that we attended because we were required to extricate one or more casualties.

Chart 8 – Road Traffic Collisions (Persons Trapped)



The following graph shows those Road Traffic Collisions that we attended but, on arrival, we did not need to extricate any casualties. On most of these occasions, we rendered assistance to those directly involved, and to other emergency services, in a variety of other ways. Most vehicles after being involved in a Road Traffic Collision present a wide range of potential hazards (e.g. ignition of fuel leakage), which we are trained to minimise.

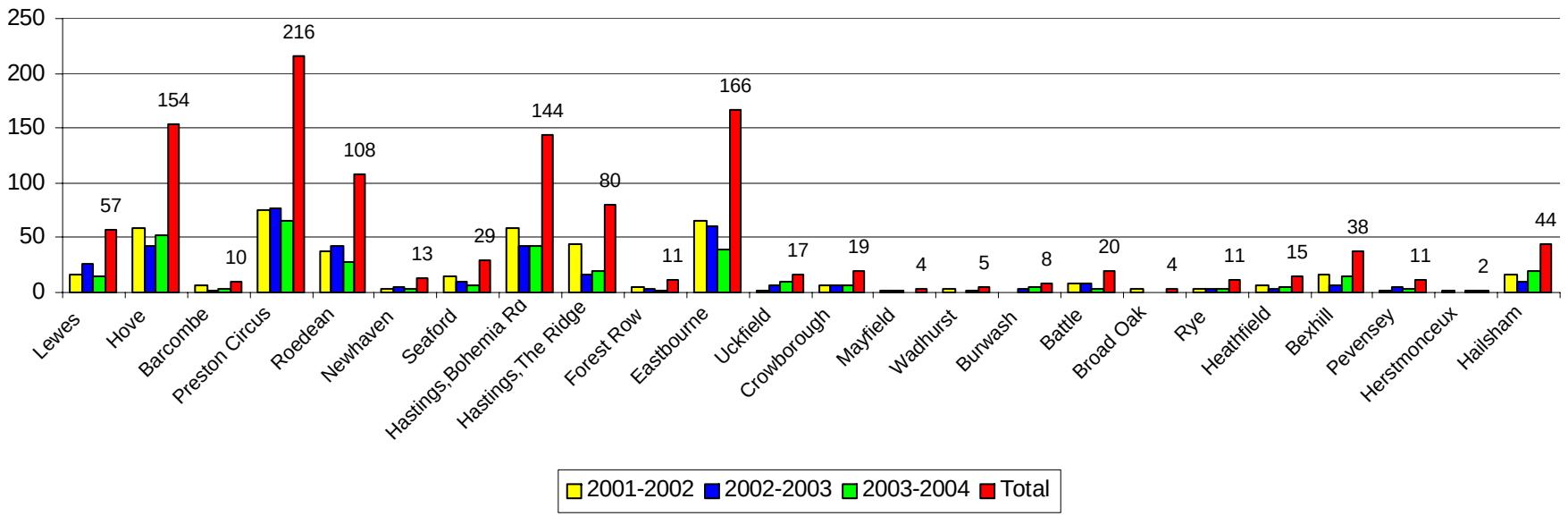
Chart 9 – Road Traffic Collisions (Make Safe)



Spillages of Hazardous Materials are, thankfully, not a frequent event. When they do occur, they can be massively disruptive and pose a significant threat to emergency crews surrounding premises and the environment. We are proud to be one of the first Fire Authorities in the South-East to have engaged with the Environment Agency and agreed a range of procedures to minimise the impact of spillages to the environment. We intend to maintain these arrangements, and improve on them where possible.

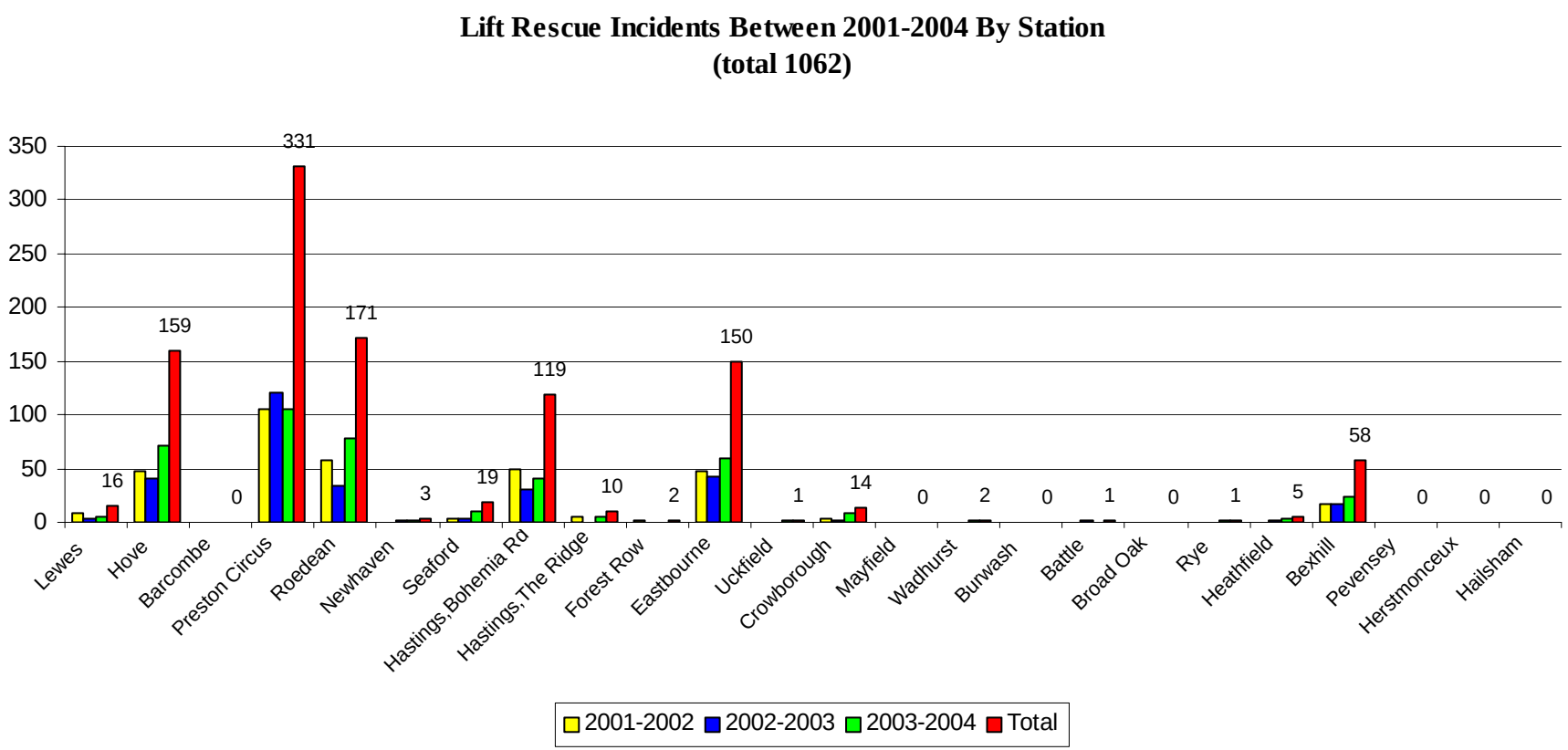
Despite stating that spillages of Hazardous Materials are not a frequent event, this is only true of large scale or very high hazard spillages. The leakage of petrol from cars is, unfortunately, a common occurrence. This typically occurs in the larger coastal towns, especially during the summer months. The cause is frequently as simple as a recently-filled vehicle being parked on a slope, with the effect magnified by the expansion of the fuel during warm weather. These types of spillages, which are actually closer to a nuisance than a high hazard, are responsible for the great majority of the calls listed in the graph below.

Chart 10 – Hazmat, leaks & spills



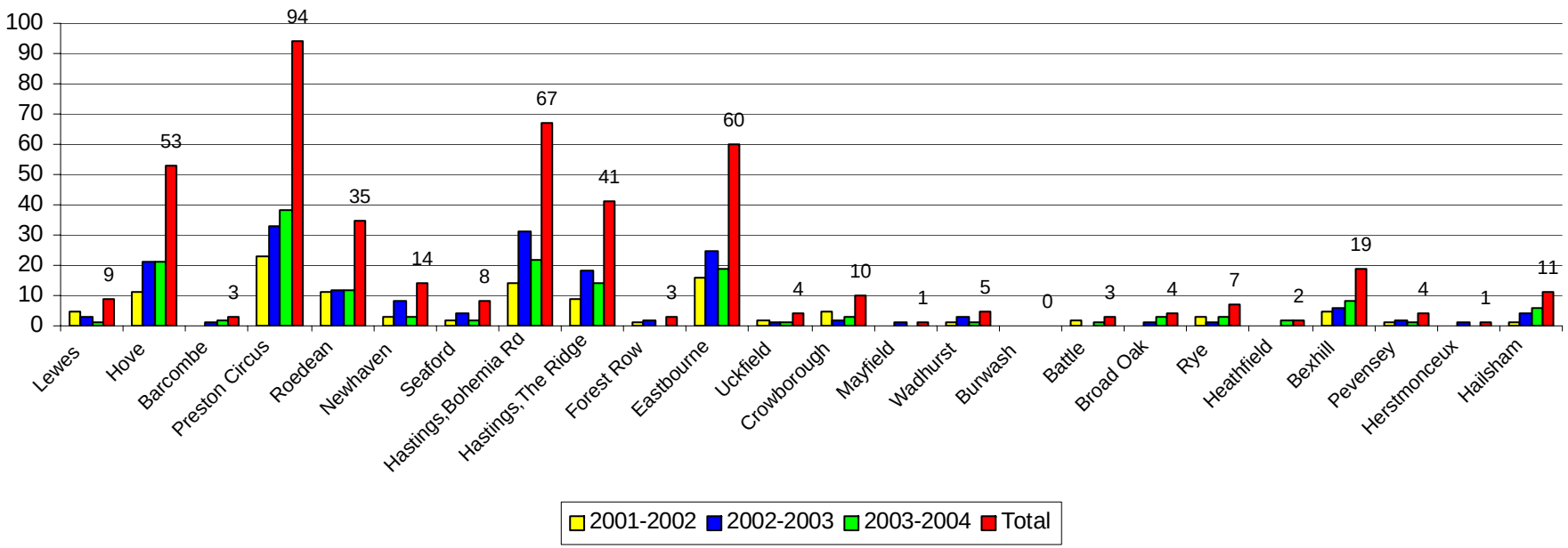
People trapped in defective lifts, and requiring rescue, present a very uneven workload across our stations. Plainly, stations covering denser urban areas with a greater proportion of medium and high-rise buildings will attend more of these incidents than stations that cover largely rural, low-rise areas. This accounts for the large variance in risk across different station grounds. There is a trend nationally for fire and rescue services to re-consider whether most instances of people stuck in a lift represents an emergency situation, or simply an incident that is best tackled by maintenance staff or lift engineers. East Sussex Fire Authority intends, at present, to continue to respond to this type of incident.

Chart 11 Lift rescues



As well as the more widely-recognised situations such as Road Traffic Collisions and people stuck in lifts, there is a very wide range of situations where people find themselves entrapped and requiring the specialist skills and equipment that we can provide. These situations range from the extreme (suspended many floors up in a window cleaning cradle) to some frankly bizarre circumstances, that are best not described in a public document. Regardless of the circumstances leading to the event, or the hazards presented to rescuers, we will attend and apply our skills, experience and equipment to try to achieve the best possible outcome. This is frequently only achieved by working in close partnership with other agencies at the scene.

Chart 12 – Other rescues



RESCUES, CASUALTIES AND FATALITIES

The previous graphs and data describe a range of emergency situations, each with the potential to cause harm to people. We are confident that we routinely prevent any harm at all, or reduce the degree of harm that happens to those who find themselves in these situations. Trying to accurately quantify those who were saved from harm as a result of our actions, or whose injuries were reduced, is not possible to estimate accurately. 'Proving a negative' is clearly difficult. Our experience is that we change potential fatalities into (at worst) injuries, and potential injuries into non-injured. The following tables show the number of people who were rescued, injured or died at fires and special service calls.

A significant proportion of these injuries will have occurred before we were even notified of the incident, and certainly before we attended. Those with no apparent injuries at the scene, but who subsequently presented themselves to hospital or a GP's surgery, are not included. For medical confidentiality and Data Protection purposes, we are unable to access the records of such people.

Fire-related rescues, casualties and fatalities

Table 1 - Summary of all rescues at fires

April 2001 - March 2004 inclusive

The following table lists those that were rescued, but uninjured at fires. Note: BA = Breathing Apparatus

Category of person	**Who performed rescue**	**Rescue method**		
Rescue (not casualty)	Rescuer not known/stated	Turntable ladder	2	
		Not known/stated	13	
		Sub-total		15
	Other person without BA	Led or carried out	4	
		Turntable ladder	7	
		Other method	2	
		Other ladder	3	
		Not known/stated	2	
		Led or carried out	48	
		Extension ladder	11	
		Sub-total		77
	Brigade personnel w/o BA	Turntable ladder	12	
		Other ladder	3	
		Led or carried out	57	
		Not known/stated	1	
		Other aerial appliance	1	
		Hydraulic platform	4	
		Extension ladder	7	
		Sub-total		85
		Total	177	

Table 2 - Those who were rescued, and injured at fires

Note: BA = Breathing Apparatus

Category of person	**Who performed rescue**	**Rescue method**		
Non-Fatal Casualty	Rescuer not known/stated	Other method	5	
		Not known/stated	44	
		Led or carried out	10	
		Sub-total		59
	Other person without BA	Other method	12	
		Not known/stated	9	
		Other ladder	1	
		Lowered from window, roof	1	
		Led or carried out	62	
		Sub-total		85
	Brigade personnel with BA	Turntable ladder	4	
		Led or carried out	79	
		Not known/stated	1	
		Other ladder	1	
		Extension ladder	7	
		Sub-total		92
	Brigade personnel w/o BA	Turntable ladder	5	
		Not known/stated	7	
		Other method	2	
		Led or carried out	45	
		Extension ladder	7	
		Hydraulic platform	1	
		Sub-total		67
		Total	303	

Table 3 – Fire-related injuries (without rescue)

There were a total of 272 people who suffered injuries at a fire, but were not rescued. Typically these people self-evacuated.	
Non-Fatal Casualty	272

Table 4 – Fire-related fatalities

Sadly, despite our best efforts with both prevention initiatives and when we respond, people have died in fires in East Sussex and the City of Brighton and Hove. The following table shows the number of fire-related fatalities between April 2001 and March 2004.

Sadly, 22 people died in fires of all types during this period. As can be seen below, 10 of these were rescued from the incident, but were still declared dead at the scene or died subsequently as a result of their injuries.			
Fatality			12
Fatality	Brigade personnel with BA	Led or carried out	10
		Total	22

Special Service-related rescues, casualties and fatalities

Table 5 – Fatalities, casualties and rescues at emergency Special Service Calls
April 2001 – March 2004 inclusive

	Non-Fatal Casualty	**Rescue (not casualty)**	**Fatality**
Water Removal/Provision	0	3	0
Suicide/Attempts/Threats	2	0	0
Sports Accident	1	0	0
Spills and Leaks	1	0	1
RTC - Person Trapped	499	12	46
RTC - Make Safe	0	257	0
Remove Obj. from People	0	31	0
Railway Accident	1	0	1
Person Rescue/Release	0	245	5
Making safe	1	0	0
Lift Release	12	473	0
Industrial Accident	3	0	0
Effecting Entry	35	85	5
Assistance to Police	1	5	5
Assistance to Ambulance	47	5	5
Aircraft Incident	3	0	0
Animal Rescue	1	0	0
Totals	**607**	**1116**	**68**

CALLS BY TIME OF DAY

Chart 14 – All Incidents By Time of Day

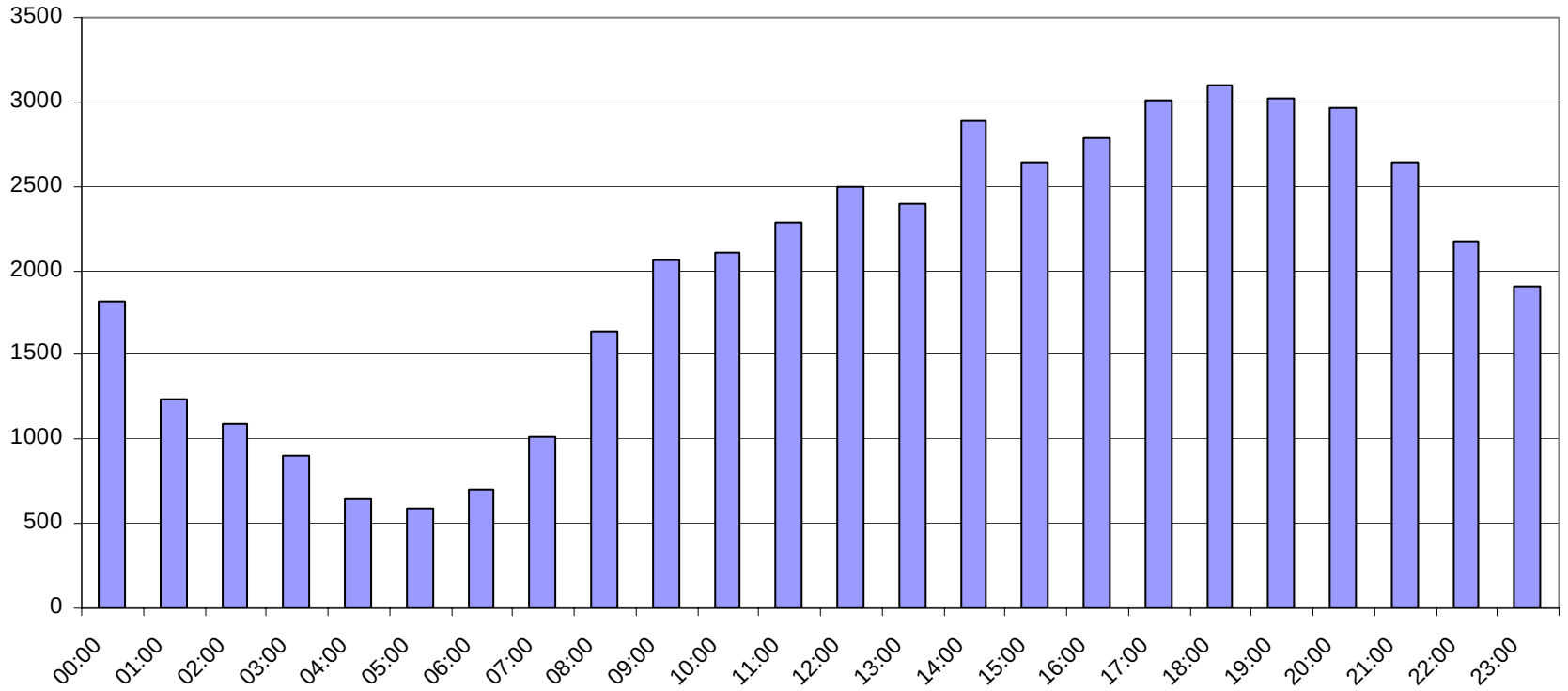


Chart 15 – All FDR1s By Time of Day

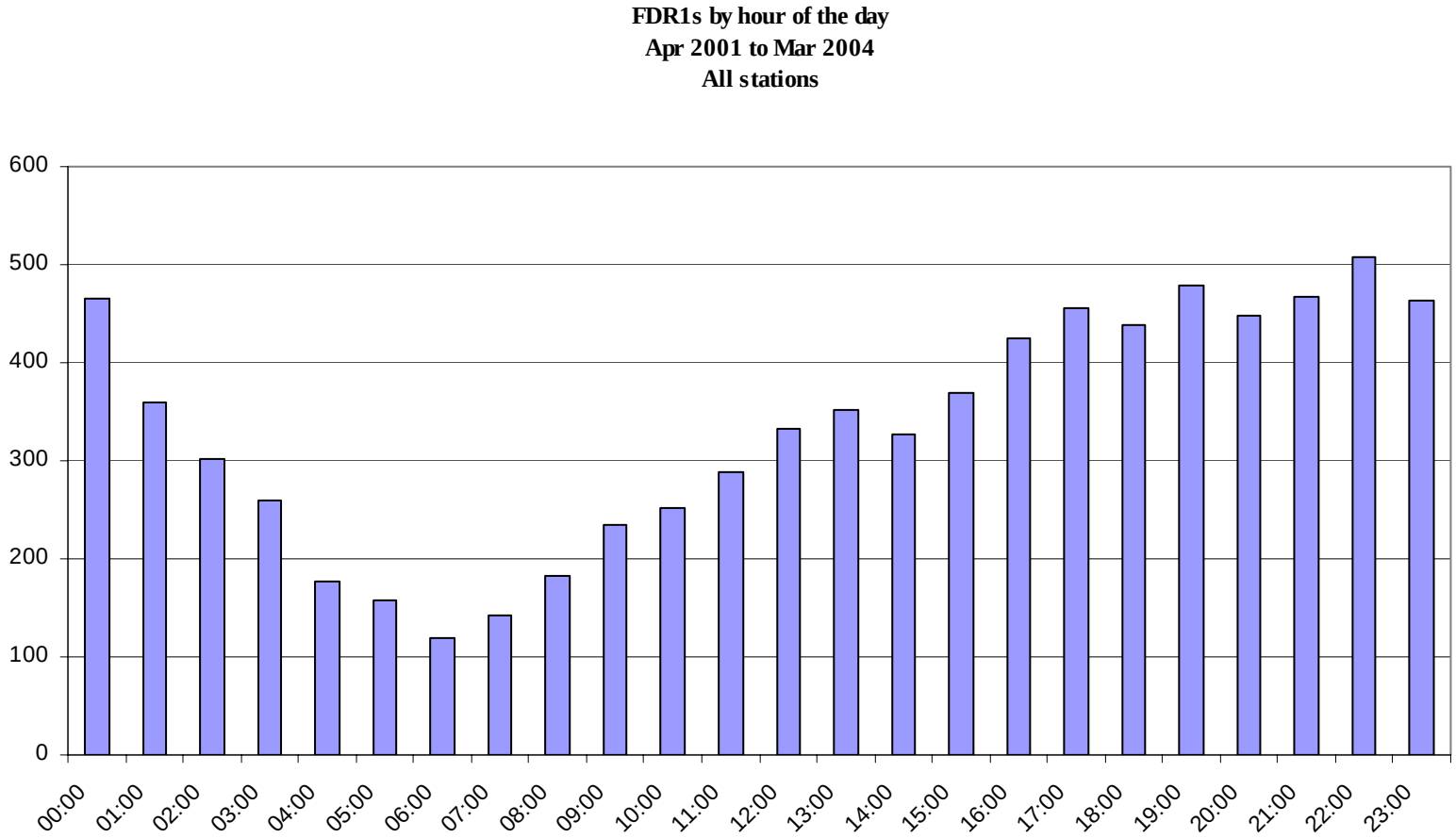


Chart 16 – All Incidents vs FDR1s By Time of Day