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PRELIMINARY ANALYSIS OF FIRE REPORTS FROM  
FIRE BRIGADES IN THE UNITED KINGDOM, 1972

by

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SUMMARY

A preliminary analysis shows that there were 290 343 fires attended by fire brigades in the United Kingdom in 1972. Fatal casualties reached an all-time high of 952 of which 12 were fire brigade personnel (seven in one fire); the number of non-fatal casualties was 5963. The direct financial loss due to fire in the United Kingdom was estimated by the British Insurance Association as £141.2 M.

KEY WORDS: Fire statistics, casualties.

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INTRODUCTION

A preliminary analysis of fire reports shows that during 1972, local authority fire brigades attended 249 182 fires in England and Wales, 33 673 in Scotland and 7 488 in Northern Ireland. The United Kingdom total of 290 343 fires is the highest ever recorded and it is possible that the final total may exceed 300 000. It is likely that the Northern Ireland figure is lower than the true figure because of civil unrest and the inability of brigades to attend some fires. The number of fires occurring in each brigade area is shown in Table 1.

With the exception of Table 8 (direct fire damage) this analysis is based on reports received up to 26 February 1973 and all information contained in it is subject to revision when outstanding reports have been received.

NATURE OF INJURIES TO CASUALTIES

Four firemen in England and Wales were fatally injured from attendance at fires. Another fireman, not included in the list of casualties in fires (Table 2), was killed on the way to a fire. Eight Scottish firemen were killed during the year, seven in one incident. In England and Wales 440 members of the fire services were injured at fires, the corresponding figures for Scotland and Northern Ireland were 49 and 30 respectively. Details of the nature of injuries to firemen and civilians are shown in Table 2. Injuries attributed to explosions are included, but only those due to burning or asphyxiation are shown for fires resulting from crashes. Electrocutions are not included, but 'suicide by fire' injuries are shown.

AGE AND SEX OF CASUALTIES

Information on the sex and age of fatal and non-fatal casualties is given in Tables 3A and 3B. Fatal casualties were equally distributed between the sexes but over 60 per cent of the non-fatal casualties were males. The high proportion of female casualties in the higher age groups may be partly accounted

for by the larger proportions of females amongst the elderly.

#### FATALITIES

Tables 4, 5 and 6 give information on fatal casualties-related to month of occurrence, hazard of origin and source of ignition. There were 775 fatal casualties in England and Wales, 132, in Scotland and 45 in Northern Ireland. This gives a total of 952 in the United Kingdom which is the highest ever recorded figure. The totals for the previous four years were 865, 861, 839 and 822 respectively. The most serious incident during the year was at a mental hospital in which 30 male patients were killed.

#### RESCUES AND ESCAPES

Fire brigades assisted in the rescue of 897 persons from hazardous situations in fires in buildings in England and Wales, 319 in Scotland and 10 in Northern Ireland. The corresponding figures for rescues from outdoor fires were 7,5 and 1 respectively. At least a further 1752 persons were rescued by police and private citizens: 1485 in England and Wales, 202 in Scotland and 65 in Northern Ireland. The numbers of persons rescued from outdoor fires without fire brigade assistance were 76 in England and Wales, 14 in Scotland and 4 in Northern Ireland. Five hundred and twenty three persons escaped by unorthodox routes from buildings in England and Wales, the corresponding figures for Scotland and Northern Ireland were 69 and 27 respectively. The figures for escapes by unorthodox or emergency means from outdoor fires were 64 in England and Wales, and thirteen in both Scotland and Northern Ireland.

#### COST OF DAMAGE

Table 8 gives details of direct monetary losses due to material damage estimated by the British Insurance Association and includes that due to political unrest in Northern Ireland.

Table 1

Fires attended by fire brigades  
in the United Kingdom, 1972

Fire brigades	Total fires	Total fires reported on Form K433 (1)	Total fires reported on Form K433H (2)
<u>England and Wales - County Fire Brigades</u>			
Anglesey	306	139	167
Bedfordshire	1158	633	525
Berks and Reading	2093	833(3)	1260
Brecon Co. and Radnor	239	181	58
Buckinghamshire	2433	1266	1167(4)
Caernarvonshire	738	280	458
Cambridgeshire and Ely Isle of	1126	741	385
Cardiganshire and Carmarthenshire	875	462	413
Cheshire	5591	2757	2834
Cornwall	1511	788	723
Cumberland	1102	529	573
Denbigh and Montgomery	904	485	419
Derbyshire	2229	1195	1034
Devonshire	1995	1199	796
Dorsetshire	1431	655	776
Durham Co.	3818	1776	2042
Essex	6232	2444	3788
Flintshire	855	488	367
Glamorganshire	3849	1769	2080
Gloucestershire (5)	2123	1232	891
Hampshire	4549	1936	2613
Herefordshire	483	308	175
Hertfordshire	2870	1458(6)	1412(6)
Huntingdonshire and Peterborough	864	490	374
Kent and Canterbury	6308	2944	3364
Lancashire	15956	6712(7)	9244
Leicestershire and Rutland	1528	885	643
Lincs. (Holland)	324	231	93
Lincs. (Kesteven)	470	312	158
Lincs. (Lindsey)	1486	985	501
London (Greater)	38604	19050	19554(6)
Merionethshire	161	78	83
Monmouthshire	1274	471(6)	803
Norfolk	1538	881	657
Northamptonshire	1274	777	497
Northumberland	2248	1084	1164
Nottinghamshire	2436	1153	1283
Oxfordshire	876	600	276
Pembrokeshire	372	186(4)	186

Table 1 (cont'd)

Fire brigades	Total fires	Total fires reported on Form K433 (1)	Total fires reported on Form K433H (2)
<u>County fire brigades (cont'd)</u>			
Shropshire	922	531(6)	391(4)
Somerset	1709	1124	585
Staffordshire	2618	1291(7)	1327
Suffolk(East) Suffolk(West) and Ipswich	2215	1236	979
Surrey	4377	1493(4)	2884
Sussex East	1641	915	726
Sussex West	1869	1129	740
Warwickshire	2242	1305	937
Westmorland	203	146(6)	57(6)
Wight. Isle of	376	217	159
Wiltshire	1546	1017	529
Worcester Co. and Worcs.C.B.	1854	1060	794
Yorks (East Riding)	783	427(6)	356
Yorks (North Riding)	1091	768	323(4)
Yorks (West Riding)	5588	2551(6)	3037(4)
<u>England and Wales - County Borough Fire Brigades</u>			
Barnsley	235	119	116
Barrow in Furness	426	162	264
Bath	270	179	91
Birkenhead	1895	437	1458
Birmingham	5353	2463	2890
Blackburn	957	356(7)	601(7)
Blackpool	830	489	341
Bolton	1239	514	725
Bootle	1715	494	1221
Bournemouth	639	323	316
Bradford	1963	905	1058
Brighton	862	426(7)	436
Bristol	2167	982	1185
Burnley	1032	329	703
Burton on Trent	203	120	83
Bury	699	200	499
Cardiff	2117	780	1337
Carlisle	380	171	209
Chester	316	135	181
Coventry	1989	789	1200
Darlington	454	208	246
Derby	942	465	477
Dewsbury	348	163	185
Doncaster	416	190	226
Dudley	627	282	345

Table 1 (cont'd)

Fire brigades	Total fires	Total fires reported on Form K433 (1)	Total fires reported on Form K433H (2)
<u>County Borough Fire Brigades (cont'd)</u>			
Eastbourne	208	120	88
Exeter	362	188	174
Gloucester (5)	287	165	122
Great Yarmouth	326	146	180
Grimsby	1017	284	733
Halifax	633	274	359
Hartlepool	895	344	551
Hastings	362	141	221
Huddersfield	635	376	259
Kingston upon Hull	2573	845	1728
Leeds	3070	1235	1835
Leicester	1528	605	923
Lincoln	298	122	176
Liverpool	10755	2472(7)	8283(7)
Luton	865	376	489
Manchester	7371	2210	5161
Merthyr Tydfil	253	130	123
Newcastle on Tyne and Gateshead	3118	1078	2040
Newport (Mon.)	748	367	381
Northampton	571	284	287
Norwich	496	265	231
Nottingham	1815	814	1001
Oldham	883	422	461
Oxford	439	322	117
Plymouth	1494	656	838
Portsmouth	1228	443(6)	785(4)
Preston	827	302	525
Rochdale	880	348	532
Rotherham	452	263	189
St. Helens	1079	357	722
Salford	2039	496	1543
Sheffield	2244	1130	1114
Solihull	268	178	90
Southampton	1197	514	683
Southend	584	313	271
Southport	359	218	141
South Shields	764	268	496
Stockport	1039	420	619
Stoke on Trent	1118	458	660
Sunderland	1782	568	1214
Swansea	1065	432	633



Table 1 (cont'd)

Fire brigades	Total fires	Total fires reported on Form K433 (1)	Total fires reported on Form K433H (2)
<u>County Borough Fire Brigades (cont'd)</u>			
Tees-side	2922	1394	1528
Tynemouth	587	220	367
Wakefield	238	144	94
Wallasey	1111	313	798
Walsall	1034	421	613
Warley	809	364	445
Warrington	487	197	290
West Bromwich	853	309	544
Wigan	509	246	263
Wolverhampton	985	516	469
York	383	207	176
Total number of fires attended in England and Wales	249182	112564	136618

Fire brigades	Total fires	Total fires reported on Form K433 (1)	Total fires reported on Form K433H (2)
<u>Scotland</u>			
Glasgow	9311	3279	6032
Lanark	3685	1848	1837
Central	2840	1358	1482
Western	2658	1303	1355
South Western	1986	1261	725
South Eastern	5679	2478	3201
Fife	1780	798	982
Perth and Kinross	521	378	143(7)
Angus	2420	1017	1403
North Eastern	1870	1094	776
Northern	923	476	447
Total number of fires attended in Scotland	33673	15290	18383

Table 1 (cont'd)

Fire brigades	Total fires	Total fires reported on Form K433 (1)	Total fires reported on Form K433H (2)
<u>Northern Ireland</u> (8)			
North Belfast	4670 2818	3239 1220(3)	1431 1598(7)
Total number of fires attended in Northern Ireland	7488	4459	3029

- (1) Fires reported on K433 include all fires except those confined to derelict buildings, buildings under demolition, grassland, heathland, railway embankments, stubble, single trees, refuse, fences, lamp standards, road furniture, road surfaces, verges and telegraph poles. The figures are adjusted for blank call numbers, duplicate call numbers and fires transferred by mutual agreement to category K433H (see note (2)).
- (2) Fires reported on K433H are small fires not reported on K433. Again adjustments are made for blanks and fires transferred to/from category K433.
- (3) Date of last report received 31.8.72
- (4) Date of last report received 31.10.72
- (5) Gloucester and Gloucestershire amalgamated into Gloucestershire from 9.11.72.
- (6) Date of last report received 30.9.72
- (7) Date of last report received 30.11.72
- (8) It is possible that some fires attributable to civil disturbances were not attended and not reported by these brigades.

Table 2

## Nature of injuries of casualties in fires

Casualties	England and Wales			Scotland			Northern Ireland		
	Fire brigade	Other casualties	Total	Fire brigade	Other casualties	Total	Fire brigade	Other casualties	Total
<b>FATAL CASUALTIES<sup>1</sup></b>									
Burns and scalds	0	348	348	0	45	45	0	15	15
Overcome by gas or smoke	4	358	362	7	58	65	0	9	9
Other and undefined injuries	0	65	65	1	21	22	0	21	21
Total	4	771	775	8	124	132	0	45	45
<b>NON FATAL CASUALTIES</b>									
Burns and scalds	105	2778	2883	10	245	255	2	62	64
Bruises, cuts, abrasions	155	299	454	14	36	50	10	10	20
Dislocations, sprains, fractures	28	47	75	3	8	11	2	1	3
Overcome by gas or smoke	54	715	769	5	189	194	16	5	21
More than one of the above injuries	12	129	141	0	22	22	0	4	4
Shock <sup>2</sup>	5	600	605	0	68	68	0	28	28
Other and undefined injuries	81	164	245	9	39	48	0	3	3
Total	440	4732	5172	41	607	648	30	113	143
<b>TOTAL</b>	<b>444</b>	<b>5503</b>	<b>5947</b>	<b>49</b>	<b>731</b>	<b>780</b>	<b>30</b>	<b>158</b>	<b>188</b>

1. Casualties who are certified as having died from 'Burns and asphyxiation' are included under 'Overcome by gas or smoke'

2. Casualties who suffer shock in addition to another injury are classified according to the other injury

Table 3A

## Sex and age of fatal casualties

Age (years)	England and Wales				Scotland				Northern Ireland			
	Male	Female	Not stated	Total	Male	Female	Not stated	Total	Male	Female	Not stated	Total
Under 1	10	10	0	20	1	4	0	5	0	0	0	0
1 - 4	41	42	0	83	7	4	0	11	3	1	0	4
5 - 14	26	20	0	46	5	2	0	7	1	0	0	1
15 - 24	31	15	0	46	8	1	0	9	4	0	0	4
25 - 34	47	15	0	62	7	0	0	7	4	0	0	4
35 - 44	28	19	0	47	7	5	0	12	3	0	0	3
45 - 54	34	25	0	59	11	6	0	17	4	0	0	4
55 - 64	36	41	0	77	5	11	0	16	5	1	0	6
65 - 74	41	66	0	107	12	11	0	23	5	4	0	9
75 and over	68	149	0	217	10	13	0	23	3	5	0	8
Not stated, unknown	5	3	3	11	0	0	2	2	2	0	0	2
<b>TOTAL</b>	<b>367</b>	<b>405</b>	<b>3</b>	<b>775</b>	<b>73</b>	<b>57</b>	<b>2</b>	<b>132</b>	<b>34</b>	<b>11</b>	<b>0</b>	<b>45</b>

Table 3B

## Sex and age of non-fatal casualties

Age (years)	England and Wales				Scotland				Northern Ireland			
	Male	Female	Not stated	Total	Male	Female	Not stated	Total	Male	Female	Not stated	Total
Under 1	39	40	0	79	5	4	0	9	0	2	0	2
1 - 4	183	141	0	324	23	16	0	39	3	3	0	6
5 - 14	255	142	0	397	31	22	1	54	1	5	0	6
15 - 24	581	230	1	812	60	34	0	94	27	5	0	32
25 - 34	728	293	0	1021	73	34	0	107	18	1	0	19
35 - 44	472	227	1	700	58	27	0	85	17	7	0	24
45 - 54	421	202	0	623	52	36	0	88	8	5	0	13
55 - 64	218	172	0	390	34	30	0	64	4	6	0	10
65 - 74	138	179	0	317	20	18	0	38	4	1	0	5
75 and over	102	186	0	288	13	26	0	39	2	3	0	5
Not stated, unknown	121	80	20	221	23	5	3	31	21	0	0	21
<b>TOTAL</b>	<b>3258</b>	<b>1892</b>	<b>22</b>	<b>5172</b>	<b>392</b>	<b>252</b>	<b>4</b>	<b>648</b>	<b>105</b>	<b>38</b>	<b>0</b>	<b>143</b>

Table 4

Fatal casualties according to month of occurrence

Month of occurrence	England and Wales	Scotland	Northern Ireland	United Kingdom
January	107	18	3	128
February	108	10	8	126
March	78	18	8	104
April	51	8	6	65
May	62	8	2	72
June	42	5	3	50
July	65	9	1	75
August	44	13	2	59
September	56	8	4	68
October	46	10	2	58
November	54	10	5	69
December	62	15	1	78
TOTAL	775	132	45	952

Table 5

Fatal casualties according to hazard in which fire started

Hazard in which fire started	England and Wales	Scotland	Northern Ireland	United Kingdom
<u>In buildings</u>				
Industrial premises	14	2	2	18
Distributive trades	2	9	1	12
Financial, professional, scientific and miscellaneous services	11	0	1	12
Medical services	39	0	0	39
Hotels	8	3	0	11
Clubs, public houses and restaurants*	18	1	1	20
Public administration and defence	1	0	0	1
Houses	432	42	24	498
Flats	128	63	1	192
Dwellings within other occupancies	11	1	2	14
Other private occupancies (e.g. sheds)	11	0	1	12
Other buildings	8	0	0	8
Total	683	121	33	837
<u>Not in buildings</u>				
Agriculture, forestry, fishing	16	1	0	17
Road vehicles	42	6	12	60
Other means of transport	13	2	0	15
Outdoor storage	0	0	0	0
Outdoor plant, machinery and equipment	7	0	0	7
Caravans	13	2	0	15
Other	1	0	0	1
Total	92	11	12	115
TOTAL	775	132	45	952

\*For comparability with Tables 7A, 7B, 7C, boarding houses are included in this category. There have been 7 deaths, all in England and Wales in boarding houses in 1972

Table 6

## Fatal casualties according to source of ignition

Source of ignition	England and Wales	Scotland	Northern Ireland	United Kingdom
Children with fire	40	5	0	45
Crash or collision	42	4	0	46
Malicious or intentional ignition, doubtful	73	12	13	98
Matches, naked lights not elsewhere specified	28	6	0	34
Smokers materials	120	29	3	152
Candle	17	0	1	18
Electric - space heating	76	14	2	92
- wire and cable	17	4	1	22
- blanket	29	9	0	38
- other	14	4	0	18
Gas - cooking appliances	20	1	1	22
- space heating	13	1	0	14
- other	5	0	0	5
Solid fuel - fire in grate	51	8	2	61
- other	6	0	0	6
Oil - space heating	29	5	2	36
- other	4	2	0	6
Other known causes	24	1	3	28
Unknown*	167	27	17	211
TOTAL	775	132	45	952

\*Includes fires reported as 'unknown, pending inquest'



Table 7

## Persons rescued or escaped by emergency means

Hazard	England and Wales	Scotland	Northern Ireland	United Kingdom
<b>FIRES IN BUILDINGS*</b>				
Rescue with fire brigade assistance	897	319	10	1226
Rescue without fire brigade assistance	1485	202	65	1752
Escape by emergency means	523	69	27	619
Total	2905	590	102	3597
<b>FIRES NOT IN BUILDINGS</b>				
Rescue with fire brigade assistance from:				
Road vehicles	6	5	1	12
Other outdoor hazards	1	0	0	1
Rescue without fire brigade assistance from:				
Road vehicles	40	5	4	49
Caravans	18	0	0	18
Ships	7	6	0	13
Other outdoor hazards	11	3	0	14
Escape by emergency means from:				
Aircraft	5	0	0	5
Road vehicles	31	9	12	52
Caravans	16	2	0	18
Ships	1	0	0	1
Other outdoor hazards	11	2	1	14
Total	147	32	18	197
Total persons rescued or escaped	3052	622	120	3794

\*For fuller details of hazards and methods used, see Tables 7A, 7B, 7C

Table 7A

Persons rescued or escaped by emergency means from buildings  
(England and Wales)

Appliance or methods used	Hazard involved							TOTAL
	Industry	Distributive trades	Hotels	Clubs, etc	Houses	Other dwellings	Other hazards	
Rescue (fire brigade assisted)								
Snorkel, hydraulic platform	0	0	0	1	1	1	0	3
Escape (hand operated)	2	8	4	6	5	47	10	82
Ladder - extension	4	4	24	8	59	65	14	178
- first floor	0	5	0	3	12	1	1	22
- scaling	0	0	0	0	0	2	0	2
- turntable	0	0	12	2	0	1	18	33
- other or undefined	3	0	1	5	22	9	5	45
Breathing apparatus	2	13	13	14	139	133	26	340
Other apparatus	1	1	0	0	1	0	1	4
Without apparatus	0	6	4	5	87	53	33	188
Total	12	37	58	44	326	312	108	897
Rescue (not fire brigade assisted)								
Carried out or led to safety	5	5	5	15	536	162	32	760
Jumping into sheet	1	0	0	0	0	7	0	8
Ladder	1	0	0	6	206	31	8	252
Lowered from window, roof, etc	0	0	0	0	40	0	0	40
Other or undefined methods	6	4	0	11	307	79	18	425
Total	13	9	5	32	1089	279	58	1485
Escape by emergency means								
Fixed fire escape	1	0	0	2	0	4	2	9
Jumping from upstairs windows, roof, etc	0	3	2	65	153	38	4	265
Ladder	0	0	0	0	4	0	0	4
Sliding down drainpipe, sheets, rope, etc	0	1	0	3	19	5	0	28
Through ground floor windows	0	1	0	0	28	7	0	36
Other or undefined methods	4	7	2	17	94	49	8	181
Total	5	12	4	87	298	103	14	523
Total persons rescued or escaped	30	58	67	163	1713	694	180	2905

Table 7B

Persons rescued or escaped by emergency means from buildings (Scotland)

Appliance or methods used	Hazard involved							TOTAL
	Industrial premises	Distributive trades	Hotels	Clubs, etc	Houses	Other dwellings	Other hazards	
Rescue (fire brigade assisted)								
Snorkel, hydraulic platform	0	0	1	0	0	40	0	41
Escape (hand operated)	0	0	0	0	0	26	0	26
Ladder - extension	0	8	2	1	2	33	1	47
- first floor	0	0	0	0	0	1	0	1
- turntable	0	11	0	0	0	30	0	41
- other or undefined	0	0	0	0	2	4	0	6
Breathing apparatus	1	3	8	1	12	73	7	105
Without apparatus	0	4	1	0	1	45	1	52
Total	1	26	12	2	17	252	9	319
Rescue (not fire brigade assisted)								
Carried out, led to safety	0	4	0	0	32	81	3	120
Ladder	0	0	0	0	6	5	0	11
Lowered from window, roof, etc	0	0	0	0	1	0	0	1
Other or undefined methods	0	0	0	0	33	36	1	70
Total	0	4	0	0	72	122	4	202
Escape by emergency means								
Fixed fire escape	0	0	6	0	0	0	0	6
Jumping from upstairs window, roof, etc	0	0	0	9	11	4	0	24
Sliding down drainpipe, sheets, rope, etc	0	0	0	0	0	5	0	5
Through ground floor window	0	0	0	0	0	7	1	8
Other or undefined methods	0	1	0	2	10	12	1	26
Total	0	1	6	11	21	28	2	69
Total persons rescued or escaped	1	31	18	13	110	402	15	590

Table 7C

Persons rescued or escaped by emergency means from buildings (Northern Ireland)

Appliance or methods used	Hazard involved						TOTAL
	Industrial premises	Distributive trades	Clubs, etc.	Houses	Other dwellings	Other hazards	
Rescue (fire brigade assisted)							
Ladder - extension	0	0	0	0	0	2	2
- turntable	0	4	0	0	0	0	4
Breathing apparatus	0	0	2	1	0	0	3
Without apparatus	0	0	0	1	0	0	1
Total	0	4	2	2	0	2	10
Rescue (not fire brigade assisted)							
Carried out, led to safety	0	0	0	23	2	3	28
Ladder	0	0	0	11	4	0	15
Lowered from windows, roof, etc	0	0	0	4	0	0	4
Other or undefined methods	0	2	0	15	0	1	18
Total	0	2	0	53	6	4	65
Escape by emergency means							
Jumping from upstairs window, roof, etc	0	0	0	9	1	0	10
Sliding down drainpipe, sheets, rope, etc.	0	2	0	0	1	0	3
Through ground floor windows	0	0	0	2	0	0	2
Other or undefined methods	3	1	0	4	4	0	12
Total	3	3	0	15	6	0	27
Total persons rescued or escaped	3	9	2	70	12	6	102

Table 8  
 Monthly estimated direct fire damage, 1972  
 (BIA estimates)

Month	Loss (£M)
January	12.4
February	11.7
March	12.3
April	9.3
May	14.6
June	15.0
July	10.4
August	12.2
September	10.3
October	11.3
November	11.8
December	9.9
<b>TOTAL</b>	<b>141.2*</b>

\* The total figure for Great Britain  
 (excluding Northern Ireland) was £108.5M