



PELASTUSOPISTO
Emergency Services College

Finnish Rescue Services Pocket Statistics 2007 - 2011



FINNISH RESCUE SERVICES' POCKET STATISTICS 2007–2011

CONTENTS

1	INTRODUCTION	1
2	RESCUE SERVICE SYSTEM AND RESOURCES	2
3	ACCIDENT PREVENTION	6
4	RESCUE OPERATIONS	8
5	ACCIDENT DAMAGES	26
6	PREPAREDNESS	31

Further Inquiries:

Emergency Services College

Research Unit

Johannes Ketola, Planning Officer

johannes.ketola@pelastusopisto.fi

Emergency Services College Publication

D-series: Other 3/2012,

Johannes Ketola. Finnish Rescue Services' Pocket Statistics 2007 – 2011

ISBN: 978-952-5905-25-0 (pdf)

ISSN: 1795-9187

1 INTRODUCTION

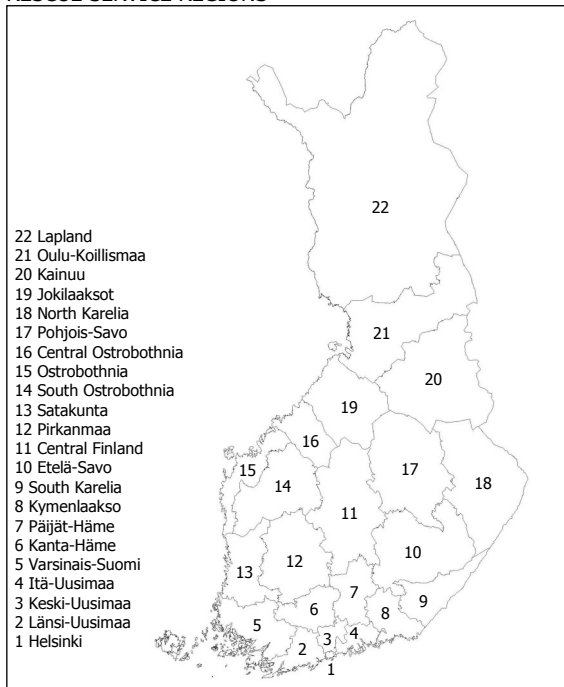
In Finland, the responsibility for the functions of rescue services is divided between 22 rescue service regions. The rescue services on the Åland Islands are regulated by regional legislation. The functions of rescue service regions include accident prevention, rescue operations and civil defence, etc.

The pocket statistics is based on the data in the rescue services resource and accident statistics program (PRONTO) from 2007–2011, unless indicated otherwise. PRONTO is maintained by the regional rescue departments. The data in the statistics were gathered directly from PRONTO without a nationwide check.

In the statistics rescue operations refer to those incidents when a fire brigade was alerted by an emergency response centre, excluding ambulance service. Since 2009 the number of building fires includes the number of risk of building fires. The data related to rescue operations have been tabulated in PRONTO based on the primary type of an emergency. The secondary types of emergencies have been counted into those tables which deal with accidents, causes for automatic fire calls and property damages. Separate missing data have not been included in the tables. All this should be taken into consideration when comparing the data presented in the tables.

2 RESCUE SERVICE SYSTEM AND RESOURCES

RESCUE SERVICE REGIONS



POPULATION SHARE OF RESCUE SERVICE REGIONS BY RISK AREA AND SURFACE AREA IN 2011

	Population 31.12.2010	Risk Area (%)				Surface Area	Land Area
		I	II	III	IV		
Helsinki	588 549	81	11	2	7	716	213
Länsi-Uusimaa	428 639	32	44	13	11	7 855	4 242
Keski-Uusimaa	420 739	38	47	11	5	1 986	1 940
Itä-Uusimaa	94 328	13	32	28	27	5 537	2 736
Varsinais-Suomi	465 183	34	35	21	10	20 539	10 663
Kanta-Häme	174 555	17	41	21	21	5 706	5 200
Päijät-Häme	201 772	30	41	13	17	6 256	5 124
Kymenlaakso	182 382	17	46	21	16	7 417	5 113
South Karelia	133 703	12	45	21	22	7 236	5 615
Etelä-Savo	154 668	9	53	16	21	18 768	13 984
Central Finland	273 637	15	39	20	26	19 952	16 706
Pirkanmaa	487 923	24	45	15	16	14 471	12 444
Satakunta	227 031	11	46	23	21	11 636	7 957
South Ostrobothnia	193 504	2	37	28	33	14 001	13 445
Ostrobothnia	146 743	23	30	37	10	17 411	6 804
Central Ostrobothnia	99 524	13	37	27	23	9 116	6 215
Pohjois-Savo	247 943	20	36	14	30	20 368	16 771
North Karelia	165 566	12	40	19	29	21 584	17 764
Jokilaaksot	124 216	6	35	41	18	17 259	13 499
Kainuu	82 073	1	34	24	41	24 453	21 503
Oulu-Koillismaa	270 749	21	45	24	11	26 180	21 739
Lapland	183 488	2	18	20	59	100 368	92 663
Total	5 347 269	30	36	17	17	361 404	302 340

RESCUE SERVICE PERSONNEL

	2011
Ministry of the Interior, Department of Rescue ¹	45
Emergency Services College ²	138
Regional State Administrative Agencies, Department of Rescue	39
Full-time Employees of Rescue Departments*	2 277
Administrative and Support Services*	176
Rescue Function*	1 632
Safety Services*	105
Emergency Medical Services*	388
Relating to temporary staff of Rescue Departments*	388
Contract Fire Brigade Personnel*	6 629

References: ¹ Ministry of the Interior, Department of Rescue, ²Emergency Services College.

*South Ostrobothnia, Helsinki, Itä-Uusimaa, Kainuu, Central Ostrobothnia, Keski-Uusimaa, Länsi-Uusimaa, Oulu-Koillismaa, Pohjois-Savo, Päijät-Häme and Varsinais-Suomi information is missing.

RESCUE SERVICES' FINANCIAL INFORMATION

	2008	2009	2010	2011
Revenue (MEUR)	85	87	104	110
Expenditure (MEUR)	407	432	443	465
Personnel Costs (MEUR)	279	293	301	315
Net Expenditure (MEUR)	321	344	339	355
Investments (MEUR)	19	18	21	14
Net Expenditure (€/Inhabitant)	61	65	64	66
Investments (€/Inhabitant)	3,7	3,5	3,9	2,6

RESCUE SERVICE VEHICLES

	2011
Fire Engine	1 139
Lightweight Fire Truck	36
Water Tender	540
Ladder Unit or Hydraulic Platform Truck	86
Heavy Rescue Unit	41
Gear Truck	89
Foam Tender or Dry Powder Appliance	56
Damage Control Tender	26
Hazardous Materials Unit	10
Incident Command or Control Unit	286
Personnel Carrier	720
Rescue Diving Appliance	28
Other Rescue Service Vehicle	78
Snowmobile	202
ATV (all-terrain vehicle) or Track Vehicle	218
Boat	675
Other Vessel	110
EMS vehicle*	289
Other Vehicle	597
Trailer	95
Container	83

* EMS Vehicles of Fire Departments .

NUMBER OF FIRE STATIONS

	2011
Fire Stations within Rescue Service Region	363
Contract Fire Brigades	569
Industrial and Institutional Fire Brigades	107

3 ACCIDENT PREVENTION

SAFETY EDUCATION

	2007	2008	2009	2010	2011
Events	12 004	12 997	12 749	12 337	12 180
Participants	765 691	1 051 715	854 442	801 100	808 252
Share of Population(%)	15	20	16	15	15

SAFETY EDUCATION EVENTS BY TYPE OF IMPLEMENTATION

	2010	2011
Safety Information Campaigns	1 093	1 014
Fairs or other public events	1 622	1 579
Safety Training	9 570	9 513
Safety Advicing	-	14
Safety Information through Media	53	60

SAFETY EDUCATION EVENTS BY TARGET GROUP

	2007	2008	2009	2010	2011
People	6 742	7 160	7 218	7 362	7 575
Children and the Young	5 060	5 347	5 046	4 966	5 056
Civil Servants and Trustees	182	150	201	190	331
Companies and Institutions	4 539	4 850	4 538	4 022	3 762
Personnel in Care Institution	-	-	-	1 651	1 760
Personnel in Companies, Commercial Enterprises and Industrial Establishments	-	-	-	1 342	1 178
Civil Defence Organisations	97	118	115	90	70
Other Target Group	630	873	875	859	772

FIRE INSPECTIONS AND OTHER INSPECTIONS

	2007	2008	2009	2010	2011
Annually Inspected	34 849	36 935	36 207	35 781	35 781
Sairaalat, ym. hoitolaitokset	3 719	3 792	3 949	3 948	4 147
Majoitustilat ja -alueet	2 867	2 991	2 822	2 815	2 582
Kokoontumis- ja liiketilat	16 120	17 162	16 782	16 394	15 733
Suuret tuotanto-, varasto- ja maataloustilat	6 353	7 123	6 832	6 645	6 517
Palovaarallisten kemikaalien käsittelypaikat	1 976	2 139	2 010	2 085	2 076
Sprinklerillä tai paloilmoittimella varustetut tilat	2 237	2 269	2 439	2 415	2 311
Muut vuosittain tarkastettavat	1 577	1 459	1 373	1 479	1 498
Asuinrakennukset	90 143	85 388	82 247	70 178	64 353
Muut palotarkastukset	12 399	13 286	11 219	11 733	11 734
Muut tarkastukset	23 666	30 372	29 252	25 502	18 118

SHARE OF PERFORMED FIRE INSPECTIONS FROM SCHEDULED INSPECTIONS (%)

	2007	2008	2009	2010	2011
Hospitals, Healthcare Buildings	98	95	96	88	92
Accommodation Facilities and Assembly and Commercial	94	95	91	89	85
Large Production, Warehouse and Agricultural Facilities	87	90	88	85	83
Handling Sites of Flammable Chemicals	87	94	92	87	86
Premises Equipped with Automatic Fire Alarm System	92	96	89	85	85
Other Annually Inspected	88	89	88	67	69
Residential Buildings	94	88	79	87	91
	61	60	51	47	45

4 RESCUE OPERATIONS

RESCUE OPERATIONS BY TYPE

	2007	2008	2009	2010	2011
Fires	14 156	14 644	14 994	14 992	14 737
Building Fire	4 025	4 485	6 233	6 267	6 013
Risk of Building Fire	-	-	3 497	3 481	3 470
Vehicle Fire	2 549	2 379	2 400	2 438	2 478
Wildfire	2 813	3 161	2 746	2 997	2 770
Other Fire	4 769	4 619	3 615	3 290	3 476
Other Accidents	17 951	18 531	18 108	19 239	16 604
Traffic Accident	12 874	13 401	13 249	13 472	13 630
Oil Spill	2 519	2 504	2 625	2 286	2 532
Hazardous Material Accident	217	277	278	299	317
Natural Hazard	2 309	2 308	1 816	2 998	-
Explosion, Risk of Explosion	24	25	29	27	26
Collapse, Risk of Collapse	8	16	11	157	99
Other Operations	72 036	68 308	68 333	76 156	83 816
Fire Alarm System or Smoke Alarm Check or Inspection	23 106	21 889	21 545	25 294	23 762
Other Check or Inspection	8 307	8 370	7 916	8 895	9 117
First Response	28 081	25 579	26 528	27 044	28 599
Human Rescue	2 174	2 150	2 275	2 429	2 223
Animal Rescue	1 939	2 051	2 422	2 161	2 019
Other Rescue Operation	509	-	-	-	-
Loss Prevention	4 474	4 600	3 755	5 853	13 502
Assistance	2 961	3 073	3 097	3 235	3 351
Executive Assistance	485	596	795	1 245	1 243
Total	104 143	101 483	101 435	110 387	115 157

RESCUE OPERATIONS BY RESCUE SERVICE REGION

	2007	2008	2009	2010	2011
Helsinki	9 154	8 568	8 000	9 322	9 470
Länsi-Uusimaa	7 813	7 709	6 608	6 976	8 013
Keski-Uusimaa	7 019	7 351	6 910	7 784	7 381
Itä-Uusimaa	2 362	2 265	2 242	2 207	2 087
Varsinais-Suomi	8 326	8 546	8 319	8 786	10 302
Kanta-Häme	3 313	3 212	3 177	3 606	4 115
Päijät-Häme	3 880	3 852	3 924	4 398	4 400
Kymenlaakso	4 222	3 921	3 687	4 164	4 346
South Karelia	2 754	2 698	2 607	3 106	2 968
Etelä-Savo	3 691	3 699	3 625	3 902	4 001
Central Finland	5 605	5 495	5 526	5 778	6 244
Pirkanmaa	10 361	9 330	9 548	10 638	11 378
Satakunta	5 011	4 871	5 076	5 653	6 415
South Ostrobothnia	4 465	4 405	4 903	5 351	5 829
Ostrobothnia	2 842	2 887	2 744	3 036	2 984
Central Ostrobothnia	2 307	2 221	2 346	2 628	2 395
Pohjois-Savo	4 856	4 891	5 232	5 596	5 504
North Karelia	3 381	3 538	3 994	4 118	4 221
Jokilaaksot	2 655	2 638	2 814	3 189	2 808
Kainuu	1 952	1 692	1 429	1 592	1 496
Oulu-Koillismaa	4 210	3 647	4 235	4 234	4 444
Lapland	3 966	4 049	4 493	4 327	4 364
Cooperations	820	1150	1 071	1 281	1 341

SHARE OF RESCUE OPERATIONS BY RISK AREA (%)

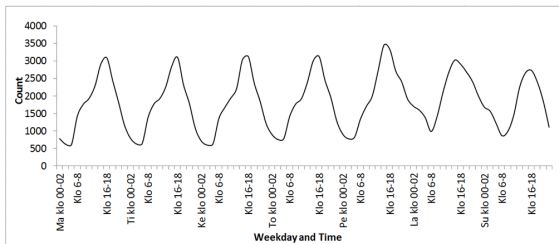
	2007	2008	2009	2010	2011
Risk Area I	25	25	25	24	22
Risk Area II	26	27	27	27	27
Risk Area III	16	16	16	16	17
Risk Area IV	33	33	33	32	34

URGENT OPERATIONS* BY MONTH

	2007	2008	2009	2010	2011
January	2 282	2 327	2 546	2 404	2 385
February	1 829	2 027	1 974	2 227	2 233
March	1 978	2 048	1 908	2 059	2 043
April	2 783	2 412	2 475	2 104	2 268
May	2 842	3 790	3 441	2 970	3 179
June	3 473	3 400	3 161	2 982	3 451
July	2 455	2 837	2 908	3 728	3 336
August	2 823	2 516	2 823	3 092	2 768
September	2 184	2 303	2 412	2 293	2 184
October	2 092	2 204	2 523	2 440	2 194
November	2 184	2 235	2 046	2 365	2 194
December	2 528	2 414	2 719	2 712	2 797

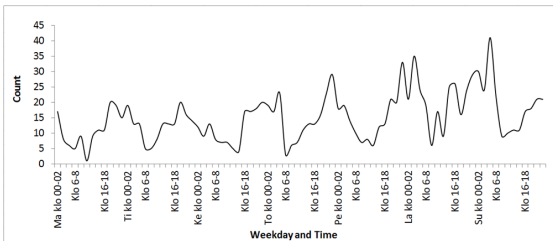
*Urgent Operations = Fires, Traffic Accident, Hazardous Material Accident, Explosion or Risk of Explosion, Collapse or Risk of Collapse and Human Rescue.

URGENT OPERATIONS* YEARS 2007—2011



*Urgent Operations = Fires, Traffic Accident, Hazardous Material Accident, Explosion or Risk of Explosion, Collapse or Risk of Collapse and Human Rescue.

BUILDING FIRES INCL. HUMAN RESCUE YEARS 2007—2011



BUILDING FIRES BY BUILDING TYPE

	2007	2008	2009	2010	2011
Residential Building	1 869	2 240	3 415	3 362	3 129
Detached houses	1 041	1 140	1 577	1 638	1 408
Attached houses	181	204	393	335	321
Blocks of flats	647	896	1 446	1 389	1 400
Free-time Residence	179	174	201	202	169
Commercial Building	182	199	380	360	378
Office Building	40	63	74	87	90
Transport, Communications Building	73	50	73	78	79
Institutional and Healthcare Building	95	106	233	247	210
Assembly Building	55	68	86	90	79
Educational Building	59	60	119	108	109
Industrial Building	498	503	591	638	585
Warehouse	243	242	236	242	241
Building for Fire Services	3	3	1	2	0
Agricultural Building	176	179	194	227	212
Other Building	594	622	655	650	646
Sauna	290	288	331	297	287
Total	4 066	4 509	6 258	6 293	5 927

CAUSE OF BUILDING FIRE

	2007	2008	2009	2010	2011
Human Activity	1 807	2 222	3 323	3 003	2 903
Machine or Device Failure	997	977	1 524	1 697	1 646
Natural Phenomena	90	108	123	203	252
Flammable Substance	56	47	90	92	84
Animal	15	13	27	31	42
Other Cause	584	632	681	711	558
Cause Unknown	524	512	532	597	513

BUILDING FIRE CAUSE OF IGNITION

	2007	2008	2009	2010	2011
Cooking	-	-	1 162	1 055	1 070
Deliberate	-	-	260	275	290
Open Fire	910	997	1 029	862	816
Juvenile Fire Setting	-	-	77	56	57
Hot Work	121	110	152	154	152
Match, Other Firemaking Device	383	458	276	172	180
Cigarette, Other Tobacco Product	201	253	308	268	220
Firework, Pyrotechnic Products	30	30	43	19	23
Candle, Outdoor Candle	107	71	98	116	98
Machine, Device, Process	1 058	1 159	1 538	1 683	1 647
Electrical Device	602	640	595	690	680
Hot Object, Ash, Spark	210	251	231	222	222
Fireplace, Flue	632	674	879	898	719
Chimney Fire	207	287	384	405	302
Frictional Heat, Spontaneous Ignition, Explosion	79	95	133	119	114
Natural Phenomena	95	96	98	189	232
Other Known Cause	493	669	410	427	355
Cause Unknown	595	570	560	603	518

INTENTIONALITY OF BUILDING FIRE

	2007	2008	2009	2010	2011
Intentional	365	469	550	415	472
Negligence, Carelessness	532	674	1 283	1 220	1 173
Accidental	677	848	1 295	1 205	1 111
Unknown	233	231	195	163	146
Total	1 807	2 222	3 323	3 003	2 902

USE OF FIRST EXTINGUISHING IN BUILDING FIRES

	2007	2008	2009	2010	2011
Used	1 585	1 693	2 135	2 128	2 078
Not Used	2 145	2 301	3 568	3 587	3 400
Unknown	343	517	596	618	515

EFFECT OF FIRST EXTINGUISHING IN BUILDING FIRES

	2007	2008	2009	2010	2011
Extinguished Fire	766	850	1 241	1 185	1 161
Limited Fire	587	622	654	671	656
No Effect	224	217	236	267	254
Extinguisher Did Not Work	8	4	4	5	7

SMOKE ALARM ACTIVATION IN RESIDENTIAL BUILDING FIRES

	2007	2008	2009	2010	2011
Smoke Alarm Activated	578	677	1 069	1 187	1 112
Smoke Alarm Did Not Activate	165	259	483	464	372
Smoke Alarm Activation Unknown	477	509	571	464	457
No Smoke Alarm	827	969	1 081	1 004	948

WILDFIRES

	2007	2008	2009	2010	2011
Forest Fire	1 204	1 456	1 242	1 412	1 262
Other Wildfire	1 714	1 784	1 599	1 688	1 609
Total	2 918	3 240	2 841	3 100	2 871

CAUSE OF WILDIRE

	2007	2008	2009	2010	2011
Human Activity	1 834	2 207	1 989	1 951	1 717
Natural Phenomena	298	155	216	428	405
Machine or Device Failure	58	73	86	120	82
Animal	10	21	18	24	20
Flammable Substance	5	6	13	9	16
Other Cause	159	123	139	180	182
Cause Unknown	554	655	380	387	390

WILDFIRE CAUSE OF IGNITION

	2007	2008	2009	2010	2011
Open Fire	1 708	2 054	1 749	1 591	1 471
Juvenile Fire Setting	-	-	147	131	114
Campfire, Grill	437	531	391	425	348
Rubbish Burning	353	324	360	353	326
Match, Other Firemaking Device	465	581	340	202	240
Cigarette, Other Tobacco Product	241	354	287	268	267
Prescribed Burning	170	213	164	169	147
Natural Phenomena	125	136	145	383	324
Lightning	55	97	75	328	279
Machine, Device, Process	227	162	132	162	166
Electrical Device	163	84	26	31	21
Hot Object, Ash, Spark	81	121	123	127	136
Fireplace, Flue	13	13	14	12	21
Frictional Heat, Spontaneous Ignition, Explosion	149	53	94	107	135
Deliberate	-	-	39	117	73
Other Known Cause	97	95	151	198	152
Cause Unknown	518	605	394	402	372

INTENTIONALITY OF WILDFIRE

	2007	2008	2009	2010	2011
Intentional	347	433	368	319	278
Negligence, Carelessness	700	873	822	794	755
Accidental	455	507	506	555	449
Unknown	332	394	293	283	235
Total	1 834	2 207	1 989	1 951	1 717

VEHICLE FIRES BY VEHICLE TYPE

	2007	2008	2009	2010	2011
Road Vehicle	2 512	2 365	2 398	2 400	2 375
Water Vehicle	42	39	34	40	38
Rail Vehicle	16	10	9	13	11
Air Vehicle	1	2	2	1	4
Other Vehicle	22	25	25	43	33
Total	2 593	2 441	2 468	2 497	2 461

CAUSE OF VEHICLE FIRE

	2007	2008	2009	2010	2011
Machine or Device Failure	1 308	1 299	1 318	1 433	1 476
Human Activity	558	546	563	439	426
Flammable Substance	24	17	28	35	30
Natural Phenomena	7	5	6	7	7
Animal	1	0	2	0	3
Other Cause	138	130	147	153	121
Cause Unknown	557	444	404	430	401

INTENTIONALITY OF VEHICLE FIRES

	2007	2008	2009	2010	2011
Intentional	383	375	411	300	310
Negligence, Carelessness	58	48	53	45	44
Accidental	60	68	69	65	47
Unknown	57	55	30	29	25
Total	558	546	563	439	426

ROAD VEHICLE FIRES

	2007	2008	2009	2010	2011
Passenger Car	1 669	1 456	1 513	1 470	1 398
Van	136	165	163	176	159
Combination of Vehicles	137	126	92	122	132
Lorry	111	127	105	130	146
Engine-powered Work Vehicle	115	112	109	129	148
Tractor	101	93	119	109	86
Bus	75	76	77	56	68
Motor Caravan, Caravan	42	51	42	48	56
Moped	43	77	79	63	72
Off-road Vehicle	16	25	35	34	31
Trailer	21	18	17	20	22
Tank Truck	11	10	13	9	20
Motorcycle	19	13	12	13	13
Restricted Motorcycle	4	3	7	4	6
Other Road Vehicle	12	13	15	17	23

CAUSE OF OTHER FIRE

	2007	2008	2009	2010	2011
Human Activity	3 141	3 345	2 570	2 187	2 179
Machine or Device Failure	555	476	321	322	321
Natural Phenomena	141	125	106	167	227
Flammable Substance	34	34	15	26	25
Animal	13	14	22	7	7
Other Cause	438	293	280	324	308
Cause Unknown	488	382	334	298	318
Total	4 810	4 669	3 648	3 331	3 384

OTHER FIRE CAUSE OF IGNITION

	2007	2008	2009	2010	2011
Open Fire	2 534	2 786	1 916	1 253	1 273
Juvenile Fire Setting	-	-	125	65	89
Campfire, Grill	364	413	204	206	183
Rubbish Burning	264	187	250	241	214
Match, Other Firemaking Device	1 291	1 517	893	393	407
Cigarette, Other Tobacco Product	307	334	284	217	265
Firework, Pyrotechnic Products	195	238	104	75	68
Fireplace, Flue	195	62	33	32	28
Chimney Fire	145	18	4	4	2
Machine, Equipment, Process	670	548	297	307	288
Electrical Device	429	353	136	136	142
Hot Object, Ash, Spark	167	160	111	132	109
Frictional Heat, Spontaneous Ignition, Explosion	146	141	117	130	166
Natural Phenomena	90	70	57	118	151
Deliberate	-	-	318	612	630
Other Known Cause	414	337	404	384	356
Cause Unknown	594	565	394	363	384

INTENTIONALITY OF OTHER FIRE

	2007	2008	2009	2010	2011
Intentional	1 625	1 904	1 515	1 218	1 260
Negligence, Carelessness	616	606	434	419	408
Accidental	403	378	291	288	252
Unknown	497	457	330	262	259
Total	3 141	3 345	2 570	2 187	2 179

TRAFFIC ACCIDENTS

	2007	2008	2009	2010	2011
Road Traffic	12 482	13 047	12 896	13 095	12 794
Rail Transport	183	163	144	126	121
Railway Level Crossing	90	69	56	36	26
Waterway Transport	41	52	80	62	53
Air Traffic	31	21	40	35	30
Other Traffic	201	211	253	193	233
Total	12 938	13 494	13 413	13 511	13 257

OIL SPILLS

	2007	2008	2009	2010	2011
Overfill	251	239	260	191	189
Tank Leak	145	144	117	77	97
Other Leak in Storing or Dispensing Device	80	90	81	80	91
Tank Transport	53	53	48	58	61
Road Vehicle	1 150	1 228	1 325	1 176	1 329
Rail Vehicle	4	9	2	3	3
Water Vehicle	58	66	63	73	73
Other Vehicle	267	286	301	293	318
Other Machine or Device	90	115	126	133	154
Treatment of Waste Oil or Used Oil	54	36	58	50	32
Unknown Oil Spill in Water Body or Sewer	48	56	83	101	102
Other Cause or Accident	475	428	425	275	290
Total	2 675	2 750	2 889	2 510	2 739

HAZARDOUS MATERIAL ACCIDENT SITE

	2007	2008	2009	2010	2011
Industrial Plant	50	45	56	55	51
Warehouse, Warehouse Area	36	48	39	40	47
Street, Other Urban Area	23	46	50	58	52
Highway	11	24	12	23	38
Shop, Petrol Outlet	21	36	43	32	39
Public Building	19	13	16	23	15
Accommodation or Restaurant Premises	7	15	8	10	2
Residential Building	21	10	14	16	25
Other Building	13	12	16	17	19
Port, Water Body	4	10	9	14	11
Yard, Railway	4	14	7	5	3
Other Site	22	20	23	28	24
Total	231	293	293	321	326

ADR CLASSIFICATION OF HAZARDOUS MATERIAL ACCIDENTS

	2007	2008	2009	2010	2011
Explosives	0	1	0	0	0
Gases	85	95	76	78	62
Flammable Liquids	64	116	93	99	115
Flammable Solids	2	5	1	10	5
Oxidising Substances, Organic Peroxides	9	7	10	13	12
Toxic and Infectious Substances	16	12	12	3	10
Radioactive Substances	0	0	0	0	1
Corrosive Substances	55	53	49	46	55
Other Hazardous Material or Goods	14	14	5	8	12

CAUSE OF LOSS PREVENTION OPERATIONS*

	2007	2008	2009	2010	2011
Natural Phenomena	4 109	4 542	3 133	5 823	10 821
Wind, Storm	1 850	2 133	1 615	2 678	9 317
Flood, Rain Water	-	-	-	-	896
Snow, Ice	-	-	-	-	378
Frost	-	-	-	-	77
Defect or Malfunction in a Machine, Device	1 014	797	857	1 434	1 119
Defect or Malfunction of Mains	633	434	557	977	605
Defect or Malfunction of Vehicle	-	-	-	-	306
Human Activity	695	596	655	607	773
Animal	-	-	-	-	33
Other Cause	1 040	1 054	935	998	426
Total	6 858	6 989	5 580	8 862	13 172

*Includes incidents recorded as natural hazards in years 2007—2010

CAUSE OF ASSISTANCE OPERATIONS

	2007	2008	2009	2010	2011
Assistance of EMS	-	-	-	-	1 918
Human Activity	-	-	-	-	424
Defect or Malfunction in a Machine, Device	-	-	-	-	353
Defect or Malfunction of Vehicle	-	-	-	-	238
Defect or Malfunction of Mains	-	-	-	-	36
Defect or Malfunction of Grid	-	-	-	-	18
Natural Phenomena	-	-	-	-	187
Wind, Storm	-	-	-	-	69
Flood, Rain Water	-	-	-	-	34
Snow, Ice	-	-	-	-	67
Animal	-	-	-	-	59
Other Cause	-	-	-	-	378

HUMAN RESCUE OPERATIONS

	2007	2008	2009	2010	2011
Water Rescue	475	450	383	407	385
Rescue from Trap, Shaft, Collapse, Well	57	57	49	61	64
Rescue from Other Dangerous Place or Situation	289	262	259	269	259
Rescue from Place or Situation With No Immediate Danger	416	419	427	508	407
Rescue from Terrain	272	283	290	314	284
Lift Rescue	402	426	661	691	596
Other Rescue Operation	263	253	206	177	166

ANIMAL RESCUE OPERATIONS

	2007	2008	2009	2010	2011
Water Rescue	168	163	198	111	106
Rescue from Trap, Shaft, Collapse, Well	229	207	253	222	208
Rescue from Other Dangerous Place or Situation	260	324	405	249	186
Rescue from Place or Situation With No Immediate Danger	720	761	914	896	861
Rescue from Terrain	87	62	119	116	72
Lift Rescue	8	5	10	6	1
Other Rescue Operation	467	529	522	559	475

FIRE ALARM SYSTEM OR SMOKE ALARM CHECK AND INSPECTION OPERATIONS

	2007	2008	2009	2010	2011
Automatic Fire Alarm System Check or Inspection	21 266	20 056	19 374	22 306	21 382
Smoke Alarm Check or Inspection	1 840	1 833	2 171	2 988	2 380

CAUSE FOR AUTOMATIC FIRE ALARM

	2007	2008	2009	2010	2011
Negligence in Property Repair, Installation or Maintenance Work	2 523	2 530	2 217	2 393	2 439
Exhaust Gas	205	186	178	206	194
Smoking	370	327	306	275	285
Cooking	2 751	3 042	2 970	3 147	3 378
Other Smoke or Dust	3 470	3 069	2 802	2 965	2 700
Temporary High Temperature	413	363	358	460	423
Fire	-	205	206	208	259
Moisture or Water	2 023	1 808	1 786	2 331	2 126
Sensor Failure in Fire Alarm or Fixed Fire Extinguishing System	797	611	649	684	612
Sprinkler System Failure	1 035	983	952	1 151	1 058
Other System Failure	444	408	462	502	464
Overvoltage	322	197	189	310	355
Impact on Sensor	194	274	236	299	286
Error or Misuse	558	596	605	726	651
Malicious Use	436	447	479	446	441
Other Cause or Cause Unknown	5 674	5 153	5 090	6 421	5 591

OTHER CHECK OR INSPECTION OPERATIONS

	2007	2008	2009	2010	2011
Smoke Observation	3 940	3 830	3 369	3 812	3 789
Oil Observation	508	539	564	553	545
Gas Observation	143	121	150	164	133
Chemical Observation	106	72	103	106	115
Blind Call	435	471	470	529	502
False Call	147	159	143	156	144
Risk of Air Crash	91	116	86	128	90
Other Cause	2 937	3 062	3 029	3437	3 505

5 ACCIDENT DAMAGES

DEATHS

	2007	2008	2009	2010	2011
Building Fire	78	111	98	75	56
Wildfire	1	0	1	1	0
Vehicle Fire	4	4	7	5	4
Other Fire	1	3	3	1	4
Traffic Accident	383	323	270	286	277
Oil Spill	1	0	0	0	0
Hazardous Material Accident	0	1	0	0	0
Natural Hazard	0	0	0	0	-
Explosion, Risk of Explosion	1	1	0	2	0
Collapse, Risk of Collapse	0	0	1	0	0
Fire Alarm System or Smoke Alarm Check or Inspection	0	0	0	1	1
Other Check or Inspection	6	5	8	9	3
Human Rescue	154	128	124	150	138
Animal Rescue	0	0	0	0	0
Other Rescue Operation	10	-	-	-	-
Loss Prevention	1	0	0	1	2
Assistance	45	53	41	58	42
Executive Assistance	59	56	59	47	48
Total	744	685	612	641	588

INJURED

	2007	2008	2009	2010	2011
Building Fire	487	491	659	570	457
Wildfire	7	4	4	6	10
Vehicle Fire	33	122	25	29	23
Other Fire	37	44	10	13	15
Traffic Accident	9 161	9 612	8 878	8 032	8 078
Oil Spill	3	8	12	9	7
Hazardous Material Accident	43	40	10	27	24
Natural Hazard	0	2	4	46	-
Explosion, Risk of Explosion	3	3	10	11	10
Collapse, Risk of Collapse	0	0	1	11	3
Fire Alarm System or Smoke Alarm Check or Inspection	27	26	15	6	20
Other Check or Inspection	31	68	35	41	49
Human Rescue	544	528	423	402	407
Animal Rescue	1	0	5	3	1
Other Rescue Operation	29	-	-	-	-
Loss Prevention	24	30	16	22	25
Assistance	143	181	145	163	168
Executive Assistance	34	39	32	62	56
Total	10 590	11 198	10 284	9 473	9 383

FIRE DEATHS

	2007 ⁴	2008 ⁴	2009 ⁴	2010 ⁴	2011
Fire Deaths	91	108	112	90	66
Accidental Cause of Death	76	88	89	79	55
Non-accidental Cause of Death	15	20	23	11	11
Deaths per Million Inhabitants	17	20	21	17	12

FIRE DEATHS BY AGE AND SEX⁴

	2007		2008		2009		2010	
	M	F	M	F	M	F	M	F
Under 10 years	0	0	0	0	2	0	0	1
10—19 years	3	1	1	0	4	2	1	0
20—29 years	2	3	3	2	1	1	4	1
30—39 years	4	1	8	1	8	0	2	0
40—49 years	14	1	14	3	13	0	10	7
50—59 years	16	5	17	7	20	9	12	4
60—69 years	18	6	25	8	27	3	19	5
70—79 years	9	3	7	5	8	4	8	6
80—89 years	1	4	2	4	5	3	4	6
Over 89 years	0	0	1	0	0	2	0	0
Total	67	24	78	30	88	24	60	30

References: ⁴ Statistics Finland.

FIRE DEATHS BY BUILDING TYPE

	2006	2007	2008	2009	2010
Residential Building	100	60	90	90	63
Detached houses	54	39	53	60	39
Attached houses	8	4	9	11	6
Blocks of flats	38	17	28	19	18
Free-time Residence	5	7	3	3	6
Institutional and Healthcare Building	0	1	1	1	0
Other Building	7	7	5	3	3

SHARE OF SMOKE ALARM ACTIVATION IN FATAL FIRES (%)

	2006	2007	2008	2009	2010
Smoke Alarm Activated	16	24	27	18	35
Smoke Alarm Did Not Activate	2	6	8	14	5
Smoke Alarm Activation Unknown	26	24	19	41	24
No Smoke Alarm	57	45	46	27	35

TOTAL PROPERTY DAMAGES* FROM FIRES

	2007	2008	2009	2010	2011
Burnt Floor Area in Residential Building Fires (m ²)	68 923	83 681	82 674	88 347	71 934
Damage to Building and Furnishings in Building Fires (MEUR)	188	188	131**	162**	131**
Property in Danger in Building Fires (MEUR)	15 339	17 027	2 927**	6 800**	2 970**
Burnt Land Area (ha)	841	1 188	1 004	919	909
Burnt Forest Area (ha)	576	830	576	519	589
Vehicle Fire (MEUR)	17	16	18	25	20
Other Fire (MEUR)	9	19	7	6	6

AVERAGE PROPERTY DAMAGES* FROM FIRES

	2007	2008	2009	2010	2011
Burnt Floor Area in Residential Building Fires (m ²)	35	36	23	25	22
Damage to Building and Furnishings in Building Fires	46 224	41 886	20 828**	25 528**	21 492**
Burnt Land Area (ha)	0,29	0,37	0,35	0,30	0,32
Burnt Forest Area (ha)	0,48	0,57	0,46	0,37	0,47
Vehicle Fire (€)	6 754	6 633	7 168	9 923	8 008
Other Fire (€)	1 776	4 072	1 869	1 793	1 808

*Calculation shown in € done using Haahtela Price Index. (Haahtela-kehitys Oy).

**Since 2009 calculation method sharpened.

6 PREPAREDNESS

AVERAGE RESPONSE TIME (IN MINUTES) OF FIRE BRIGADE WITH STRENGTH OF PERSONNEL 1+3 IN URGENT OPERATIONS*

	2007	2008	2009	2010	2011
Risk Area I	7:16	6:25	5:59	5:58	5:55
Risk Area II	7:43	7:08	6:59	7:06	7:07
Risk Area III	9:33	9:27	9:00	9:19	9:18
Risk Area IV	14:13	14:18	14:14	14:34	14:34

SHARE OF REACHED TARGETS IN REQUIRED RESPONSE TIME WITH STRENGTH OF PERSONNEL 1+3 IN URGENT OPERATIONS* (%)

	2007	2008	2009	2010	2011
Risk Area I (6 min)	53	59	62	62	62
Risk Area II (10 min)	82	87	88	87	87
Risk Area III (20 min)	95	96	98	97	97
Risk Area IV (No Response Time Set)					

*Urgent Operations = Fires, Traffic Accident, Hazardous Material Accident, Explosion or Risk of Explosion, Collapse or Risk of Collapse and Human Rescue.

SHARE OF OPERATIONS IN WHICH STRENGTH OF PERSONNEL 1+3 FULFILLED (%)

	2007	2008	2009	2010	2011
Building Fire	96	96	95	96	96
Wildfire	89	93	91	91	92
Vehicle Fire	91	91	90	91	91
Other Fire	88	92	91	91	92
Traffic Accident	90	91	92	92	93
Hazardous Material Accident	90	94	96	90	95
Explosion, Risk of Explosion	91	96	100	100	88
Collapse, Risk of Collapse	75	94	100	92	86
Human Rescue	85	84	84	84	84

AVERAGE STRENGTH OF PERSONNEL AT SITE

	2007	2008	2009	2010	2011
Building Fire	16	16	12	12	12
Wildfire	9	10	8	8	8
Vehicle Fire	6	7	6	6	6
Other Fire	7	7	6	5	5
Traffic Accident	7	7	6	6	6
Hazardous Material Accident	9	8	8	8	8
Explosion, Risk of Explosion	11	11	9	11	10
Collapse, Risk of Collapse	7	11	8	9	8
Human Rescue	7	7	6	5	5
All Alarm Operations	6	6	5	5	5