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**FIRE SAFETY: ACHIEVING A HIGHER INTERNATIONAL PROFILE**

The main object of the World Fire Statistics Centre (WFSC) has always been to encourage national governments to adopt strategies aimed at reducing fire costs. In this, the USA has led the field, with its groundbreaking report, *America Burning* (1973), which inter alia resulted in regular exercises to estimate total US fire costs. This latter example has been followed by WFSC at the international level, and later by individual country studies in Canada, the UK and Denmark. Then in 1995 another international body, CTIF began its own rather different fire statistics scheme, now covering over 50 countries, and last year an EU Fire Safety Network was set up, following a collaborative study co-funded by the EC Commission. The Network, manned by government personnel, aims to interchange news, views and statistics on fire safety matters so as to be able to learn from each others' experience. Finally, this year has seen a proposal for the formation of a World Fire Strategy Group. All this augurs well for raising the international profile of fire safety among policy makers.

## **The Geneva Association**

The International Association for the Study of Insurance Economics, or by its short name "The Geneva Association", is a unique world organisation formed by a maximum of 80 chief executive officers from the most important insurance companies in the world (Europe, North and South America, Asia, Africa and Australia). Our main goal is to research the growing importance of worldwide insurance activities in all sectors of the economy. We try to identify fundamental trends and strategic issues where insurance plays a substantial role or which influence the insurance sector. In parallel, we develop and encourage various initiatives concerning the evolution – in economic and cultural terms – of risk management and the notion of uncertainty in the modern economy.

The Geneva Association also acts as a forum for its members, providing a worldwide unique platform for the top insurance CEOs. We organise the framework for our members in order that they may exchange ideas and discuss key strategic issues, especially at the General Assembly where once per year over 50 of the top insurance CEOs gather. The Geneva Association serves as a catalyst for progress in this unprecedented period of fundamental change in the insurance industry and its growing importance for the further development of the modern economy. It is a non-profit organisation.

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### **Aims and Activities of the World Fire Statistics Centre**

The Centre's main objective is to persuade governments to adopt strategies aimed at reducing the cost of fire which, although running at around 1% of GDP in most advanced countries, has generally received much less attention than the cost of crime or of road accidents. In pursuit of this objective, the Centre collects from over 20 leading countries statistics on national fire costs (see Contents above).

A further important effort is devoted to persuading the European Union to identify fire safety as a topic for collective action, leading to a European fire strategy.

World Fire Statistics Centre (affiliated organization of The Geneva Association):

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See also: **www.genevaassociation.org/wfsc.htm**

### **The Geneva Association Newsletter - "World Fire Statistics", No 21, October 2005 Information Bulletin of the World Fire Statistic Centre**

This information bulletin of the World Statistics Centre appears annually. It presents statistics on national fire costs from over 20 leading countries in an effort to persuade governments to adopt strategies aimed at reducing the cost of fire. It has been published since March 1984.

**Printed copies:** 1000. Unrestricted circulation. Free of Charge

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## I. Fire Safety: Achieving a Higher International Profile

The World Fire Statistics Centre (WFSC) has always had as its main long-term aim the encouragement of national governments to adopt coherent fire safety strategies focused on reducing the overall cost of fire, and the collection and publication of national fire cost statistics is seen as a necessary supporting means to this end. The Centre's work builds on the example set by the USA, where a groundbreaking study in the early 1970s resulted in a comprehensive report, *America Burning*. This provided a blueprint for future action on a variety of fronts, including the regular production of estimates for the main elements of national fire costs. In the 1990s, this effort to measure the economic costs of fire was followed first by Canada and then by the UK, and Denmark has since followed suit.

At the international level, the UN scheme implemented by the Centre, to collect national fire cost data and put them on as comparable a basis as possible, began in the early 1980s, and has since been developed in terms both of the number of participant countries and the methodology employed. Then in 1995 the CTIF\* started a cooperative venture under the leadership of Professor N.N. Brushlinsky which led to the formation of the CTIF Center of Fire Statistics. This is dedicated to the collection and publication of fire statistics provided by its member countries' fire services, initially concentrating on fire fighting operations but since extending more widely. Over 50 countries now return data in response to its annual enquiries, and its annual reports have grown in coverage and sophistication, their numerous tables and charts being accompanied by useful interpretative comment.

In 2003 an ambitious collaborative initiative, led by the Swedish Fire & Rescue Service and co-financed by the European Commission's Civil Protection Unit, resulted in the publication of a wide-ranging report, *Prevention of fire and other incidents*. This report surveyed national strategies for tackling fire in EU member countries (to the extent that they existed) and the approaches taken to handling a whole range of fire safety issues. One of the main recommendation for follow-up action was for the formation of an EU Fire Safety Network. This has now been set up, composed of relevant government representatives from EU member states, and aims to provide not merely a medium for the interchange of reports and views on current developments but also an annual survey of fire safety statistics and other factual information. Two meetings have already been held, as a result of which the annual survey format and a programme of work have been agreed. The primary object of the Network, to enable EU member states to learn from each others' experience in various fire safety activities, is to be applauded.

Mention should also be made of a further potential new venture. In June 2005 WFSC spoke at the triennial meeting of CFPA† International in Hanover. The opportunity was taken to discuss with George Miller (Past President of CFPA I and President Emeritus of the US National Fire Protection Association) a proposal to form a World Fire Strategy Group. The object would be to encourage countries to draft a national fire safety strategy, aimed at reducing national fire costs, with a drive similar to that shown in many countries over road safety. Mr Miller was in favour of the proposal in principle, and is now considering further comments.

All these developments suggest that fire safety may at last be starting to achieve that higher degree of interest, at national and international level, that will be required if it is to gain the political and institutional commitment needed for the introduction of real and productive policy changes. The fact that in many countries the role of all the emergency services is having to be reviewed, in order to prepare for the new range of threats posed by international terrorism, provides an additional reason to look again not only at the range of fire service responsibilities but also at overall fire safety policy.

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\* Comité Technique International de Prévention et d'Extinction du Feu,

† Confederation of Fire Protection Associations.

## **1. United Nations Fire Statistics Study**

The Centre presented its annual report to the UN Committee on Human Settlements at the meeting in Geneva in September 2005

The following eight tables of international fire cost comparisons are based on those which appeared in the report:

## **II. Cost of Direct Fire Losses**

**Table 1**

Adjusted direct losses (in millions, except for Japan - billions)

<b>Country</b>	<b>Currency</b>	<b>2000 Direct Losses</b>	<b>2001 Direct Losses</b>	<b>2002 Direct Losses</b>	<b>Percentage of GDP 2000-02</b>
Singapore	\$S	105	95	115	0.07
Poland	ZI	805	535	620	0.09
Japan	Yen	480	535	485	0.10
Slovenia	SIT	6,550	4,100	5,400	0.11
Czech Republic	CzKr	1,600	2,300	4,200	0.12
Hungary	Ft				0.12 (1986-88)
Spain	Pta				0.12 (1984)
Finland	€	185	190	175	0.14
United Kingdom	£	1,200	1,500	1,500	0.14
Australia	\$A				0.16 (1992-93)
Canada	\$Can	1,650	1,950		0.17 (1999-2001)
France	€	2,450	2,600	2,500	0.17
New Zealand	\$NZ				0.17 (1993-94)
Germany	€	3,850	3,700	3,750	0.18
Italy	€	2,500	1,900	2,550	0.18
Netherlands	F				0.18 (1995-96)
Sweden	SKr	4,200	4,600	4,750	0.20
Denmark	DKr	2,700	2,550	3,300	0.22
United States	\$US	10,500	44,500	11,000	0.22
Switzerland	SwF				0.23 (1989)
Belgium	€	665			0.24 (1998-2000)
Austria	Sch	5,700			0.26 (1998-2000)
Norway	NKr	3,700	4,650	4,200	0.28

\* Including 9/11 losses estimated at \$33.4 billion.

Note : Fire losses include explosion losses following fires, but exclude explosion loss where no fire occurs, for example, some acts of terrorism

### III. Cost of Indirect Fire Losses

Table 2

Average percentage of GDP (2000-02)

Country	%
Norway	0.002
Czech Republic	0.005
Sweden	0.006
Finland	0.007
UK	0.011
France	0.014
Italy	0.014 [1993-94]
Austria	0.016 [1998-2000]
Japan	0.016 [1985-86]
Germany	0.020
Canada	0.022 [1991]
USA	0.022*
Netherlands	0.027 [1995-96]
Denmark	0.029 [1993-95]
Hungary	0.029 [1992-93]
Slovenia	0.033
Switzerland	0.095 [1989]

- Calculated after allowing for \$8.4 billion losses arising from 9/11 in 2001.

Note: This table must be regarded with serious reservations - the figures are produced on widely varying bases and some of the differences look too large for credibility.

### IV. Fire Deaths

Table 3

Country	Adjusted figures (fire deaths)		
	2000	2001	2002
Singapore	5	10	0
Switzerland	40		
Spain	260	265	230
Australia	145	95	125
Italy	410	355	
Germany	590	600	
Slovenia	15	20	20
France	555	550	
New Zealand	30	40	40
Czech Republic	105	105	115
UK	645	635	590
Canada	360	370	
Poland	515	510	455
Austria	225	55	40
Norway	55	65	65
Denmark	85	75	75
Sweden	110	145	145
Greece	190	190	145
Ireland	60	70	60
Japan	2,050	2,250	2,300
USA	4,400	6,900*	3,700
Finland	95	85	95
Hungary	200	235	195

\* 2,791 from 9/11.

**Population Comparisons for Fire Deaths (2000-02)****Table 4**Population comparisons for fire deaths

Country	Deaths per 100,000 persons
Singapore	0.12
Switzerland	0.56 (1998-2000)
Spain	0.61
Australia	0.63
Italy	0.68 (1999-2001)
Netherlands	0.68 (1994-96)
Germany	0.74 (1999-2001)
Slovenia	0.93
France	0.95 (1999-2001)
New Zealand	0.95
Czech Republic	1.06
UK	1.06
Canada	1.25 (1999-2001)
Poland	1.28
Austria	1.31
Belgium	1.35 (1995-97)
Norway	1.36
Denmark	1.46
Sweden	1.50
Greece	1.59
Ireland	1.63
Japan	1.73
USA	1.74*
Finland	1.77
Hungary	2.06

- Calculated after including 2,791 deaths in 2001 arising from 9/11

Note : Population figures used are derived from the United Nations Population website..

**V. Cost of Fire Fighting Organisations****Table 5**Average percentage of GDP (2000-02)

Country	%
Singapore	0.04
Slovenia	0.05
Denmark	0.07
Norway	0.10
Austria	0.11 (1994)
Finland	0.13 (2002)
Belgium	0.14 (1998-2000)
Netherlands	0.15 (1994-96)
Sweden	0.15
New Zealand	0.16
Poland	0.19
UK	0.20
USA	0.25
Japan	0.34
Canada	0.35 (1991)

Note: The low Danish cost is largely due to the private company, Falck, which runs many fire brigades, together with ambulance, rescue and motor breakdown services

**VI. Cost of Fire Insurance Administration****Table 6**Average percentage of GDP (2000-02)

Country	%
Hungary	0.01 (1987-88)
Finland	0.03
Singapore	0.03
Italy	0.04
Netherlands	0.04 (1987-88)
Spain	0.05 (1986)
Sweden	0.05
Canada	0.06 (1991)
Germany	0.06 (2001-02)
Slovenia	0.07
UK	0.07
Denmark	0.08
France	0.08
USA	0.08
Japan	0.09
Norway	0.09
Austria	0.14 (1979-80)
New Zealand	0.19 (1993-94)
Belgium	0.23 (1999-2000)

## VII. Cost of Fire Protection to Buildings

Table 7

Country	Fire Protection‡ (%)	Currency	Cost in millions (except for Japan – billions)		
			2000	2001	2002
Belgium	2.5	€	750		
Canada	3.9	\$C	2,550	2,800	3,100
Czech Republic	3.0	CzKr	3,350	4,000	4,000
Denmark	5.0	DKr	6,850	7,000	
France	2.5	€	2,200	2,350	2,400
Italy	4.0	€	3,800	4,000	4,300
Japan	2.5	Yen	865	770	730
New Zealand	2.5	\$NZ	180	175	200
Norway	3.75	NKr	4,950	5,350	5,650
Singapore	4.0	\$S	800	550	575
Slovenia	2.5	SIT	7,150	7,500	8,250
Sweden	2.5	SKr	3,200	3,750	3,900
UK	2.5	£	1,800	1,950	2,150
USA		\$US	38,000	38,000	34,500

‡ Estimated cost of building fire protection in relation to total national cost of building and construction.

Note: In the United Kingdom, the estimated fire protection costs varied from 1 per cent for housing to 7 per cent for hospitals and office buildings, in the United States, from 2.5 per cent for housing to 12 per cent for private non-residential structures, and in Canada from 2 percent for single homes to 13.2 per cent for high-rise apartments.

## COSTS OF FIRE PROTECTION TO BUILDINGS

Annex I

**Published figures for the total national cost of building construction**

(millions, except for Japan - billions)

Country	Currency	2000	2001	2002	Estimated % attributable to fire protection
Belgium	€	*	*		2.5
Canada	\$C	65,100	71,930	79,899	3.9 See Footnote 1
Czech Republic	CzKr	112,301	133,209	133,600	3.0
Denmark	DKr	136,840	140,444		5.0
France	€	87,100	93,500	96,700	2.5
Italy	€	<b>95,012</b>	<b>100,344</b>	107,372	4.0
Norway	NKr	131,728	142,900	151,100	3.75
Slovenia	SIT	286,000	300,000	330,851	2.5
Sweden	SKr	127,000	<b>150,000</b>	156,000	2.5
UK	£	69,766	74,690	83,592	2.5 See Footnote 2



**Non-ECE**

Japan	Yen	34,580	<b>30,810</b>	29,170	2.5
New Zealand	\$NZ	7,242	6,961	8,021	2.5
Singapore	\$S	20,152	13,801	14,340	4.0

**Estimated fire protection cost**

(millions, except for Japan - billions)

	Currency	2000	2001	2002	Fire protection cost as a % of GDP 2000-02
New Zealand	\$NZ	180	175	200	0.15
Czech Republic	CzKr	3,350	4,000	4,000	0.16
France	€	2,200	2,350	2,400	0.16
Japan	Yen	865	<b>770</b>	730	0.16
Slovenia	SIT	7,150	7,500	8,250	0.16
Sweden	SKr	3,200	<b>3,750</b>	3,900	0.16
UK	£	1,800	1,950	2,150	0.20 See Footnote 2.
Canada	\$C	2,550	2,800	3,100	0.25 See Footnote 1.
Belgium	€	750			0.29 [1998-2000]
Switzerland	SwF				0.29 [1989]
Netherlands	f.				0.30 [1993-95]
Italy	€	3,800	<b>4,000</b>	4,300	0.33
Norway	NKr	4,950	5,350	5,650	0.33
USA	\$US	38,000	38,000	34,500	0.36 See Footnote 3
Singapore	\$S	800	550	575	0.40
Hungary	Ft				0.42 [1987-88]
Denmark	DKr	6,850	7,000		0.52 [1999-2001]

1. Reflecting assessment of the fire protection costs of various types of buildings, ranging from 2% for single homes to 13.2% for high-rise apartments, as recommended in TriData's Canadian report.

2. In the UK, estimates for fire protection costs vary from 1% for housing to 7% for multi-storey offices and hospitals.

3. In the USA, the estimated fire protection costs vary from 2.5% for housing to 12% for private non-residential structures.

**Fire Protection to Buildings****Table 8**Average percentage of GDP (2000-02)

Country	%
New Zealand	0.15
Czech Republic	0.16
France	0.16
Japan	0.16
Slovenia	0.16
Sweden	0.16
UK	0.20
Canada	0.25
Belgium	0.29 (1998-2000)
Switzerland	0.29 (1989)
Netherlands	0.30 (1993-95)
Italy	0.33
Norway	0.33
USA	0.36
Singapore	0.40
Hungary	0.42 (1987-88)
Denmark	0.52 (1999-2001)

**VIII. UN Scheme Endorsed**

In their session held in Geneva on September 21, 2005, the United Nations Committee expressed its interest in the Report, thanked Mr. Wilmot, invited him to present a similar report to its next session and encouraged countries which had not yet done so to participate in the study.

**IX. 2. European Parliament and Fire Costs**

Following a meeting with Sir Christopher Prout MEP and with DG III (Industry), Sir Christopher in 1994 drafted the following Motion for resolution by the European Parliament:

"Whereas fire is currently costing countries of the European Union approximately 1% of GDP,

Whereas in comparison with road safety, crime prevention and industrial safety, little or nothing is being done to monitor progress on safety measures,

Whereas the rewards have been high for Governments, such as the United States of America, which have organised a determined campaign to cut fire costs,

**NOW THEREFORE**

1. The European Parliament urges the Council of Ministers to make a public announcement stating their concern over the level of fire costs in the EU.
2. The European Parliament calls on the European Commission to establish a Working Party of fire experts whose terms of reference would be to recommend ways of tackling the fire problem."

Sir Christopher (now Lord Kingsland) shortly thereafter ceased to be an MEP, but in 1995 Ms Christine Crawley MEP put down a similar Motion, which went to the Environment Committee in 1996. However, only three of the twenty proposed motions before the Committee were accepted for pursuit and, although the fire resolution was "recognized to be an issue of great importance", it was not accepted. Lord Kingsland in 1997 raised it again with the Chairman of the Environment Committee, who took it up with the Commission, only to receive a stonewalling response.

### X. 3. European Fire Safety Action Programme – League of Augsburg 2000

In April 1999, an international conference, “Firesafe Europe 99”, was organised in Chester, UK on behalf of FEU<sup>1</sup> and CACFOA<sup>2</sup> with EU financial support. This resulted in a suggested European fire safety action programme, and the Centre helped FEU to carry this forward by jointly organising an FEU/WFSC seminar in Augsburg in June 2000 on “European Fire Strategy – the Part of Statistics”.

As a result of the seminar, the “League of Augsburg 2000” was formed to develop proposals for a European fire statistical database which would meet the needs of likely users of the figures. A core group was formed from among the likely users: fire services, fire protection associations, fire equipment suppliers, fire insurers, government, industry and commerce, and academics. A questionnaire was circulated to core group members seeking (i) views on additional fire statistics that would be useful, and (ii) information on existing statistics available for publication. The European Commission was kept informed of the progress of the core group, whose role was to produce a report suggesting the best way of carrying forward the proposals. This report has now been produced and circulated to interested parties, including the Commission. Copies are available on request from [wpsc@genevaassociation.org](mailto:wpsc@genevaassociation.org).

Another European fire initiative, organised in 2003 by the Swedish Fire and Rescue Service (SRSA), under a contract from the European Commission’s DG III (Environment), was to study “Fire Prevention and other incidents” at the European level. This aimed to find common problems associated with fires and to prepare principles and guidance to handle these problems. A group of five countries worked on the project, which resulted in the publication of a comprehensive report, with recommendations for action, in February 2004. As a result, with the support of the Commission, an EU Fire Safety Network, composed of relevant Government representatives from EU states, has been set up to interchange information and statistics on fire safety matters, and has already held its first two meetings.

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1 Federation of European Union Fire Officers’ Associations.

2 Chief and Assistant Chief Fire Officers’ Association (UK); this body has now changed its name to Chief Fire Officers’ Association (CFOA).

If you would like to notify any additions, deletions or amendments to the current Bulletin circulation list, please send the details to the Geneva Association at the address given at the foot of the front page. There is also a facility for asking to be added to the circulation list on the Centre’s website: from which this and some earlier Bulletins may also be downloaded.

## XI. CONFERENCES ORGANISED AND/OR SPONSORED BY THE GENEVA ASSOCIATION

### 2005

#### September

**29-Oct 1**      **St Gallen**      Two sessions organized at **1<sup>st</sup> Viva 50 plus World Ageing & Generation Congress**, the future of Pensions” and “Working beyond 60: Key Policies & Practices in Europe”.

#### October

**3-4**              **Brussels**      **3<sup>rd</sup> Annual Roundtable of Chief Risk Officers**, hosted by Fortis  
**14**                **Rome**            **Montepaschi Vita Annual Forum**, organized by Montepaschi Vita and The Geneva Association  
**23**                **Chicago**        **“Global Reinsurance Forum”** session supported by The Geneva Association at the **PCI Annual Meeting**  
**26-28**          **Munich**         **2<sup>nd</sup> Liability Regimes Conference**, hosted by Munich Re

#### November

tba                tba                **20<sup>th</sup> MORE** (Management of Risks in the Economy) Conference  
**10-11**          **London**         **2<sup>nd</sup> Geneva Association Insurance and Finance Conference**  
**14**                **Brussels**        **Insurance Conference - Solvency II** hosted by Fortis, in co-operation with the CEA  
**16-17**          **Zurich**          **(Re)Insurance Chief Risk Officer Assembly**. A joint initiative of the Geneva Association and the Swiss Re Centre for Global Dialogue.  
**23**                **Milan**            **Solvency II, “Challenging Issues for the Insurance Industry”** in co-operation with ANIA & Macros Research  
**24**                **Munich**         **3<sup>rd</sup> Health and Ageing Conference on “Longevity- a Medical and Actuarial Challenge”** GE Frankona Re and Geneva Association

#### December

**8-9**              **Paris**             **3<sup>rd</sup> Meeting of the Global Insurance Communications Network**, hosted by AXA Group  
**13**                **Paris**             **4<sup>th</sup> Paris International Insurance Conference**, co-organized with the FFSA

### 2006

#### January

**10**                **New York**      **Joint Industry Forum for P&C Insurance Industry**, co-sponsored by The Geneva Association

#### February

**2-3**              **Amsterdam**    **8<sup>th</sup> Meeting of the Geneva Association’s Amsterdam Circle of Chief Economists (ACCE)**, hosted by ING

#### March

**30-31**          **Geneva**         **22<sup>nd</sup> PROGRES Seminar, “Developing Financial Services Regulation and Supervision”**

#### May

**17-20**          **Munich**            **33<sup>rd</sup> General Assembly of The Geneva Association** (members only) hosted by the German members  
tba                **Bordeaux**        **CRO’s Spring Workshop 2006**