

Shocking Shortfalls in London Employers' Safety Standards

A recent survey of 350 London employers has revealed a low standard of health and safety for employees. The survey, carried out by The Industrial Society, has provoked calls for more active enforcement and prosecutions for law-breaking employers.

Less than half of the 350 employers have had a fire drill in the last six months, although they are required to do so by law. The survey reveals that only two thirds of London's organisations have a bomb procedure, and that just half have a disaster plan.

Few London employers have adequate training and induction for their staff; one in five provide no health and safety training for staff; one in 12 provide no induction for new staff; only half provide health and safety information, for temporary or part-time staff, 75 per cent of senior managers have received no health and safety training, and yet 45 per cent of organisations leave them responsible for the health and safety of their staff.

The Industrial Society health and safety specialist, David Wood, conducted the survey. Mr. Wood said: "Accident victims aren't just statistics. They're husbands, wives, parents, sons and daughters, and friends. And no employer should be allowed to forget it." He then went on to say: "The lethargic approach to health and safety management may well be inspired by listening too readily to people who whinge that regulations are a 'burden on industry' and not realising the benefits of a straightforward, and relatively inexpensive, approach to complying with health and safety regulations and taking responsibility for their people, and an active interest in the way their workplace operates."

"Employers should make the health and safety of their staff an integral part of the workplace, not a 'bolt on' extra."

Algerian Earthquake

An earthquake ripped through northwest Algeria in the early hours of August 18, destroying thousands of homes and killing at least 150 people.

Rescuers said at least 289 people were injured and 8,000 to 10,000 were left without shelter by the quake in the Mascara region, 250 miles west of Algiers. The quake, which measured 5.6 on the Richter scale, hit hardest in rural

areas, causing thousands of straw and mud dwellings to collapse on their sleeping occupants.

Western agencies were reported to be taking extremist threats to kill foreigners into consideration when considering sending aid.

World Population Slowdown

World population growth is slowing according to a new report. It says the total number of people on earth may be on course to fall to 1980s levels by the year 2100. The slowdown has been attributed to a spectacular decline in fertility in some parts over the past three decades.

Thirty-four Million Face Famine

Famine and severe food shortages threaten more than 34 million people in sub-Saharan Africa, the UN Food and Agriculture Organisation warns in a report published in August.

Civil strife rather than bad weather is blamed for the continent's hunger in the study, which describes Rwanda as the world's worst humanitarian catastrophe of modern times. The report, *Food Supply and Crop Prospects in Sub-Saharan Africa*, says food will never be plentiful while intractable wars plague Liberia, Angola, Sudan and Somalia.

Radioactive Monitoring for UK

The British Government is expanding its Radioactive Incident Monitoring Network, Rimnet. The £12 million nuclear emergency response facility now gathers data on gamma radioactivity at 92 locations throughout the UK on an hourly basis. The result is an overall 'picture' of levels in the event of a nuclear accident, such as the Chernobyl disaster.

Typhoon Death Toll

Typhoon Fred has killed at least 900 people in China's eastern Zhejiang province in the worst single disaster during this year's rainy season, reports the official New China News Agency.

Communications in the coastal district around the city of Wenzhou, worst hit by the storm, have been virtually cut off.

A flood and drought prevention bureau official said ten million people in seven cities and 580 counties had been affected.

US Dam Performance Study

This month America's Association of State Dam Safety Officials launches its National Performance of Dams Program (NPDP). The project's aim is to create an information resource on the performance of dams in the US. A database will be produced, plus statistical information on the safety of dams, to put the subject on a par with other areas involving public health.

Ship safety Co-operation

The Chairman of Britain's Lloyd's Register, Patrick O'Ferrell, has called for greater co-operation to promote safety at sea by everyone involved in the marine industry. He said insurers and charterers could improve standards by discriminating in favour of well-built, well-maintained ships.

War Issue

The next issue of *Disaster Management* will concentrate on war and post-war reconstruction, and is being Guest Edited by Dr Sultan Barakat, of the Institute of Advanced Architectural Studies, the University of York's Post-War Reconstruction and Redevelopment unit.

Planned papers will deal with topics such as: reconstruction experience in Afghanistan; intervention with the Kurdish refugees following the Gulf War; rebuilding Beirut, post-war reconstruction in Iran; means of financing post-war reconstruction and; conservation of historic buildings in times of war.

Drought in Japan

Tokyo's main source of water, the Tone reservoirs, were expected to dry up by the end of August, unless rainfall alleviated the drought affecting the whole country. The Japanese capital has already had a 30 per cent cut in its supplies, and large industrial users are importing water from abroad to keep up production levels.

INTERNATIONAL CALENDAR

	DATE	VENUE	DETAILS
Aviation Disaster Management Symposium	October 4-6, 1994	Washington DC, USA	Frank McGuire, Chairman, 8512 Cedar Street, Silver Spring, MD 20910, USA.
International Conference on Disaster Reduction in Coastal Cities	October 4-7, 1994	Beijing, China	Miss Rebecca Jiang, Secretariat of Conference, ICDRCC 94, China Hall for Science and Technology, 3 Fuxing Road, 100038 Beijing, China.
1st International Congress: Confronting Disasters in Local Authorities	October 16-19, 1994	Tel Aviv-Yafo, Israel	International Secretariat, The Union of Local Authorities in Israel, Office of the Deputy Director General for International Relations, Mr. Avi Rabinovitch, 3 Heftman Street, POB 20040, Tel Aviv-Yafo 61200, Israel.
Fifth International Conference on Seismic Zonation	October 17-19, 1994	Nice, France	Earthquake Engineering Institute, 499 14th Street, Suite 320, Oakland, California 94612-1902, USA.
Survive! 6th Annual Business Continuity and Disaster Recovery Conference and Exhibition	October 25-26, 1994	London, UK	Survive! The Business Continuity Group, 2 The Chapel, Royal Victoria Patriotic Building, Fitzhugh Grove, London SW18 3SX, UK.
Survive! Inc 1st Annual Conference and Exposition on Disaster Recovery and Business Continuity	November 6-9, 1994	Atlantic City, New Jersey, USA	Survive! Inc, PO Box 1614, Mt Laurel, NJ 08054, USA.
Fire Safety & Rescue Asia '95, Security Asia '95 and Defence Asia '95	April 5-8, 1995	Singapore	Andrew D. Gillanders, ADG Exhibitions Sycamore House, 1 Woodside Road, Amersham, Buckinghamshire HP6 6AA, UK.
Esrel '95 Conference & Exhibition - Safety and Reliability Analysis and Assessment: The Pragmatic Approach to Reducing Risk	May 8-10, 1995	Bournemouth, UK	Tracy Macfarlane, The Institute of Quality Assurance, Training and Conference Centre, 10 Grosvenor Gardens, London SW1W 0DQ, UK.
Emergency Türkiye '95, Second International Disaster Relief and Prevention, Civil Defence, Public Security and First Aid Exhibition and Conference	May 23-27, 1995	Ankara, Turkey	Andrew D. Gillanders, ADG Exhibitions Sycamore House, 1 Woodside Road, Amersham, Buckinghamshire HP6 6AA, UK.

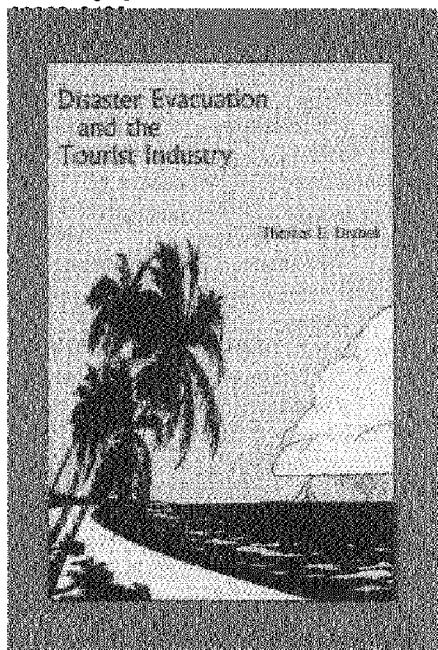
Disaster Management is published in March, June, September and December. Items for *International Calendar* should reach the Editor by the first day of the previous month to ensure inclusion.

BOOKS RECEIVED

Disaster Evacuation and the Tourist Industry

Thomas E. Drabek

ISBN 1-877943-12-6 282pp. £8.60/\$13 (\$10 inside USA). Published by Natural Hazards Research and Applications Research Center, Campus Box 482, University of Colorado, Boulder, Colorado



Disaster Evacuation reveals major problems and questions for the tourist industry. Indeed, Mr Drabek concludes that 'the tourist industry is a ticking time bomb; it represents a vulnerability of enormous catastrophic potential.' Recognising this risk, his research addresses six objectives: to (1) assess the extent of disaster evacuation planning by business executives responsible for tourist-oriented private firms; (2) identify factors affecting variation in this planning; (3) describe the sequence of information and behaviour that culminate in actual evacuation decisions; (4) identify factors affecting those decisions; (5) describe established and emergent organisational policies that guide employee behaviour regarding evacuation for both staff and clients; and (6) formulate relevant policy recommendations for local emergency managers and business executives.

Through interviews and surveys of local emergency managers and business executives in several sites around the country, Mr. Drabek was able to identify discrete factors that stimulate evacuation planning and to derive a *Disaster Evacuation Planning Index* of prepared-

ness. His findings revealed numerous areas of vulnerability; for example, only 28 per cent of the firms had any type of written disaster evacuation plan. He also analysed the actual evacuation decision-making of these executives, and found that their behaviour did not reflect one decision, but many. 'Often,' he says, 'evacuation occurs incrementally, rather than through the implementation of a single decision.' He derives a predictor of this behaviour, the *Evacuation Behavior Index*, as well as a model specifying the social factors affecting evacuation decisions. He concludes with numerous suggestions for executives in the tourist industry, as well as recommendations for how the industry as a whole can improve its disaster preparedness.

Author Professor Drabek is based at the Department of Sociology, University of Denver, USA.

World Disasters Report

edited by Nick Cater

ISBN 0-7923-2826-4. 176pp. £33.25/US\$48.50. Published by Martinus Nijhoff Publishers, PO Box 163, 3300 AD Dordrecht, The Netherlands (on behalf of the International Federation of Red Cross and Red Crescent Societies).

The *World Disasters Report 1994* is said to be the only annual, global report focusing on disasters, from earthquakes to epidemics, conflict to economic crisis, and the millions of people affected by them.

Published in English, French, Spanish and Arabic, the report is backed by the resources and expertise of the International Federation of Red Cross and Red Crescent Societies, whose world-wide operations and national societies make it the most experienced and extensive global humanitarian agency.

Drawing on both UN and NGO operations, the study examines in detail 1993's disasters, including drought relief success in Southern Africa, Somalia's booming economy amid conflict, agency challenges in former Yugoslavia, Brazil's cyclical drought and vulnerability, myths and reality in India's earthquake, and civil war and economic collapse in the Caucasus.

Looking at key disaster issues, the *World Disasters Report 1994* assesses secrecy's role in disasters, the potential of indigenous communities in disasters and development, the impact of anti-per-

sonnel mines world-wide, and carries the full text of the Code of Conduct for disaster relief agencies.

In shorter Focus pieces, the report includes information on the Chernobyl technological disaster, UNICEF's work in commercial water operations in Somalia, coping mechanisms in the former Soviet Union, ActionAid's assessment of traditional peace mechanisms in Africa, and the crisis of aid, politics and conflict in former Yugoslavia.

Complete with a most comprehensive global disasters database, the *World Disasters Report 1994* is fully illustrated by photographers of the renowned agency, Magnum

Management of Disasters and Their Aftermath

W. Angus Wallace, John M. Rowles and Christopher L. Colton

ISBN 0-7279-0841-3. 314pp. £36. Published by BMJ Publishing Group, British Medical Association, BMA House, Tavistock Square, London WC1H 9JR, UK.

This book was prepared following the authors' dealing with the aftermath of a Boeing 737-400 that crashed on the M1 motorway at Kegworth, England, in January 1989. The writers say coping with the disaster was a new experience, and they learned a number of lessons in the practical management of that major disaster which they feel many doctors, nurses, hospital managers and health authority planners might benefit from learning about.

Although the bulk of the book's chapters focus on the M1 air crash, there is also attention given to more general aspects of coping with large numbers of injured people, including their social and psychological needs after an accident. There are chapters on the management of burns in trauma victims, crush asphyxia, chemical and radioactive decontamination, and minimising injuries to casualties in air and car crashes.

First-hand accounts are also given in the book of two major British disasters: the 1985 Manchester Airport aircraft fire and the 1989 accident at Hillsborough Football Stadium, Sheffield, in which 95 people died after being crushed against perimeter fencing.

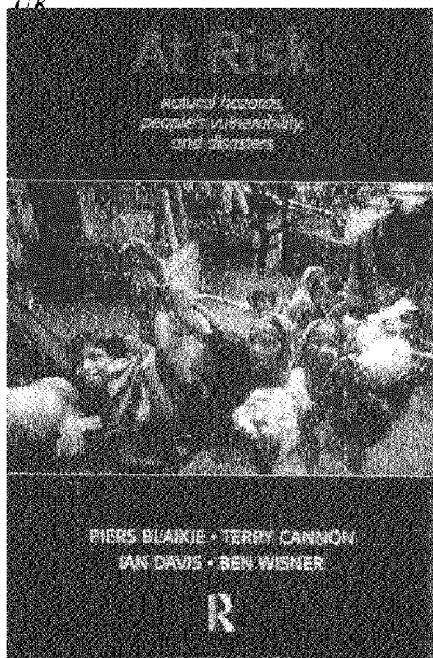
The three authors all work at the Department of Orthopaedic Surgery, at University Hospital, Queen's Medical Centre, Nottingham, UK

BOOKS RECEIVED

At Risk – Natural Hazards, People's Vulnerability, and Disasters

Piers Blaikie, Terry Cannon *et al*

ISBN 0-415-08477-6 284pp £16.99 (or £50 hardback). Published by Routledge, 11 New Fetter Lane, London EC4P 4EE, UK.



Many disasters are a complex mix of natural hazards and human action. *At Risk* argues that the social, political and economic environment is as much a cause of disasters as the natural environment.

Published within the International Decade of Natural Disaster Reduction, this book suggests ways in which both the social and natural sciences can be analytically combined through a 'disaster pressure and release' model. Arguing that the concept of vulnerability is central to an understanding of disasters and their prevention or mitigation, the authors explore the extent and ways in which people gain access to resources.

Individual chapters apply analytical concepts to famines and drought, biological hazards, floods, coastal storms, and earthquakes, volcanoes and landslides – the 'hazards that become disasters'.

Finally, the book draws practical and policy conclusions to promote a safer environment and reduce vulnerability. It should prove of interest to students, academics and policy makers in geography, environmental studies and development studies.

Royalties from the sales of this book

are being donated to Oxfam, in support of its work in reducing people's vulnerability to hazards.

Author Piers Blaikie is Professor at the School of Development Studies, University of East Anglia, UK. Terry Cannon is Senior Lecturer in Development Studies, University of Greenwich, UK. Ian Davis is Managing Director of Oxford Centre for Disaster Studies, Oxford, UK. Ben Wisner is Professor at the School of Social Science, Hampshire College, Amherst, USA.

Disaster Planning, Structural Assessment, Demolition and Recycling

Edited by Carlo De Pauw and Erik K. Lauritzen

ISBN 0-419-19190-9. 176pp. Published by E. & F. N. Spon, an imprint of Chapman & Hall, 2-6 Boundary Row, London SE1 8HN, UK.

This book contains general recommendations on planning for natural and man-made disasters in urban areas, with special emphasis on structures damaged by earthquakes and war. It deals with the assessment, classification and demolition of damaged and collapsed structures, and the reuse or disposal of the resulting materials and waste.

One of the greatest technological challenges of our time is to prevent and relieve damage to cities, thus protecting society from the consequences of natural disasters such as earthquakes. Another challenge involves limiting and utilising, through recycling, the large amounts of building and industrial waste which result from modern development, leading to savings in energy, time and resources.

Disaster Planning, Structural Assessment, Demolition and Recycling is the result of collaborative work undertaken by RILEM (The International Union of Testing and Research Laboratories for Materials and Structures) and UNESCO, and has been prepared by a task force set-up by the RILEM Technical Committee 121-DRG with expert contributions from Belgium, Denmark, the UK and Japan. It will be of particular value to civil engineers and planners working in international, national and municipal agencies, and to those involved in planning for the consequences of earthquakes and other disasters or those who are working in disaster areas.

Learning from Disasters – A Management Approach

Brian Toft and Simon Reynolds

ISBN 0-7506-0692-4. 140pp. £25. Published by Butterworth-Heinemann Ltd, Linacre House, Jordan Hill, Oxford OX2 8DP, UK.

This book aims to teach all managers and safety practitioners the importance of good risk management and disaster prevention.

In a straightforward style the authors chart and analyse the learning processes which occur in organisations following a disaster. They concentrate in particular on documentary sources, in-depth interviews with crucially-placed personnel and surveys of a number of case studies. The authors say they present a picture which suggests that by looking at disasters as systems failures it is possible for organisations other than those involved in the incident to learn far more than would first appear to be the case.

Chapters cover methodology, the generation of hindsight, general and specific organisational learning, a number of fire-related case studies, and reviews of research and models for the future.

Disaster Recovery Planning

Regis J. "Bud" Bates

ISBN 0-07-004128-8. 157pp. £33.95. Published by McGraw-Hill Book Company Europe, Shoppenhangers Road, Maidenhead, Berkshire SL6 2QL, UK.

The book is intended for users of telecommunications and data communications networks. Addressing the actual issues confronting the network user and/or system manager, it covers the myriad of technologies currently available for disaster recovery planning, management, and the restoration process for telecommunications.

Each chapter is an in-depth survey of key aspects in network management, and offers methods and approaches to: understand why a disaster recovery plan is necessary; evaluate network monitoring; effectively sell it to management; analyse design options and cost versus technical features; and maintain current operations, make upgrades, or go to a new system.

DISASTER FILE

This feature gives a brief resumé of some of the major disasters or emergencies throughout the world during 1994. It is not claimed to be comprehensive, and since it is based on a variety of different sources, it is not claimed to be 100 per cent accurate.

The list is divided into four main categories – Earthquakes and Volcanic Activity; Weather (cyclones, floods, storms, etc.); Pollution; Bush Fires and Miscellaneous (aircraft crashes, fires, explosions, health matters).

Earthquakes and Volcanic Activity

May 1 – Afghanistan. Some 167 people died, 300 were injured and 20,000 homes were destroyed when an earthquake measuring 6.0 on the Richter Scale shook a region in the north of the country. The earthquake, near the ancient city of Balkh, also destroyed 241 mosques, according to a survey by the UN and the International Federation of the Red Cross.

June 3 – Indonesia. More than 200 people were killed when 12 earthquake-sparked tidal waves along a 100km stretch of coast swept 100m inland in south-eastern Java. Over 1,000 mainly wooden homes were battered by the huge volume of water. The earthquake, which struck in the Indian Ocean, measured 5.9 on the Richter Scale.

June 6 – Colombia. A strong earthquake, centering on the Paez Valley, rattled the centre and south-west of the country. Two people died, 20 were injured and hundreds were left homeless. The following day several villages were buried after the ground movement caused a vast block of ice to break away from a volcano, swelling a river and causing it to flood. On June 8 four more earthquakes struck the area and hampered rescue work. The next day Colombia's National Disaster Prevention Office said more than 1,000 people might have died in the earthquake and mudslides, and the country's President, Cesar Gaviria, declared a state of emergency. The government was criticised for being too slow to evacuate survivors or bring them aid. Sixteen villages were completely or partially destroyed in the disaster.

June 20 – Iran. A strong earthquake

measuring 6.1 on the Richter Scale hit the city of Shiraz and caused landslides and blocked tunnels in the south of the country. Three people were killed and 100 injured. There were several dozen aftershocks the following day.

June 21 – Peru. A thousand people were left homeless by a string of tremors which rocked the south-central Andes for a week.

June 30 – Afghanistan and Pakistan. A strong earthquake centred in the Hindu Kush mountains rocked areas in the two countries, killing two people and injuring nine. The fatalities occurred when the side of a hole they were digging for safety collapsed and buried them.

July 4 – Mexico. Two people were killed when an earthquake measuring 5.9 on the Richter Scale struck the Pacific coast of the southern Mexican state of Oaxaca.

Weather

May 2 – Bangladesh. Nearly 190 people died after a severe storm hit the Bay of Bengal. On May 7 three more died and 24 were injured when a tornado ripped through the north-east of the country. The winds of up to 120kph demolished 1,000 mud huts and uprooted trees.

May 12 – Pakistan. Strong winds hit the southern town of Multan, killing at least ten people and causing injuries to more than 20.

May 19 – Bangladesh. Up to 15 people were killed in a storm that lashed parts of northern Bangladesh. More than 100 were injured. The storm, blowing at more than 100 kph, flattened hundreds of dwellings in the northern districts of Magura and Sirajganj.

May 21 – Cuba. One person was killed by lightning and more than 7,000 were evacuated from their homes as floods caused by heavy rains hit parts of the east of the island. By May 24 nine had died and several were missing after a week of flooding. Thousands of homes were damaged, crops were submerged, and many thousands of people were evacuated.

June 10 – China. A typhoon and tornado belted different cities in the country's south, leaving at least 16 people dead and over 100 injured. Telephone links, electricity, and water supplies were cut off and some highways were also destroyed. Fishing boats sank, thousands

of homes were destroyed, and coastal dykes were washed away. By June 14 the death toll had risen to 58 with 684 people injured and 16 missing. A total of 111 towns and 1,186 villages were flooded.

June 17 – Indonesia. Hailstones the size of tennis balls were reported to have rained down on three villages in the centre of the country, leaving 1,800 houses destroyed, and six people severely injured.

June 18 – China. Raging floodwaters affected the south of the country for a week. By June 24 the seasonal floods had killed more than 750 people and caused US\$4 billion in damage to south Chinese homes, crops and industry. Nearly 15,000 people were reported injured. Compounding this was a persistent drought in much of the north of the country. Reports indicate 18 million people and 28 million head of livestock have problems with drinking water because of prolonged dry spells. By June 26 the death toll from floods in the south reached close to 800 and had washed away 1.7 million houses.

June 27 – United States. Atlanta's Governor, Zell Miller, signed a declaration of disaster for 14 counties devastated by fierce storms which swept across north Georgia, leaving at least two people dead, 18 injured and many homeless.

July 7 – India. More than 40,000 people from over 100 villages were isolated from the rest of the country as monsoon-triggered floods swamped parts of the north-east of the country. The following day it was reported that 50 people had died and 55,000 had been affected by the torrential rains. Nine people were killed in a landslide in Assam State. By July 12 the death-toll from the flash-floods had reached more than 60 with hundreds marooned. On July 14 reports indicated the death-toll had reached 63 with 400,000 left stranded. At least 12 people were killed and 13 injured when a house collapsed in Bombay. Authorities said the death-toll in many parts of India had been rising steadily since the monsoons began in June. Hundreds of cattle were washed away, thousands of acres of crops destroyed and nearly 2,000 houses damaged in the southern state of Karnataka.

July 7 – United States. President Bill Clinton declared Georgia's waterlogged towns and farmlands a federal

DISASTER FILE

disaster area, four days after tropical storm 'Alberto' swept ashore in Florida. The flooding killed at least 17 people, drowned crops and forced tens of thousands to flee from their homes. Emergency supplies of water were needed for 500,000 people. It was thought the storm would reduce the US peanut crop by ten per cent. Preliminary estimates of damage to roads, bridges and crops topped US\$ 250 million. On July 8 the death-toll had reached 20, then 25 by July 10. Three days later, with the toll having reached 30, President Clinton announced a package of more than US\$ 66 million in federal flood relief, with most going to Georgia, the rest to Florida and Alabama. By July 14 a total of 32 people had been killed due to the storm, which had affected a 500 square mile area of the state.

July 9 - China. Fierce flooding in the south of the country killed 1,410 people and caused more than US\$ 6 billion in economic losses since May, it was reported. The heavy storms and floods flattened more than 1.18 million homes and affected 85 million people in Guangdong, Guangxi, Hunan, Jiangxi, Zhejiang and Fujian Provinces.

July 11 - Pakistan. Six people were drowned in floods following continuous heavy torrential rains in Balochistan Province. Hundreds of mud houses were destroyed, and farms were washed away, along with power lines and roads.

July 18 - China. Torrential rains and floods that pounded south China, hit drought-stricken northern and central parts of the country, killing at least 100 people and injuring thousands. The following day it was reported that a fall of rocks and stones as large as 50 tonnes killed 41 people and left eight others missing and 54 seriously injured in a province in the south-west of the country.

July 18 - India. The Press Trust of India reported that the death-toll from floods in parts of south, east and north-eastern India had risen to at least 330. Nationwide, the figure had reached 400, as the country's Prime Minister and Cabinet met to discuss ways to control the flooding. This rose to 560 by July 20, with 11,000 cattle having perished.

July 19 - Philippines. Tropical storm 'Yunya' pounded the northern Philippines, triggering floods and mudflows that swamped homes, killed

seven people and sent thousands fleeing. Two of the victims had heart attacks, one when he saw his house swept away and another as floodwater rampaged through his village.

Pollution

May 23 - Brazil. It was reported that during the night of May 15 there was a leakage of oil from a Petrobras pipeline which links two refineries. The leakage of 700,000 US gallons polluted several beaches.

June 14 - Bahamas. Clean-up crews were working to contain an oil leak in an underground pipe at South Riding Point. There was no seepage into the ocean but there was some into a basin on site.

June 26 - South Africa. Pollution from the missing bulk carrier *Apollo Sea* affected the coastline at Cape Town. Oil from the vessel badly affected bird life, with a large number of orphaned penguin chicks dying.

June 28 - Japan. Police searched for the source of poison fumes in an area northwest of Tokyo. Five people were found dead in their homes and two others died soon after being taken to hospital. Medical officials said 56 people were being treated for poisoning, three in a serious condition. Dogs, fish and birds also died. It was thought that a man blending a new herbicide for his garden was responsible.

July 9 - The Netherlands. An oil spill, 35-40 km long, believed to have been discharged illegally at night by a tanker, was tackled by the Dutch Coast Guard. The 300m wide spillage, which affected the Den Helder area, was believed to contain up to 50 tonnes of oil. Booms and barriers were used to contain the spill as pollution dispersants are banned in the Netherlands.

July 20 - United States. Only minimal damage to the environment was reported when a tanker, *Kennucky*, leaked about 300 barrels of crude oil into the Delaware River near Philadelphia.

July 21 - India. Leakage of crude oil from the *Maharshi Dayanand* caused an oil spill near an oil terminal in the Bombay harbour area. Chemicals were used to disperse the spill.

Bush Fires

June 6 - Spain. Forest fires ripped

through two of Spain's islands and in a week destroyed as much land as was lost to flames in the islands during the whole of last year. About 1,535 hectares of pine forest and scrub were burnt on Ibiza and Majorca in the worst fires on the islands for several years. Planes and helicopters were used to control the fires.

June 15 - United States. Widespread lightning strikes sparked fires in interior Alaskan spruce forests, parched by hot summer days and around-the-clock daylight. Four hundred firefighters tried to control 16 blazes that were considered threatening to property or towns. Fire crews used retardants, bulldozers and water to tackle the fires.

June 24 - Spain. Sparks from a worker's soldering equipment were blamed for forest fires which destroyed 1,500 hectares of pine forests in Valencia. Firefighters used light aircraft and helicopters to fight the blazes.

June 27 - United States. Gusty winds and heat fuelled wildfires that burned out of control, destroying ten homes and threatening at least 100 more at the edge of Angeles National Forest, California. Approximately 600 firefighters tackled the fires, which caused damage estimated at US\$ 2 million. A neglected campfire caused the blazes.

July 6 - United States. Nearly 500 firefighters tackled a treacherous forest fire that killed 12 of their colleagues and left two missing. The fire covered more than 2,300 acres of scrubland on a mountain 120 miles west of Denver, Colorado. It was started by lightning. In the days that followed there were reports of forest fires in Arizona, New Mexico, Texas and Nevada. A total of 6,000 firefighters battled against the blazes which covered 34,000 acres.

July 7 - Spain. Nineteen people were reported dead since forest fires began roaring through eastern and southern Spain and south-east France three days earlier. Strong winds whipped up the fires as they were fought by Spanish firemen, volunteers and 2,500 troops. At the end of seven days 150,000 hectares of brush and woodland had been burnt, with 19 people killed. Firefighters, hikers, elderly residents and five crew members of an Ukrainian water-bombing plane were among those who perished.

July 17 - Peru. A total of 37 acres of forest fire was brought under control by a thousand firefighters and volun-

DISASTER FILE

teers after three days, but then winds blew new life into the flames again. The affected area was around the archeological city of Machu Picchu. A camp fire that got out of control was the cause of the blazes.

Miscellaneous

May 13 – Thailand. Fire swept through a furniture factory and showroom in Bangkok, killing eight people who were trapped behind steel grilles covering windows. Among those who died was the factory owner's wife and two children.

June 3 – Scotland. Twenty-nine people, including leaders of Britain's intelligence war against the Irish Republican Army (IRA), were killed when their twin-rotor Boeing Chinook helicopter exploded in a fireball after crashing into a hillside on the remote Mull of Kintyre. Security was tight at the scene of the aircraft crash.

June 5. China An unfinished toy factory

collapsed in Shenzhen killing 11 workers and injuring 60 others, eight of them seriously. Government officials said the building was unregistered and had been built without permission. Illegal construction work was being blamed for the incident.

June 6 – China. In the country's worst civil aviation disaster, 160 people were killed when a China Northwest Airlines aeroplane crashed in a field eight minutes after take-off from Xian. Everyone on board the aircraft, a Tupolev Tu-15M B-2610, died and the calamity left charred sections of the 'plane scattered over a large area.

June 19 – Indonesia. Bad weather was the most likely cause of an aircraft crash in central Sulawesi which killed all 12 people on board. The Fokker F27 Friendship 500 aircraft flew into a mountainside after the pilot took the wrong course. The 'plane was on a regular flight from Balikpapan to Palu.

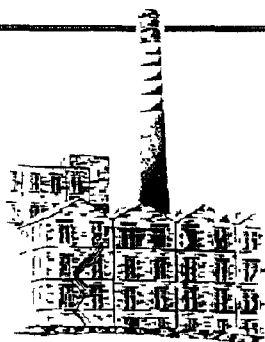
June 18 – United States. A Mexican Learjet crashed into woodland just

outside Washington's Dulles International Airport, killing six adults and six children flying to a World Cup soccer match

June 26 – Ivory Coast. It was reported that rescue services took more than two hours to travel the four kilometers to the site of an aircrash involving a Fokker Friendship F27 aeroplane. The accident killed all but one of the 17 on board. The aircraft hit a forest four km from Abidjan Airport as it prepared to land after an internal flight from the western port of San Pedro.

July 2 – Malaysia. Eleven out of 16 guests at the Park View Hotel in Sandakan were killed when it caught fire. The fatalities were caused by smoke inhalation.

July 7 – China. At least six people died when fire hit a Hong Kong-owned factory in the southern Chinese city of Shenzhen. Female migrant workers were thought to have been among those who died in the blaze at the leather factory.



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