PART I

Chapter 6

Current State of the Coverage for War and Terrorism Risks in the Aviation Sector

by
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The aftermath of the 11th September events has deeply affected the aviation insurance market, requiring government intervention at least in a recovery period. Immediately after the events, insurance companies cancelled policies with war risk covers and introduced exclusions clauses for war risks in new contracts or/and limited damage claims to a maximum of US$50m. Many governments had to provide for a temporary period free insurance guarantees for these excess third party covers. At the same time prices for this type of coverage became hardly affordable for some airlines companies. Progressively though, additional capacity was raised in the market above the mentioned ceiling and governments – except the US until the end of 2005- withdrawn the free guarantee. Today, in spite of a couple of market and public/private initiatives, capacity for third party liability is only available from a few insurance companies, prices are still high and there are projects to introduce new exclusion clause. These trends could considerably threaten the smooth functioning of the aviation industry in coming years.

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1. The nature of aviation insurance

Airlines purchase aviation insurance to cover risks associated with the ownership, operation and maintenance of their aircraft. The principal insurance coverages are:

- Hull – damage to the aircraft itself.
- Passenger – liability for death or injury.
- Third party – liability for death and bodily injury and property damage external to the aircraft.

Aviation insurance is a specialized form of insurance written in a specialized insurance market, predominantly in the London market.

The aviation insurance market has always differed from most other insurance markets in that both the premium base and the customer base are very narrow, with just a small number of insureds; IATA only has some 270 airline members. At the same time, the potential exposure of each airline is huge.

Because of this very large exposure, no single insurer will underwrite the entire amount of an airline's overall risk. A number of insurers will each underwrite a percentage of the total risk, thus keeping the exposure for any one insurer within acceptable limits.

Claims arising from war, hostile detonation of nuclear weapons, civil commotion, terrorist acts, sabotage, political seizure, hijacking, and the like, are all excluded from aviation policies through an exclusion clause designated AVN48B – *War, Hijacking and Other Perils*.

War risks coverages relating to Hull can be insured in a separate War risk insurance market. Passenger and third party coverages can be "written back" to the principal liability policies by an extension clause known as AVN52 – *Extended Coverage Endorsement*. This cover (with limits as high as US$2bn for each and every occurrence for each insured) was traditionally provided at nominal cost, given the historical absence of major loss.

It is important to note that nuclear detonation and the associated radioactive contamination cannot be written back since the potential magnitude, spread, and persistence of damage is such that the insurance industry will not cover it. It is deemed to be a weapon of mass destruction (WMD), giving rise to a major loss accumulation and therefore not insurable.

War risk coverages have also traditionally contained a seven-day notice clause which allowed insurers to review and reassess the risk and, if necessary, amend or cancel the cover in the event of a radical and adverse change in conditions or circumstances.

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2. 9/11 and the immediate aftermath

Until 9/11 there had never been a case of airliners being used as weapons of mass destruction against civilian targets. The terrorist attacks were an unprecedented event with losses on a scale never before contemplated, either by governments, the insurance industry or the airline industry.

Accordingly, insurers invoked the seven-day cancellation provision for all War risk covers on 17th September 2001 in order to preserve their solvency and ensure the survival of the aviation insurance market in the event of further such attacks. Had it not been for governments providing insurance guarantees the air transport industry would have been effectively grounded.

Non-War hull, passenger and third party covers were unaffected. War risk cover was subsequently provided (again with a seven-day cancellation provision) at full policy limits for passenger liability arising out of War risks and cover for all third party bodily injury and property damage claims was limited to a maximum of US$50m during any one 12-month policy period.

Additional capacity eventually did become available above the US$50m third party limit. Since November 2002 some of the excess War risk policies have been non-cancelable (although of course subject to annual renewal), while others were part of the Allianz Scheme, subject to cancellation only after four major events. This Scheme is now in run off. The remainder of policies have a thirty-day cancellation provision.

In view of the restricted capacity and significant increase in premiums offered in the market, alternatives were sought. in the US Equitime was designed to cover passenger and third party War risk liability for US carriers, offering as much as US$1.5bn in combined limits. The plan was for Equitime to retain US$300m of the limit and re-insure the balance with the Federal government. The capitalization would be through the placement of airline stock – not something one could contemplate these days. However, the mutual never came to fruition since in December 2002 the US Government decided to provide superior cover at much lower cost.

The European airline industry also came up with its Eurotime proposal for third party liability in May 2002. It would provide a policy limit of US$1bn for any one occurrence with industry retention above the excess point of US$50m being US$150m the first year, US$250m the second year and US$500m the third year. Based on a premium of US$0.50 per passenger, the estimated gross annual premium was US$329m, with the EU government's annual reinsurance premium estimated at US$66m. However, after due consideration, the EU announced in October 2002 that it favored supporting the Globaltime Scheme proposed by the International Civil Aviation Organisation.

Globaltime was intended to provide non-cancelable third party War risk coverage from an excess point to be determined, up to US$1.5bn per occurrence. However, the needed critical mass of contracting States representing 51% of the ICAO budget contribution rates was never achieved; as of February 2004 unconditional intentions totaled only 11.43%. Globaltime is therefore being held in contingency mode subject to the 51% participation threshold being reached and will only be activated when there is further failure of the commercial insurance market as determined by the ICAO Council. Market failure has widely been interpreted as further withdrawal of cover following another 9/11-type catastrophic event.

The limited capacity currently available in the excess third party War risk market is dominated by only a few insurers: AIG, Ge Frankona and AXIS together provide the majority of airline and service provider capacity under joint programmes. Berkshire Hathaway provides capacity, mainly on a co-insurance basis, but only for major airlines. Effectively, airlines and service providers have no real choice when purchasing this cover as the only competition to the foregoing was the Allianz Scheme, which ceased renewing policies from 1 November 2004 following the withdrawal by Berkshire Hathaway of their 55% co-insurance capacity.

Major air carriers can generally buy up to US$1bn for any one occurrence, subject to a US$2bn aggregate at a cost of approximately US$0.70 per passenger. Passenger liability coverage can be included for an additional US$2 per passenger.

The very low claims experience since the end of 2001 is leading to some reduction in airline rates generally and to offset these reductions the primary market is now willing to increase the US$50m aggregate limit to US$150m aggregate at additional premium.

A number of governments continue to provide insurance guarantees for excess third party cover free of charge or at subsidized cost. The EU States, however, decided to end government guarantees in October 2002 and not to back Eurotime, favouring instead the Globaltime concept. This has proven to be very costly to the European airline industry. Since 9/11, IATA's European members have paid governments and commercial markets over US$1bn in excess third party war and terrorism liability premiums – enough to pay three years of premium for the original Eurotime.

A renewed push for New Eurotime has therefore been launched, in an attempt to establish a level playing field for War Risk insurance cover between EU carriers and competitors from other regions, namely the US.

US carriers enjoy superior cover under the FAA Program that provides US carriers with TWICE the pre-9/11 policy limits for Third Party Liability

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to a maximum of US$4 bn per any one occurrence. The Program was further extended to cover War Hull and Passenger Liabilities - total cost is about US$0.20/passenger.

The FAA Re-Authorization Act (2003) provides for multi-year extensions of the Program to 31 March 2008, if agreed by Congress; it has so far been extended to end-2004 and is expected to be extended to end of 2005. US carriers pay US$140 m annually as compared to US$675 m by EU carriers for vastly inferior cover available in the commercial market.

3. Proposed new war risk exclusions

To add to the War risk problem, the aviation underwriting community is now preparing to introduce a new standard war and terrorism exclusion clause to apply to all War Hull, Spares (e.g. engines), Passenger and Third Party Liability policies, that will exclude claims caused by the hostile use of a dirty bomb, electromagnetic pulse device, or bio-chemical materials (i.e. weapons of mass destruction - WMD).

Intelligence analyses post-9/11 have repeatedly identified threats of terrorists using chemical, biological, radioactive ("dirty bombs"), and electromagnetic weapons in pursuit of their aims. These are perceived as WMDs because of the magnitude, spread and persistence of their effects. in the view of most insurers and reinsurers WMDs fail to meet the insurability criteria, and could generate major loss accumulations. It should be noted that all other major insurance markets, for example property, marine, and energy, already operate under such exclusions.

The timing for when these new exclusions clauses – to be designated AVN48C - will be published for actual use is not yet clear as the underwriting community is waiting for acknowledgement from certain state regulatory authorities. However, current predictions are that the new exclusions clauses will be published by January 2005, thus missing the major renewal period of December, which will buy us a bit more time. However, it remains that all primary aviation War, Terrorism and Related Perils cover can be cancelled or restricted on 7-days notice at any time and it seems quite certain that a seven-notice would be immediately issued if terrorists used a WMD anywhere in the world.

4. This is an issue that can potentially ground air transport.

Based on a survey conducted of our Member airlines, the prospect is that these exclusions will find an airline in breach of domestic and foreign regulatory requirements that require an air carrier to maintain adequate insurance.

The 1999 Montreal Convention governing the liability of air carriers in international carriage requires that carriers maintain adequate insurance to cover the liability in case of death and injury of passengers and damage to baggage. Under Montreal, no limits of cover are specified and an air carrier cannot exclude or limit its liability to less than 100,000 SDRs per passenger. Indeed, airlines should insure up to a reasonable level above this initial amount. For a fully-loaded B747, at current exchange rates, this would translate to no less than US$60m. EU Regulation 785/2004 that comes into effect May 2005 will require minimum insurance limits of up to 250,000 SDRs per passenger and up to 700,000 SDRs for third party cover.

Likewise, aircraft leasing agreements require operators to maintain adequate hull insurance. It is doubtful that aircraft lessors will allow operators to operate their aircraft without adequate cover.

Further, from a risk management and corporate governance perspective, an airline may determine that it is not financially prudent and responsible to continue to operate - without the War risk cover currently available, airlines will face certain financial ruin in the event of a terrorist attack involving WMDs.

Ironically, while the FAA Program covers all of the foregoing exclusions, including nuclear perils, US carriers will also be affected through their code-share agreements. Code-share flights operated by non-US carriers will not have the necessary coverage, thus disrupting US airline operations. It is a global problem.

Unfortunately, governments have generally not been responsive to this latest twist in the problem of War risk insurance. in the absence of an occurrence that gives reason for cancellation on short notice, there is a general reluctance to give any indication of support for the airlines since such guarantees could be misinterpreted as an encouragement for underwriters. in the meantime, AVN48C has been undergoing regulatory review since July 2004 and it is as yet unclear how long this review will take and what the outcome will be.

In view of this uncertainty, IATA has launched an awareness campaign. During the last ICAO Assembly recently held end-September, IATA urged contracting States to prepare for the eventuality that the exclusions will be written, and that states grant government guarantees of cover - as an interim measure - for Hull, Spares, Passenger and Third Party losses arising from state-targeted acts of terrorism that employ WMD. IATA further urged that ICAO get underway the drafting of a limitation of liability regime for war and terrorism losses.

The Legal Commission to the ICAO Assembly concluded that ICAO should rapidly proceed with the work on the modernization of the Rome Convention, making a distinction between the new risks posed by war and terrorism and the other "classic" third-party risks. The Rome Convention of 1952 contains compulsory insurance requirements relating to damage caused by aircraft to third parties on the ground. However, there have been disagreements between states on the liability limits prescribed in the Convention resulting in it being ratified by only 47 states, most being LDCs (less developed countries), and these disagreements persist. This will not be a quick fix solution.

Our thinking has been that all acts of terrorism, especially those employing WMD, are first and foremost a national security issue rather than aviation security issue. If government intelligence services are unable to prevent a WMD attack with all the resources available to them, then it cannot be expected that the aviation industry should bear the burden of such acts. Clearly, a public/private partnership approach is required to deal with state-targeted acts of war and terrorism.

Due to the global nature of the airline business, solutions to the insurance problem must be found within a global context. A concerted, coordinated and global effort needs to get underway to ensure WMD risks are removed from commercial coverage and guaranteed by state-sponsored schemes. Reinsurance cover from the commercial aviation market that would be available on a limited basis can support LDC state guarantees.

In the longer term, any war and terrorism convention would need to make the aviation industry, in its entirety, not liable for any WMD losses.

In the meantime, the airline industry will continue to purchase, at considerable cost, the available third party war and terrorism liability insurance provided by the limited number of commercial insurers providing this cover. However, it is now unlikely that we will be able to purchase cover for WMD in the future.

It is important to emphasise that government needs to take on a much more proactive role in the insurability of large-scale disasters, particularly relating to war and terrorism. A partnership between States, the aviation industry and commercial insurers is required to deal with state-targeted acts of war and terrorism in a fair and balanced way. Unfortunately, the experience so far has not been encouraging.

Annex 1

List of Speakers and Presentations at the Conference*

Session 1 - Insurability of catastrophic risks

- Economics of catastrophe risk insurance, *Christian Gollier (University of Toulouse).*
- Insurability of terrorism risk: challenges and perspectives, *Howard Kunreuther and Erwann Michel-Kerjan (Wharton School, University of Pennsylvania).*
- Industrial, technological and other catastrophes, *Christian Lahnstein (Munich Re).*
- Recent trends in the catastrophe risk insurance/reinsurance market, *Patrick Murphy O'Connor (Benfield).*
- Role of the reinsurance industry in the management of weather related risks, *Peter Zimmerli (Swiss Re).*
- Issues and options in the management of terrorism risk through insurance, *Robert Reville (Rand Corporation).*
- Current state of the coverage for war and terrorism risks - including NBC - in the aviation sector, *Eugene Hoeven (IATA)*
- Free market solutions for terrorism risks coverage, *Ben Garston (MAP Underwriting and Lloyd's Terrorism Panel).*

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* Power point presentations summarising papers included in this publication as well as other presentations made at the conference are available on the OECD Insurance homepage: http://www.oecd.org/daf/insurance.

- Improving insurability and affordability: the role of insurance in hazard identification, risk assessment, risk prevention and mitigation for industrial/chemical accidents, *Satyananda Mishra, IAS, Disaster Management Institute, Bhopal - Government of Madhya Pradesh, India).*

Session 2 - Financial market solutions to manage catastrophic risks

- International financing solutions to catastrophic risk exposures, *Torben Juul Andersen (Copenhagen Business School).*
- The use of risk linked securities to manage catastrophic risks, including terrorism, *Christian Mumenthaler (Swiss Re).*
- Current challenges in terrorism risk securitization, *Gordon Woo (RMS).*
- Financing catastrophic risks in non-OECD countries: challenges and perspectives, *Reinhard Mechler (IIASA).*
- Current market trends for catastrophe bonds and risk kinked securities, *Christopher McGhee (MMC Securities, Guy Carpenter).*
- The potential for new risk transfer instruments to cover terrorism risks, *Michele David (The Bond Market Association).*
- Rating agency's perspective on catastrophe bonds and risk linked securities, *Rodrigo Araya (Moody's).*

Session 3 - Role of governments and development of public-private partnerships for catastrophe risk management

- Role of governments in natural catastrophe risk management and financing in OECD countries, *Paul K. Freeman (University of Denver).*
- Catastrophe insurance programs in emerging countries: field experience, *Eugene Gurenko (World Bank, Financial Sector Operations and Policy Department).*
- Potential role for governments in terrorism coverage, *Dwight Jaffee (Haas School of Business, UC Berkeley).*
- Public-private partnerships to cover terrorism risks in OECD countries, *John Cooke (International Economic Relations Consultant, London).*

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- Role of the US government in the prevention and mitigation of terrorism risks, *Robert Liscouski (Infrastructure Protection Office, Department of Homeland Security, USA).*
- Disaster risk management policy in Japan, *Kazuhiro Kawachimaru (NIPPONKOA Insurance Company Ltd).*
- The Spanish experience in the management of extraordinary risks, including terrorism, *Ignacio Machetti (Consorcio de Compensación de Seguros).*
- A stakeholder approach for developing a public-private partnership: the Hungarian case*, Reinhard Mechler (IIASA).*
- Disaster risk management policy in China, *Yuanchang Zheng and Jianguo Mu (Department of Disaster and Social Relief, Ministry of Civil Affairs).*
- The French experience in natural catastrophe risk management, *Suzanne Vallet (Caisse Centrale de Réassurance).*
- Earthquake risk management policy in Indonesia, *Werner Bugl (PT Asuransi, MAIPARK Indonesia)*.
- Disaster risk management policy in Mexico, *Carlos Bayo Martinez (FONDEN).*
- Disaster risk management policy in the Philippines, *Ronald I. Flores (Department of National Defense, Office of Civil Defense, National Disasters Coordinating Council).*
- Disaster management in India, *D. Madan (Under Secretary, National Disaster Management Division, Ministry of Home Affairs, Government of India).*
- Management of extraordinary risks, including terrorism, in India: achievements and perspectives, *C. S. Rao (Indian Insurance Regulatory and Development Authority).*

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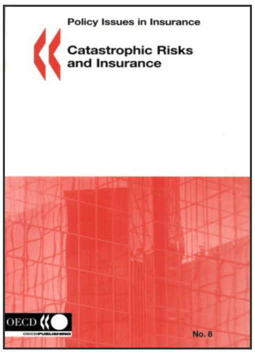
Insurability of Catastrophic Risks

Part II
Financial Markets Solutions to Manage Catastrophic Risks

* Background Note of Mr Kawachimaru's presentation (NIPPONKOA Insurance Company Ltd), based on *Governmental Earthquake Insurance System in Japan*, from *Earthquake Insurance in Japan*, written and published in March 2003 by Non-Life Insurance Rating Organization of Japan.



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