



International Association for the  
Study of Insurance Economics

# Études et Dossiers

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## **Etudes et Dossiers No. 322**

**M.O.R.E. 20**

**Seminar of The Geneva Association**

**The Role of Risk Management and Insurance  
in the Leisure Industry**

16 – 17 November 2006  
Madrid

February 2007

**Working Paper Series of  
The Geneva Association**

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Layout & Distribution: Valéria Kozakova

# Terrorism & Tourism: Vulnerability as an Alternative Framework to Risk and Hazard

R. Brian Woodrow

## Geneva Association/ASEC Services and Vulnerability Project

- Project Initiated in 2003, Out of Recognition that 21<sup>st</sup> Century Global, Knowledge-Intensive Service-Based Economy Holds Particular and Striking Vulnerabilities



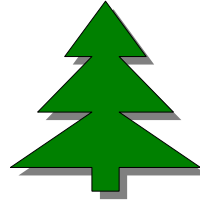
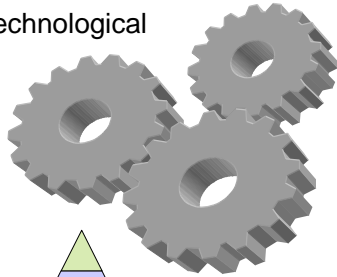
September 11, 2001



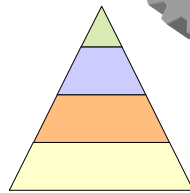
- Project Focuses on the Concept of Vulnerability, As Distinct From Related Concepts Such as Uncertainty, Risk and Hazard, And Attempts To Develop Vulnerability As an Alternative Paradigm For Dealing with 21<sup>st</sup> Century Issues
- Insist That Vulnerability Must Be Understood as a Structural Feature of Our Global Knowledge-Intensive, Service-Based Economy
- Four Clusters of Vulnerabilities Investigated Contextually and Comparatively and a Model and Metrics of Vulnerability Developed

## Clusters of Vulnerabilities

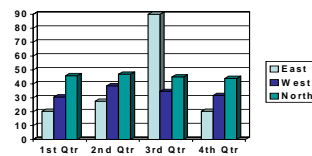
Technological



Environmental/Health



Institutional/Organizational



Economic/Financial

## Project Components

- Explore the Concept of Vulnerability and Situate It in Relation to Uncertainty, Risk and Hazard
- Develop a Metrics of Vulnerability and Apply It Comparatively to Selected Cases
- Evaluate Possible Coping Strategies for Dealing with Vulnerability, Including the Role of Insurance

## A Quotable Quote

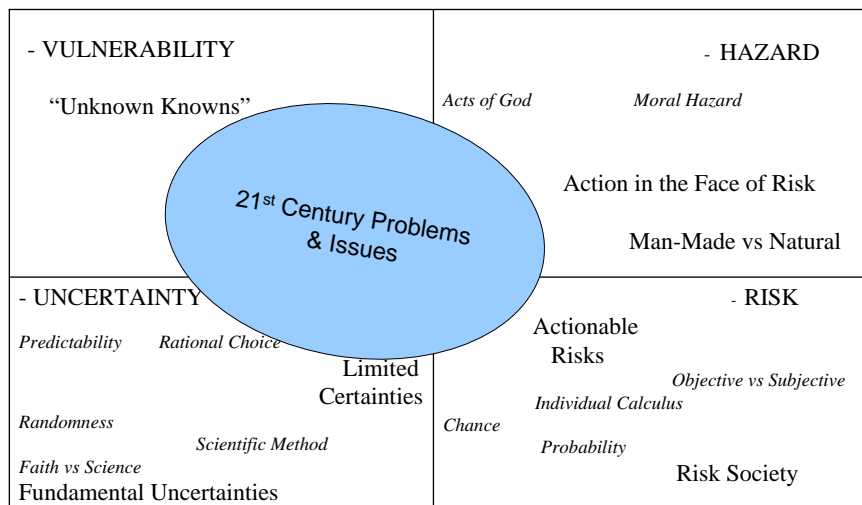
“As we know, there are **known knowns**; these are things we know we know. We also know there are **known unknowns**; that is to say, we know there are some things we do not know. But there are also **unknown unknowns**, the ones we don't know we don't know. And if one looks throughout the history of our country and other free countries, it is the latter ones that tend to be the difficult ones”

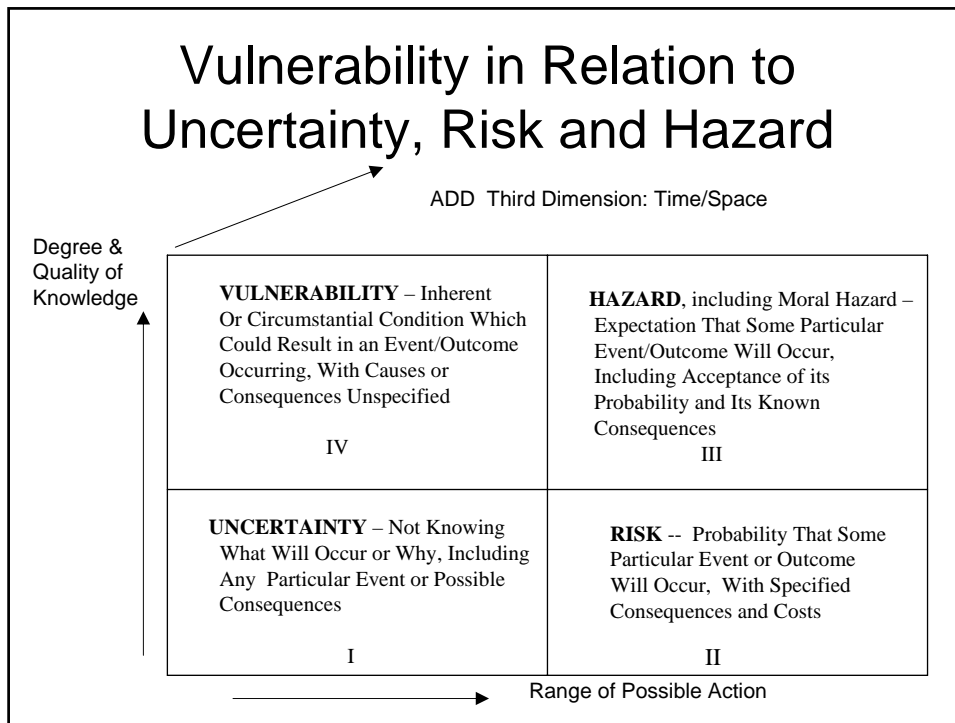
Donald Rumsfeld, US  
Secretary of Defense, 2002

Missing Category:

“Unknown Knowns” = Vulnerabilities

## Uncertainty, Risk, Hazard...And Vulnerability





## The Concept of Vulnerability

- Two Types of Vulnerability
  - Type I: Vulnerability From What?
  - Type II: Vulnerability for Whom?
- Basic Model
 
$$V_{\text{Type I}} = f \text{ Knowledge}_x \times \text{Action}_x / \text{Time / Place}_{x-1 \text{ or } x+1}$$

where x is the present situation, x-1 is utilized for creating metrics and x+1 for diagnostics
- General Conditions
  - Complexity
  - Reflexity
  - Proportionality

## Metrics and Diagnostics of Vulnerability

**Metrics:** about “comparison among selected cases”, where the aim is to set out criteria and evidence which might be used to analyze specific instances or cases and draw lessons or conclusions therefrom

**Diagnostics:** about establishing a system which takes inputs of relevant information, assesses that information against specified criteria, and determines whether or to what extent the data and criteria match, allowing for “decision-making under uncertainty”

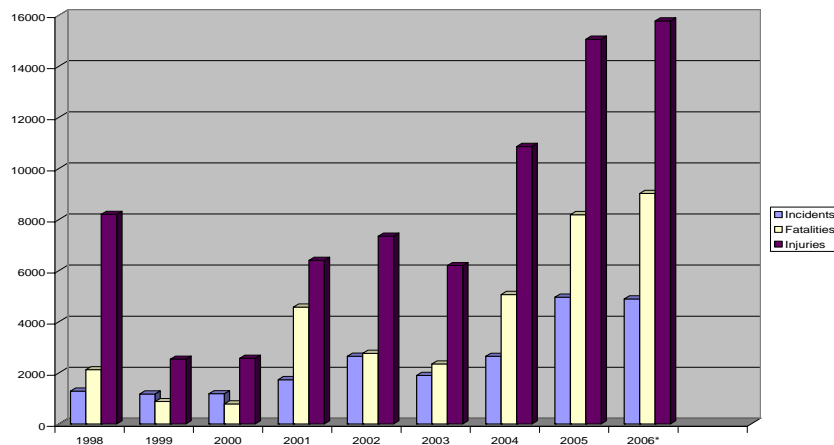
## Towards A Metrics of Vulnerability

1. Measures of Source and Agency – where the vulnerability comes from and whether individual human action or out of control forces are at work in explaining exposure to and impact of a particular vulnerability, as exemplified by distinctions such as *natural/man-made, deliberate/accidental, voluntary/involuntary, the result of chance/intention*, or other possible measures;
2. Measures of Scale, Scope and Intensity – relatively how large or important the vulnerability is and how its magnitude, range and impact can be characterized in terms of dichotomies such as *discrete/widespread, limited/extensive, intense/weak*, or other possible measures;
3. Measures of Explanation – how the vulnerability fits within existing knowledge and whether the origin and evolution of a particular vulnerability is best explained by *causality/correlation/randomness, endogenous/exogenous, circumstantial/deductive*, or other possible measures;
4. Measures of Criticality – how the vulnerability is triggered and whether the seriousness and acuteness of particular vulnerabilities can be treated as *non-critical/critical, stable/unstable, evolutionary/transformational*, or other possible measures.
5. Measures of Interrelatedness – how interrelated the vulnerability to other vulnerabilities and whether the various elements and linkages involved in particular vulnerabilities are *simple/complicated/complex, loosely/tightly coupled, independent/dependent, self-contained/interrelated/cascading*, or other possible measures;

## Terrorism & Tourism: A “Reality Check”

- MIPT Database on Terrorism Incidents, 1968-2006 – over 30,000/22,000 incidents
- Since 1998, broken down into international & domestic terrorism incidents
- Category of Tourists as Targets = T<sup>1</sup>
- T<sup>2</sup> = Broader Group including Attacks on Airports & Airlines & Transportation Generally

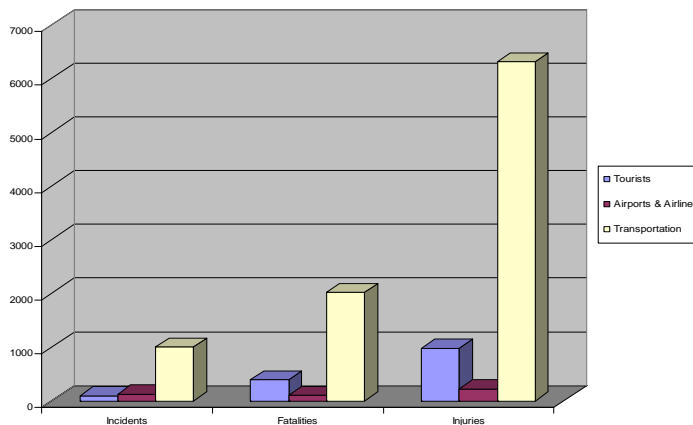
## Terrorist Incidents Per Year, 1998-2006



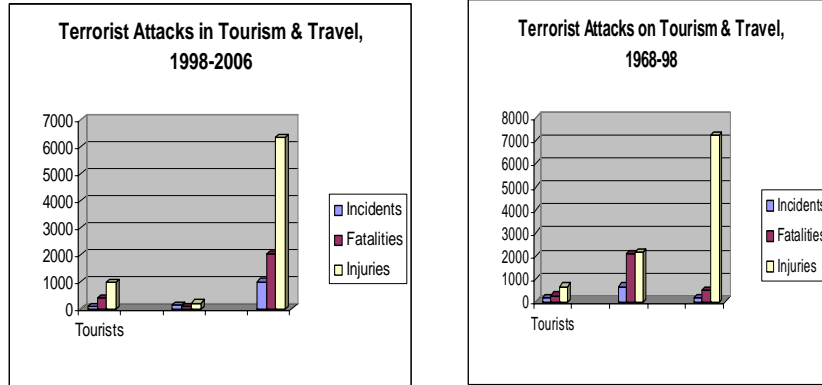
## Top 5 Terrorism Incidents + Top 5 Travel & Tourism Incidents

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• <a href="#">Al-Qaeda attacked Business targets (Sept. 11, 2001, United States)</a><br/>2449 + 2261</li> <li>• <a href="#">Riyad us-Saliheyn Martyrs' Brigade attacked Educational Institutions target (Sept. 1, 2004, Russia)</a><br/>331 + 727</li> <li>• <a href="#">Unknown Muslim Group attacked Business targets in Bombay (Mar. 12, 1993, India)</a><br/>317 + 1200</li> <li>• <a href="#">Armed Islamic Group attacked Business target (Jan. 11, 1998, Algeria)</a> up to 400<br/>Killed/Injured</li> <li>• <a href="#">Sikh Exile Group attacked Airports &amp; Airlines target – Air India Flight (June 23, 1985, Canada)</a><br/>327 + 0</li> </ul> | <ul style="list-style-type: none"> <li>• JEMAAH ISLAMIYA (JI) ATTACKED TOURISTS TARGET (OCT. 12, 2002, INDONESIA) 202 + 300</li> <li>• UNKNOWN GROUP ATTACKED TOURISTS TARGET (JULY 23, 2005, EGYPT) 51 + 23</li> <li>• UNKNOWN GROUP ATTACKED TOURISTS TARGET (APR. 24, 2006, EGYPT) 23 + 83</li> <li>• AL-QAEDA ATTACKED TOURISTS TARGET (NOV. 28, 2002, KENYA) 13 + 80</li> <li>• ABU HAFS AL-MASRI BRIGADE ATTACKED TRANSPORTATION TARGET (MAR. 11, 2004, SPAIN) 191 + 600+</li> <li>• UNKNOWN GROUP ATTACKED TRANSPORTATION TARGET (JULY 11, 2006, INDIA) 190 + 625</li> </ul> |
|--|---|

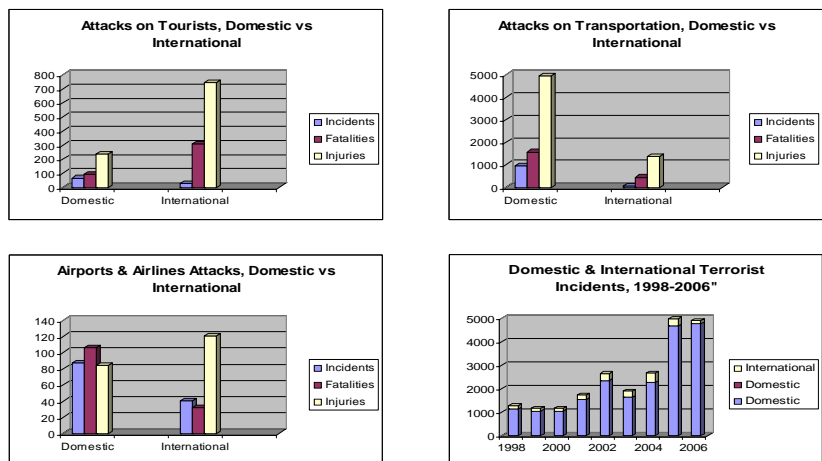
## Terrorism Incidents Targeting Tourism & Travel, 1998-2006



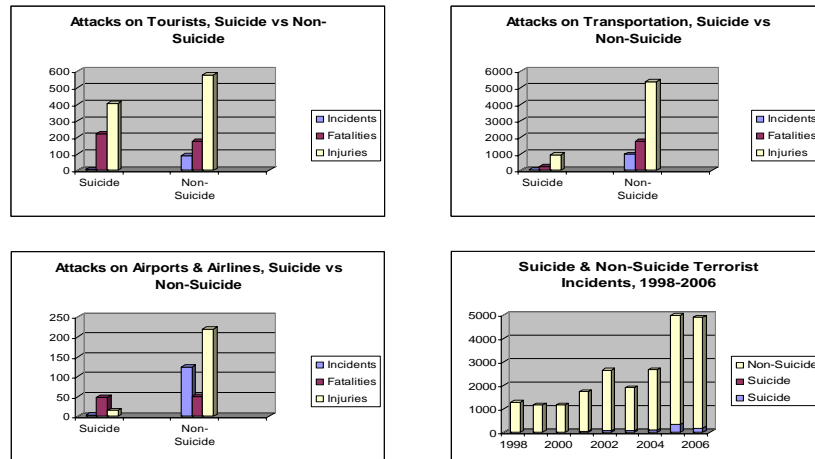
## Terrorism Incidents Targeting Tourism & Travel, 1998-2006 & 1968-98



## Tourism and Travel Attacks, Domestic vs International



## Tourism and Travel Attacks, Suicide vs Non-Suicide



## New ASEC Website

- Highlights the ASEC Services & Vulnerability Project
- Provides Access to the findings and results of our studies
  1. Foundation Papers
  2. Themes and Issues
  3. Case Studies & Notes

**ASEC WEBSITE/WEBPAGE  
Coming in 2007**

[www.genevaassociation.org](http://www.genevaassociation.org)

or

[www.asecinfo.org](http://www.asecinfo.org)

## TERRORISM AND TOURISM: A NOTE ON ANALYSING AND ASSESSING VULNERABILITY RATHER THAN RISK

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Director, Applied Services Economic Centre, Geneva

Prepared for the 20<sup>th</sup> M.O.R.E. Seminar, Foundation MAPRE,  
November 16-17, 2006, Madrid, Spain

There is a widespread perception that tourists themselves, and tourism infrastructures and services, are now prime targets for terrorists, and that this is, and will increasingly be, a major limiting factor for tourism growth and development in future. The coordinated bombings of resorts in Bali in 2002, the shooting down of an airliner at Sharm el Sheik in 2003, the Amman hotel bombing in 2005, the attacks on tourism targets in Egypt in 2005 and recently in Turkey are all incidents where tourists and tourism infrastructures and services were deliberately targeted by international or domestic terrorists. Tourist facilities and services are invariably “soft targets” – open to the public and usually with few overt defenses, often located and concentrated in areas crowded with people, and often attracting higher income foreigners as well as than local residents. Unlike natural disasters such as storms, earthquakes, volcanic eruptions and the like, which also occasionally affect tourism with sometimes devastating effects, terrorist incidents targeting tourism are themselves man-made, intentional acts which add a further level of analysis to the issue, but also make it possible to take deliberate defensive action, at least to some extent.

In the short term, terrorist incidents cause death and injury, damage and disruption to the particular areas hit, but also longer-term effects for the region and travel and tourism globally in terms of industry revenues, employment, and consumer confidence. All of these elements, among others, contribute to an overall risk factor which stakeholders implicitly impute to any prospective tourism and travel activity. As in virtually all areas of modern life, relative levels of risk have become a pervasive underlying factor affecting behavior, but risk is a highly individualistic though rationalistic concept. The same prospective tourism or travel action may be adjudged a high risk nullifying action for one individual, but either of lower risk or not at all a deterrent to action for another individual.

One way of compensating for the variability of human perception and behavior is to focus more explicitly on vulnerability rather than risk. Vulnerability is an underdeveloped concept in applied social science, separate and distinct from the concept of risk, which deserves deeper treatment and wider application than it currently receives. In the specific case of tourism and travel, a focus on vulnerability rather than risk leads one to focus specifically on the inherent or circumstantial conditions which make particular tourist infrastructures and services an appealing target for terrorists and how terrorists have operated against tourism and travel targets.

It is claimed by some that tourists and tourism infrastructures and services – “soft targets” by their very nature -- have become both a primary and an ancillary target for terrorism in recent years, second-only to transportation facilities which alone have accounted for nearly 50% of all terrorist targets since the September 11<sup>th</sup> attacks on New York and Washington. The Terrorism Knowledge Base, maintained by the Memorial Institute for the Prevention of Terrorism (MIPT) and based on US government and other sources, holds records on more than 30,000 terrorism incidents, groups, targets, etc since 1968 and, from 1998 to the present, has disaggregated them according to international or domestic in character, involving suicide or not, and other characteristics. Drawing upon this database, one can begin to provide a “reality check” as to whether or not tourism and travel are indeed prime targets for terrorist and where some of the key vulnerabilities might lie.

The Broad Threat is Credible, Though Not Necessarily Acute: As shown in Slide 1, Total Terrorist Incidents, Deaths and Injuries have increased substantially during the period from 1998 to 2006, and especially from 2003 onwards. This certainly sustains the generalized perception of increased risk. But it is important to note that, after 2003, Iraq and, to an increasing extent Afghanistan, account for a sizable portion of the increased terrorist incidents in recent years. These total numbers, however, sustain and perhaps even fuel the widespread perception of increased terrorist threat and risk, although Iraq and Afghanistan are hardly major travel and tourism destinations. On the numbers alone, and if Iraq and Afghanistan were taken out of the calculations, totals for the last 4 years, would drop by roughly 30%. The overall terrorist threat to tourism and travel is certainly real, but the condition is chronic and steadily severe rather than necessarily acute as the foiled British transatlantic airline plot might imply.

Dramatic Terrorist Attacks Involving Tourism and Travel Tend To Draw Particular Attention: Slide 2 sets out the Top 5 Terrorist Attacks with the September 11<sup>th</sup> attacks in the US claiming by far the largest loss of life and injury, while the other four incidents each range in the 300+ lives lost category. It is not always remembered that largest terrorist attack targeting Travel and Tourism was actually the Air India bombings in 1985, while there have been a set of terrorist attacks targeting tourists or transportation facilities since 2001, some reaching the 200 killed range as in Madrid or Mumbai. The great majority of terrorist attacks on Tourism and Travel have led either to 0 or relatively small numbers of casualties, but it is the high number of such attacks which accounts for the overall totals.

Attacks on Tourists Remain Sporadic, on Airports/Airlines have Declined, But on General Transportation Are Increasing: Slides 3 & 4 examines Terrorist Attacks Targeting Tourism and Transportation, including the categories of Tourists, Airport & Airlines, and Transportation Generally (including where Tourism is not primarily involved). Terrorist attacks targeting tourists explicitly have actually been relatively few and sporadic since 1998, roughly similar to the number and severity of attacks over the 30 previous years. Since 1998, terrorist attacks on Airports & Airlines have actually declined dramatically from the 1968-98 period when hijackings and bombings were more frequent and prominent, validating on the face of it the heightened air security measures since 2001. It is interesting to note, however, that the September 11<sup>th</sup> attacks are treated as terrorist attacks on Business and Government targets, with the airliners themselves treated as tactic rather than targets. What is more disconcerting, however, is the sharp increase since 2001 in terrorist attacks targeting other forms of transportation, as in Madrid, Mumbai and

London. Tourism and Travel is clearly a primary and relatively easy target for terrorists, although tourists themselves may largely be ancillary.

The Larger Numbers of Terrorist Incidents Involve Attacks on Government, Business, Police, Private Persons & Property, Not Travel and Tourism: Slide 5 compares Tourism and Travel as targets for terrorism, vis-à-vis other terrorist tar1998 and 2006. Private Citizens and Property, Government, Police and Business, in that order, drew double or more the number of attacks and also of fatalities and injuries. Attacks on prominent political or business figures, kidnappings for ransom as well as for political purposes, attacks on government institutions and the police, all remain the stock-in-trade of terrorist activity. Terrorism directed at Tourism and Travel tends not to be as sharply focused, especially for international terrorism, although domestic terrorist activity in countries like Egypt or Turkey is being used to put pressure directly on national governments and economies. This also undoubtedly relates to the still predominantly domestic character of most terrorism incidents, despite the recent rise in international terrorist activity. As well, globalization of media serves makes domestic terrorism incidents more widely known and gives them an international character.

Terrorism Against Tourism and Travel Remains Strongly Domestic in Character, Although International Terrorism Targeting Tourism and Travel is Evolving and Perhaps Mutating: The Terrorism Knowledge Database specifies domestic terrorism as acts perpetrated by local nationals against domestic targets: by contrast, international terrorism is “when terrorists go abroad to strike targets, select targets associated with a foreign state, or create international incidents by attacking airline passengers, crew or equipment”. Whether this is an adequate distinction any longer is a question to be posed. Nevertheless, Slide 6 shows that, between 1998 and 2006, more than 2/3 of attacks on tourists were domestically inspired, although much the larger number of fatalities and injuries were from international terrorist attacks (the Bali bombing in particular). Somewhat surprisingly, attacks on airports/airlines were predominantly domestic, despite the way international terrorism is defined, and despite the fact that aircraft can themselves be commandeered as weapons. Attacks on transportation targets also are predominantly domestic (as the Madrid or Mumbai bombings are characterized), even though international terrorist connections and involvement are often evident. All of this needs as well to be placed in the context of a steady increase in the share of total terrorist activity accounted for by international terrorism.

Suicide Terrorism is On the Rise but May not be Particularly Prominent in Attacks on Tourism & Travel: The phenomenon of suicide terrorism has become increasingly prominent since the late 1990s when it came to be used in the Intifada against Israel and, of course, most explicitly in the September 11<sup>th</sup> attacks. Suicide terrorism has long been a minor theme but now it is being recognized as more than just a tactic (indeed the Terrorism Knowledge Database treats it as a separate form of terrorism rather than as a tactic). Over the 1998-2000 period, Slide 7 shows that suicide terrorism against tourist, airports/airlines and transportation generally has played only a modest role. It has been the form of terrorism used in some key incidents such as the Bali bombings, resort attacks in Egypt and Jordan, and the London attack in 2005, but other major attacks on airlines and transportation systems have relied on more conventional direct attacks against infrastructures and services (Madrid and Mumbai, Sharm el Sheik aircraft incident, and

numerous others). Tourism and travel may offer a “soft target” but, thankfully so far, suicide terrorism has not often been utilized. In general, however, there has been a distinct rise in the use of suicide terrorist incidents over the 1998-2006 period, and little indication that this trend will subside.

Terrorist Incidents Involving Tourism and Travel Should be Placed in the Broader Context of Other Threats and Vulnerabilities: Between 1998 and 2006, the Terrorism Knowledge Database logged 1230 terrorist incidents involving Tourism and Travel, killing over 2500 people and injuring roughly 7500. These numbers are obviously significant and appalling. Their weight and significance, however, is placed in some perspective when one compares them against other terrorism targets, but also in the context of other threats and vulnerabilities which Travel and Tourism faces. Pandemic disease, natural catastrophes, climate change – are all serious short-term and longer-term issues. Slide 8 provides a point of comparison to the one specific and focused episode affecting Tourism and Travel – the SARS outbreak of 2003-04. There were almost 8000 cases of the disease worldwide and just under 800 persons died, affecting a swath of countries around the globe but certain countries and economies more than others, and took a heavy toll on global aviation and tourism and the global service economy more generally. How ongoing terrorist incidents compare to one of a series of possible disease outbreaks or the impact of climate change is an issue of breath-taking proportions, but one here vulnerability analysis and assessment is critical.