Crisis Management
Terrorism Probable Maximum Loss (PML) Studies
A terrorist incident at or near your operations, could result in human casualties, property damage, business interruption, legal liability issues and long term damage to brand and reputation.
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Organisations have a duty of care to safeguard their visitors and employees
Introduction

Terrorism is a dynamic and evolving risk. Terrorist acts not only cause significant property damage and major business interruption, in the worst case they can also harm employees or members of the public - individuals that an organisation has a responsibility to protect.

When transferring terrorism risks into the insurance market, organisations often have two questions; are we at risk and, if so, what is the financial scale of our exposure?

Aon’s unique approach to counter terrorism risk management includes a thorough threat and vulnerability assessment in order to identify whether your organisation is at risk, and to quantify the financial scale of your exposure.

A terrorism Probable Maximum Loss (PML) study outlines the potential financial impact of a worst case terrorism scenario on people, infrastructure and operations, allowing you to make informed decisions about your insurance programme. Whilst Aon provides a tailor made solution for your individual needs, there are four broad solutions available:

- Desktop PML (Property Damage and / or Business Interruption)
- Comprehensive PML (Property Damage and / or Business Interruption)
- Comprehensive PML (Human Vulnerability)
- PML Conclusions

These are described in more detail on pages six and seven.
The threat

There is a threat posed by international terrorist organisations (including Jihadist groups affiliated to al-Qaida) as well as domestic terrorist groups, single issue groups and ‘lone wolf’ individuals. Aon’s experienced crisis consultants use open source data and security intelligence to identify the intent, capability, credibility and tactics of these organisations and individuals.

Each PML study includes an assessment of the threats that exist in the relevant geographical areas. This ensures that we consider all forms of attack that might have a significant financial impact.

Risks and vulnerabilities

Terrorism threat is not only informed by geographical location or proximity to attractive targets, but also by the activities an organisation undertakes or supports. Many targets, for example government buildings or locations where controversial activities are conducted, are well protected. Softer targets, such as hotels or meeting points, are often seen as offering a greater chance of success for a terrorist group, while still achieving the desired adverse impact. Frequent attacks on ‘Western’ tourist resorts in Islamic countries are an example of this trend.

In order to understand the threat, Aon not only considers your organisation’s physical disposition, but also its activities and stakeholder dependencies.

The output of such an exercise is a matrix showing the range of threats that exist and an initial assessment of their expected probability.

Aon then looks at your particular vulnerability to this threat. This includes looking at your company plans and procedures and any physical security measures in place and may include recommendations to reduce vulnerability. The threat plus vulnerability enables us to properly understand the threat and from here we collaboratively select the most likely, worst case scenarios in terms of the impact and consequential effect they are expected to create. Routinely, Aon will select three of four scenarios for inclusion in a PML study.

Benefits

The primary benefits of conducting a Terrorism PML study are:

- Evidence based purchasing of terrorism insurance and other risk transfer products, potentially delivering significant cost savings
- The ability to demonstrate strong corporate governance in relation to low probability but high impact terrorist events
- The ability to meet corporate duty of care obligations, specifically by designing measures to protect people from a foreseeable risk
- A detailed understanding of how security, plans and procedures might be improved, protecting human life, shareholder value and potentially reducing the terrorism PML
PML studies often result in significant risk transfer cost savings
Aon’s approach

Aon provides you with an evidence based assessment of Terrorism PML, which can inform insurance purchase, assist in demonstrating corporate governance, or satisfy stakeholders that risks have been appropriately considered and managed. We deliver our reports in a modular fashion that clearly explains from the outset the products you will receive. In general terms we deliver the following components of a Terrorism PML study:

- Understanding the organization, stakeholders and dependencies
- Threat assessment
- Risk analysis
- Identification of worst case scenarios
- Financial modeling of the asset(s) at risk
- Modeling of the selected scenarios against the asset(s) (routinely high explosive modeling)
- Production of PML assessment
- PML Conclusions
- Reduction Recommendations (if requested)

Aon employs highly experienced security analysts, former counter terrorism officers and explosive blast engineers to deliver a combination of tactical and technical expertise that is unmatched in the insurance industry. The unique team that Aon has drawn together ensures that we can not only provide a robust assessment of Terrorism PML, but also PML reduction recommendations, whether physical, procedural or technical in nature.
Aon helps you understand your exposure in order to make informed decisions
Solutions

Aon recommends that you discuss the options available with your Aon account executive and also with an Aon crisis consultant. The following broad options are available:

**Desktop Terrorism PML (Property Damage and / or Business Interruption)**

Aon produces desktop Terrorism PMLs based on information provided by you to quantify the scale of exposure at a particular location. Crisis consultants are able to identify regional and local threats and assess risks to the asset if certain basic information is provided. Crisis consultants then use standard models to consider the probable impacts of worst case high explosive scenarios to generate a Terrorism PML. Data routinely required includes:

- Site plan
- Any data available relating to type of construction materials used
- Details of any existing security infrastructure or measures at the site
- Financial values for the built environment and any assets within it that are expected to be covered by the terrorism insurance policy

A desktop Terrorism PML is intended to provide a clear indication of the scale of the financial impact, and is deliberately conservative in nature. Findings are presented using two-dimensional modeling.

**Comprehensive Terrorism PML (Property Damage and / or Business Interruption)**

When organisations need to understand with a greater degree of accuracy the potential financial consequences of a terrorist attack, Aon recommends a comprehensive Terrorism PML. A comprehensive study involves detailed 3 dimensional blast analysis of assets, and therefore provides a much greater degree of accuracy and confidence. A comprehensive study includes two or three days site visit by a crisis consultant. During the visit, our consultant gains a detailed understanding of:

- The business operations conducted at the site, and any critical infrastructure, people or processes
- The nature of the built environment, including details of construction materials
- Full details of physical, procedural and technical security measures in place
- The details of any known vulnerabilities, previous plots or areas of existing concern

Equipped with this greater level of detail, we are able to conduct an in depth, technical assessment of the probable effects of a high explosive event, using the expertise of specialist blast engineers. A comprehensive Terrorism PML provides a robust technical analysis of the probable consequences of a terrorist attack, and presents the findings using detailed three-dimensional modeling.
Comprehensive Terrorism PML (Human Vulnerability)

If concerned over public liability issues, or benefits associated with death in service, organisations are often keen to understand the potential human impact of a major terrorist event. This is a highly sensitive subject matter and Aon is well practiced in conducting such studies under extremely tight confidentiality arrangements.

A Human Vulnerability PML study always requires the deployment of a crisis consultant to the site in order to understand the use of space by the population concerned. All Human Vulnerability PML studies begin with the same processes as described in a Terrorism PML; we consider threats and vulnerabilities and then model the effects of a worst case terrorism event based on the environment.

We work with you to develop a realistic model of the populations in scope. This may include consideration of occupancy rates, distribution between desk spaces, meeting rooms and recreational space, or mean density figures during peak flow for public spaces. We also consider any implications associated with high net worth individuals, or staff with mission critical roles. Once the population model has been created, we develop detailed floor plans identifying where we expect fatality, very serious injury or other injuries to occur. Modeling is deliberately conservative in nature, but provides very meaningful analysis of human exposure.

PML Reduction Recommendations

Terrorism and Human Vulnerability PML studies provide you with the opportunity to significantly reduce your exposure through the implementation of pragmatic risk mitigation measures. If requested, we can include an additional report to identify terrorism risk mitigation measures in three broad areas:

- Tier 1: measures to mitigate the risks of property damage, usually from hostile vehicles; the threat posing the greatest likelihood of causing major financial impact
- Tier 2: measures to mitigate the risk to people, usually associated with glazing hazards, situational awareness and access control
- Tier 3: measures to protect assets, data, processes or other critical operational enablers from the after effects of a terrorism incident

The Reduction study outlines the expected financial implications of each risk mitigation measure in terms of reducing financial exposure to terrorism risk.

If required, Aon can provide further specialist consulting, including detailed technical specifications for terrorism mitigation measures, assistance in procuring appropriate third parties to implement solutions and independent quality assurance or quality checking of risk mitigation implementation.
Deliverables

Each organisation’s needs are different, and it is often necessary to provide a proposal including a detailed fee structure for the required PML study.

Following a PML study request, Aon is usually able to start work within three weeks. This is determined by the availability of consultants, client staff and/or points of contact. Once initiated, the study takes approximately four to six weeks to complete.

All projects are assigned a Project Director and a Project Consultant who oversees and deliver the study. Aon operates a system of internal quality assurance and, as such, all documentation undergoes an internal peer review before being released to the client.
Aon’s Crisis Management practice

Aon’s Crisis Management practice specialises in risk management solutions for Terrorism, Political Risk, Kidnap, Ransom & Extortion and Product Recall.

We create innovative, bespoke solutions, delivered through a combination of insurance market expertise and risk management strategy to help protect companies’ people, assets and brand.

The consulting team adds value by ensuring that risk transfer and premium spend is appropriate and that any risk retained is effectively managed.

Our consultants come from police, military and academic backgrounds and have a wide range of experience in the field of counter terrorism. Crucially, they have worked extensively in the commercial sector and insurance field.
Aon’s crisis consultants occupy a unique position between insurance and security.
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