



TRANSPORT RISK

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Transport Risk Management, Inc.

Managing the Risk of Motion

Transport Risk Management, Inc. are brokers engaged in the practice of aviation insurance and risk management services. As a leading aviation and aerospace brokerage, we provide our clients with a complete service for all their insurance, reinsurance and risk management needs.

As part of our business philosophy, Transport Risk strongly believes that educating our clients about risk and the management thereof provides them the most reliable means in reducing the costs associated with those risks. It is with that belief in mind that we provide the following overview of aviation insurance and the risk management process.

Aviation Insurance Policies

Aviation Insurance

Aviation insurance policies offer some of the broadest coverage of any insurance line. In addition to the standard aircraft hull, aircraft spares, passenger legal liability, passenger baggage legal liability, third party and cargo legal liability, passenger and crew personal accident, they may even extend to cover primary or excess limits for motor vehicles airside, employers and advertising legal liability and personal injury among many other extended exposures.

What is Insurance, Actually?

Whether private, corporate or commercial, policyholders are most likely to identify insurance first as an expense. Consumers that regularly pay premium and have suffered no significant losses may have trouble understanding or accepting its inherent value. Insurance is however among the most vital and valuable of assets enabling an aircraft to fly. Of course, any aircraft operator will require financial means, aircraft, experienced staff and fuel, but without insurance, no aircraft will (or at least should) ever take off.

A case in point: in spring 2004, a low-budget airline had to ground a number of its jets; owing to an administrative omission, the necessary insurance certificates were not on board the respective aircraft at the time of scheduled departure. The lack of a simple piece of paper had suddenly become a major obstacle to normal operations!

The textbook definition of insurance is as follows: "The individual can transfer the risk of a possibly large loss to the insurer by payment of a premium and so convert the uncertainty of a possible large loss into the certainty of a smaller but fixed annual cost". More than just that piece of paper, insurance is a promise by the insurers to reimburse the insured's for financial loss redeemable at some time in the future. Inasmuch, it guarantees a monetary compensation for losses which the insured may incur and it replaces uncertainty by certainty for the payment of a premium. In the case of aviation, insurance provides a financial guarantee for huge limits translating into hundreds of billions of US dollars at risk.

While insurance is an absolute prerequisite to an aviation operation, its actual total cost — on average at less than 2% of the operator's overall budget — is relatively small. Of course, the aviation industry - like many other industries – is under financial pressure. Yet the cost of commercial hull and liability insurance per single flight is modest compared to the huge exposure of the risk and the tremendous benefit the consumer derives.

The value of insurance and the capital required

This promise to meet financial obligations — the insurance policy — becomes a financial guarantee and represents a form of capital for the aviation industry. In the individual case, it thus replaces a substantial amount of capital the operator would otherwise be required to have on its own balance sheet.

To provide a water tight financial guarantee and to fulfill the terms of the policy, insurers require that the respective capital be secured in their balance sheets. The Insurance industry has a clear and distinct capital requirement; a sound financial basis to cover the huge exposure, and potential monetary obligations which they assume from the insured.

The manner in which an insurance company manages its operation has substantial bearing and influence on the capital required. Operating as a life insurer or non-life insurer –or specializing in motor or industrial property business — will affect the amount or capital needed to write business. As a rule, the more diversified the insurance company, the less relative capital is required. Diversification can include the line or business and the geographical spread.

The Capital Requirement for Aviation Insurance

What exposure to the aviation industry must be financially covered? Aviation insurance on a stand-alone basis implies some rather controversial considerations and elements for both underwriters and capital investors. Firstly, and contrary to motor insurance, the law of large numbers has limited application in this line of business. Secondly, the business is highly exposed and offers potentially high volatility with an enormous financial downside. Despite that, aviation insurers give a promise to fulfill huge financial obligations emanating from losses the insured may sustain. Hence, insurers must have adequate capital to meet realistically expected losses, cover worst-case scenarios end ultimately — with a strong security rating — remain solvent.

Today's global airline fleet alone consists of some 21,500 Western built aircraft, representing a hull insured value of some USD 570 billion. On average, aviation insurers grant liability policy limits of around USD 750 million for every single airline departure and — of which there are roughly 31 million annually. Aviation insurers cover the combined aircraft hull and liability policy amounts on an each and every loss basis and as such, the amount of exposure airline insurers assume is theoretically unlimited. The sums potentially at risk amount to hundreds of billions of US dollars.

Many of the individual policies fall considerably below the above average figure; numerous others exceed it by fifty or even one hundred percent, the fact is, it is the major airlines that maintain the largest fleets of aircraft and purchase the highest available limits –up to, or in some cases even exceeding, USD 2 billion. Given the exposures and potential loss scenarios we have considered, a loss exhausting the policy limit can hardly be taken as a flight or fancy.

While the total aggregated exposure of several hundred billion U.S. Dollars is purely theoretical, such figures are nonetheless utterly stunning. Each aircraft represents an individual risk, and naturally not every one is exposed to the full extent at the same time. The global aircraft fleet is spread over five continents, many countries and thousands of different locations. Still, there are scenarios that point to losses for insurers which exceed by a multiple the average expected USD 18 billion annual aggregated losses. Such claims could emanate from a series of losses, a frequency of larger losses combined with some extraordinary severe individual losses even exhausting policy limits. Such a scenario might mean insured claims approaching multi—billion dollar figures. Given the greater frequency of take-off and landings, as well as congested airspace today, this is hardly a far-fetched scenario. What's more, the aviation industry might also be hit with losses from nature I catastrophe events, further exacerbating such a scenario.

When understood in these terms and given the nature of your own individual exposure, how much capital would your own company or flight department require on its own balance sheets to manage these risks?

The Risk Management Process

What is risk management?

Risk is anything that threatens the ability of an organization or more specifically, flight operation, to accomplish its mission.

Risk management is a discipline that enables people and organizations to cope with uncertainty by taking steps to protect its vital assets and resources.

The risk management process provides a framework for identifying risks and deciding what to do about them. Of course, just making a laundry list of all possible risks is not enough. It is easy to quickly become overwhelmed by the huge list of risks the organization or flight operation faces.

But not all risks are created equal. Risk management is not just about identifying risks; it is about learning to weigh various risks and making decisions about which risks deserve immediate attention.

Risk management is not a task to be completed and shelved. It is a process that, once understood, should be integrated into all aspects of your organization's flight operation management.

Let's take a closer look at how this process works.

- **Establish the context** - It's important to begin a risk management program by setting goals and identifying any potential barriers or impediments to the implementation of the program. In the goal setting exercise, ask, "What are we trying to accomplish by integrating risk management into our flight operations?" Some common goals for risk management efforts include: reducing injuries, avoiding costly claims, preserving the organization's reputation in the community, freeing up resources for mission-critical activities, and ensuring adequate risk financing.

- **Acknowledge and identify risks** - In this article we will categorize risks according to four major categories of Corporate assets: People, Property, Income and Goodwill. There are many ways to undertake risk identification; the key is using a framework or strategy that allows you to identify all major risks facing your organizational flight operations.
- **Evaluate and prioritize risks** - The third step in the process helps you keep things in perspective and establish a list of action items in priority order. The risk of an aircraft crashing into your organization's corporate headquarters is remote, so it probably makes more sense to work on a more likely risk - that one of your own aircraft could crash into some other corporate headquarters.
- **Select appropriate risk management strategies and implement your plan** - We'll discuss four risk management techniques that can be used individually or in combination to address virtually every risk facing your flight operations.
- **Monitor and update the risk management program** – Aviation flight operations are dynamic organizations that constantly face new challenges and opportunities not just at home but around the globe. Risk management techniques and plans should be reviewed periodically to make certain that they remain the most appropriate strategy given the organization's needs and circumstances.

Four Risk Management Techniques

Four basic risk management techniques are: avoidance, modification, retention and sharing. Let's take a closer look at each.

Avoidance — Whenever an organization or flight operation cannot offer a service while ensuring a high degree of safety, it should choose avoidance as a risk management technique. Do not offer programs or services that pose too great a risk. In some cases avoidance is the most appropriate technique because an organization simply doesn't have the resources required to provide adequate training, supervision, equipment, or other safety measures. Always ask, "Is there something we could do to deliver or conduct this activity more safely?" If you answer "yes," risk modification may be the more practical technique.

Modification — Modification is simply changing an operational activity to make it safer for all involved. Policies and procedures are examples of risk modification. An organization or flight operation concerned about the risk of using unsafe flight crews may add FAA record checks to its screening process, or semi-annual recurrent training for all crew members.

Retention — There are two ways to retain risk. The first is by design. An organization may decide that other available techniques aren't suitable and it will therefore retain the risk of harm or loss. Flight operations make conscious decisions to retain risk every day. For example, when an organization purchases liability insurance and elects a \$10,000 deductible or self-insured retention, it's retaining risk. This can be a rational and appropriate approach to managing risk. Where organizations get into trouble is when risk is retained unintentionally. The unintentional retention of risk can be the result of failing to understand the exclusions of an insurance policy, insufficient understanding of the scope of risk an organization faces or simply because no one has taken the time to consider the risk and how it can be addressed.

Sharing — Risk sharing involves sharing risk with another organization through a contract. Two common examples are insurance contracts that require an insurer to pay for claims expenses and losses under certain circumstances, and service contracts whereby a provider (such as a Fixed Base Operator) agrees to perform a service and assume liability for potential harm occurring in the delivery of the service.

People and Goodwill

We are going to start our examination of risks with the asset categories of People and Goodwill.

People are the heart and soul of your organization. They represent the talent, commitment, and community your organization serves. The people assets in your organization include staff, Crews, clients, officers, board members, and managers.

Each person is a unique individual with a unique set of skills. In a very real sense, each is irreplaceable. **Unlike damage to property or loss of income, injuries sustained by your people may never be fully repaired.**

Not only are such losses very expensive, they are completely antithetical to all that your organization is trying to accomplish. It is clear then, that people are our most precious assets.

Let's think about some of the risks they face and how you might protect them from injury.

Risk Assessment Actions and Considerations:

1. Identify the "people assets" in your organization.
2. List the risks to the people in your organization.

Goodwill

Goodwill is an asset that is difficult, if not impossible, to quantify. For a flight operation a more descriptive word might be "reputation." Every flight operation understands that its reputation is key to maintaining client or management confidence, crew and employee recruitment, staff retention, and overall good organizational health.

Damage to an organization's reputation can be devastating, and many flight operations with otherwise strong operational programs would have a hard time recovering from a "hit" to their reputation such as a high profile loss or incident.

In many cases, damage to reputation occurs in the wake of a crisis, such as a high profile accident or widely publicized client injury.

In some cases there may be guilt by association if a corporate partner comes under fire. Even an incident of malfeasance could have repercussions for an associated organization.

Property and Income

People may be your most precious resource, but that doesn't mean that your organization or flight operation couldn't be devastated by a severe property loss. Imagine what you would do if your organization's aircraft were destroyed in an accident or if a significant increase in cost of operation occurred. This section of the article will address the risks of loss associated with your property and income assets.

Property includes...aircraft, hangars, office furniture and fixtures, computers (hardware and software), intellectual property (trademark, logo, copyright, patent, etc.), motor vehicles, other equipment (tugs, contractors equipment, fuel farms, laptops, exhibits, etc.) It also includes cash and securities, financial assets and even property borrowed for special flights.

What are some possible property risks? Property risks come in various forms, including those caused by nature (flood, earthquake, hurricane, wind/tornadoes, extreme heat or cold) and others resulting from human intervention (operational accidents, fire, theft, vandalism, collision, carelessness).

Risk Assessment Actions and Considerations:

1. Describe your organization's or flight operation's principal property assets.
2. Identify some of the risks to your property assets.

Income

Like a spring of cool water that sustains life, flight operations require a steady stream of reliable income in order to operate and grow. Common sources of income include budget allowances, government contracts, fees for services, investment income, loans, proceeds from special operations and more.

Most organizational and flight operation managers have come face to face with an income risk, such as the loss of department funding, budgets falling shy of projections, contract cancellations and more. A disaster such as a fire or flood can also effect curtain operations resulting in an interruption of the income stream.

Consequences of a loss can range from inconvenience to devastation. While income ups and downs are arguably "par for the course" in the corporate world, it's possible to use risk management techniques to reduce the likelihood that a loss of income will destroy an organization.

Some techniques for reducing income risk include replacement aircraft insurance, loss of use insurance, business interruption insurance, establishing a reserve fund, implementing sound financial controls, and diversifying income sources.

Bringing the Risk Management Program Together

Develop a list of possible risks in four general categories: People, Property, Income and Goodwill. Now it's time to develop an action plan.

The first step is to identify organizational priority risks. Consider choosing the two most troubling or potentially costly or disrupting risks from each list identified previously. That will give you eight risks in total to focus on. Or choose the top five risks from the combined lists.

Another approach is to form a task force or committee to review the risks: identify and choose priorities as a group. Using a committee is an excellent way to make sure that the bases have been covered -- members of the committee may identify risks previously missed. In addition, by involving a committee in the risk identification process and selection of priorities, an important first step has been taken in getting key players to buy into the process of risk management.

Typically, a risk management committee would include the risk manager, key staff, and perhaps an insurance professional like Transport Risk Management, Inc. Your committee should be large enough to include a diversity of views but not so large as to be unwieldy.

Risk Assessment Actions and Considerations:

1. List the priority risks you've decided to focus on from the lists previously compiled, leaving several lines of space between priorities.
2. Below each risk, list some of the steps or actions your organization can take to minimize the likelihood of the risk materializing, or reduce its negative effect on the organization should the risk materialize.

Examples:

Priority Risk: Aircraft loss of use or damage

Strategies: Review current operating, staging, and security strategies with your crew, dispatch and line service managers. Increase vigilance or inspections of fixed base operators or charter operators used by the organization and more closely track safety procedures and training.

Priority Risk: Risk of employee injury

Strategies: Ensure that employee and operational safety programs are in place and adhered to

Priority Risk: Risk of injury to passengers and third parties

Strategies: Develop a program to ensure that crew members are trained and qualified. Require appropriate safety procedures for line service personnel and dispatch operations that can be tracked and adhered to.

Priority Risk: Risk of property damage to third parties

Strategies: Develop a program to ensure that crew members, maintenance, line service, and dispatch personnel are trained and qualified. Require appropriate safety procedures for line service personnel and dispatch operations that can be tracked and adhered to.

Risk Management Program

A list of priority risks and corresponding lists of strategies to manage those risks has been developed.

The next step is to involve others. Remember that an effective risk management program can never be the responsibility of one individual. If your organization has already formed a risk management team, task force, or committee involved in identifying risks and strategies, it is well on it's way to implementing a risk management program.

Keep in mind that many effective strategies for managing risk in an organization may not require any additional financial expenditure and will likely result in significant financial savings. Time, attention, and resolve may be all that's needed to increase the safety of vital assets. Come up with a deadline, a date by which you plan to have made significant progress in achieving risk management goals. Review progress frequently and set new goals as the organization achieves the existing ones.

Risk management need not be a complex and bewildering array of technical terms, actuarial tables, or probability statistics. On the contrary, risk management is, in large part, the application of healthy doses of common sense and sound planning.

The simpler the risk management strategy is, the more likely it is that it will be applied. Yes, there may be items that are not considered in the first iteration of the plan, but at the outset it is more important that your program be comprehensible rather than comprehensive. As you continue to develop and refine your risk management plan, what now seems new and complicated will become second nature.

As time passes, this risk management plan should become more inclusive as more risks are addressed in order of their priority. As stated at the beginning of this article, risk management is a process not a task, therefore it is important to constantly review what you are doing, celebrate your triumphs, and analyze the reasons behind any setbacks.

We hope this article has been helpful in providing an introduction to the discipline of risk management.

Transport Risk Management, Inc. can provide additional assistance and support as you work to integrate risk management into the day-to-day operations of your organization or aviation operation. As part of our ongoing service and support, Transport Risk Management, Inc. will be happy to provide your organization or aviation operation with a complete coverage analysis, risk management program, and policy placement.