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# INTERNATIONAL RISK MANAGEMENT: LESSONS FROM TWA 800

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Two aviation mishaps dominated the news during the summer of 1996. ValuJet flight 592 on May 11 and TWA flight 800 on July 17 both terminated soon after take-off and crashed with no survivors. Investigations complicated by the difficulty of recovering the aircraft have still not reached definitive conclusions regarding the cause of either crash. The experience of a major international air carrier, coincidentally linked to the similar experience of a regional air carrier in the world's largest market, demonstrates the complexity of managing the liability risks facing a multinational enterprise. To the Ord A legislation Liers

On Saturday, May 11, ValuJet Flight 592 took off from Miami International Airport bound for Atlanta. About ten minutes into the flight, the pilot detected smoke in the cockpit and requested the air controller's permission to return to Miami. Moments later, the DC-9 burst into flames and crashed into the Florida Everglades. The plane disappeared into the watery swamp and none of the 110 passengers and crew survived. Divers in the swamp eventually located the flight data recorder and voice recorder, but neither contained enough information to pinpoint the cause of the crash.

In its three years of operation,

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ValuJet's no-frills service had been a business success, but the perception loomed that low-cost operations compromised on safety. After the crash of Flight 592, the Federal Aviation Authority (FAA) began an unprecedented scrutiny of ValuJet's maintenance procedures. As a result of violations uncovered during this scrutiny, but unrelated to the crash, in June the FAA suspended ValuJet's operating license until it complied with all requirements.

While the public debate over the adequacy of government air safety regulation still raged, a worse disaster occurred. On the evening of July 17, TWA Flight 800 bound for Paris exploded 12 minutes after take-off from Kennedy International Airport in New York. The wreckage of the 747 fell into the Atlantic Ocean about ten miles off the coast of Long Island and all 230 passengers and crew died. Seven weeks after the disaster, suspicions of sabotage persist, but no conclusive evidence has emerged. Pieces of the aircraft were scattered for miles along the ocean floor. Only about 70 percent of the aircraft has been recovered but investigators are restoring it piece by piece as they look for clues. More bodies have been recovered than first expected, 210 of the 230 people lost.

The fatalities from these two crashes alone exceed the fatalities from accidents involving U.S.

scheduled airlines for any year in almost two decades. In both cases the investigations have consumed enormous resources. The cost of the TWA 800 investigation, the most extensive ever, is approaching \$10 million [Meier]. More than 300 FBI agents, as well as scores of other police and aviation personnel, have been assigned to the investigation. The effort, however, is indispensable to sound risk management. The causes of these accidents must be determined to evaluate an airline's exposure to similar incidents. Are such events truly random? If not, there are significant implications for pricing this exposure.

These incidents also raise new questions regarding the extent of the air carrier's liability. Liability to passengers is limited under U.S. Law and under the Warsaw Convention and its subsequent amendments. The agony of their families, however, seems unlimited and highly visible. Following the ValuJet disaster, the U.S. Congress held public hearings in which the husband of one of the victims sharply criticized the media for sensationalizing grief. Even so, since the TWA 800 crash, each day brings a new story about the victims and their families.

### International Air Carriers

International passenger airlines operate in a paradoxical environment.

Their operations are heavily regulated, yet their business is intensely competitive. To survive, they must force down their costs, but they must comply with regulations. Despite these conflicting imperatives, airlines are experiencing their busiest year ever.

Over the long-term, the trend has been toward an improving safety record as well, especially for U.S. Carriers. Although they now fly 5 billion miles a year, fatalities average less than 100 per year. In 1993, U.S. Carriers reported only one fatality. China Airlines, Korean Air Lines, Thai Airways, Avianca, and Air India have accident rates that are six times higher, according to the most recent available statistics [Del Valle, p. 70]. This discrepancy highlights another paradox of international aviation; our carriers are regulated by national governments, but they operate internationally. The International Civil Aviation Organization, based in Montreal, sets minimum safety standards, but operating licenses come from national governments. Landing rights in other countries result from diplomatic negotiations, which some fear might compromise safety standards for the sake of progress on other issues. The FAA has granted 340 non-U.S. Carriers authority to operate flights into or out of the United States on the premise that they meet the safety requirements

of their own countries. The FAA has reviewed the civil aviation systems of barely half of the 103 countries whose airlines serve the United States [Del Valle, p. 70]. Thus a global consensus regarding air safety standards is still wanting.

# Liability Exposures

A convenient framework for identifying and analyzing the risks of accidental loss categorizes loss exposures as related to property, net income, liability, and personnel. An analysis of loss exposures examines the values, possible perils, and the financial consequences in each category. An air carrier's principal property loss exposures, for example, are its aircraft, which it would have to replace if an accidental peril damages or destroys one. Net income exposures are the increased expenses and diminished revenues following an accident (both ValuJet and TWA experienced decreased bookings in the wake of their disasters). Liability exposures are obligations to others resulting from an accident. Personnel losses are costs associated with the effects of an accident on the firm's own employees, which can include lost work time, medical expenses, disability payments, or death benefits. Sound risk management evaluates each of these loss exposures and designs an efficient program to control these

exposures and to finance through insurance or retention those exposures that inevitably do become manifest.

Of these four categories, liability loss exposures are the least predictable and therefore the most difficult to manage efficiently. An organization incurs legal liability loss whenever it is sued for allegedly causing harm to another. As a leading authority observes, "An organization can suffer a legal liability loss without having actually been found legally liable to anyone-it is enough that a suit (legal claim) be filed against it" [Head and Horn, v. I, p. 96]. A loss occurs when a suit is filed, even if it is groundless, because the defendant must respond with appropriate legal representation. If the claim does have merit, the court may award damages beyond the demonstrated economic losses to compensate the victim for pain and suffering. The seemingly arbitrary and unpredictable nature of the process might appear to defy rational management of liability loss exposures. For a multinational enterprise, the potential obligations to others should be considered in four ascending layers.

## Home Country Standards of Liability

Legal liabilities are determined by a nation's legal system. In some cases liabilities can exist according to the terms of legally enforceable contracts. The specific statutes of a country impose liabilities under certain circumstances. In other cases a person harmed by the action of another can seek restitution from a court of law. If the court agrees, it can impose obligations on the responsible party to make restitution.

The mechanics of the legal process vary from country to country, as do the concepts of harm and value and the standards and precedents applied. In whatever country a business operates, however, it cannot escape the risk that something will go awry and legal obligations to indemnify others will result. Most jurisdictions recognize the duty of air carriers to provide safe passage for their customers and to come to aid of passengers in distress. Air carriers can also be liable for injury to persons other than passengers, damage to property of others, and environmental impairment. For example, when PanAm Flight 103 crashed over Lockerbie, Scotland, in December 1988, in addition to the 259 passengers 11 people on the ground died and farms and buildings were damaged.

# of Liability

When a business expands

operations beyond the borders of its home country, it enlarges its liability loss exposures. It can become subject to the jurisdiction of another country's legal system, in which different procedures, different standards of care, and different values prevail. In an accidental death case the monetary damages awarded by a U.S. court, reflecting the high costs and high earnings potential in the United States, are likely to be much higher than elsewhere, but other cultures have more rigid expectations regarding the preservation and return of bodily remains. A multinational business must be prepared for the most stringent possibility in both dimensions.

The diversity of legal systems also creates the potential for "forum shopping." If there is a choice of possible jurisdictions, a claimant may bring the case in the forum most likely to give a favorable result, which will be the most unfavorable for the defendant. Even when a court does not accept jurisdiction, the defendant still bears the expense of obtaining local representation and responding to the suit.

The parents of three TWA 800 victims, for example, filed suit in France, since they "legitimately desire that light be shed on the causes of the disaster, and that this be pursued within the framework of a judicial investigation conducted on French soil." They argued that the French justice system had jurisdiction over any crime committed against a French citizen aboard an aircraft, regardless of where the aircraft was registered [Reuters, August 9]. Although the French authorities are not likely to agree, that possibly is one more concern for TWA's lawyers.

Agreements among nations can ease the burden of doing business in different legal jurisdictions. Passengers on a journey involving an ultimate destination or a stop in a country other than the country of origin are subject to the provisions of the Warsaw Convention. This 1929 international treaty, amended several times since, governs international air transportation. The signatory nations have agreed that the treaty provisions supersede their own national law.

Under the Warsaw Convention, the liability of air carriers for death or personal injury to passengers is limited to US \$75,000 per person. The liability is absolute; it does not depend on the carrier's negligence. If the Warsaw convention does not apply, as when the carrier has not complied with the ticketing requirements, liability is unlimited and left to the discretion of the local courts.

In a competitive world, consumers choose the companies they favor with their business. Consumer

## Humanitarian Standards

In cases of human tragedy, an air carrier's responsibilities are broader than explicit legal requirements. In a time of crisis an organization shows its true colors clearly. If it shrinks from moral obligations, its character will be revealed for all to see. Customers will turn away, and employees will lose faith.

The TWA 800 disaster inflicted extreme shock, grief, and stress on the families of the victims. The delays in recovering and identifying the bodies of the passengers intensified these emotions. TWA representatives went to great lengths to assist the families under these circumstances. Many families travelled to the scene expecting to stay only one night and found themselves waiting for two or three weeks to identify the bodies of their relatives. At TWA's expense, 194 families stayed as long as necessary at the Ramada Plaza Hotel near Kennedy Airport. The assistance provided by TWA representatives even included buying new clothes in all the proper sizes for the bereaved relatives to wear during this unanticipated protracted stay.

#### Marketplace Standards

In a competitive world, consumers choose the companies they favor with their business. Consumer

preferences, however, can change quickly, especially when influenced by extreme media attention. Thus effective risk management must also consider the expectations effect on an organization's reputation.

In the aftermath of the ValuJet disaster, one of the casualties was Nations Air, a start-up air carrier serving Philadelphia, Pittsburgh, and Boston. Although it had not had a single accident since it began operations in 1992, its ticket sales declined so rapidly in May 1996 that it was forced to cease operations. Apparently as a result of the ValuJet crash, the public acquired new skepticism concerning the safety of no-frills airlines, and NationsAir suffered by association rather than through any fault of its own.

Civil aviation's improving safety record over the last decade has changed expectations. As airline accidents become less frequent, they become more newsworthy. Both ValuJet 592 and TWA 800 crashed within easy commuting distance for the television news camera crews of major television markets. Pictures of divers plunging into the swamp or the ocean and extracting pieces of aircraft kept television viewers watching day after day.

Changing expectations made TWA's task more difficult. When a United DC-10 crashed near Sioux City, Iowa, in 1989, it took four days to notify families of the victims.

TWA completed its notification the day after the crash, including 60 families in France. At the time of the crash, however, TWA's chief executive officer was eight hours away in London, but the Mayor of New York City was only minutes away and eager to appear on television cameras criticizing TWA for its delay. Later, Congressman Bud Shuster told reporters: "For families to go hours upon hours without any information is just unacceptable" [Reuters, July 24]. Business Week, however, concluded that "the tale of TWA's response to the catastrophe ...shows that the carrier, hindered by considerable bad luck and lean management, actually did fairly well in managing the crisis--despite widespread criticism" [Chandler, p. 30].

The ultimate lesson of TWA 800 is that an enterprise with global aspirations must also assume global responsibilities. Its liability loss exposures can be rationally managed if the process extends through all four layers of potential obligations. The legal minimums of any jurisdiction are only the beginning. In a competitive global environment, the marketplace is a far harsher court. Unless the organization can meet the dictates of that court, it will not survive, regardless of its success in minimizing its explicit legal liabilities.

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