



**Congressional  
Research Service**

Informing the legislative debate since 1914

---

# Aviation War Risk Insurance: Background and Options for Congress

**Bart Elias**

Specialist in Aviation Policy

**Rachel Y. Tang**

Analyst in Transportation and Industry

**Baird Webel**

Specialist in Financial Economics

September 5, 2014

**Congressional Research Service**

7-5700

[www.crs.gov](http://www.crs.gov)

R43715

## Summary

Following the terrorist attacks of September 11, 2001, coverage for such attacks, and for “war risks,” became difficult, if not impossible, for airlines to purchase from private insurers. In response, Congress passed expansions of the Federal Aviation Administration (FAA) Aviation War Risk Insurance Program. The amended statute (49 U.S.C. §44301 *et seq*) requires that the FAA offer war risk insurance to U.S. airlines with the premiums based on the cost of such coverage prior to the 9/11 terrorist attacks. The federal coverage under the program is relatively expansive, with coverage provided after the first dollar of losses and with a broad definition of what constitutes a war risk loss. The expansion of the program was limited in time, but has been extended several times over the years, often as part of appropriations legislation. The last extension was in the Consolidated Appropriations Act, 2014 (P.L. 113-76), which extended the expanded program to September 30, 2014.

Up until 2014, most U.S. airlines purchased the FAA coverage and generally supported the existing program against proposed changes. In 2014, the number of air carriers purchasing insurance and the premium volumes dropped. This movement away from government insurance has occurred against a backdrop of increased private insurance capacity and lower prices. A recent series of large aircraft losses, including the disappearance of Malaysia Airlines flight MH370 in March 2014, the shooting down of Malaysia Airlines flight MH17 over eastern Ukraine in July 2014, and attacks on aircraft on the ground in Pakistan and Libya, however, may lead to higher rates. It is unclear how much rates may increase and whether higher premiums might lead the airlines to again seek coverage from FAA, if such coverage remains available after FY2014.

Three claims have been filed by airlines under the current Aviation War Risk Insurance Program and claims payouts have been minimal. The premiums paid for the insurance are deposited in a dedicated fund at the Treasury with the balance, currently over \$2 billion, invested in U.S. Treasury securities. While this may seem a large sum, according to FAA, the statutory cap on premiums has resulted in past premium amounts insufficient to cover the full risks assumed by the government. For example, the 9/11 attacks are estimated to have caused approximately \$5.6 billion in aviation hull and liability losses, adjusted for inflation. A much smaller event could cause losses large enough to deplete the fund and require general fund revenue to cover claims.

Several presidential budgets in recent years have called for changes to the program to reduce government exposure. On March 31, 2014, the Secretary of Transportation submitted a draft legislative proposal to Congress which would make the program permanent but at the same time reduce its scope. Specifically, the administration proposal would create permanent coverage for war risk losses from nuclear, chemical, biological, and radiological events, while giving the Secretary the authority to offer full war risk coverage for 90 days after a widespread disruption in the insurance market, such as that following the 9/11 attacks. The administration draft proposal has not been incorporated into legislation introduced in the 113<sup>th</sup> Congress.

## Contents

The Aviation War Risk Insurance Market.....	1
Federal Coverage of Aviation War Risks.....	3
Insurance Coverage of Terrorist Acts.....	3
Pre-9/11 Coverage under FAA’s Insurance Program.....	5
Post 9/11 Legislative Action.....	6
FAA’s Premium Aviation War Risk Insurance Program.....	7
Program Overview.....	7
Extent of Coverage.....	7
Claims History.....	8
Proposals for Change.....	9
Policy Options for Budgetary Savings.....	10
Increase Premiums.....	10
Increase Investment Returns on Aviation Insurance Revolving Fund.....	10
Increase Aviation War Risk Assumed by the Airlines.....	11
Share Aviation War Risk with Private Insurers.....	11
Assessing Conflict Zone Risks to Civilian Aircraft.....	12

## Appendixes

Appendix A. Key Provisions of EU Regulation 785/2004 (as amended by Regulation 285/2010).....	14
Appendix B. The Aviation War Risk Insurance Program and the Terrorism Risk Insurance Program.....	15

## Contacts

Author Contact Information.....	16
---------------------------------	----

## The Aviation War Risk Insurance Market

Aviation war risk insurance provides coverage for hostile acts of violence against airlines, such as terrorism, hijackings, and sabotage. Airlines generally cannot operate without war risk insurance, as aircraft loan and lease agreements typically require airlines to obtain and maintain such insurance. Additionally, some foreign countries require that airlines have war risk insurance as a condition to operate in their airspace or at their airports. Aside from some degree of self-insurance, airlines generally rely on the private insurance markets to provide catastrophic coverage (see **Text Box**).

Following the 9/11 terrorist attacks, airlines were affected by a worldwide cancellation of third-party liability war risk coverage in the commercial market and significant increases in the costs of other war risk insurance. The U.S. government stepped in and expanded the federal Aviation War Risk Insurance Program to guarantee that U.S. air carriers could receive insurance coverage that was not being supplied by the commercial insurance market. The commercial insurance market has since stabilized, and a number of air carriers are again purchasing war risk coverage from private insurers.

### Aviation Insurance Glossary

Aviation all-risk insurance, which excludes war risks, provides coverage to: (1) hull: physical damage to the aircraft; (2) liability: passenger injury and death; (3) third-party liability: bodily injury and death and property damage external to the aircraft.

- War risk insurance provides coverage to: (1) hull, which is insured in a separate war risk insurance market; and (2) passenger and third party, which is usually added to the aforementioned principal liability policies by an extension clause. War risk insurance policies have traditionally contained a seven-day notice clause which allows insurers to review and reassess the risk and, if necessary, amend or cancel coverage in the event of a radical and adverse change in conditions or circumstances.
- Aviation insurers provide insurance coverage for customers such as airlines, aircraft manufacturers, and service providers against loss, damage, and liability, in return for premiums. These primary insurers sell and service the insurance policies. To offset their risks, they typically pay premiums to reinsurers, companies which act as insurers of insurance companies.
- See OECD, “A Guide to Aviation Insurance,” (available at <http://www.oecd.org/daf/fin/insurance/4.DavidGasson-background.pdf>) for more information about aviation insurance.

According to a 2012 European Union study,<sup>1</sup> private coverage is readily available for loss or damage to passengers and aircraft hulls in the event of a terrorist attack, but insurers have limited the level of coverage available for third-party damage caused by war or terrorism. Liability and hull risk are typically covered in a single policy with the same insurers covering both.<sup>2</sup>

<sup>1</sup> European Commission, *Mid-term evaluation of Regulation 785/2004 on insurance requirements of air carriers and aircraft operators*, July 2012, [http://ec.europa.eu/transport/modes/air/studies/doc/internal\\_market/2012-07-insurance-requirements.pdf](http://ec.europa.eu/transport/modes/air/studies/doc/internal_market/2012-07-insurance-requirements.pdf).

<sup>2</sup> Aviation insurance contracts generally exclude so-called war risks under the standard War, Hijacking and Other Perils Exclusion Clause (AVN48B). The AVN48B clause is broad, excluding coverage for damage caused by a wide range of military and terrorist actions, hijacking, strikes, riots, labor disturbances, and any “malicious act or act of sabotage” or hostile use of atomic or radioactive device. However, payment of an additional premium will allow most excluded risks to be covered under separate extension clauses (AVN52). Per AVN38B, the only universal exclusion for which no coverage is available is nuclear risks, when purchasing third-party war and allied perils liability coverage. Air carriers currently operate without insurance coverage for these risks. Moreover, coverage under AVN52 is automatically terminated if war breaks out between any of the five major powers, whether or not there is a declaration of war.

The study found airline insurance to be a relatively small percentage of the total operating costs of airlines, citing an industry estimate that all airlines combined paid approximately \$2.3 billion for basic airline insurance in 2011. This translates into about \$60 per flight or \$0.80 cents per passenger.<sup>3</sup> The price of insurance varies significantly from airline to airline, depending on the location of the airline, its size, fleet age and maintenance, safety record, the geographical spread of its network, and the level of deductible. The study concluded that while the capacity of the private market for aviation risk insurance seemed adequate, this could change in the case of a major terrorist incident.

According to the Federal Aviation Administration (FAA), commercial insurers currently provide the vast majority of the world's airlines with war risk coverage and are willing to provide coverage to U.S. air carriers as well.<sup>4</sup> The market for aviation coverage outside of war risk has been relatively soft over the past few years, with insurance brokers reporting ample availability and lower prices than in earlier years.<sup>5</sup>

A series of airliner losses in 2014, however, may lead to increases in aviation insurance premiums. These losses include the disappearance of Malaysia Airlines flight 370 with 239 people on board over the Indian Ocean in March, followed by the shooting down of Malaysia Airlines flight 17 over eastern Ukraine in July, which killed 298 people on board. Further unsettling the aviation risk environment is damage to aircraft in recent attacks on airports, including Taliban attacks on Karachi airport in Pakistan in June 2014 and fighting at Tripoli airport in Libya. Some aviation insurers have reportedly estimated that the industry could see insurance premiums rise as much as 50% and that premiums for war risk insurance could treble, the biggest jump since 9/11.<sup>6</sup> However, some insurance company officials have said that it is "premature and speculative to talk about the level of price rises," since there has not been renewal for major carriers in the war risk insurance market.<sup>7</sup> The insurance losses in 2014 may also lead to higher premiums for "all-risk" policies. It remains unclear how the commercial market is going to react and whether private coverage might become prohibitively expensive or even unavailable.

The unavailability of private coverage, should it occur, would be especially consequential for U.S. air carriers flying to destinations within the European Union. Since April 30, 2005, EU Regulation 785/2004 (as amended by Regulation 285/2010), has required that all air carriers and aircraft operators<sup>8</sup> flying within, into, out of, or over EU territory be insured with regard to their aviation-specific liabilities including war- and terrorism-related risks. For overflights (without a

---

<sup>3</sup> European Commission, *Mid-term evaluation of Regulation 785/2004 on insurance requirements of air carriers and aircraft operators*, p.36.

<sup>4</sup> Summary of War Risk Insurance Program provided to CRS by FAA, August 2014.

<sup>5</sup> See, for example, Aon Risk Solutions, *Airline Insurance: Market Outlook 2013*, available at [images.comms.aon.com/Web/AON/%7B768aed6e-fb9f-4a8b-97e3-241d8c09c63f%7D\\_UK\\_ARS\\_Aviation\\_2013\\_Outlook\\_Final.pdf](http://images.comms.aon.com/Web/AON/%7B768aed6e-fb9f-4a8b-97e3-241d8c09c63f%7D_UK_ARS_Aviation_2013_Outlook_Final.pdf); Property Casualty 360, "A tough year for aviation, but it's hard to say what the impact on rates will be," August 4, 2014, at <http://www.propertycasualty360.com/2014/08/04/a-tough-year-for-aviation-but-its-hard-to-say-what>.

<sup>6</sup> *Financial Times*, "Airline insurers face biggest bill since 9/11," July 27, 2014; Aviation International News (AIN online), "Airline War Risk Insurance Premiums to Sky Rocket," August 11, 2014; *Financial Times*, "Brit targets aviation insurance," August 13, 2014.

<sup>7</sup> Property Casualty 360, "A tough year for aviation, but it's hard to say what the impact on rates will be," August 4, 2014, at <http://www.propertycasualty360.com/2014/08/04/a-tough-year-for-aviation-but-its-hard-to-say-what>.

<sup>8</sup> With the exception of government-owned or -operated aircraft, model aircraft with a maximum take-off mass (MTOM) of less than 20 kilograms, foot-launched flying machines, captive balloons, kites, and parachutes (Article 2).

take-off or landing in the EU) by non-EU air carriers or operators using aircraft registered outside the EU, the minimum insurance requirements for passengers, baggage and cargo do not apply. But the overflights must comply with the requirements for insurance against third-party liability.

Although the governments of many non-EU countries, such as the United States, may not require air carriers to have war risk insurance, EU Regulation 785/2004, in effect, has made such insurance mandatory for non-EU carriers operating to and from the EU. Key provisions of the current regulation are listed in **Appendix A**.

## **Federal Coverage of Aviation War Risks**

The federal government made war risk insurance available to the merchant fleet in World War I and World War II. No aviation war risk insurance was provided during these wars because overseas commercial air operations were limited in number and were taken over by the U.S. government. Prior to 1951, aviation war risk insurance was commercially available but subject to 48-hour cancellation clauses, which proved particularly worrisome for operators participating in the Korean War airlift.<sup>9</sup>

A 1951 law to amend the Civil Aeronautics Act of 1938 (P. L. 82-47) included a title giving the Secretary of Commerce authority to provide war risk insurance when doing so was determined necessary in the interest of air commerce. Coverage could be extended to both U.S.- and foreign-flag aircraft deemed to be operating in the interest of the national defense or the national economy of the United States. Coverage could include aircraft, cargo, personal effects and baggage of crew and other employees carried aboard the aircraft, and statutory or contractual obligations or other liabilities.

Premium insurance and reinsurance rates could be set by the Secretary of Commerce within loosely defined bounds based on analysis of available coverage and rates in the private insurance and reinsurance markets. Under the act, a revolving fund was established within the Treasury, funded through premiums, salvage, and other recoveries from loss. Any returned premiums, losses, settlements, judgments, or other liabilities covered under the insurance program would be disbursed by the Treasury from these funds. The federally provided war risk insurance could be underwritten by any company authorized to offer aviation insurance in any state. Disagreements regarding claims against the aviation war risk insurance fund could be adjudicated in federal district court.

The program was continued under the Federal Aviation Act of 1958 (P. L. 85-726) and retained within the Department of Commerce. In 1966, under the newly created Department of Transportation, responsibility for the program was delegated to FAA.

## **Insurance Coverage of Terrorist Acts**

Many terrorism experts point to the July 23, 1968, hijacking of an El Al Boeing 707 in Rome, Italy, by members of the Popular Front for the Liberation of Palestine (PFLP) as the beginning of

---

<sup>9</sup> See S. Rept. 82-128.

an era of international terrorism.<sup>10</sup> The following year, in August 1969, a Trans World Airlines flight from Rome to Athens, Greece, was hijacked, also by PFLP members, and diverted to Damascus, Syria, where the hijackers blew up the nose section of the aircraft and held two Israeli passengers hostage for more than 40 days. Emboldened by these acts, PFLP hijackers attempted to commandeer four airliners on September 6, 1970, successfully hijacking three. The attempted hijacking of the fourth, an El Al Boeing 707, was thwarted by an armed Israeli guard on board. The events came to be collectively known as the Dawson's Field hijackings because two of the three successfully hijacked aircraft were taken to Dawson's Field, a remote landing strip in Jordan, where they were burned and destroyed after the passengers had been taken to another location.

The fate of the third aircraft hijacked on September 6, 1970, a Pan Am 747, is of particular relevance in discussing policies and legal considerations of insurance coverage for terrorist acts. When the flight crew informed hijackers of their concerns over landing the large jet at Dawson's Field, the hijackers instead ordered the airplane to fly to Beirut, Lebanon, and then to Cairo, Egypt. After landing in Cairo, one of the hijackers detonated an explosive that ignited a fire. Although all on board managed to escape, the jet was completely destroyed.<sup>11</sup> The aircraft was being operated under a lease agreement and insured under an "all risk" policy as well as war risk policies that were split between FAA and commercial insurers, with FAA reportedly assuming about 40% of the war risk.<sup>12</sup> The event rattled the commercial insurance industry, which already had reservations about insuring the recently introduced Boeing 747s, which were larger, more costly, and carried significantly more passengers than other airliners.

Growing concerns over terrorist hijackings prompted federal action to maintain war risk insurance coverage along routes in the Middle East.<sup>13</sup> Following the Dawson Field hijackings, FAA expanded federal aviation war risk insurance coverage after determining that it was no longer available at reasonable rates from commercial insurers. The government reportedly set the rate at 20 cents per \$100 of insurance, twice the price charged for commercial insurance prior to the hijackings, but significantly less than what the private market likely would have charged following the hijackings. The new insurance was offered on a limited basis under the existing Aviation War Risk Insurance Program as an emergency response to the ongoing Middle East crisis.<sup>14</sup>

The need for a long-term federal role in providing insurance to cover hijacking and terrorist risks was mitigated by a landmark 1973 federal district court decision. The court ruled that the claim for the Pan Am 747 destroyed by the hijackers in Cairo, Egypt was covered under the airline's standard "all risk" policy, not under its war risk policies. The court defined "act of war" as an operation intended to gain a military advantage.<sup>15</sup> The decision was upheld by the U.S. Court of

---

<sup>10</sup> See, e.g., Bruce Hoffman, "Holy Terror: The Implications of Terrorism Motivated by A Religious Imperative," Rand Corporation, 1993.

<sup>11</sup> Bartholomew Elias, *Airport and Aviation Security, U.S. Policy and Strategy in the Age of Global Terrorism* (Boca Raton, FL: CRC Press, 2010).

<sup>12</sup> Robert J. Cole, "Pan Am Hopes Federal Insurance Will Pay \$9.6-Million in Destruction of Its 747," *New York Times*, September 9, 1970.

<sup>13</sup> *Ibid.*

<sup>14</sup> "Washington Plans to Offer U.S. Airlines Hijack Insurance to Offset Soaring Rates," *Wall Street Journal*, September 22, 1970; Albert Sehlstedt, "U.S. Will Offer, Subsidize Anti-Hijacking Insurance," *Baltimore Sun*, September 22, 1970.

<sup>15</sup> *Pan American World Airways, Inc. v. The Aetna Casualty & Surety Co., et al.*, 368 F. Supp. 1098 (S.D. NY, 1973).



Appeals, which narrowed the district court's definition of war to specify that combatants must have significant attributes of sovereignty. The appellate court conceded that while certain large terrorist organizations might attain some degree of sovereignty and political power, this was not characteristic of the small group that had perpetrated the hijackings in the Middle East.<sup>16</sup> The court ruling meant that insurers offering "all risk" policies were liable for the claim on the destroyed aircraft.<sup>17</sup>

## Pre-9/11 Coverage under FAA's Insurance Program

Prior to the 9/11 attacks, federally provided aviation war risk insurance was primarily issued without premium under indemnification agreements with the Department of Defense (DOD).<sup>18</sup> Under these indemnification agreements, DOD would reimburse FAA for losses incurred and paid out by the insurance fund. According to the General Accounting Office (now the Government Accountability Office), in the 1990s (i.e., prior to the 9/11 attacks), over 99% of all war risk insurance issued by FAA was issued without premiums to cover DOD charter flights to move troops, cargo, and relief supplies overseas.<sup>19</sup> Premium war risk insurance was a small component of the program, made available only when the President determined that travel to specific foreign locations was necessary to carry out U.S. foreign policy interests. In such situations, FAA may issue war risk policies to carriers for specific routes or destinations in specified conflict areas. Such determinations had last been made during the first Gulf War in 1990 and 1991.

In January 1991, days prior to the start of Operation Desert Storm, air carriers began cancelling flights to destinations throughout the Middle East in response to soaring commercial war risk insurance rates. Insurance premiums for flights to and from Israel, which was targeted by Iraqi missiles in retaliation for airstrikes by the U.S.-led coalition, increased twentyfold from \$6,000 to \$125,000 per flight.<sup>20</sup> Trans World Airlines and Pan Am suspended flights indefinitely to Israel and other destinations in the Middle East, as well as to other perceived high-risk locations where retaliatory terrorist attacks were feared, including Athens, Greece; Istanbul, Turkey; and Karachi, Pakistan. According to media reports, the only U.S. air carrier to continue operating flights from Israel was Tower Air, which operated two departures from Israel per week under a government-issued premium war risk policy.<sup>21</sup> After Iraqi Scud missiles were fired into Israel, FAA reportedly would not insure Tower Air's flights from New York to Tel Aviv but did continue to insure outbound passenger flights from Tel Aviv to New York, using aircraft that first transported U.S. military personnel and supplies to Saudi Arabia before landing in Israel to pick up passengers for the return flight to New York.<sup>22</sup>

---

<sup>16</sup> *Pan American World Airways, Inc. v. The Aetna Casualty & Surety Co., et al., and Philip Gaybell Wright, et al.*, 505 F.2d 989 (2<sup>nd</sup> Cir., 1974).

<sup>17</sup> Daniel James Everett, "The 'War' on Terrorism: Do War Exclusions Prevent Insurance Coverage for Losses Due to Acts of Terrorism?" *Alabama Law Review*, vol. 54 (Fall 2002), p. 175.

<sup>18</sup> An indemnity agreement is contract language that indemnifies (or holds harmless) one of the parties under the contract for actions that might cause damage to the other party. *Bustaxlaw.com/legal-dictionary.thefreedictionary.com*.

<sup>19</sup> U.S. General Accounting Office, *Aviation Insurance: Federal Insurance Program Needs Improvements to Ensure Success*, GAO/RCED-94-151, July 1994.

<sup>20</sup> Denise Gellene, "Flights Grounded as Mideast Tensions Mount," *Los Angeles Times*, January 15, 1991.

<sup>21</sup> *Ibid.*

<sup>22</sup> Jonathan Schachter, "U.S. Stops Tower Flights to Tel Aviv," *Jerusalem Post*, February 3, 1991.



## Post 9/11 Legislative Action

In response to the 9/11 attacks, commercial insurers cancelled third-party liability war risk coverage for airlines and significantly increased the premiums for other war risk insurance. Congress responded by passing the Air Transportation Safety and System Stabilization Act of 2001 (P.L. 107-42). Title II of the act amended the Aviation War Risk Insurance Program by expanding coverage to include acts of terrorism. The Homeland Security Act of 2002 (P.L. 107-296) extended the program through December 31, 2003. Subsequently, it has been extended several times, most recently in the Consolidated Appropriations Act, 2014 (P.L. 113-76). The current program authority under that act expires September 30, 2014.<sup>23</sup>

P.L. 107-296 expanded the scope of policies issued under the federal program to include “... coverage for losses or injuries to aircraft hulls, passengers, and crew at the limits carried by air carriers for such losses and injuries as of such date of enactment and at an additional premium comparable to the premium charged for third-party casualty coverage under such policy.” In applying this, FAA indicated that limits for comprehensive coverage (i.e., hull, passengers, and crew) were set at limits carried by the insured airlines in their existing commercial insurance policies, while third-party liability limits were set at limits specified in their FAA third-party-only war risk policies on June 19, 2002. Rates were set to match commercial rates in force on the date of enactment on November 25, 2002. P.L. 107-296 further stipulated that “... in no event shall the total premium paid by the air carrier for the policy, as amended, be more than twice the premium that the air carrier was paying to the Department of Transportation for its third party policy as of June 19, 2002,”<sup>24</sup> thereby capping rates. Moreover, it specified that coverage would begin with the first dollar of any covered loss incurred.<sup>25</sup>

The expansion of the Aviation War Risk Insurance Program was not the only government response to the 9/11 attacks relating to the insurance market. Coverage for terrorism damage generally, not just for airlines, became expensive or unavailable following the attacks. Thus, Congress passed the Terrorism Risk Insurance Act of 2002 (TRIA, P.L. 107-297), which created a broader reinsurance program for terrorism losses for most lines of commercial property/casualty insurance. Should airlines leave the FAA program and purchase commercial insurance, terrorism losses on these policies may still fall under TRIA. TRIA has also been extended since the initial act and is set to expire at the end of December 2014. Differences between the Aviation War Risk Insurance Program and the TRIA program are discussed in **Appendix B**.<sup>26</sup>

---

<sup>23</sup> P.L. 113-76, §119E(b).

<sup>24</sup> 49 U.S.C. 44302(f)(2)(A).

<sup>25</sup> 49 U.S.C. 44302(f)(2)(B).

<sup>26</sup> For greater detail on TRIA and current legislation, see CRS Report R43619, *Terrorism Risk Insurance Legislation: Issue Summary and Side-by-Side Analysis*, by Baird Webel, and CRS Report R42716, *Terrorism Risk Insurance: Issue Analysis and Overview of Current Program*, by Baird Webel.

# FAA's Premium Aviation War Risk Insurance Program

## Program Overview<sup>27</sup>

As of January 2014, the FAA's Aviation War Risk Insurance Program provided coverage to 44 U.S. air carriers that represented 99% of the total revenue-passenger-miles (RPMs) flown by all U.S. carriers in FY2013. Insurance coverage ranges from \$100 million to \$4 billion per carrier, with the average coverage falling between \$1.5 billion and \$1.6 billion. Total maximum per occurrence coverage for all insured air carriers in force in January 2014 was \$68 billion. The premiums paid, including \$163 million in FY2013, are collected in the Aviation Insurance Revolving Fund. FAA reports the fund had a balance of approximately \$2.2 billion as of July 31, 2014.

Between April 2014 and August 2014, however, 17 U.S. air carriers cancelled their FAA war risk insurance policies in favor of commercial coverage.<sup>28</sup> As a result, the FAA currently insures 27 air carriers estimated to cover approximately 4% of total RPMs flown by U.S. airlines. Coverage for the remaining 27 carriers ranges from \$100 million to \$3 billion per air carrier occurrence, with average coverage of \$1.1 billion per occurrence. The total maximum per occurrence exposure of all premium insurance currently in force is \$31 billion, a 55% reduction from January 2014.

Declining demand for insurance under the Aviation War Risk Insurance Program has led FAA to reduce its estimate of premiums paid in FY2014. The agency initially estimated that it would collect \$167 million during the year. By August 2014, it reduced that estimate to \$125 million. Premium collections during FY2015 are estimated by FAA to be \$18 million, assuming Congress extends the existing program through FY2015 and no other air carriers cancel their policies.

## Extent of Coverage

By statute, the coverage offered under the program begins with the first dollar of loss and reimburses 100% of losses. There are no deductibles or coinsurance. Coverage includes hull insurance, comprehensive liability insurance, and third-party war risk liability. The term "war risk occurrence," as defined in the FAA's current policy document, includes a number of risks other than war or terrorist attack, specifically:<sup>29</sup>

1. War (whether declared or not, including war between Great Powers), invasion, acts of foreign enemies, warlike hostilities, civil war, rebellion, revolution, insurrection, martial law, exercise of military or usurped power, or any attempt at usurpation of power.
2. Any hostile detonation of any weapon of war, including any employing atomic or nuclear fission and/or fusion or other like reaction of radioactive force or matter.

<sup>27</sup> Summary of War Risk Insurance Program provided to CRS by the FAA, August 2014.

<sup>28</sup> Per FAA, one of the 17 air carriers went out of business and therefore no longer needs war risk coverage.

<sup>29</sup> See [http://www.faa.gov/about/office\\_org/headquarters\\_offices/apl/aviation\\_insurance/ext\\_coverage/media/October2012\\_to\\_Sep302013.pdf](http://www.faa.gov/about/office_org/headquarters_offices/apl/aviation_insurance/ext_coverage/media/October2012_to_Sep302013.pdf), p. 4.

3. Strikes, riots, civil commotions, or labor disturbances.
4. Any act of one or more persons, whether or not agents of a sovereign power, for political or terrorist purposes and whether the loss or damage resulting therefrom is accidental or intentional, except for ransom or extortion demands. Payments in response to ransom or extortion demands are hereby specifically denied under this policy.
5. Any malicious act or act of sabotage, vandalism or other act intended to cause loss or damage.
6. Confiscation, nationalization, seizure, restraint, detention, appropriation, requisition for title or use by or under the order of any foreign government (whether civil or military or de facto) or foreign public or local authority. This policy will not cover any lawful government seizures of aircraft or spare parts that are the result of outstanding legal debts, taxes, fines, or unlawful acts committed with the knowledge of airline officials or the unlawful operation of such aircraft by the named insured.
7. Hijacking or any unlawful seizure or wrongful exercise of control of the aircraft or crew (including any attempt at such seizure or control) made by any person or persons onboard the aircraft or otherwise, acting without the consent of the Insured.
8. The discharge or detonation of any weapon or explosive device while on an aircraft covered by this Policy of Insurance.

FAA is charged in 49 U.S.C. §44306 with basing the premiums charged on the risk assumed by the program “to the extent practical.” However, the statute also limits the premiums to no more “than twice the premium that the air carrier was paying to the Department of Transportation for its third party policy as of June 19, 2002.” According to FAA, most of the premiums paid for the program’s coverage have been affected by the cap.

The administration of the program requires a relatively small number of people. The FAA FY2014 budget justification associates four civilian full-time equivalent positions with the aviation war risk revolving fund.

## **Claims History**

There were no claims paid under the FAA Premium War Risk Insurance Program from 1958 through the 9/11 attacks in 2001. Since the 9/11 attacks, FAA reports, the fund has paid total compensation of over \$10 million for losses related to claims from three specific incidents. These incidents were determined by the Secretary of Transportation to be “war risk occurrences”:

On December 25, 2009, there was an attempted bombing of Northwest Airlines Flight 253. Claims were filed with FAA in FY2010. Claims paid to date total \$205,600.

In July 2012, an unattended SkyWest aircraft was seized late at night by an airline employee who was a fugitive wanted in connection with a homicide in Colorado. He taxied the aircraft through airport fencing, hitting the terminal building and damaging parked cars, before taking his own

life. The incident resulted in a total loss of the aircraft and damage to airport facilities and personal vehicles. Claims paid to date total \$9.6 million.<sup>30</sup>

In April 2014, FAA paid claims in the amount of \$256,890 for repair of damage to the center wing box and #1 engine of an insured Boeing 767-223 aircraft, owned and operated by Air Transportation International, LLC. The aircraft damage was purportedly caused by gunfire from hostile forces while flying over Afghanistan in 2012.

## Proposals for Change

On March 31, 2014, the Secretary of Transportation submitted to Congress a legislative proposal to reform the Aviation War Risk Insurance Program, permanently authorizing it with a reduced overall scope.<sup>31</sup> Specifically, if the proposal were enacted, FAA would:

- continue to provide war risk coverage for airline losses involving the use of nuclear, biological, chemical, and/or radioactive (NBCR) weapons, as such coverage is not available in the commercial market;
- provide full aviation war risk coverage, at the discretion of the Secretary of Transportation, for 90 days in the event of a widespread cancellation of coverage by the private insurance market, similar to the market disruption experience following the 9/11 attacks; and
- continue to provide non-premium war risk insurance for carriers operating under Department of Defense contracts in support of national defense.

The current proposal is not the first proposed change to the Aviation War Risk Insurance Program in recent years. The President's FY2014 budget proposed changes to underlying statutory authority allowing for cooperation and collaboration with commercial insurers to establish a shared-risk model for aviation war risk coverage. According to FAA, the proposal would have envisioned that commercial insurers take on an additional 20% of the war risk insurance market annually, starting in FY2015 and continuing through FY2018. Thus, by FY2018, FAA's share of total war risk would have been reduced to 20% and the commercial insurance market would have taken on 80% of the risk. The FY2013 and FY2012 budgets both included a different proposal for changes in the program. These budgets would have implemented a \$150 million deductible for hull and liability exposures under the program.

The airline industry has generally not been supportive of changes to the program, arguing in the past that war risk insurance would be prohibitively costly if offered by commercial insurers. In responding to the FY2014 budget, Airlines for America (A4A) President and CEO Nicholas E. Calio stated, "Ending the War Risk Insurance program undermines the economic viability of the U.S. airline industry, ... [the] proposed changes are unwarranted and could cost airlines hundreds

---

<sup>30</sup> According to FAA, one claim from an automobile insurance company was denied and the original claim amount sought from SkyWest Airlines was reduced upon review. Initially, FAA believed this incident was not a covered event, as it did not appear to be a "war risk occurrence." However, after extensive legal review by FAA, Department of Transportation, and Department of Justice attorneys, it was determined that damage caused by the "unauthorized control of an aircraft" is a peril covered under the FAA war risk insurance policy.

<sup>31</sup> Cover letters and proposed legislative text can be found at [http://testimony.ost.dot.gov/final/2014\\_Aviation\\_War\\_Risk.pdf](http://testimony.ost.dot.gov/final/2014_Aviation_War_Risk.pdf).

of millions of dollars, result in inadequate insurance protection and prompt further service reductions” A4A instead recommended maintaining the status quo and extending the program for three years.<sup>32</sup> A4A has not issued a specific public statement regarding the March 2014 proposal by the Secretary of Transportation.

## Policy Options for Budgetary Savings

The cover letters from the Secretary of Transportation to the Speaker of the House and the President of the Senate introducing the March 2014 proposal argued specifically that the extension of the current program is not “prudent in these austere fiscal times” and cited a budget cost of more than \$1 billion over 10 years. The current Administration proposal, however, may not be the only way to reduce budgetary costs.

In general, two broad approaches present themselves in seeking budgetary savings from government insurance programs: increase the funds coming in or reduce the funds going out. The former would typically be done by either raising the premiums paid for insurance or seeking a higher rate of return on the funds held by the insurer for future payments. The latter would typically be accomplished by reducing the amount of risk that is being assumed, thus reducing the eventual payouts from the insurance. These approaches are generally not mutually exclusive.

### Increase Premiums

Premiums collected by FAA totaled \$165 million in FY2013. As discussed above, the maximum amount of premiums is largely set by statute. Raising the statutory cap would potentially increase the premiums coming into the program and may eliminate implicit subsidies caused by statutory rates being below actuarial rates. The amount of the increase would depend, in part, on the current gap between the premiums being paid and the actuarial premium that would be dictated by the risk being transferred. In addition, if premiums were to increase, some airlines, particularly those with low risk profiles, might seek insurance in the private market or choose to operate with less coverage.

### Increase Investment Returns on Aviation Insurance Revolving Fund

Premiums received by insurers are typically invested from the time they are received until the time that claims are paid. The Aviation Insurance Revolving Fund, currently over \$2 billion, is invested in U.S. Treasury securities, as is the case with most other U.S. government funds. Currently, returns on Treasury securities are near historical lows. The FY2015 Budget shows that the Aviation Insurance Revolving Fund received \$26 million in interest on its \$2 billion holding of federal securities in FY2013. Private insurers invest in a wide range of instruments, many of which have historically returned significantly more than U.S. Treasury securities. The total net investment income and realized gains for private property/casualty insurers was approximately \$67.6 billion on \$1.48 trillion in cash and investments in 2013.<sup>33</sup> If the Aviation Insurance

<sup>32</sup> Airlines for America, *A4A Opposes Unprecedented Tax Hike on Airline Passengers in White House Budget Proposal*, April 11, 2013, Washington, DC, available at <http://www.airlines.org/Pages/A4A-Opposes-Unprecedented-Tax-Hike-on-Airline-Passengers-in-White-House-Budget-Proposal.aspx>.

<sup>33</sup> SNL Financial, “P&C Financial Highlights,” available at <http://www.snl.com/interactivex/BriefingBook/Stat/StatPage.aspx?KeyReport=-513&KeyStatEntity=E61858CD-F1F9-42BD-8848-8CB6B42ED2FE>.

Revolving Fund had been invested with a similar return, it would have earned approximately \$91 million as opposed to \$26 million in FY2013. Private insurers' investments, however, are generally considered riskier than Treasury securities.

### **Increase Aviation War Risk Assumed by the Airlines**

Private insurance policies typically do not cover the full amount of any possible loss, but instead leave the insured bearing some amount of the risk. Mechanisms to do this include deductibles, co-insurance, maximum coverage limits, and exclusions on the type of damage covered. Risk-sharing discourages changes in behavior by those being insured that may increase the likelihood of a loss occurring. This phenomenon is generally known as "moral hazard."

Since 2002, the government has offered coverage with no deductibles and no co-insurance. Thus, any losses would be covered in full up to the maximum coverage limits, which differ among airlines depending on the amount of coverage each had in place in 2002. As detailed above, the Aviation War Risk Insurance Program also offers coverage for losses that may not be considered typical of a "war risk," including "vandalism or other act intended to cause loss or damage" and "labor disturbances." The amount of budgetary savings achievable by placing more risk on airlines would depend on the changes implemented. Experience in other insurance contexts suggests that the savings could be significant.

### **Share Aviation War Risk with Private Insurers**

Private insurers often agree to share risks among two or more insurers, particularly in the case of very large risks. Contractual arrangements vary depending on the types of risks involved. Reinsurance is often used to spread risk among insurers, or, particularly with large risks involving single entities, multiple insurers may be involved with each covering a portion of possible loss. Insurance or reinsurance contracts in such situations can be tailored to achieve the form of risk sharing desired by the companies involved. Loss sharing typically occurs as a certain percentage of the loss, or will occur at a certain level of loss, or some mixture of the two.

The sharing of the financial risk due to future loss is not the only reason that private insurers enter into reinsurance or other loss-sharing arrangements. Each of the parties involved could have greater expertise or capacity in a particular facet of insurance operations, so sharing the risk could allow them to draw on their particular strengths more effectively. For example, one insurer may have expertise in judging risks and underwriting policies in a particular line of insurance, but not have sufficient financial capital to back a large number of insurance policies; another insurer may have high capital levels, but may not have the same particular expertise. A well-constructed loss-sharing arrangement could allow both insurers to benefit.

The Terrorism Risk Insurance Act, for example, created a program structure mixing loss sharing based on both the level of loss and a percentage of the loss. The current loss sharing under TRIA begins when losses reach 20% of an insurer's premiums and, once this level is met, the government covers 85%. The minimum losses required to be sustained before government coverage applies have increased over the life of the TRIA program, thus decreasing the government's share of future losses. The intent at the beginning of TRIA was that the program would expire, taking the government share of losses to zero relatively quickly. The program has since been reauthorized with a much more gradual decrease in the government share of losses.



## Assessing Conflict Zone Risks to Civilian Aircraft

Improved international guidance for making informed risk decisions regarding flights in conflict zones could have important implications for stabilizing private market war risk insurance premiums and coverage terms.

Following the downing of Malaysia Airlines flight 17 over Ukraine on July 17, 2014, there has been increased interest in how to disseminate threat information and make informed, risk-based decisions regarding civilian flight operations in and near conflict zones and other high-risk regions. Amid these discussions, insurance underwriters are reviewing whether to provide continued coverage for aircraft operated in certain conflict zones. It has been reported that insurance providers are requiring more details regarding flight routes and are considering withdrawing coverage for flights in certain areas in the Middle East and Africa.<sup>34</sup> Insurers have reportedly raised concerns that airlines are inconsistent in assessing risk, pointing to the fact that many airlines overfly Iraqi airspace until formal restrictions were imposed by FAA in August 2014.<sup>35</sup> Airlines routinely fly over conflict zones to minimize fuel costs and time unless expressly restricted, a practice that has been questioned in the aftermath of the Malaysia Airlines crash.<sup>36</sup>

In August 2014, the International Civil Aviation Organization (ICAO), the United Nations specialized agency for civil aviation, convened a multinational task force to examine how governments and international agencies can collaborate to assess conflict zone risks to civilian aircraft in a more unified fashion.

Under current ICAO guidelines, the country responsible for providing air traffic services over a region including a conflict zone is to identify the geographic area of conflict, assess potential hazards to civil aircraft, and establish policies and procedures to avoid conflict zones or mitigate risks.<sup>37</sup> In practice, countries do not always disseminate information about conflict risks to civil aviation or take adequate precautions to mitigate risks to civil aircraft. It may not always be in these countries' interest to do so, as restricting or curtailing flights could have significant impacts on travel and tourism. Aviation authorities, such as FAA, may issue warnings or restrict overseas flight operations for operators they oversee, and some airlines may carry out their own risk assessments of flight routes, but such practices lead to disparate views regarding risk and appropriate precautions among regulators, airlines, and insurers.

In July 2014, FAA issued restrictions on flights to and from Israel that lasted for about a day and a half during the armed conflict in Israel and Gaza after a rocket exploded about a mile from Ben Gurion Airport.<sup>38</sup> The restriction, along with decisions by several foreign airlines to also suspend service to Israel, prompted Israeli authorities to ask international air carriers to resume flights,

<sup>34</sup> Alistair Gray, "Airline Insurers Face Biggest Bill since 9/11," *Financial Times*, July 7, 2014.

<sup>35</sup> Alistair Gray and Andrew Parker, "Underwriter Reviews War Zone Cover for Aircraft," *Financial Times*, August 8, 2014.

<sup>36</sup> Harry Bruinius, "Malaysia Jet Tragedy: How Do Airlines Traverse War Zones?," *Christian Science Monitor*, July 18, 2014, <http://www.csmonitor.com/USA/2014/0718/Malaysia-jet-tragedy-How-do-airlines-traverse-war-zones-video>.

<sup>37</sup> Letter from Raymond Benjamin, Secretary General, International Civil Aviation Organization, Subject: Safety and Security of Civil Aircraft Operating in Airspace Affected by Conflict, July 24, 2014, <http://www.icao.int/Newsroom/NewsDoc2014/059e.pdf>.

<sup>38</sup> Federal Aviation Administration, "Press Release—FAA Statement—Notice to Airmen Issued for Ben Gurion International Airport," July 22, 2014, [http://www.faa.gov/news/press\\_releases/news\\_story.cfm?newsId=16694](http://www.faa.gov/news/press_releases/news_story.cfm?newsId=16694).



arguing that risks to civil aircraft had been adequately mitigated.<sup>39</sup> This series of events illustrates how a government may be reluctant to disseminate warnings and restrictions that may impact travel and tourism even as unrelated events, such as the destruction of Malaysia Airlines flight 17, may lead other governments to be more cautious in their guidance to airlines operating overseas in areas of unrest or armed conflict. Improved processes for assessing conflict zone hazards to civil aviation, issuing warnings, and restricting flights could address concerns over private market war risk insurance premiums and coverage by potentially reducing uncertainties and ambiguities in assessing risk.

---

<sup>39</sup> Justin Bachman, "How Israel Persuaded Airlines the Tel Aviv Airport Is Safe," *Bloomberg Businessweek*, July 25, 2014, <http://www.businessweek.com/articles/2014-07-25/how-israel-convinced-airlines-tel-avivs-ben-gurion-airport-is-safe>.

## Appendix A. Key Provisions of EU Regulation 785/2004 (as amended by Regulation 285/2010)<sup>40</sup>

### Principle of Insurance

Article 4 requires that all air carriers and aircraft operators be insured regarding their aviation-specific liability with respect to passengers, baggage, cargo, and third parties. The insured risks include acts of war, terrorism, hijacking, acts of sabotage, unlawful seizure of aircraft and civil commotion.

### Insurance Liability

Article 6 requires a minimum insurance coverage of 250,000 SDRs<sup>41</sup> (\$378,523) per passenger, in terms of passenger liability, which is significantly higher than the minimum requirement of 113,100 SDRs (\$171,259) per passenger prescribed by the Montreal Convention.<sup>42</sup> However, for non-commercial aircraft operations with a maximum take-off mass (MTOM) of 2,700 kg, insurance is at a lower minimum of 100,000 SDRs (\$151,409) per passenger.

For baggage liability, the minimum insurance coverage required is 1,131 SDRs (\$1,712) per passenger in commercial operations; for cargo liability, the minimum coverage required is 19 SDRs (\$29) per kilogram in commercial operations.

Article 7 spells out the insurance requirement regarding third-party liability.<sup>43</sup> The minimum insurance coverage per accident depends on the MTOM of the operated aircraft, from 750,000 SDRs (\$1,135,568) for aircraft with an MTOM of less than 500 kg, to 700 million SDRs (nearly \$1.06 billion) for aircraft with an MTOM of 500,000 kg or more. The minimum coverage applies per accident for each and every aircraft.

### Sanctions

Sanctions for infringement of the regulation “shall be effective, proportional and dissuasive.” They may include the withdrawal of the operating license from EU air carriers and refusal of the right to land on the territory of a Member State in the case of non-EU carriers.

---

<sup>40</sup> A consolidated version of the regulation is available from the European Commission’s website, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2004R0785:20100408:EN:PDF>.

<sup>41</sup> SDR means a Special Drawing Right as defined by the International Monetary Fund. 1 SDR = 1.514090 USD (September 3, 2014).

<sup>42</sup> For more information on the Montreal Convention, see [http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:22001A0718\(01\):en:HTML](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:22001A0718(01):en:HTML).

<sup>43</sup> The Montreal Convention does not regulate aviation third-party liability.

## Appendix B. The Aviation War Risk Insurance Program and the Terrorism Risk Insurance Program

The federal government provides insurance, or insurance-like, programs in a wide variety of ways. A 2005 report by the Government Accountability Office identified “71 activities that provide federal insurance to entities other than the federal government.”<sup>44</sup> Among these programs, the most analogous to the Aviation War Risk Insurance Program is the Terrorism Risk Insurance Program, created by the Terrorism Risk Insurance Act of 2002 (TRIA, P.L. 107-297).<sup>45</sup> In the aftermath of the 9/11 attacks, the general commercial insurance market experienced similar conditions to the aviation insurance market. Insurers moved to exclude losses due to terrorism from future coverage and, when such coverage could be found, it was very expensive. TRIA temporarily provided federal coverage of losses from terrorist attacks under some circumstances.

The original act authorized a three-year program, until the end of 2005, with the expectation that the private sector would be prepared to offer terrorism coverage by this time. When the expiration date approached, the insurance industry again expressed unwillingness and incapacity to cover terrorism risk, and the program was reauthorized for two years in 2005 and then seven years in 2007. With the 2014 expiration date again approaching, several bills have been introduced to further extend the program and the insurance industry, along with many others, is supporting an extension of the TRIA program.

TRIA and the current version of the Aviation War Risk Insurance Program may share a common genesis, but their workings are very different. These differences include

- The TRIA program does not provide coverage directly to businesses at risk of terrorism losses, but rather provides government reinsurance for private insurers offering particular lines of commercial property/casualty coverage. These insurers are required to offer terrorism coverage and would thus cover any losses due to terrorism. Assuming certain conditions are met, the TRIA program would then reimburse the private insurers for some amount of their losses.
- TRIA has no provision for premiums to be paid for the government coverage. There is no “TRIA Fund” in the Treasury equivalent to FAA’s Aviation War Risk Insurance Fund. Any losses covered under TRIA would be paid from the government’s general fund. There are no upfront premiums, but the act provides for a post-event recoupment fee on commercial insurance policies to recover the government’s costs. Depending on the size of the losses, this recoupment is either mandatory or may be applied at the discretion of the Secretary of the Treasury.
- TRIA coverage is considerably more limited than federal aviation war risk insurance. Because it operates through private insurers, whatever limits or deductibles applying to an insured under the private insurance policy would also apply for TRIA coverage, and each insurer must meet a substantial general

<sup>44</sup> U.S. Government Accountability Office, *Catalogue of Federal Insurance Activities*, GAO-05-265R, March 4, 2005, p. 11, <http://www.gao.gov/assets/100/93046.pdf>.

<sup>45</sup> For greater detail on TRIA and current legislation see CRS Report R43619, *Terrorism Risk Insurance Legislation: Issue Summary and Side-by-Side Analysis*, by Baird Webel, and CRS Report R42716, *Terrorism Risk Insurance: Issue Analysis and Overview of Current Program*, by Baird Webel.

- deductible. In addition, the circumstances under which TRIA coverage applies are much more limited than for aviation war risk insurance. Before any federal funds would flow under TRIA, a minimum total of \$100 million in insured losses must have occurred due a terrorist act. The acts which could be certified to count against this \$100 million threshold are much narrower than the acts that would trigger federal aviation war risk insurance.
- There are no federal limits on the cost of terrorism coverage under TRIA. The statute requires private insurers to offer coverage under the same terms as insurance against losses from causes other than terrorism, but these insurers may charge a separate premium for this coverage and the law does not specifically limit this premium. Terrorism premiums, however, may be limited under state laws regulating insurance.

## **Author Contact Information**

Bart Elias  
Specialist in Aviation Policy  
belias@crs.loc.gov, 7-7771

Baird Webel  
Specialist in Financial Economics  
bwebel@crs.loc.gov, 7-0652

Rachel Y. Tang  
Analyst in Transportation and Industry  
rtang@crs.loc.gov, 7-7875