Synergies and Problems in Outer Space Insurance and Air Transport Insurance

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I. INTRODUCTION

In recent times, both the air transport and space industries have shown synergies in international legal problems pertaining to the procurement of insurance. This has partially been due to the single most ominous economic throwback from the events of 11 September 2001 concerning the air transport industry and the ensuing insurance crisis. On 17 September 2001, underwriters gave seven days notice of cancellation of the standard war risk and allied perils clause of the aircraft insurance contract, plunging the commercial airline industry into a causal paradox of necessity and inability in the running of their air services.[1] The resulting gloom, largely stemming from the economic impotence of carriers worldwide in not being able to meet the un-affordable new premium level, were somewhat diluted when some states provided financial support to bail out their carriers.[2] However, it became immediately apparent

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1. RUWANTISSA I.R. ABEYRATNE, AVIATION IN CRISIS 269 (2004). *See also* Ruwantissa I.R. Abeyratne, The Events of 11 September 2001 - ICAO's Responses to the Security and Insurance Crises, 27 AIR & SPACE L. 406, 413-14 (2002).

2. ABEYRATNE, AVIATION IN CRISIS, *supra* note 1, at 271.

that a certain worldwide and combined effort on the part of nations was necessary if air transport services were to be sustained amidst the crisis.

Now, after a little more than three years, it is common knowledge that the problems of aviation insurance were gravely aggravated by the events of 11 September 2001, calling for urgent crisis management.[3] A relatively obscure corollary was that the events also indirectly affected space insurance, particularly due to many liabilities incurred and claims received by many insurance underwriters for massive amounts of compensation with respect to the events of 11 September 2001.[4] These claims inevitably reduced the capital set aside by the underwriters for other insurances including space insurance. A corollary to this trend is that some insurers are now focusing more on the lucrative aviation insurance policies that have emerged as a result, due to the sharp rise in premiums for commercial air transportation.[5] Consequently, space insurance has been "shelved" by the underwriters in order for them to concentrate on the correspondingly greater business opportunities offered by commercial air transport insurance.[6]

The commercial trend that has veered the attention of insurance underwriters to commercial air transport insurance has had the further impetus of a series of communication satellite problems in recent times that have strained the resources of insurers who underwrite space activities.[7] This in turn has imposed a severe strain on companies that launch new spacecraft.[8] The woes of space insurance are reflected in the figures of the past decade. For instance, in the late 1990s, insurers offered a total coverage to the space industry of $1.3 billion with an exposure of $400 million for a single launch,[9] whereas the total capacity offered by the space insurance industry in 2002, as projected, was as little as $300 million.[10] This figure falls far short of a realistic "cap" on space insurance that could comfort companies hoping to obtain insurance for launches of large geostationary communication satellites. On a basic comparison between the drastic rise in insurance premiums both in the commercial air transport industry and the space industry, the former, after third party war risk insurance policies were cancelled on 24 September 2001, were raised con-

3. *See* Ruwantissa I.R. Abeyratne, *Crisis Management Toward Restoring Confidence in Air Transport – Legal and Commercial Issues*, 67 J. AIR L. & COM. 595, 599-634 (2002).

4. *See* ABEYRATNE, AVIATION IN CRISIS, *supra* note 1, at 270.

5. *Id.*

6. Jeff Foust, *Insurance Woes May Hurt Space Industry*, SPACEFLIGHT NOW, Nov. 7, 2001, at 1, *at* http://www.spaceflightnow.com/news/n0111/07insurance/ (last viewed Apr. 15, 2004).

7. *Id.* at 1.

8. *Id.*

9. *Id.* at 2.

10. *Id.*

siderably higher at drastically reduced liability limits,[11] while the latter, in some cases, had rates increased on launch insurance by fifty percent and for on-orbit insurance for as much as seventy-five percent.[12]

The above indicators would seemingly give the perception that space insurance is much worse off than air transport insurance. The reality is that both are in a similar predicament and have the same difficulties in resurfacing to their *status quo ante*. The problems faced by both insurance industries involve critical risk management, which calls for stringent measures to restore the industry to levels that prevailed before 11 September 2001. However, this is not the only factor to be considered. Inasmuch as there are similarities in terms of problems facing both industries, the air transport industry has, unlike the space industry, been given the benefit of a significant boast through the auspices of the International Civil Aviation Organization ("ICAO") toward restoring a viable commercial air transport insurance regime. This article will examine space insurance issues as well as air transport insurance issues with a view to identifying the common ground experienced by both, with a view to examining a possible approach in order for both industries to survive the current crisis.

II. The Space Insurance Industry

The space insurance industry became a separate commercial element in the field of insurance in 1965 and the space insurance underwriting community came into being as a result of the rapidly evolving commercial space technologies that called for considerable financial investments.[13] Over the past three decades, space insurance underwriters have collected approximately $4.2 billion in premium revenues.[14] Correspondingly, they have paid around $3.4 billion in settlement of claims.[15] The space insurance market has now become a dynamic and highly competitive one, covering from twenty to thirty commercial satellite launches annually.[16]

Similar to most commercial air transport insurance contracts, the space insurance policy is usually underwritten in syndicate where each individual underwriter assumes a percentage of the risk.[17] The coverage of each risk is undertaken for a fractional share of the policy so that the

11. Abeyratne, *supra* note 3, at 600.

12. Foust, *supra* note 6, at 3.

13. I. H. Ph. Diederiks-Verschoor, An Introduction To Space Law 117 (2d ed. 1999).

14. Select Committee of the U.S. House of Representatives, U.S. Nat'l Security & Military/Commercial Concerns with the People's Republic of China, Chapter 8: The Commercial Space Insurance Industry 300 (1999), *available at* http://www.house.gov/coxreport/pdf/ch8.pdf.

15. *Id.*

16. *Id.*

17. *Id.* at 301.

overall risk can be spread out through the global markets.[18] The spreading of risk is accomplished usually through the participation of ten to fifteen large companies and twenty to thirty smaller companies.[19]

One of the most significant and compelling reasons for the predicament faced by the insured in the space industry is the recent rush of communication satellite problems and spacecraft failures.[20] These events have made the space industry a high-risk area. The underlying problem, however, is one which afflicts both the space insurance industry as well as the commercial air transport industry in that the contract of insurance in both instances is not regulated on an international basis.[21] The insurance contract in both areas has been exclusively within the realm of the private sector, where the insurance market forces have dictated the fixing of premiums and limits. Insurance of space activities and spacecraft aptly reflects the significance of risk management and the space insurance contract primarily plays the role of mollifying investors in a space program that their investments would be safe and covered by insurance in the event of damage or launch failure.

In the space industry, insurance applies mostly to communication satellites, which have shown a spate of problems in recent times, plunging the "risk factor"[22] of the launch and activity of such spacecraft into critical levels. Furthermore, in the present context, risk management becomes critical for both the insured and the investor in relation to all four types of insurance, i.e. pre-launch insurance; launch failure and initial operation insurance; satellite insurance; and third party liability space insurance.[23]

Pre-launch insurance is a critical area that involves the provision of coverage at the preliminary stage of a space project, from the planning stage, through to the carrying out of the launch.[24] Among possible accidents that may occur at the pre-launch stage that may require insurance coverage are those that may occur in production of the satellite and storage followed by transportation of the satellite from the production site to the launch site.[25] Also critical at this stage is the complex and delicate

18. *Id.*

19. *Id.*

20. Foust, *supra* note 6, at 1.

21. DIEDERIKS-VERSCHOOR, *supra* note 13, at 117.

22. Rod D. Margo, *Risk Management and Insurance*, 17 ANNALS OF AIR & SPACE L. 79, 79 (1992) (Margo generally identifies "risk" as the potential for the occurrence of an uncertain event, and goes on to say that a scientist might define risk as "the continuum or spectrum between uncertainty on the one hand and certainty on the other.").

23. G. Catalano Sgrosso, *Insurance Implications About Commercial and Industrial Activities in Outer Space*, 36 PROC. OF THE COLLOQUIUM ON THE LAW OF OUTER SPACE, 187, 194 -95 (1993).

24. DIEDERIKS-VERSCHOOR, *supra* note 13, at 117.

25. Sgrosso, *supra* note 23, at 194.

process of placing the satellite on the launching vehicle.[26]

With regard to launch failure insurance, a critical concern for investors is the possibility of non-availability of launch vehicles that would particularly affect investments made by satellite manufacturers.[27] Another risk involved in launch insurance is non-placement into orbit as programmed.[28] While the third category, satellite insurance, involves protection against satellite failure in orbit, third party liability space insurance insures against liability arising from damage to a third party during the launch or in-orbit operations of a satellite program.[29]

Critical to the acquisition of space insurance and the accompanying underwriting process is the value placed on technical information, the role played by the brokers and underwriters, fluctuating market conditions and the various parties concerned.[30] These factors played a crucial role in the Intelsat 708 launch failure, in particular the dissemination of technical information and its role in ensuring insurance claims.[31] It remains to be seen whether judicial interpretation of the value placed on technical information would override the seminal principle established in the 1987 *Martin Marietta* case that a contractual waiver between the parties to an insurance space contract absolving parties from negligence or gross negligence would remain paramount over considerations of tort liability of parties.[32] The significance of the *Martin Marietta* case, which involved Intelsat claiming *Martin Marietta*'s tortuous liability *inter alia* for the failure of one of two satellites launched on Titan III rockets of the latter to reach correct position in orbit, lies in the fact that it establishes the principle in most US jurisdictions that negligence is no longer a sound basis for establishing damages if preceding contractual arrangement or agreement were to preclude such liability.[33] The *Martin Marietta* case followed an earlier case, decided in 1984 and decided partly on contractual liability, where a California Court found that contractual provisions incorporated in an insurance policy or other space insurance contract would absolve a dependant seeking recourse to such contractual waiver against

26. *Id.*

27. DIEDERIKS-VERSCHOOR, *supra* note 13, at 118.

28. *Id.*

29. Sgrosso, *supra* note 23, at 195.

30. *The Cox Report on Chinese Espinage*, TIME MAGAZINE, May 25, 1999, at 1.

31. *Id.*

32. Martin Marietta Corp. v. Int'l Telecomm. Satellite Org. (INTELSAT), 763 F. Supp. 1327, 1334 (D. Md. 1991), *aff'd*, 991 F.2d 94 (4th Cir. 1992). *See also* Tanja L. Masson-Zwaan, The Martin Marietta Case Or How to Safeguard Private Commercial Space Activities, 18 AIR & SPACE L. 16, 22 (1993).

33. *Marietta*, 763 F. Supp. at 1332-33.

liability and allocation of risk.[34]

The area of space insurance concerning liability insurance for damage caused to third parties attenuates its basic principles of liability from two international treaties, namely the *Outer Space Treaty of 1967*[35] and the *Liability Convention of 1972*.[36] Both Conventions impose *prima facie*, an obligation on states under *jus cogens* or generally enforceable and applicable law. If it can be accepted that a principle of *jus cogens* creates obligations *erga omnes*, it becomes an undeniable fact that Article 1(1) of the *Outer Space Treaty* could be considered a peremptory norm, or *jus cogens,* since it generates obligations towards the international community as a whole.[37] Christol observes:

> [Article 1] Paragraph 1 [of the Space Treaty], with its adoption of the common benefits and interests guarantee, can be supported [as an example of peremptory norms] . . . because the provisions conform to moral law in the sense that all humankind is to benefit unconditionally, and because the terms are consistent with the spirit and the purposes identified in Article 1, pars. 1 through 3 and Article 2, pars. 1 through 4 of the UN Charter, as well as with complimentary international agreements of lesser authority. To the extent that the terms are beneficial to individuals, . . . the larger community, and States, and when the provisions are found on the fundamental moral principles contained in the foregoing paragraphs of Articles 1 and 2 of the UN Charter, such basic principles qualify for the status of peremptory norms of general international law.[38]

The effect of this observation is that the content and nature of Article 1 (1) confirms that it is a *jus cogens*. There is seemingly no reason why the international community should not give such recognition to the "common interest" principle as enshrined in Article 1(1) which is aimed at the protection of the interests of the international community as a whole.[39] *A fortiori*, on the same basis, Article IX of the *Outer Space Treaty* which requires that states should avoid harmful contamination and adverse change in the environment of the Earth which may result from the exploration of outer space would incontrovertibly be considered *jus cogens*.[40]

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34. Appalachian Ins. Co. v. McDonnell Douglas Corp., 214 Cal.App.3d 1, 7 (Cal. Ct. App. 1989).

35. Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including The Moon and Other Celestial Bodies, Jan. 27, 1967, 1967 WL 90200, 18 U. S. T. 2410 [hereinafter *Outer Space Treaty*].

36. Convention On International Liability for Damage Caused by Space Objects, Mar. 29, 1972, 1973 WL 151962, 24 U. S. T. 2389 [hereinafter *Liability Convention*].

37. CARL Q. CHRISTOL, SPACE LAW: PAST, PRESENT, AND FUTURE 231 (1991).

38. C. Q. Christol, *The Jus Cogens Principle and International Space Law*, 26 PROC. OF THE COLLOQUIUM ON THE LAW OF OUTER SPACE 1, 6 (1983).

39. *Id.*

40. *Id.* at 7.

Article VI of the *Outer Space Treaty* provides in part that state parties to the treaty shall bear international responsibility for national activities in outer space, whether such activities are carried out by governmental agencies or non-governmental agencies.[41] This provision clearly introduces the notion of strict liability *erga omnes* to the application of the *jus cogens* principle relating to outer space activities of states and could be considered applicable in instances where states hold out to the international community as providers of technology achieved and used by them in outer space, which is used for purposes of air navigation. Article VI further requires that the activities of non-governmental entities in outer space shall require authorization and continuing supervision by the appropriate state party to the Treaty, thus ensuring that the state whose nationality the entity bears would be vicariously answerable for the activities of that organization, thereby imputing liability to the state concerned.[42]

Article VII makes a state party internationally liable to another state party for damage caused by a space object launched by that state.[43] The *Registration Convention of 1974*, in Article II(1), requires a launching state of a space object that is launched into earth orbit, or beyond, to register such space object by means of an entry in an appropriate registry which it shall maintain and inform the Secretary General of the United Nations of the establishment of such a registry.[44] This provision ensures that the international community is kept aware of which state is responsible for which space object and enables the United Nations to observe outer space activities of states. Article VI of the Convention makes it an obligation of all state parties, including those that possess space monitoring and tracking facilities, to render assistance in identifying a space object which causes damage to other space objects or persons.[45] Justice Manfred Lachs analyzes these provisions of the *Registration Convention* to mean that the state of registry and the location of the space object would govern jurisdictional issues arising out of the legal status of space objects.[46] On the issue of joint launching of space objects, Justice Lachs observes:

> No difficulties arise whenever a State launches its own object from its own territory; the same applies to objects owned or launched by non-governmen-

41. *Outer Space Treaty*, *supra* note 35, at art. VI.

42. D.W. GREIG, INTERNATIONAL LAW 8-9 (1970).

43. *Outer Space Treaty*, *supra* note 35, at art. VII.

44. *Convention on Registration of Objects Launched Into Outer Space*, U.N. GAOR, 29th Sess., at art. II, U.N. Doc. A/15020 (1974) [hereinafter *Registration Convention*].

45. *Id.* at art. VI.

46. MANFRED LACHS, THE LAW OF OUTER SPACE, AN EXPERIENCE IN CONTEMPORARY LAW-MAKING 70 (1972).

> tal agencies registered in that State. However, in cases of joint launching, agreement between the parties is required as to which of them is to be deemed the "State of Registry." A similar agreement is also necessary when a launching is carried out by an international organization.[47]

The above provision ensures the identification of parties responsible for specific activities in outer space and thereby makes it easier to impose liability for environmental damage caused.

The *Outer Space Treaty*, while expostulating the fundamental principle in its Article 1 that the exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries,[48] explicitly imposes in Article VII international liability and responsibility on each state party to the treaty, for damage caused to another state party or to its populace (whether national or juridical) by the launch or procurement of launch of an object into outer space.[49] In its subsequent provisions, the treaty imposes international responsibility on states parties for national activities conducted in outer space. The treaty also requires its states parties to be guided by the principle of cooperation and mutual assistance in the conduct of all their activities in outer space.[50] This overall principle is further elucidated in the same provision: "States Parties to the Treaty shall pursue studies of outer space, including the moon and other celestial bodies, and conduct exploration of them so as to avoid their harmful contamination and also adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter . . ."[51]

Article VIII of the Outer Space Treaty provides: "A State Party to the Treaty on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body."[52]

However, as Bin Cheng validly points out, the interpretation of Article VIII could well result in ambivalence and confusion.[53] The "object" and "personnel" referred to in the treaty provision do not adequately cover persons who are not "personnel" such as passengers in a space-

47. *Id.*

48. *Outer Space Treaty*, *supra* note 35, at art. I.

49. *Id.* at art. VII.

50. *Id.* at art. IX.

51. *Id.*

52. *Id.* at art. VII. This provision is derived from United Nations documentation and has been reproduced almost verbatim from paragraph 7 of the 1963 General Assembly Declaration appearing in Resolution 1962. The Treaty provision extends the scope of application of the provision to the conduct of astronauts both inside and outside the spacecraft. *See Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space*, G.A. Res. 1962, U.N. GAOR, 17th Sess., at 15, U.N. Doc. A/1962 (1963).

53. BIN CHENG, STUDIES IN INTERNATIONAL SPACE LAW 459 (1997).

craft.[54] Of course, as Cheng maintains, the quasi jurisdiction of the state of registry of the spacecraft can apply both in the instance of conduct in the spacecraft as well as outside the spacecraft on the basis that the astronaut concerned would be deemed to belong to the spacecraft at all times in outer space.[55] Logically, therefore, such jurisdiction could be imputed to passengers, visitors, and guests by linking them to the spacecraft in which they traveled.[56] This far reaching generalization would then cover the conduct of an astronaut or other persons while walking on the moon, Mars or other celestial body, as well as such persons who go on space walks outside the spacecraft in which they traveled.[57]

Another provision that sheds some light on past attempts by the international community to identify liability and jurisdictional issues relating to astronauts is Article 12 of the *Moon Agreement of 1979*, which provides: "States Parties shall retain jurisdiction and control over their personnel, space vehicles, equipment facilities, stations and installations on the moon . . ."[58]

The *Moon Agreement of 1979* provides that in the exploration and use of the moon, states parties shall take measures, *inter alia*, to avoid harmfully affecting the environment of the earth through the introduction of extra terrestrial matter or otherwise.[59]

The *Liability Convention* contains a provision that lays down the legal remedy in instances of damage caused by space objects. Article II provides: "A launching State shall be absolutely liable to pay compensation for damage caused by its space objects on the surface of the earth or to aircraft in flight,"[60] thereby imposing a regime of absolute liability on the state that launches space objects such as satellites, which provide technology and communication that is used for air navigational purposes. Although admittedly, both the *Outer Space Treaty* and the *Liability Convention* do not explicitly provide for damage caused by technology and communication provided by space objects, culpability arising from the "common interest" principle and liability provisions of the two conventions can be imputed to states under these conventions.[61]

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54. *Id.*

55. *Id.*

56. *Id.*

57. *Id.*

58. *Agreement Governing the Activities of States On The Moon And Other Celestial Bodies*, G.A. Res. 34/68, U.N. GAOR, 49th Sess., at art. 12, U.N. Doc. A/23002 (1979).

59. *Id.* at art. 7.

60. *Liability Convention*, supra note 36, at art. II. Article I(a) defines damage as including "loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of international intergovernmental organizations." *Id.* at art. I.

61. *See* Frans G. von der Dunk, *Jus Cogens Sive Lex Ferenda: Jus Cogendum*, *in* AIR AND

Gorove states that in the field of international space law, two clearly connected terms have been used: liability and responsibility.[62] Although "responsibility" has not been cohesively interpreted in any legal treaty relating to outer space, "liability" occurs in the *Liability Convention* and is sufficiently clear therein.[63] This, however, does not mean that state responsibility is not relevant to the obligations of states law as, in international relations, the invasion of a right or other legal interest of one subject of the law by another inevitably creates legal responsibility.[64] Professor Brownlie observes:

> [T]oday, one can regard responsibility as a general principle of international law, a concomitant of substantive rules and of the supposition that acts and omissions may be categorized as illegal by reference to the rules establishing rights and duties. Shortly, the law of responsibility is concerned with the incidence and consequence of illegal acts, and particularly the payment of compensation for loss caused.[65]

International responsibility relates both to breaches of treaty provisions and other breaches of legal duty. In the *Spanish Zone of Morocco Claims* case, Justice Huber observed: "[R]esponsibility is the necessary corollary of a right. All rights of an international character involve international responsibility. If the obligation in question is not met, responsibility entails the duty to make reparation."[66]

There is also explicit recognition that principles of international law apply to space law. The General Assembly of the United Nations in 1961 adopted the view that international law, including the Charter of the United Nations, applies to outer space and celestial bodies.[67] It is also now recognized as a principle of international law that the breach of a duty involves an obligation to make reparation appropriately and adequately.[68] This reparation is regarded as the indispensable complement of a failure to apply a convention and is applied as an inarticulate premise that need not be stated in the breached convention itself.[69] The World

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SPACE LAW: DE LEGE FERENDA, ESSAYS IN HONOUR OF HENRI A WASSENBERGH 223-24 (H.A. Wassenbergh et al. eds. 1992).

62. Stephen Gorove, *Liability In Space Law: An Overview*, 8 ANNALS OF AIR & SPACE L. 373, 373 (1983).

63. *Liability Convention*, *supra* note 36, at art. II.

64. IAN BROWNLIE, PRINCIPLES OF PUBLIC INTERNATIONAL LAW 432 (4th ed. 1990).

65. *Id.* at 433.

66. *Id.* at 434 (quoting Spanish Zone of Morocco Claims, Rapport 111 (1924), 2 UNRIAA, 615, 641).

67. *International Co-operation in the Peaceful Uses of Outer Space*, G.A. Res. 1721, U.N GAOR, 16th Sess., at 15, U.N. Doc. A/5026 (1961). *See also Outer Space Treaty*, *supra* note 35, at art. III.

68. BROWNLIE, *supra* note 64, at 434.

69. Id. at 434. (quoting Concerning The Factory at Chorzow, 1927 P.C.I.J. (ser. A) No. 9, at 21 (July 26)).

Court ("ICJ") affirmed this principle in 1949, in the *Corfu Channel* Case, by holding that Albania was responsible under international law to pay compensation to the United Kingdom for not warning that Albania had laid mines in Albanian waters that caused explosions, damaging ships belonging to the United Kingdom.[70] Since the treaty law provisions of liability and the general principles of international law as discussed complement each other in endorsing the liability of states to compensate for damage caused by space objects, there is no contention as to whether in the use of nuclear power sources in outer space, damage caused by the uses of space objects or use thereof would not go uncompensated.[71] The rationale for the award of compensation is explicitly included in Article XII of the *Liability Convention*, which requires that the person aggrieved or injured should be restored, by the award of compensation to him, to the condition in which he would have been if the damage had not occurred.[72] Furthermore, under the principles of international law, moral damages based on pain, suffering and humiliation, as well as on other considerations, are considered recoverable.[73]

As discussed, both treaty law and general principles of international law on the subject of space law make the two elements of liability and responsibility a means to an end - that of awarding compensation to an aggrieved state or other subject under the law. Therefore, in view of the many legal issues that may arise, the primary purpose of a regulatory body which sets standards on state liability in issues concerning the use of space technology would be to carefully consider the subtleties of responsibility and liability and explore their consequences on states and others involved as they apply to the overall concept of the status of a state as a user of space technology which may cause harm or injury to the latter.

The involvement and responsibility of states in space activities leads to legal accountability of such states for space insurance, and, in this respect, one can discern little difference between the role of states in ensuring that there is provision of insurance coverage for activities in outer space and commercial air transport in an adequate manner.

III. The Air Transport Insurance Industry

Insurance coverage in the air transport industry carries the same objective as space insurance in that risk management in the overarching purpose of the insurance contract. A risk entails four possible responses from the person at risk: acceptance; elimination; reduction; and trans-

70. *Id.* at 435 (referring to Corfu Channel (United Kingdom v. Albania), 1949 I.C.J. 4, at 23).

71. Diederiks-Verschoor, *supra* note 13, at 109.

72. *Liability Convention*, *supra* note 36, at art. XII.

73. Christol, *supra* note 37, at 231.

fer.[74] The risk management aspect of insurance relates to the last element - transfer - whereby a person at risk would transfer the consequences of that risk to an insurer at a premium.[75] The risks so transferred through insurance, particularly in relation to air transport, apply to the risks of theft, loss, or damage in a physical sense; bankruptcy, economic recession, decline or loss in a commercial sense; war, hijacking or repossession of aviation property in a political sense; natural disasters in an environmental sense; human resource problems in a social sense; business interruption in a financial sense; and legislative changes in a regulatory sense.[76]

The current crisis in risk management, particularly in transferring the risk of possible loss occurring to and through commercial air transport, is a direct corollary of the events of 11 September 2001. The international insurance market gave notice on 17 September 2001 that, effective 24 September 2001, third party war risk liability insurance, covering airline operators and other service providers against losses and damages resulting from war, hijacking and other perils, would be cancelled.[77] The most compelling reason for the cancellations was the emergence of an exposure in terms of third party bodily injury and property damage that was unquantifiable.[78] The International Union of Aviation Underwriters ("IUAU") assessed that the total losses in respect of third party bodily injury and property damage caused by these events could exceed the previous greatest single catastrophic loss of U.S. $20 billion caused by Hurricane Andrew in 1992 by a significant margin.[79]

As an immediate response to this measure, the President of the ICAO Council, Dr. Assad Kotaite, issued a State Letter to all ICAO contracting states, requesting that they take effective measures to preclude aviation and air transport services from coming to a standstill.[80] This letter also appealed to contracting states to support airline operators and other relevant parties, at least until the insurance market stabilized, by committing themselves to cover any risks to which airline operators and

74. Margo, *supra* note 22, at 80.

75. *Id.* at 81.

76. *Id.* at 79-80.

77. ABEYRATNE, AVIATION IN CRISIS, *supra* note 1, at 269.

78. *Id.*

79. *Id.*

80. Special Group on Aviation War Risk Insurance, Second Meeting, Montreal, 28-30 Jan. 2002, ICAO Doc. SGWI/2 Report at i-1 [hereinafter *Aviation War Risk, Second Meeting*]. The President of the Council followed this letter with two more letters, dated 25 Oct. 2001 and 14 Dec. 2001 respectively, appealing to all Contracting States to cover the risks left open until the insurance markets stabilized. The last letter also appealed to all Contracting States to extend or provide such coverage, as the case may be, until an international mechanism was put in place, thereby contributing to the stabilization of the markets. *Id.*

others may become exposed by the cancellation of insurance cover.[81]

The 33rd Session of the ICAO Assembly, held in Montreal from 25 September to 5 October 2001, considered as an urgent priority the insurance issue by adopting Resolution A33-20.[82] This Resolution, while recognizing that the tragic events of 11 September 2001 had adversely affected the operations of airline operators globally as a result of war risk insurance cover no longer being available at levels which are practical and accessible to airline operators, *prima facie* urges contracting states "to work together to develop a more enduring and coordinated approach to the important problem of providing assistance to airline operators and other service providers."[83] The Resolution, basing itself on the fundamental premise enunciated in Article 44 of the Chicago Convention, which refers to the objective of ICAO to ensure safe, regular, efficient, and economical air transport,[84] directed the Council of ICAO to urgently establish a Special Group to consider issues emerging from action taken in the insurance market regarding third party war risk insurance coverage.[85]

One must of course appreciate that war and associated risks, including hijacking and acts of terrorism, pose an extremely high-risk exposure to insurers. Aviation hull and liability policies therefore usually contain an express exclusion in respect of such risks.[86] The war risk exclusion used in the London market, known as AVN 48B,[87] excludes the risks of war, invasion, hostilities, civil war, rebellion, revolution, insurrection, martial law, hostile detonation of atomic weapons, strikes, riots, civil commotions or labor disturbances, acts of a political or terrorist nature, sabotage, confiscation, nationalization, seizure, and hijacking.[88]

In practical terms, war risk insurance is required to cover three eventualities: to protect an airline operator from potential financial liability

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81. *Id.*

82. Coordinated Approach in Providing Assistance in the Field of Aviation War Risk Insurance, Res. A33-20 (provisional), complied in Assembly Resolutions in Force, at 86, ICAO Doc. 9790 (Sept. 25-Oct. 5, 2001) [hereinafter A33-20].

83. *Id.*

84. *Convention on International Civil Aviation*, Chicago Dec. 7, 1944, at art. 44(d), ICAO Doc. 7300/6 (8th ed. 2000) 61 Stat. 1180, T.I.A.S. No. 1591, *available at* http://www.yale.edu/lawweb/-avalon/decade/decad048.htm. [hereinafter *Civil Aviation Convention*].

85. A33-20, *supra* note 82, at 2.

86. Abeyratne, *supra* note 3, at 600.

87. War, Hi-Jacking, and Other Perils Exclusion Clause (AVN 48B), (1968), *available at* http://www.aviationinsurance.com/warrisk.html (last visited Apr. 17, 2004). The London insurance market introduced the AVN 48B Clause after the Israeli raid on Beirut Airport on 28 December 1968. This war and hijacking risk exclusion clause is now included in every aviation hull and liability policy. This clause covers a wide range of eventualities including damage caused as a result of any malicious act or act of sabotage. *Id.*

88. *Id.*

that could jeopardize its existence; to justify operations into territories of states by appeasing those states that they and their citizens would be financially compensated in the event of damage; and to protect the financial interests of airlines, their owners, financiers, and/or lessors.[89] It is usual for an aircraft, depending on its type, to be covered for any amount up to U.S. $750 million to U.S. $1 billion on aggregate (as against per single occurrence).[90] Against this figure, it is significant that the underwriters permitted coverage for only up to U.S. $50 million aggregate, consequent upon their issuing notice of withdrawal of third party war risk insurance on 17 September 2001.[91]

Many contracting states, following the State Letter of the President of the ICAO Council, stepped in to address issues regarding cancellation of insurance.[92] In the light of the dramatic recession of insurance coverage, states began to take measures to provide excess insurance cover to carriers, in most cases up to previous policy limit, for war and terrorism related third party risk.[93] Provision of such coverage meant that at least some air carriers would not be in violation of domestic and international regulations and lease covenants respecting war risk cover. However, there was concern expressed with the fact that a considerable number of countries in Latin America, Asia, and Africa, while having taken steps necessary to ensure continued coverage, have not provided the necessary guarantees and indemnities in the same amount as states in Europe and North America.[94]

Action taken by ICAO contracting states in responding to the insurance crisis has legal legitimacy in two international Conventions, the *Rome Convention of 1952*[95] and the *Montreal Convention of 1999*.[96] Article 15 of the *Rome Convention* provides that "[a]ny Contracting State may require that the operator of an aircraft registered in another Contracting State shall be insured in respect of his liability for damage sustained in its territory for which a right to compensation exists . . ."[97] The operative clause, in the context of indemnities offered by the several ICAO contracting states as discussed earlier, is contained in Article 15.4 of the *Rome Convention* which provides that, instead of insurance, *inter*

89. Abeyratne, *supra* note 3, at 601.
90. *Id.*
91. *Id.*
92. *Id.*
93. *Id.* at 605.
94. *Id.*
95. Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface, Oct. 7, 1952, 310 U.N.T.S. 181 [hereinafter *Rome Convention*].
96. Convention for the Unification of Certain Rules for International Carriage by Air, May 28, 1999 [hereinafter *Montreal Convention*].
97. *Rome Convention*, *supra* note 95, at art. 15.

alia, a guarantee given by the contracting state where the aircraft is registered, shall be deemed satisfactory if that state undertakes that it will not claim immunity from suit in respect of that guarantee.[98] The *Montreal Convention of 1999*, which is yet to come into force, provides in Article 50 that "States Parties shall require their carriers to maintain adequate insurance covering their liability under [the] Convention."[99] This provision further stipulates that a carrier may be required by the state party into which it operates to furnish evidence that it maintains adequate insurance covering its liability under the Convention.[100]

It must be noted that coverage provided by airline insurance policies regarding perils other than third party liability for war risks have not been affected by this cancellation. War and allied perils coverage with regard to passengers have been left unchanged, but the uncertainty created by the events have made it essential to circumscribe coverage for third party losses at a maximum of U.S. $50 million.[101] Although premiums were increasing due to a sustained period of unprofitable trading in the insurance market, the events themselves triggered accelerated premium increases both in order to assist markets to revive from the bout of unprofitable trading and to create a reasonably adequate premium base for future exigencies of the nature of the catastrophes of September 2001.[102]

In general terms, the price to be paid to revive or reinstate adequate coverage for third party was risk coverage would cost the airlines an additional premium of U.S. $1.25 per passenger carried.[103] If airlines were to purchase coverage for limits of U.S. $950 million in excess of the already available U.S. $50 million they would have to pay U.S. $1.85 per passenger carried.[104] In view of the fact that the airports, refuellers, ground handlers, and other service providers in the aviation industry contribute to an accumulation of risk, since many of them may serve a particular airline at one location, underwriters were disinclined to offer coverage for these providers.[105] However, many insurers have shown willingness to extend coverage for an additional U.S. $100 million over the U.S. $50 million coverage already provided.[106]

Both the ICAO and the International Air Transport Association ("IATA") have stringently and correctly maintained that there is an in-

98. *Id.* at art. 15.4(c).
99. *Montreal Convention*, *supra* note 96, at art. 50.
100. *Id.*
101. ABEYRATNE, AVIATION IN CRISIS, *supra* note 1, at 269.
102. *Id.*
103. *Id.*
104. *Id.*
105. *Id.*
106. *Id.*

herent role to be played by governments in the event of war risk.[107] IATA has justifiably claimed, in a well reasoned argument, that a new international regime must provide for governments to agree to act as a multilateral guarantor covering terrorist actions against airlines in any part of the world.[108] IATA has requested that any solution to the insurance crisis be widely available to international aviation shareholders, be reasonably affordable, provide for long term stability even in the event of terrorist acts, and recognize the inherent role of governments in the event of war risk claims.[109]

The above remarks were made at the First Meeting of the ICAO Special Group on War Risk Insurance, held in Montreal on 6 to 7 December 2001.[110] This special group was appointed by the ICAO Council in response to ICAO Assembly Resolution A33-20, adopted at the 33rd Session of the Assembly in September/October 2001.[111] As earlier stated, this Resolution urges contracting states to cooperate in developing a more enduring "coordinated approach to the important problem of providing assistance to airline operators and to other service providers in the field of aviation war risk insurance."[112] Toward achieving this objective, the Assembly directed the Council to urgently establish a Special Group to consider the issues referred to above and to report back to the Council with recommendations as soon as possible.[113] The resolution also broadens ICAO's mandate by inviting the Council and the Secretary General to take any other measures considered necessary or desirable.[114]

At the second meeting of the Special Group, held in Montreal from 28 to 30 January 2002, the London Market Brokers Committee ("LMBC") presented a medium term scheme to cover airlines from war risk liabilities.[115] The scheme envisions the formation of a company, the board of directors of which shall include representatives of participating states, ICAO, and participating aviation and insurance industries.[116] The company would offer third party war risk liability coverage up to U.S. $1.5 billion in excess of U.S. $50 million per insured.[117] This coverage will

107. *Id.*

108. *See* Comments of IUAU, ICAO Special Group on Aviation War Risk (SGW1), First Meeting, Montreal, 6 to 7 Dec. 2001, ICAO Doc. SGWA/1-IP/4 at 2. *See also* http://www.iata.org/-whatwedo/risk.htm. (last visited Apr. 17, 2004).

109. *Id.*

110. Special Group on Aviation War Risk Insurance, First Meeting, Montreal, 6 to 7 Dec. 2001, ICAO Doc. SGWI/1 at 2-1 [hereinafter *Aviation War Risk, First Meeting*].

111. A33-20, *supra* note 82, at 2.

112. *Id.*

113. *Id.*

114. *Id.*

115. *Aviation War Risk, Second Meeting*, *supra* note 80, at app. A1-1 - A.1-3.

116. *Id.* at i-3 - i-4.

117. *Id.* at app. A1-1.

be non-cancelable and apply per occurrence and per aircraft where multiple aircraft are involved.[118] The insurance cover to be provided by the company would be available to the entire aviation sector and include domestic and international operations as well as equipment lessors, financiers, and manufacturers of each state that joins the scheme.[119]

The scheme so outlined offers a continuous cover of aviation war and other perils liability insurance based on clauses AVN 52D and AVN 52F which generally exclude coverage of war risk liability with a write-back possibility.[120] The scheme also admits of a full review by participating contracting states, to be undertaken at its fifth anniversary, with an option to cancel or suspend the scheme ninety days thereafter.[121] Participating states would act as guarantors or "reinsurers of last resort" through a legal agreement with the insurance company.[122] In the event of a claim, the contributions of participating states would be pro-rated based on their ICAO assessments.[123] Each state's maximum liability under the scheme would be capped.[124] The total cap, if all ICAO states participate in the scheme, is expected to be U.S. $15 billion (therefore, for example, if only fifty percent of ICAO contracting states participate, the total cap would be U.S. $ 7.5 billion).[125] The maximum exposure of each state, in any given instance, would be its ICAO assessment percentage of the total cap as it may apply, depending on the participation of states in the scheme, as outlined above.[126]

Premiums will be collected from the insured in order to build a reinsurance pool to meet claims under the policies.[127] This pool will obviate the need for participating states to make cash contributions to the company in the event of a claim.[128] The total amount of premiums to be collected in the first year is targeted at U.S. $850 million (equivalent to fifty cents per passenger segment based on total passenger segments of 1.7 billion).[129] The premiums for subsequent years would be kept at approximately the same level, provided there were no losses.[130]

Although some members argued that the U.S. $0.50 per passenger

118. *Id.* at app. A1-4 - A1-5.
119. *Id.* at app. A1-1.
120. *Id.* at app. A1-4.
121. *Id.* at app. A1-3.
122. *Id.* at i-4.
123. *Id.* at app. A1-2.
124. *Id.*
125. *Id.*
126. *Id.*
127. *Id.* at app. A1-1.
128. *Id.*
129. *Id.* at app. A1-2.
130. *Id.*

charge was not an equitable measurement for the collection of the premium as the numbers carried per flight may differ and smaller aircraft may not necessarily be considered as much a threat as weapons of destruction as the larger aircraft which have larger capacity, the Group decided to work on the basis of U.S. $0.50 per passenger as this was considered to be the only workable means of premium funding.[131]

The work of the Special Group was considered by a Council Study Group on Aviation War Risk Insurance, established by agreement of the Council on 4 March 2002.[132] This Study Group had two meetings, on 16 April and 24 April 2002, respectively, wherein the Group considered a draft report to Council containing the outcome of the work of the Special Group.[133] This report firstly outlines coverage to be provided in respect of third party war risk liability insurance, which is up to U.S. $1.5 billion per aircraft, per occurrence, per insured, over and above the coverage offered by the private market amounting to U.S. $50 million, which is already in place.[134] Special features, which are tantamount to advantages offered by this coverage are that it would not be cancelable (which is in contrast to the current seven-day cancellation clause) and that coverage would encompass all areas of the aviation industry, including airlines, airports, ground handling agents, screening companies, manufacturers of aircraft and components lessors, air traffic controllers, and other providers of air navigation services.[135] The scope of coverage would be global.[136]

In terms of rates, the ICAO scheme would charge fifty cents per passenger for coverage up to U.S. $1.5 billion in excess of the private cover of U.S. $50 million, which, as already mentioned, is available at U.S. $1.25 per passenger.[137] The rate of fifty cents per passenger compares favorably with the current U.S. $1.50 excess charge currently levied in respect of excess third party insurance that goes only up to a maximum of U.S. $1 billion in two extra layers at U.S. $1.00 for both layers in addition to the primary cover fixed at U.S. $1.25.[138] The premium advantage, notwithstanding the strongest thrust of the coverage offered by the ICAO scheme, remains in its intrinsic guarantee against cancellation, particularly in view of the existing seven-day cancellation clause.[139]

With regard to participation, which is of course voluntary, the expo-

131. *Id.* at 2-1.
132. ABEYRATNE, AVIATION IN CRISIS, *supra* note 1, at 43.
133. *Id.*
134. *Aviation War Risk, Second Meeting*, *supra* note 80, at app. A1-4 – 1-5.
135. *Id.* at app. A1-1; 1-4 – 1-5.
136. *Id.* at i-3.
137. ABEYRATNE, AVIATION IN CRISIS, *supra* note 1, at 43.
138. *Id.*
139. *Id.*

sure of a participating state to risk of payment in the instance of a claim under third party war risk liability would amount to its ICAO contribution percentage of U.S. $1.5 billion.[140] For example, a state that participates in the ICAO scheme, which contributes three percent of the ICAO budget, has a maximum exposure of U.S. $45 million. Compared to state guarantees given in the aftermath of the September 2001 events, which were often unlimited, this modality should be acceptable to most states. In order to participate, an ICAO contracting state would be required to sign a participation agreement with ICAO that would be generally designed to fit the particular legal structure and legislative requirements of each state concerned.[141]

An insurance entity, which is proposed within the parameters of the ICAO scheme, would have to be established by the ICAO Council, and thereafter be formally incorporated, jointly by ICAO and the industry, consequent upon development of appropriate statutes and statutory instruments, in accordance with applicable domestic and regulatory requirements. The participation agreement would be open for signature to all ICAO contracting states.

At the Third Meeting of the Council Study Group on Aviation War Risk Insurance, held at ICAO on 14 January 2003, the Study Group considered the status of developments since its second meeting, noting that forty-five contracting states had indicated their intent to participate in the global war risk insurance scheme whereas ten states had responded negatively, expressing their unwillingness to participate.[142] The Group also considered a revised Draft Participation Agreement for the Global Scheme Regarding the Provision of Aviation War Risk Insurance[143] which had been circulated earlier to contracting states.[144] This draft Agreement is designed to establish an Insurance Entity ("IE") for the sole purpose of providing aviation insurance cover on prescribed terms for war and allied perils related liability risks faced by airline operators and other commercial entities providing aviation related services.[145] The purpose of the agreement which is mainly to obtain from participating states a guarantee certain obligations of the IE and to establish the proration, limits, and payment mechanisms related such obligations-in other words to provide complimentary cover through the IE that was with-

140. *Aviation War Risk, Second Meeting*, *supra* note 80, at A1-2.

141. *Id.*

142. Council Study Group on Aviation War Risk Insurance, Third Meeting, Montreal, 14 Jan. 2003, ICAO Doc. CGWI/3-IP/1 at 2.

143. *See* Assistance in the Field of Aviation War Risk Insurance, Mar. 4, 2003, ICAO Doc. C-WP/11946 at 2.

144. *Id.*

145. *Aviation War Risk, Second Meeting*, *supra* note 80, at app. A1-1.

drawn or reduced by the commercial insurance market following the events of 11 September 2001.[146]

With regard to the scope of coverage, the IE will provide aviation war risk cover from the excess point per insured up to U.S. $ 1.5 billion.[147] The same amount would apply to operators who have coverage under AVN 52D and AVN 52F clauses or any derivatives thereof, on the basis the amount would apply to any one occurrence, any one aircraft and any one insured.[148] This limit of $1.5 billion will be applicable in addition to the primary passenger and third party limits that were provided by the insurance markets prior to 11 September 2001.[149] A lower limit is also provided under the IE coverage of $ 500 million for operators who obtain coverage under AVN 52E and AVN 52G or derivatives of such coverage.[150] The IE's cover shall automatically apply to those who are originally insured and who lose their war risk coverage as dictated by the insurance market when such third party cover is up to the excess point or passenger war risk insurance cover under their primary aviation insurance policies.[151] In the case of passenger war risk cover, the limits of 1.5 billion will be raised to $ 2 billion and up to $750 million respectively.[152]

The IE will, under the participation agreement, meet any claims through funds accumulated from premiums, earned investment income, and income from other sources, along with borrowings, while participating states will remain as guarantors of last resort.[153] Premiums will be collected from original insureds who are air carriers designated for the purpose of the Agreement by state parties; any lessors, financiers and manufacturers incorporated in a participating state (State Party) who purchase their own primary insurance; and any service provider incorporated in a participating state who is in the business of providing services or goods in that state to any person or entity engaged in the aviation industry.[154] Any other person or entity identified by the above categories of original insureds as additional insureds would be exempt from payment of premiums.[155] The Agreement makes a provision for the IE to seek borrowings from credit institutions in the event funds accumulated through financial resources identified above are not sufficient to meet

146. *Id.* at app. A1-1 – A.1-2.
147. *Id.* at app. A1-5.
148. *Id.*
149. *Id.*
150. *Id.*
151. *Id.* at app. A1-5 – A1-6.
152. *Id.* at app. A1-5.
153. *Id.* at 2-2.
154. *Id.* at app. A1-5.
155. *Id.* at 3-2.

claims.[156] The IE is required to maintain at all times liability insurance covering the interests of directors, officers, and employees of the Entity.[157]

For the part of participating states, their obligations are to guarantee to the IE that they will meet claims arising from insurance policies issued by the IE to original insureds incorporated in the territory of a signatory state or any other participating state party to the agreement.[158] The participating states also warrant that the agreement would, for all purposes, be treated as a commercial agreement, *i.e.* a contract.[159]

The inherent advantages of the proposed ICAO scheme are its uniqueness in terms of its global application, non-cancelability, affordability with regard to premium and exposure to claims, and its design in accordance with regulatory requirements.

IV. Conclusion

The commonality between the problems of space insurance and air transport insurance lies in the enormity of exposure to risk faced by both industries. In the context of space insurance, underwriters are primarily concerned with the rapidity with which the frequency of spacecraft failures occur.[160] One of the reasons for satellite failure may well be the accelerated rate of their manufacture, which has shortened from thirty-six months to twelve months.[161] The reliance on generic spacecraft specifications could also be a contributory factor.[162] With regard to commercial air transport insurance, the increased exposure to risk is particularly in the field of security and the threat of unlawful interference.[163] Additionally, the safety of aviation is also a concern, sometimes conceptually attributed to the proliferation of flights by carriers to attain commercial expediency and provide for an increasing demand for air services.[164] Whatever may be the reasons for increased exposure to risk, both space and air transportation must, of necessity, address the compelling need to review ways and means of ensuring adequate provision of insurance coverage.

One of the issues that would be relevant, and be politically and socially compelling, is the extent to which states can be called upon to be

156. *Id.*

157. Council Study Group on Aviation War Risk Insurance, Third Meeting, Montreal, 14 Jan. 2003, ICAO Doc. SGWI-CG/1.

158. *Id.* at app. A1-5.

159. Review Group of the Special Group on Aviation War Risk Insurance, Third Meeting, Montreal, 30 Apr. 2003 & 1 May 2003, ICAO Doc. SGWI-RG/1 at 1-1.

160. Foust, *supra* note 6, at 1.

161. *Id.* at 3.

162. *Id.*

163. Abeyratne, Aviation In Crisis, *supra* note 1, at 34.

164. *Id.*

responsible for ensuring that both these critical areas are covered for risks so that continuity of the services they render are assured. The reason for this is clear. The space and insurance industries clearly suffered a paradigm shift, largely brought to bear by the impact of the events of 11 September 2001 on the air transport industry. Before these events, war risk insurance coverage for aviation, which was included in most standard insurance policies, was the obscure preoccupation of insurance managers of airlines.[165] The only "red flag" in the war risk coverage was the seven-day cancellation clause that was seldom invoked until the events of September 2001.

The fluctuating and untenable situation in the space and air transport insurance industries demonstrate that both industries are "brittle" and, therefore, susceptible to catalysts of market failure. It is this reason that calls for states to be insurers of first resort rather than last resort. States should play the role of initiator and regulator of insurance to the extent of ensuring that insurance is available rather than actually providing it. The ultimate provision of insurance should be left to the commercial insurance market.

The synergies between air transport and space insurance are seen particularly in war risk insurance, where substantial neglect on the part of a state to take reasonable preventive or preemptive action, and neglect due to lack of attention, official indifference or connivance will impose upon that state responsibility for damage to foreign, private and public property.[166] Such a responsibility could give rise to the legal remedy of *restitution in integrum*, usually granted to the injured person by a tribunal by way of a declaration, or by restitution in kind or specific restitution.[167] Additionally, the rule of law requires that, if damage is caused by negligence in the course of a lawful activity, the award of compensation may be a legal remedy.[168] This is one more reason for states to be interested in involvement one way or another in the regulatory process or guidance-setting with regard to insurance coverage.

A tangible example and experience has already been provided by the ICAO in its offer to the aviation community of a viable regulatory process with regard to air transport insurance. ICAO's involvement, until 17 September 2001 when the underwriters gave seven days' notice of withdrawal of war risk coverage, was non-existent.[169] After the Council

165. *See* Tom Chappell, *War Risk Insurance – Misunderstood and Underappreciated*, AVWEB, INTERNET AVIATION MAGAZINE & NEWS SERVICE, Feb. 3, 2002, *at* http://www.avweb.com/news/-insure/182771-1.html.

166. *See* the Youmans Case, (1926) RIAA iv 110, 116; 21 AJ (1927) 571, 578.

167. BROWNLIE, *supra* note 64, at 462.

168. *Id.* at 464.

169. ABEYRATNE, AVIATION IN CRISIS, *supra* note 1, at 34.

of the ICAO approved, in principle, the establishment of a global aviation war risk insurance scheme, the ICAO's role is predominant.[170]

The most fundamental commonality in the paradigm outlining the purpose of both the areas of outer space and air transport activity is essentially that both are for the benefit of the public good and the well-being of nations and therefore, any suspension of activity would be seriously detrimental to the welfare of common humanity. In the outer space regime, the benefits accorded by space exploration to both states and people is explicitly recognized in Article 1 of the *Outer Space Treaty* which provides that "[t]he exploration and use of outer space, including the Moon and other celestial bodies, shall be carried out for the benefit and interests of all countries, irrespective of their economic or scientific development, and shall be the province of all mankind."[171] In the air transport field, the *Convention on International Civil Aviation*, in its *Preamble,* recognizes that "whereas the future development of international civil aviation can greatly help to create and preserve friendship and understanding among the nations and peoples of the world [thus recognizing, as in the context of outer space activity, that both states and people benefit from air transport], yet its abuse [*i.e.* abuse of the future development of civil aviation] can become a threat to the general security . . . ."[172] One can find no compelling legal pronouncements stronger than these to conclude that states are necessarily and integrally involved in assuring the sustainability of outer space activities and air transportation.

The final issue to be addressed, in terms of state involvement as the first insurer or insurer of first resort, is the manner in which state involvement can be consolidated. It must, as of necessity, be through international treaty where consent of the states' parties to be bound by such a treaty will be a legal prerequisite. It is only in this manner that insurance at last resort can be ensured through the commercial insurance market at reasonable rates. Preference for one over the other, as is currently occurring in the air transport and space industry, can then be effectively precluded.

170. Press Release, ICAO, ICAO Council Approves Global Aviation War Risk Insurance Scheme (PIO Aug. 2002).

171. *Outer Space Treaty*, *supra* note 35, at art. I.

172. *Civil Aviation Convention, supra* note 84, at preamble.