15th Manfred Lachs Space Law Moot Court Competition 2006

CASE CONCERNING THE SALE AND OPERATION OF CERTAIN COMMERCIAL REMOTE SENSING SATELLITES

(GALATEA V THALASSA: PROTEUS INTERVENING)

PART A: INTRODUCTION

The 15th Manfred Lachs Space Law Moot Court Competition was held during the Valencia IISL Colloquium. The *Case concerning the Sale and Operation of Certain Commercial Remote Sensing Satellites (Galatea v Thalassa: Proteus Intervening)* was written by Ricky Lee. Preliminaries were held at regional level in Europe, North America and in the Asia Pacific region. The Finals were judged by three Judges of the International Court of Justice.

The final was hosted by the Supreme Court of Valencia. The local organising committee managed to obtain a lot of support; the local sponsors were:

- Generalitat Valenciana - Conselleria de Justicia, Interior y Administraciones Públicas
- Facultad de Derecho, Universitat de València
- Universidad Nacional de Educación a Distancia (UNED) in Valencia
- University CEU-Cardenal Herrera, and
- Colegio Notarial de Valencia.

In addition, McGill IASL, ESA/ ECSL and JAXA sponsored the winners of the regional rounds, and DLR published the Brochure of the moot court.

Results of the world finals:

- **Winner**: University of Auckland, New Zealand (James Townshend and Jonathan Orpin; Coach: Mr. Isaac Hikaka).

- **Runner-up:** Institute of Air and Space Law, McGill University (IASL), Montreal, Canada (Michael Taylor, Susan Trepczynski and Andrew Williams; Coach: Prof. Ram Jakhu).

- **2nd Runner-up**: Catholic University, Leuven, Belgium (Emmanuel De Groof, Gareth Price and Batist Paklons; Coach: Dr. Walter Thiebaut).

- **Eilene M. Galloway Award** for Best Written Brief: Institute of Air and Space Law, McGill University.

- **Sterns and Tennen Award** for Best Oralist: Mr Andrew Williams (Institute of Air and Space Law, McGill University).

Participants in the regional rounds

In North America:

- William and Mary School of Law (WMS)
- Golden Gate University School of Law (GGU)
- George Washington University School of Law (GWU)
- University of North Dakota - Department of Space Studies(UND)
- Georgetown University Law Center (GU)
- University of North Carolina School of Law (UNC)
- Santa Clara University School of Law (SCU)
- American University, Washington College of Law (AU)
- Institute of Air and Space Law, McGill University (IASL)
- Western New England College School of Law (WNE)

In Europe:

- Warsaw UniversityDepartment, Institute of International Relations, Poland
- Katholieke Universiteit, Leuven, Belgium
- Leiden University, International Institute of Air and Space Law, Leiden, Netherlands
- Universidad de Jaén, Derecho y Administración y Dirección de Empresas, Jaén, Spain
- Université libre de Bruxelles, Belgium
- University of Bremen, Germany

In the Asia Pacific:

- University of Queensland, Brisbane
- Flinders University of South Australia, Adelaide
- University of Sydney, Sydney
- University of Technology, Sydney
- University of New South Wales, Sydney
- University of Melbourne, Melbourne
- China University of Political Science and Law, Beijing
- National Law School of India University, Bangalore
- University Law College, Bangalore
- M S Ramaiah College of Law, Bangalore
- University of Lucknow, Lucknow
- Gujarat National Law University, Gandhinagar
- Tamil Nadu Dr Ambedkar Law University, Chennai
- Hidayatullah National Law University, Raipur
- Mahatma Gandhi University, Ernakulam
- National Academy of Legal Studies and Research, Hyderabad
- Amity Law School, New Delhi

- West Bengal National University of Juridical Sciences, Kolkata
- Balaji Law College, Pune
- Indian Law Society Law College, Pune
- University College of Law, Dharwad
- Bangalore Institute of Legal Studies, Bangalore
- University of Delhi, Delhi
- National Law University, Jodhpur
- Guru Nanak Dev University, Jalandhar
- University of Mysore, Mysore
- Karnatak Lingayat Education Society Law College, Bangalore
- University of Mumbai, Mumbai
- Kerala Law Academy Law College, Thiruvananthapuram
- Dr Ambedkar Government Law College, Chennai
- Padjadjaran University, Bandung
- Parahyangan Catholic University, Bandung
- Aoyama Gakuin University, Tokyo
- Sophia University, Tokyo
- University of Kyoto, Kyoto
- University of Tokyo, Tokyo
- Waseda University, Tokyo
- University of Auckland, Auckland
- National University of Singapore, Singapore
- Chulalongkorn University, Bangkok

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Judges for written briefs:

- Dr. Peter van Fenema, Adj. Professor, McGill Institute of Air and Space Law, Montreal / Consultant, The Netherlands
- Prof. Joanne Gabrynowicz, Director, National Remote Sensing and Space Law Center, University of Mississippi School of Law USA
- Prof. VS Mani, Director, Gujarat National Law University, India
- Dr. Martha Mejia-Kaiser, Independent researcher, Mexico
- Prof. Masami Onoda, Kyoto Univ. Graduate School of Global Environmental Studies, Japan
- Dr. Leslie Tennen, Law Offices of Sterns and Tennen,, Phoenix, AZ, USA

Judges for semi finals:

- Ms. Marcia Smith, Director, Space Studies Board, The National Academies, USA
- Dr. Olivier Ribbelink, Head, Research Department Public International Law, TMC Asser Institute, The Netherlands
- Prof. Steven Freeland, School of Law, University of Western Sydney, Australia

Judges for finals:

- H.E. Judge Abdul Koroma, ICJ
- H.E. Judge Peter Tomka, ICJ
- H.E. Judge Bernardo Sepúlveda, ICJ

PART B: THE PROBLEM

CASE CONCERNING THE SALE AND OPERATION OF CERTAIN COMMERCIAL REMOTE SENSING SATELLITES

Galatea v Thalassa: Proteus Intervening

STATEMENT OF FACTS

1. The Republic of Galatea and the neighbouring Kingdom of Thalassa are both industrialised States with a long history of competition, rivalry and even warfare. They are both coastal States on the western shores of the Nereid Ocean. However, relations between them have improved in recent years and many commercial ties exist between the governmental and private entities of the two States.

2. SpaceSense Corp. is a company incorporated in Galatea that is 51% owned by the Government of Galatea. The remaining 49% is owned by private investors in Galatea. SpaceSense operates a fleet of remote sensing satellites and provide images of the 19 States bordering the Nereid Ocean on a commercial basis to commercial interests in Galatea, Thalassa and most of the States covered by the SpaceSense satellite fleet. Two of the satellites, SRS-1 and SRS-3, were both launched by the government-owned Galatean Space Agency into low Earth orbit in 1993 from a facility located in Galatea that is owned and operated by the Galatean Space Agency.

3. NeoImage, Inc. is a company incorporated in Thalassa that is 100% owned by Thalassian private interests. NeoImage developed a new image processing technology, providing images of remarkable detail. Its original business plan was to purchase raw (or primary) imaging data from third-party satellite data providers. The data would then be processed using NeoImage's proprietary technology, and then resold to its commercial customers.

4. In 2000, SpaceSense had scheduled the launch of SRS-17 and SRS-18, which are intended to replace four satellites that are classified as obsolete, including SRS-1 and SRS-3. However, it was estimated that a further six years of operational lifespan existed in both of the retiring satellites. After four months of difficult negotiations, NeoImage agreed to buy both SRS-1 and SRS-3 from SpaceSense for an undisclosed amount. Both companies were at the time in the process of being listed on their respective domestic stock exchanges and, consequently, were keen to finalise the sale as quickly as possible. It was agreed verbally between the presidents of the two companies that the ownership and operation of both satellites were to be transferred at midnight on 1 April 2001. In their haste, no written arrangements were in place prior to 1 April 2001 and none have been concluded since then, between SpaceSense and NeoImage and between Galatea and Thalassa concerning the sale of the satellites. However, during a visit by the foreign minister of Thalassa to Galatea in March 2001, the two foreign ministers issued a joint communiqué that provided, among other statements: The Governments of Galatea and Thalassa both welcome the sale and purchase of SRS-1 and SRS-3, acknowledge that the two Governments have international legal obligations concerning those satellites and agree to consult and indemnify each other to the extent that any loss arises from such international obligations.

5. On 1 April 2001, NeoImage took over the control and operation of the satellites SRS-1 and SRS-3 from its new custom-built ground control facility in Thalassa. As the communication protocols and frequencies were unchanged, SpaceSense continued to retain the ability to control and operate the two satellites from its control facility in Galatea. Two months later, NeoImage began selling processed images of all 19 coastal States from both satellites on the commercial market.

6. The Democratic People's Republic of Proteus is a militaristic State on the northern coast of the Nereid Ocean. Proteus, along with the neighbouring Commonwealth of Larissa, gained independence in 1971 from Galatea after a violent armed struggle. Ever since then, a state of war had existed between Proteus and Larissa, resulting in three major wars and numerous skirmishes. The Governments of both States have long been customers of both SpaceSense and NeoImage for domestic civilian applications.

7. In May 2002, the Government of Larissa ordered high resolution processed images of various locations in Proteus from NeoImage. Using the SRS-1 and SRS-3 satellites, NeoImage obtained the image data of those locations, processed them and sold them to Larissa on its usual terms of trade. The locations in question included several army barracks, air bases, naval installations and nuclear facilities. In the subsequent months, Larissa ordered and obtained more high resolution images of the same and other locations, most of which were military

installations of Proteus. These sales were kept confidential by both NeoImage and the Government of Larissa, although NeoImage suspected at the time that the images might be used for military purposes.

8. In September 2002, fierce fighting broke out again in what became known as the Fourth North Nereid War between Proteus and Larissa. The Larissan Air Force destroyed all the military installations and army concentrations of Proteus with a degree of accuracy that surprised the Government of Proteus. After intensive mediation by the Secretary-General of the United Nations and several resolutions of its Security Council, a ceasefire was declared and the guns fell silent. By then, around 40% of the army, 72% of the air force and all the nuclear facilities of Proteus had been destroyed.

9. During the Fourth North Nereid War, NeoImage quickly came to the conclusion that Larissa had used the images provided by NeoImage for targeting purposes. This conclusion was reached by studying television news and other media reports as to the locations of the air strikes by Larissa, which revealed that they were the same locations as the images provided by NeoImage. Through private channels, NeoImage protested to the Government of Larissa and obtained assurances that Larissa would no longer use images provided by NeoImage for military purposes.

10. The intelligence organisations of Proteus were instructed by the President of Proteus to investigate the causes of the accurate destruction of its forces by Larissa. In January 2003, a highly placed source in the Government of Larissa revealed to Proteus the transactions between NeoImage and Larissa. In the interest of protecting the source from exposure at the time, the Government of Proteus refrained from taking any action against NeoImage and kept this information secret within only the highest levels of its Government. However, it did embark on a secret program to conceal its military facilities and installations from remote sensing satellites.

11. In March 2003, civilian agencies within the Government of Proteus had sought from various commercial providers, including SpaceSense and NeoImage, high resolution images of coastal and rural areas for agricultural and water conservation purposes. NeoImage feared that Proteus would discover its contribution to the military activities of Larissa during the previous war and, consequently, refused the orders. Sadly, the images obtained from SpaceSense and other providers were of an insufficient resolution.

12. After a successful covert operation by Proteus to extract its highly placed secret source in Larissa in October 2003, Proteus publicly revealed its evidence that images were supplied by NeoImage to the Government of Larissa for military purposes. Proteus brought proceedings in the domestic courts of Thalassa against NeoImage for its role in the damage sustained by Proteus during the last war.

13. On 1 January 2004, during New Year celebrations, SpaceSense technical staff at its ground control facility had inadvertently resumed control of both SRS-1 and SRS-3 and, in the process, failed to notice or correct a malfunction in the altitude control of both SRS-1 and SRS-3 that independently and coincidentally occurred at the time. The malfunction caused the computers onboard both spacecraft to perceive erroneously that their altitudes were higher than they actually were, causing the onboard engines on both spacecraft to begin an automatic descent until both spacecraft had entered the atmosphere of the Earth. While SRS-1 was completely destroyed during its descent through the atmosphere, most parts of SRS-3 survived re-entry and landed in a munitions factory in the capital of Proteus. The explosions caused by the impact resulted in heavy casualties and serious property damage.

14. Subsequent independent investigations reveal that the malfunction in the altitude control systems of both spacecraft would have occurred even if SpaceSense had not resumed control of the spacecraft. The cause of the malfunction is unknown. It is also unclear whether the NeoImage control staff would have been able to correct the malfunction if they had been in control of the spacecraft at the time.

15. After the destruction of the two satellites, NeoImage lost most of its customers in the resulting wave of international indignation and was declared bankrupt in August 2004 before it could commence legal action against SpaceSense for the return of both satellites. The legal action brought by the Government of Proteus against it remained unresolved at the time.

16. In September 2004, Proteus began negotiations with both Galatea and Thalassa, seeking compensation for the damage caused by the in-orbit operations and re-entry of the SRS-1 and SRS-3 satellites. After protracted negotiations, the three States agreed that Proteus was entitled to a specified amount of compensation, which was not hitherto disclosed.

However, since there was no agreement as to who, Galatea or Thalassa, or both, was liable to pay such compensation, the three states agreed to jointly refer this issue to the International Court of Justice.

17. On 1 November 2005, Galatea and Thalassa jointly referred the issues of their respective liability for decision by the Court. Proteus was joined as an intervener with the consent of both Galatea and Thalassa, but it was agreed by all three States that Proteus was not to assume an active role in the proceedings.

18. Galatea seeks declarations that:

(i) Galatea has been fully compliant with its obligations under international law as far as the supply of high resolution remote sensing data over the military installations and facilities of Proteus for military purposes is concerned, and under the March 2001 joint communiqué Thalassa bears any international responsibility for those activities;

(ii) In the absence of any specified arrangement on dealing with third-party claims for unlawfulness of activities involving SRS-1 and SRS-3, Thalassa is fully and exclusively responsible in any case where activities involving SRS-1 and SRS-3 would be considered to violate rights of Proteus under international law for the refusal by NeoImage to supply to Proteus remote sensing data over Protean territory;

(iii) In the absence of any specified arrangement on dealing with third-party claims for liability involving SRS-1 and SRS-3, Thalassa is fully and exclusively liable for any claim addressed to Galatea and Thalassa jointly or severally under international law for damage caused to Proteus by the reentry of SRS-3 into the atmosphere of the Earth;

(iv) Galatea is not liable under international law for the economic loss suffered by Thalassa by the loss of both SRS-1 and SRS-3; and

(v) all other relief sought by Galatea in its memorials and oral submissions should be granted and all relief sought by Thalassa should be denied.

19. Thalassa seeks declarations that:

(i) Thalassa has been fully compliant with its obligations under international law as far as the supply of high resolution remote sensing data over the military installations and facilities of Proteus for military purposes is concerned, and under the March 2001 joint communiqué Galatea bears any international responsibility for those activities;

(ii) In the absence of any specified arrangement on dealing with third-party claims for unlawfulness of activities involving SRS-1 and SRS-3, Galatea is fully and exclusively responsible in any case where activities involving SRS-1 and SRS-3 would be considered to violate rights of Proteus under international law for the refusal by NeoImage to supply to Proteus remote sensing data over Protean territory;

(iii) In the absence of any specified arrangement on dealing with third-party claims for liability involving SRS-1 and SRS-3, Galatea is fully and exclusively liable for any claim addressed to Galatea and Thalassa jointly or severally under international law for damage caused to Proteus by the reentry of SRS-3 into the atmosphere of the Earth;

(iv) Galatea is liable under international law for the economic loss suffered by Thalassa by the loss of both SRS-1 and SRS-3; and

(v) all other relief sought by Thalassa in its memorials and oral submissions should be granted and all relief sought by Galatea should be denied.

20. Both SRS-1 and SRS-3 were registered with the Secretary-General of the United Nations in accordance with the 1975 Registration Convention, with Galatea listed as the "launching State" and the "State of registry". No notification of any change of status of SRS-1 and SRS-3 was lodged subsequent to the sale of the spacecraft.

21. Galatea, Proteus and Thalassa are parties to the 1967 Outer Space Treaty, the 1972 Liability Convention, the 1968 Rescue Agreement and the 1975 Registration Convention. All three States were founding members of the United Nations in 1945. Galatea has signed and ratified the 1979 Moon Agreement but Proteus and Thalassa have never signed it nor recognised it as being part of international law.

22. Galatea and Thalassa are both members of the International Telecommunication Union and the World Trade Organisation, while Proteus is a member of the International Telecommunication Union but not the World Trade Organisation.

23. Larissa is a member of the United Nations but is not party to the Outer Space Treaty, the Liability Convention, the Rescue Agreement, the Registration Convention or the Moon Agreement. It is a member of the World Trade

Organisation but is not a member of the International Telecommunication Union.

ADDITIONAL FACTS

1. The March 2001 joint communiqué was in writing and issued to the press.

2. When SpaceSense technical staff resumed control, they were unaware that they had resumed control of SRS-1 and SRS-3, nor was the NeoImage technical staff aware that they had lost control of the satellites. Only one ground control facility can control a satellite at any given time.

3. It is unknown whether the altitude malfunction occurred before, concurrently or after SpaceSense had resumed control of the satellites. It is also unknown what steps, if any, were taken by SpaceSense technical staff that caused the resumption of control.

4. Proteus actually became a member of the United Nations in 1972 and is considered a "developing country" by the United Nations Development Programme. None of the relevant States have signed nor ratified the Vienna Convention on the Law of Treaties.

PART C: FINALISTS BRIEFS

A. WRITTEN BRIEF FOR GALATEA

AGENTS:

Michael Taylor, Susan Trepczynski, Andrew Williams (Institute of Air and Space Law, McGill University Montreal, Canada)

ARGUMENT:

I. Thalassa is liable for NeoImage's covert sale of remote sensing data to Larissa

Thalassa is liable to Proteus for NeoImage's sale of remote sensing data of Protean military installations to Larissa. Galatea had no part in, or knowledge of, NeoImage's remote sensing of Protean military facilities or the sale of this data to Larissa. Thalassa, on the other hand, should have known about these activities.

A. Thalassa had a heightened duty to ensure its territory would not be used to harm Proteus.

Under international law, every State has an obligation "not to allow knowingly its territory to be used for acts contrary to the rights of other States."[1] This obligation extends to persons and private entities under the State's effective jurisdiction.[2] States are not only responsible for their own acts and the acts of their agents;[3] they also have a duty to use due diligence in "preventing, suppressing, and repressing injurious acts."[4] Due diligence is measured by international standards.[5] If a State fails to use due diligence to protect a foreign State, the State will be directly responsible for this failure "since failures by its officials will be imputed to the State as its own acts."[6] States are liable for failing to prevent or suppress acts they could have prevented if they should have known about

[1] *Corfu Channel* (merits) (U.K. v. Alb.), 1949 I.C.J. 4, 22 (9 Apr.); *see also Trail Smelter* (U.S. v. Can.), 3 R.I.A.A. 1911 (1941), *reprinted in* 35 AM. J. INT'L L. 684, 713 (1941) ("A State owes at all times a duty to protect other States against injurious acts by individuals from within its jurisdiction.").

[2] BIN CHENG, STUDIES IN INTERNATIONAL SPACE LAW 616 (1997).

[3] IAN BROWNLIE, PRINCIPLES OF PUBLIC INTERNATIONAL LAW 431-439 (2003); CHENG, *supra* note 2, at 605.

[4] CHENG, *supra* note 2, at 604.

[5] *Id.* at 605.

[6] *Id.* at 604, 616.

them.[7] Moreover, the duty to protect foreign States can be heightened by treaty.

The 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (OST),[8] establishes basic rights and duties of States carrying on activities in outer space. In particular, Article VI declares that States "shall bear international responsibility for national activities in outer space".[9] Article VI clarifies that direct State responsibility for national activities extends to activities "carried on . . . by *non-governmental* entities" for the express purpose of "assuring that national activities are carried out in conformity with the provisions" of the OST.[10] In this regard, Article VI mandates that the "activities of non-governmental entities in outer space . . . shall require authorization and continuing supervision by the appropriate State".[11] The effect of Article VI on Thalassa is two-fold. Thalassa is directly responsible for NeoImage's outer space activities as if they were its own, and Thalassa has assumed a heightened duty to protect foreign States.

1. Thalassa was the appropriate State to supervise NeoImage's outer space activities.

On 1 April 2001, SpaceSense transferred ownership and operational control of SRS-1 and SRS-3 to NeoImage.[12] NeoImage is incorporated in Thalassa, fully owned by Thalassean private interests, and controlled from a Thalassean facility.[13] NeoImage thus possesses a genuine connection[14] to Thalassa, making it indisputable that NeoImage has a Thalassean *nationality*.

Since NeoImage is a Thalassean company, Thalassa can effectively exercise jurisdiction and control over it. It follows that "every State Party should be directly responsible for any space activity that is within its legal power or competence to control, whether by governmental agencies or by non-governmental entities."[15] Thalassa has the legal authority to monitor and control the space activities of its nationals within its territory, and it is in the best position to do so. As a State Party to the OST, Thalassa has agreed to do all of these things. Thalassa is therefore internationally responsible for NeoImage's space activities.

2. NeoImage aided Larissa in its war against Proteus.

This Court has declared that "the principle of neutrality . . . is of a fundamental character . . . [and] is applicable . . . to all international armed conflict".[16] Hence, "[t]he supply, in any manner, directly or indirectly, by a neutral Power to a belligerent Power, of . . . war material of any kind whatever, is forbidden."[17] War material includes any item whose character makes it obvious it is destined for use in armed conflict.[18] The strategic importance of remote sensing data as war material is evinced by the domestic legislation of two leading space-faring States—the United States and Canada—restricting the sale of remote sensing data to protect foreign States.[19]

Larissa was a belligerent when it ordered high resolution imagery from NeoImage in May 2002; Larissa and Proteus have been in a perpetual state of war for 35 years.[20] Thalassa was therefore prohibited from supplying Larissa with war material for use against Proteus, and it should have prevented NeoImage's sales to Larissa. The military benefit to Larissa of remote sensing imagery of Protean military facilities cannot be disputed. Larissa used this imagery to destroy Protean military installations and army concentrations with a high degree of accuracy.[21] Larissa waged this war with NeoImage's assistance. Hence, NeoImage's sales of remote

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[7] *Corfu Channel*, *supra* note 1, at 23-24 (holding Albania liable for permitting the mining of its territorial waters).

[8] 27 Jan. 1967, 610 U.N.T.S. 205.

[9] *Id.* art VI.

[10] *Id.* (emphasis added).

[11] *Id.*

[12] *Compromis*, ¶ 4.

[13] *Compromis*, ¶¶ 3, 5.

[14] The need for a genuine connection or "effective link" to establish nationality is a requirement of customary international law. BROWNLIE, *supra* note 3, at 395-406; *see also* discussion on the need for genuine links *infra* Part 0.

[15] Bin Cheng, *Article VI of the Space Treaty Revisited: "International Responsibility," "National Activities," and "The Appropriate State,"* 26 J. SPACE L. 7, 23 (1998).

[16] *Legality of the Threat or Use of Nuclear Weapons* (advisory opinion) 1996 I.C.J. 1 (8 July) at ¶ 89.

[17] Convention (XIII) on the Rights of and Duties of Neutral Powers in Naval War, 18 Oct. 1907, art. 6, *reprinted in* 2 SUPP. AM. J. INT'L L. 202 (1908).

[18] *See, e.g.*, Declaration Concerning the Laws of Naval War, 26 Feb. 1909, arts. 22-44 (defining contraband of war for purposes of the establishment of an international prize court), *reprinted in* 3 SUPP. AM. J. INT'L L. 179, 196-207 (1909).

[19] Land Remote Sensing Policy Act, 15 U.S.C. §§ 5622(b)(2), 5651(a) (U.S.); Remote Sensing Space Systems Act, R.S.C. 2005, ch. 45, § 4(3)(a) (Can.).

[20] *Compromis*, ¶ 6.

[21] *Id.* ¶ 8.

sensing imagery to Larissa were contrary to Thalassa's legal obligation to remain neutral in the armed conflict between Larissa and Proteus.

3. NeoImage chose to remain ignorant of Larissa's use of its imagery.

A State that assists another in the commission of a wrongful act is also internationally responsible for that wrongful act.[22] The responsible State need not positively know that it is assisting the other State in the commission of a wrongful act; it must only do so "with knowledge *of the circumstances* of the internationally wrongful act".[23]

In assessing NeoImage's "knowledge of the circumstances," this Court should apply "general principles of law recognized by civilized nations".[24] One such principle is the British doctrine of "wilful blindness"[25] or, as it is known in the United States, the "deliberate ignorance" doctrine.[26] This doctrine has been specifically applied in the United States to corporations when their agents suspect a criminal violation but deliberately choose not to investigate further.[27]

Larissa repeatedly requested imagery of Protean military facilities over a four-month period, and NeoImage suspected Larissa would use the imagery for military purposes.[28] Because Larissa and Proteus were in a state of war,[29] NeoImage should have sought assurances from Larissa about how the data would be used. Instead, NeoImage kept its sales confidential.[30] NeoImage deliberately chose to remain ignorant of Larissa's intentions in spite of its well-founded suspicions.

This Court has previously made liberal inferences of fact from circumstantial evidence. In *Corfu Channel*, this Court found that Albania knew about acts committed in its territorial waters despite its denials and the unavailability of direct proof of knowledge.[31] In finding for the United Kingdom, this Court stated, "indirect evidence is admitted in all systems of law, and its use is recognized by international decisions."[32] This Court should therefore find that NeoImage remained wilfully blind.

4. NeoImage's knowledge and corresponding acts are imputable to Thalassa.

Thalassa is directly responsible for NeoImage's outer space activities and had a heightened duty to continuously supervise those activities. If Thalassa had known about NeoImage's remote sensing of Proteus over the four-month period, it would have had a duty to prevent the sales of imagery to Larissa. Thalassa is internationally responsible for NeoImage's outer space activities and it is liable for NeoImage's breaches of international law relating to those outer space activities. Because Thalassa allowed its territory and private entities to be used for acts contrary to Protean rights, Thalassa is internationally responsible to Proteus for these acts. This responsibility includes the corresponding duty to pay for damage caused by breaches of international law.[33]

5. Thalassa acknowledged its international responsibility for the satellites.

In March 2001, a month before the satellites were transferred to NeoImage, the foreign ministers of Galatea and Thalassa released a written joint communiqué welcoming the sale.[34] In this communiqué, both governments expressly "acknowledge [they] have international legal obligations concerning those satellites."[35] The two governments also agreed to "indemnify each other to the extent that any loss arises from such international obligations."[36] The communiqué

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[22] Draft Articles on the Responsibility of States for Internationally Wrongful Acts, G.A. Res. 56/83, Annex, art. 16, U.N. GAOR, 56th Sess., U.N. Doc. A/RES/56/83 (2001) [hereinafter Draft Articles].

[23] *Id.* (emphasis added).

[24] Statute of the International Court of Justice, 3 Bevans 1179, 59 Stat. 1031, art. 38(1)(c).

[25] *See, e.g., United States v. Jewell*, 532 F.2d 697, 701 (9th Cir. 1976) (discussing what "British commentators have denominated 'willful blindness' or 'connivance' [i.e.,] the case of the actor who is aware of the probable existence of a material fact but does not satisfy himself that it does not in fact exist"); *see also* Matthew E. Beck & Matthew E. O'Brien, *Corporate Criminal Liability*, 37 AM. CRIM. L. REV. 261, 270 (2002) (discussing cases applying the deliberate ignorance doctrine to corporations).

[26] *Jewell*, 532 F.2d at 700-703.

[27] *United States v. Bank of New England, N.A.*, 821 F.2d 844 (1st Cir. 1987) (teller suspected a customer's deposits and withdrawals violated federal reporting requirements, but chose not to investigate the transactions).

[28] *Compromis*, ¶ 7.

[29] *Id.* ¶ 6.

[30] *Id.* ¶ 7.

[31] *Corfu Channel*, *supra* note 1, at 18.

[32] *Id.*

[33] *See, e.g., Alabama Claims* Arbitration (1872), *in* 1 MOORE, ARBITRATIONS 653 (ordering the United Kingdom to pay compensation to the United States for damage caused by the ship *Alabama* when the United Kingdom, as a neutral, allowed the *Alabama* to be constructed in its territory, knowing that it would enter into service with the Confederacy).

[34] Additional Facts, ¶ 1.

[35] *Compromis*, ¶ 4; Additional Facts, ¶ 1.

[36] *Compromis*, ¶ 4

thus publicly evinces Thalassa's intent to accept its international obligations.

The communiqué not only acknowledges both States' international obligations, it also is a binding treaty between Galatea and Thalassa. It meets all requirements for a treaty under the Vienna Convention on the Law of Treaties.[37] Though none of the Parties to this proceeding have ratified the Vienna Convention, its articles are either existing principles of customary international law or "presumptive evidence of emergent rules of general international law."[38] In this case, the communiqué was in writing,[39] and was issued by foreign ministers, persons with full authority to bind their respective States.[40]

While the communiqué does not list Thalassa's international obligations, under customary international law it is appropriate to consider any other agreement made in connection with the conclusion of the treaty,[41] as well as "any relevant rules of international law applicable in the relations between the parties."[42] In this case, the communiqué specifically refers to the transfer agreement between SpaceSense and NeoImage, welcoming "the sale and purchase of SRS-1 and SRS-3."[43] The transfer of ownership and control is thus an important consideration.

Additionally, the relevant rules of international law include the space treaties ratified by both Galatea and Thalassa: the OST,[44] the Convention on International Liability for Damage Caused by Space Objects[45] and the Convention on Registration of Objects Launched into Outer Space.[46] These treaties mostly address the duties and responsibilities of the launching State. Since Thalassa is not the launching State of SRS-1 and SRS-3, its international obligations arise under Article VI of the OST, which imposes direct State responsibility for national activities in outer space and a heightened duty to continuously supervise them. Because of this provision, Thalassa bears international responsibility for NeoImage's space activities.

B. Galatea is not internationally responsible for NeoImage's outer space activities.

Article VI of the OST limits international responsibility to *national activities*.[47] Because NeoImage is a Thalassean company operating solely in Thalassa, Galatea could not effectively supervise NeoImage. To do so, Galatea would have had to violate Thalassa's sovereignty by repeatedly intervening in its internal affairs. A State may not violate the principle of non-intervention in the domestic or territorial jurisdiction of another State to exercise jurisdiction over extra-territorial activities.[48] Moreover, international law does not require States to do the impossible, or, as it is said, *ad impossible nemo tenetur*.[49] Galatea was therefore not an appropriate State to supervise NeoImage's activities.

1. Galatea was the State of registry only because it was the launching State.

Article VIII of the OST provides that the State on whose register an object is listed "shall retain jurisdiction and control"[50] over it. When the OST was adopted, the drafters did not foresee significant private activity taking place in space.[51] The drafters never considered the possibility of on-orbit satellite transfers between private parties located in different States. In light of the growth of outer space activities carried on by private enterprises, the U.N. General Assembly recently called upon States to provide information on their "current practices regarding on-orbit transfer of ownership of space objects,"[52] reflecting a concern that literal application of Article VIII to on-orbit transfers may be unworkable in certain circumstances. This case is such a circumstance.

In interpreting Article VIII of the OST, this Court should consider the Registration Convention, which limits registration to launching States.[53] Since Thalassa did not launch SRS-1 and SRS-3, it could not register them

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[37] 22 May 1969, 1155 U.N.T.S. 331 [hereinafter Vienna Convention].

[38] BROWNLIE, *supra* note 3, at 580; *see, e.g., Territorial Dispute* (Libya v. Chad), 1994 I.C.J. 6 (3 Feb.) (confirming that Article 31 represents customary international law of treaty interpretation).

[39] Additional Facts, ¶ 1; Vienna Convention, *supra* note 37, art. 2(1)a.

[40] Vienna Convention, *supra* note 37, art. 7(2)(a).

[41] *Id.* art. 31(2).

[42] *Id.* art. 31(3)c.

[43] *Compromis*, ¶ 4.

[44] OST, *supra* note 8.

[45] 29 Mar. 1972, 961 U.N.T.S. 187 [hereinafter Liability Convention].

[46] 14 Jan. 1975, 1023 U.N.T.S. 15 [hereinafter Registration Convention].

[47] OST, *supra* note 8, art. VI.

[48] BROWNLIE, *supra* note 3, at 309

[49] Cheng, *supra* note 15, at 25.

[50] OST, *supra* note 8, art. VIII.

[51] *See* CHENG, *supra* note 2, at 607 (noting "in 1967 . . . non-governmental space activities were regarded still as most exceptional").

[52] G.A. Res. 59/115, ¶ 3, U.N. GAOR, 59th Sess., U.N. Doc. A/RES/59/115 (2005).

[53] *See* Vienna Convention, *supra* note 37, art. 31(3)(a); Registration Convention, *supra* note 46, arts. I.c, II.1.

under the Registration Convention. In only one instance has a satellite registration been changed from one State to another—when the United Kingdom transferred AsiaSat and Apstar registrations to the People's Republic of China.[54] In that case, however, the transfer was possible because the United Kingdom and China were both launching States.[55] As the only launching State, Galatea had no choice but to retain its status as the "State of registry".

2. The State of registry cannot always effectively exert jurisdiction and control.

The Registration Convention does not anticipate the situation presented here, in which one State—in this case, Thalassa—was not a launching State. The Convention only discusses the possibility of multiple launching States, allowing them to "jointly determine which one of them shall register the object . . . bearing in mind the provisions of Article VIII" of the OST.[56] This registration would be "without prejudice to appropriate agreements concluded *or to be concluded* among the launching States on jurisdiction and control over the space object".[57] States can therefore "make more or less what arrangement they want, separating, if they so wish, registration from jurisdiction and control, without even having to record such arrangements in the register."[58] Agreements between launching States, current and future, only affect their *inter se* relations. They cannot prejudice third States.[59] In this respect, the requirement of linking jurisdiction and control to registration "cannot be said to have been taken too seriously either [in 1967] or subsequently".[60]

Though Thalassa was not a joint launching State, it implicitly entered into an arrangement separating registration from jurisdiction and control. In deciding whether Article VIII of the OST should literally apply to the sale of SRS-1 and SRS-3, this Court may look to "any subsequent practice . . . which establishes the agreement . . . regarding its interpretation".[61] Galatea and Thalassa had to separate registration from jurisdiction and control as a practical necessity. NeoImage contracted for ownership and operation of the satellites. After SpaceSense transferred control of the satellites to NeoImage, Thalassa became the "appropriate State"[62]—and the only State—that could authorize and continuously supervise NeoImage's activities. In effect, Thalassa assumed Galatea's duties under Article VIII of the OST without becoming the State of registry.

3. Jurisdiction and control must be based on genuine links.

This Court has stressed the need for genuine links with respect to a State's jurisdiction and control. In *Military and Paramilitary Activities in and Against Nicaragua*, this Court stated that, "to give rise to legal responsibility . . . it would in principle have to be proved that that State had effective control . . . in the course of which the alleged violations were committed."[63] In *Nottebohm,* this Court did not allow Liechtenstein to assert a claim against Guatemala on behalf of a German national after hastily giving him citizenship.[64] Finding no genuine connection between Liechtenstein and the German national, this Court declared that "nationality must correspond with the factual situation."[65] In *Barcelona Traction, Light and Power Company, Limited* this Court dismissed Belgium's attempt to assert claims against Spain on behalf of Belgian shareholders in a Canadian company.[66] Only Canada—the company's State of nationality—could seek redress for its losses.[67] International law favours a functional analysis with respect to ships and aircraft because registration is merely evidence of nationality, while "*bona fide* national ownership, rather than registration or authority to fly the flag, provides the appropriate basis for protection of ships."[68] Satellites are like ships and aircraft in that they are high value, mobile assets requiring registration. The requirement for genuine links was explicitly included into the 1982 Convention on the Law of the Sea[69] and in 1958 Convention

[54] U.N. Doc. ST/SG/SER.E/333 (3 Apr. 1998); U.N. Doc. ST/SG/SER.E/334 (3 Apr. 1998).
[55] *Id.*
[56] Registration Convention, *supra* note 46, art. II.2.
[57] *Id.* (emphasis added).
[58] Bin Cheng, *Space Objects and Their Various Connecting Factors, in* OUTLOOK ON SPACE LAW OVER THE NEXT 30 YEARS 214 (Gabriel Lafferranderie & Daphné Crowther eds., 1997).
[59] Liability Convention, *supra* note 45, art. IV(2).
[60] Cheng, *supra* note 58, at 214.
[61] Vienna Convention, *supra* note 37, art. 31(3)(b).
[62] OST, *supra* note 8, art. VI.
[63] *Military and Paramilitary Activities in and Against Nicaragua* (Nicar. v. U.S.), 1986 I.C.J. 4, 64 at ¶ 115 (27 June) [hereinafter *Military and Paramilitary Activities*].
[64] *Nottebohm,* Second Phase (Liech. v. Guat.), 1955 I.C.J. 4 (6 Apr.).
[65] *Id.* at 22.
[66] *Barcelona Traction, Light and Power Company, Limited,* Second Phase, (Belg. v. Spain) 1970 I.C.J. 3 (5 Feb.) [hereinafter *Barcelona Traction*].
[67] *Id.* at 48-51.
[68] BROWNLIE, *supra* note 3, at 398 n.167, 410, 472.
[69] 10 Dec. 1982, 1833 U.N.T.S. 3 [hereinafter CLOS].

on the High Seas.[70] In discussing the need for registration, both Conventions mandated that there be "a genuine link between the State and the ship,"[71] requiring the State to "*effectively exercise its jurisdiction and control* in administrative, technical and social matters over ships flying its flag."[72]

Yet "international law has a reserve power to guard against giving effect to ephemeral, abusive, and simulated creations."[73] Suppose that NeoImage's satellites had been damaged by satellites owned by France. It is doubtful that Galatea could claim damages on NeoImage's behalf because NeoImage is a Thalassean company. If Galatea cannot make a claim on NeoImage's behalf, it should not have to answer for NeoImage's outer space activities. In light of the rapid increase of non-governmental activities in space, the real link to jurisdiction and control is "the traditional connecting factor of nationality."[74] States with "effective jurisdiction" are the most appropriate States to exercise it.[75] Effective jurisdiction exists when a State's legal ability to physically exercise its State functions cannot be overridden by that of any other State.[76] Thalassa's legal power and competence to continuously supervise NeoImage was superior to that of any other State. This Court should therefore acknowledge the *de facto*, if not *de jure*, arrangement between Thalassa and Galatea separating registration from jurisdiction and control.

4. Separating registration from jurisdiction and control has not prejudiced Proteus.

It is undisputed that Proteus is entitled to compensation for the damage it suffered, and it will receive this compensation; the amount has already been determined.[77] This Court is simply being asked to apportion the burden of compensation based on the respective fault and responsibility of Thalassa and Galatea. Galatea acknowledges it is both the State of registry and the launching State. These two facts, however, are not reliable factors for apportioning the burden of compensation.

The drafters of the space treaties were most concerned that injured States be promptly compensated in full.[78] In this respect, registration only assists injured States in identifying the launching State.[79] But the launching State is not necessarily the most culpable State, just as registration is not necessarily an accurate reflection of jurisdiction and control.

5. Galatea is not liable as a launching State for NeoImage's activities.

Article VII of the OST makes each State that launches an object into space internationally liable for damage "by such object or its component parts".[80] Similarly, the Liability Convention makes each launching State "absolutely liable to pay compensation for damage caused by its space object".[81] Both provisions impose liability only when damage is *physically caused* by a space object in a crash, explosion, or some other direct harm.[82] Neither provision makes Galatea liable for NeoImage's sale or refusal to sell remote sensing data. Even if Galatea is liable under the Liability Convention, its provisions are intended to promptly and fully compensate injured States, but do not address the apportionment of liability between States sharing international responsibility, which is the real issue before this Court.

The Liability Convention imposes joint and several liability on all launching States, granting injured States the right to seek full compensation from any or all of them.[83] In apportioning liability between States, the Liability Convention

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[70] 29 Apr. 1958, 450 U.N.T.S. 82 [hereinafter High Seas Convention].

[71] CLOS, *supra* note 69, art. 91; High Seas Convention, *supra* note 70, art. 5(1).

[72] CLOS, *supra* note 69, art. 94(1) (emphasis added); High Seas Convention, *supra* note 70, art. 5(1) (emphasis added).

[73] BROWNLIE, *supra* note 3, at 467.

[74] Cheng, *supra* note 58, at 214-15.

[75] Cheng, *supra* note 15, at 24.

[76] *Id.*

[77] *Compromis*, ¶ 16.

[78] *See, e.g.*, Liability Convention, *supra* note 44, pmbl. ("ensur[ing], in particular, the prompt payment under . . . this Convention of a full and equitable measure of compensation").

[79] *See* Registration Convention, *supra* note 46, pmbl. ("Recalling further . . . the liability of launching States").

[80] OST, *supra* note 8, art. VII.

[81] Liability Convention, *supra* note 45, art. II.

[82] *See* CARL Q. CHRISTOL, SPACE LAW: PAST, PRESENT, AND FUTURE 219-20 (1991) (explaining "a claimant would be required to show that the harm flowed directly or immediately from, and as the probable or natural result of, the malfunctioning of the space object"); BRUCE A. HURWITZ, STATE LIABILITY FOR OUTER SPACE ACTIVITIES IN ACCORDANCE WITH THE 1972 CONVENTION ON INTERNATIONAL LIABILITY FOR DAMAGE CAUSED BY SPACE OBJECTS 12-20 (1992) (discussing the Liability Convention's applicability to various types of damage); W. F. Foster, *The Convention on International Liability for Damage Caused by Space Objects*, 10 CAN. Y.B. INT'L L. 137, 155-60 (1972) (same).

[83] Liability Convention, *supra* note 45, art. IV(2).

provides that the burden of compensation will be apportioned between the States to the extent each was at fault; if the extent of the fault for each State cannot be established, the burden of compensation will be apportioned equally between them.[84] The Liability Convention is silent when it comes to assigning fault to a non-launching State with international responsibility. Thalassa was not a launching State, so the Liability Convention does not technically apply, but the burden-sharing provisions are compelling as a matter of logic. For this and other reasons that will soon be apparent, Thalassa should bear the entire cost of all damages to Proteus.

II. Thalassa is responsible for NeoImage's refusal to supply Proteus with data.

Only Thalassa is liable for NeoImage's refusal to supply Proteus with remote sensing data of its territory. Just as Galatea lacked the legal power and competence to effectively monitor NeoImage's supply of remote sensing data to Larissa, Galatea lacked the authority to compel NeoImage to share remote sensing data with Proteus. Only Thalassa could effectively exercise jurisdiction over NeoImage in this respect.[85] Thalassa should therefore be liable for NeoImage's refusal to share data with Proteus, a refusal resulting in yet another violation of international law.

A. The Principles declare norms of customary international law.

In 1986, the U.N. General Assembly, by resolution, adopted the Principles Relating to Remote Sensing of the Earth from Outer Space (Principles).[86] When a U.N. General Assembly resolution declares principles of customary international law, the resolution is binding *erga omnes*.[87] Even if it is not binding, the resolution can have normative value by providing "evidence important for establishing the existence of a rule or the emergence of an *opinio juris*."[88] In this light, the Principles have the hallmarks of a declaration of customary international law for three reasons.

First, the Principles reaffirm (often repeating verbatim) provisions from treaties or pre-existing rules of international law.[89] They reaffirm respect for international law and treaties such as the U.N. Charter, the OST, and the Registration Convention.[90] They reaffirm the principles of freedom of outer space,[91] international responsibility for space activities,[92] respect for State sovereignty,[93] the right to request consultations,[94] and the need to keep the U.N. Secretary-General informed about outer space activities.[95] Most importantly, they reaffirm that *all* outer space activities, including remote sensing, "shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic, social or scientific and technological development, and taking into particular consideration the needs of the developing countries."[96] This last provision contains language almost identical to Article I of the OST.[97] The requirement to share remote sensing data, whether upon request or to avert harm, was thus already implicit, if not explicit, in the OST. In all their essentials, the Principles merely reaffirm provisions of the existing treaties and norms of general international law.

Second, the U.N. General Assembly adopted the Principles by consensus and without objection.[98] For a State to oppose a rule of customary international law, it must clearly show opposition from the time of the rule's inception;[99] it is too late to oppose the rule after it is established.[100] Even if a State opposed the rule from its inception, the dissension only prevents the rule from binding the dissenting State; it does not affect the rule's application to other States.[101] In any event, Thalassa did not object to the Principles when they were adopted by consensus

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[84] *Id.*

[85] *See supra* Part 0 (discussing the need for genuine links).

[86] G.A. Res. 41/65, Annex, U.N. GAOR, 41st Sess., U.N. Doc. A/RES/41/65 (1986).

[87] *See, e.g., Military and Paramilitary Activities*, *supra* note 63, ¶¶ 188, 191 (holding that a U.N. General Assembly resolution on friendly relations among States reflected customary international law); *Armed Activities on the Territory of the Congo* (Congo v. Uganda) (merits), 2005 I.C.J. 1, 56 at ¶162 (19 Dec.) (reaffirming that this same resolution on friendly relations among States is "declaratory of customary international law").

[88] *Legality of the Threat or Use of Nuclear Weapons*, *supra* note 16, ¶ 70.

[89] CHENG, *supra* note 2, at 590; CHRISTOL, *supra* note 82, at 91.

[90] Principles, *supra* note 86, princs. III, IX.

[91] *Id.* princ. IV.

[92] *Id.* princ. XIV.

[93] *Id.* princ. IV.

[94] *Id.* princ. XIII.

[95] *Id.* princ. IX.

[96] *Id.* princ. II; *see also id.* princs. IV, XII.

[97] OST, *supra* note 8, art. I.

[98] CHENG, *supra* note 2, at 589; CHRISTOL, *supra* note 82, at 73.

[99] REBECCA M.M. WALLACE, INTERNATIONAL LAW: A STUDENT INTRODUCTION 12 (1997); *see also* BROWNLIE, *supra* note 3, at 11 (discussing the persistent objector and the subsequent objector).

[100] WALLACE, *supra* note 99, at 11.

[101] *Id.*

and it has apparently not objected to them until now.

Third, the compromise struck by the Principles ended controversy. The Principles "achieved a balance"[102] and represented "equitable legal relations"[103] between the States. Meanwhile, the sensed States' fears of being exploited by the remote sensing activities of sensing States did not materialize during the 18-year period from 1968 to 1986 when the Principles were negotiated.[104] Quite the opposite, the sharing of remote sensing data convinced sensed States that important benefits could be derived from this new technology.[105] The Principles were therefore grounded in existing State practice before being adopted by consensus.[106] Because the Principles conformed to both existing practices and treaties, it was felt that "nothing of substance would be gained by going the treaty route."[107] The Principles ended controversy precisely because of what they purported to reflect: the "valid and constructive marriage between treaty law and customary international law."[108]

B. Proteus had a right to remote sensing data of its territory.

NeoImage's refusal to supply Proteus with remote sensing data was contrary to the Principles. Principle XII specifically grants a sensed State an internationally recognized right of access to remote sensing data of its territory. The Principle states:

As soon as the primary and the processed data concerning the territory under its jurisdiction are produced, the sensed State *shall* have access to them on a non-discriminatory basis and on reasonable cost terms. The sensed State *shall* also have access to the available analysed information . . . on the same basis and terms, *taking particularly into account the needs and interests of the developing countries.*[109]

NeoImage acted contrary to this Principle by refusing to supply Proteus with remote sensing data of its territory *on any terms.* NeoImage's action is especially egregious for ignoring Proteus's needs as a developing country.[110] Thalassa should therefore bear international responsibility for NeoImage's failure to conform to Principle XII.

C. Proteus suffered harm from NeoImage's refusal to supply it with remote sensing data.

Although Proteus obtained remote sensing data from other suppliers, this data was inferior to that of NeoImage.[111] Proteus suffered harm from NeoImage's refusal to supply it with remote sensing data because it was denied access to data it had a right to obtain under customary international law. This Court should therefore hold Thalassa internationally responsible—fully and exclusively—for NeoImage's violations of the Principles.

III. Thalassa is solely liable for damage caused to Proteus by the crash of SRS-3.

Thalassa is liable for damage caused by the crash of SRS-3. NeoImage owned SRS-3 at the time of its crash, and Thalassa is internationally responsible for NeoImage's outer space activities. Thalassa is therefore internationally responsible for damage caused by the crash of SRS-3.

A. Galatea's international obligations merely guarantee Proteus will be compensated.

Galatea concedes Proteus may seek full compensation from Galatea for damage caused by SRS-3. Galatea is liable to Proteus under the Liability Convention because it was the launching State,[112] a fact established at the time of the launch that cannot be changed. But Thalassa, not Galatea, should ultimately be responsible for the damage caused by SRS-3. The real purpose of the liability provisions in the OST and the Liability Convention is to guarantee injured States will be fully and promptly compensated.[113] The need to apportion fault or assign ultimate responsibility among responsible States is altogether different.

The Liability Convention recognizes this difference. Although it creates joint and several liability among multiple launching States,[114] the Convention permits them to conclude agreements regarding how they intend to apportion among themselves financial obligations for which they are liable.[115] In permitting apportionment agreements, the Convention declares such

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[102] U.N. Doc. A/AC.105/C.2/SR.439, 5, (3 Apr. 1986) (Brazil's view), *cited in* CHRISTOL, *supra* note 82, at 74.

[103] U.N. Doc. A/AC.105/C.2/SR.440, 5, (8 Apr. 1986) (Mexico's view), *cited in* CHRISTOL, *supra* note 82, at 74.

[104] CHRISTOL, *supra* note 82, at 74.

[105] *Id.*

[106] *Id.* at 93.

[107] *Id.*

[108] *Id.* at 94.

[109] Principles, *supra* note 86, princ. XII (emphasis added).

[110] Additional Facts, ¶ 5.

[111] *Compromis*, ¶ 11.

[112] *Id.* ¶ 2.

[113] *See, supra* note 78.

[114] *Id.* art. V.1.

[115] *Id.* art. V.2.

agreements cannot prejudice the right of injured States to seek the entire compensation from any one of them.[116] Though the Liability Convention does not apply to non-launching States, an injured State can always seek compensation from a responsible State under Article VI of the OST.[117] A State with international responsibility for national activities in outer space is also liable for those activities.[118] As this Court declared in *Corfu Channel*: "it follows from the establishment of responsibility that compensation is due".[119] A responsible State cannot escape liability because it was not a launching State.

If an injured State can seek compensation from a responsible State under Article VI of the OST, there is no reason why a launching State cannot also seek indemnity from a non-launching State, especially when it has an indemnity agreement with that State. The responsible State is accountable to the international community as a whole. Thalassa is therefore internationally responsible to both Proteus and Galatea. Though Galatea is internationally liable to Proteus as a launching State, ultimate responsibility rests with Thalassa.

B. Thalassa is internationally responsible for damage caused by SRS-3.

As has been repeatedly emphasized, Thalassa bears international responsibility for NeoImage's outer space activities. These activities are national activities, which include the activities of non-governmental entities. Consequently, any space activity undertaken by a corporation is imputable to its State of incorporation, "as if it were [the State's] own act, for which it bears direct responsibility."[120]

In apportioning fault between Galatea and Thalassa, this Court should apply internationally recognized principles of law and equity. The OST expressly refers to *international law*,[121] thereby incorporating it into the Treaty. Likewise, the Liability Convention refers to *international law* and to principles of *law* and *equity*.[122] While the Liability Convention does not apply to a non-launching State, it does apply to Galatea and its logic in apportioning fault is compelling. In *North Sea Continental Shelf*, this Court declared:

Whatever the legal reasoning of a court of justice, its decisions must by definition be just, and therefore in that sense equitable. Nevertheless, when mention is made of a court dispensing justice or declaring the law, what is meant is that the decision finds its objective justification in considerations lying not outside but within the rules, and in this field it is precisely a rule of law that calls for the application of *equitable principles*.[123]

Similarly, in this proceeding it is a rule of law within the Liability Convention that calls for the application of equity. NeoImage is ultimately at fault for four indisputable reasons based on equity. First, NeoImage must have assumed the risk its satellites might cause damage when it took control of them. Otherwise, NeoImage could avail itself of the benefits of operating satellites without any of the associated risks. Galatea, on the other hand, would be burdened by risks with no attendant benefits, a manifestly unjust and inequitable result.

Second, NeoImage failed to change the satellites' communication protocols, which would have prevented SpaceSense from inadvertently resuming control. Furthermore, as a member of the International Telecommunication Union (ITU),[124] Thalassa had a duty to notify the ITU about its new use of satellite communication frequencies.[125] Had Thalassa done so, Galatea would have had sufficient notice to avoid resuming control.

Third, because NeoImage failed to continuously monitor the satellites, the loss of control went unnoticed.[126] This failure to monitor is the primary reason for the satellites' loss. If NeoImage had properly monitored them, NeoImage might have been able to regain control and correct the altitude malfunction. NeoImage may have also been able to assure a controlled re-entry into the earth's atmosphere, thereby mitigating the damage to Proteus.[127] NeoImage's

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[116] *Id.*

[117] OST, *supra* note 8, art. VI.

[118] Frans G. von der Dunk, *Liability Versus Responsibility in Space Law: Misconception or Misconstruction?, in* PROCEEDINGS OF THE THIRTY-FOURTH COLLOQUIUM ON THE LAW OF OUTER SPACE 367 (1991).

[119] *Corfu Channel, supra* note 1, at 23-24; see also Cheng, *supra* note 15, at 10 (commenting that "responsibility is a broader concept than liability").

[120] Cheng, *supra* note 15, at 15.

[121] OST, *supra* note 8, art. III.

[122] Liability Convention, *supra* note 45, art. XII.

[123] (F.R.G v. Den/F.R.G. v. Neth.), 1969 I.C.J. 3, 49 at ¶ 88 (20 Feb.) (emphasis added).

[124] *Compromis*, ¶ 22.

[125] INTERNATIONAL TELECOMMUNICATION UNION RADIO REGULATIONS (2004), art. 11.1 (discussing new frequency assignments) and art. 11.2 (discussing duty of State to notify ITU).

[126] Additional Facts, ¶ 2.

[127] INTER-AGENCY DEBRIS COORDINATION COMMITTEE, IADC SPACE DEBRIS MITIGATION GUIDELINES, ¶¶ 3.4.2, 5.3.2 (2002), *at* http://www.iadc-online.org/docs_pub/IADC-

failure to monitor the satellites is imputable to Thalassa under Article VI of the OST. Therefore, only Thalassa is liable for the damage to Proteus.

Finally, Thalassa should have warned Proteus of the re-entry of SRS-3 into the earth's atmosphere. Such a warning might have permitted Proteus to mitigate damage to its territory. With advance warning, Proteus could have evacuated the probable crash site or taken other appropriate measures, thus reducing the number of causalities. Under international law, a State has a duty to warn others if its activities may harm them.[128] This duty is implicit in Article IX of the OST, imposing an obligation on States to conduct their outer space activities "with due regard to the corresponding interests of all other States Parties".[129]

One of the "governing principles" that emerged following the crash of Soviet satellite Cosmos 954 over Canada in 1978—the only international precedent for the type of damage at issue here[130]—was the "duty to forewarn."[131] In 1992, the U.N. General Assembly included this duty in the Principles Relevant to the Use of Nuclear Power Sources in Outer Space.[132] Principle 5 imposes a duty to forewarn when the "space object is malfunctioning with a risk of re-entry . . . to the Earth."[133]

A minimum of regard by Thalassa for the interests of Proteus would have included a warning that space objects were likely to crash into its territory. Thalassa's failure to provide any sort of warning violated its duties to the international community and likely contributed to the severity of the damage suffered by Proteus. As a result, this breach should be taken into account in the apportionment of damages.

C. Thalassa agreed to indemnify Galatea.

The communiqué offers an additional reason for finding Thalassa exclusively liable for the damage caused by SRS-3; Thalassa agreed to indemnify Galatea. It should do so.[134] In the communiqué, the foreign ministers of Galatea and Thalassa agreed that both governments had "international obligations concerning those satellites"[135] and that they would "indemnify each other to the extent that any loss arises from such international obligations."[136]

If the communiqué has any meaning, Thalassa must have accepted international responsibility for NeoImage's outer space activities, the only international obligation it could have assumed without being a launching State.[137] Direct State responsibility for NeoImage's satellites includes liability for any damage they caused.[138] The communiqué does not limit the scope of Thalassa's international obligations with respect to the satellites. Because Thalassa agreed to indemnify Galatea, Thalassa is solely liable for the damage caused by SRS-3.

D. SpaceSense's resumption of control over SRS-3 is irrelevant.

Although SpaceSense resumed control of SRS-3 prior to the crash,[139] this fact is irrelevant for three reasons. First, the resumption of control was inadvertent.[140] SpaceSense did not intentionally take control of SRS-3, and may not have done anything at all to resume control of the satellites.[141] The Parties have stipulated that "[i]t is unknown what steps, *if any*, were taken by SpaceSense technical staff that caused the resumption of control."[142] In any case, SpaceSense was unaware it had resumed control of SRS-3.[143] The resumption of control was unintended and unwanted.

Second, the altitude malfunction would have occurred even if SpaceSense had not resumed control of the satellites.[144] More than one independent investigation confirmed that the malfunction's cause and timing are unknown.[145] The malfunction may have occurred "before,

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101502.Mit.Guidelines.pdf (declaring that controlled re-entry is preferable).

[128] *Corfu Channel*, *supra* note 1, at 23-23 (holding that the obligation of a State to warn of "imminent danger" is a well-recognized principle of international law).

[129] OST, *supra* note 8, art. IX.

[130] Steven Freeland, *There's a Satellite in My Backyard – Mir and the Convention on International Liability for Damage Caused by Space Objects*, 24 U. NEW SOUTH WALES L.J. 462, 473 (2001).

[131] Alexander F. Cohen, *Cosmos 954 and the International Law of Satellite Accidents*, 10 YALE J. INT'L. L. 78, 79 (1985); HURWITZ, *supra* note 82, at 128.

[132] G.A. Res. 47/68, U.N. GAOR, 85th Sess., U.N. Doc. A/RES/47/68 (1992).

[133] *Id.* princ. 5.

[134] Vienna Convention, *supra* note 37, art. 26 ("*Pacta sunt servanda*"); *see also* Cheng, *supra* note 15, at 16 (stating that "compliance with treaty obligations is a fundamental principle of international law").

[135] *Compromis*, ¶ 4.

[136] *Id.*

[137] *See supra* Part 0.

[138] See *Corfu Channel*, *supra* note 1, at 23-24 ("[I]t follows from the establishment of responsibility that compensation is due".).

[139] *Compromis*, ¶ 13; Additional Facts, ¶¶ 2, 3.

[140] *Compromis*, ¶ 13.

[141] Additional Facts, ¶ 3.

[142] *Id.* (emphasis added).

[143] *Id.* ¶ 2.

[144] *Compromis*, ¶ 14.

[145] *Id.*; Additional Facts, ¶ 3.

concurrently or after" SpaceSense resumed control of the satellites.[146] The resumption of control had nothing to do with the malfunction.
Third, NeoImage likely would not have been able to correct the malfunction, since it was unaware of the loss of control.[147] In addition, independent investigations revealed that NeoImage may not have been able to correct the malfunction had it been in control of the spacecraft at the time.[148] The combination of the failure to notice the loss of control *and* the uncertainty over whether the malfunction could have been corrected if the loss of control was noticed makes it unlikely that SpaceSense's resumption of control had any impact on the situation. It is therefore irrelevant that SpaceSense inadvertently resumed control of the satellites.

E. Thalassa should make full reparations to Proteus for damage caused by SRS-3.

The obligation of a responsible State to make full reparations is well settled.[149] In *The Factory at Chorzów*, the Permanent Court declared:
The essential principle . . . is that reparation must, as far as possible, wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not been committed. . . . [S]uch are the principles which should serve to determine the amount of compensation due for an act contrary to international law.[150]
This passage has been cited and applied on many occasions,[151] and is codified in Article 31 of the Draft Articles on State Responsibility for International Wrongful Acts, which provides that reparation for injury "includes any damage, material or moral, caused by the internationally wrongful act of a State."[152] Because Thalassa is internationally responsible for all of NeoImage's activities, it should fully compensate Proteus.

IV. Galatea is not liable for Thalassa's economic loss.

Galatea should not have to compensate Thalassa for economic losses caused by the loss of SRS-1 and SRS-3 or the resulting wave of international indignation directed at NeoImage.

A. Thalassa has failed to exhaust its local remedies.

Thalassa seeks compensation for economic damages allegedly caused to a private Thalassian company, creating a claim of diplomatic protection. Before Thalassa can assert a claim under general international law against Galatea, Thalassa must exhaust its local remedies. As this Court noted in *Interhandel*:
The rule that local remedies must be exhausted before international proceedings may be instituted is a well-established rule of customary international law; the rule has been generally observed in cases in which a State has adopted the cause of its national. . . . Before resort may be had to an international court in such a situation, it has been considered necessary that the State where the violation occurred should have an opportunity to redress it by its own means, within the framework of its own domestic legal system.[153]
Moreover, the Draft Articles also acknowledge the rule.[154] NeoImage has failed to bring proceedings in the domestic courts of Galatea; therefore Thalassa's claim is barred.

B. The transfer of SRS-1 and SRS-3 was not an outer space activity.

No rule of general international law makes a State directly answerable to another for purely commercial transactions of its nationals.[155] Moreover, the OST and the Liability Convention also do not contain such a rule.[156] Article VI of the OST creates international responsibility only for certain kinds of national activities—outer space activities. Direct State responsibility is thus limited to activities occurring *in outer space*. Galatea respectfully submits that, if the activity does not occur *in outer space*, then it is not an

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[146] Additional Facts, ¶ 3.
[147] *Id.* ¶ 2.
[148] *Compromis*, ¶ 14.
[149] *See, e.g., The Factory at Chorzów* (Ger. v. Pol.) 1928 P.C.I.J. (ser. A) No. 17, at 47.
[150] *Id.*
[151] *See, e.g., Avena and Other Mexican Nationals* (Mex. v. U.S.) (merits), 2004 I.C.J. 11, 105 at ¶ 119 (31 Mar.); *Arrest Warrant of 11 April 2000* (Congo v. Belg.) (merits), 2002 I.C.J. 5, 67 at ¶ 76 (14 Feb.).
[152] Draft Articles, *supra* note 22, art. 31(2).
[153] *Interhandel* (Switz. v. U.S.) (preliminary objections), 1959 I.C.J. 6, 27 (21 Mar.). See also *Electronica Sicula S.p.A. (ELSI)* (U.S. v. Ital.) (merits), 1989 I.C.J. 15 (20 Jul.).
[154] Draft Articles, *supra* note 22, art. 44(b).
[155] *Barcelona Traction*, *supra* note 66, ¶¶ 56-58. The official commentaries to the Draft Articles also note "international law acknowledges the general separateness of corporate entities [and the State] at the national level". International Law Commission, *Commentaries to the Draft Articles on Responsibility of States for Internationally Wrongful Acts*, 53rd Sess., Supp. No. 10, 107, U.N. Doc. A/56/10.
[156] CHENG, *supra* note 2, at 487 (stating the OST's drafters probably did not intend direct State responsibility "in respect of breaches of rules and obligations under domestic and private law, such as contracts").

outer space activity under Article VI.[157] In this respect, the legal transfer of a satellite from one owner to another is not an outer space activity, even if the satellite is already in orbit when the transfer occurs.

SpaceSense sold SRS-1 and SRS-3 on 1 April 2001 when the satellites were already in orbit. The location at the time of sale is immaterial because all negotiations and the final agreement between SpaceSense and NeoImage occurred on the earth.[158] If a satellite is sold before its launch and the sale is not part of a launch contract, the sale itself is not an outer space activity. As between Galatea and Thalassa, it should not matter that the sale was concluded after the satellites were in orbit. The launching is relevant only to third States that suffer damage; it does not alter Galatea and Thalassa's relations *inter se*. Any other view of Article VI would lead to manifestly absurd or unreasonable results, an outcome that international law specifically seeks to avoid.[159]

An overly broad reading of Article VI of the OST would "internationalize" every transaction tangentially or remotely related to an outer space activity. For example, virtually every telecommunications dispute could involve direct State responsibility because it involved the use of a satellite. Moreover, a State like Thalassa could find itself internationally liable for a domestic matter such as a labor dispute involving NeoImage and a foreign citizen employed at NeoImage's ground control facility. The drafters of the OST could not have intended such a broad reading of Article VI. Because the sale and purchase of the satellites was not itself an outer space activity, Galatea is not internationally liable for it.

C. Thalassa cannot recover damages from Galatea based upon the Liability Convention.

The Liability Convention precludes recovery for damage caused to "foreign nationals during such time as they are participating in the operation of that space object from the time of its launching *or at any stage thereafter*".[160] Following the sale of SRS-1 and SRS-3, NeoImage was a foreign national (from the perspective of Galatea as the launching State), and, as the sole owner and operator of the satellites, NeoImage was undisputedly participating in their operation. Accordingly, Article VII bars Thalassa from recovering damages under the Liability Convention.

D. SpaceSense sold the satellites without a warranty.

Assuming *arguendo* that Galatea was directly responsible for SpaceSense's sale of SRS-1 and SRS-3, SpaceSense sold the "used" satellites to NeoImage without a warranty. No rule of international law gives rise to an implied warranty for satellites. Moreover, the Convention on Contracts for the International Sale of Goods (CISG)[161] does not apply in this case. The CISG does not apply to sales "of ships, vessels, hovercraft or aircraft".[162] Though space objects or spacecraft are not expressly mentioned, space assets have the same characteristics as the listed objects. All of these items—ships, vessels, hovercraft, and aircraft—are high value assets requiring registration. Satellites, like aircraft, are "mobile equipment of high value or particular economic significance,"[163] requiring registration.[164] The CISG therefore does not apply to the sale of satellites.

Moreover, SpaceSense did not guarantee that the satellites would remain functional for a specific period of time. SpaceSense classified the satellites as "obsolete" and replaced them, though it was "estimated" that the satellites had an operational lifespan of six more years,[165] a claim that NeoImage was free to independently evaluate. Estimates are inherently imprecise and can be incorrect. SpaceSense sold the satellites essentially "as is." In buying used satellites, NeoImage bore the risk the estimate was incorrect; it also would reap the benefit of an understated estimate. The satellites functioned properly for nearly three years. Because SpaceSense sold the satellites without any warranty, Galatea is not directly responsible to Thalassa for them.

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[157] The on-orbit sale of a satellite had not likely been considered by the drafters of the OST. *Id.* at 607.

[158] *Compromis*, ¶ 4.

[159] Vienna Convention, *supra* note 37, art 32(b).

[160] Liability Convention, *supra* note 45, art. VII (emphasis added).

[161] 10 Apr. 1980, 1489 U.N.T.S. 3.

[162] *Id.*, art. 2(e).

[163] *See, e.g.*, Convention on International Interests in Mobile Equipment, 16 Nov. 2001, art. 2(3) *available at* http://www.unidroit.org/english/conventions/mobile-equipment/mobile-equipment.pdf (entered into force 1 Mar. 2006). This Convention will eventually apply to spacecraft. It currently applies only to aircraft because the protocol on space assets is still being negotiated. Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, *Report of the Legal Subcommittee on its forty-fifth session*, ¶ 108 U.N. Doc. A/AC.105/871 (2006).

[164] OST, *supra* note 8, art. VIII; Registration Convention, *supra* note 46.

[165] *Compromis*, ¶ 4.

Even if SpaceSense had guaranteed that the satellites would work for six years, no conclusion can be drawn as to the cause of the altitude malfunction. The malfunction may have occurred for reasons unrelated to any defect. The malfunction could have occurred because of how NeoImage operated the satellites. Thalassa has the burden of proving the cause of the malfunction. In the absence of evidence, Galatea should not be responsible for the malfunction.

Despite the loss of SRS-1 and SRS-3, NeoImage could have returned to its original business plan of purchasing raw imaging data from other providers and processing it for resale to commercial customers.[166] It failed to do so, however, because it lost most of its customers—the real cause of its economic losses.

E. Thalassa's economic losses resulted primarily from NeoImage's use of the satellites.

Much of Thalassa's economic loss can be attributed to NeoImage losing "most of its customers in the resulting wave of international indignation".[167] The wave of international indignation[168] was due in large part to NeoImage's secretive supply of remote sensing data to Larissa, which Larissa used to attack Proteus and which formed the basis of Proteus's suit against NeoImage in Thalassean courts.[169] The indignation may have also been due in part to NeoImage's refusal to provide image data to Proteus, a blatant violation of customary international law, especially in light of Proteus's status as a developing nation. The indignation was certainly due to the damage caused by the crash of SRS-3.[170] In any case, the wave of international indignation was specifically directed at NeoImage,[171] not SpaceSense. The American statesman, James Madison, noting the value of world public opinion, explained why the new American republic would do well to pay attention to the judgment of other nations: "in doubtful cases . . . the presumed or known opinion of the impartial world may be the best guide that can be followed."[172] In a case like this one, there can be no doubt. The international community could not be totally wrong. Thalassa alone should bear its economic losses.

SUBMISSIONS TO THE COURT

For the foregoing reasons, the Republic of Galatea, Applicant, respectfully requests the Court to adjudge and declare that:

1. Thalassa is liable to Proteus for permitting NeoImage to sell Larissa remote sensing data of Protean military installations.
2. Thalassa is liable to Proteus for NeoImage's refusal to sell Proteus remote sensing data of Protean territory for agricultural and water conservation purposes.
3. Thalassa is liable to Proteus and must indemnify Galatea for the crash of SRS-3 onto Protean territory under the indemnity agreement.
4. Galatea is not liable to Thalassa for economic damages caused by the international community's indignation at NeoImage and the loss of SRS-1 and SRS-3.

[166] *Compromis*, ¶ 3.
[167] *Id.* ¶ 15.
[168] *See, e.g.*, Theodor Meron, *The Martens Clause, Principles of Humanity, and Dictates of Public Conscience*, 94 AM. J. INT'L L. 78 (2000) (describing "the dictates of public conscience" as a key factor in determining the legality of conduct during an armed conflict).
[169] *Compromis*, ¶¶ 12, 15.
[170] *Id.*
[171] *Id.*
[172] THE FEDERALIST PAPERS NO. 63 (James Madison), *reprinted in* THE COMPLETE MADISON: HIS BASIC WRITINGS 245 (Saul K. Padover ed.) (1973).

B. WRITTEN BRIEF FOR THALASSA

AGENTS:

James Townshend and Jonathan Orpin
(University of Auckland, New Zealand)

ARGUMENT:

1. Thalassa has fully complied with its obligations under international law as far as the supply of high resolution remote sensing data of the military installations and facilities of Proteus for military purposes is concerned, and under the March 2001 joint communiqué Galatea bears any international responsibility for those activities

Thalassa submits that it has fully complied with its obligations under international law as far as the supply of high resolution remote sensing data of Protean military facilities is concerned because:

(a) NeoImage Inc's (hereinafter "**NeoImage**") actions were legal under international law;
(b) Should this Court find NeoImage's actions were illegal, Galatea bears international responsibility for them; and
(c) No injustice is created by holding Galatea responsible.

A. *NeoImage's activities were legal under international law*

Thalassa submits that NeoImage's activities were legal under international law. In this regard Thalassa makes two submissions. First, remote sensing of military installations and facilities is a peaceful use of space. Secondly, State responsibility does not extend to ground activities.

(i) Remote sensing of military installations and facilities is a peaceful use of space

Space must be used for peaceful purposes. Article III of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodes (hereinafter "**Outer Space Treaty**") provides that:

> State parties to the Treaty shall carry on activities in the exploration and use of outer space, including the Moon and other celestial bodies, in accordance with international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international cooperation and understanding.

Article IV provides:

> States Parties to the Treaty undertake not to place in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner.
>
> The Moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration of the Moon and other celestial bodies shall also not be prohibited.

Thalassa submits that NeoImage's activities were not in breach of international law on an ordinary interpretation of the words used in the Outer Space Treaty.[1]

Article III simply provides that space is to be used for peaceful purposes and affirms that the principles of international law apply in space. NeoImage's conduct was peaceful and in conformity with international law. It merely supplied remote sensing imagery to other States. That simply involved capturing images and selling them on the open market. The fact that the images were ultimately used, by a third party government, for a military purpose does not

[1] Article 31(1) of the Vienna Convention on the Interpretation of Treaties provides that a "treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in light of its object and purpose." Although neither State is a party to the Vienna Convention on the Law of Treaties reliance may be placed on it as in many respects it is a codification of existing customary law: Presence of South Africa in Namibia, 1971 I.C.J. 54, at 47 (June 21).

affect the peaceful nature of NeoImage's conduct.[2]

Article IV only prohibits *certain specified* military uses of space. The first paragraph of Article IV prohibits the placement of nuclear weapons or weapons of mass destruction "in orbit around the Earth." The second paragraph of Article IV prohibits using "the Moon and other celestial bodies" for certain military purposes.[3] Neither paragraph is applicable here. NeoImage has not placed any weapons in space and nor has it made any use, military or otherwise, of the Moon or any other celestial bodies.

That ordinary interpretation of the words of Articles III and IV is supported by an examination of State practice in the area.[4] Military use of remote sensing data is widespread and common place. A short list of examples of State practice illustrates the point:

(a) Detailed Satellite Pour L'observation de la Terre (hereinafter "**SPOT**") imagery of Soviet military installations, including photographs of Soviet nuclear weapon storage facilities, was widely available and published in the 1980s;[5]
(b) SPOT acknowledges that remote sensing data and photographs are sold to military customers worldwide,[6] reportedly selling 80 per cent of its material to military buyers;[7]
(c) SPOT promotes military uses of its images. Its company brochure previously detailed the intelligence gathering uses of its data;[8]
(d) During the First Gulf War the Pentagon confirmed buying remote sensing images to supplement the photographs taken by its own spy satellites;[9]
(e) During the Iran/Iraq war both countries purchased remote sensing imagery that was used for attack planning;[10] and
(f) Pakistani and Israeli nuclear facilities have been repeatedly sensed and imaged.[11]

Indeed, as Professor Bin Cheng has observed:[12]

> Military reconnaissance satellites have not only become simply a fact of international life that States just have to learn to live with, but also a vital instrument in the process of arms control and the preservation of international peace.

Feder has similarly observed that:[13]

> Satellite reconnaissance, however, is not expressly prohibited by the Treaty, despite its military applications. Under the Treaty, space is to be used solely for peaceful purposes; therefore the issue is whether the use of spy satellites falls within that realm. [Most commentators view military reconnaissance as legal within the peaceful purposes provision of the Outer Space Treaty.] The use of satellite reconnaissance does not violate international law, which grants every nation the right to conduct espionage.[14]

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[2] That is not to say that the attack on Proteus itself was legal. Larissa, a member of the United Nations, breached Art 2(4) of the Charter of the United Nationals by attacking Proteus.

[3] The two paragraphs of Article IV should, in Thalassa's submission, be read as separate prohibitions: the first paragraph dealing with the use of outer space; and the second paragraph the use of the Moon and other celestial bodies. See Bin Cheng, *Definitional Issues in Space Law: the 'Peaceful Use' of Outer Space, Including the Moon and Other Celestial Bodies, in* STUDIES IN INTERNATIONAL SPACE LAW, 513 (Bin Cheng ed. Clarendon Press 1997), 516 – 519.

[4] Article 31(3)(b) of the Vienna Convention on the Law of Treaties provides that the interpretation of treaties is to be informed by "any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation".

[5] *French Spot Satellite Shows Soviet Northern Fleet Facilities*, AVIATION WEEK & SPACE TECH., Mar. 2, 1987, at 44.

[6] *Satellite Photography Receives Boost as SPOT 2 is Launched*, DEFENSE ELECTRONICS, Mar. 1990, at 78.

[7] Swahn, *International Surveillance Satellites – Open Skies for All?*, 25 J. PEACE RESEARCH 229, (No. 3) (1988) at 232.

[8] Harry Feder, *The Sky's the Limit? Evaluating the International Law of Remote Sensing*, 23 NYU J INT'L L & POL 599, 604 (1990-1991), at 624-625.

[9] *Id*, 625.

[10] Barber, *French Sold Spy Photos to Saddam*, FIN. TIMES (London), Jan. 11, 1991, 1.

[11] Zimmerman, *Evidence of Spying*, BULL. ATOM. SCIENTISTS , Sept. 1989, at 24.

[12] Bing Cheng, *Legal and Commercial Aspects of Gathering Data by Remote Sensing, in* STUDIES IN INTERNATIONAL SPACE LAW (Bin Cheng ed. Clarendon Press 1997) 572, 586.

[13] Feder, *supra* note 8, 605-606. The text quoted in square brackets is footnoted in the original article. Citations from that footnote are omitted.

[14] This Court may have regard to the writings of commentators as Article 38(1)(d) of the Statute of the International Court of Justice allows the Court to apply "the teachings of the most highly qualify publicists of the various nations, as a subsidiary means for the determination of rules of law."

Finally, reference to the *travaux préparatoires* of the Outer Space Treaty supports this interpretation. The United States' representative to the First Committee of the United Nations said, "Outer space should only be used for peaceful – that is, non-aggressive and beneficial – purposes. The test of any space activities must not be whether it is military or non-military, but whether or not it is consistent with the United Nations Charter and other obligations of law."[15]

Accordingly Thalassa submits that NeoImage's actions were not in breach of international law and that it is entitled to a declaration accordingly.

(ii) State responsibility does not extend to ground activities

In addition Thalassa submits that State responsibility does not extend to ground activities.

Under Article VI of the Outer Space Treaty "State Parties to the Treaty ... bear international responsibility for national activities in outer space". As is apparent from the plain meaning of those words States only bear responsibility for "activities in outer space". As one commentator has noted "the Outer Space Treaty provision used by Principle XIV does not apply international responsibility to what are in essence ground activities."[16] That is also the view of the British National Space Centre.[17] Thalassa submits that this interpretation is correct.

Accordingly, NeoImage was entitled to take satellite imagery of the earth from outer space. The only part of its conduct that might potentially be in breach of the Outer Space Treaty was the supply of that imagery to Proteus. That activity, however, took place on the surface of the earth, not in outer space. Accordingly, Thalassa submits that NeoImage's actions were not "activities in outer space" and that it is entitled to a declaration that it has fully complied with its international obligations.

B. *Galatea bears international responsibility for NeoImage's activities*

If this Court finds that NeoImage's activities were in breach of international law, Thalassa submits that it is Galatea, the launching State, that is legally responsible for NeoImage's actions.

At international law States are not, as a general rule, responsible for the acts of private citizens and corporations.[18] Space law, however, provides a rare exception to this principle in the Outer Space Treaty.[19] The regime of responsibility and liability in outer space is contained in Articles VI and VII of the Outer Space Treaty. Article VI provides:

> State Parties to the Treaty shall bear international responsibility for national activities in outer space, including the Moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. The activities of non-governmental entities in outer space, including the Moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty. ...

The effect of that article is that States are responsible for activities that would not as a matter of customary international law be imputed to States. Article VI ascribes to States "international responsibility for national activities in outer space". The issue before this Court is whether Galatea or Thalassa is responsible for the activities of NeoImage.

The Outer Space Treaty, however, contains no definition of the term "national activities". In determining the meaning of that phrase Thalassa submits that it is helpful to have regard to the surrounding provisions of the Outer Space Treaty, particularly Article VII, which in conjunction with Article VI sets out the regime of State responsibility and liability for non-

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[15] Travaux Préparatoires of the Treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies A/C.1/PV.1289; 3 Dec.1962, at 13.

[16] Feder, *supra* note 8, 638.

[17] Review of the Concept of the "Launching State" – Report of the Secretariat, A/AC.105/768 21 Jan. 2002.

[18] Peter Lovett 3 Int. Arb. 2990 (1892), at 2991.

[19] The exception is particularly striking if it is born in mind, as Professor Kerrest points out, that not even in ultra hazardous industries like the nuclear industry are States responsible for the activities of private interest. See Armel Kerrest's paper *International Legal Regime for Outer Space: The Liability Convention* (last visited July 19, 2006) < http://fraise.univ-brest.fr/~kerrest/IDEI/Kerrest-liab-the-hague.pdf>.

governmental entities in outer space. Such an approach to interpretation was taken by the Permanent Court of International Justice in *Competence of the International Labour Organisation*[20] and is mandated by Article 31(1) of the Vienna Convention on the Law of Treaties.[21]

Article VII provides:

> Each State Party to the Treaty that launches or procures the launching of an object into outer space, including the Moon and other celestial bodies, and each State Party from whose territory or facility an object is launched, is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by such object or its component parts on the Earth, in air space or in outer space, including the Moon and other celestial bodies.[22]

The combined effect of Articles VI and VII is that the State bears "international responsibility" for "national activities" in outer space, while the launching State is "internationally liable" for any damage caused. Although responsibility is dealt with in Article VI and liability in Article VII, Thalassa submits that international responsibility and liability for damage caused by space objects is to be borne by the same State and is not severable. Thalassa makes two arguments in support of this submission.

First, liability cannot logically be separated from responsibility. The two represent different sides of the same coin. In *Chorzów Factory* the Permanent Court of International Justice established that legal responsibility entails a legal obligation to make reparations.[23] That is to say that a State is liable as a result of its responsibility.[24] It follows there where there is no State responsibility there cannot be liability, as breaches of international law will not be attributed to the State.

Secondly, the fact that the different terms 'liability' and 'responsibility' are used is merely a peculiarity of the English language which is not reflected in other versions of the text, which are equally authoritative.[25] The French version uses the same word 'responsabilité' in both Articles VI and VII, the Spanish version the same phrase 'responsables internacionalmente' and the Russian version repeats the phrase 'международную ответственность'. The Chinese text likewise employs the phrase '国际责任' in both articles.

Thalassa submits that read as a whole and taking account of the peculiarities of the English language the Outer Space Treaty imposes both liability and responsibility on the same State. The State that is responsible for particular space activities will also be liable for them, and conversely that State that is liable for particular space activities will be responsible for them.

It is clear from Article VII of the Outer Space Treaty that the launching State is liable for damage caused by its space object. Articles II and III of the Liability Convention are to the same effect.

Accordingly, Thalassa submits that on a proper interpretation of Articles VI and VII of the Outer Space Treaty the nationality of space activities under Article VI is determined by reference to the launching state. Moreover Thalassa submits that in the instant case Galatea was the launching State of SRS-1 and SRS-3 and is accordingly responsible for NeoImage's activities.

The term "launching State" is defined in Article 1(c) of the Liability Convention:

The term "launching State" means:
(i) A State which launches or procures the launching of a space object;

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[20] Competence of the International Labour Organisation, 1922 P.C.I.J (ser. B) Nos. 2 and 3 (Aug. 12). At page 23 the Court held that "it is obvious that the Treaty must be read as a whole, and that its meaning is not to be determined merely upon particular phrases which, if detached from the context, may be interpreted in more than one sense."

[21] Article 31(1) of the Vienna Convention on the Law of Treaties, *supra* note 1.

[22] Articles II and II of the Convention on International Liability for Damage Caused by Space Objects (hereinafter "**Liability Convention**") similarly make the launching State liable for damage caused by its space object.

[23] Chorzów Factory (Merits), 1928 P.C.I.J. (ser. A) No. 17 (Sept.13), at 29. See also Reparation of Injuries Suffered in the Service of the United Nations, 1949 I.C.J. 174, (April 11) at 184.

[24] Bin Cheng, *International Responsibility and Liability for Launch Activities*, 20 AIR AND SPACE LAW 297 (1995), at 300.

[25] Article XVII of the Outer Space Treaty provides that "the Chinese, English, French, Russian and Spanish texts are equally authentic".

(ii) A State from whose territory or facility a space object is launched.

It is evident that there are four ways a State may be considered the launching State:[26]
(a) If it launches a space object;
(b) If it procures the launch of a space object;
(c) If a space object is launched from its territory; and
(d) If a space object is launched from its facility.

Galatea is the launching State on all four tests:
(a) SRS-1 and SRS-3 were launched by the government-owned Galatean Space Agency;
(b) The launch was procured the Galatean Space Agency;
(c) SRS-1 and SRS-3 were launched from a ground control facility in Galatea; and
(d) The facility used was owned and operated by the Galatean Space Agency.

In addition, Galatea has acknowledged that it is the launching State. Article II(1) of the Convention on Registration of Objects Launched into Outer Space (hereinafter "**Registration Convention**") provides that "[w]hen a space object is launched" it shall be registered on an appropriate national registry. Article IV(1) provides that each "State of registry" shall furnish certain information, including the name of the launching State, a designator or registration number, and basic orbital parameters, to the Secretary-General of the United Nations. Article IV(2) allows the "State of registry" to provide "additional information concerning a space object on its registry". "State of registry" is defined by Article I(c) as "a launching State on whose registry a space object is carried in accordance with article II." Galatea is listed on the Secretary-General's register as being the "launching State" and "State of registry" of SRS-1 and SRS-3. No notification of any change of status has been lodged subsequent to the sale of the spacecraft.

Accordingly, Thalassa submits that Galatea is the "launching State" of both SRS-1 and SRS-3 and that it is responsible for the activities of NeoImage.

C. *No injustice is created by holding Galatea responsible*

Finally, Thalassa notes that no injustice is created by holding Galatea responsible for the activities of NeoImage for two reasons.

First, Article IV(2) of the Registration Convention allows the "State of registry" to provide "additional information concerning a space object on its registry". Galatea could have used this provision to remove itself as the launching State and State of registry on the Sectary-General's register. There is an established State practice of States doing exactly this:
(a) Satellites AsiaSat-1, AsiaSat-2, APSTAR-1 and APSTAR-IA were launched from China and registered by the United Kingdom.[27] On 1 January 1997, the State of registry of these satellites was changed from the United Kingdom to the Hong Kong Special Administrative Region of China when Hong Kong returned to Chinese control. In this instance both China and the United Kingdom informed the United Nations of this change in the State of registry.[28]
(b) The satellite BSB-1A was originally registered with the United Nations by the United Kingdom.[29] It was subsequently listed as Sirius 1 on the Swedish register of objects launched into outer space, which was conveyed to the United Nations following the purchase of the satellite in orbit in 1996.[30]

Secondly, the parties could have reached an explicit agreement as to who was to be responsible and liable for the activities of NeoImage. Article V of the Liability Convention allows such agreements in the case of joint

[26] It is also clear from Article V(1) of the Liability Convention that two or more States may the launching States of the same space object.

[27] *Information Furnished in Conformity with the Convention on Registration of Objects Launched Into Outer Space*, U.K. Notes Verbale to the Secretary-General., ST/SG/SER.E/222 (1990); ST/SG/SER.E/300 (1996); ST/SG/SER.E/300/Corr.1 (1996); and ST/SG/SER.E/316 (1996).

[28] *Information Furnished in Conformity with the Convention on Registration of Objects Launched Into Outer Space*, U.K. Note Verbale to the Secretary-General ST/SG/SER.E/333 (1998); *Information Furnished in Conformity with the Convention on Registration of Objects Launched Into Outer Space*, P.R.C. Note Verbale to the Secretary-General, ST/SG/SER.E/334 (1998).

[29] *Information Furnished in Conformity with the Convention on Registration of Objects Launched Into Outer Space*, U.K. Note Verbale to the Secretary-General ST/SG/SER.E/219 (1990).

[30] *Information Furnished in Conformity with the Convention on Registration of Objects Launched Into Outer Space*, Swed. Note Verbale to the Secretary-General, ST/SG/SER.E/352 (1999).

launches. Article XXIII(2) of the Liability Convention specifically provides that States may conclude international agreements to supplement the provisions of the Liability Convention, as does Article XIII of the Outer Space Treaty.

In the instant case Galatea failed to notify the Secretary-General of any change in the state of registry or launching State of SRS-1 and SRS-3. In fact it continues to be listed as both. Moreover, Galatea entered into no explicit agreement concerning State liability and responsibility for SRS-1 and SRS-3. It merely issued an ambiguous joint communiqué with Thalassa prior to the sale which, rather than disclaiming its obligations acknowledged that it had existing "international legal obligations concerning [the] satellites".

Accordingly, Thalassa submits that no injustice is created by holding Galatea liable for the activities of NeoImage has Galatea could have taken steps to end or amend its liability but failed to do so.

2. In the absence of any specified agreement on dealing with third-party claims for unlawfulness of activities involving SRS-1 and SRS-3, Galatea is fully and exclusively responsible in any case where activities involving SRS-1 and SRS-3 would be considered to violate rights of Proteus under international law for the refusal of NeoImage to supply to Proteus remote sensing data over Protean territory

Thalassa submits that it has fully complied with its international obligations under international law with respect to the refusal by NeoImage to supply Proteus with remote sensing data of the Protean territory because:

(a) NeoImage's refusal to supply remote sensing date was legal under international law;
(b) If this Court finds that NeoImage's actions were illegal, Galatea bears international responsibility for them; and
(c) No injustice is created by holding Galatea responsible.

A. *NeoImage's refusal to supply remote sensing data was legal under international law*

Principle XII of the Principles Relating to Remote Sensing of the Earth from Outer Space (hereinafter "**Remote Sensing Principles**") provides that remote sensing data is to be made available to States on a non-discriminatory basis:

As soon as the primary data and the processed data concerning the territory under its jurisdiction are produced, the sensed State shall have access to them on a non-discriminatory basis and on reasonable cost terms. The sensed State shall also have access to the available analysed information concerning the territory under its jurisdiction in the possession of any State participating in remote sensing activities on the same basis and terms, taking particularly into account the needs and interests of developing countries.

Notwithstanding that Principle Thalassa submits that NeoImage's refusal to supply remote sensing data was not a breach of international law for two reasons. First, Principle XII does not represent customary international law. Secondly, State responsibility does not extend to ground activities.

(i) Principle XII does not represent customary international law

The Remote Sensing Principles take the form of a General Assembly Resolution. As such while they may be evidence of the opinions of State governments,[31] the Principles are not binding on States in their own right, although they could, of course, represent customary international law.[32] It is Thalassa's submission, however, that Principle XII has not attained the status of customary international law for the following reasons.

First, a number of countries including the Federal Republic of Germany, the Netherlands, Japan, and the United States have indicated that they do not consider the Remote Sensing Principles to be a binding source of international law.[33]

Secondly, the following review of domestic legislation establishes that Principle XII is not indicative of State practice:

(a) Australia: The Space Activities Act 1998 contains no provision requiring information to be made available on a non-discriminatory basis.

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[31] Military and Paramilitary Activities in and against Nicaragua (Nicar. v U.S.) (Merits), 1986 I.C.J. 4 (June 27), paras. 187-195 and 203-205; Legality of Nuclear Weapons Advisory Opinion (GA) (1996) 35 ILM 814.
[32] Under Article 13 of the United Nations Charter the General Assembly can only make "recommendations".
[33] M COUSTON, DROIT SPATIAL ECONOMIQUE 86 (Sides, 1994).

(b) South Africa: The Space Affairs Act 1993 contains no provision requiring information to be made available on a non-discriminatory basis.
(c) Sweden: Neither the Swedish Act on Space Activities[34] nor the Swedish Decree on Space Activities[35] requires information to be made available on a non-discriminatory basis.
(d) United Kingdom: The Outer Space Act 1986 contains no provision requiring information to be made available on a non-discriminatory basis.
(e) United States: Section 103(b) of the Land Remote-Sensing Commercialization Act 1984 sets out that it is "the policy of the United States that civilian unenhanced remote-sensing data be made available to all potential users on a nondiscriminatory basis". The non discrimination policy does not extent to enhanced or analysed data. Similarly section 501 of the Land Remote Sensing Policy Act 1992 provides that only "unenhanced data generated by the Landsat system or any other land remote sensing system funded and owned by the United States Government shall be made available to all users" on a non-discriminatory basis.
(f) Ukraine: The Ordinance of the Supreme Soviet of Ukraine on Space Activity[36] contains no provision requiring information to be made available on a non-discriminatory basis.

Thirdly, to the extent that there is a practice of making information available on a non-discriminatory basis, such a practice does not extend to the type of information Proteus was denied access to. The Remote Sensing Principles draw a distinction between "primary data", "processed data", and "analysed information". Primary data is essentially "raw data ... acquired by remote sensors", processed data the "products resulting from the processing of the primary data", and analysed information "information resulting from the interpretation of processed data, inputs of data and knowledge from other sources".[37] The major domestic regime that mentions non-discrimination (the United States legislation) only applies to "unenhanced" data which is defined as "unprocessed or minimally processed signals or film products collected from civil remote sensing space systems".[38] Analysed information would not come within that definition. Proteus requested high resolution images of coastal and rural areas. NeoImage's business was to take raw data and process the images to provide greater detail. The product being sold by NeoImage was therefore analysed information, and to the extent that there is a State practice of making information available on a non-discriminatory basis, it does not extend to the provision of analysed information.

In addition Thalassa submits that to apply Principle XII would be an unjust fetter on freedom of contract as Principle XII requires that both primary and processed data be made available to the sensed State at "reasonable cost-terms" as soon as the data are produced. It is submitted that this would prevent private companies from being able to set their own price for the product of their enterprise.

In regard to analysed information, there is a further obstacle. Analysed information is to be made available on reasonable cost-terms, "taking particularly into account the needs and interests of the developing countries". The requirement of the particular consideration of the needs and interests of developing countries may in fact result in companies having to provide the analysed information at below-cost prices, providing a disincentive for their activities. Further, it would place an undue burden on private companies, requiring them to act as a global conscience.

Furthermore, Thalassa submits that the distinction drawn between data gathered "for the purpose of improving natural resources management, land use and the protection of the environment"[39] and data gathered for military purposes is ultimately illusory. An image of a dam or river could as easily be used for military purposes as environmental purposes. The ultimate use or purpose of the data is dependent upon the end user, rather than the provider. As such, there is no compelling reason why a State should be able to discriminate in the provision of "military images" but not "environmental images".

For the forgoing reasons, Thalassa submits that NeoImage's refusal to provide high resolution

[34] Swedish Act on Space Activities, 1982, 963 (Swed.)
[35] Swedish Decree on Space Activities, 1982, 1069 (Swed.).
[36] Ordinance of the Supreme Soviet of Ukraine on Space Activity (Law No 503/96-VR of 15 November 1996) (Ukr.).
[37] Remote Sensing Principles, Principle 1(b), (c), and (d).
[38] Land Remote-Sensing Commercialization Act 1984, §104(4) (U.S.).
[39] Principle I(a), Remote Sensing Principles.

images to Proteus was not a breach of international law.

(ii) State responsibility does not extend to ground activities

In addition Thalassa submits that State responsibility does not extend to ground activities. In this regard Thalassa repeats its earlier submissions. As the refusal to provide information took place on the earth it was not an activity in outer space and Thalassa is not responsible for NeoImage's refusal.

B. *Galatea bears international responsibility for NeoImage's non-supply*

In the alternative if this Court finds that NeoImage's non-supply of remote sensing data was in breach of international law, Thalassa submits that Galatea as the launching State bears international responsibility for NeoImage's conduct. In this regard Thalassa repeats its earlier submissions.

C. *No injustice is created by holding Galatea responsible*

Finally, Thalassa repeats its earlier observation that no injustice is created by holding Galatea responsible for NeoImage's conduct.

3. In the absence of any specified arrangement on dealing with third-party claims for liability involving SRS-1 and SRS-3, Galatea is fully and exclusively liable for any claim addressed to Galatea and Thalassa jointly or severally under international law for damages caused to Proteus by the re-entry of SRS-3 into the atmosphere of the Earth

A. *The Liability Convention applies.*

The Outer Space Treaty makes provision for liability for damage caused by space objects. Article VII of the Outer Space Treaty provides that:

Each State Party to the Treaty that launches or procures the launching of an object into outer space, including the Moon and other celestial bodies, and each State Party from whose territory or facility an object is launched, is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by such object or its component parts on the Earth, in air space or in outer space, including the Moon and other celestial bodies.

Article VII does not specify whether liability is absolute or fault-based, nor does it draw distinction between damage caused on the surface of the Earth and damage caused in space. It also makes no provision for the apportionment of liability between States that may, in relation to a single space object, jointly fall under the Article. The Article makes no provision for a mechanism for delivery or determination of compensation.[40] Finally, the provision only assigns liability for damage "to another State Party to the Treaty".

Thalassa submits that the Liability Convention affirms and elaborates Article VII of the Outer Space Treaty and that the Court should apply the Liability Convention: a convention that deals specifically with liability for damage caused by space objects. The Liability Convention is a victim-oriented treaty as is clear from the Preamble which states:

Recognising the need to elaborate effective international rules and procedures concerning liability for damage caused by space objects and to ensure, in particular, the prompt payment under the terms of this Convention of a full and equitable measure of compensation to victims of such damage.

The Liability Convention is clear in its terms precisely so that victims of damage caused by space objects can easily identify a source of compensation and obtain prompt payment. As such, Thalassa asks the Court to give effect to the purpose and clear words of the Liability Convention and grant a declaration that Galatea is liable for the damage suffered by Proteus as a result of the crash of SRS-3.

Galatea is a party to the Liability Convention, and the Convention is therefore binding on Galatea. The Liability Convention establishes a regime for determining liability for damage caused by space objects. Article II of the Liability Convention provides:

A launching State shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the Earth or to aircraft in flight.

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[40] Bin Cheng, *The 1972 Convention on International Liability for Damage Caused by Space Objects, in* STUDIES IN INTERNATIONAL SPACE LAW, (Bin Cheng ed. Clarendon Press 1997), at 291-292.

The notion of a "launching State" is defined in Article I of the Liability Convention, at paragraph (c):

The term "launching State" means:
i. A State which launches or procures the launching of a space object;
ii. A State from whose territory or facility a space object is launched

On an ordinary interpretation of Article II of the Liability Convention,[41] the present situation is clearly covered. As the respondent has previously submitted, Galatea is plainly the launching State. Moreover, the damage caused by SRS-3 occurred "on the surface of the Earth", as when SRS-3 lost altitude, it crashed into the Earth's surface, landing in a Protean munitions factory causing heavy casualties and serious property damage.

On that basis it is submitted that Galatea is liable for the loss suffered by Proteus as a result of the crash. Moreover, Galatea is absolutely liable; there are no defences to liability and it does not matter how the damage suffered is caused.[42]

B. *Liability is unaffected by the sale of the satellites SRS-1 and SRS-3.*

Thalassa further submits that liability was unaffected by the sale of SRS-1 and SRS-3. The Liability Convention clearly contemplates a situation where more than one State is involved in launching and/or operating a satellite. However, even in such a situation, liability is assigned by the notion of the "launching state". Article V(1) provides that:

Whenever two or more States jointly launch a space object, they shall be jointly and severally liable for any damage caused.

Article V has no application to the present case as Thalassa does not satisfy any of the definitions of "launching state" in Article I(c). As such, Galatea is exclusively and fully liable for the damage caused to Proteus.

Article VII further provides that:

> The provisions of this convention shall not apply to damage caused by a space object of a launching State to:
>
> a. Nationals of that launching State;
> b. Foreign nationals during such time as they are participating in the operation of that space object from the time of its launching or at any stage thereafter until its descent, or during such time as they are in the immediate vicinity of a planned launching or recovery area as the result of an invitation by that launching state.

Again, Article VII has no application as Proteus at no material time participated in the operation of the space object. As such, Galatea has no defence to its liability.

Thalassa further submits that liability was unaffected by the March 2001 communiqué as the terms of the communiqué are too vague and too broad to transfer Galatea's liability to Thalassa. Consequently, Thalassa submits that Galatea remains liable to Proteus under the Liability Convention.

C. *Galatean liability is consistent with general international law*

Even if the application of Article II of the Liability Convention were in doubt, Thalassa submits that there exists a principle of general international law that provides that a "State shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the Earth".[43] This is reflected in the repetition of this principle in both the Liability Convention and Article VII of the Outer Space Treaty. It is also consistent with the rule extracted from the *Trail Smelter Arbitration* that:[44]

A State owes at all times a duty to protect other States against injurious acts by individuals from within its jurisdiction.

Galatean responsibility is consistent with Article VI of the Outer Space Treaty which provides that States bear international responsibility for national activities in outer space, whether those activities are carried out by governmental agencies or non-governmental entities.[45] Thalassa submits that Galatea was responsible for the activities of SpaceSense Corp. (hereinafter

[41] Vienna Convention on the Interpretation of Treaties, *supra* note 1, Article 31(1).
[42] IAN BROWNLIE, SYSTEM OF THE LAW OF NATIONS: STATE RESPONSIBILITY (PART I) (1983), at 42.
[43] Bin Cheng, *International Responsibility and Liability for Launch Activities*, 20 AIR AND SPACE LAW 297 (1995), AT 306.
[44] Trail Smelter Arbitration (U.S. v. Can.), 3 R.I.I.A. 1905, 1963. See also Corfu Channel (U.K v. Albania) (Merits), 1949 I.C.J. 4 at 22.
[45] See paras. 1.3 above.

"**SpaceSense**"), which was in control of the satellites at the material time. Applying the test enunciated by the International Court of Justice in *Barcelona Traction, Light and Power Company*, that the nationality of a corporation must be derived either from the place of incorporation, the territory in which the company has its offices or from national links including the centre of administration (*siège social*), SpaceSense is a Galatean national.[46] It is a company incorporated in Galatea, 100% owned by Galatean interests (including a 51% holding by the government of Galatea) and operating out of Galatea. As such, at general international law, Galatea was responsible for SpaceSense and owed an obligation to prevent harm caused by their nationals to other States, even where the harmful activity is itself lawful.[47]

Liability is merely an incident of responsibility. In the *Chorzów Factory Case* the Permanent Court of International Justice said that:[48]

It is a principle of international law, and even a general conception of law, that any breach of an engagement involves an obligation to make reparation.

In the *Chorzów* case the Court was speaking of treaty and contractual engagements. The principle, however, is equally applicable to any obligation arising from law. This was confirmed by the International Court of Justice in its advisory opinion on *Reparation for Injuries Suffered in the Service of the United Nations* where the principle was reiterated and applied to the breach of any engagement capable of giving rise to international responsibility.[49]

Once SpaceSense had assumed control of the satellites, even presuming such an assumption of control was lawful, Galatea assumed liability for any damage caused in breach of its obligation under *Trail Smelter*. Galatea is therefore liable to Proteus at general international law for the damage caused by the crash of SRS-3.

4. Galatea is liable under international law for the economic loss suffered by Thalassa by the loss of both SRS-1 and SRS-3

A. *The Liability Convention applies and such a claim under is not barred by Article VII*

Article VII of the Liability Convention provides:

> The provisions of this Convention shall not apply to damage caused by a space object of a launching State to:
> [...]
> (b) Foreign nationals during such time as they are participating in the operation of that space object from the time of its launching or at any stage thereafter until its descent, or during such time as they are in the immediate vicinity of a planned launching or recovery area as the result of an invitation by that launching State.

Thalassa submits that the Article VII does not apply and that accordingly a claim under the Liability Convention is not barred.

(i) The damage was not caused "during such time as [NeoImage] was participating in the operation of" SRS-1 and SRS-3

Article VII provides that the Liability Convention "shall not apply to damage caused by a space object of a launching State to ... [f]oreign nationals *during* such time as they are participating in the operation of that space object".[50] That is NeoImage must have been participating in the operation of SRS-1 and SRS-3 when the damage was caused. Thalassa claims two different types of damages: the loss of its satellites; and the subsequent economic loss NeoImage suffered. It suffered the loss of SRS-1 when it descended into the atmosphere, the loss of SRS-3 when it crashed, and the economic loss following those events. At none of those times was NeoImage operating either satellite. SpaceSense had resumed control of both satellites. As only one ground control facility can control a satellite at any given time, NeoImage was not involved in the operation of either satellite at the time the damage was caused.

Accordingly, Thalassa submits that the present claim does not come within the Article VII exception to the Liability Convention, so a claim under the Convention is not barred.

B. *The Liability Convention allows recovery for economic loss*

[46] Barcelona Traction, Light and Power Company Ltd (Belg. v. Spain), 1970 I.C.J. 3 (Feb. 5).
[47] Trail Smelter Arbitration (U.S. v. Can.), 3 R.I.I.A. 1905, 1963.
[48] Chorzów Factory (Merits), 1928 P.C.I.J. (ser. A) No. 17 (Sept.13), at 47.
[49] Reparation of Injuries Suffered in the Service of the United Nations, 1949 I.C.J. 174 (April 11), at 184.
[50] Emphasis added.

Thalassa submits that the claim for the economic loss it suffered as a result of the loss of SRS-1 and SRS-3 is a recoverable head of damage, as economic loss falls within the scope of the term "damage" under the Liability Convention. Article I of the Convention defines "damage" in the following terms at paragraph (a):

The term "damage" means 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.

First, Thalassa submits that the words of the Convention must be given their ordinary meaning without a fetter on recovery being implied into either Article I or II.[51] Moreover, the interpretation of the Convention is informed by reference to its context.[52] Context is provided by the Preamble which recognised "the need to elaborate effective international rules and procedures concerning liability for damage ... and to ensure, in particular, the prompt payment ... of a *full and equitable* measure of compensation to victims".[53] Furthermore, Article XII of the Liability Convention itself provides:

The compensation which the launching State shall be liable to pay for damage under this Convention shall be determined in accordance with international law and the principles of justice and equity, in order to provide such reparation in respect of the damage as will restore the person, natural or juridical, State or international organisation on whose behalf the claim is presented to the condition which would have existed if the damage had not occurred.[54]

Secondly, reference to the *travaux préparatoires* supports Thalassa's submission. Due to a consensus that the Liability Convention should be victim-oriented, no fetters on what constituted valid heads of damage were inserted. The State parties also rejected a proposal by the USSR to exclude radiation damage.[55]

Thirdly, the interpretation of the Convention is informed by reference to wider principles of international law.[56] With respect to damages the general position is that "reparation must, as far as possible, wipe out all the consequences of the illegal act."[57] This was affirmed in *LAFICO and Burundi* in which the Court held that the following principles applied in determining the scope of damages:[58]

They must compensate for the loss suffered. The victim must be put back into the state in which he would have been if no unlawful act had taken place. In other words, reparation must as far as possible be neither inferior nor superior to the loss suffered and must cover both the damage incurred (*damnum emergens*) and the loss of anticipated profits (*lucrum cessans*).

This is further affirmed by Article 36(2) of the International Law Commission Draft Articles on State Responsibility, which provides that compensation "shall cover any financially assessable damage including loss of profits insofar as it is established".[59]

As a matter of international law it is therefore submitted that loss of profits and relational economic loss are recoverable heads of damage subject to limitations such as "causation, remoteness, evidentiary requirements and accounting principles."[60] As a background principle of international law, this informs the interpretation of the Convention. Clearer language would have been expected if the drafters of the Liability Convention wanted to displace this rule.

Thalassa submits that read in conjunction with background international law principles and the concerns expressed during drafting, as well as the clear words of the Convention itself, the Liability

[51] Vienna Convention on the Law of Treaties, *supra* note 1, Article 31(1).
[52] *Id.*
[53] Emphasis added.
[54] Emphasis added.
[55] Travaux Préparatoires of the Convention on International Liability for Damage Caused by Space Objects A/AC.105/C.2/L.4; 4 June 1962.

[56] Article 31(3)(c) of the Vienna Convention provides that in interpreting treaties "[t]here shall be taken into account, together with the context ... any relevant rules of international law applicable in relations between the parties."
[57] Chorzów Factory (Merits), 1928 P.C.I.J. (ser. A) No. 17 (Sept.13), at 47.
[58] LAFICO and the Republic of Burundi, 96 I.L.R. 279 (1994), at 323
[59] JAMES CRAWFORD, THE INTERNATIONAL LAW COMMISSION'S ARTICLES ON STATE RESPONSIBILITY: INTRODUCTION, TEXT AND COMMENTARIES, 230 (Cambridge University Press, 2002). The Draft Articles were commended to the General Assembly for possible future adoption; see Responsibility of States for Internationally Wrongful Acts, A/RES/56/83 (12 Dec 2001).
[60] LAFICO and the Republic of Burundi, *supra* note 58.

Convention allows recovery for economic loss. Accordingly, it is submitted that the economic loss suffered by Thalassa is recoverable under the Liability Convention.

C. *The economic loss is not too remote*

As the respondent noted above, although the Liability Convention allows for recovery of damages, recovery is still limited by the usual principle of remoteness. In *Angola* it was said that:[61]

> [E]veryone agrees that ... it is none the less necessary to exclude losses unconnected with the initial act, save by an unexpected concatenation of exceptional circumstances which could only have occurred with the help of causes which are independent of the author of the act and which he could in no way have foreseen.

The question of remoteness is therefore a question of foreseeability. Thalassa submits that the loss it has suffered was clearly foreseeable. It is plainly obvious that a satellite crash may result in serious damage, such as SRS-3 caused when it crashed in the Protean capital. That such a crash would cause outrage resulting in a loss of custom, is also foreseeable. The link between the crash and the loss Thalassa has suffered cannot be regarded as "unexpected" or "exceptional". It required no independent acts; it merely followed as a natural and probable result of the crash. As such, the economic loss is recoverable from Galatea.

C. *In any event, Thalassa can recover for economic loss under the Outer Space Treaty or under general principles of international law*

Even if this Court rejects the foregoing submission that Thalassa can recover from Galatea under the Liability Convention, Galatea is still liable for the economic loss Thalassa suffered under the Outer Space Treaty or at general international law.

(i) Thalassa has exhausted its domestic remedies

As a preliminary point to claims both under the Outer Space Treaty and at general international law, there is a general principle of international law, affirmed in *Interhandel*, that a State must exhaust its domestic remedies before international proceedings may be instituted.[62] In the *Interhandel* case the International Court of Justice held that:[63]

> The rule that local remedies must be exhausted before international proceedings may be instituted is a well-established rule of customary international law; the rule has been generally observed in cases in which a State has adopted the cause of its national whose rights are claimed to have been disregarded in another State in violation of international law. Before resort may be had to an international court in such a situation, it has been considered necessary that the State where the violation occurred should have an opportunity to redress it by its own means, within the framework of its own domestic legal system.

First, Thalassa submits that by submitting the matter to the International Court of Justice, Galatea has submitted to the jurisdiction of the Court under Article 36(2) of the Statute to the International Court of Justice which provides that States "may at any time declare that they recognise as compulsory ... the jurisdiction of the Court". Thalassa and Galatea jointly submitted the matter to the Court and formulated the issues to present to the Court. No issues of jurisdiction were raised. Accordingly, Thalassa submits that Galatea has accepted this Court's jurisdiction.

Secondly, Thalassa submits that the bankruptcy exhausted NeoImage's domestic remedies. In both common and civil law systems bankruptcy prevents the bankrupt party taking or defending any causes of action, although that right may be exercised by the administrator of the bankrupt estate.[64] In the present case Thalassa is bringing

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[61] Angola (Portugo-German Arbitral Tribunal), 2 R.I.A.A. 1011 (1928), at 1031. Translation taken from Bin Cheng, General Principles of Law as Applied by International Courts and Tribunals 250 (Stevens & Sons Ltd, 1953).

[62] This issue is not raised if the Liability Convention applies as Article XI provides that: "Presentation of a claim to a launching State for compensation for damage under this Convention shall not require the prior exhaustion of any local remedies which may be available to a claimant State or to natural or juridical persons it represents."

[63] Interhandel (Switz. v. U.S.) 1959 I.C.J. 6 (March 21), at 27.

[64] For example in the United States the right passes to the trustee in bankruptcy (11 U.S.C.A. ß704 (2000) (U.S.)); in England and Wales the bankrupt's causes of action vest in the trustee in bankruptcy (*Re Byrne*

the case on behalf of NeoImage.[65] The question then is whether NeoImage had remedies still available to it in Galatea. The test appears to be whether there is an effective remedy available "as a matter of reasonable possibility".[66] In the circumstances Thalassa submits that there is not. A bankrupt party cannot bring an action on its own accord, so Thalassa (claiming on behalf of NeoImage) could not either.

(ii) The Outer Space Treaty

Thalassa submits that Galatea is liable for the damage caused by the satellites under Article VII of the Outer Space Treaty:

Each State Party to the Treaty that launches or procures the launching of an object into outer space, including the Moon and other celestial bodies, and each State party from whose territory or facility an object is launched, is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by such object or its component parts on the Earth, in air space or in outer space, including the Moon and other celestial bodies.

Thalassa repeats its earlier submission, that Galatea is the sole launching State. Accordingly, under Article VII Galatea is liable for the damage caused to Thalassa on the face of the Earth. Unlike the Liability Convention the Outer Space Treaty contains no definition of damage. Accordingly, the question of the recoverability of economic loss must be assessed against the backdrop of the general principles of international law. As Thalassa has already argued, international law ordinarily allows a party to recover economic loss. Thalassa repeats its earlier submissions. Furthermore, Thalassa repeats its earlier submissions, that the claimed damages are foreseeable and can accordingly be recovered.

(iii) General International Law

Thalassa repeats its earlier submission that economic loss is recoverable at general international law so long as it is foreseeable. It now submits that Galatea is liable for that economic loss at general international law.

States owe an obligation to prevent harm caused by their nationals to other States, even where the harmful activity is itself lawful.[67] States must take appropriate steps to prevent harm being caused to other nations.

Thalassa repeats its submission that SpaceSense is a Galatean national and so Galatea is responsible and so liable for any damage caused. SpaceSense assumed control of the satellites SRS-1 and SRS-3, an action which in and of itself may constitute a breach of the sale and purchase agreement. However, once SpaceSense had assumed control of the satellites, even presuming such an assumption of control was lawful, Galatea assumed liability for any damage caused, and therefore Galatea is liable to Thalassa at general international law for the economic loss suffered.

SUBMISSIONS TO THE COURT

For the foregoing reasons, the Government of Thalassa, Respondent respectfully requests the Court to adjudge and declare that:

1. Thalassa has been compliant with its obligations under international law concerning the supply of high resolution remote sensing data over the military installations and facilities of Proteus.
2. Galatea is fully and exclusively liable for the unlawfulness of activities involving SRS-1 and SRS-3 that would be considered to violate the rights of Proteus by NeoImage refusing to supply remote sensing data of Protean territory to Proteus.
3. Galatea is fully and exclusively liable for any claim for damage caused to Proteus by the re-entry of SRS-3 into the atmosphere.
4. Galatea is liable under international law or the economic loss suffered by Thalassa by the loss of both SRS-1 and SRS-3.
5. All other relief sought by Thalassa in its memorials and oral submissions should be granted and all relief sought by Galatea should be denied.

(1892) 9 Morr. 213); in Australia only the trustee in bankruptcy may institute any proceedings relating to he estate (s134(1)(j) of the Bankruptcy Act, 1966, (Austl.)). Similar provisions apply in civil law countries, for example, in France the right to initiate and appear in proceedings passes from the bankrupt party to the syndic (C. Com. Art 443 (Fr.)).

[65] Barcelona Traction, Light and Power Company, Ltd (Belg. v. Spain), 1970 I.C.J. 3 (Feb. 5)

[66] Norwegian Loans (Fr. v. Nor.), 1957 I.C.J. 144-5 (6 July).

[67] Trail Smelter Arbitration (U.S. v. Can.), 3 R.I.I.A. 1905 (1941), 1963.