

**MANFRED LACHS SPACE LAW MOOT COURT COMPETITION 2005**

**Team No. 612**

**IN THE INTERNATIONAL COURT OF JUSTICE  
AT THE  
PEACE PALACE, THE HAGUE**

**Case concerning International Liability**

**Deltastan  
v.  
Gammaland**

**ON SUBMISSION TO THE INTERNATIONAL COURT OF JUSTICE**

**MEMORIAL FOR THE RESPONDENT**

**GAMMALAND**

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**A. International Cases**

- Bering Sea Fur Seals Arbitration (Gr. Brit. v. U.S.), 1893 Moore 735
- Case Concerning Air Services Agreement Between France and the United States (Fra. v. U.S.), 18 R.I.A.A. 417 (1978)
- Chorzów Factory (F.R.G. v. Pol.) (Jurisdiction), 1927 P.C.I.J. (ser. A) No. 9, at 21
- Chorzów Factory (F.R.G. v. Pol.) (Merits), 1928 P.C.I.J. (ser. A) No. 17, at 29 (Sept. 13)
- Corfu Channel (U.K. v. Alb.) (Merits), 1949 I.C.J. 4 (Apr. 9)
- Davis, 402 Ven. Arb. 406 (1903)
- Gabčíkovo-Nagymaros Project (Hung. v. Slov.), 1997 I.C.J. 7 (Sept. 25)
- Legality of the Threat or Use of Nuclear Weapons, 1996 I.C.J. 226 (July 8)
- Life Insurance Claims (U.S. v. F.R.G.), 1924 Dec. & Op. 103
- Military and Paramilitary Activities (Merits) (Nicar. v. U.S.), 1986 I.C.J. 4 (June 27)
- Naulilaa Claims (Port. v. F.R.G.), 2 R.I.A.A. 1011 (1928)
- Phosphates in Morocco (Ita. v. Fra.) (Preliminary Objections), 1938 P.C.I.J. (ser. A/B) No. 74, at 23
- The Caroline, 2 B.F.S.P. 1137 (1841)
- Trail Smelter Arbitration (U.S. v. Can.), 3 R.I.A.A. 1905 (1938)
- United States Diplomatic and Consular Staff in Tehran (U.S. v. Iran), 1980 I.C.J. 3

**B. Treaties and International Documents**

- Agreement on Cooperation in the Detailed Design, Development, Operation, and Utilization of the Permanently Manned Civil Space Station, reprinted in 16 J. SPACE L. 220 (1988)
- Belgium & Australia, U.N. Doc. A/AC.105/C.2/SR.67, at 11
- CHARTER OF THE UNITED NATIONS, June 26, 1945
- Convention on International Liability for Damage Caused by Space Objects, Mar. 29, 1972, 961 U.N.T.S. 197 (entered into force Sept. 1, 1972)
- Convention on Liability of Operators of Nuclear Ships, May 25, 1962, 57 A.J.I.L. 268 (1963)
- Declaration on International Co-operation in the Exploration and Use of Outer Space for the Benefit and in the Interest of all States, Taking into Particular Account the Needs of Developing Countries, G.A. Res. 51/122, U.N. GAOR, 51st Sess., U.N. Doc. A/RES/51/122 (1996)

- Declaration on the Principles of International Law concerning Friendly Relations and Co-operation Among States in Accordance with the Charter of the United Nations, G.A. Res. 2625, U.N. GAOR, 25th Sess., Supp No. 18, at 123, U.N. Doc. A/8018 (1970)
- Definition of Aggression, G.A. Res. 3314, U.N. GAOR, 29th Sess., Supp. No. 31, at 19, U.N. Doc. A/9631
- Japan & Italy, U.N. Doc. A/AC.105/21, annex 2, at 28
- Principles Relevant to the Use of Nuclear Power Sources in Outer Space, G.A. Res. 47/68, U.N. GAOR, 47th Sess., Supp No. 49, U.N. Doc A/47/49 (1992)
- Rescue Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, Apr. 22, 1968, 672 U.N.T.S. 119 (entered into force Dec. 3, 1968)
- Report of the International Law Commission*, U.N. GAOR, 56th Sess., Supp. No. 10, U.N. Doc. A/56/10 (2001)
- Report of the International Law Commission*, International Law Commission, 18th Sess., U.N. Doc. A/CN.4/187 (1966)
- Rio Declaration of 1997 UN Conference on Environment, principle 2, 31 I.L.M. 874 (1992)
- Roberto Ago, *8th Report on State Responsibility to the International Law Commission*, International Law Commission, 32d Sess., U.N. Doc. A/CN.4/318/Add.8 (1980)
- Stockholm Declaration on the Human Environment: Report of the United Nations Conference on the Human Environment, U.N. Doc. A/CONF.48/14/Rev/1 (1972), reprinted in 11 I.L.M. 1416
- Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, Jan. 27, 1967, 610 U.N.T.S. 205 (entered into force Oct. 10, 1967)
- United Nations Convention on the Law of the Sea, Dec. 10, 1982, 21 I.L.M. 1245, 1308 (entered into force Nov. 16, 1994)
- Vienna Convention on Civil Liability for Nuclear Damage, May 21, 1963, 2 I.L.M 727 (1963) (entered into force Nov. 12, 1977)
- Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 331 (entered into force Jan. 27, 1980)

### **C. Books**

- REG BARTLEY, *THE MODERN APPROACH TO STATUTORY CONSTRUCTION* (2000)
- PATRICIA BIRNIE & ALAN BOYLE, *INTERNATIONAL LAW AND THE ENVIRONMENT* (1992)
- IAN BROWNLIE, *INTERNATIONAL LAW AND THE USE OF FORCE BY STATES* (1963)
- BIN CHENG, *GENERAL PRINCIPLES OF LAW AS APPLIED BY INTERNATIONAL COURTS AND TRIBUNALS* (1953)

BIN CHENG, *STUDIES IN INTERNATIONAL SPACE LAW* (1998)

CARL CHRISTOL, *INTERNATIONAL SPACE LAW, PAST, PRESENT AND FUTURE* (1991)

CARL CHRISTOL, *THE MODERN INTERNATIONAL LAW OF OUTER SPACE* (1982)

YORAM DINSTEIN, *WAR, AGGRESSION AND SELF-DEFENCE* (2001)

BRUCE HURWITZ, *STATE LIABILITY FOR OUTER SPACE ACTIVITIES IN ACCORDANCE WITH THE 1972 CONVENTION ON INTERNATIONAL LIABILITY FOR DAMAGE CAUSED BY SPACE OBJECTS* (1992)

WILFRED JENKS, *SPACE LAW* (1965)

NICOLAS MATTE, *AEROSPACE LAW: FROM SCIENTIFIC EXPLORATION TO COMMERCIAL UTILIZATION* (1977)

NICOLAS MATTE, *AEROSPACE LAW: TELECOMMUNICATIONS SATELLITES* (1983)

MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY (11th ed. 2003)

PHILIPPE SANDS, *PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW* (1995)

MALCOLM SHAW, *INTERNATIONAL LAW* (5th ed. 1997)

#### D. Articles

Bin Cheng, *International Responsibility and Liability for Launch Activities*, 20(6) AIR & SPACE L. 297 (1995)

Paul Dembling, *Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies*, in MANUAL ON SPACE LAW: VOLUME I, at 19 (Nandasiri Jasentuliyana ed., 1979)

Isabella Diederiks-Verschoor, *Similarities With and Differences Between Air and Space Law Primarily in the Field of Private International Law*, 172 HAGUE RECUEIL 317 (1981)

Isabella Diederiks-Verschoor, *The Convention on International Liability Caused by Space Objects*, 15 PROC. COLLOQ. L. OUTER SPACE 100 (1972)

Edward Finch, *Outer Space Liability: Past, Present, Future*, 14 INT'L LAWYER 123 (1980)

Edward Frankle, *International Regulation of Orbital Debris*, 43 PROC. COLLOQ. L. OUTER SPACE 369 (2000)

W.F. Foster, *The Convention on International Liability for Damage Caused by Space Objects*, 10 CAN.Y.B. INT'L L. 137 (1973)

Steven Freeland, *There's a Satellite in My Backyard!*, 24(2) U.N.S.W. L.J. 462 (2001)

Jay Ginsburg, *The High Frontier: Tort Claims and Liability for Damages Caused by Man-Made Space Objects*, 12 SUFFOLK TRANSNAT'L L.J. 515 (1989)

Stephen Gorove, *Some Comments on the Convention on International Liability for Damage Caused by Space Objects*, 16 PROC. COLLOQ. L. OUTER SPACE 254 (1973)

- Edward Hennessey, *Liability for Damage Caused by the Accidental Operation of a Strategic Defense Initiative System*, 21(2) CORNELL INT'L L.J. 317 (1988)
- Lisa Kaplan, *International Responsibility of an Occupying Power for Environmental Harm: The Case of Estonia*, 12 TRANSNAT'L L. 153 (1999)
- Margo Kaplan, *Using Collective Interests to Ensure Human Rights: An Analysis of the Articles on State Responsibility*, 79 N.Y.U. L. REV. 1902 (2004)
- Vladimir Kopal, *Evolution of the Main Principles of Space Law in the Institutional Framework of the United Nations*, 12(1) J. SPACE L. 12 (1984)
- Stanley Mazaroff, *Exoneration from Liability for Damage Caused by Space Activities*, 54 CORNELL L. REV. 71 (1968)
- Mary O'Connell, *The Myth of Preemptive Self-Defense* (visited Feb. 22, 2005)  
<<http://www.asil.org/taskforce/oconnell.pdf>>
- Christopher Petras, "Space Force Alpha": *Military Use of the International Space Station and the Concept of "Peaceful Purposes"*, 53 A.F. L. REV. 135 (2002)
- Robert Ramey, *Armed Conflict on the Final Frontier: The Law of War in Space*, 48 A.F. L. REV. 1 (2000)
- Albrecht Randelzhofer, *Article 2(4)*, in THE CHARTER OF THE UNITED NATIONS 106 (Bruno Simma ed., 1995)
- Albrecht Randelzhofer, *Article 51*, in THE CHARTER OF THE UNITED NATIONS 662 (Bruno Simma ed., 1995)
- Nicholas Rostow, *The International Use of Force After the Cold War*, 32(2) HARV. INT'L L.J. 311 (1991)
- Oscar Schachter, *The Right of States to Use Armed Force*, 82 MICH. L. REV. 1620 (1984)
- Kevin Spradling, *The International Liability Ramifications of the U.S.' Navstar Global Positioning System*, 31 PROC. COLLOQ. L. OUTER SPACE 92 (1973)
- Kenzo Takayanagi, *Liability Without Fault in the Modern Civil and Common Law*, 16 ILL. L. REV. 268 (1921)
- Rachel Trinder, *Remote Sensing via Satellite: The Need for a New International Regime*, 22 ANNALS AIR & SPACE L. 442 (1997)
- Vladlen Vereshchetin & Gennady Denilenko, *Custom as a Source of International Law of Outer Space*, 13(1) J. SPACE L. 22 (1985)
- Frans von der Dunk, *Liability Versus Responsibility in Space Law: Misconception or Misconstruction?*, 34 PROC. COLLOQ. L. OUTER SPACE 363 (1991)
- C. Humphrey Waldock, *The Regulation of the Use of Force by Individual States in International Law*, 81 HAGUE RECUEIL 451
- Henri Wassenbergh, *A Launch and Space Transportation Law, Separate From Outer Space Law?*, 21 AIR & SPACE L. 28 (1996)

Henri Wassenbergh, *International Space Law: A Turn of the Tide*, 22 AIR & SPACE L. 334 (1997)

Chris Williams, *Space: The Cluttered Frontier*, 60 J. AIR L. & COM. 1139 (1995)

### **E. National Statutes and Cases**

Donoghue v. Stevenson, 1932 A.C. 562

The Russian Federation Law on Space Activity, Federal Law No. 5663-1 of 20 August 1993, as amended by Federal Law No. 147-F3 of 29 November 1996 art 30.1

### **F. Other Sources**

Bradley Edwards, *The Space Elevator: Final Report to the NASA Institute for Advanced Concepts*, at 1.4–1.5 (visited Feb. 24, 2005)  
<<http://www.spaceelevator.com/docs/472Edwards.pdf>>

Joanne Gabrynowicz, *Some Potential National and International Legal and Policy Issues Relating to the Licensing, Construction and Operation of a Space Elevator* (July 31, 2002) (unpublished manuscript, on file with the author)

STAFF OF SENATE COMM. ON AERONAUTICAL AND SPACE SCIENCES, 92D CONG., 2D SESS., CONVENTION ON INTERNATIONAL LIABILITY FOR DAMAGE CAUSED BY SPACE OBJECTS: ANALYSIS AND BACKGROUND DATA (Comm. Print 1972)

## QUESTIONS PRESENTED

1. Whether the Applicant has violated obligations under international law, and is liable for the damage caused to the Respondent's satellites;
2. Whether the Applicant has violated obligations under international law, and is liable for the environmental damage caused to the Respondent and thus for any payment of compensation for the clean up costs;
3. Whether the Respondent is liable under international law for the damage to the Space Elevator and its component parts including Drachen Station;
4. Whether the Respondent is liable under international law for the damage to the Applicant's fisheries; and
5. Whether the Respondent is liable under international law for the return of Drachen Station.

## STATEMENT OF FACTS

### BACKGROUND

#### **Gammaland: A new space faring nation**

Gammaland is a State with newly developed space faring capabilities located on the equator, west of the Maric Ocean. Through its efforts it has managed to establish a domestic launch services industry and place several satellites in low Earth, near polar orbits, including two reconnaissance satellites and two civilian weather satellites. All satellites were duly registered in accordance with the Registration Convention.

#### **Deltastan and the Space Elevator Project**

Deltastan is a developed industrial nation with advanced space faring capabilities. Deltastan embarked on the development of a new and untested method of transporting objects into outer space with the objective of commercialising its domestic launch services industry.

The Space Elevator project was funded and developed by two Deltastan government organisations, the National Agency of Space (“NAS”) and the Ministry of Defence (“MOD”). The Space Elevator comprised three components: a long carbon nanotube string (“Super String”) connecting Drachen Station (“Drachen”) – a space station orbiting at an altitude slightly above the geostationary earth orbit – to a mobile sea platform (“Sea Anchor”) in the Maric Ocean. Deltastan claimed a 200 kilometre exclusionary zone around Sea Anchor, but had never objected, before this dispute, to the passage of Gammaland vessels and aircraft through this zone.

Satellites were transported into low, medium and geostationary earth orbits by crawlers (“Golden Orbs”), which moved along the Super String and were powered by laser systems installed on Drachen and Sea Anchor.

Gammaland was concerned that the development of the Space Elevator would do considerable harm to Gammaland's domestic launch services industry. Gammaland also feared that the Space Elevator was to be used as an element of a space-based weapons system that could threaten Gammaland's national security.

### **Construction of the Space Elevator**

The Space Elevator's construction began with the launching of Alpha Station ("Alpha") into geostationary orbit. A drogue then descended from Alpha, reeling out a length of Super String and attaching it to Sea Anchor when it reached the Earth's surface.

Concurrently, Drachen, a human-rated station with return to Earth capabilities intended to replace Alpha, was constructed by transporting its components piece by piece up the Super String. Upon Drachen's completion, Alpha was disconnected from the Super String and disposed of. Neither the Super String nor Drachen were registered in accordance with the Registration Convention.

Drachen was then crewed by reserve members of Deltastan's armed forces, and, confirming Gammaland's fears, its laser power system secretly upgraded to double as a laser weapons system.

## **THE DISPUTE**

### **Inspector observes the Space Elevator**

In the interests of national security, Gammaland instituted measures to monitor the Space Elevator. Gammaland's Ministry of Defence developed Inspector, a reconnaissance satellite designed to relay information to GammaSat II, a communications satellite.

Both were launched together and inserted into geostationary orbits. Soon after Inspector's deployment, Deltastan detected Inspector in a position near the Super String, but took no action at that stage.

A series of operational accidents on the Space Elevator then caused Deltastan to suspend operations and commission a safety investigation. During the investigation, Deltastan developed a payload designed to spy on Inspector.

Press reports at the time alleged that the next payload to be sent up was related to a super-secret black nanosatellite program run by Deltastan. In order to ascertain the potential threat posed by this technology, Gammaland moved Inspector to within several kilometres of the Super String and waited there to observe this payload as it passed through the geostationary arc.

Upon resumption of operations, a crawler purportedly failed on the Super String at the point closest to Inspector. During this incident, Deltastan was spying on Inspector. Deltastan used this data to confront Gammaland about Inspector's proximity and demanded that Gammaland move Inspector at least 1,000 kilometres away from the Space Elevator. Heated threats followed. Faced with these threats, Gammaland complied, and commanded Inspector to reposition promptly.

### **Deltastan fires its laser weapons system, destroying Gammaland's satellites**

Due to a storm in the Maric Ocean, Deltastan decided to reposition Sea Anchor and Drachen was placed on alert. During the manoeuvre, the Super String failed. At this time, Deltastan was aware that Inspector's exhaust could have impacted the Super String. Deltastan executed pre-programmed firings of its laser weapons system, destroying Inspector, GammaSat II and the four aforementioned Gammaland satellites: GammaEOS II, GammaEOS IV, GamMetSat I and GamMetSat III.

### **Drachen Station lands in Gammaland**

Drachen, apparently unable to execute a vehicle return sequence, then landed in Gammaland's territory without authorisation. Gammaland seized Drachen and began a systematic disassembly and analysis of it. Deltastan then demanded that all Gammaland aircraft in the area of Sea Anchor land on territory allied to Deltastan or be shot down. Three aircraft were grounded and the crews arrested.

Twenty-three thousand miles of Super String then crashed into the atmosphere. The majority of the debris and fallout landed in Gammaland.

After protracted negotiations and demands, an Independent Commission determined that the most likely cause of the Super String's failure was its corrosion by the propulsion exhaust. Subsequently, Drachen's crew were returned to Deltastan and Gammaland's aircraft and their crews were likewise returned. Gammaland continues to retain Drachen on the grounds that it is an aggressive weapons system.

**Both Gammaland and Deltastan accept the jurisdiction of the International Court of Justice and have agreed to refer the outstanding issues in this dispute to this Court.**

## SUMMARY OF ARGUMENTS

This case concerns issues surrounding the use of force, and liability to make reparations for damage to space objects and the environment.

Deltastan acted rashly and belligerently in destroying Gammaland's satellites with its laser weapon. This was an unlawful use of force that cannot be considered an act of self-defence as it was unnecessary, disproportionate and not taken in response to an armed attack. Further, Deltastan's actions violated the principle of international cooperation and failed to consider the needs of lesser developed countries. Deltastan is responsible for these violations of international law and must make reparations for the damage resulting from them.

The Super String is a space object owned by Deltastan which caused direct damage to Gammaland's environment when it returned to Earth. Deltastan is therefore absolutely liable for such damage under the Liability Convention and the Outer Space Treaty. Exoneration from liability is unavailable because Gammaland was not grossly negligent in its conduct.

By demonstrating a lack of due diligence in its space activities which resulted in introducing harmful extraterrestrial material into Gammaland's environment, Deltastan has also breached international environmental law and the article IX of the Outer Space Treaty.

Because Gammaland's actions were not a proximate cause of the damage to the Super String, Gammaland is not liable for such damage. In the alternative, Gammaland is not liable under the Liability Convention as the damage was not caused by its fault. Further, as the damage was not knowingly caused, Gammaland has not violated the principle of international law set out in *Corfu Channel*.

The defence of necessity precludes any unlawfulness connected with the disassembly of Drachen. The disassembly was necessary to protect Gammaland's essential interests from the threat posed by Drachen.

The damage caused to Deltastan's fisheries by the Super String was consequential to Inspector's corrosion of the Super String. Deltastan is not liable under the Liability Convention for this consequential damage because the Liability Convention only covers direct damage.

Even if Gammaland is absolutely liable for damage to the fisheries, exoneration from liability is available due to the gross negligence of Deltastan in failing to take adequate measures to safeguard the Super String. Gammaland has also fulfilled its international environmental law obligations by exercising due diligence.

Gammaland is not liable to return Drachen to Deltastan. The Outer Space Treaty does not apply here because Drachen is unregistered. The Rescue Agreement does not apply because it does not cover situations of hostility such as in the instant case. In the alternative, Gammaland's failure to return Drachen under the Rescue Agreement is excepted from liability as a valid countermeasure.

**ARGUMENTS****Section 1 – Deltastan is liable for the damage it caused to Gammaland’s satellites****1.1 DELTASTAN IS LIABLE FOR THE DESTRUCTION OF GAMMALAND’S SATELLITES BY ITS UNLAWFUL USE OF FORCE****(a) Deltastan has breached article 2(4) of the UN Charter which prohibits the threat or use of force**

Article 2(4) of the UN Charter expressly forbids the use or threat of force in international relations. This principle of international law has also been recognised by this Court,<sup>1</sup> the International Law Commission (ILC),<sup>2</sup> and many of the most highly qualified publicists<sup>3</sup> as a rule with the status of *jus cogens*, a peremptory norm of international law, inviolable by convention or practice. The use of force is wrongful unless taken in self-defence.<sup>4</sup>

The inclusion of the words “territorial integrity or political independence” in article 2(4) does not, and is not intended to, restrict the ambit of the prohibition against use of force to those situations only.<sup>5</sup>

Deltastan intentionally destroyed six of Gammaland’s satellites when Drachen’s laser weapons system fired upon them without warning. The use of military arms is central to the

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<sup>1</sup> Military and Paramilitary Activities (Merits) (Nicar. v. U.S.), 1986 I.C.J. 4 (June 27) [hereinafter Nicaragua].

<sup>2</sup> *Report of the International Law Commission*, International Law Commission, 18th Sess., at 247, U.N. Doc. A/CN.4/187 (1966).

<sup>3</sup> YORAM DINSTEIN, WAR, AGGRESSION AND SELF-DEFENCE 94 (2001); Margo Kaplan, *Using Collective Interests to Ensure Human Rights: An Analysis of the Articles on State Responsibility*, 79 N.Y.U. L. REV. 1902, 1909 (2004).

<sup>4</sup> U.N. CHARTER art. 51.

<sup>5</sup> Albrecht Randelzhofer, *Article 2(4)*, in THE CHARTER OF THE UNITED NATIONS 106, 118 (Bruno Simma ed., 1995); DINSTEIN, *supra* note 3, at 82.

definition of “force” as used in the UN Charter.<sup>6</sup> Accordingly, Deltastan’s actions are a clear use of force in violation of the UN Charter and customary law.

Deltastan cannot claim that the automated firing of the weapon was not intentional. The laser weapons system did not malfunction; it performed precisely the function it was designed to perform, which was the forcible elimination of threats should Drachen appear to be under attack.

**(b) Deltastan cannot claim it was acting in self-defence**

Deltastan cannot invoke the protection of article 51 of the UN Charter in order to preclude the unlawfulness of its actions. Self-defence under the UN Charter or customary law requires three elements: the existence of an armed attack, and necessity and proportionality of response.<sup>7</sup> None of these conditions have been met.

**(i) *No armed attack had occurred nor was an attack imminent***

An armed attack necessarily presupposes an aggressive use of arms on a significant scale and with substantial effect.<sup>8</sup> Deltastan was not under armed attack by Gammaland in any way. Inspector was merely a reconnaissance satellite, engaged in legal activities and with no offensive capabilities. Having spied on Inspector, Deltastan was aware of these facts. At no point were weapons employed by Gammaland against Deltastan.

A State is entitled to judge for itself if it is under an armed attack,<sup>9</sup> but this must be tempered by a high evidentiary standard if the provisions of the UN Charter are not to be

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<sup>6</sup> DINSTEIN, *supra* note 3, at 81.

<sup>7</sup> U.N. CHARTER art. 51; Nicaragua, *supra* note 1, at 94; *The Caroline*, 29 B.F.S.P. 1137 (1841); *Legality of the Threat or Use of Nuclear Weapons*, 1996 I.C.J. 226, 245 (July 8) [hereinafter *Nuclear Weapons*]. *See also* Albrecht Randelzhofer, *Article 51*, in *THE CHARTER OF THE UNITED NATIONS* 662, 664 (Bruno Simma ed., 1995); Nicholas Rostow, *The International Use of Force After the Cold War*, 32(2) HARV. INT’L L.J. 311 (1991).

<sup>8</sup> Randelzhofer, *supra* note 7 at 669; *Definition of Aggression*, G.A. Res. 3314, U.N. GAOR, 29th Sess., Supp. No. 31, at 19, U.N. Doc. A/9631.

<sup>9</sup> DINSTEIN, *supra* note 3, at 173.

undermined. Whether or not Deltastan was under the impression that an attack had already begun or was beginning, it was required to base its actions on “convincing evidence ... of an attack actually being mounted”.<sup>10</sup>

No such convincing evidence existed. At most, Deltastan’s reaction constituted a strike against targets that represented only potential threats, not genuinely imminent ones. This practice of pre-emptive self-defence, directed towards threats that have not yet actually materialised, has been repeatedly criticised as unlawful by many of the most highly qualified publicists.<sup>11</sup>

Indeed, Deltastan’s lack of sound judgement is evident, given the fact that the firing was preprogrammed and human reasoning apparently played little part in the selection of targets and the decision to strike.<sup>12</sup>

**(ii) *The requirement of necessity was not met***

The strikes were not necessary in the sense laid down in *The Caroline, Nicaragua, Nuclear Weapons* and subsequent publicists’ writings.<sup>13</sup> Necessity requires that force must never be adopted until “no alternative means of redress is available”,<sup>14</sup> and “peaceful measures have been found wanting [or] ... clearly futile.”<sup>15</sup> This implies that some confirmation of events is an essential precondition to self-defence. Deltastan made no such effort whatsoever before opening fire, so its case for necessity suffers accordingly.

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<sup>10</sup> C. Humphrey Waldock, *The Regulation of the Use of Force by Individual States in International Law*, 81 HAGUE RECUEIL 451, 498, quoted in DINSTEIN, *supra* note 3, at 172.

<sup>11</sup> Randelzhofer, *supra* note 7, at 676; Mary O’Connell, *The Myth of Preemptive Self-Defense*, at 13 (visited Feb. 22, 2005) <<http://www.asil.org/taskforce/oconnell.pdf>>; DINSTEIN, *supra* note 3, at 168.

<sup>12</sup> *Compromis* para. 21.

<sup>13</sup> Oscar Schachter, *The Right of States to Use Armed Force*, 82 MICH. L. REV. 1620, 1635 (1984); Rostow, *supra* note 7, at 455; O’Connell, *supra* note 11, at 6–7.

<sup>14</sup> DINSTEIN, *supra* note 3, at 184.

<sup>15</sup> Schachter, *supra* note 13, at 1635.

It is also clear that the destruction of Gammaland's satellites was an arbitrary response to the disaster. It is impossible to see how, in these circumstances, Deltastan had no choice of means<sup>16</sup> but to launch strikes against the satellites in question. There had been nothing to indicate that an armed attack was being facilitated by or proceeding from those targets in particular as opposed to the hundreds of other satellites in the same proximity to Drachen.

**(iii) *The requirement of proportionality was not met***

Proportionality of response is “the quintessential factor in appraising the legitimacy of the [counter-force] executed by the responding State”<sup>17</sup> and has been examined by this Court in *Naulilaa Claims*.<sup>18</sup> Some correspondence between the scale of counter-force and the gravity of the harm suffered is vital.<sup>19</sup> Also, the force must be strictly adapted to the purpose of halting and repelling the attack and must not entail retaliatory or punitive actions.<sup>20</sup>

In this case no such proportionality was observed. First, Deltastan suffered harm to a single space asset while Gammaland was deprived of six such assets, the gravity of which is exacerbated in light of Gammaland's limited space capabilities.

Secondly, none of the satellites destroyed had any ability to cause Drachen harm or any functional connection to GammaSat II or Inspector. Neither GammaEOS II nor GamMetSat I could have posed any conceivable threat as they were over 10,000 kilometres away from the Space Elevator at all times. GamMetSat I and GamMetSat III were *civilian* weather satellites and likewise posed no threat. Strikes against them cannot then be said to be adapted to the purpose of repelling an attack, since no such threat existed.

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<sup>16</sup> The Caroline, *supra* note 7.

<sup>17</sup> DINSTEIN, *supra* note 3, at 197. See also IAN BROWNLIE, INTERNATIONAL LAW AND THE USE OF FORCE BY STATES 279 (1963); MALCOLM SHAW, INTERNATIONAL LAW 1031 (5th ed. 1997).

<sup>18</sup> Naulilaa Claims (Port. v. F.R.G.), 2 R.I.A.A. 1011, 1026 (1928).

<sup>19</sup> DINSTEIN, *supra* note 3, at 198.

<sup>20</sup> Schachter, *supra* note 13, at 1637; Roberto Ago, 8th Report on State Responsibility to the International Law Commission, International Law Commission, 32d Sess., at 69–70, U.N. Doc. A/CN.4/318/Add.8 (1980).

Thirdly, the harm to the Space Elevator had already occurred and was complete. It clearly did not need to be “halted”. As such, the military reprisals constituted an unlawfully punitive and retaliatory response to the initial damage.

## **1.2 DELTASTAN HAS BREACHED INTERNATIONAL LAW BY VIOLATING THE PRINCIPLE OF INTERNATIONAL CO-OPERATION**

International co-operation is a recognised principle of international law. Article 74 of the UN Charter clearly emphasises that States are to take into account the “interests and well-being” of other States.<sup>21</sup> The OST also stresses the importance of international co-operation, mentioning it no less than six times.<sup>22</sup> This obligation is supported by the Declaration on Friendly Relations,<sup>23</sup> which confirms that States are obliged to co-operate “in the maintenance of international peace and security”. Article 33 of the UN Charter facilitates this goal by requiring that States must first attempt to settle disputes by peaceful means such as negotiation and enquiry.

Deltastan had many peaceful dispute resolution mechanisms available to it (such as the diplomatic channels which were already in use) which did not involve a use of force. By destroying Gammaland’s satellites without warning, Deltastan has wantonly disrupted international peace and security and violated articles 74 and 33 of the UN Charter.

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<sup>21</sup> U.N. CHARTER art. 74.

<sup>22</sup> Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, Jan. 27, 1967, preamble, arts. I, II, IX, X, XI, 610 U.N.T.S. 205 (entered into force Oct. 10, 1967) [hereinafter OST].

<sup>23</sup> Declaration on the Principles of International Law concerning Friendly Relations and Co-operation Among States in Accordance with the Charter of the United Nations, G.A. Res. 2625, U.N. GAOR, 25th Sess., Supp No. 18, at 123, U.N. Doc. A/8018 (1970) [hereinafter Declaration on Friendly Relations].

These violations are even more indefensible given the disparity in space faring abilities between the two States. Developed nations are required to take “particular account” of the needs of less developed countries.<sup>24</sup>

Gammaland is a country with a fledgling space industry, whereas Deltastan’s space capabilities are fully developed. Deltastan has completely disregarded the needs of Gammaland by destroying a communications satellite (Gammasat II) and five remote sensing satellites, each a valuable asset of Gammaland’s.<sup>25</sup> Communication satellites are crucial to the development of countries,<sup>26</sup> as are the benefits gained from remote sensing satellites: weather satellites can observe weather patterns to estimate agricultural crop yields and be used to avoid or warn about severe weather and natural disasters, such as tsunamis which threaten coastal countries.<sup>27</sup> Military satellites perform a similar function, but are essential for preserving the security and sovereignty of Gammaland. New technologies for the civilian space industry often arise from military space activities. For example, the Global Positioning System was initially developed by the United States Air Force. Gammaland’s space industry has been dealt a crippling blow which has even greater ramifications for Gammaland’s socio-economic development.

This Court should not condone Deltastan’s unco-operative conduct. It is clear that Deltastan’s actions violated international law.

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<sup>24</sup> Declaration on International Co-operation in the Exploration and Use of Outer Space for the Benefit and in the Interest of all States, Taking into Particular Account the Needs of Developing Countries, G.A. Res. 51/122, U.N. GAOR, 51st Sess., U.N. Doc. A/RES/51/122 (1996) [hereinafter Declaration on International Co-operation].

<sup>25</sup> *Compromis* para. 21.

<sup>26</sup> See NICOLAS MATTE, *AEROSPACE LAW: TELECOMMUNICATIONS SATELLITES* 66–70 (1983).

<sup>27</sup> Rachel Trinder, *Remote Sensing via Satellite: The Need for a New International Regime*, 22 ANNALS AIR & SPACE L. 442, 443 (1997).

### 1.3 DELTASTAN'S BREACHES CAUSED DAMAGE TO GAMMALAND'S SATELLITES AND THEREFORE ENTAIL DELTASTAN'S INTERNATIONAL RESPONSIBILITY AND LIABILITY UNDER INTERNATIONAL LAW

It is well established in decisions of this Court<sup>28</sup> and the Permanent Court of International Justice<sup>29</sup> that every internationally wrongful act of a State entails its international responsibility if that act is attributable to the State. The principle has also been codified by the ILC in article 2 of its State Responsibility Articles.<sup>30</sup>

The involvement of Deltastan's Ministry of Defence and National Agency of Space, as governmental entities funding and developing the Space Elevator,<sup>31</sup> makes the activities of the Space Elevator directly attributable to Gammaland,<sup>32</sup> even if the activities are considered *ultra vires*.<sup>33</sup>

Article VI of the OST extends the scope of attribution at international law, imputing responsibility upon States for national activities in outer space carried out by non-governmental entities.<sup>34</sup> This means that even if the Space Elevator Corporation, a non-governmental entity which only has operational control and not ownership of the Space Elevator, is said to be the entity conducting the activities in outer space, Deltastan is still responsible for those activities via article VI of the OST.

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<sup>28</sup> Corfu Channel (U.K. v. Alb.) (Merits), 1949 I.C.J. 4, 23 (Apr. 9); Gabčíkovo-Nagymaros Project (Hung. v. Slov.), 1997 I.C.J. 7, 34 (Sept. 25).

<sup>29</sup> Chorzów Factory (F.R.G. v. Pol.) (Merits), 1928 P.C.I.J. (ser. A) No. 17, at 29 (Sept. 13); Phosphates in Morocco (Ita. v. Fra.) (Preliminary Objections), 1938 P.C.I.J. (ser. A/B) No. 74, at 23, 28.

<sup>30</sup> *Report of the International Law Commission*, U.N. GAOR, 56th Sess., Supp. No. 10, ch. IV.E.1, U.N. Doc. A/56/10 (2001) [hereinafter State Responsibility Articles].

<sup>31</sup> *Compromis* para. 1.

<sup>32</sup> United States Diplomatic and Consular Staff in Tehran (U.S. v. Iran), 1980 I.C.J. 3, 3.

<sup>33</sup> State Responsibility Articles, *supra* note 30, art. 7.

<sup>34</sup> BIN CHENG, *STUDIES IN INTERNATIONAL SPACE LAW* 639 (1998).

Responsibility produces a secondary obligation of liability for the damage caused as a result of an internationally unlawful act.<sup>35</sup> The breaches specified have all caused damage to Gammaland's satellites and therefore Deltastan is liable to make reparations.<sup>36</sup> Deltastan is obliged to "wipe out all the consequences of the illegal act and re-establish the situation which would ... have existed if that act had not been committed".<sup>37</sup> As restitution is not possible, Deltastan is liable to pay compensation to Gammaland for the destroyed satellites.<sup>38</sup>

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<sup>35</sup> Frans von der Dunk, *Liability Versus Responsibility in Space Law: Misconception or Misconstruction?*, 34 PROC. COLLOQ. L. OUTER SPACE 363, 364 (1991).

<sup>36</sup> *Chorzów Factory (F.R.G. v. Pol.) (Jurisdiction)*, 1927 P.C.I.J. (ser. A) No. 9, at 21.

<sup>37</sup> *Id.*

<sup>38</sup> State Responsibility Articles, *supra* note 30, art. 31.

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## Section 2 – Deltastan is liable for damaging Gammaland’s environment

### 2.1 DELTASTAN IS ABSOLUTELY LIABLE TO COMPENSATE GAMMALAND FOR THE DAMAGE CAUSED TO GAMMALAND’S ENVIRONMENT UNDER ARTICLE II OF THE LIABILITY CONVENTION

Article II of the Liability Convention<sup>39</sup> applies if damage has been caused on the surface of the Earth by a space object.

#### (a) The Super String is a space object launched into outer space by Deltastan which caused physical damage directly to Gammaland’s environment

A “space object” includes spacecraft, satellites, and anything that human beings launch into outer space,<sup>40</sup> as well as including a space object’s component parts.<sup>41</sup> Several of the most highly qualified publicists have also classified space objects using either the functional approach<sup>42</sup> or the locus approach.<sup>43</sup> This Court is not required to decide which of these two approaches should be preferred because the Super String is a space object under both.

The Super String is clearly designed for use in outer space. It has no other function other than to support the activities of the Golden Orbs as they move through outer space. It exists as an essential component of the Space Elevator which is designed for conducting commercial transportation activities in outer space.

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<sup>39</sup> Convention on International Liability for Damage Caused by Space Objects, Mar. 29, 1972, 961 U.N.T.S. 197 (entered into force Sept. 1, 1972) [hereinafter Liability Convention].

<sup>40</sup> CHENG, *supra* note 34, at 599.

<sup>41</sup> Liability Convention, *supra* note 39, art. I(d).

<sup>42</sup> An object is a space object if it is designed for use in outer space: BRUCE HURWITZ, STATE LIABILITY FOR OUTER SPACE ACTIVITIES IN ACCORDANCE WITH THE 1972 CONVENTION ON INTERNATIONAL LIABILITY FOR DAMAGE CAUSED BY SPACE OBJECTS 25 (1992); Christopher Petras, “Space Force Alpha”: *Military Use of the International Space Station and the Concept of “Peaceful Purposes”*, 53 A.F. L. REV. 135, 155 (2002).

<sup>43</sup> An object must reach outer space to be a space object: Henri Wassenbergh, *A Launch and Space Transportation Law, Separate From Outer Space Law?*, 21 AIR & SPACE L. 28, 29 (1996).

The boundary of outer space is positioned at an altitude of approximately 100 kilometres.<sup>44</sup> While the Super String is located in both outer space and airspace, the vast majority (approximately 99.73%) of the Super String passes through outer space. Therefore, the Super String should be considered to be situated in outer space. Nowhere in the Liability Convention does it state that a space object must be *wholly* in outer space to be considered a space object. Even if the Super String is actually subject to multiple legal regimes (space law and air law),<sup>45</sup> the damage it caused to Gammaland's environment would have originated primarily from the section located in outer space.

This is the first time the Court has been asked to apply international space laws to this unique structure, one which was not in the contemplation of the original drafters of the Liability Convention. However, the fact that space law is progressively developing alongside the emergence of new technologies supports a broader interpretation of the treaty that is not confined to the inflexibility of historical interpretations.<sup>46</sup> To hold that the Super String falls outside the ambit of the Liability Convention, merely because its drafters had not envisioned such an object, would defeat the victim-oriented purpose of the Convention.<sup>47</sup>

Finally, Professor Gabrynowicz, the only eminent publicist to write about the legal status of a Space Elevator, considers that the Super String is a space object.<sup>48</sup>

The Super String was launched into outer space along with Alpha Station, making Deltastan the Super String's launching State.<sup>49</sup> Because damage has been caused directly and

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<sup>44</sup> Vladlen Vereshchetin & Gennady Denilenko, *Custom as a Source of International Law of Outer Space*, 13(1) J. SPACE L. 22, 27–28 (1985); CHENG, *supra* note 34, at 425.

<sup>45</sup> Joanne Gabrynowicz, *Some Potential National and International Legal and Policy Issues Relating to the Licensing, Construction and Operation of a Space Elevator* 13 (July 31, 2002) (unpublished manuscript, on file with the author).

<sup>46</sup> In line with the principle of effectiveness embodied in the Vienna Convention on the Law of Treaties, May 23, 1969, art. 31, 1155 U.N.T.S. 331 (entered into force Jan. 27, 1980) [hereinafter Vienna Convention].

<sup>47</sup> CARL CHRISTOL, *INTERNATIONAL SPACE LAW, PAST, PRESENT AND FUTURE* 211 (1991).

<sup>48</sup> Gabrynowicz, *supra* note 45, at 8.

<sup>49</sup> Liability Convention, *supra* note 39, art. I(c)(i).

physically by the Super String to the surface of the Earth, Deltastan is absolutely liable to pay compensation.<sup>50</sup>

**(b) Exoneration is unavailable to Deltastan as Gammaland was not grossly negligent**

Under article VI(1) of the Liability Convention, exoneration from absolute liability is granted if the damage has resulted either wholly or partly from gross negligence on the part of the claimant State.

**(i) *Gammaland was not grossly negligent in its control of Inspector***

Negligence is a general principle of law<sup>51</sup> and has been defined in international case law as a failure “by a reasonable person to use that degree of care, diligence, and skill which it was his legal duty to use for the protection of another person from injury as, in a natural and continuous sequence, causes unintended injury to the latter”.<sup>52</sup> It is a principle widely used in common law systems<sup>53</sup> and in civil law systems where it is known as “quasi-delict”.<sup>54</sup>

“Gross negligence” is not defined in the Liability Convention, but it signifies negligence of a substantially and appreciably higher magnitude than normal negligence.<sup>55</sup>

In this case, Gammaland could not foresee the effect Inspector’s exhaust would have on the Super String. It was impracticable for Gammaland to test if Inspector’s exhaust would react with a material as specific as carbon nanotubes (material which it may not have had access to) *and* every other type of material in orbit around Earth. Gammaland’s conduct did

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<sup>50</sup> *Id.* art. XII.

<sup>51</sup> BIN CHENG, *GENERAL PRINCIPLES OF LAW AS APPLIED BY INTERNATIONAL COURTS AND TRIBUNALS* 226 (1953).

<sup>52</sup> Davis, 402 Ven. Arb. 406 (1903), cited in *id.*

<sup>53</sup> See *Donoghue v. Stevenson*, 1932 A.C. 562, widely cited in all common law jurisdictions including the United States, Canada, Australia, New Zealand and India.

<sup>54</sup> Kenzo Takayanagi, *Liability Without Fault in the Modern Civil and Common Law*, 16 ILL. L. REV. 268, 271 n.54 (1921).

<sup>55</sup> Stanley Mazaroff, *Exoneration from Liability for Damage Caused by Space Activities*, 54 CORNELL L. REV. 71, 91–94 (1968).

not fall short of the standard of care that would be reasonably expected of a State and therefore cannot be classified as negligent, let alone grossly negligent.

Furthermore, when repositioning Inspector, the trajectory chosen by Gammaland which sent fuel exhaust towards the Super String was not negligently chosen. In complying with Deltastan's directions, Inspector was sent on a course that would take it out of range of the Super String as quickly as possible. Therefore, exoneration from absolute liability is not available for Deltastan.

***(ii) In any event, Deltastan is barred from exoneration because it has violated international law***

As submitted below in section 2.3, Deltastan has committed internationally unlawful acts which resulted in damage to Gammaland's environment. Consequently, Deltastan is disentitled to exoneration from absolute liability under article VI(2) of the Liability Convention.

**2.2 DELTASTAN IS LIABLE FOR THE DAMAGE TO GAMMALAND'S ENVIRONMENT UNDER ARTICLE VII OF THE OUTER SPACE TREATY**

Article VII of the OST imposes liability on a State which launches an object into outer space when that object then causes damage to another State. The type of liability article VII imposes is ambiguous.<sup>56</sup> The use of the phrase, "internationally liable" does not, by itself, connote whether an absolute, strict or fault liability regime is intended.<sup>57</sup>

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<sup>56</sup> CARL CHRISTOL, *THE MODERN INTERNATIONAL LAW OF OUTER SPACE* 59 (1992).

<sup>57</sup> Bin Cheng, *International Responsibility and Liability for Launch Activities*, 20(6) AIR & SPACE L. 297, 306 (1995).

Gammaland submits that the liability regime imposed by article VII of the OST mirrors that of the Liability Convention in imposing fault liability for damage occurring to objects in outer space, and absolute liability for damage occurring to the surface of the Earth.<sup>58</sup>

In situations where a treaty is ambiguous, the Vienna Convention permits recourse to supplementary means of interpretation, including a treaty's *travaux préparatoires*, to clarify the ambiguity.<sup>59</sup> The States drafting the OST, conscious of the concurrent drafting of the Liability Convention, deliberately refrained from defining the type of liability imposed by article VII.<sup>60</sup> Explicit reference to the Liability Convention in the OST, although desired, proved unworkable<sup>61</sup> because it was agreed that the OST could not refer to another treaty which was not yet in existence.<sup>62</sup> Nonetheless, this shows a clear intention that the Liability Convention was a specialised treaty on liability that would expand on the basic principles set out in the OST and “specify the legal position and consequences arising from damage caused by space activities”.<sup>63</sup> As such, the maxim of *generalia specialibus non derogant*<sup>64</sup> applies, and the specific provisions of the Liability Convention must supplement the general provisions of the OST.

By the same reasoning as in section 2.1, Deltastan is absolutely liable for the damage its Super String has caused to Gammaland's environment. Even if the Court holds that the Liability Convention does not apply because the Super String is not a space object, Deltastan is still liable under article VII of the OST, which covers damage caused by an object launched

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<sup>58</sup> Liability Convention, *supra* note 39, art. III.

<sup>59</sup> Vienna Convention, *supra* note 46, art. 32(a).

<sup>60</sup> Paul Dembling, *Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies*, in *MANUAL ON SPACE LAW: VOLUME I*, at 19 (Nandasiri Jasentuliyana ed., 1979).

<sup>61</sup> U.N. Doc. A/AC.105/C.2/SR.67, at 11 (Belgium and Australian delegate), cited in *id.*

<sup>62</sup> Dembling, *supra* note 60 at 19.

<sup>63</sup> Steven Freeland, *There's a Satellite in My Backyard!*, 24(2) U.N.S.W. L.J. 462, 467–68 (2001). See also Henri Wassenbergh, *International Space Law: A Turn of the Tide*, 22 AIR & SPACE L. 334, 339 (1997).

<sup>64</sup> Earlier general provisions are not to be preferred over later specific provisions: REG BARTLEY, *THE MODERN APPROACH TO STATUTORY CONSTRUCTION* 140 (2000).

into outer space.<sup>65</sup> The Super String “object” was launched into outer space as a payload of Alpha Station<sup>66</sup> and has caused damage directly to Gammaland’s environment on the surface of the Earth.

### **2.3 DELTASTAN IS LIABLE UNDER INTERNATIONAL LAW FOR THE DAMAGE TO GAMMALAND’S ENVIRONMENT**

#### **(a) Deltastan has breached its obligations under international environmental law**

It is customary international law that States have a duty not to cause damage beyond their territorial jurisdiction (including the environment of other States) as a result of their activities.<sup>67</sup> This principle is codified in the Stockholm Declaration, Rio Declaration, and the UN Convention on the Law of the Sea (to which Deltastan is a State Party)<sup>68</sup> and is recognised by the most qualified publicists.<sup>69</sup> This obligation is subject to a qualification that States are only required to exercise due diligence to take the measures necessary to guard against their activities causing environmental harm.<sup>70</sup> The measure of due diligence is a variable standard, determined by looking at the surrounding facts of a situation,<sup>71</sup> including the resources available to the State and the nature of its specific activities.<sup>72</sup>

Deltastan is a developed space nation with a wealth of resources at its disposal, and its space activities – involving new, untested technology and a Super String long enough to

<sup>65</sup> As opposed to a “space object” as in the Liability Convention, *supra* note 39, arts. II, III.

<sup>66</sup> *Compromis* para. 3.

<sup>67</sup> Trail Smelter Arbitration (U.S. v. Can.), 3 R.I.A.A. 1905 (1938).

<sup>68</sup> Stockholm Declaration on the Human Environment: Report of the United Nations Conference on the Human Environment, principle 21, U.N. Doc. A/CONF.48/14/Rev/1 (1972), reprinted in 11 I.L.M. 1416; Rio Declaration of 1997 UN Conference on Environment, principle 2, 31 I.L.M. 874 (1992); United Nations Convention on the Law of the Sea, Dec. 10, 1982, art. 194(1), 21 I.L.M. 1245, 1308 (entered into force Nov. 16, 1994) [hereinafter UNCLOS] (due diligence in the context of the sea environment).

<sup>69</sup> PHILIPPE SANDS, *PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW* 190 (1995); PATRICIA BIRNIE & ALAN BOYLE, *INTERNATIONAL LAW AND THE ENVIRONMENT* 90 (1992).  
<sup>70</sup> BIRNIE & BOYLE, *supra* note 69, at 92–94.

<sup>71</sup> Lisa Kaplan, *International Responsibility of an Occupying Power for Environmental Harm: The Case of Estonia*, 12 *TRANSNAT’L L.* 153, 200 (1999).

<sup>72</sup> BIRNIE & BOYLE, *supra* note 69 at 93; UNCLOS, *supra* note 68, art. 194(1).

almost wrap itself around the world – have the potential to cause significant environmental harm. Accordingly, a high standard of due diligence is required of Deltastan.<sup>73</sup>

In causing environmental damage to Gammaland, Deltastan has breached its obligation to exercise due diligence in preventing against causing such damage. As detailed below in section 4.2(b), Deltastan failed to take appropriate measures and sufficient care to prevent against the Super String being severed. For instance, Deltastan failed to inspect the Super String’s integrity before moving Sea Anchor, an action that would clearly place dangerous stress on the Super String.

Deltastan’s failure to exercise its best efforts to minimise threats to the Space Elevator clearly establishes a lack of due diligence and thus constitutes a breach of its obligations under international law.

**(b) Deltastan breached article IX of the Outer Space Treaty**

Article IX obliges States to avoid causing adverse changes in the Earth’s environment by introducing “extraterrestrial matter”. There is no legal definition of “extraterrestrial”, although an authoritative definition of its ordinary meaning is something “originating, *existing* or occurring outside the Earth or its atmosphere”.<sup>74</sup> Additionally, the clear intent of article IX is to protect the Earth’s environment from *any* adverse consequences of space activity.<sup>75</sup> Therefore, the Super String, because it mostly exists outside the Earth’s atmosphere, is extraterrestrial matter.<sup>76</sup> Deltastan breached article IX of the OST by introducing the environmentally harmful Super String back into the Earth’s environment.

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<sup>73</sup> BIRNIE & BOYLE, *supra* note 69 at 93.

<sup>74</sup> MERRIAM-WEBSTER’S COLLEGIATE DICTIONARY (11th ed. 2003) (emphasis added).

<sup>75</sup> Dembling, *supra* note 60, at 20–21.

<sup>76</sup> Gabrynowicz, *supra* note 45, at 9.

**(c) Deltastan’s breaches caused damage to Gammaland’s environment and therefore entail Deltastan’s international responsibility and liability**

The breaches attributable to Deltastan, identified in sections 2.3(a) and 2.3(b), have caused damage directly to Gammaland’s environment. International law places an obligation on States to “wipe out *all* the consequences”<sup>77</sup> of an internationally unlawful act. Deltastan is therefore under an obligation to make reparations, including compensation for clean up costs, to Gammaland for the environmental damage it sustained.

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<sup>77</sup> Chorzów Factory (Jurisdiction), *supra* note 36, at 21 (emphasis added).

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## Section 3 – Gammaland is not liable for the damage caused to Deltastan’s Space Elevator

### 3.1 GAMMALAND’S ACTIONS WERE NOT A PROXIMATE CAUSE OF THE DAMAGE TO THE SPACE ELEVATOR

Prior to considering whether Gammaland is liable under the Liability Convention, OST, or otherwise, it is necessary to consider whether Inspector’s exhaust is the legal cause of the damage to the Space Elevator.

Causation, as used in international law, refers to the concept of “proximate causation”, which is a general principle of law as evidenced by its recognition in international case law,<sup>78</sup> by many highly qualified publicists,<sup>79</sup> and its wide use in municipal law.<sup>80</sup> An act is only considered to legally cause damage if that damage is something which a reasonable person, in the position of the alleged wrongdoer at the time, would have foreseen as the likely and natural result of that act.<sup>81</sup>

It is not reasonable to hold that a State in the position of Gammaland would have foreseen, at that time, that the exhaust released by Inspector would have damaged the Super String. There are a myriad of objects orbiting the Earth at high velocities, ranging from satellites to space debris such as flecks of paint.<sup>82</sup> Many objects in outer space also emit exhaust as a by-product of their propulsion systems when manoeuvring. Deltastan, being an advanced space faring nation, would be acutely aware of these factors<sup>83</sup> when designing the Space Elevator, and it would be reasonable to assume that Deltastan had accounted for the

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<sup>78</sup> Life Insurance Claims (U.S. v. F.R.G.), 1924 Dec. & Op. 103, 137.

<sup>79</sup> CHENG, *supra* note 51, at 241–56; HURWITZ, *supra* note 42, at 15–17; CHRISTOL, *supra* note 56, at 109.

<sup>80</sup> Jay Ginsburg, *The High Frontier: Tort Claims and Liability for Damages Caused by Man-Made Space Objects*, 12 SUFFOLK TRANSNAT’L L.J. 515 (1989).

<sup>81</sup> CHENG, *supra* note 51, at 249–50, 253.

<sup>82</sup> Chris Williams, *Space: The Cluttered Frontier*, 60 J. AIR L. & COM. 1139, 1144 (1995).

<sup>83</sup> *Compromis* para. 36.

risk that these other objects in outer space posed to the Space Elevator. Furthermore, the Super String, by its very nature, should be composed of an extremely strong and advanced material.

This combination of factors means that a reasonable State, in the same position as Gammaland at the time, would not have reasonably foreseen that an activity as routine and normal as releasing fuel exhaust into the vastness of outer space would have caused damage to a material as resilient as the Super String's carbon nanotubing. The fact that damage did occur was the result of a confluence of exceptional and unforeseeable circumstances.

Accordingly, Gammaland is not liable for damage which it has not legally caused.

### **3.2 GAMMALAND IS NOT LIABLE UNDER ARTICLE III OF THE LIABILITY CONVENTION BECAUSE IT WAS NOT AT FAULT FOR THE DAMAGE CAUSED TO THE SUPER STRING**

Even if this Court holds that Gammaland caused the damage to the Super String, Gammaland is not liable under article III of the Liability Convention. Article III imposes liability on a State whose space object causes damage to another State's space object, only if the former State is at fault for causing such damage.

Fault is not defined in the Liability Convention,<sup>84</sup> but the inclusion of fault-based liability therein implies State consensus on the definition of fault, despite its different meanings in civil and common law systems.<sup>85</sup> A State is at fault for causing damage where it has been negligent, failing to exercise reasonable prudence under the circumstances.<sup>86</sup>

Corrosive damage was caused to the Super String by Inspector's exhaust. However, Gammaland is not at fault for causing such damage because Gammaland's conduct was not

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<sup>84</sup> HURWITZ, *supra* note 42, at 33; CHRISTOL, *supra* note 47, at 230.

<sup>85</sup> Edward Frankle, *International Regulation of Orbital Debris*, 43 PROC. COLLOQ. L. OUTER SPACE 369, 374 (2000).

<sup>86</sup> HURWITZ, *supra* note 42, at 27, 33; Isabella Diederiks-Verschoor, *Similarities With and Differences Between Air and Space Law Primarily in the Field of Private International Law*, 172 HAGUE RECUEIL. 317, 346 (1981); Frankle, *supra* note 85, at 373–74.

negligent, as submitted in section 2.1(b)(i), and therefore Deltastan cannot claim under article III. This outcome accords with the rationale behind the Liability Convention that in outer space the “equality of parties ... and acceptance of the risks involved” is assumed<sup>87</sup> so that accidents where no fault is involved will not produce liability.

### 3.3 GAMMALAND IS NOT LIABLE UNDER ARTICLE VII OF THE OUTER SPACE TREATY

As submitted in section 2.2, the liability regime set out in article VII of the OST mirrors that of the Liability Convention. This means that for damage caused by a State’s object in outer space to another object in outer space, a regime of fault liability applies. This regime is in conformity with general international law. Fault liability regimes apply to activities which assume the imposition of reciprocal risks, where the parties involved are subjected to the same amount of risk as each other.<sup>88</sup> It does not make sense, where damage occurs between two States’ space objects, to favour one State over another by imposing absolute or strict liability.<sup>89</sup> States conducting activities in outer space voluntarily assume the risk of doing so.

Even if Gammaland is held to have caused the damage to the Super String, Gammaland is not liable under the OST for such damage because Gammaland was not at fault for doing so for the same reasons as submitted in section 3.2.

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<sup>87</sup> NICOLAS MATTE, *AEROSPACE LAW: FROM SCIENTIFIC EXPLORATION TO COMMERCIAL UTILIZATION* 161 (1977).

<sup>88</sup> CHRISTOL, *supra* note 56, at 107; Edward Hennessey, *Liability for Damage Caused by the Accidental Operation of a Strategic Defense Initiative System*, 21(2) CORNELL INT’L L.J. 317, 329 (1988).

<sup>89</sup> W.F. Foster, *The Convention on International Liability for Damage Caused by Space Objects*, 10 CAN. Y.B. INT’L L. 137, 154–55 (1973).

### **3.4 GAMMALAND IS NOT LIABLE AT INTERNATIONAL LAW FOR DAMAGE TO THE SPACE ELEVATOR**

#### **(a) Gammaland did not knowingly damage the Super String**

It is a principle of international law that States must not knowingly use their property in such a way that the property of other States is damaged. This includes situations where States ought to have known that damage would occur.<sup>90</sup>

Gammaland submits that it has not knowingly used its property to damage the Super String. Gammaland did not have actual knowledge that Inspector's exhaust would react corrosively with the Super String. Additionally, as submitted in section 2.1(b)(i), Gammaland was not in a position where it ought to have known that its exhaust would cause damage due to the impracticability of a new space faring nation obtaining such knowledge.

Accordingly, Gammaland is not responsible for breaching this international obligation and is not liable for the damage to the Super String.

#### **(b) The disassembly of Drachen during its detention was lawful on the grounds of necessity**

The defence of necessity is recognised by this Court as customary international law<sup>91</sup> and is codified under article 25 of the State Responsibility Articles. "Necessity" precludes the wrongfulness of any act that is "the only way for the State [committing the act] to safeguard an essential interest against grave and imminent peril", provided that the act does not seriously impair an essential interest of the State against which the act is directed.

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<sup>90</sup> Corfu Channel (Merits), *supra* note 28, at 23; Trail Smelter Arbitration, *supra* note 67, at 1963.

<sup>91</sup> Gabčíkovo-Nagymaros Project, *supra* note 28, at para. 51.

In this case the analysis of Drachen was the only way to safeguard Gammaland against the threat posed by the unheralded incursion of Deltastan's weapons platform into its sovereign territory.

The safety of a State's citizens, property and territorial integrity are paramount amongst the "essential interests" of a State.<sup>92</sup> Indeed the threshold of "essential" has been held to extend so far as to the protection of native fauna in the *Fur Seals* case.<sup>93</sup> Drachen was clearly an extreme threat of an undetermined scope, having demonstrated this by rapidly annihilating several satellites immediately prior to the time of its entry onto Gammaland territory. Both States being on a war footing at the time,<sup>94</sup> it was absolutely reasonable to expect that Drachen would be used to cause further damage to Gammaland on the ground.

That being so, Gammaland's authorities were entitled to inspect, disassemble and analyse Drachen in order to ensure that the threat was neutralised. This was carried out in a systematic and non-destructive manner. The components have not been destroyed and Drachen is able to be returned to Deltastan pending the successful resolution of the current dispute, so Deltastan's interests in retaining Drachen's functionality have been respected pursuant to article 25(1)(b) of the State Responsibility Articles.

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<sup>92</sup> *See, e.g.*, UN CHARTER art. 2.

<sup>93</sup> *Bering Sea Fur Seals Arbitration* (Gr. Brit. v. U.S.), 1893 Moore 735.

<sup>94</sup> *Compromis* para. 25.

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## Section 4 – Gammaland is not liable for damage to Deltastan’s fisheries

### 4.1 GAMMALAND’S ACTIONS WERE NOT A PROXIMATE CAUSE OF THE DAMAGE TO DELTASTAN’S FISHERIES

As submitted in section 3.1, Gammaland did not cause damage to the Super String in the sense that causation is used in international law. Similarly, Gammaland did not cause the damage to Deltastan’s fisheries because such damage was not reasonably foreseeable as the likely and natural result of Inspector releasing fuel exhaust in the course of normal operations.

### 4.2 GAMMALAND IS NOT LIABLE UNDER ARTICLE II OF THE LIABILITY CONVENTION

#### (a) Only direct damage is covered under the Liability Convention

Even if Gammaland is held to have caused the damage to Deltastan’s fisheries, Gammaland is not liable for such damage under article II of the Liability Convention. Only direct damage is covered under the Liability Convention and any damage caused by Inspector was not direct damage.

The Liability Convention fails to explicitly include indirect or consequential damage in its definition of damage.<sup>95</sup> This failure was intentional.<sup>96</sup> The *travaux préparatoires* of the Liability Convention, which may be used as an interpretive aid,<sup>97</sup> indicate that States specifically considered whether indirect damages should be included,<sup>98</sup> with most countries feeling that the issue of indirect damages would only cause great difficulties in practice.<sup>99</sup> Indeed, the United States’ position that indirect damages were not covered was presented to

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<sup>95</sup> Liability Convention, *supra* note 39, art. I(a).

<sup>96</sup> Kevin Spradling, *The International Liability Ramifications of the U.S.’ Navstar Global Positioning System*, 31 PROC. COLLOQ. L. OUTER SPACE 92, 97 (1973).

<sup>97</sup> Vienna Convention, *supra* note 46, art. 32.

<sup>98</sup> *See, e.g.*, U.N. Doc. A/AC.105/21, annex 2, at 28 (Japanese and Italian delegates).

<sup>99</sup> Isabella Diederiks-Verschoor, *The Convention on International Liability Caused by Space Objects*, 15 PROC. COLLOQ. L. OUTER SPACE 100 (1972).

the United Nations in 1971.<sup>100</sup> Furthermore, Russia has elected not to include indirect damages in its domestic space legislation,<sup>101</sup> an act which reflects subsequent practice by a State in the application of the treaty.<sup>102</sup>

Some of the most highly qualified publicists have also interpreted “damage” in the Liability Convention as only including direct damage.<sup>103</sup>

Article 31(3)(c) of the Vienna Convention states that any relevant rules of international law applicable between the parties may be used to aid interpretation of treaties. Examining how other international treaties address liability issues, both the 1962 Operators Liability Convention<sup>104</sup> and the 1963 Civil Liability Convention<sup>105</sup> explicitly extend damage to encompass indirect damage by including the words “and any other loss”. Similarly, “indirect or consequential damage” is explicitly included in the multi-lateral Space Station Agreement.<sup>106</sup> This supports the proposition that when damage is extended to include direct damage, it is done so explicitly. Further, the use of “means” (rather than “includes”) in article I(a) of the Liability Convention indicates an exhaustive definition.<sup>107</sup> Therefore, “damage”

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<sup>100</sup> STAFF OF SENATE COMM. ON AERONAUTICAL AND SPACE SCIENCES, 92D CONG., 2D SESS., CONVENTION ON INTERNATIONAL LIABILITY FOR DAMAGE CAUSED BY SPACE OBJECTS: ANALYSIS AND BACKGROUND DATA 24 (Comm. Print 1972), cited in CHRISTOL, *supra* note 47, at 221.

<sup>101</sup> Russian law provides for the compensation of “*direct* damage inflicted as a result of accidents while carrying out space activity in accordance with legislation of the Russian Federation”: The Russian Federation Law on Space Activity, Federal Law No. 5663-1 of 20 August 1993, as amended by Federal Law No. 147-F3 of 29 November 1996 art 30.1.

<sup>102</sup> Vienna Convention, *supra* note 46, art. 31(3)(b).

<sup>103</sup> Stephen Gorove, *Some Comments on the Convention on International Liability for Damage Caused by Space Objects*, 16 PROC. COLLOQ. L. OUTER SPACE 254 (1973); Edward Finch, *Outer Space Liability: Past, Present, Future*, 14 INT’L LAWYER 123, 126 (1980); Spradling, *supra* note 96, at 98.

<sup>104</sup> Convention on Liability of Operators of Nuclear Ships, art. I(7), May 25, 1962, 57 A.J.I.L. 268 (1963).

<sup>105</sup> Vienna Convention on Civil Liability for Nuclear Damage, art. I(k)(ii), May 21, 1963, 2 I.L.M 727 (1963) (entered into force Nov. 12, 1977).

<sup>106</sup> Agreement on Cooperation in the Detailed Design, Development, Operation, and Utilization of the Permanently Manned Civil Space Station, art. 16(c)(4), reprinted in 16 J. SPACE L. 220 (1988).

<sup>107</sup> HURWITZ, *supra* note 42, at 19.

under the Liability Convention only encompasses direct damage – that is, damage which flows directly and immediately<sup>108</sup> from the relevant damaging act.

Deltastan's fisheries were directly damaged by Deltastan's Super String returning to the Earth. The damage was merely a *consequential* result of the corrosion to the Super String caused by Inspector. Furthermore, damage to the fisheries did not occur immediately after the corrosion of the Super String. Because any damage to Deltastan's fisheries flowing from the initial corrosion of the Super String was neither direct nor immediate, it does not fall within the scope of the Liability Convention. Accordingly, Gammaland is not liable.

**(b) In any event, Gammaland is entitled to exoneration from absolute liability under article VI of the Liability Convention**

The absolute liability regime was set up by article II of the Liability Convention to ensure that States engaging in space activities take extra precautionary measures to avoid damaging States on the surface of the Earth.<sup>109</sup> When inherently dangerous materials are sent into outer space, such as nuclear power sources, many States acknowledge that extra care should be taken to safeguard against the possibility of accidents, and also to minimise the hazards such materials will create in the event of an accident.<sup>110</sup>

First, given the risk that 23,000 miles of environmentally unfriendly carbon nanotubing posed to the surface of the Earth, Deltastan should have taken extra care in its design to safeguard against severance, in light of the many hazards in outer space.<sup>111</sup> For instance, procedures should have been implemented to continually monitor the Super String's integrity

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<sup>108</sup> CHRISTOL, *supra* note 47, at 220.

<sup>109</sup> HURWITZ, *supra* note 42, at 15.

<sup>110</sup> Principles Relevant to the Use of Nuclear Power Sources in Outer Space, G.A. Res. 47/68, U.N. GAOR, 47th Sess., Supp No. 49, principle 3(1)(a), U.N. Doc A/47/49 (1992).

<sup>111</sup> Including space debris, *corrosion of the cable* by sulfuric acid droplets in the upper atmosphere, radiation and electromagnetic fields: Bradley Edwards, *The Space Elevator: Final Report to the NASA Institute for Advanced Concepts*, at 1.4–1.5 (visited Feb. 24, 2005) <<http://www.spaceelevator.com/docs/472Edwards.pdf>>.

and provide timely warning in the event of its weakening. Additionally, because Deltastan was aware that propulsion exhaust from Inspector could have impacted the Super String, Deltastan should have at least performed an inspection of the Super String's integrity before moving Sea Anchor.<sup>112</sup>

Second, the breakage and re-entry of the Super String is clearly a foreseeable event. Accordingly, Deltastan should have incorporated additional safety measures to prevent pollution or damage to the Earth's environment in such an event, such as ensuring that the carbon nanotubing was not hazardous (e.g., non-toxic, non-reactive and environmentally friendly), or that it would completely burn up in the atmosphere before it could reach the Earth's surface.

Deltastan's complete failure in this regard constitutes an omission falling significantly short of what would be expected of a State engaging in such space activities. This constitutes gross negligence which exonerates Gammaland from absolute liability.

#### **4.3 GAMMALAND IS NOT RESPONSIBLE FOR ANY INTERNATIONALLY UNLAWFUL ACT WHICH GIVES RISE TO LIABILITY**

Gammaland did not breach its duty to exercise due diligence to avoid causing damage to other States' environments. Given the fact that Gammaland is a new space faring nation with limited resources, it would be unreasonable for the Court to hold Gammaland to the same due diligence standard as Deltastan.

The evidence before this Court indicates that Gammaland had exercised the best practicable means at its disposal, in accordance with its capabilities, to prevent transboundary harm. As submitted in section 2.1(b)(i), there was no way for Gammaland to know that Inspector's fuel exhaust would corrode the Super String.

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<sup>112</sup> *Compromis* para. 36.

At no time did Inspector's proximity to the Super String constitute a safety threat to the Space Elevator as Gammaland was always in complete physical control of Inspector. Inspector's proximity was lawful, as outer space is free for exploration under article I of the OST. Nonetheless, Gammaland complied with Deltastan's demands to reposition Inspector away from the Space Elevator in a prompt manner by fully engaging its propulsion system. Therefore, Gammaland acted in good faith and with due diligence to the extent it was able and should not be held liable for the damage that resulted.

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## **Section 5 – Gammaland is not liable to return Drachen**

### **5.1 ARTICLE VIII OF THE OUTER SPACE TREATY DOES NOT APPLY**

Article VIII of the OST states that an object launched into outer space and “found beyond the limits of the State Party to the Treaty on whose registry [it is] carried shall be returned to that State Party”. As Drachen was not registered, it is not an object which comes under article VIII. Gammaland does not have an obligation under the OST to return Drachen to Deltastan.

### **5.2 GAMMALAND IS NOT OBLIGED TO RETURN DRACHEN UNDER ARTICLE 5(3) OF THE RESCUE AGREEMENT BECAUSE THE RESCUE AGREEMENT DOES NOT APPLY TO SITUATIONS OF HOSTILITY**

The Rescue Agreement expressly states that one of its objects is to “promote international co-operation in the peaceful exploration and use of outer space”.<sup>113</sup> The entire treaty, in its provision of rescue procedures, is premised on international co-operation and humanitarian sentiments, in accordance with the founding aims of the United Nations Committee on the Peaceful Uses of Outer Space.<sup>114</sup>

The Rescue Agreement was not designed to operate in or cover situations of hostility.<sup>115</sup> It would be absurd to oblige States to return any seized weapons and equipment belonging to an aggressor, where no co-operation would be possible, simply because the Rescue Agreement is silent as to the application in such situations. Rather, reference must be had to the views of the most highly qualified publicists which state that the obligation to return

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<sup>113</sup> Rescue Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, Apr. 22, 1968, preamble, 672 U.N.T.S. 119 (entered into force Dec. 3, 1968) [hereinafter Rescue Agreement].

<sup>114</sup> Vladimir Kopal, *Evolution of the Main Principles of Space Law in the Institutional Framework of the United Nations*, 12(1) J. SPACE L. 12, 13–14 (1984).

<sup>115</sup> Robert Ramey, *Armed Conflict on the Final Frontier: The Law of War in Space*, 48 A.F. L. REV. 1, 154 (2000).

should be “without prejudice to the separate consideration ... of military and intelligence matters”.<sup>116</sup>

In this case, the situation of hostility between Gammaland and Deltastan arose from the destruction of the satellites by Drachen. This saw both States move to a “war footing”.<sup>117</sup> The Rescue Agreement does not apply to Gammaland in such a situation and thus an obligation to return Drachen under article 5(3) of the Rescue Agreement does not arise.

### **5.3 GAMMALAND’S FAILURE TO RETURN DRACHEN IS EXCEPTED FROM LIABILITY UNDER THE RESCUE AGREEMENT AS A COUNTERMEASURE**

Even if the Rescue Agreement is found to apply, Gammaland’s refusal to comply with the provision of article 5(3) of the Agreement should be permitted as a lawful and non-forcible countermeasure.

Under article 49(1) of the State Responsibility Articles, a State may breach certain international obligations owed to another State in order to induce the latter to comply with an obligation owed to the former. The essential precondition to valid countermeasures is the existence of an internationally wrongful act.<sup>118</sup> As submitted in section 1.1, Deltastan has committed such an act by engaging in an illegal use of force.

It would be unjust and artificial to claim that simply because the unlawful use of force has ceased, Deltastan is under no further obligation to Gammaland irrespective of the consequences of its actions. This is upheld by article 31 of the State Responsibility Articles, which mandates full reparation by the responsible State for the injury caused. Failure to provide this reparation itself constitutes a breach of a separate international obligation.<sup>119</sup>

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<sup>116</sup> WILFRED JENKS, *SPACE LAW* 245 (1965); *Id.* at 153–54.

<sup>117</sup> *Compromis* para. 25.

<sup>118</sup> Gabčíkovo-Nagymaros Project, *supra* note 28, at 55.

<sup>119</sup> State Responsibility Articles, *supra* note 30, art. 31; *Report of the International Law Commission*, U.N. GAOR, 56th Sess., Supp. No. 10, at 223, U.N. Doc. A/56/10 (2001) (commentaries to the Draft Articles on State Responsibility).

To date, no such reparation has been made. It should be pointed out that Gammaland's injuries include not only the pure economic value of the satellites destroyed but also the loss of the crucial services which they were designed to provide. So long as reparation for these injuries has not been made, Deltastan's wrongful act is continuing and thus the countermeasure continues to be valid. Indeed, its express purpose in these circumstances accords with the view expressed in *Air Services* that a countermeasure should aim to "restore equality between the Parties and encourage them to continue negotiations to reach an acceptable solution".<sup>120</sup> If Gammaland did not take these steps, Deltastan would have little incentive to comply with its obligations to provide reparation for Gammaland's losses.

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<sup>120</sup> Case Concerning Air Services Agreement Between France and the United States (Fra. v. U.S.), 18 R.I.A.A. 417 (1978).

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| <b>SUBMISSIONS TO THE COURT</b> |
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For the foregoing reasons, the Government of Gammaland, Respondent, respectfully requests the Court to adjudge and:

1. *declare* that the Applicant is liable for damage to the Respondent's satellites;
2. *declare* that the Applicant is liable for the environmental damage sustained by the Respondent and thus for any payment of compensation for clean up costs;
3. *declare* that the Respondent is not liable for the damage to the Space Elevator and its component parts;
4. *declare* that the Respondent is not liable for the damage to the Applicant's fisheries;
5. *declare* that the Respondent is not liable to return Drachen Station to the Applicant; and
6. *deny* all relief requested by the Government of Deltastan, Applicant.