

Future Perspectives of International Humanitarian Law Application to State Activities in Space

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Abstract

The present paper focuses on analysis of international humanitarian law application to space in the light of IHL status as *lex specialis* due to circumstances of armed conflict and space law status as *lex specialis* due to area of application.

How “non-aggressive” and “non-military” activities correlate to possibility of use of force and recourse to self-defence in space? Shall international humanitarian law norms prevail over regulations under international space law on use of weapons and establishment of semi- and demilitarized zones? Are attacks on space objects, which have plurality of launching states, legitimate? In which cases targeting dual-use space objects is legal? Following answers to these questions the paper draws attention to theatre of war in space area and destruction of space objects in light of damage caused by space debris to space environment. Issues of combatants from civilians distinction among astronauts and obligations on rendering assistance to them are analysed. Based on the done analysis the paper elaborates on proper modes of actions in the situation of international armed conflict in space from the point of view of both, international space and humanitarian law obligations fulfilment. Possibility of non-international armed conflict in space due to plurality of launching states of space objects is presented.

Finally, topics for further research are introduced (obligations of neutral parties in control of private national space activities and compensation of damage, caused by space objects, during armed conflict) and conclusions on future development of space related international humanitarian law norms are formulated.

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1. Introduction

Space law was created in the light of principles of peaceful activities, cooperation and sharing of benefits among all mankind. Nevertheless, on the background of technological development and possible military advantages from usage of space domain provisions, regulating military uses of outer space and celestial bodies, were introduced in space law.

Issues of international humanitarian law (IHL)¹ and IHL principles² applicability to space activities, limits on military operations under space law,³ simultaneous application of space law with IHL during armed conflict,⁴ correlation of use of force obligations under the United Nations Charter (UN Charter) and space law, deployment of weapons⁵ and self-defence in space⁶ form the focus for legal research.

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- 1 D. Stephens, C. Steer, *Conflicts In Space: International Humanitarian Law and Its Application to Space Warfare*, *Annals of Air and Space Law* Vol. XL (2015) 1-32.; Д.В.Богдан, О применимости норм международного гуманитарного права к космическому пространству, Юстиция Беларуси 12 (2019) 35-38.; Д.В.Богдан, О принципах международного гуманитарного права, применимых к деятельности в космическом пространстве, *Актуальные проблемы МГП и СМИ* 1 (2020) 26-33.; J.C. Lyons, *Satellite Technology and Humanitarian Law*, pp.87-92, 34th Round Table on Current Issues of International Humanitarian Law, Sanremo, 2011, 8–10 September.; T.D. Gill, *International humanitarian law applied to cyber-warfare: Precautions, proportionality and the notion of “attack” under the humanitarian law of armed conflict*, in: N. Tsagourias, R. Buchan (Eds.), *Research Handbook on International Law and Cyberspace*, Edward Elgar Publishing Limited, Cheltenham, 2017, pp.366-379.
 - 2 L. Jie, *How does IHL apply in outer space and which challenges exist for applying existing rules in outer space?* 42nd Round Table on Current Issues of International Humanitarian Law on the 70th Anniversary of the Geneva Conventions, Sanremo, 2019, 4–6 September.
 - 3 E. Morozova, *Limits imposed by outer space law on military operations in outer space*, 42nd Round Table on Current Issues of International Humanitarian Law on the 70th Anniversary of the Geneva Conventions, Sanremo, 2019, 4–6 September.
 - 4 S. Freeland, R.S. Jakhu, *The Applicability of the United Nations Space Treaties during Armed Conflict*, *Proceedings of the IISL* (2015) 157-173.; D. Stephens, *The International Legal Implications of Military Space Operations: Examining the Interplay between International Humanitarian Law and the Outer Space Legal Regime*, 95 *Int. L. Stud.* (2018) 75-101.
 - 5 M. Bourbonnière, R.J. Lee, *Legality of the Deployment of Conventional Weapons in Earth Orbit: Balancing Space Law and the Law of Armed Conflict*, *EJIL* 18 (2018) 873-901.
 - 6 F. Tronchetti, *Legal aspects of the military uses of outer space*, in: F. von der Dunk, F. Tronchetti (Eds.), *Handbook of Space Law*, Edward Elgar Publishing Limited, Cheltenham, 2017, pp.331-381.

Currently we witness growing capability and interest of states to use military dimension of space: France announced creation of space command,⁷ space was recognized as “a new operational domain” with “no intention to put weapons into space” by the North Atlantic Treaty Organization,⁸ the United States established Space Force.⁹ Based on this factual background the issue of IHL applicability to space domain shifts from theoretical challenge to possible legal cases.

The paper analyses only state activities and does not focus on conduct of private entities, who may be involved in it and is shortcut paper for 71st International Astronautical Congress IAC-20-E7,VP,1x58880.

Reference to “space”, if is not further clarified, means outer space and celestial bodies.

2. Use of Force in Space: Prohibited, Limited or Allowed?

The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies (OST)¹⁰ and the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (MOON)¹¹ provide for special regulation for use of force.

First of all we need to draw attention to OST wording “peaceful purposes” and MOON wording “hostile act”, none of which is clarified in instruments themselves or in commentaries to.¹² Thus in the doctrine the discussion started on interpretation as “non-military” or “non-aggressive”.¹³ Under Art.31 of the Vienna Convention on the Law of Treaties (VCLT)¹⁴ we may consider state practice to clarify OST and MOON meaning.

7 France24, Macron announces creation of French space force, 13 July 2019, <https://www.france24.com/en/20190713-macron-france-space-force>, (accessed 15.01.2021).

8 NATO, Foreign Ministers take decisions to adapt NATO, recognize space as an operational domain, 20 November 2019, https://www.nato.int/cps/en/natohq/news_171028.html, (accessed 15.01.2021).

9 United States Space Force, About Space Force, <https://www.spaceforce.mil/About-Us/About-Space-Force/>, (accessed 15.01.2021).

10 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies (London, Moscow and Washington, D.C., 27 Jan. 1967), 610 UNTS 205, *entry into force* 10 Oct. 1967.

11 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (New York, 5 Dec. 1979), 1363 UNTS 3, *entry into force* 11 July 1984.

12 S. Hobe, B. Schmidt-Tedd, K.-U. Schrogl, Cologne Commentary on Space Law, Vol.1, Wolters Kluwer Deutschland GmbH, Köln, 2009; S. Hobe, B. Schmidt-Tedd, K.-U. Schrogl, Cologne Commentary on Space Law, Vol.2, Wolters Kluwer Deutschland GmbH, Köln, 2013.

13 *Ibid* (2009), p.81,86; *ibid* (2013), p.361; Stephens *supra* note 1, p.3; Jie *supra* note 2, p.2; Morozova *supra* note 3, p.3; Bourbonnière *supra* note 5, p.877.

14 Vienna Convention on the Law of Treaties (Vienna, 23 May 1969), 1155 UNTS 331, *entry into force* 27 Jan. 1980.

Taking into account early practice of the Union of Soviet Socialist Republics and the USA on space usage involving deployment of military surveillance satellites and conduct of military testing,¹⁵ ongoing practice of weaponization of space¹⁶ and use of space assets during armed conflicts¹⁷ we conclude that determination of “peaceful purposes” may further shift to *reason and methods* of conducting of military/aggressive/hostile activities. With this the paradox will be solved by evaluation of state compliance with obligations on prohibition of use of force and right to self-defence (provided by Art.51 UN Charter¹⁸ and applies to space as a part of international law under Art.III OST¹⁹), as well as IHL obligations.

3. IHL in Space Domain

The number of clashes shall be briefly addressed before discussion in details: applicability of IHL to space area, circle of applicable legal norms and operation of space law during an armed conflict.

Many IHL norms are of *customary* nature (thus are applicable irrespective of state participation in particular treaty), codified in four 1949 Geneva Conventions (GC)²⁰ and two Additional Protocols (AP).²¹

15 Stephens *supra* note 4, p.81.

16 Freeland *supra* note 4, p.161; Jie *supra* note 2, p.2; International Committee of Red Cross, International Humanitarian Law and the Challenges of Contemporary Armed Conflicts. Recommitting to Protection in Armed Conflict on the 70th Anniversary of the Geneva Conventions, https://www.icrc.org/sites/default/files/document/file_list/challenges-report_new-technologies-of-warfare.pdf, (accessed 15.01.2021), p.32.

17 M. Bourbonnière, Law, Technology and the Conduct of Hostilities in Space, pp.159-165, 34th Round Table on Current Issues of International Humanitarian Law, Sanremo, 2011, 8–10 September., p.161.

18 Charter of the United Nations and the Statute of the International Court of Justice (San Francisco, 26 June 1945) *entry into force* 24 Oct. 1945.

19 Cologne Commentary on Space Law, Vol.1 *supra* note 12, p.67.

20 Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field (Geneva, 12 Aug. 1949), Final Record of the Dipl. Conf. in Geneva of 1949, Vol. I, Fed. Polit. Depart., Bern, pp.205-224, *entry into force* 21 Oct. 1950.; Convention (II) for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea (Geneva, 12 Aug. 1949), Final Record of the Dipl. Conf. in Geneva of 1949, Vol. I, Fed. Polit. Depart., Bern, pp.225-242, *entry into force* 21 Oct. 1950.; Convention (III) relative to the Treatment of Prisoners of War (Geneva, 12 Aug. 1949), Final Record of the Dipl. Conf. in Geneva of 1949, Vol. I, Fed. Polit. Depart., Bern, pp.243-296, *entry into force* 21 Oct. 1950.; Convention (IV) relative to the Protection of Civilian Persons in Time of War (Geneva, 12 Aug. 1949), the Geneva Conventions of Aug. 12, 1949, Int. Committee of the Red Cross, pp.153-221, *entry into force* 21 Oct. 1950.

21 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I) (Geneva, 8 June 1977), Offic. Rec. of the Dipl. Conf. on the Reaffirm. and Develop. of IHL

Does IHL apply to activities, which are performed *outside* state territory? E.David noticed that a state may conduct armed activities in high seas, what makes evident that treaties, regulating armed conflict, will bound state, whose forces are outside its territory.²²

Art.2, common for four 1949 GC, stipulates that “Convention shall apply to all cases of ... *any other armed conflict* which may arise between two or more of the High Contracting Parties”, thus IHL has circumstantial basis of application, irrespective of place of armed conflict, and applies to space, what is supported by case law.²³

When space is viewed as “ultimate high-ground” location it could be attacked under Art.52 AP I,²⁴ what means that IHL applies to space as a place of armed conflict.

Even though IHL applies to space, extent and precise applicable norms shall be clarified. Guiding values of IHL are humanity (Art.3, common for four 1949 GC) and military necessity (Preamble of the Convention (II) with Respect to the Laws and Customs of War²⁵ stipulated the desire of parties is to “*diminish* the evils of war so far as military necessities permit”), clarification of which is done by applicable IHL principle of distinction, principle of proportionality and principle of precautions in attack.²⁶ Besides this IHL norms on protection of natural environment applies to space.²⁷

Space law in general continues its application during an armed conflict as *lex specialis* to the extent, compatible with IHL as there is no material breach under Art.60(3b) VCLT or fundamental change of circumstances under

applicable in Armed Conflicts, Bern, Fed. Depart. of Foreign Affairs, 1978, *entry into force* 7 Dec. 1978.; Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II) (Geneva, 8 June 1977), Offic. Rec. of the Dipl. Conf. on the Reaffirm. and Develop. of IHL applicable in Armed Conflicts, Bern, Fed. Depart. of Foreign Affairs, 1978, *entry into force* 7 Dec. 1978.

- 22 Э.Давид, Принципы права вооруженных конфликтов: Курс лекций, прочитанных на юридическом факультете Открытого Брюссельского университета, Международный Комитет Красного Креста, Москва, 2011, p.254.
- 23 The International Tribunal for Former Yugoslavia Tadić (1995), the European Court of Human Rights Assanidze v. Georgia (2004); the European Commission of Human Rights Cyprus v. Turkey (1975), Öcalan v. Turkey (2003), *ibid*, p.254-257; International Court of Justice: Corfu Channel (1949), Nicaragua (1986), Nuclear Tests (1996) Stephens *supra* note 1, p.10-11; Богдан (2019) *supra* note 1, p.46; Богдан (2020) *supra* note 1, p.27.
- 24 Bourbonnière *supra* note 17, p.162.
- 25 Convention (II) with Respect to the Laws and Customs of War and its annex: Regulations concerning the Laws and Customs of War on Land (the Hague, 29 July 1899), D. Schindler and J. Toman, The Laws of Armed Conflicts, Martinus Nijhoff Publisher, 1988, pp.69-93, *entry into force* 4 Sep. 1900.
- 26 Stephens *supra* note 1, p.14,21-22,27-28; Jie *supra* note 2, pp.2,4.
- 27 Stephens *supra* note 1, p.9; Jie *supra* note 2, p.3; Bourbonnière *supra* note 17, p.162.

Art.62 VCLT, which might justify termination of space law, as use of force is permissible under special conditions.

International Law Commission's approaches to treaties termination in circumstances of self-defence²⁸ shall be viewed in the light of "benefit"-rule: aggressor and defencing party cannot terminate space law treaties during an armed conflict as they contain special provisions of peaceful uses of space and weapon regulation.

4. Weapons in Space War and Their Application

OST and MOON contain special provisions on nuclear weapons (NW) and weapons of mass destruction (WMD) in space, however, space law does not clarify application of convention weapons.

	NW	WMD
Outer Space	Art.IV OST	Art.IV OST
Orbit around the Earth	Art.IV OST	Art.IV OST
Celestial Bodies	Art.IV OST Art.3(3) MOON	Art.IV OST Art.3(3) MOON
Orbits of Celestial Bodies	Art.3(3) MOON	Art.3(3) MOON

Space law restrictions apply in line with IHL norms, which do not explicitly prohibit NW and prohibit WMD by special treaties. Is placement of NW and WMD legal under IHL during an armed conflict in space?

Hierarchy of legal norms in international law is *jus cogens* and all other. The right to self-defence is *jus cogens*, what shall prevail over Art.IV OST; however, unless Art.IV OST is *jus cogens*, states, exercising self-defence, may place/use NW and WMD in space, while aggressor states may not.²⁹ From our point of view, as space law applies to cases of self-defence, a state cannot place/use NW or WMD irrespective of Art.IV OST legal nature. Self-defence legitimizes use of force, but *methods and means* are limited by space law restrictions as geographical *lex specialis*. Consequently, *application* of each allowed weapon in space shall be revised in the light of IHL.

28 The United Nations, Articles on Effect of Armed Conflicts on Treaties, UN General Assembly Resolution A/RES/66/99 of 9 Dec. 2011, Art. 14-15.

29 Bourbonnière *supra* note 5, p.880.

4.1. Plurality of Launching States

Space objects may have plurality of launching states under the Convention on International Liability for Damage Caused by Space Objects (LIAB)³⁰ and the Convention on Registration of Objects Launched into Outer Space (REG).³¹ These states may be party to conflict, neutral or third party, may use space object for civilian purposes while other will use it for military.

The question is can such space object be attacked under principle of distinction? The answer is “no” as attack on the object would not pass the test of military objective as long as it is neutral party object or of civilian usage.

This is also true in respect of complicated space objects such as space stations. While it may be partially used for military and civilian purposes, belong to different states, attack will not comply with distinction principle. However, this scenario is complicated by presence of personnel (military and/or civil), who also shall be qualified as legitimate target (see Section 6).

In parallel we shall notice that when the track of object usage changes, regime of protection also changes:

targeting military objects, used for civilian purposes, is prohibited;

civil objects, used for military objectives, lose their protection and become legitimate target.

E. Morozova notices that register of space objects is public primary source of information about them and shall be consulted for verification of object (military/civilian).³²

4.2. Dual-Use Space Objects

Two points demand special attention: 1) states shall provide information about functionality of a space object at the time of its registration under Art.IV(1e) REG and have discretion in describing objects functionality,³³ 2) REG does not pose an obligation to mark space objects as civilian or military, so difference is not visible.³⁴

Thus “belligerent States would not like to disclose the location of their military assets and thus cannot be realistically expected to register their space objects *during an armed conflict*” (italics added).³⁵ This means that approaches to REG application in peace time and during an armed conflict may vary. Under such circumstances space registers may not work and states

30 Convention on International Liability for Damage Caused by Space Objects (London, Moscow and Washington, D.C., 29 March 1972), 961 UNTS 187, *entry into force* 1 Sep. 1972.

31 Convention on Registration of Objects Launched into Outer Space (New York, 12 Nov. 1974), 1023 UNTS 15, *entry into force* 15 Sep. 1976.

32 Morozova *supra* note 3, p.10-11.

33 *Ibid*, p.10.

34 Stephens *supra* note 1, p.20; Bourbonnière *supra* note 5, p.894.

35 Freeland *supra* note 4, p.172.

may be forced to base their actions on factual behavior of space objects. However, when during an armed conflict pure military object is registered as civilian, this is perfidy.³⁶

Many space objects are used for both, military and civilian services. Currently we highly depend on space technologies, thus collateral damage on the Earth from damage or destruction of dual-use space object may be more severe than expected advantage from attack and not proportionate.

Despite civil functions, targeting dual-use objects will be legitimate in certain cases: when definite military advantage prevails over *carefully* estimated collateral damage to civilians, targeting still is permissible (*italics added*).³⁷ Consequently, we go back to case-by-case evaluation.

Civilian space objects, supporting finance sector, agriculture, telecommunication, emergency calls may present great military advantage. Will destruction of space object be justified in this case? From our perspective definitely not, as dual-use refers to functionality of an object but not to consequences of work or contribution to public life of a state.

Specific issue is attack on vital for civilian life objects: that may prohibited to destroy navigational satellites under the principle of proportionality.³⁸ From our perspective, that shall be broaden to consequences in light of *methods* of warfare, for example, starvation (Art.54(1) AP I). Thus, damage to satellite, vital for monitoring agricultural areas, causing serious crops decrease, shall be prohibited as may lead to starvation. On the other hand destruction of one satellite may be evaluated as proportionate. With these too many “may” based on each case scenario discussed attack may also be illegal, despite is not use of starvation in its traditional meaning.

5. Theatre of War in Space

Theatre of war (place of armed conflict) may vary in space: outer space *per se*, celestial bodies and orbits around them and around the Earth.

From analysis of possibility to deploy military facilities, we conclude, that celestial bodies cannot serve as theatre of war as no military objects may be installed there. There are no special mentions of outer space and orbits in this regard, which logically drives us to the assumption that it may serve as a place of warfare.

36 Morozova *supra* note 3, p.11.

37 Stephens *supra* note 1, p.19.

38 *Ibid*, p.24-25.

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	No Military Bases	No Military Fortifications	No Military Personnel
Outer Space	☒	☒	☒
Orbit around the Earth	☒	☒	☒
Celestial Bodies	Art.IV OST Art.3(4) MOON	Art.IV OST Art.3(4) MOON	<i>Allowed for scientific research</i> Art.IV OST Art.3(3) MOON
Orbits of Celestial Bodies	☒	☒	☒

Prohibition to conduct military manoeuvres under Art.IV OST (“*on celestial bodies*”) and Art.3(4) MOON (“*on the Moon*”, *what covers other celestial bodies*) means that, theoretically, conduct of military manoeuvres on the Moon is not prohibited to OST parties (110), while is prohibited to smaller number of the MOON parties (18).³⁹

Besides space law limitations on military infrastructure and activities, IHL obligations on protection of natural environment come into play, what is important in relation to space debris. IHL prohibition of “widespread, long-term and severe damage” (last for more than 10 years and covers area of several hundred km²)⁴⁰ and hostile modification of environment means that intentional creation of space debris is violation of IHL.

On the other hand, when a state can control resulting space debris, minimizes it or may destruct space object without creating debris, such armed activity would not be considered as IHL violation of norms on protection of environment. Meanwhile Art. IX OST, prohibiting of harmful contamination, serves as legal basis for prohibition of space debris increase,⁴¹ it shall be used in conjunction with IHL.

Presented situation may seem paradoxical as during an armed conflict space environment is evidently protected more than in peace time. In peace time space debris mitigation is regulated by “soft-law” means. Some states have national space legislation on space debris mitigation,⁴² nevertheless, space

39 Status of International Agreements Relating to Activities in Outer Space as at 1 January 2020, <https://www.unoosa.org/documents/pdf/spacelaw/treatystatus/TreatiesStatus-2020E.pdf>, (accessed 15.01.2021).

40 Давид *supra* note 22, p.341.

41 Commentary (2009) *supra* note 12, p.177.

42 M. Mejia-Kaiser, Space Law and Unauthorized Cyber Activities, in: K. Ziolkowski (ed.), *Peacetime Regime for State Activities in Cyberspace*. International Law,

debris mitigation obligation is not customary norm⁴³ and deliberate creation of space debris *per se* may be punished only under IHL.

Secondly, space debris creation leads us to principle of proportionality. Is that proportionate to target space object in light of military necessity under condition that resulting space debris would possibly interfere with ongoing and future space activities? Or the criterion is *extent* of such interference and possible collateral damage? From our point of view, excessive collateral damage signals that there is no military necessity and thus attack could not be justified.

6. Combatants and Civilians in Space Warfare

Astronauts may be part of military forces, but mere belonging to militaries does not make a person legitimate target. Inactive combatant is not a legitimate target,⁴⁴ consequently, military astronauts on leave or retired are not legitimate targets during armed conflict. Meanwhile, operating military space object astronaut is combatant and legitimate target.⁴⁵

Combatants	Civilians
all organized armed forces and volunteers under respective command of a party and subject to internal discipline	Not combatants <i>Art.50 (1) AP I</i>
have fixed distinctive sign recognizable at a distance	In case of doubt person shall be considered to be a civilian. <i>Art.50 (1) AP I</i>
carry arms openly during each military engagement or preparation to it	enjoy general protection against dangers arising from military operations <i>Art.51(1) AP I</i>
<i>Art.4.A 1-3,6 Third 1949 GC + Art.43(1),44(3) AP I</i>	may have weapon for order and self-defence <i>Art.65(3) AP I</i>
	are not the object of attack <i>Art.51(2) AP I</i>
	lose protection when commit acts harmful to the enemy <i>Art.65(1) AP I</i>

International Relations and Diplomacy, NATO CCD COE Publication, Tallinn, 2013, pp.349-372, p.364.

43 M. Mejía-Kaiser, Taking Garbage Outside: the Geostationary Orbit and Graveyard Orbits, IAC-06-E6.5.14, 57th International Astronautical Congress, Valencia, Spain, 2006, 2–6 October, p.8; M. Mejía-Kaiser, Informal Regulations and Practices in the Field of Space Debris Mitigation, Air and Space Law J. 34 (2009) 21-33, p.32.

44 Давид *supra* note 22, p.277.

45 Jie *supra* note 2, p.3.

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Criterion of distinction is also challenging. Currently space uniform of astronauts is not very distinctive one from another: the sole difference is special signs or state flags. Hypothetically, that may be difficult to distinguish military and civilian astronauts. Even though uniform may be different, astronaut is in his/her spacesuit or inside of space object is not distinctive.

Regarding the obligation to bear arms when there is no other signs of distinction, we shall mention that bearing arms in space or in space object is dangerous both, for the combatant astronaut and his/her victim. That is why such crucial attention is given to signs of distinction.

The key solution of this problem is seen in analysis of particular astronaut's behavior and case-by-case evaluation of his/her engagement in military activities. Nevertheless, that is not panacea as leaves a lot of place for discretion in considering a person legitimate or illegitimate target.

When combatant cannot be sought as legitimate target and when a civilian loses protection? The criterion is participation in armed conflict, what is bearing arms and/or infliction of harm to opposite party. Consequently, civilian astronaut, deliberately monitoring military objects of opposite party to the conflict for purposes for further attacks, loses protection due to direct participation in military operation.

Nevertheless, being combatants or civilians, astronauts are subject to special level of protection. Our position is that obligations to assist combatant-astronauts under the OST and the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (RA)⁴⁶ are essential, but consequences of assistance vary.

Combatants	Astronauts	Civilian
lose status	envoys of mankind <i>Art.V OST</i>	enjoy status
enjoy assistance in accordance with principle of humanity	are rendered all possible assistance in the event of accident, emergency landing <i>Art.V OST</i> <i>Art.2 RA</i>	enjoy assistance
<i>return</i> (landing on territory of neutral party, not party to a conflict, saving in high seas by these parties)	are safely and promptly returned to the State of registry of their space vehicle <i>Art.V OST</i>	

46 Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (London, Moscow, Washington, D.C. 22 April 1968) 672 UNTS 119 *entry into force* 3 Dec. 1968.

Combatants	Astronauts	Civilian
<i>delayed return</i> : status of prisoner-of-war (landing on territory of other party of the conflict, saving in high seas by that party) with delayed return	Art.2-4 RA	
no assistance, consider each other as combatants and legitimate target	the astronauts of one State Party shall render all possible assistance to the astronauts of other States Parties Art.V OST	

For example, combatants lose their status of envoys of mankind as no more perform peaceful activities.

On the other hand, each party shall render astronauts all assistance in accordance with space law. We hold an opinion that status of persons shall be governed by IHL, while obligation to assist by space law. Thus, obligations of neutral party not to render assistance to belligerent party (Art.6 of the Convention (XIII) Concerning the Rights and Duties of Neutral Powers in Naval War⁴⁷) is overlaid by specific RA norms.

At the same time humanity in IHL also stipulates rendering assistance. Thus, the difference may be in further consequences, whether the person shall be given status of prisoner-of-war or no and when it shall be returned to state of registry (immediately under RA or after the end of armed conflict under IHL), all of which depend on the status of rescuing state (opposite party to a conflict, third party, neutral).

7. Non-International Armed Conflict?

IHL is applicable to any armed conflict under Art.2(1), common for four 1949 GC, which precise wording is that Convention applies to “any other armed conflict which may arise *between two or more of the High Contracting Parties*”, what means that criterion for an armed conflict is parties, which shall be different.

On the other hand, Art.1(1) AP II stipulates its application to conflicts, not covered by AP I and “which take place *in the territory of a High Contracting Party between its armed forces* and dissident armed forces or other organized

47 Convention (XIII) Concerning the Rights and Duties of Neutral Powers in Naval War (The Hague, 18 Oct. 1907), Int. Peace Conf., The Hague, Official Record, *entry into force* 26 Jan. 1910.

armed groups ...”. Here, the crucial point is not only belonging of armed forces to one party, but also area of an armed conflict – that party territory.

Thus, according to definition of non-international armed conflict such conflict may not occur in outer space as space does not form territory of a state.

The issues go further to question, whether it implies impunity for damage and aggression, committed by space objects of one state by other forces of this state?

From our point of view, IHL applies to *any* armed conflict and this shall dominate over special rules of non-international armed conflict. Here, core IHL principles and Martens clause still will apply.

On the other hand plurality of launching states means that there hardly ever is place for non-international conflict as each attack on space object with multiple launching states will trigger right to self-defence and consequently international armed conflict as more than one party is involved in it.

8. Ways Forward

One point of private-state relations shall be mentioned in respect of neutral parties. Art.VI OST declares state responsibility for all national space activity, including private. Provision of any assistance to parties of an armed conflict is prohibited for neutral party; thus, as G. Goh Escolar points out, “a neutral State would be responsible for its commercial entities and could arguably be obliged to require such entities to terminate the provision of such services” to parties of armed conflict.⁴⁸ Taking into consideration technological side of space objects operations and actual possibility to stop assistance to parties to a conflict, new legal approaches shall be elaborated.

9. Conclusions

Based on the research results we shall conclude that current developments of space sphere pose a lot of challenges from legal perspective. Some of them are related to application of law to precise area and in special circumstances. Other set of legal uncertainties is connected to scenarios of space armed activities.

As of now it seems that IHL application to space activities is guided by too many theoretical proposals combined with number of “if” and “may” situations. However, IHL development started as regulation of each

48 G. Goh Escolar, *The Law of Armed Conflict in a Domain for Peaceful Purposes*, 23 September 2019, https://www.unoosa.org/documents/pdf/spacelaw/activities/2019/T1-4-GGE_The_Law_of_Armed_Conflict_in_a_Domain_for_Peaceful_Purposes.pdf (accessed 15.01.2021).

particular situation of armed activities and then in the course of time general rules were developed. The same we witness now in respect of space branch of IHL.

Numerous legal discussions form certain set of norms, currently recognized as accepted. Some may say that IHL regulation in space is premature, nevertheless, from our point of view, this branch of law shall be developed in anticipated manner rather than learned from mistakes.