The Manual of International Law Applicable to Military Uses of Outer Space (MILAMOS)

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Abstract

The *Manual of International Law Applicable to Military Uses of Outer Space* (MILAMOS process to produce the 'McGill Manual') is currently being developed jointly by The University of Adelaide, McGill University and the University of Exeter. The core participants of this project include practitioners, academics, technical experts, military officers and government lawyers. The production of such a Manual is critical and timely given the international community is increasingly recognizing that warfare conducted in, to and from outer space is both foreseeable and potentially highly damaging to national security interests as well as civilian activities on earth and space. Despite this, there has been little interest in formulating any kind of new legal instrument that grapples with this militarization phenomenon. Moreover, there has also been insufficient research and a lack of clarity on the interactions between international space law and the law relating to the Use of Force and International Humanitarian Law. This paper considers the role of International Operational Law Manuals in providing a non-binding architecture for normative compliance and highlights key legal issues that are being navigated in the MILAMOS process.

Keywords: International operational law manuals, MILAMOS, law of armed conflict, use of force, space law.

1. Introduction

Space is currently the focus of considerable military thinking regarding its utility in a time of armed conflict. The concept of warfare being waged to, from and through space, is finding increasing expression within military doctrine as well as some legal articulation in Law of Armed Conflict

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Manuals.[1] Such development takes place against a background of considerable uncertainty as to the manner in which international law would apply to regulate military operations in space. While the 1967 *Outer Space Treaty* (OST)[2] makes particular reference to weapons of mass destruction[3] and prohibits, *inter alia*, permanent military fortifications and manoeuvres on the moon and other celestial bodies,[4] it does not deal with the vast array of other weapons and the considerable suite of other military activities that could occur and are, in fact, being planned for outer space. Conversely, existing Treaties relating to the Use of Force, as well as the Law of Armed Conflict, effectively make no reference to space as a venue of hostile activity. Into this void of current uncertainty, the Universities of Adelaide, McGill and Exeter have launched an international project that will identify and articulate the existing legal norms that do apply to military uses of outer space. In so doing the participants of the project are drafting a Manual on International Law Applicable to Military Uses of Outer Space (known as the MILAMOS process and the 'McGill Manual')[1] to elucidate how differing legal regimes (Space and Use of Force/Armed Conflict) can be reconciled to provide the necessary clarity and levels of restraint expected in such a context[5]

2. Background

The OST makes considerable reference to the legal requirement to use outer space for 'peaceful purposes'[6] and strongly emphasizes 'cooperation' and 'understanding' between State Parties to the Treaty[7] in their exploration and use of outer space. Despite these overtures it was equally evident during the time of the OST's development that the two pre-eminent space powers, namely the USA and the USSR, were actually engaged in considerable military activities in outer space. Hence, such state practice then and after, informs meaning under the 1969 *Vienna Convention on the Law of Treaties*, and acknowledges the reality of such military activity. Indeed, given this context, it is generally understood that 'peaceful' is to be equated with 'non-aggressive',[8] but it does not otherwise prohibit militarization of space. It is

1 U.S. Department of Defense, Law of War Manual (hereinafter 'U.S. LOWM'), Chap XIV 'Air and Space Warfare' (2015) found at: http://archive.defense.gov/pubs/Law-of-War-Manual-June-2015.pdf.
2 *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies*, Opened for signature 27 January 1967, 610 UNTS 205 (entered into force 10 October 1967)('OST').
3 *Ibid*., Art IV.
4 *Ibid*.
5 See MILAMOS Project www.mcgill.ca/milamos/.
6 OST, above n 2, Preamble.
7 Art III, OST, above n 2.
8 U.S. LOWM above n 1, at para. 14.10.4, 918.

also clear from Article III of the OST that international law, including the Charter of the United Nations, does apply to regulate military activity. Despite this, how this regulation is precisely manifested and to what extent the OST shapes or modifies general international law in this realm is unclear.
The likelihood for States to enter any kind of new treaty dealing with general military uses of outer space seems very remote. Indeed, despite efforts to stem the increasing militarization of outer space, it is clear that there is no prospect of any treaty dealing with this phenomenon in the near future.[9] Rather, there have been poignant reminders that for military purposes, space is to be treated as any other venue for potential armed conflict, just like the land, sea or air environments.[10]

3. International Operational Law Manuals

It seems evident that not only are States unwilling to formulate any kind of new specific treaty regime, they seem also very reluctant to even publicly articulate their legal views. Such a phenomenon is particularly acute in the area of the Law of Armed Conflict where there has been a decided retreat by virtually all States from publicly justifying their actions in the battle space, or even expressing a decided legal view. This creates a void of uncertainty where all actors, military and civilian, and all activities, especially those of a civil or commercial nature, are undertaken in a shroud of uncertainty. Such uncertainty can result in unforeseen and catastrophic consequences.
It is into this uncertain and perilous legal environment, that MILAMOS was conceived. The McGill Manual will join a distinguished line of other International Operational Law Manuals that have been developed in other areas of military activity and have proven their worth in articulating legal (and therefore operational) restraint.
Over the past 100 years, there have been numerous examples of such Manuals relating to the law applicable in armed conflict being prepared by private experts. Such Manuals are designed to re-state the law, as then understood, in a coherent and concise manner to a particular topic of warfare. Hence, such Manuals have included the *1880 Oxford Manual of the Laws of War on Land* by the Institute of International Law,[11] the *1913*

9 See Generally, Paul Meyer, Dark Forces Awaken: The Prospects for Cooperative Space Security, Simons Papers in Security and Development, No 58/2017, School for International Studies, Simon Fraser University, Vancouver, March 2017.

10 Marcia S. Smith, Top Air Force Officials: Space Now is a Warfighting Domain found at: www.spacepolicyonline.com/news/top-air-force-officials-space-now-is-a-warfighting-domain?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+Spacepolicyonline+%28SpacePolicyOnline+News%29.

11 Institute of International Law, the Laws of War on Land, Oxford, 9 September 1880.' (International Committee of the Red Cross) https://www.icrc.org/ihl/INTRO/140?OpenDocument, accessed 22 April 2016.

Oxford Manual of Laws of Naval Warfare Governing the Relations Between Belligerents by the Institute of International Law[12] and the *1923 Hague Draft Rules of Aerial Warfare* prepared by the Commission of Jurists.[13] These older Manuals have found their contemporary equivalents in the form of the *1994 Manual on International Law Applicable to Armed Conflict at Sea* ('San Remo Manual') by the International Institute of Humanitarian Law,[14] the *2013 Manual on International Law Applicable to Air and Missile Warfare* by the Harvard Program on Humanitarian Policy and Conflict Research ('AMW Manual')[15] and the *2017 Manual on the International Law Applicable to Cyber Warfare* by the NATO Cooperative Cyber Defence Centre of Excellence ('Tallinn Manual').[16]

These Manuals all articulate what was understood to be the prevailing existing law (*lex lata*) and applied such law through a series of rules and supporting commentary in a coherent and practical manner. It is clear though, that new paradigms were encountered in these areas and that the law is not always so prescriptive that it can be axiomatically applied in a literal sense. Rather, legal principles were also invoked and fashioned in a manner that applies to the contexts anticipated in each survey in a way that necessarily sometimes carries with it a progressive tone.

4. The Impact of International Operational Manuals

There is evidence that International Operational Law Manuals are having their intended effect within targeted audiences, principally military legal officers and government officials. Not surprisingly perhaps, given its historical longevity, the *San Remo Manual* has probably had the most impact. Its content has found faithful expression in Chapter 13 of the UK Ministry of Defence, Manual of the Law of Armed Conflict.[17] As for the Harvard AMW and Tallinn Manuals, there has not been the same

12 Institute of International Law, MANUAL OF THE LAWS OF NAVAL WAR, Oxford, 9 August 1913.' (International Committee of the Red Cross) https://www.icrc.org/ihl/INTRO/265?OpenDocument.

13 Commission of Jurists, 'Rules Concerning the Control of Wireless Telegraphy in Time of War And Air Warfare, drafted by a Commission of Jurists at the Hague, December 1922 – February 1923.' (International Committee of the Red Cross) https://www.icrc.org/ihl.nsf/INTRO/275.

14 Louise Doswald-Beck, San Remo Manual on International Law Applicable to Armed Conflicts at Sea (Cambridge University Press, 1994) ('San Remo Manual').

15 HPCR Manual on International Law Applicable to Air and Missile Warfare (Program on Humanitarian Policy and Conflict Research at Harvard University, 2013) (AMW Manual).

16 Michael N Schmitt (ed), Tallinn Manual 2.0 on the International Law Applicable to Cyber Operations (Cambridge University Press, 2nd ed, 2017).

17 2004 (Joint Service Publication 383).

reproduction of text within national Manuals yet, but they are of more recent vintage.

It is also becoming increasingly evident that Courts, Tribunals and other bodies are using International Operational Manuals as useful references to assist in deliberative or advocacy projects. In respect of modern Manuals this has been most pronounced in the case of the Sam Remo Manual. It has been cited with approval by the International Criminal Court Pre-Trial chamber in the case of *Situation of the Registered Vessels of Comoros, Greece, and Cambodia*.[18] Similarly, it was positively referenced by the quasi-judicial national and international bodies that were commissioned to inquire into the Gaza Maritime Incident of 31 May 2010 between Israel and non-Government Groups seeking to breach a blockade off the Gaza coast. In respect of that incident, the Human Rights Council,[19] the Turkel Commission (Israel),[20] the Turkish Government National Commission[21] and the Secretary General Panel Of Inquiry[22] all referred to the rules and commentary of the *San Remo Manual*. Such reference implicitly endorsing its authoritative status on stating the law, even if each body arrived at different conclusions regarding the factual and legal conclusions to be drawn in respect of the incident under consideration.

There is a difference of opinion on whether Manuals such as these should form the basis of judicial or quasi-judicial decision-making. There is a line of argument that International Operational Law Manuals are not designed for use in legal proceedings and should not be used by judicial bodies.[23] This argument seems to represent something of a sub set of argument that relates more broadly to National Military Operational Law Manuals and their intended purpose.

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18 *Situation on Registered Vessels of Comoros, Greece and Cambodia* (Article 53(1) Report) (International Criminal Court, 6 November 2014) 18, 31 (Situation on Registered Vessels).

19 Human Rights Council, Report of the International Fact-Finding Mission to Investigate Violations of International Law, Including International Humanitarian and Human Rights Law, Resulting from the Israeli Attacks on the Flotilla of Ships Carrying Humanitarian Assistance, A/HRC/15/21, 27 September 2010, 50.

20 the public commission to examine the maritime incident of 31 may 2010, 'The Turkel Commission Report: Part 1' (January 2011) www.turkel-Committee.com/files/wordocs//8707200211english.pdf, paragraph 33.

21 Turkish National Commission of Inquiry, 'Report on the Israeli Attack on the Humanitarian Aid Convoy to Gaza on 31 May 2010' (February 2011) www.mfa.gov.tr/data/Turkish%20Report%20Final%20-%20UN%20Copy.pdf.

22 Report of the Secretary-General's Panel of Inquiry on the 31 May 2010 Flotilla Incident, (September 2011) www.un.org/News/dh/infocus/middle_east/Gaza_Flotilla_Panel_Report.pdf, paragraph 28.

23 Kenneth Anderson, 'The Model Air and Missile Warfare Manual' (Opinio Juris, 12 February 2011) http://opiniojuris.org/2011/02/12/the-model-air-and-missile-warfare-manual.

On one hand they are intended to provide guidance to military members and are generally drafted in a manner that ensures that they are concise and accessible. Such brevity may not capture nuanced or more comprehensive Government positions on key legal issues. Even so, such articulations as contained within International Operational Law Manuals are written without any particular national perspective in mind and should be used to assist a judicial decision maker in understanding the legal context of a particular issue. Article 38(1)(d) of the Statute of the International Court of Justice permits recourse to secondary sources such as the views of the most highly qualified publicists. In this context, International Operational Law Manuals can, on the basis of their persuasiveness and cogency, assist a judicial decision maker in confirming the existence or application of a legal rule.

Importantly, Garraway observes 'Manuals can indeed be used as part of the lawmaking process but their evidential value should not be overstated. Their purpose is ultimately practical – to assist the soldiers, sailors and airman on the front line to 'temper the harshness and cruelty of combat' by abiding by the law'.[24]

5. Critique of International Operational Law Manuals

Inevitably, the Manual phenomenon has received academic criticism, revolving largely around the representative nature of the experts selected to participate on such Manuals through to the methodological imprecision of the projects themselves.

The Tallinn Manual 1.0 has probably received the most criticism. Lauri Malksoo, for example, has observed that the Tallinn Manual 1.0 composition was very western, noting that the contributing experts 'have distinctly American and Old European backgrounds'[25] with no contribution from China, the Russian Federation or even Eastern Europe.

Such criticism is not without force. Self-selection of 'experts' necessarily carries the risk that such contributors are not well established enough in their fields. Similarly, they may not fully represent the range of views held on particular issues because they do not attract broad geographical representation that enables differing views to be proffered and tested.

It is a matter for the coordinators of these projects to anticipate the level of inevitable criticism if there is not broad representation. It is equally clear, however, that the quality of the publication and the level of credibility it generates will turn more on the quality of the analysis rather than merely including representatives from particular States who have nothing meaningful

24 Charles Garraway, 'The Use and Abuse of Military Manuals' (2004) 7 Yearbook of International Humanitarian Law 425, 440.

25 Lauri Mälksoo, 'The Tallinn Manual as an International Event' (Diplomaatia, August 2013) www.diplomaatia.ee/en/article/the-tallinn-manual-as-an-international-event/.

to add. It is equally clear that while all participants in these projects participate in their private capacities, such views are likely to reflect those of their State. To that end, the process might be seen as a useful 'track 2' mechanism for States to advance and test views without the issue of attribution providing a restraint to open and frank discussion.

6. The MILAMOS Process

6.1 Reconciling Legal Regimes

One of the key issues that the MILAMOS project will need to resolve is the reconciliation of legal regimes. That is to what extent does the Space Law Treaty Regime (comprising the five space treaties), the Law relating to the Use of Force and the Law of Armed Conflict all interrelate to provide definitive legal guidance. While it is presumed that the OST will continue to apply in times of rising tension and outright armed conflict, such a presumption needs to be tested. The International Law Commission (ILC) recently released its draft Articles relating to the impact of armed conflict upon treaty regimes.[26] The report is revealing in a number of ways. While the terms of the report suggested there is a presumption of continued application of the OST in a time of armed conflict, the report also notes that IHL would be the *lex specialis*.[27] Such a conclusion would attribute priority to the IHL regime, but not in any kind of exclusive manner. Hence, some provisions of the OST would continue to apply, if consistent with IHL, but many of the 'peaceful' and 'cooperative' provisions of the OST would need to yield to legal rights and obligations under IHL. Such a finding by the ILC regarding the *lex specialis* of IHL is instructive because there can be a plausible case made that space law should also be accorded such status in that environment. More significantly, that report also concluded that the right of national self-defence under Article 51 of the UN Charter allows a State to 'suspend in whole or in part the operation of a treaty to which it is a Party insofar as that operation is incompatible with the exercise of that [self defence] right'.[28] Such a suspension would necessarily apply to the OST in those circumstances where a State was responding to an armed attack through capabilities that it possessed in outer space.

Another interpretative approach that the ILC is examining in a separate study is the role of state practice and its capacity to inform interpretation of a

26 Draft ILC Articles on the Effects of Armed Conflicts on Treaties, With Commentaries, Adopted by the International Law Commission at its sixty-third session, in 2011, and submitted to the General Assembly as part of the Commission's report covering the work of that session (A/66/10) (Hereinafter 'ILC Armed Conflict Report').

27 *Ibid*., Commentary Article 2(4).

28 *Ibid*., Article 14.

relevant treaty.[29] To this end, state practice under the OST would be highly relevant to locating the meaning of particular provisions. Such a context would arise most readily in the realm of Use of Force. Article IX of the OST, for example, requires States to undertake international consultations when engaging in activities that would cause 'potentially harmful interference'. Such a provision is relevant to better understanding what constitutes interference and more significantly what might be considered unlawful intervention under international law in the context of space activities. To that end, State practice regarding Article IX has been scant over the last 50 years,[30] suggesting that States through their practice, have assumed a very high threshold for what 'potentially harmful interference' would constitute. This allows for a much more accurate reconciliation with an allied legal regime (Use of Force). Similarly, official US Department of Defense statements, as found in national legal manuals, may also constitute relevant state practice that better informs the manner in which the OST can be reconciled with other regimes in a time of military operations. The US Department of Defence Law of War Manual, for example, makes strong statements regarding freedom of navigation, placement of conventional weapons and the relevance of analogous provisions of the Law of the Sea Convention in the space context.[31] Such state practice proves to be a very useful guide to understanding how to interpret the OST vis-à-vis other legal regimes.

6.2 Law of Armed Conflict Issues

Accepting that both the OST and IHL may, *prima facie*, apply to military actions in outer space, there still remain many conceptual conundrums that need to be addressed by the drafters of the McGill Manual.

While it would seem unarguable that the customary international law of IHL would apply to armed conflict, there remains some uncertainty whether it is the law applicable to land operations or perhaps naval operations that would principally apply. Hence, are satellites akin to ships or are they better conceived as being communication and intelligence gathering systems of a type used on land. This distinction has particular relevance to determining whether naval law concepts of safety and operational zones apply in space or not. Additionally, it raises issues concerning prize jurisdiction for the capture of neutral space objects that might be aiding the enemy.

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29 Georg Nolte (Special Rapporteur), First Report on Subsequent Agreements and Subsequent Practice in Relation to Treaty Interpretation, International Law Commission, Sixty-fifth session 19 March 2013, A/CN.4/660 (hereinafter 'First ILC Subsequent Practice Report').

30 See generally Michael Mineiro, FY-1C and USA-193 ASAT Interceptions: An Assessment of Legal Obligations Under Article IX of the Outer Space Treaty, 34 Journal of Space Law 321 (2008).

31 LOWM, above n 1, paragraphs, 14.10.3.1 & 14.10.4.

Questions concerning the status of military astronauts and their capture under the Third 1949 Geneva Convention on Prisoners of War and the obligation to rescue and return astronauts under certain conditions as provided for in space law offers another level of conundrum that needs to be settled in the MILAMOS process.

Additionally, with the cascade of private operators in space activity, there is the question of the application of rights of visit and search, of blockade, and also of lawful collateral damage to civilians and civilian objects in space. How are these destructive consequences to be measured under standard canons of interpretation?

Given the complexity of space operations, there is also the real issue of direct participation in hostilities. To the extent that private start-ups are engaged in any activity that constitutes a direct part in hostilities on the side of one belligerent, that enables the other belligerent to target such actors and their relevant equipment. These issues can have enormous ramifications for private operators in ways that they would probably find bewildering. Understanding the scope and application of these belligerent rights remains a critical task of the contributors to the McGill Manual.

6.3 The MILAMOS Process

The MILAMOS Project was launched in Montreal in October 2016. The Manual is a three-year effort and is being drafted by experts from across the globe acting in their individual capacity. In addition to key technical advisors, groups of international experts specialised in the fields of international space law, international law on the use of force and international humanitarian law, are meeting over a series of workshops to identify rules applicable to specific circumstances in the space domain. Individual experts have been tasked with drafting rules and associated commentary between workshops. The experts come together in plenary sessions at each workshop to discuss each draft rule and commentary on a basis of non-attribution and seek consensus on the articulation of the rule and commentary. The commentary accompanying each rule includes discussions on the origins, scope and sources of disagreement, as well as examples or scenarios of military uses of outer space relevant to the rule. It is anticipated there will be a final total of about 100-150 rules with supporting commentary.

Following the initial successful Adelaide workshop in Feb 2017, a second Workshop was held in New Delhi, India in June 2017 and a third workshop will be held in Colorado Springs (US Air Force Academy) in October 2017. Further workshops for 2018 are being planned for Asia and Europe.

The key target audiences of the Manual are government lawyers (especially military lawyers), policy-makers, private legal practitioners, decision-makers and military space operators.

There are two different 'tracks' to the MILAMOS Project. First, there are nine Workshops over three years discussed above to undertake the drafting of the Manual with its rules and associated commentary.
The second track, though, is about State engagement. It is, after all, States who make international law (predominantly through treaties and practice with *opinio juris*). So, the Project will be actively engaging with States who can provide an account of their relevant practice and *opinio juris*, as well as the simply pragmatic consideration about whether a particular articulation of a Rule will or won't work practically.

7. Conclusion

For better or worse, this is the 'age of the manual' and their continued drafting by private experts signifies a need to full gaps that have been unwittingly left by States as new technologies and capabilities emerge. The status of these International Operational Law Manuals is self-declared to be non-binding and yet they do seem to nonetheless attract significant normative traction. The authority of these manuals derives entirely from their persuasiveness and integrity of their legal form and composition. They are different to national military legal manuals in that they do not purport to represent a particular national perspective but rather seek to provide an agreed neutral version of the law applicable to military operations.
The McGill Manual being produced through the MILAMOS process regarding military uses of outer space faces a number of key challenges. Reconciling differing legal regimes and articulating a framework that is accurate is both daunting and yet necessary. This is especially so as the process is undertaken against a background of increasing space militarization. Space does represent humanity's best hope for survival as a species. Articulating a legal regime through the MILAMOS process that can underpin that hope therefore remains a critical task.