

The Teaching of Space Law at the Dawn of the New Millennium

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Abstract

In this short note the authors present brief overview on space law education within various countries with an emphasis on what is presently being done in Canada

In the first part the authors list civilian and military institutions which teach space law courses. The authors then review the ethical aspect of space law education. Finally, the authors make some recommendations regarding the promotion and teaching of space law.

1. Review

A decade ago, a new military paradigm evolved which is now known as revolution in military affairs (RMA). New operational doctrines ensued. Military academies had to adapt and include correspondingly alter their curriculum.

Space activities are now omnipresent within our social fabric. Military planning involving space assets has also evolved. The evolution of the Strategic Defence Initiative Program from President Reagan to Mr George Bush is considerable. Threats have changed and military planners adapt. The

west no longer faces a cold war military peer. The aim is no longer to protect western democracies against the former U.S.S.R. States of concern have replaced an old foe. e.

In Canada, military officers have a varied academic formation. Many officers follow programmes in civilian universities while others are attending our military academy. Furthermore there is a effort to interface educational experiences with our military academy and civilian universities. For example, the students of Queen's University, located in Ontario, Canada, may attend lectures at the Royal Military College of Canada (RMC) and vice versa. Furthermore, many public servants like diplomats seems to appreciate the fact of being able to follow courses at RMC and other Canadian military learning institutions.

Here are a few example of where space law is currently being taught: The Institute of Air and Space Law at McGill University in Montréal, the Aerospace Institute of North Dakota University, the George Washington University and also the excellent course at the National Remote Sensing and Space Law Centre at the University of Mississippi School of Law. There are

also engineering schools like the École Polytechnique of the Université of Montréal that offers a space law course within their aerospace degree at the under graduate level.

The following military academies do offer space law courses namely:

1. Royal Military College of Canada (RMC) in French and English
2. West Point Military Academy near New York
3. United States Air Force Academy in Colorado Springs

Many "Commands" in Canada and in the United States offers several courses in space education and lectures to their officers:

1. Canadian Forces Aerospace School (CFAS) in Winnipeg, Canada
2. Canadian Staff College in Toronto
3. Space Indoctrination Course with the Directorate of Space Development (D Space D) in Ottawa, Canada
4. Joint courses at NORAD, Colorado Springs, USA.

Even in the summer time, short space law introduction courses are offered to our young military cadets in Saint-Jean, Canada.

It is also possible to follow excellent courses in different bases south of border in different commands (Army, Navy and Air Force).

One of us did follow the "Space Cowboys" Course at NORAD in Colorado Springs. Excellent space law courses were taught during this course by scholarly officers from the United States Air Force (USAF) Judge Advocate General (JAG) branch. Furthermore, the USAF JAG school at Maxwell Air Force Base in Alabama offers a very good library and research facilities (Air War College) for lawyers interested in space law. Also, the US Navy JAG school and the Naval War College, both located in Newport, Rhodes Island are both space law centres of expertise.

In short, many commands are offering very good courses and this on both sides of the border. It is also important to mention that courses are currently becoming more accessible to non-commissioned officers¹.

The Royal Military College of Canada and the campus of the North Dakota University in their Continuing Education Department for example, are using the internet to give distance learning courses. The Royal Military College of Canada has used an internet based course to facilitate access to space law for the Canadian military. A distance learning course in space law is presently being offered to Canadian officers. This allows our officers to continue their education even if posted abroad. A masters in space science has recently been started at RMC where space law is an important part of the programme.

¹ www.spacedaily.com/news/milspace-015.html

We could testify that numerous South American students have access to space law courses. In fact, the Spanish edition of the USAF review "Space Power" translated several articles for our Spanish speaking friends of the Americas.

Most of the time, in military academy, the teachers are a mix of JAG officers and civilians. The majority of those officers have postgraduate studies (master and PhD in space law). It is interesting to notice that the number of female students in military academies keeps increasing years after years: this is excellent.

Our good relation with the United States allows us to take part in good space education courses. Even if the American interpretation of the military uses of outer space is quite different from ours, we still have good relations with them. The Canadian space policy and doctrine is more peaceful compared to American philosophy. The Canadians are not interested in space dominance or controls and have more limited needs for space defence technology. However, the Canadian Forces are motivated in increasing their military capabilities in the future but without space-based weapons.

In fact, Dr Louis Haeck and Professor Michel Bourbonnière did write an article suggesting major reforms to our the Canadian Forces official space policy. Said article will be available in 2002 as part of a major study for a new white paper

and a new military space doctrine for the Department of National Defence of Canada under the direction of the Strategic Studies Department at the University of Calgary.

Lastly, we have to mention that it would be positive for Canadians to increase their academic contacts with our European NATO allies. Why not a close link with Leiden University and the Royal Air Force Academy in Cranwell. We are also proud to report that within the Canadian Forces they are more and more navy and army officers wanting to be involve in space related activities. The key is that our well educated officers, like our civilian students, respect the law and promote the peaceful use of outer space.

2. Ethics

Space use and ethics were the subject of a major conference held at Darmstadt University of Technology in Germany in 1999². It is sad that the conference seems strongly influenced by engineering issues and environmental activists. It seems to be the same situation for most of the conferences in North America. It is very hard for the pro-defence advocate to have a fair trial in most of the civilian academic institution. It seems to us that the academic liberty and the arbitrary selection process sometimes prefer a bias perspective against any military uses of outer space.

² www.globenet.free-online.co.uk/ethics/ethics.htm

Scholars and university teachers must encourage a more balanced study of complex space law problems. Outer space is already partially militarized and even some conventional weapons (i.e. not of mass destruction), may be used in space. It is a fact that we like it or not, at least with our actual series of multilateral treaties. We do agree that a joint utilization analysis could help our ethical reflection in some dual space applications. We are ethically responsible for our personnel choice and to make the difference between good and wrong. We do not want to open an ethical discussion about the nuclear powered satellites and the legitimacy of nuclear weapons in partial orbit. Excellent scholars and jurists did advocate both sides of the medal on these controversial topics.

The European Space Agency (ESA) and the Canadian Space Agency (CSA) share a tendency for a narrow interpretation of peaceful uses of outer space sometimes.

Perhaps the sharing of some telecommunications and research satellites could help to determine the financial viability and feasibility of some military space uses. At least NASA and CNES (Centre National d'Études Spatiales) are more liberal in their interpretation of dual purposes. NATO forces do rely on civilian satellites to conduct some space operations. The Canadian Forces are using Canadian civilian communications satellites for military

purposes and why not RADARSAT-2³?

We do not want to open a long philosophical exchange but some Canadian jurists believe that some military manned space missions are too costly for our limited space defence budget. It could be argued that for national security reasons we need astronauts in military uniform in outer space.

Regarding the ethical aspect of the future of the Anti-Ballistic Missile (ABM) Treaty I do believe that the geopolitical reality is very different and that we need to amend the *Corpus Lex Spatialis* as soon as possible to face the new challenges of this Millennium. The evolution of many new space powers are excellent news and bring more competition and better access to space technology.

It is hard to be ethical in the conducting of all our actions or missions. We do hope that both civilian and military will continue to act in good faith and respect the transparency of our democratic world. As jurists we must participate in these multi-disciplinary forums to link ethical reflections to the *Corpus Lex Spatialis*.

3. Suggestions

Our international institute should create via the Committee on Scientific Legal Liaison of IAA a joint study group on an international cursus on space education with a

³ RADARSAT Annual Review 2000-2001, Canadian Space Agency, p.23.

minimum content of space law and doctrine for space minded students of this planet.

We should encourage more ethical discussions among us. We do believe that we could modify our legal opinions if presented with new evidences or facts. We are lucky in our legal profession to read some decisions with excellent rationale. It is clear that nobody holds the monopoly on truth on this blue planet including the military of course.

Finally, we hope that by increasing the space education of civilians and military in space law we could achieve a better understanding of the dual use of some space applications. It is vital to respect the different opinion of learned scholars and to create an academic climate for open discussion without condemning right from the start the advocate of the less popular philosophy (i.e. some limited military space operations). Oftenly, the vox populi is not the right orbit.

4. Conclusion

In Canada, the teaching of space law is in good health. The Canadian Department of National Defence values space education and has made important investments in the teaching of space law at the Royal Military College

It is a fact that outer space is militarised and that the dual purposes space assets are duly accepted. However, partial de-weaponization is also a reality. Canada is promoting total de-

weaponization at the condition that all the verification and disarmament control measures are adequate like our suggestion with Pax sat satellite. Even with total de-weaponization of outer space, weapons base in air and/or ground could be legal to attack any space assets. It is only the weapon in full orbit or space-based that will be prohibited if countries agree to modify the Corpus lex Spatialis. Some teachers will defend their own interpretation but must be professional enough to present all the different point of view and interpretation. A suggestion is to draft a common space law doctrine manual with scholars from both side of the Atlantic for our military and civilian students.