



NOTE FOR NATIONAL DEFENCE: **Canadian Space Policy and NORAD**

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SUMMARY

- ✚ NORAD and its role in defining Canada's space policy is discussed and analyzed.
- ✚ Canada can achieve space security by supporting NORAD. The roles and responsibilities of Canada as a partner of North American Defence organization are presented and discussed.
- ✚ Canada should allocate a specific budget to achieve security of its space systems and assets as well as to ensure in future having full access to the space systems, and to enhance space related technologies in order to train the strategically essential expertise required to operate the space infrastructure.

CONTEXT

- ✚ Canada is the third state in the world in space activities since 1962 [1].
- ✚ Outer space systems are vital part of human's life such that failure in space operations can result in fatal outcomes.
- ✚ There is a mutual cooperation between Canada and USA in the field of aerospace, security, and defence in the outer space.
- ✚ The unrestricted space activities represent as one of the main national interests in Canada.
- ✚ North America Aerospace Defence (NORAD) is a timeless organ in the arrangement between Canada and USA to ensure their security since 1957.
- ✚ NORAD continues its role to ensure Canadian-American aerospace defence cooperation.

- ✦ The civilian space policy has advanced by frequent reviews and long-term planning while defence space strategy and defence space policy has not been updated as much as the civilian space policy. The last release of the defence space policy was updated in 1998 [1].
- ✦ Hence, it is very crucial to enhance the current defence space policy and planning requires advancements.

CONSIDERATIONS AND DISCUSSIONS

- ✦ It is crucial for Canada to assure full access to outer space due to the high dependency of the nation's security and safety on space related systems.
- ✦ To guarantee the security and safety within a nation, any policy agreement such as the one with NORAD should be supported. It is worth considering that assuring the outer space security is among the roles of NORAD.
- ✦ Lack of support for NORAD will result in loss of international information that are required to advance the defence systems and result in degradation of high technology systems within the Department of National Defence and the Canadian Armed Forces.
- ✦ Canada as a partner of North American defence through organizations such as NORAD is required to seriously consider and debate regarding the ballistic missile defence due to new threats in the environment.
- ✦ Canada through United Nations and other organizations should continue to support efforts on developing frameworks for peaceful use of outer space.
- ✦ Canada can have a space strategy framework which involves science and technology research and applications.
- ✦ This strategic framework helps the country to develop advanced dual-use technologies that are used in space assets in both civilian and military applications.
- ✦ Meanwhile, a proper defence policy should be developed to respond to the probable threats that are caused by advanced and newly developed technologies.
- ✦ In order to support NORAD, Canada should first update the space defence strategy and policy and the full space capabilities of Canada should support space missions that are taken by its main partner, USA.
- ✦ Canada should enhance its range of capabilities in space activities such as intelligence, surveillance and exploration, space situational awareness, satellite communications, command and control, and space-derived data management and sharing.
- ✦ To ensure this advancement, Department of National Defence requires educated and trained professionals in all the required aspects that are mentioned above.
- ✦ Canada's space strategy and policy [2] should be developed in order to support above requirements.
- ✦ Ensuring the space security and space related activities are expensive for every country and Canada is among them. However, the cost of any harm and threats from international terrorism will cost more to Canada.

- ✚ Consequently, it is important to allocate budget to enhance advanced technologies to be developed for the required space capabilities.

Future Work

- ✚ A comprehensive view will be given in future reports to determine the existing defence actions and vulnerabilities of the space from the Canadian perspectives and some suggestions will be provided to the policy makers.

REFERENCES

- [1] Andrew B. Godefroy, Canada's Space Policy and its Future with NORAD. July, 2016. Available Online at https://www.cgai.ca/canada_s_space_policy_and_its_future_with_norad
- [2] Canadian space agency. Canada Space Policy Framework (2014). Available online <https://www.asc-csa.gc.ca/eng/publications/space-policy/default.asp>