"Space Weather and the Role of Norway in the Polar Regions"

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In an ever increasing technological dependence our societies become more vulnerable to incidences that may impede on our technologies ability to provide the services they are made for. Norway covers, including land and sea areas, very large areas in a zone that is especially vulnerable to space weather effects. We must remind ourselves that Norway is the country where the mean of the population is situated closest to the terrestrial pole. The large sea areas under Norwegian control contains the only well managed significant fish population. Additionally, under the sea floor large amounts of fossil fuels are documented or not yet discovered. The devastating decrease in Arctic Sea Ice will clearly open up for increased activity within: fisheries, tourism, oil and gas as well as long and shot distance transport. All of these activities require an increase use of Earth Observation, navigation and positioning as well as broad band communication. All of these require an intensive development and usage of space infrastructure. Bothe the required infrastructure and the information they provide are sensitive to space weather perturbation.

Norway has well developed ground infrastructure that will provide essential input to space weather modeling, both national and multilateral. The development of the Svalbard Integrated Arctic Earth observing System (SIOS) will increase the infrastructure on Svalbard as well as integrating the uses of the existing one. The utilization of national and international satellites that use Svalbard as their main ground station will only increase. The Norwegian Governments emphasis on the Northern regions will continue and has led to national systems of sea monitoring as in BarentsWatch. Norway will continue to develop ground and space based infrastructure to ensure a proper and sustainable management f the high North. The availability of space and ground space weather instrumentation is prerequisite for this.