Background

The coasts and continental shelf of the Arctic Ocean are estimated to hold large deposits of oil, natural gas, and methane hydrate (natural gas) clusters along with large quantities of valuable minerals. With Arctic sea ice melting due to climate change, more resources are expected to be more easily available in the near future. As national security and economic development are so closely intertwined in the Arctic, this region is, without a doubt, an emerging topic of international relevance with implicit impact on U.S. geopolitics:

Recent strategic and economic movements in the Arctic reveal two major trends: First: Russia’s advantage in Arctic preparedness is undeniable and a potential threat to the balance of power system in the region. Secondly: Given its complex and rapidly evolving status in world affairs, the Arctic will certainly play a significant role in future world affairs. When considering the topic of oil and gas, there are many incentives for Russia to continue pursuing a more ambitious and rigorous plan for exploiting and developing the resources of the Arctic.

Methodology

Spatial questions are manifold concerning the Arctic. However, the most pressing current geopolitical questions center around defense capabilities and the location of resources. By spatially analyzing the number, and relative proximity, of military installations to current and estimated resource basins, strategic advantages may get revealed. Location data was collected from databases of the National Geospatial Intelligence Agency, ArcGIS, and The Arctic Research Consortium of The U.S. To avoid distortions, all data was projected into WGS84 NSIDC Sea Ice Polar Stereographic North.

Conclusion

These trends reveal that active military buildup occurs along Russia’s shorelines and in close proximity of believed resource basins. Having compared the current abilities of Russia and the United States to access the riches of the Arctic, the U.S. will have to step up its capabilities, as well as its commitment to international treaties such as the UN Law of the Sea Convention (UNCLOS), to remain competitive.

References

Sources: National Geospatial Intelligence Agency, ArcGIS, Esri, NASA.


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