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China into the Arctic

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The Science Working Group of the Intergovernmental Panel on Climate Change (IPCC) in late September had its final meeting for the Fifth Assessment Report on climate change, the last assessment being in 2007. It will be some weeks before the report is published, and many will await its latest findings with great interest. But one development we know without this latest report: summer ice cover of the Arctic Ocean has been declining since satellites first gave us a comprehensive overview in 1979. Ice cover this summer rivaled its lowest level, set in 2007.

The decline in Arctic ice cover both reflects global warming at high latitudes, as expected, and will re-enforce further warming because reflection of sunlight will decline and the Arctic ocean will absorb more heat. Indeed, some people see a serious danger to the climate from the heat-induced release of methane, itself an important greenhouse gas, now trapped by the permafrost of the far north, thus giving a further boost to climate change.

But there are also potential benefits from significant thawing in the far north. Less ice cover results in greater accessibility to this area – for fishing, for mineral wealth, and for transportation. With the warming that has taken place already, some fish have moved north, with fishermen following them. The United States Geological Service has estimated that a quarter of the undiscovered but recoverable (with existing technology) oil and gas resources are in the Arctic region, and undoubtedly there are other mineral resources in the region, such as the iron ore and non-ferrous metals several Chinese firms are pursuing in Greenland.

Russia has already applied to the United Nations Seabed Authority for an extension of its continental shelf beyond its Exclusive Economic Zone (out to 200 nautical miles from its coast) to and beyond the North Pole, which if agreed would permit it to exploit seabed resources far into the Arctic Ocean. That extension will surely be contested by Norway, Denmark (on behalf of Greenland), and Canada. The United States cannot contest it with the UN body since it has not ratified the Law of the Sea Treaty, but will probably contest it through more traditional channels.

Of special interest to many countries, not just those bordering on the Arctic Ocean, is the improved possibilities for shipping. A Chinese merchant ship made news in August by sailing from Dalian in north China to Rotterdam in the Netherlands via the North Sea Route (NSR) around northern Russia and Norway, thereby cutting the route from north China to northwest Europe by about a third, to 13,000 kilometers from the normal 20,000 kilometers through southeast Asia and the Suez Canal in Egypt.

This rivals the so-called northwest passage from Europe to Asia that has been sought by Europeans since the 16th century, to avoid the arduous trip around the southern tip of South America or

the transshipment of goods across the isthmus of Panama, which was cut short only by the opening of the Panama Canal (soon to be enlarged) a century ago, in 1914.

China has expressed great interest both in the possibilities for shipping and in the resources available in the Arctic. This year it was admitted as an observer (along with India, Italy, Japan, South Korea, and Singapore) to the Arctic Council, a body set up in the 1996 initially to manage environmental issues and preservation of traditional livelihood for the roughly 4 million indigenous peoples who live above the Arctic Circle, but whose mandate has grown with the possibilities of greater exploitation of the Arctic. The full members of the Council are the eight countries with territory above the Arctic Circle: Denmark (for Greenland), Canada, Finland, Iceland, Norway, Russia, Sweden, and the United States.

But the economic benefits of the Arctic should not be exaggerated, at least for the next decade or two. The Arctic, even a so-called ice free Arctic, remains a formidable place to work. Even without full cover by ice for up to four months a year, large pieces of ice require re-enforcement of the hulls of ships that regularly transit. The main passages are relatively shallow (down to 10 meters), prohibiting the transit of larger and more economical ships – and thus perhaps nullifying the economic gains from the much longer route around southern Asia. The winds and weather are occasionally fierce, even in summer. Russia and Canada use a (much contested) straight-baseline argument to extend territorial claims to cover the most natural sea routes, which Russia in turn uses to extract stiff transit fees from foreign ships. Working conditions are so difficult that Shell Oil recently postponed indefinitely a major oil and gas development project, on which it had already spent some billions of dollars, north of Russia's Siberian coast.

It is true that Arctic shipping has grown greatly in recent years, but most of it has been in the relatively warm waters of the Barents Sea, off Norway and Russia (North Cape in Norway, the most northerly point in Europe, is ice-free even in winter thanks to the warm waters of the Gulf Stream); in destination shipping to and from the mineral development locations in Siberia (mainly oil and nickel); and in Arctic tourism, a rapidly growing industry, particularly through the northwest passage of Canada.

Gradual climate change and advancing technology together will no doubt make the Arctic region increasingly accessible; but exploitation of its resources will have to compete with other expanding frontiers, such as shale gas, and the actual development of these resources will probably be expensive and slow. A treaty prohibiting mineral extraction from the Antarctic continent expires in 2041, and that too will be in contention in the future.