

# **The Foundation for Science and Technology workshop on Arctic development 14<sup>th</sup> December 2011**

## **Opening remarks to the discussion**

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As the foregoing presentations have made clear, science is key to the Arctic. Supporting science as part of UK policy is critical: to better understand macro-level processes which will affect the world, to better understand macro-level processes which will ultimately affect the UK, and because science is a key element of Arctic diplomacy. The strength of British scientific research on is a key element supporting Britain's role in both poles.

But while the Arctic is undergoing an environmental "state change" – chiefly as a result of global warming – the Arctic is also experiencing a socio-economic and political "state change".

The relationship between the environmental state change and socio-economic state change is not linear or one-to-one. The reduction of sea-ice in the Arctic, for example, is a necessary but insufficient condition for large-scale Arctic shipping – other elements have to be in place, from insurance, to ship-design, to sufficient infrastructure, to regulation, to certainty about where and when the Arctic will freeze-up in the winter months.

Some environmental change in the Arctic makes access harder, not easier – for example in areas where melting permafrost will incur infrastructure costs, or where later freeze-ups and earlier thaws will shorten periods of ground-transport access. Coastal infrastructure may be more subject to coastal erosion and storms. And while, in general terms, changes in environmental conditions may be more permissive for economic activity, plenty of challenges will still remain: low temperatures, wide variations of temperature, relative isolation and so on. Research and development of specific Arctic technologies and processes will take time, may incur additional cost and will be necessary for Arctic development.

Just as environmental state change in the Arctic involves moving from a relatively predictable natural environment to one where we know things are changing but do not know where we will end up, so a socio-economic and political state-change involves plenty of uncertainty and has no pre-destined path.

I will briefly touch on three areas – oil and gas developments, shipping and politics – and how this touches the UK.

### **1/ Oil and Gas**

Over the last few weeks there have been two stories which have underlined the prevalence of uncertainty in the Arctic, and the dependence of much Arctic economic development on external factors: question marks around the development of the

Shtokman natural gas field off the north coast of Russia and Cairn's unsuccessful experience in finding commercially-viable oil off Greenland.

While the Shtokman development was originally conceived of as providing LNG to the US market, the boom in North American shale gas has harmed the economics of this project – though tax breaks provided by the Russian state, plus gas demand elsewhere, plus the prestige and technology elements of the project may mean that it does ultimately progress, if delayed.

But other projects are going ahead: and Cairn, or other companies, are likely to return to Greenland. Shell's developments in offshore Alaska – given up for dead many times - appear to be progressing with US government backing. Statoil has announced plans to drill a new well near the Snøhvit, and the Norwegian government is highly supportive of the northward shift of the Norwegian oil and gas industry (including into the areas recently delimited as Norwegian and Russian in the Barents Sea). In Russian waters, Prirazlomnoye should come on stream in 2012. In Norway, Goliat may come on stream in 2013 and a new and substantial find from this year, Skrugard, may be producing from 2018. Onshore, the Yamal peninsula may be the future both of Gazprom but of Novatek, including a potential LNG component. In the longer-term the South Kara Sea is slated to be developed, with ExxonMobil in prime position.

These developments offer opportunities for UK companies. Though BP has been frozen out of the South Kara Sea for the meantime, British companies have considerable offshore and technical experience, and experience of Arctic conditions through the sub-Arctic Sakhalin development (as well as BP's position in Alaska). As the North Sea winds down, UK companies may need to look elsewhere.

Moreover, the UK will be increasingly dependent on Norwegian gas in the future, a rising share of which may come from the Arctic.

## **2/ Shipping Developments**

The mere fact of the Arctic becoming relatively more ice-free than the past does not mean that large-scale trans-oceanic shipping in the Arctic is just around the corner, though several high profile cargos have transited the Northern Sea Route over the last few summers, and the volume of shipping along this route is increasing (although from a relatively low base). Dense point-to-point shipping within particular parts of the Arctic is more likely in the short to medium-term.

Given environmental factors relating to the prevalence of ice, the balance of interests of the coastal state, and the likelihood of other economic activity which may support it, the Northern Sea Route across the top of Russia is more likely to be a major shipping route than the North-West Passage across the top of Canada.

The commercial viability of shipping depends not only on ice, but also on ship-design and a range of other factors, including a conducive regulatory environment, and economic rates for accompanying vessels, if needed. Commercial calculations for large-scale shipping will be based on ships that can be used through the year, not just ships that can navigate in the Arctic for certain months. Ice formation will remain an issue. While shipping associated with oil, gas and mining developments will most likely increase in the near future, and act as a spur for infrastructural investments which may support shipping which neither originates nor terminates in the Arctic, all of this will take time.

The UK has a role to play here, as a major shipping nation, with a major financial services industry to help manage maritime risk. It is significant that a polar shipping code is currently being discussed in the IMO, based in London.

### **3/ Politics**

The politics of the Arctic is much more cooperative than is generally reported. All Arctic coastal states agree the essential role of the UN Convention on the Law of the Sea (UNCLOS) in helping resolve the question of how far a state may extend its ownership of the continental shelf from its coastline (even for the US, though not a signatory to UNCLOS). Russia will submit its claim in 2012. Canada and Denmark (Greenland) are yet to submit their claims.

But this process will take time. The committee tasked with processing claims submitted under UNCLOS has a backlog that may take a long time to clear. Its pronouncements may be taken as having consultative rather than binding force. And the existence of UNCLOS does not, by itself, necessarily resolve overlapping claims, or disagreements about where maritime borders of adjacent states should lie (as was the case with Norway and Russia over the Beaufort Sea before they reached agreement, and is still the case in the US/Canada dispute over the Beaufort Sea).

There will be disagreements over the status of particular waterways. While the North-West Passage is considered internal waters by Canada, US and British policy explicitly state that this, along with the Northern Sea Route, is an international strait. There are differences of opinion about the extent to which UNCLOS applies to the Svalbard archipelago – is the extensive and potentially hydrocarbon-bearing continental shelf associated with Svalbard subject to the equal access stipulations of the Svalbard treaty (to which the UK is a signatory) or does the Svalbard treaty only apply to a much more limited zone?

The Arctic Council is evolving, signing its first legally binding agreement earlier this year and creating a permanent secretariat in Tromsø. A decision on how to engage with non-Arctic states (e.g. China and the European Union) which had been seeking permanent observer status has in effect been postponed to 2013 by the introduction of criteria by which suitability will then be judged.

The UK is an observer to the Arctic Council, but much of its engagement that touches on Arctic issues will occur through government departments other than the FCO, and will occur bi-laterally rather than through the Arctic Council itself. Although the FCO has produced a very useful summary of UK government policy, a summary of various policies should not be equated to a UK Arctic strategy. A question, then, remains as to whether an explicit UK Arctic strategy is necessary, or suitable, or useful.