

Petroleum Activity in the Russian Barents Sea

Constraints and Options for Norwegian Offshore and Shipping Companies

Arild Moe and Lars Rowe



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Abstract

Presently most attention in the Barents Sea is given to the Shtokman project. Experience from development of this field, where there are still many uncertainties, will have large consequences for the further development program and relations with foreign companies. The exploration activity going on is fairly limited, but over the last few years there has been a struggle over licenses and control over exploration capacity. In the medium term the goal of rapid development of the Arctic continental shelf has become intertwined with a comprehensive government effort to modernise the domestic shipbuilding industry to make it able to cover most of the needs offshore. With the shipbuilding industry in a deep crisis these goals are not fully reconcilable. Russia will either have to accept more foreign involvement, or scale down its offshore ambitions. We believe a combination of the two alternatives is likely. This means that there will still be room for foreign offshore and shipping companies, but that the total amount of activity on the continental shelf will not be as great as stated in official plans.

Key Words

Barents Sea, offshore activities, Russian shipyards

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Introduction and Research Questions

For many years, the prospects for developing the hydrocarbon resources on the continental shelf in the Russian part of the Barents Sea have attracted interest not only in Russia but also in neighbouring Norway. Exploration activity in the 1980s revealed several promising structures, and Norwegian companies submitted proposals for development of fields.¹ Norwegian companies also supplied equipment to the Russian exploration effort. In the 1990s, exploration activity fell dramatically, but the development of an oil field, Prirazlomnoye, discovered in the late 1980s started up. Various schemes were prepared for developing the giant Shtokman gas condensate field, discovered 1988, and Norsk Hydro was involved in several stages of this process. A new phase began in 2007 when the license owner Gazprom decided to work with Total and StatoilHydro in the development and operation of the first phase of Shtokman. In addition, Norwegian shipping companies have become involved in transportation of crude oil, products and condensate from onshore terminals in the Barents Sea. That activity falls outside the scope of this report, however.

The purpose of this report is to look ahead and discuss the outlook for offshore petroleum activities in the Russian Barents Sea with a special view to the potential for participation by the Norwegian offshore/shipping cluster. To do this we need to consider some fundamental questions:

- What is in fact happening in the Barents Sea now?
- What are the official plans for development of this area?
- Are official plans likely to be implemented?
- What Russian business actors are most important?
- How can requirements for shipping services be met?
- What are the present Russian capabilities?
- What is the potential of the Russian shipbuilding industry?
- What are the prospects for foreign engagement with Russian shipbuilding?

What is Actually Happening in the Barents Sea?

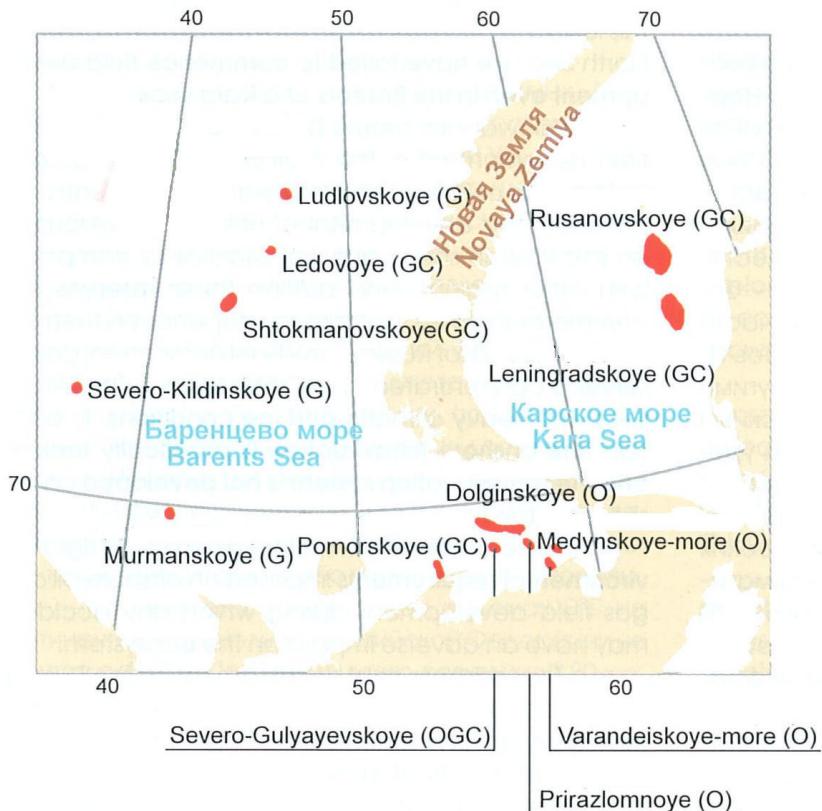
There have been many declarations about the importance of Russia's oil industry going offshore and into the Arctic in particular.² The Ministry of Natural Resources estimates that one third of Russia's initial gas resources and 12 per cent of its oil resources are located on the

¹ On the early exploration effort, see Helge Ole Bergesen et al. *Soviet Oil and Security Interests in the Barents Sea* London: Pinter / New York: St. Martin's Press, 1987.

² For a broader discussion of Russian offshore strategies see Arild Moe and Elana Wilson Rowe, 'Northern Offshore Oil and Gas Resources: Russian Policy Challenges and Approaches', forthcoming.

continental shelf. Moreover, two thirds of these resources are expected to be in the Barents and Kara Seas. These shares translate into impressive volumes, but it must be underlined that they are estimates based on geological studies. The volume of *reserves* is much smaller, but still highly significant: in the Barents Sea some 3,700 mill tons oil equivalent.³ But these are not *proven* reserves. The figure includes hydrocarbons in structures where drilling has been done, but that does not mean that they are necessarily commercially recoverable. This is the case with several of the 11 discoveries that have officially been designated as fields.

Map: Russian Offshore Oil and Gas Fields in the Barents Sea



G = gas; O = oil; GC = gas-condensate; OGC = oil and gas-condensate

Source: Adapted from *Mineral'nye resursy Rossiyskogo shel'fa*. Special issue of *Mineral'nye resursy Rossii*, 2006. p.5.

That substantial recoverable reserves exist is, however, demonstrated by Shtokman, with some 3,800 bill. cu. meters (BCM) of natural gas (reserve categories C1 +C2), and also by some oil fields in the south-eastern part of the Barents Sea, usually referred to as the Pechora Sea. Expectations of further discoveries are big and well founded, but considerable exploration must be carried out to establish a more certain

³ 'Uglevodorodnyy potentsial kontinental'nogo shelfa Rossii: Sostoyanie i problemy osvoeniya', *Mineral'nye resursy Rossiyskogo shel'fa*. Special issue of *Mineral'nye resursy Rossii*, 2006. p.18.

picture of reserves. So far only some 50 to 60 exploration wells have been drilled in the course of the years since 1982, albeit with a very high discovery rate.

Development Projects

Prirazlomnoye

The largest field identified in the Pechora Sea is Prirazlomnoye, located 57 km offshore from Varandey, at a depth of 20 meters. Since drilling started in 1989, four wells have been completed. The field is believed to contain 83.2 mill. tons of exploitable reserves,⁴ sufficient to support an annual output of 7.5 mt. The *Rosshelf* consortium⁵ received a license for development of the field in 1993; construction of the Prirazlomnaya platform at the Sevmash shipyard in Severodvinsk was scheduled to take three years, starting in 1995. The platform is a huge steel caisson to be placed on the shallow ocean floor, more like an artificial island. It will contain production and storage facilities and protect the installation from the severe ice problems in the area.

However, problems soon emerged, and the construction process came to a complete standstill several times. It has been said that in addition to direct technical problems, constant changes in the design are a major reason for delays. It also proved difficult to attract sufficient financial resources. Several foreign partners have been in and out of the project, including the Australian oil company BHP, the International Finance Corporation (under the World Bank) and the German company Wintershall AG. Other companies have been approached to take part in the project – in 2003 notably Norsk Hydro – but they have declined, finding the project too risky and/or not commercially attractive.

In 2002 the license was transferred to a new company, initially owned jointly by Gazprom and Rosneft – *Sevmorneftegaz*.⁶ It was decided to abandon the original idea of building a complete platform in Severodvinsk. Instead a discarded platform from the North Sea – Hutton TLP – was purchased and the topside transported to Severodvinsk for installation on the caisson. In 2003, *Sevmorneftegaz* contracted two multifunction icebreakers from Havyard Leirvik for Prirazlomnoye. They were delivered in 2006 when the field had been scheduled to start producing,⁷ but had to be put to work elsewhere.

⁴ ‘Prirazlomnoye zamorozili do 2010 goda’, *Kommersant*, 1 April 2008.

⁵ *Rosshelf* gradually became dominated by Gazprom, but had various organizations with ambitions in the offshore sector as shareholders, notably Sevmash. For an analysis of this phase see Arild Moe: ‘Oil and Gas: Future Role of the Barents Region’, in Olav S. Stokke and Ola Tunander (eds): *The Barents Region: Cooperation in Arctic Europe*, London: Sage 1994.

⁶ *Sevmorneftegaz* was established as a joint company between Gazprom and Rosneft in 2002 and took over the licenses for Shtokman and Prirazlomnoye. In 2004 Rosneft sold its share, apparently to help cover its debt after the take-over of Yukos’ main production asset, Yuganskneftegaz. *Sevmorneftegaz*, as a fully owned subsidiary, then became the offshore development division of Gazprom.

⁷ www.skipsrevyen.no/batomtaler/batomtaler-6-2006/326.html

The used platform proved to be a disaster, and there is very little of this purchase that will eventually be used. The new topside currently being built consists solely of imported equipment.⁸ A new agreement covering all aspects of finalization of the platform as well as its installation on the continental shelf was signed in August 2008.⁹ Gazprom has now officially postponed start-up for oil production at Prirazlomnoye to 2010.¹⁰

All in all the experience from Prirazlomnoye has not been encouraging, but some lessons have been learnt. The development has taken longer and has proven more costly than expected. Plans for using almost exclusively Russian equipment had to be abandoned. There is, however, widespread belief that the field will start producing in a few years; and with the large platform in place as a hub, development of other smaller fields in the vicinity will become more attractive.

The Shtokman development – status and outlook

The Shtokman field was discovered in 1988 by the exploration organization Arktikmorneftegazrazvedka (see below), and in the period 1990–95 six exploration wells were drilled. Various international cooperation schemes for development of the field have been discussed over the years, but the Russian license holder Gazprom (through subsidiary Sevmorneftegaz) only became committed after 2003 when liquefied natural gas (LNG) gained prominence in the company's strategy, particularly directed towards the US market. A bidding process was organized, and most large international companies showed interest. In the summer of 2006, a seventh exploration well was drilled by Norsk Hydro with Deep Sea Delta chartered from Odfjell Drilling.¹¹ The intention of establishing an international consortium was, however, shelved in October 2006, when Gazprom announced that foreign part-ownership was out of the question and that the field would be developed by Gazprom itself, with the help of foreign technology providers and possibly international oil companies in assisting roles.¹²

But also this position was soon abandoned, and in 2007 a new collaborative model was launched. For the first phase of development, a special-purpose company, Shtokman Development AG, was established together with Total and StatoilHydro. The foreign companies hold 25 and 24 per cent respectively, whereas the majority, 51 per cent, rests with Gazprom. This company will develop and operate about one third of the field, with peak production of some 23 BCM per year. It will own the infrastructure for 25 years after production start-up, after which everything will be handed over to Gazprom. Shtokman Development AG is not to own the

⁸ ‘Gazprom inspektiruet stroitelstvo platformy’. Press release from Sevmash, 25 April 2008.

⁹ Press release from Sevmash, 4 August 2008.

¹⁰ *Gazprom v tsifrakh 2003-2007*, Gazprom, 2008.

¹¹ *Teknisk Ukeblad*, 3 July, 2006.

¹² For an analysis of this decision see Arild Moe, ‘Sjtokman-beslutningen: Forklaringer og implikasjoner’ (*The Shtokman Decision: Explanations and Implications*), *Nordisk Østforum*, Vol. 20, No 4, 2006, pp. 389–403.

license, however, nor sell the gas. The exact contractual conditions are currently under negotiation. One issue is whether the arrangement will make it possible for the foreign oil companies to book a portion of the reserves in the field, even if they do not own a part of the license. The technical solutions have also not been decided. When a series of FEED (front-end engineering and design) studies were assigned in March 2008,¹³ some observers were surprised that this happened before a total technical concept for the development had been agreed upon.

Nominally Sevmorneftegaz still holds the license for Shtokman, but it has no direct role in the development of the first phase, and many people from its organization appear to have been transferred to Shtokman Development AG. Its main activity is now connected with its other license, Prirazlomnoye. However, also in this case another way of organizing activities, once the field starts producing, is under discussion: either a separate company, or transfer to Gazprom's oil company Gazprom Neft'.¹⁴ This means that Sevmorneftegaz could disappear altogether or be merged with Gazflot (see below).

The full development of Shtokman is currently envisaged in three stages, each producing up to 23.7 bcm per year, to commence at four-year intervals. Gazprom has already started planning the second phase itself. According to this plan, peak production of 71.1 bcm per year will be reached after 25 years. Altogether the field is scheduled to produce for 50 years. There are, however, expectations that it will be possible to have a fourth development phase, bringing peak production up to 95 bcm.¹⁵

In the first phase half of the output will be transported by a new pipeline and be used for local needs in the northwest and also fill up the planned North Stream pipeline under the Baltic Sea to Germany. The other half will be liquefied in an LNG plant to be constructed at Teriberka on the Kola peninsula. The annual output of LNG will be 7.5 mill. and it is destined for 'countries in the Atlantic basin'. For the total field development one third of output is currently considered for liquification. This would amount to 30 mill. tons of LNG per year, at peak production from the field.¹⁶

¹³ Technip and the Russian company Petroteknip: Design for a liquefied natural gas plant; J.P. Kenny and Giprospetsgaz: Design for a pipeline system between the deposit and the shoreline; Doris Engineering and the Rubin design bureau: Design for the offshore production facility – platform and sub-sea installations

¹⁴ The latter solution seemed to have been more or less decided in early 2006. 'Interview with the president of Sibneft', Gazprom press centre 15.02.2006. But the idea was at least temporarily shelved after management changes in the autumn of 2006. More recently Gazprom Neft' has announced that it is interested in licenses on the continental shelf, despite the announced government intention of granting offshore oil licences to Rosneft, and only gas licenses to Gazprom. 'Na shelf za dobychey', *RBK daily*, 18 June 2008.

¹⁵ 'Shtokman ostaetsya rossiyskim proektom', *Gazprom*, 3, 2008. Interview with Yuri Komarov, General director of Shtokman Development AG

¹⁶ Ibid.

The partners for the first stage will decide in late 2009 whether to go ahead with investments. Thus, a final decision on Shtokman has not been taken, but the partner companies are putting considerable effort and prestige into realizing the project. The board of Shtokman Development is headed by Gazprom's president, and the presidents of Total and StatoilHydro are members.

The official goal is to start deliveries of piped gas in 2013 and LNG in 2014, but sceptical voices can be heard about the realism of that time frame, referring to time required for the construction of fixed installations, but also to the time needed for drilling.¹⁷ In any case it is obvious that action will have to be taken swiftly, once the investment decision is made.

Current Exploration Activity in the Barents Sea

A half-hearted and limited licensing round was carried out in 1999, but attracted little interest. The exploration organization *Arktikmorneftegazrazvedka* (AMNGR), which has carried out most of the exploration drilling in the Barents Sea, was the only bidder and received three licenses in the Pechora Sea.¹⁸ In 2002 it formed a new company, *Arktikshelfneftegaz*, together with private investors (the Sintez group), to explore and develop these licenses. In 2006 AMNGR was forced to transfer its share in Arktikshelfneftegaz to the Russian state, represented by the federal property agency,¹⁹ thus losing its most important (potential) production assets. On the other hand, Arktikshelfneftegaz has been continuing its programme on the most promising block, Medynsko-Varendey.²⁰ In the period 2002–05 three wells were drilled and 82 mill. tons of recoverable oil discovered. Preparations are underway for use of a jack-up platform from 2009, and start-up of test production is optimistically scheduled for 2010–11.²¹

¹⁷ Some leaders of exploration enterprises argued at a meeting of the Mining Council of the Northwestern Federal District in July 2008 that start-up is likely to be delayed until 2017–2021. ‘Gazprom’ nedoschitaetsya Shtokmana’, *Nezavisimaya Gazeta*, 7 July 2008.

¹⁸ Kolokolomorskoe, Pomorskoe and Medynsko-Varandeyskoe. About the first licensing round see Arild Moe and Anne-Kristin Jørgensen, ‘Offshore Mineral Development in the Russian Barents Sea’, *Post Soviet Geography and Economics*, Vol. 41, No. 2, 2000. Arktikshel’neftegaz relinquished the license on Kolokolomorskoe in 2007, however. “Boris Kutchkin: ‘Poka gosudarstvo prinimaet lish’ tochechnye resheniya po optimizatsii raboty na shel’fe’, *Neft’ i Kapital*, 5, 2008, p.30.

¹⁹ AMNGR is a ‘federal unitary enterprise’, which means that it is fully owned by the state – but not a joint stock company. According to the organization, it has not received any funding over the state budget since 1993. The controversy with the authorities has been over the organization and management of state property, licences and its fleet (see below). See Press release from the Federal Property Agency, 30 March 2006.

²⁰ <http://sintez.ru/gruppa/arcticshelfgas.aspx>

²¹ Boris Kutchkin: ‘Poka gosudarstvo prinimaet lish’ tochechnye resheniya po optimizatsii raboty na shel’fe’, *Neft’ i Kapital*, 5, 2008, pp 29–32. Kutchkin is general director of Arktikshelfneftegaz.

Gazprom holds an exploration and production license for the Dolginskoye oil field, also in the Pechora Sea, issued in 2005.²² Preparations for exploration drilling started in 2008, and a drilling rig has been leased.²³ The field is expected to hold some 236 mill. tons of recoverable oil.²⁴

Severneftegaz, a small private company created for Arctic offshore activities, has three geological exploration licenses just off the Kola coast, where seismic investigations have been carried out.²⁵

Two licenses for geological exploration were issued to the private company *Sintezneftegaz* in August 2004, the Pakhtusovskiy and Admiralteyskiy blocks west of Novaya Zemlya in the northern part of the Barents Sea. The licenses were granted without competition, which is permitted by the law. Since then the company has reportedly invested some USD 17 mill. for development of the blocks, where seismic studies have been carried out.²⁶

The company has, however, been in conflict with Rosnedra (the federal subsoil resources management agency) since 2006 when the two licenses were revoked, but the decision was overturned by the court. In 2007 Sintez, the owner company, apparently in an effort to protect itself, tried to sell a majority of the shares in *Sintezneftegaz*, first to Rosneft then to *Gazprom*, without success.²⁷ In May 2008 the licenses were again revoked by Rosnedra, and transferred to the ‘undistributed’ fund of blocks. With reference to the new investment legislation adopted earlier this year, Rosnedra also announced that the only companies that could take over the licenses would be *Gazprom* or Rosneft; furthermore, that in any case the private company would have had to transfer the blocks to the state if a discovery were made.²⁸

Thus an early demonstration of the application of the new legislation was provided (more about the legislation below). *Sintezneftegaz* pursued this

²² This license was granted without competition, based on a government resolution from the same year that makes it possible to grant licenses directly to companies that have discovered a field based on geological work financed by the company itself. And indeed *Gazprom* had carried out work on this structure based on a license for geological exploration from 1995. ‘Prinyato reshenie o predostavlenii OAO “Gazprom” prava pol’zovaniya Dolginskim mestorozhdeniem v Pechorskem more (arkticheskiy shel’f). Press release from the Ministry of Natural Resources 16 December 2005. www.mnr.gov.ru/

²³ ‘*Gazprom* prepares for drilling in Pechora Sea’, *Barents Observer*, 2 June 2008.

²⁴ Russian oil and gas market report, April 2007. UK Trade & Investment.

²⁵ Kol’skiy 1, 2 and 3. <http://severneftegas.ru/activities/survey/> *Severneftegaz* (‘Northern Petroleum’) must not be confused with another company with the same name, a Lukoil subsidiary working onshore in Nenets Autonomous District.

²⁶ <http://angis.ru/gruppa/sintezneftgas.aspx>

²⁷ ““*Gazpromu*” predlozhili priobresti litsenziu na shel’f Barentseva morya”, *Kommersant*, 10 August 2007.

²⁸ ““Sintez” ostavili bez shel’fa”, *RBK Daily*, 5 June 2008.

decision in court, however, and it was overturned in July 2008.²⁹ The final outcome of this legal struggle is uncertain, but as the licence expires in 2009, the chances that Sintezneftegaz will be able to continue work are slim.

Plans for further exploration

Plans for a new exploration programme organized as a series of licensing rounds were announced in 1999, but the actual licensing process has been postponed several times. However, as late as 2006 the Minister of Natural Resources declared that six licensing rounds, comprising 20 blocks, would be carried out in the Barents Sea by 2010.³⁰ These plans were part of a broader ‘State strategy for the studying and development of the petroleum potential of the continental shelf of the Russian Federation’, worked out by the Ministry in 2004. Since then the prominence of offshore development has, if anything, increased in speeches made by officials, but there has been no concrete announcement of a licensing round – surely indicating a discrepancy between rhetoric and action. The question now is whether this situation is likely to change. To discuss this we must understand which factors have hampered development so far.

Earlier it was often maintained that resistance from the military slowed down offshore activities in the North. Russia’s Ministry of Defence is a central factor in the region, given its location and the presence of large military units. The conventional wisdom has been that the military represents a brake on developments offshore – especially concerning the involvement of foreign actors. Two main explanations have been provided: an instinctive psychological reaction to foreign presence; and secondly, a concern over possibly worsened operating conditions. More specifically, it can be argued that production platforms would constitute permanent obstacles limiting the operations of strategic submarines, which require considerable horizontal and vertical space, adding to the natural limitations caused by natural depth and ice conditions.³¹

There are in fact few indications that the military have been a major brake on offshore petroleum developments in the last few years.³² But the military have been consulted in the development of the licensing programme and they are also one of the bodies mandatory to consult in the licensing process itself. The military definitely have a say. For example, it is commonly assumed that it was due to military objections that the landing point for Shtokman gas was moved from Gazprom’s preferred alternative Vidyaev to Teriberka.

²⁹ ‘Sintezneftegaz vernulysa na shel’f’, *Kommersant*, 23 July 2008

³⁰ Yu. P. Trutnev, ‘O povyshenii effektivnosti osvoeniya uglevodorodnykh resursov kontinental’nogo shel’fa Rossiyskoy Federatsii’, *Mineral’nye resursy Rossiyskogo shel’fa*. Special issue of *Mineral’nye resursy Rossii*, 2006. p.8.

³¹ For a thorough discussion of this issue see Bergesen et al. 1987.

³² See also Kristian Åtland: ‘Russisk oljeindustri og Nordflåten – interessekonflikt eller strategisk partnerskap’, *Internasjonal politikk*, 2, 2004, pp.199–216.

Military objections now seem to be based on more objective arguments, rather than instinctive negative attitudes. And it should be noted that the exploration areas most in focus are in the Pechora Sea – where strategic submarines do not operate, due to the shallow waters. Hence, the Russian Navy has not seen serious problems. Also important is the changing relationship between the military and civilian sectors. Whereas the military were traditionally insulated from the regional economy, and did not have to pay attention to regional needs, this is no longer the case. A more prosperous regional economy could lift some of the social burden caused by build-down of bases. There has also been an interesting development in the relationship between regional authorities and the military, especially in Murmansk Oblast. The governor there, Yuri Yevdokimov, has cultivated ties with the military and presented himself as a staunch defender of the Northern Fleet in the budget battles taking place in Moscow. At the same time the regional leaders are eager to see development in the energy sector. Even though much scepticism probably remains, it seems reasonable to expect that the military have become more amenable to ‘civilian’ arguments for offshore development. The Northern Fleet also stands to receive immediate economic benefits for itself from offshore activities, as it can provide vital harbour facilities and acreage, at a price. It also controls a fleet of vessels, especially large tugboats, which can be rented out for civilian use.

Another explanation for the slow implementation of the licensing programme has been the unclear division of responsibilities among federal authorities. This problem has also to large extent been solved, with the Ministry of Natural Resources now playing the leading role in development of resources.

For several years, weaknesses in Russian legislation for development of offshore minerals have been cited as a major reason for the slow progress. The petroleum industry simply has not had enough incentives to undertake costly and risky investment in offshore exploration. Some of the concerns have now been addressed, or are in the process of rectification.

- The time period for exploration licenses was extended to 7–10 years in late 2007;
- a two-year exemption on customs duties and taxes on floating installations as well as sub-sea equipment for exploration work, used temporarily in Russia for a period up to 5 months, was put in force in February 2008;³³
- issuance of combined exploration and production licenses is said to be possible (even if the law has not been amended yet); and
- introduction of tax breaks for offshore developments is expected soon.

³³ The tax provisions introduced in 2003 had originally been conceived as an incentive to order Russian rigs and equipment. ‘Vse dlya vas’, *Neft’ i Kapital*, 4, 2008, p. 22.

Altogether the general framework for offshore exploration is becoming more favourable, but these developments have been overshadowed by the new legislation on foreign investment in strategic sectors that was adopted in April 2008. All the resources on the Russian continental shelf have now been declared to be of ‘federal significance’. The continental shelf will be reserved for state companies – in practice Rosneft and Gazprom. This does not preclude joint projects with foreign companies, as long as the license remains with the Russian party. But the whole governance of the offshore sector must now be questioned. Through this legislation, the authorities have ceded the initiative to the two companies. An assessment of the outlook for further petroleum development in the Russian Barents Sea must therefore, more than ever before, take into consideration the strategies and interests of Gazprom and Rosneft.

The interests and strategies of Gazprom and Rosneft are a central theme of a report being produced at Carnegie Moscow Center, and will not be further pursued here. But in a report produced at FNI and NUPI, the determination of these two companies is questioned.³⁴ Recent information about Rosneft’s offshore ambitions seems to support this scepticism.³⁵ And if anything, the new investment legislation has removed these two companies’ need to push forward offshore projects to fend off competitors.

Requirement for Rigs and Ships

According to the Russian Minister of Industry, to carry out the prognosticated volume of work on the continental shelf until 2030 (including the Northern, Far East and Caspian shelves), there is a need for 55 platforms and floating installations, 85 specialized transport vessels, and 140 supply vessels.³⁶ Implicitly the minister has linked these requirements to a goal of 110 mill. tons of oil and 160 bcm of natural gas by 2030;³⁷ however, more expansive statements can also be heard, e. g. from the Minister of Natural Resources. A further substantiation of the number of rigs and vessels numbers has not been presented but there is clearly a perceived need for a substantial number of floating offshore rigs and specialized ships in the years ahead – for the announced exploration effort as well as the development of Shtokman. For the first phase of Shtokman 16 production wells and 4 reserve wells are envisaged. Sevmorneftegaz earlier announced a need for altogether 156 wells for all three phases of the project. Even if that number seems too high, a crucial question is: what capabilities exist in Russia today?

³⁴ Arild Moe and Elana Wilson Rowe, ‘Northern Offshore Oil and Gas Resources: Russian Policy Challenges and Approaches’, forthcoming.

³⁵ Both Rosneft and Gazprom were requested by the Ministry of Natural Resources in late May 2008 to come up with plans, within a month, for geological exploration on specific blocks until 2015. Rosneft only provided a list of blocks for which they wanted licenses. The list was characterized as ‘modest’ by the paper *Kommersant*. Gazprom had not answered the request at all by early July. ‘Rosneft’ idet ko dnu’, *Kommersant*, 4 July 2008.

³⁶ Speech by Minister of Industry and Energy Viktor Khristenko in the State Duma, 14 February 2007.

³⁷ Ibid.

Exploration and development phase

Arktikmorneftegazrazvedka

Major discoveries were made already in the 1980s by the Murmansk-based exploration fleet belonging to the exploration organization Arktikmorneftegazrazvedka (AMNGR). By 1990 it consisted of two advanced drilling ships, *Valentin Shashin* and *Viktor Muravlenko* (built in Finland), two jack-ups and three semi-submersible rigs.³⁸ But when financing of exploration activities disappeared in the 1990s, AMNGR decided to sell the three semi-submersible *Shelf* platforms and rent out the rest of its fleet abroad on long-term contracts, and get an income this way. The terms of the most recent contracts (with two Norwegian companies - Beta Drilling (controlled by Sinvest) and Arba AS) from 2005 and 2006 were severely criticized in an investigation initiated by the Russian Prime Minister in January 2008. But also the fact that much of the Russian offshore exploration fleet was unavailable seemed to have come as a surprise. Referring to market actors, the newspaper *RBK daily* reported that this could delay the exploration programme by at least two years.³⁹

One of the jack-ups – Kolskaya – was returned in late August 2008, upon expiry of contract with Noble Corp. According to the general director of AMNGR Oleg Mnatsakanyan, this was a political decision. Currently there is no work for the platform and it costs approx. USD 500 thousand per month to maintain it, whereas the company had a monthly income of USD 2.5 mill. when it was rented out.⁴⁰ Meanwhile the other jack-up, Murmanskaya, is rented out at approx. USD 1.3 mill. per month, with contract expiring in 2010, and the drilling ship Valentin Shashin for 630 thousand, chartered until 2023.⁴¹ Currently there is a heated discussion about how to bring the exploration fleet back to Murmansk. The federal property agency *Rosimuschestvo* is preparing a court action to get several Russian ships and platforms, including Valentin Shashin and Murmanskaya, returned before expiry of contract.⁴² The final result of this process is still uncertain, but termination of contracts may result in heavy damages to be paid by the Russian party – ultimately the state. Developments took a new dramatic turn in June 2008 when the territorial branch of the Federal Security Service (FSB) started criminal prosecution of AMNGR for illegally renting out federal property.⁴³

³⁸ Arild Moe and Anne-Kristin Jørgensen, ‘Offshore Mineral Development in the Russian Barents Sea’, *Post Soviet Geography and Economics*, Vol. 41, No. 2, 2000. p. 21. *Valentin Shashin* has recently been renamed *Deep Venture*.

³⁹ ‘Shelfovye makhinatsii’, *RBK daily*, 29 April 2008

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Rosimuschestvo also wants the return, before expiry of contract, of three ships (the Tumcha, Aldoma and Pasvik), two small tankers and three tugboats. ‘Shelfovye makhinatsii’, *RBK daily*, 29 April 2008

⁴³ ‘Rossii grozit poterya shelfovogo flota’, *RBK daily*, 6 June 2008.

Gazflot

Gazprom's offshore exploration activity is carried out by its fully owned subsidiary Gazflot. This organization has been responsible for the exploration drilling in the shallow waters of the Pechora Sea from the mid-1990s. The platform used, the jack-up Murmanskaya, belonged to Arktikmorneftegazrazvedka, however. Gazflot has also been carrying out geological and geophysical surveys in the Ob and Taz Bays as well as in the Kara Sea. In the Ob Bay a series of exploration wells has been drilled, and in later years this area has dominated Gazflot's activities, with operations managed and supplied from Murmansk. For several years it leased a jack-up built at Aker Stord in Norway, Amazone, for use in shallow waters in the Ob Bay, subsequently purchasing it in 2006. Gazflot has a fleet of various support ships, and it also has one drilling ship, Gazprom-1, intended for use in water depths between 70 and 300 meters.⁴⁴ This ship is unsuited for work in the shallow waters of the Pechora Sea, however. It was in a bareboat charter in 2000–2002 and has been put up for sale.⁴⁵

Already some thirteen years ago Gazflot ordered a jack-up platform for harsh environments to be built in Severodvinsk, initially in cooperation between Sevmash and Zvezdochka. This platform, Arkticheskaya, was intended to play a key role for the development of Arctic offshore resources. Construction started in 1995.⁴⁶ The design was changed underway, and construction ran into technical and financial problems. Work stopped for longer periods, and completion of the platform at Zvezdochka has been delayed several times.⁴⁷ According to a report from winter 2008, the platform was 64 per cent finished and scheduled for completion in 2009.⁴⁸ Observers find this very optimistic. It is now being built for operations in water depths between 7 and 100 meters.

It is evident that Gazflot stands without a relevant fleet for drilling in the Pechora Sea. To carry out the drilling programme on the Dolginskoye field, Gazflot had considered renting the jack-up Kolskaya from AMNGR;⁴⁹ it later decided, however, to search for a rig in the international market, and contracted the jack-up Energy Exerter from Northern Offshore Ltd. for a five-month programme in the summer season of 2008.⁵⁰

⁴⁴ <http://users.gazinter.net/kf-gazflot/fleet.html>

⁴⁵ www.gazprom.ru/child/gazfl00.shtml#s04

⁴⁶ www.gazprom.ru/child/gazfl00.shtml#s04

⁴⁷ Stroitel'stvo pervoy morskoy burovoy platformy 'Arkticheskaya' na 'Zvezdochke' zamorozheno', *Dvina Inform*, 20 January, 2004.

www.dvinainform.ru/news/2004/01/20/3228.shtml?prn

⁴⁸ 'V 2009 godu "Zvezdochka" zavershit stroitel'stvo "Arkticheskoy"', *Pravda.ru*, 6 February 2008.

www.pravda.ru/print/districts/northwest/severodvinsk/254748-Zvezda-0

⁴⁹ According to the director-general of AMNGR. 'Rossii grozit poterya shelfovogo flota', *RBK daily*, 6 June 2008.

⁵⁰ www.northernoffshorelimited.com/company_profile.html According to TDN Finans the contract is worth 40 mill USD.

www.offshore.no/nyheter/sak.aspx?id=20509

New construction

Also for Shtokman, Russia hardly has any relevant drilling rigs at its disposal. There are special challenges, as occasional icebergs constitute a serious threat. Already in June 2007 Gazprom announced a tender for construction of two semi-submersible rigs intended for Shtokman. The rig design had been specified through a conceptual study made by Norway's Moss Maritime and was based on its CS-50 rig design. Even though several Russian and foreign yards showed interest, there was apparently only one serious bidder,⁵¹ and the tender was won by the Vyborg yard in August 2007. The contract sum was 59 bill. roubles, approximately USD 2.1 billion. According to the contract, the platforms are to be commissioned in October 2010 and March 2011 respectively.⁵² Foreign input in the construction of the rigs will be substantial. Samsung Heavy Industries in South Korea was subcontracted by Vyborg to deliver the topside;⁵³ a Finnish company, Wellquip Oy, has won a tender for engineering work in connection with the platform construction;⁵⁴ a British company won a contract for supplying power optimization solutions;⁵⁵ and Rolls-Royce' subsidiary at Brattvaag, Norway, has secured a contract for mooring equipment.⁵⁶ It is mainly the platform hull that will be produced at Vyborg. The hull and the deck from South Korea will be joined together at the 35th Ship Repair Yard outside Murmansk,⁵⁷ which belongs to the Zvezdochka yard in Severodvinsk.⁵⁸

Gazflot has said that a tender process for two additional drilling rigs may be announced in the spring of 2009. Somewhat surprisingly, the director general of Gazflot has remarked that he expects the price will be about the same as for the first two rigs.⁵⁸

Contracting of rigs for Shtokman first phase will be done by Shtokman Development AG, and from the outset Gazflot is only one of many potential providers of such services. The contracted rigs are, however, explicitly intended for Shtokman, and the use of Russian rigs conforms of course with overarching Russian priorities. Another complicating factor is that Gazprom already has started preparations for the second phase of Shtokman, which it wants to develop on its own. How preparations for phase one and two can be separated in practice is not quite clear, however. Only time will show if a conflict between competitive bidding for Shtokman phase one and Gazprom's own ambitions of building an

⁵¹ Sevmash in Severodvinsk, which also has experience building Moss CS 50 hulls, announced an interest, but it did not pursue the contract intensively since it did not have sufficient free capacity in the next few years.

⁵² 'Vyborg Shipyard constructs drilling rigs for «Gazprom»', *Maritime Market*, 22, 2007. www.maritimemarket.ru/eng/vyborg_shipyard.html

⁵³ *Port News*, 9 January 2008. <http://en.portnews.ru/news/8323/>

⁵⁴ 22 May 2008. www.gazprom.ru/child/dkrez_gazflot.shtml

⁵⁵ Converteam. *Rigzone*, 7 May 2008.

www.rigzone.com/news/article.asp?a_id=61632

⁵⁶ 20 June 2008. www.roolls-royce.com/media/showPR.jsp?PR_ID=40667

⁵⁷ www.rosprom.gov.ru/news.php?id=5289

⁵⁸ "«Gazprom» vesnoy ob'yavit konkurs na stroiteľstvo burovych platform dlya Shtokmana", *RIA-Novosti*, 4 July 2008.

exploration fleet will arise. Some observers argue that such a situation will not materialize since they doubt that Gazflot's rigs will be delivered soon enough.

It is safe to conclude that there is a sizable discrepancy between the announced need for offshore platforms and current Russian capabilities. The imbalance can be overcome by renting foreign equipment or letting foreign companies carry out exploration, or a massive construction programme can be started. But there is also the possibility of delaying developments.

Supply services and logistics

When it comes to various supply services and logistics in the development phase, the situation is not so clear. Gazflot itself has some support ships and Arktikmorneftegazrazvedka has a fleet of 26 vessels, including three tugboats and anchor handling vessels of the Neftegaz class,⁵⁹ but their relevance remains to be seen. The dominant shipping company in Murmansk is the Murmansk Shipping Company (MMSC), with a sizable fleet of small tankers and dry cargo ships, including ice-class general purpose transport ships.⁶⁰ The company has declared that it can solve all questions concerning transportation of goods and unloading them. The latter issue is hardly trivial, since the LNG plant will be constructed in an area with very weak infrastructure.⁶¹ Some observers argue that MMSC probably not will be allowed to expand into offshore activities beyond its current potential, because of its status as a private company.

There exists in Russia, however, a very limited number of specialized ships for the offshore industry, simply because there has been no need until now. Gazprom has announced plans for a tender in the autumn of 2008 for construction of 14 supply ships of various sizes.⁶²

It seems unlikely that Russian companies will be able to meet the more specialized needs related to sub-sea constructions. However, they may well be able to cover much of the more general transport needs during the construction phase, assuming that they are competitive.

Production phase

When Shtokman starts producing, there will be a continuing need for shipping services. Transportation of personnel out to the platform(s) will have to be by boat due to the long distance, and supply and repair work will remain an ongoing concern. As in the construction phase, it seems reasonable to expect that Russian companies will be able to provide much of these services.

⁵⁹ 'Rossii grozit poterya shelfovogo flota', *RBK daily*, 6 June 2008.

⁶⁰ www.msco.ru/cgi-bin/common.cgi?lang=eng&skin=menu2&fn=cont1

⁶¹ 'Desant v Teriberku', *Rossiyskaya Gazeta*, 20 February 2008.

⁶² "Gazprom" vesnoy ob' yavit konkurs na stroiteis'tvo burovyykh platform dlya Shtokmana', *RIA-Novosti*, 4 July 2008

The larger issue during the production phase is how the transport of LNG will be organized. This activity falls outside the remit of Shtokman Development AG and is solely up to Gazprom to decide. Gazprom has launched plans for a large-scale construction programme for 20 LNG tankers to run parallel with development of Shtokman's three phases. Possibly Gazprom will establish its own shipping company; or it may form a joint company with Sovcomflot, the large state-owned Russian shipping company, which is one the world's biggest owners of tankers. The two companies have signed a cooperation agreement, but its extent is unclear.⁶³ If Gazprom would let in other Russian companies, the privately owned Primorsk Shipping Company, based in the Far East, would be a candidate based on the experience it has gained from operations at Sakhalin. At present it seems unlikely that Gazprom will contract a foreign company to carry out the transport of LNG, but some sort of operational cooperation or even partnership would seem a possibility.

Offshore Industry Needs and Political Priorities

Undoubtedly there is a need for increased capacities in both the exploration and development phase and in the later production phase. As outlined above, current Russian shipping and offshore capacity is clearly inadequate for an expansive offshore development programme. In addition to the lack of hardware, a serious problem is insufficient supply of qualified manpower to operate ships and installations. This is partly due to problems in the training of personnel, but also to high demand for qualified personnel in the world's maritime industries. Russian sailors enjoy a good reputation and a large number of them have found attractive jobs abroad.⁶⁴

At the same time as offshore has gained in prominence in forward-looking statements by Russian leaders, the need to use Russian companies and Russian technology and equipment offshore another has become an increasingly important line of policy. It is evident that an important political goal for Russia is to establish its own fleet, preferably at Russian yards. The government has set out to modernize and develop the country's shipbuilding industry. As a result, offshore ambitions have become intertwined with a large-scale industrial programme. But what is the status of the Russian shipbuilding industry and developments in that sector? For the present report, the central question is whether the Russian shipbuilding industry will be able to meet the challenges posed by development projects on the Arctic shelf.

⁶³ 'Sovcomflot reaches a co-operation agreement with Gazflot'. Press release from Sovcomflot, 21 March 2008. 'The parties will work closely to develop logistical solutions for the transportation of oil and gas in the Arctic region. Sovcomflot will also assist Gazflot in procuring offshore drilling and production equipment and tonnage for the future development of the project.'

⁶⁴ See e.g. 'Yesli Rossiya ne podgovit kadry, to na osvoenii severnogo shel'fa budut rabotat' aziaty', *Regnum*, 12 December 2006.

The Russian Shipbuilding Industry

Russia's shipyards are concentrated in the Northwestern Federal District. More than 70 per cent of Russian shipbuilding takes place at shipyards in Severodvinsk, Murmansk, Vyborg and St. Petersburg. The industry employs a total of 177,600 people. According to Russian authorities, the country's shipbuilding industry is in a deep crisis. This is, among other things, reflected in the fact that Russian shipowners annually place orders for about USD 1 bill. abroad. Only some six per cent of the civilian orders are placed at Russian yards, whereas the authorities maintain that Russian yards could technically cover 30 per cent of the orders.⁶⁵

The same authorities also provide good reasons for Russian shipowners' choice: labour intensity at Russian yards is 3 to 5 times higher than in other countries, and Russian yards take from 2 to 2.5 times longer to build similar ships.⁶⁶

Structural weaknesses in the industry have been recognized: 'Russian civilian shipbuilding is of a non-specialized nature, ...and is carried out with outdated means of production.'⁶⁷ It is also admitted that Russian yards do not have the scale and are not equipped to handle civilian customers. Moreover, the situation is deteriorating, and the competitiveness of the national shipbuilding industry is falling each year. So far no complete specialized ship for the offshore industry has been built at a Russian yard. The eastern yards in Amur are said to have come closest.

More specific weak points have been identified: inability to meet timetables, low cost-efficiency, lack of pertinent expertise and also lack of foreign investment. Furthermore, the Russian legal framework and banking system, which does not allow for equally extensive credits as non-Russian yards may obtain in their home countries, is considered an important negative factor.

The New Shipbuilding Strategy

In 2007 the Russian Ministry for Industry and Energy (Minpromenergo) launched a strategy for the further development of the shipbuilding industry.⁶⁸ This was done with reference to 'the general ideological principles set down by the President of the Russian Federation'. In the strategy

⁶⁵ *Federal'naya tselevaya programma 'Razvitiye grazhdanskoy morskoy tekhniki na 2009-2016 gody'* (Federal target programme 'Development of civilian marine engineering for the period 2009–2016') Confirmed by Government resolution No. 103, 21 February, 2008.

⁶⁶ *Ibid.*

⁶⁷ *Strategiya razvitiya sudostroitel'noy promyshlennosti na period 2020 goda i na dalneyshuyu perspektivu* (Strategy for the development of the shipbuilding industry till 2020 and further perspectives), Minpromenergo, 6 September, 2007, p. 2.

⁶⁸ See *Strategiya razvitiya sudostroitel'noy promyshlennosti na period 2020 goda i na dalneyshuyu perspektivu* (Strategy for the development of the shipbuilding industry until 2020 and further perspectives), Minpromenergo, 06 September, 2007.

document two areas stand out: Russia's military capabilities, and the development of petroleum resources on the Arctic continental shelf.

The strategy has two main elements: development of a state investment programme for civilian shipbuilding and reorganization of the industry. In addition, the need for improvement in the legal framework is pointed out.

Investment programme

The one leg of the shipbuilding strategy, the federal target programme 'Development of civilian marine engineering for the period 2009–2016' is to be implemented from 2009. The total cost of the programme is estimated to be 136.4 bill roubles (approx USD 5.5 bill.). About 66 per cent is intended to be covered directly over the state budget, the remainder by funds built up by the enterprises in the sector itself, credits and Russian and foreign investors.

Research and development projects constitute 75 per cent, capital investment some 20 per cent.⁶⁹

A very long and detailed list of research and development projects has been drawn up.⁷⁰ Offshore-related projects form an important part, and their implementation is estimated to cost some 21.5 bill roubles (approx. USD 900 mill) over the period 2009–2016. Within this sector much emphasis is put on platform technologies (4.8 bill. roubles), sub-sea installations (6.7 bill.), transport technologies, including pipelines (3 bill.), safety measures (4.5 bill.), and environmental measures (2.4 bill.).

In parallel, a series of 'conceptual' projects are being launched. Their purpose is to present proposals for technical solutions and designs and documentation for construction. They include conceptual projects for platforms and sub-sea installations (4.3 bill.) and conceptual projects for support and transport ships for the continental shelf (4.7 bill.), including development of LNG carriers (0.8 bill. roubles).

All in all, the programme represents a very ambitious policy of modernizing Russia's shipbuilding industry. The goal is that the industry by 2016 is to be competitive and able to cover much of Russia's shipbuilding needs, and even conquer a 'significant share' of the world market.

Questions can be raised, however, about the size of the programme as well as its approach. Even if the sums are big, when spread out over the years and between the various sub-programmes, their contribution will not necessarily be strongly felt. But the main concern is with the approach. It is an attempt to force through modernization and innovation

⁶⁹ *Federal'naya tselevaya programma 'Razvitiye grazhdanskoy morskoy tekhniki na 2009-2016 gody'* (Federal target programme 'Development of civilian marine engineering for the period 2009–2016') Confirmed by Government resolution No. 103, 21 February, 2008.

⁷⁰ Attachment no. 5 'Measures' to the federal target programme.

by decree, which is reminiscent of the centrally planned economy. It is a top-down approach, where little is said about incentives for innovation from below. In defence of the programme, one can argue that, given the problem description in official documents, the situation in the sector is so serious that only a concentrated infusion of capital and concrete tasks from above can bring it back on its feet. But if this is true, the goals sound overly ambitious.

Also, the programme, as well as the strategy, treats the Russian shipbuilding sector as one whole. There are clearly big differences between yards, with some strong elements and some particularly weak points. The prospects for realization of the programme cannot be seen in isolation from the organization of the industry.

Reorganization

OSK

The other main element of the shipbuilding strategy is a comprehensive reform of state management of the naval industry. This reform entails establishing state holding company, the Unified Shipbuilding Corporation (*Obedinennaya sudostroitel'naya korporatsiya – OSK*).⁷¹ This will be the umbrella organization over three regional state-owned holding companies and one non-regional one, with special areas of competence within naval production.

The Northern shipyards will be daughter companies under the subdivision Northern Centre for Shipbuilding and Ship Repairs (*Severnyi tsentr sudostroeniya i sudoremonta*), located in Severodvinsk. This regional holding will include Sevmashpredpriyatie and Zvezdochka in Severodvinsk and several smaller (primarily military) yards and associated production companies.

The Western Centre for Shipbuilding in St. Petersburg will include Admiralteyskie verfi ('Admiralty yards'), as well as several smaller yards and companies as 100%-owned subsidiaries, and will also manage the 20.96% state share in Severnaya verf ('Northern yard'). The third holding will manage shipbuilding in the Far East. The fourth group of companies will be directly subordinate to OSK in St. Petersburg. They include the design bureau Rubin (100%) and state shares in the construction bureau Aysberg (24.5%).

The aim of the reform is to establish an integrated structure that gives the state full control over key decisions, but it is also clear that an important goal is to secure cooperation between yards.

An important part of the reorganization involves converting the yards which have until now been organized as federal unitary enterprises into

⁷¹ The corporation was established by presidential decree 21 March 2007 and officially registered with a charter capital of one billion roubles on 14 November 2007.

joint stock companies. A case in point is Sevmash in Severodvinsk. Apparently this process is taking longer than expected, and Vladimir Putin did not hold back his irritation in May 2008:

So far the governing apparatus of the corporation and its underlying daughter companies – the Western, Northern and Far Eastern centres for ship building and ship repairs – is not completely established. I would like to hear the reasons behind such a slow implementation of the delegated tasks. I remind you, that all organizational questions in connection with the creation of the Corporation must find a solution before 1 April 2009. That's what we agreed upon.⁷²

At any rate, Sevmash changed status and became a joint stock company on 1 June 2008, but it is evident that the reorganization process is not going smoothly. OSK has already gone through management changes because of this. It can be interpreted as a sign of the priority given to this reform that vice-premier Igor Sechin was appointed Chairman of the Board in May 2008.

It is still too early to tell exactly how the reorganization will be carried out. But the reform is very much in line with the strong centralization trend seen in Russia in recent years and a belief that central administrative agencies will be the most likely providers of a new and efficient structure in the shipbuilding complex through active intervention. The potential for future development is perceived as substantial. Moreover, the shipbuilding industry in Russia is clearly regarded as a sector of national significance, both militarily and within the civilian sector, justifying strong state involvement. This point is further augmented by the large military presence in Russian shipbuilding: military orders currently make up 77 per cent of the order books at Russian yards according to OSK.⁷³ Very few yards have an exclusively civilian profile.

Private shipyards

It must be noted though, that not all Russian yards are integrated in OSK. Three of the most important yards – Vyborg, Severnaya verf and Baltiyskij zavod in St. Petersburg – are still privately held. It is speculated whether the owners of these enterprises will be asked to sell their assets wholly or partly to the state.⁷⁴ The apparently most successful yards are in private hands and the government may want to include them in the state corporation to help develop the whole sector.⁷⁵

Baltiyskij zavod, along with a majority of shares in Severnaya verf and the design bureau Aysberg, is held by the private investment company United Industrial Corporation (OPK). OPK plans to merge Severnaya verf and Baltiyskij zavod at the former's site and within six years expand

⁷² www.government.ru/content/governmentactivity/mainnews/archive/2008/05/13/7379267.htm

⁷³ *Morskoy Biznis Severo-Zapada*, No.8, September 2007.
www.mbsz.ru/08/27.php

⁷⁴ 'Igora Sechina spustili s nebes na vodu', *Kommersant*, 14 May 2008.

⁷⁵ 'Presledovateli Yukosa ukhodyat v bol'shoe plavanie', *Kommersant*, 17 June 2008.

the capacity to be able to build ships up to 300,000 tons dw.⁷⁶ The South Korean companies Daewoo Shipbuilding and Marine Engineering (DSME) have allegedly agreed to cooperate in the establishment of the new yard.⁷⁷ Others doubt this.

The Vyborg shipbuilding company, owned by Kværner from 1997 to 2000, is now controlled by Bank Rossiya, which is said to have close ties to Gazprom. But the yard itself also has an old relationship with the gas industry. In the 1980s it built the *Shelf* series of semi-submersible platforms for Gazprom's predecessor, the Gas Ministry. More recently, in 2002, it built a CS-50 platform hull for Moss Maritime⁷⁸, and in 2007 work started on another CS-50 platform for SeaDragon offshore.⁷⁹ Clearly Vyborg had a strong position in Gazprom's tender for the new semi-submersibles. It is speculated that the yard's close relationship with Gazprom will protect it from inclusion in OSK.

But notwithstanding OSK, the structure of the shipbuilding industry is fluid, with prospects for new alliances and also new sites. There have for example been reports about talks between Aker Yards and Russian investors about establishing a new yard, either in Vyborg or Primorsk.⁸⁰

Important actors in the further development of Russian mobile offshore platforms and rigs as well as specialized ships are also the construction and design companies located in St. Petersburg including Rubin – Central Design Bureau for Marine Engineering; the Krylov Shipbuilding Institute, currently general constructor for the rigs under construction at Vyborg; Giprospetsgaz, fully owned by Gazprom and general contractor for the whole Shtokman development; the Central Construction Bureau Aysberg, designing icebreakers. They interact with the yards in various constellations.

The role of foreign interests

The Ministry's strategy makes little reference to the need for international collaborative programmes, which could allow for Russian insight into the technological capacities of other countries. The role of foreign companies in the development of Russian offshore industry is mentioned only once in the strategy, and then without much specification: 'In the field of civilian shipbuilding one expects a broad cooperation with foreign companies (Shell, BP and others) in order to develop means for utilization of the shelf resources in the North and in the Russian Far East.' It is recognized that in some instances topsides will come from abroad, with only hulls built in Russia. An of course in value terms the hull represents a much smaller share.

⁷⁶ 'Intervyu: Aleksandr Gnusarev, predsedatel' soveta direktorov Ob''edinennoy promyshlennoy korporatsii', *Vedomosti*, 13 June, 2007.

⁷⁷ 'Superverf' v Pitere poyavitsya k 2013 godu' *Izvestiya*, 16 May, 2008; Aker Yards to hold talks about shipyard building in the north-west of Russia, <http://br.ru.com/economics/business/aker-yards-building-shipyard-in-russia/>

⁷⁸ 'Vyborgu privychno', *Neft' i Kapital*, 4, 2008.p. 23.

⁷⁹ www.seadragonoffshore.com/PDF/SeaDragon_020707.pdf

⁸⁰ 'Rossiya sozdast shel'fovyy flot', *Izvestiya*, 12 May, 2008.

However, the strategy as a whole is strongly geared towards promoting a Russian naval industry able to meet the demands of national customers, and to a certain degree be able to compete effectively on the world market, on its own. In light of the backwardness of Russian naval industry today, this palpable lack of reference to international collaboration needed for future development points up what one may term a strong rhetorical discourse of national self-preservation in Russia today. Foreign (Western) interests are perceived mainly as ideological and economic competition – not as potential partners.

But even if the potential and role of foreign interests is not highlighted in policy documents, and even if the use of Russian yards remains a strong overall concern, there is still considerable scope for foreign involvement in various ways, as experience has shown.

The mammoth industrial complex of the Russian naval industry is not easily turned around, and will still be held back by systemic problems in the foreseeable future. This is a reality that has been acknowledged at the central level in Russia. In May 2008, Prime Minister Vladimir Putin was clear in his statement during a visit to the Admiralteyskie yard in St. Petersburg: "...foreign ships are built faster, are of a higher quality, and importantly – are still cheaper."⁸¹

In policy statements coming from the new Russian president Dmitry Medvedev it is possible to discern a critique of the strong tendency of central control and transfer of industrial assets to state companies, so dominant in Putin's second term. ‘.. any additional strengthening of the role of the state, increasing its presence in the economy is not foreseen. On the contrary, we will take action to reduce the presence of the state in the economy.’⁸² It is uncertain, though, if a real policy change is underway. And even if that should be the case, it will probably first affect or rather prevent new centralization and state take-over initiatives. Rolling back or radically changing the recently approved strategy for the shipbuilding industry would be far more complicated. That is unlikely to come about until weaknesses in the strategy are commonly recognized, and several years may be needed to come to this point.

The Military/Civilian Nexus: The Yards in Severodvinsk

The shipyards in Severodvinsk and on the Kola Peninsula were established to serve the Soviet Navy's Northern Fleet. While yards on the Kola Peninsula were primarily intended to serve and repair naval vessels, the largest Severodvinsk shipyard, Severnoye Mashinostroitel'noye Predpriyatiye (Sevmash), focused on production of submarines as well as surface ships and other military hardware. The other yard, Zvyozdochka, was set up for large-scale repairs and rebuildings. Sevmash remains about

⁸¹ www.government.ru/content/governmentactivity/mainnews/archive/2008/05/13/7379267.htm

⁸² ‘Russia vows to curb state's role in economy’, *International Herald Tribune*, 25 June 2008.

three times larger than the Zvyozdochka yard.⁸³ The two key yards at Severodvinsk have had a higher technological level than the Kola Peninsula yards, although all the yards were equally dependent on the military complex for orders.

The 1990s witnessed a steep decline in the economic situation at Russia's naval shipyards. The activities of the Northern Fleet – in the economic difficulties of the immediate post-Soviet period – were curtailed, along with the need for service and repairs. At the same time, repairs carried out by the yards and work commissioned was often done on credit, with the yards experiencing difficulty in getting the Fleet to pay.

The question of diversification of the naval shipyards to serve broader purposes was discussed prior to the dissolution of the Soviet Union. However, the deteriorating social and economic situation of these Northern naval 'company towns' and yards became particularly acute in the post-Soviet period. Throughout this long and circuitous discussion of conversion/diversification, the emphasis has been placed on dual purposes, maintaining yards that could meet both military and commercial demands. The conversion process can be described as transpiring in a haphazard fashion, with many preconditions and restraints (large staffs, unique technology, unclarified relationship to the state and issues of protecting state secrets, etc.). Regardless, Sevmash and Zvyozdochka have certainly taken steps in the direction of commercialization and are consequently of interest to understanding the role that naval shipyards may play in the emerging Russian offshore industry.

The two most prominent offshore-related projects at the Severodvinsk yards (the Arkticheskaya platform at Zvezdochka, and the Prirazlomnaya platform at Sevmash) have been discussed earlier. Neither of them can be regarded as successful.

Another negative development was the aborted contract with Norwegian shipowner Dan Odfjell for a series of 12 chemical tankers, after Sevmash declared that it could not honour the agreed price formulae.⁸⁴ The original price was USD 500 million. Construction was also delayed, due to work on the aircraft carrier Admiral Gorshkov for India (see below).⁸⁵

There are, however, other stories. The Norwegian company Moss Mosvold Platforms⁸⁶ ordered two platforms from Sevmash based on Moss CS-50 design. The first platform was delivered in September 2007. The deck will be produced and the two sections joined in Italy (Saipem). A second is under production, and there is an option to build a series of

⁸³ For more detail on yards in the 1990s, see Arild Moe and Anne-Kristin Jørgensen, 'Offshore Mineral Development in the Russian Barents Sea', *Post Soviet Geography and Economics*, Vol. 41, No. 2, 2000.

⁸⁴ See e.g. 'Norwegian company cancels contract with Russian shipyard', *International Herald Tribune*, 26 February 2008.

⁸⁵ 'Norvezhtsy otvernulis' ot 'Sevmasha', *Kommersant*, 26 February 2008.

⁸⁶ A joint venture between Moss Maritime and Mosvold Shipping.

platforms. Sevmash sees these platforms as proof that the yard will take part in the further development of the continental shelf.⁸⁷

Over the past few years, Russian defence orders for domestic use have increased, which has had an impact on the naval yards of Severodvinsk in particular. In May 2007, after a meeting between high-ranking officers of Russia's navy and shipbuilding leaders, the navy stated that it planned to order a new aircraft carrier, and emphasized the need to have three or four new aircraft carriers eventually. A new nuclear submarine, the Yury Dolgoruki, which is a key strategic missile carrier of the Borei model, was launched in April 2007 after 12 years of construction plagued by stops and funding problems. The launching of this submarine has also been troubled by failures in the Bulava missiles with which it, as well as all submarines in this series, were meant to be armed. Today there are two nuclear submarines under construction in Severodvinsk – Alexander Nevskiy, due to be ready in 2009 after four years of construction, and Vladimir Monomakh, which was put under construction in 2006.⁸⁸ These submarines have been the topic of hot debates,⁸⁹ with questions raised as to the realism of the planned production schedule. Industry sources say that delays in the completion of the vessels is due to a lack of funding – a claim denied by the relevant ministry officials.

In 2007, weapons exports from Russia grew by USD 1 billion, or 5%. This is continuation of a trend of steady growth since 1998, with Putin stressing state support for weapons export projects and various reorganizations to streamline and restructure the country's weapons production entities.⁹⁰ In 2006, Russian state corporation Rosoboroneksport signed an agreement with the Chinese Ministry of Defence for the production of eight submarines, five of which are to be constructed at Admiralteyskie verfi and two at Sevmash (one addition is meant to be built at Krasnoye Sormovo, Nizhniy Novgorod, on the Volga).⁹¹

Sevmash in particular has played a role in this increasing export of Russian-made weaponry. An import project has been the reequipping and updating of the Admiral Gorshkov aircraft carrier for India, a deal in which the carrier was provided for free under the condition that it be rebuilt at Sevmash and armed with Russian jets.⁹² Interestingly, this project has encountered multiple delays, and it appears that the cost of rebuilding it was underestimated. Delivery date has been changed from late 2008 to 2012/13 and the costs have risen from USD 1.5 billion at contract-signing in 2004 to 2.5 billion in early 2008. India has rejected the new price, and negotiations are continuing. The affair has contributed

⁸⁷ 'Platforma otpravlena zakazchiku', Press release from Sevmash, 29 September 2007.

⁸⁸ *Kommersant*, 20 April 2007. Navy to Have Alexander Nevsky in 2009.

⁸⁹ See, for example, *Kommersant*. 04 July 2006. Coming at You from Underwater.

⁹⁰ *Kommersant*, 12 February 2008. Military-Technical Rearrangement.

⁹¹ 'Russia Builds Chinese Navy'. *Kommersant*, 22 December 2005.

⁹² *Kommersant*, 21 August 2007. Admiral Gorshkov Aircraft Carrier Makes No Haste.

to souring the relationship between Russia and India.⁹³ Such difficulties in meeting planned timelines and cost estimates even in projects for which Sevmash was specifically designed have raised concerns about the commercial viability of the yard.⁹⁴

Also the planned construction of a series of floating atomic power plants has run into problems. The construction of the first plant was delayed and the price increased. In August 2008 Rosenergoatom, who ordered the plants, annulled the contract and transferred the order to Baltiyskiy zavod in St. Petersburg.⁹⁵ Substantial compensation payments will be sought from Sevmash.

New focus on Severodvinsk?

In parallel with the increased emphasis on the shipbuilding industry and the role it has to play in the Russian economy, witnessed in winter/spring 2008, special attention was given to Sevmash. In April 2008, a plan to provide greater governmental support to the Sevmash plant was announced by the Russian Federal Industry Agency, Rosprom, after the problems of the yard were discussed at a governmental meeting where the Sevmash director, Nikolai Kalistratov, pointed out the lack of federal investment over the past twenty years.⁹⁶ He highlighted this lack of investment as especially problematic now that the yard is being assigned new potential projects – by which he was probably referring to the development and construction of offshore technology.⁹⁷ The plan is meant to address problems of efficiency, performance, and modernization, increasing the yard's ability to fulfil both civilian and military orders. The new governmental plans were followed by a visit of a Gazprom delegation to Sevmash and Zvyodochka, including an inspection of the platforms Prirazlomnaya and Arkticheskaya. Gazprom projects are considered 'priority projects', but the northern yards recognize that they are in competition with Vyborg, creating a 'more complicated situation'.⁹⁸ Sevmash, like several other Russian yards, also has problems finding enough qualified personnel. To attract workers to the Prirazlomnaya platform, salaries have been raised to top levels at the yard.⁹⁹

Gazprom's no. 2 Aleksandr Ananenkov, during his visit noted some of the drawbacks in efforts to use Russian shipyards for building offshore infrastructure. He pointed out that while the caisson for Prirazlomnoye could be built at Sevmash, the entire upper construction of the platform would have to be done by foreign companies and suppliers. A further issue was the lack of experience in building drilling rigs; he indicated that Gazprom wanted to work with Russian construction companies, but at the

⁹³ 'Khindi-Rusi-Bay-Bay!' *Kommersant Vlast*, 28 July 2008.

⁹⁴ *Kommersant*, 12 February 2008. Military-Technical Rearrangement.

⁹⁵ 'Golovnaya PATES uplyla s "Sevmasha"', *Kommersant*, 11 August 2008.

⁹⁶ 'A salvation plan for Sevmash'. *BarentsObserver*, 8 April 2008.

⁹⁷ 'Sevmashy – Gospoderzhka' Press release from Sevmash, 2 April 2008.

⁹⁸ 'Gazprom nam v pomosch?' *Severnaya Nedelya*, 29 April, 2008.

⁹⁹ At an average of 30,000 roubles per month – approximately USD 1,200. Press release from Sevmash, 27 June 2008.

same time had a timeline for infrastructure needs that will increase over the next three to five years.

The long history of conversion of the yards in Severodvinsk is far from over and serious problems in civilian as well as military production there have been exposed. But there is no reason to believe that Russian authorities will give up the yards. Their continued operation is important both for military needs and the role they play in the region. Even if military production remains the main activity, construction for offshore activities is seen as a promising branch. The inclusion of the yards in the new state holding OSK is, if anything likely to lead to attempts to make the civilian production more efficient. This could for example mean a relaxation of the strict security arrangements, e.g. the need for foreign visitors to seek special permit to visit Severodvinsk several weeks in advance,¹⁰⁰ a procedure clearly at odds with a dynamic business development.

Even if the centre of Russian offshore construction now clearly is found in St. Petersburg and Vyborg, the northern yards will play a role. And Russian authorities are ready to support them. Foreign companies who find use for their competence and production capacity may also earn some credit points in the corridors of power in Russia.

Summing up: Discouraging Rhetoric, Inviting Prospects?

- Presently most attention in the Barents Sea is given to the Shtokman project. Experience from development of this field, where there are still many uncertainties, will have large consequences for the further development program and relations with foreign companies. The Prirazlomnoye oil field may come on stream in 2010 and be the first producing field in the Russian Barents Sea.
- The exploration activity going on is fairly limited, but over the last few years there has been a struggle over licenses and control over exploration capacity. The trend towards more state control was completed with new legislation in practice giving an offshore monopoly to Gazprom and Rosneft.
- The official plan is to increase the exploration activity. In the short term the Russian exploration drilling capacity is very limited, however. The lack of rigs overshadows another problem: manpower. This creates openings for foreign companies.
- In the medium term the goal of rapid development of the Arctic continental shelf has become intertwined with a comprehensive government effort to modernise the domestic shipbuilding industry to make it able to cover most of the needs offshore. We do not think these goals are fully reconcilable. Russia will either have to accept more

¹⁰⁰ Foreign representatives who regularly visit the yards can get permits for several visits, though.

foreign involvement, or scale down its offshore ambitions. We believe a combination of the two alternatives is likely.

- We already see that despite declarations of the need to use Russian contractors, when specific decisions have to be made, companies like Gazprom are ready to use foreign equipment and services to keep timelines.
- This means that there will still be room for foreign offshore and shipping companies, but that the total amount of activity on the continental shelf will not be as great as stated in official plans. Orders for foreign services are likely to be placed on short notice (only after it is clear that domestic alternatives are unavailable). With a tight international rig market Gazprom and other Russian operators may face very high costs.
- The situation in the Russian shipbuilding industry is widely recognized as being very serious. The government's efforts to revamp the sector through investment and reorganization have features reminiscent of Soviet times. There is a risk that the government's programme, while helping the weaker enterprises, may hold back the best yards.
- The fate of the privately-held yards remains uncertain, but there are developments involving foreign investment and cross-ownership that point in a more dynamic direction. The further development of government policies in the sector will depend not only on developments in the sector itself, but on the evolution of policy for state involvement in the economy in general.
- The heavy military component at many yards complicates the modernisation program. When capacity is constrained military orders tend to be given priority, causing delays for civilian projects. A strict security regime restricts the access of foreign partners and specialists at some yards.
- There is a lot of positioning going on within the shipbuilding industry and between yards and potential contracting parties, intentional agreements, plans for expansion. Not all plans are likely to be realised.
- Over the years there have been many examples of interaction between the Norwegian and Russian offshore and shipping cluster, including drilling services, construction of ships and rigs, shipbroking, management of yards in Russia, and placement of Russian orders in Norway. Experience gained from earlier business relationships will undoubtedly be valuable in the years ahead.
- Official Russian pronouncements are still characterized by the self-assured profile developed under president Putin. But just below the surface, even in public documents, a more sober assessment of the situation can be found. Foreign businesses able to understand the realities while also recognizing Russian sensitivities have the best chances to succeed.
- Nevertheless, most investments related to the Russian petroleum and shipbuilding sectors must still be characterized as high risk.

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