



Store Norske facing deep cuts, layoffs

60 percent drop in coal prices, reduction in demand fueled by global economic crisis

Sharply lower coal prices and demand are forcing Store Norske into immediate and longer-term layoffs and restructuring, with local officials saying they're uncertain of the impact as they reassess a potentially significant blow to Longyearbyen's economic base.

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Barentsburg coal company's use of funds inefficient
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Coal prices have fallen from \$165 a ton in 2008 to \$65 this year and the global economic crisis also means demand from Europe is sharply lower as steel plants using coal are reducing operations, said Store Norske CEO Bjørn Arnestad in an interview with *Svalbardposten*. He said the company needs to cut expenses 20 percent, including a reduction from the current 400 employees to 360 this year and 250 by 2015.

"We hope the dismissals all go through natural attrition," he said. "But with fewer available jobs on the mainland there are not as many departures as we had expected."

The announcement last week was "not a very big surprise" since a decline in coal production is already projected in Norway's long-term strategic plan for Svalbard released earlier this year, said Sigmund Engdahl, chief executive of the Longyearbyen Community Council.

Store Norske's 2007 annual report states there are "sufficient deposits in both the Svea and the Longyearbyen areas for approximately

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A 120-meter-wide balloon carrying radar and other scientific equipment lifts off July 1 from Longyearbyen, beginning a four-day journey across Greenland to take subsurface readings of Arctic terrain. Researchers with the Italian-led Sounding Radar (SoRa) project hope the data provides clues about the polar regions of Mars, where similar measurements have been taken. Photo by Andreas Umbreit.

Balloon tour of Mars?

Mission from Svalbard seeks similarities of planets' polar areas

Don't look for balloons over Mars anytime soon, but Svalbard is offering researchers wanting to know more about the Red Planet the next best thing.

A 120-meter-wide balloon carrying a radar system to analyze Arctic terrain completed a four-day voyage from Longyearbyen to Baffin Island, Canada, on Saturday. Studying Mars typically involves telescopes and rockets directed away from Earth, but those launching the balloon said there may be much to learn by looking down – way down, as much as three kilometers beneath the surface.

"It is a situation that could be similar to the Martian poles," said Enrico Flamini, head

of universe observation for Italy's space agency, Agenzia Spaziale Italiana, which developed and coordinated the project known as SoRa (Sounding Radar). "We have very good information from the Martian poles....In science you always need to make comparisons. The only thing we can do is take known equipment and take known measurements."

The balloon flight, delayed about a month due to high winds during the scheduled launch, coincides with the publication of findings from the Phoenix Mars Mission, which generated widespread headlines worldwide when scientists declared the planet had

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Summer school: Science rules

New Svalbard projects seek discoveries from amebas to space

Pity the teacher reading this collection of "how I spent my summer" papers.

Studying everything from molecules deep beneath the ocean to the expanse of outer space is again the focus of students and scientists from more than 20 countries spending their summer in Svalbard. Research activities have boomed in Svalbard in recent years and are still going strong this year despite the global economic crisis that has hurt coal mining and tourism, the region's other major economic activities.

A large reason is the United Nations Climate Change Conference in Copenhagen this

December, but economic and political considerations are also motivating many countries and organizations seeking an advantage as some say the Arctic is becoming the new global battleground for resources and knowledge. Nations such as China are planning expansions of their activities here and Greenpeace, in-between hanging protest banners on Mt. Rushmore and occupying coal-based power stations in Italy while G-8 leaders meet there, is in the midst of a two-month Arctic research cruise that will end in Svalbard.

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Editor

Mark Sabbatini

Copy editor

Kristan Hutchison

Psychiatrist

Irene Gallion

Mailing address

Icepeople

Vei 210 -2- 13

Longyearbyen, Svalbard

9170

Norway

Telephone

Norway: +47 41 51 46 38

U.S. +1 (970) 673-4472

E-mail

editor@icepeople.net

Web site

www.icepeople.net

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When we screw up you'll know about it – on the front page. One of the big complaints about newspapers is they tend to bury corrections and clarifications deep inside where few people who read the original article see them. If we need to fix something, an alert box on the front page will state what story is in error and where the full correction is printed.

Submitting material

Letters, columns, photos and other material are welcome, but we can't offer pay for published items since nobody here is getting paid at the moment. Submissions in electronic form (text, Word documents, JPEGs, etc.) are highly preferred, although typing and/or scanning of items will be considered on a per-case basis. We reserve the right to edit submissions for length, clarity, accuracy, libel and other reasons, but we will also make every reasonable effort to contact the author about any changes prior to publication.

Key figures for Store Norske

	1999 ¹	2000 ¹	2001 ¹	2002 ²	2003 ²	2004 ²	2005 ²	2006 ²	2007 ²
Production (1,000 tonnes)	404	632	1788	2 132	2 944	2 904	1 471	2 395	4 073
Number of employees at 31.12 – group	226	223	248	225	233	265	314	366	396
Sickness absence – group (percentage)	6,8	7,0	7,1	6,2	8,8	6,0	8,3	8,7	8,9
Injuries involving absence	10	11	19	4	4	10	23	17	14
Turnover (NOK m)	124	223	557	687	940	1310	1132	1256	1854
Tonnes/employee	1787	2 834	7 209	9 474	12 633	10 960	4 684	6 544	10 285
Profit/loss before subsidies/taxes (NOK m)	-87	-176	-133	63	78	217	52	-111	153
Subsidies (NOK m)	87	154	136	0	0	0	0	0	0
Depreciation (NOK m)	30	97	136	32	62	82	65	101	152

This chart from Store Norske's 2007 annual report shows the company's growth between 1999 and 2007, when global prices reached record levels. A 60 percent drop in 2008 prices and a sharp reduction in European demand has the company looking to reduce expenses 20 percent, about 250 million to 300 million kroner, this year.

Record prices decimated by recession

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15–18 years of operation at current production levels." But the economic situation now is drastically different than in the report, when "record coal prices on the global market and an increasing demand for coal (are putting) Store Norske in an excellent position to make arrangements for the future."

An optimistic tone was also voiced less than a year ago in a report by the city analyzing Store Norske's economic influence.

"With the high price of coal we have today and with the production rate the company has gone from being a net support recipient to becoming a contributor to the state, and the company is expected to be debt free in 2008," notes the report published in October 2008.

Engdahl said the latest developments will be factored into an updated economic and social analysis scheduled for release this October.

"It will have an effect on Longyearbyen," he said. "It will not be isolated because many other companies are delivering goods and services to Store Norske."

The city's 2008 report, which analyzes a theoretical shutdown of Store Norske in 2012, states the company's activities account for 40 percent of the man hours worked in Longyearbyen. A shutdown would also result in the loss of half of the area's children, causing a significant blow to public institutions like schools as well as businesses.

"We have also shown that it is difficult to replace the potentially vanishing mining indus-

try by increasing the activity in other basic industries," the report notes. "A simultaneous doubling of the number of tourists, the number of researchers and the number of students could replace the mining industry quantitatively, but this would not give the same level of demand (secondary effects) directed towards private and public services, and it would have other impacts (i.e. a doubling of the number of tourists would probably be considered to have substantial negative impacts for the environment)."

The Norwegian government, in its long-term policy outline, states "coal mining continues to be the mainstay of this community... (and) should continue within the strict framework set by environmental legislation and commercial profitability."

"At the same time, coal mining is not a sustainable activity," the report adds. "It is also vulnerable to fluctuations in the price of coal. Unforeseen events may have a serious impact on operations. In view of this the government believes that an effort should be made to develop other activities such as knowledge, research and teaching, as well as tourism and other varied activities."

Store Norske's coal production increased from 400,000 tons in 1999 to nearly 4.1 million in 2007, according to the company's report. Employment rose from 226 to 396 during that period.

There's more! Visit www.icepeople.net for the complete story.

Agency: Barentsburg inefficiently using funds

The Arktikugol coal company in Barentsburg is being criticized by a Russian watchdog agency for spending 2.17 billion rubles of government funding inefficiently.

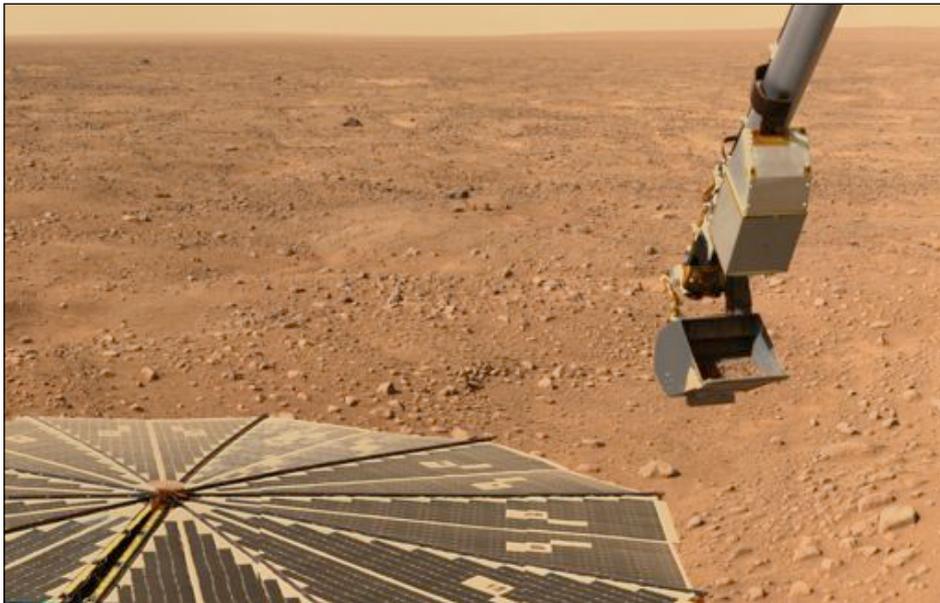
The Russian Accounts Chamber, analyzing expenditures between 2006 and 2008, stated Monday "there was no comprehensive program of streamlining and improving the efficiency of the Russian organizations on the Svalbard archipelago."

Among the problems, the agency notes, is an absence of coordination between agencies responsible for developing alternative activities

such as fish processing and tourism.

Concern was also expressed about the cost of emerging maintenance issues such as "sanitary norms and rules (and a) lack of treatment facilities."

Russian authorities have repeatedly stressed their intention in recent years to step up investments in Barentsburg, according to the *Barents Observer*. There were more than 2,400 Russians living in Svalbard in 1990, but mine closures and related problems have reduced Barentsburg's population to about 400, most of whom work for Arktikugol.



The Phoenix Mars Mission transmits images from the Arctic region of Mars during its five-month mission in 2008, which officials said revealed Earth-like climate patterns. Photo courtesy of NASA.

Balloon mission may clarify data from Mars

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Earth-like climate cycles, snow and perhaps life. The Phoenix lander spent five months analyzing soil samples and other data in the Martian Arctic, with 35 scientists from six countries co-authoring four papers in the journal *Science*.

Flamini said he hopes his mission can help provide information about the type and source of water bodies on Mars by comparing the balloon radar's readings to comparable Martian satellite data.

"The main payload of the SoRa mission consists of a very faithful reproduction of the SHARAD radar currently on board the Mars Reconnaissance Orbiter," he said. "This is a radar able to penetrate the underground sound. This way you can acquire a set of reference data that can compare with those obtained by exploring the surface of the Red Planet."

It's unclear if the Martian radar detected water or ice, which SoRa data may be able to provide clues toward, Flamini said.

The SoRa balloon launched from Longyearbyen at about 2 a.m. Wednesday, reaching an altitude of 35 kilometers. The primary focus was radar readings taken above Greenland, with the unit collecting about 90GB of data a team of Italian scientists will analyze now that the unit has been recovered. The radar lacked the bandwidth to transmit in

real time, in part because the balloon's small payload capacity didn't allow for equipment capable of such transmissions.

A secondary mission of SoRa was measuring the thickness of Greenland's ice sheets to study the impact of global warming. Numerous similar studies have been done recently in the Arctic, including one published last week stating the sea ice between Svalbard and Greenland is at its lowest level in 800 years, but Flamini said the balloon's readings will help establish a more complete portrait.

"Crossing Greenland we can measure the entire thickness of the ice," he said.

Three minor experiments were also part of the flight, according to the Italian space agency: an instrument for capturing interplanetary dust in Earth's troposphere, a prototype accelerometer for a mission that will study the planet Mercury and a sensor for detecting gamma rays.

The minor missions got a boost from southerly winds that convinced the SoRa team to extend the flight until about 12:30 p.m. Saturday to the 77th parallel on Baffin Island, rather than the 80th parallel in Greenland, according to a statement from the space agency. Officials said they were also encouraged by the radar readings, despite some difficulties due to higher than expected internal temperatures during the flight.

HEADLINES STOLEN FROM SVALBARDPOSTEN

VERDENS NORDLIGSTE AVIS

Ancient cultural 'treasure' in found in Ny-Ålesund villa

Heritage workers were surprised to find wall paintings in a Ny-Ålesund villa used by explorer Roald Amundsen during the 1920s. They include depictions of the race for the North Pole and folklore murals. The discovery will alter plans to restore the villa to how it was during Amundsen's stay, since the paintings appears to be from the latter part of the 1930s. The hope is to complete to project by May 2011, the 100-year-anniversary of Amundsen's conquest of the South Pole.

Wrecked ship still leaking oil, officials seek quick removal

A wrecked Russian ship on Bear Island has leaked an undetermined amount of fuel intermittently during the past week, according to the Norwegian Coast Guard, which is assisting a salvage company evaluate the site. The *Petrosavodsk* ran aground May 11 on the south side of the island, one of the world's most pristine bird sanctuaries, with the captain and first mate found guilty of negligence. "The situation is serious and uncertain," a Norwegian Polar Institute researcher said, as leaks have occurred for weeks and appear to be increasing. The coast guard official said a crew to clean up diesel is at the site, but not been used so far, and hopes equipment to remove the vessel will be in place shortly.

Svalbard church to be on television series this winter

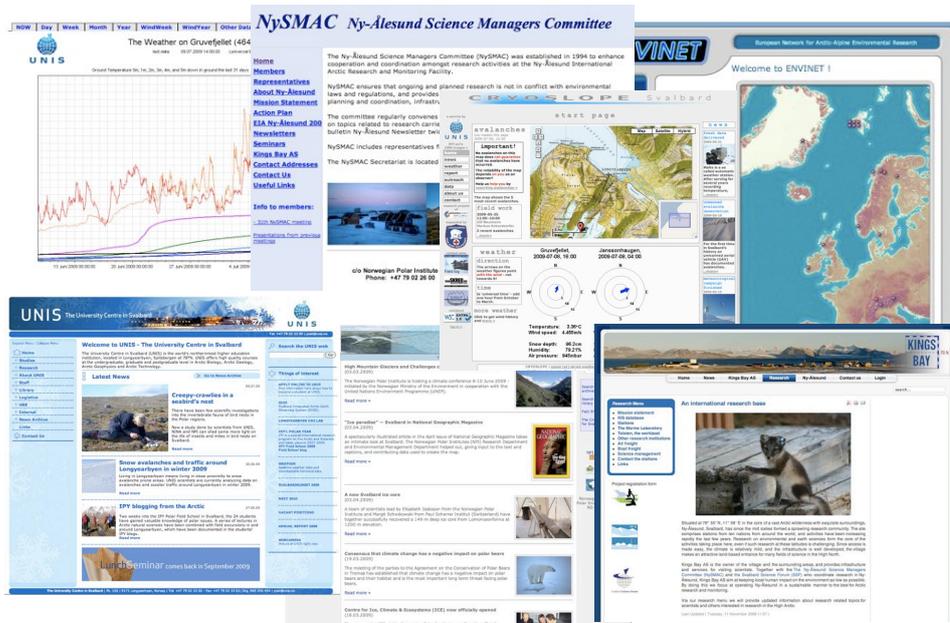
Four 30-minute TV programs featuring pastor Leif Magne Helgesen, with a focus on themes such as climate change and Christmas in the north, will be broadcast from Svalbard beginning Nov. 21 and ending during the international climate summit in Copenhagen in December. Planning is still underway, but filming may include a liturgy on the *Nordsyssel* vessel in October and a holiday visit to Hopen.

Weather forecast for Longyearbyen

Wednesday	Thursday	Friday	Saturday
Overcast. W winds at 11 km/h. High 6C (6C wind chill), low 3C (1C wind chill).	Clouds and sunshine. WNW winds at 9 km/h. High 6C (6C wind chill), low 4C (4C wind chill).	Partly sunny. Light winds. High 6C (6C wind chill), low 4C (4C wind chill).	Sunny to partly cloudy. Calm winds. High 6C (6C wind chill), low 4C (4C wind chill).

Extended forecast: Sunday, clouds clearing, 6C (6C), 3C (3C); Monday, sunny, 6C (6C), 4C (4C); Tuesday, partly cloudy, 7C (7C), 5C (5C); Wednesday, sunshine and patchy clouds, 7C (7C), 5C (4C).

Data provided by AccuWeather.com



A smorgasbord of English-language Web sites and blogs provide historic, breaking and real-time information about science projects in Svalbard. Among the main portals with links to sites are The University Centre In Svalbard (www.unis.no) and the Svalbard Science Forum (www.ssf.npolar.no).

Research getting easier to follow

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Just keeping track of the comings and goings is well-nigh impossible - to say nothing of understanding their research. But plenty of layman-friendly blogs, real-time visuals and other presentations are in the avalanche of data on the Web (the best starting points are The University Centre In Svalbard at www.unis.no and the Svalbard Science Forum at www.ssf.npolar.no). A considerable amount is in English and thanks the emergence of aids like Google Translate it's possible to get at least an idea of what's being written about in other languages - although their tendency to garble words can make writings look like a failing term paper from Bob's Internet Diploma Mill.

This summer's projects - and this list isn't close to complete - include:

- Sixteen scientists, along with five artists and two journalists, just completed a two-week cruise aboard the *Jan Mayen* gathering information about the temperature of Arctic waters and its effect on life beneath the surface, and are now spending three weeks at UNIS analyzing their findings. Known as the Arctic Tipping Points project, the main objective is to "identify the elements of the Arctic marine ecosystem likely to show abrupt changes in response to climate change and will establish the levels of the corresponding climate drivers inducing regime shift in those tipping elements." Extensive background and individual updates are at www.eu-atp.org.

- Discovering a new invertebrate species not previously observed on Svalbard was the highlight of a crash course in roughing it and blogging it involving 24 international students attending the IPY Polar Field School for two weeks ending July 3. Participants divided their time between field work and lectures about pretty much the whole range of Arctic research including glaciology, land and marine biology, oceanography, meteorology, geology, and cli-

mate change. The students' blogs are at the UNIS Web site.

- A weeklong hands-on training school about various methods of observing Earth to measure climate change was completed July 4 at UNIS by 45 international PhD students and post-doctoral scientists. Space and weather agencies collaborated on instruction related to climate modeling, various elements of the Arctic ecosystem and astronomical observations. Computing exercises from the sessions, as well as those from the 2008 session, will be featured at the school's Web site (<http://school.nilu.no>).

- Eight Svalbard Rock Ptarmigans have been fitted with satellite transmitters in the hope of discovering their migrating routes and wintering grounds. They are the world's northernmost resident herbivorous birds and therefore must cope with extreme seasonal variations, according to Norwegian Polar Institute and University of Tromsø researchers cooperating on the project. There are claims the birds are capable of long-range migration to suitable feeding areas, but no data about their migration routes and habitats exists for the Arctic winter period from October to March. They can be followed at <http://svalbardrype.npolar.no/en/satellite-tracking.html>.

- Avalanches and snowmobile traffic patterns during the past winter are being analyzed by four scientists at UNIS to determine how climate patterns affect the buildup of cornices and triggering of slides. In addition, hazards are being examined since a majority of the 203 avalanches recorded in the vicinity of Longyearbyen occurred along snowmobile paths. Follow-up research is planned next winter by placing wind-blocking baffles on the edge of plateaus to see if they reduce the buildup of large cornices. Information about the project is at www.skred-svalbard.no.

There's more! Visit www.icepeople.net for the complete story.

What's up

July 16

7 p.m.: Exhibit opening, watercolors of Arctic fossils and plants by Hedvig Wright Østern, Galleri Svalbard. On display until Aug. 31.

July 19

8 p.m.: Movie: "Terminator Salvation," U.S. action/adventure, ages 15 and up. Huset.

July 23

7 p.m.: Solo concert by free improvisational jazz pianist Maarten Regtien, Galleri Svalbard.

July 28

8 p.m.: Movie: "Star Trek," U.S. science fiction, ages 11 and up. Huset.

Aug. 2

8 p.m.: Movie: "Transformers," U.S. action/adventure, ages 11 and up. Huset.

Aug. 9

8 p.m.: Movie: "Knowing," U.S. action/drama, ages 15 and up. Huset.

Aug. 16

8 p.m.: Movie: "Drag Me To Hell," U.S. horror/thriller, ages 15 and up. Huset.

Aug. 23

6 p.m.: Movie "Coraline And The Secret Door," U.S. animated fantasy, ages 11 and up. Huset.

Aug. 27

2 p.m.: Meeting of cultural and leisure enterprise board. Næringsbygget 1, "Tundra" room.

Aug. 28

9 a.m.: Meeting of the board of enterprise growth. Næringsbygget 1, "Tundra" room.

Aug. 30

7 p.m.: Movie: "Harry And The Half-Blood Prince," British adventure/family, ages 11 and up. Huset.

What's online

Icepeople.net provides daily updates of news about Svalbard and the world's polar regions, plus extras for articles from the print edition. Among the latest news:

- *Svalbard sea ice lowest in 800 years*
- *Norway sees a future in windmills*
- *China ramps up Spitsbergen research*
- *G-8 drops goal of halving CO2 by 2050*
- *Climate change is shrinking sheep*