The Inspirational Life of Fridtjof Nansen – ‘The Daring Viking’

Fridtjof Nansen
1861-1930

Fram: 1890’s Kodak Brownie Camera
The Inspirational Life of Fridtjof Nansen – ‘The Daring Viking’

Events of Period
U.S. Civil War
1861-1865

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Fridtjof Nansen 1861-1930
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Events of Period

- U.S. Civil War
  1861-1865
- 2nd Industrial Rev
  1880’s
- World War I
  1914-1918
- League of Nations
  1919
- Rise of Bolshevism
  1920’s

Fram: 1890’s Kodak Brownie Camera

Fridtjof Nansen 1861-1930
The Inspirational Life of Fridtjof Nansen (1861-1930)

* Nansen’s Youth
* Education/Sportsman
* Early Career Accomplishments
* First Research Cruise
* Greenland Crossing
* Farthest North and Accolades
* More Oceanographic Research
* Statesman and Diplomat
* Humanitarian - Nobel Peace Prize
* Lasting Impact of a Remarkable Life
Nansen’s Youth

* Fridtjof Nansen born near Christiania (now Oslo) Norway Oct. 10, 1861

* Name Fridtjof (‘peace thief’) from saga of a daring Viking (Very fitting!)

* Ancestor Hans Nansen, b. 1598, was sailor, Arctic explorer, mayor of Copenhagen

* Father: lawyer, financier; strict parent

* Mother: widow with 5 children – avid skier

* Nansen skied across Norway to participate in a ski competition in 1884, a remarkable feat noted by Norwegians.

* In youth, he loved the outdoors – skating, skiing, hiking, fishing
Early Career/First Research Cruise

* Entered Univ. of Christiania (Oslo) at age of 18 in 1880

* Chose zoology to do field work

* First research cruise on working sealer *Viking* 1882 in Norwegian Sea

* Did ocean and ice observations/
  Fit in as excellent harpooner!

* Vision of crossing Greenland!
Nansen’s First Job and His Ph D Work

* Bergen Museum Curator at age of 20 in 1882 – lived with family that treated lepers

* Studied nervous system of hag fish

* Developed neuron theory for Ph. D. at Univ. of Christiania – became one of founders of neurology, colleagues won Nobel Prize in Physiology and Medicine in 1906 for related work, Nansen’s papers still quoted (‘Nansen fibers’)

* Ph.D. ‘Disputation’ (Defense) held April 28, 1888

* Nansen left for Greenland crossing days later, after his confrontational presentation to scurvy expert, not knowing if he had passed!
For Perspective: What Items, Information and Technologies Were Not Yet Available to Polar Explorers (1850 – 1920’s)?
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2008 North Pole Web Cam
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www.baffinbabes.com/
Nansen’s Team for First Crossing of Greenland – ‘A Ski Trip’ – 1888 and Nansen in a Crevasse
Nansen’s First Crossing of Greenland – ‘A Ski Trip’ – 1888

* Greenland is about size of the U.S. east of the Mississippi R.
* Its ice cap is up to 10,000 ft. deep, mtn. heights of 8000 ft.
* Temps down to -13°F (-25°C)
* Winds of up to 80 mph
* Rowed 150 mi up east coast dist. of ~345 mi (Umivik to Godthaab) covered in 41 days

Why?
+ Adventure & Exploration
+ Science
+ Anthropology

Balto and Sverdrup
Views of Greenland that Nansen and His Team May Have Seen on Clear Days
Views of Southeast Greenland – Images provided by Curt Mobley
Nansen and team with Inuits in Greenland.
Learned much from Inuits.
Impacts of the First Crossing of Greenland

* Strategy – Trek westward – not eastward!

* No path of retreat! Forward = Fram

* Nansen learned how to explore polar regions – Inuits shared vital experiences – Nansen wrote about anthropology of Inuits

* Men pulled sledges – no dogs, though desired

* Bolstered confidence to reach poles and Norwegian pride/nationality

* Popularized recreational skiing/ski equip./1st Nordic Games in 1901, 1st winter Games in 1920

* Brought home sledge dog, Kvik

* Book a big international success/very positive writing, not complaining about conditions – monies provided living/research funds

* Interestingly, Nansen said he had trouble writing – despite the fact that he wrote several very long, readable, and highly acclaimed books!
Nansen’s Attempt to Reach the North Pole

• A Race to the Poles (turn of the century equiv. of the space race between Russia and the U.S. in ~1960’s)/Foolhardy/Doubters

• The Strategy – Drift in ice toward North Pole with Arctic Current (Henrik Mohn; Debris of the *Jeannette*) – funds from gov’t. and pvt. sector (i.e., Cadbury chocolate!)

• The techniques – The *Fram* and crew keys

• Use of sledge dogs (Kvik, the lead!)

• Preparations vital – planned for 4-5 year expedition (critics expected failure)

• *Fram* departed Christiania June 24, 1893

• *Nansen returned August 13, 1896 and Fram* returned October 26, 1896, ~3yrs later
Map showing projected (red) and actual (solid dark) paths of *Fram* and crew and the return path of Nansen and Johansen (dashed dark).

Design of the *Fram (Forward)*, launched in 1892, by Nansen and Colin Archer

- Length of 128 ft, width 43 ft (crow’s nest at 102’ to view ice paths)
- Reinforced for ice
- Rounded bottom, to lift onto ice (retractable rudder and propeller)
- Coal/steam and sail powered schooner (rather than square-rigger)
- Wind mill for electricity generation
- Record for cruises furthest north and south (Amundsen to S. Pole)
Fram Museum in Oslo, Norway

Fridtjof Nansen
Otto Sverdrup
Raold Amundsen
Life on *R/V Fram*

Crew of 13 was onboard *Fram*, mostly locked in ice for 3-year Arctic expedition.

Otto Sverdrup was Capt., but Nansen was in charge/important

*Fram* had to be abandoned once because of crushing ice – but was spared and reboarded!
Fram locked in ice.
Note the sledge dogs. Started with 34 East Siberian Huskies/mix + Kvik; some bjelkiers = all white (Nansen wanted more; reach NP?) and crew building ice dog houses.
Nansen team in camp, with sled dogs and their ice dog houses, and using their sailing sledge.
Nansen and his sled dogs.

*Kvik* was his favorite. In first litter, she gave birth to 13 pups, one for each *Fram* crew member.
Nansen and crew of *Fram* doing lead line depth sounding, measuring temperature and ice thickness, and observing an eclipse.
Anton Amundsen with a Nansen-Petersen water sampler; used widely from 1930-1980’s. *Fram* team members protecting magnetometer and selves from polar bears.
Fram crew measuring barometric pressure, other meteorological variables, and using theodolites and sextants for position.
Nansen’s *Fram* Expedition toward the North Pole 1893-1896

The red oval indicates where Nansen and Hjalmar Johansen went on foot to approach the North Pole (86° 14’), then 600 mile/146 day trek to Franz Joseph Land.
Nansen and Hjalmar Johansen bidding good-byes to rest of crew on quest to reach the North Pole in Mar. 1895. They made it to $86^0\ 14'\ N$, ~225 nt mi from NP in April 1895. Used sledges, kayaks, and 28 dogs.

Nansen and Johansen’s arrivals at Frederick George Jackson’s camp in the Franz Joseph Land Islands one year later, June 1896, not knowing where they were until the end of the trek. 1st time on land in 2yrs.
Review of the *Fram* Expedition and the Ice Trek of Nansen and Johansen

**Issues:**
- Navigation (long., clocks stopped)
- Fresh water
- Heater for food/warmth
- Polar bears (meat prevented scurvy)
- Cold temperatures (minus 70°F)
- Windy conditions (>80 mph)
- Varying snow and ice conditions
- Limited food rations
- Boredom (only an almanac to read)

Note that Nansen and Johansen went only 17nt mi further north than Fram and arrived in Norway 1 week before Fram (Aug. 13, 1896) after 3 year expedition.
A postcard honoring ‘Fridtjof.’

Nansen and team celebrating Norwegian Constitution Day, May 17.

Painting of an ice floe by Nansen.
Fram’s Triumphant Return from Near the North Pole

The inlet of Pipervika in Christiania decorated for the return of Fram. Photo by H. Aschehoug & Co.

Gymnasts formed an impressive triumphal arch for Fram’s return. Photo by H. Aschehoug & Co.
Summary of Nansen’s Scientific Accomplishments

A founder of neuron theory

Father of modern polar exploration/mentored Amundsen, Shackleton, Scott

Discovered deep Arctic Ocean Basin & Arctic Current passing near North Pole

Invented water sampler and current meter

Observed internal gravity waves/‘dead water’ (Ekman lab study)

Discovered ‘spiraling’ currents (Ekman Spiral theory) / Studied Gulf Stream

Early work on glacial rebound problem (land rises as ice retreats)

Baseline ocean-ice-atmospheric data obtained (climate change relevance)

Suggested sunspots’ role in climate change (theory now receiving credibility)
Nansen returning to a hero’s welcome on return from *Fram* Expedition in Christiania (Oslo)

Nansen lectured around the world; friend of influential people, kings, queens, heads of state, U.S. Presidents (incl. Teddy Roosevelt)
Nansen with wife Eva, family, and as Norway’s Envoy to London.

He would likely have become 1st President of Norway as a republic, but he preferred monarchy. Friend of King Haakon VII.

His admirers later wanted him to become Prime Minister.
Nansen with Raold Amundsen (Norway) in 1926 after Amundsen led 1st expedition to reach the South Pole using Fram (preceded Scott and Shackleton of GB). He later crossed North Pole in a dirigible. Likely, truly first as well.

If Norway could have claimed both Poles, the Sun would never have set on the Norwegian ‘empire’!

Nansen co-founded an anti-socialist organization. Here he was speaking against Communism in 1928 before his death in 1930.
Below: Nansen as League of Nations High Commissioner & 1922 Nobel Peace Prize winner. He suggested someone else for Prize; gave prize funds for Soviet agriculture.

2nd Peace Prize was given to the Nansen International Office of refugees, 1938.

Nansen with repatriated orphans near Alexandropol, Armenia (Mt. Ararat) 1925.
Nansen as Statesman, Diplomat, Humanitarian

Leader for peaceful Norwegian independence from Sweden (1905) (requested to be Prime Minister of Norway; preferred monarchy and declined)

Norwegian envoy in London (1906-1908)

Negotiator for Norwegian Neutrality and end of Allies’ blockade (~1917-1918)

Armistice of WW I (1918)

League of Nations Delegate (~1917-1918)

League of Nations High Commissioner (for refugees) (~1920)

Repatriation Work for 450,000 WWI Prisoners (1920)

Nansen Passport (1921) repatriating millions of people (~1920)

Food for Russian Masses (7-22 million people saved; 1921-1922)

Treaty of Lausanne & Armenian homeland work on behalf of 100,000’s (1920’s)
Further Reading

* A Passion for Danger, Francine Jacobs
* Nansen, Roland Huntsford
* The First Crossing of Greenland, Fridtjof Nansen
* Farthest North, Fridtjof Nansen
* Fridtjof Nansen in the Frozen North, S.L. Berens
* National Geographic Jan. 2009 (2 articles)
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Kiki and Theodore Nansen
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Theodore Nansen and Mia
Extra Slides
A neuron, also known as a neurone or nerve cell) is an electrically excitable cell that processes and transmits information by electrochemical signaling, via connections with other cells called synapses. Neurons are the core components of the nervous system, which includes the brain, spinal cord, and peripheral ganglia. A number of specialized types of neurons exist: sensory neurons respond to touch, sound, light and numerous other stimuli affecting cells of the sensory organs that then send signals to the spinal cord and brain. Motor neurons receive signals from the brain and spinal cord and cause muscle contractions and affect glands. Interneurons connect neurons to other neurons within the same region of the brain or spinal cord.

Drawing by Santiago Ramón y Cajal of neurons in the pigeon cerebellum. (A) Denotes Purkinje cells, an example of a multipolar neuron. (B) Denotes granule cells which are also multipolar.

Nobel Prize in Physiology or Medicine (1906)
What was happening during Nansen’s lifetime (1861-1930)?

1810’s
Sir John Ross Arctic voyage looking for NW Passage with Sir James Clark Ross
1818
John Franklin’s Arctic expedition, 1918
John Franklin’s 1st Canadian expedition, 1919
Sir James Clark Ross did 4 Arctic voyages with Sir William Parry 1819-1827
James Ross locates position of magnetic NP 1831 w/Uncle John

1820’s
Robert McClure discovers Northwest Passage
William Edward Parry reached 82 45 in 1827
John Franklin’s 2nd Arctic expedition, 1823

1830’s-1840’s
Sir James Clark Ross 1839-43 did Antarctic exped. charting continent
Sir James Clark Ross discovered Ross Sea and Ross Ice Shelf in 1841
Franklin’s Northwest Passage lost expedition 1845-1848
What was happening during Nansen’s lifetime (1861-1930)?

1832
James Ross locates position of magnetic NP

1850
Robert McClure discovers Northwest Passage

1860’s – Ages 1-10
Cultural, political, social unrest in Europe and U.S.
U.S. Civil War – 1861-1865
Alfred Nobel creates dynamite (Nobel Prizes established later)
Jules Vernes' two-part novel "The English at the North pole" (1864) and its sequel "The Ice Desert" (1866) featured a ship called the "Forward." Not known if Nansen read these.
Hall’s 1st Arctic expedition – Baffin Island 1860-1863
Hall’s 2nd expedition to King William Island, search for Franklin
HMS Challenger Expedition - 1872-1876
Arctic exploration underway, many disastrous losses

1870’s – Ages 11-20
British Empire continues but about to decline
Henrik Ibsen (Norwegian releases A Doll’s House)
Telephone and light bulb invented
DeLong’s Jeannette expedition lost in Arctic 1879
Charles Hall Arctic expedition – Hall poisoned in 1871
What was happening during Nansen’s lifetime (1861-1930)?

1880’s – Ages 21-30 Early part of *Gilded Age*
*Ill fated Greely polar expedition*
*Nansen’s first research cruise on sealer Viking 1882*
*Robert Peary’s 2 expeditions in Greenland in 1886 and 1891*
*PhD Thesis completed in 1887*
*Nansen crossed Greenland in summer 1888*

1890’s – Ages 31-40
*Economic Panic of 1893*
*Gold Rush in Alaska*
*Radioactivity and X-Rays discovered*
*Nansen observed rightward deflection of ice leading to Ekman Spiral in 1893 Theory*
*Nansen’s Farthest North expedition on Fram 1893-1896 (record lasted 5 years)*
*Solomon Andree’s disastrous balloon flight toward N. Pole 1897*
*Otto Sverdrup’s Fram expedition in Canadian Arctic 1898-1902*
*Nansen helped establish Int. Council for the Exploration of the Sea in 1899 (still a major organization)*
1900’s – Ages 41-50
Radio invented
Nordic Winter games in Sweden, 1901
Ekman Theory developed using Nansen’s obs. 1901
Scott-Shackleton Antarctic trek 1901-1904
Amundsen traverses NW 1903
Norwegian Independence from Sweden (1905)
Norway claims Greenland, but Danes retain it
Based on International Justice Court (1905)
Cajal and Golgi receive Nobel Prize in 1906
Appointed envoy to London 1906
Amundsen traverses Northwest Passage in 1906
Frederick Cook claims North Pole in 1908
Peary reaches 86 30N in 1909
Nansen’s wife Eva died in 1907
Kodak Brownie camera invented – Nansen photos
Frederick Cook (U.S.) claims to reach N. Pole in 1908
Shackleton reaches 88 23 S (97 mi from NP) Jan. 1909
Peary came within 5 nt mi of North Pole April 6, 1909
(TV movie Honor and Glory)
1910’s – Ages 61-60
European militarism – WW I (1914-1918)
Wegener’s Continental Drift Theory
Amundsen reached South Pole Dec. 14, 1911
Johansen commits suicide in 1913 (prob. w/Amundsen)
(Nansen let him use Fram and gave him $20K)
Robert Falcon Scott reaches S. Pole Jan. 17, 1912/
dies in 1913 disaster
(Kathleen Scott sculptor, socialite, studied w/Rodin knew Picasso)
Amundsen offered ½ of his sled dogs to Scott!
Movies:
Scott of the Antarctic – made in 1948
The Last Place on Earth -1985 Scott/Amundsen
Shackleton’s Trans-Antarctic expedition ends 1914-1917
in disaster in 1917, but all hands safe.
Movies:
The Endurance
Shackleton’s Antarctic Adventure
Negotiated end of embargo of Norway 1917-1918
Became League of Nations High Comm. 1918
Amundsen traverses NE (Northern) Passage 1918-1920
Helped to negotiate Anglo-Soviet Trade Agree. 1919
1920’s – Ages 61-69
Roaring 20’s in U.S./Prohibition
‘Christiania’ name changed to ‘Oslo’ in 1925
Lindbergh flies across Atlantic
Shackleton dies on last Antarctic expedition 1921
Negotiated repatriation of 450,000 WWI prisoners in 1920
Led effort to repatriate refugees – ‘Nansen Passport’ 52 nations agreed
Led relief efforts for 7-22 million Russians - 1921
Nansen wins Nobel Peace Prize in 1922
1st designated Winter Games in Chamonix, 1924
Co-founded ant-socialist society in 1925
Treaty of Laussane – Armenian relief and repatriation in mid-1920’s
Amundsen-Nobile cross N. Pole in dirigible Norge (1st to reach N. Pole) in 1926
Richard Byrd and Floyd Bennett claims to reach N. Pole (disputed) in 1926
Amundsen died during plane search for Nobile (Italia dirigible) near North Pole in 1928; see movie The Red Tent – 5 nations, 23 planes, 20 ships, dog sled teams
Richard Byrd expedition to Antarctica 1928

1930’s
Nansen International Office for Refugees receives Nobel Peace Prize in 1938
For continuing Nansen’s work as High Commissioner
Some Other Noteworthy Polar Events >50 yrs after Fram Expedition

Pavel Goriyenko and 5 others step on Npole after landing a plane thre in 148
Submarine *Nautilus* passes under North Pole August 9, 1958
U.S. Nuclear Submarine *Skate* surfaces at North Pole March 17, 1959
Ralph Plaisted makes land conquest of N. Pole in 1968
Sir Wally Herbert led team across Artcic Ocean 1968-1969 with no airlifts
Soviet nuclear icebreaker Arktika made it N. Pole 1977
Manhattan voyage through Northwest Passage in ????
Russian Submersible *Mir II* plants Russian flag beneath North Pole August 2007

Note: Npole tms range from -45F to -15F in winter and average around 32F in
summer

Sea ice near pole is 6-9 feet thick

Ice cover in winter over Arctic is about the same area as the U.S. and decreases to
½ this size in summer
Some estimate ½ of Greenland and Arctic ice could be gone by 2100?????? So
says the Arctic Climate Assessment report of November 2004.
What world events occurred during Nansen’s lifetime (1861-1930)?

1861-1865 – U.S. Civil War

1880’s – 2nd Industrial Revolution

1914-1918 – World War I

1920’s Rise of Russian Bolshevism - Communism (Lenin)
The first international multi-sport event specifically for winter sports were the **Nordic Games**, held in 1901 in Sweden. The Nordic Games were organized by General **Viktor Gustaf Balck**.[1] They were held again in 1903, again in 1905, and then every four years there after until 1926.[1] Balck was a charter member of the **International Olympic Committee** (IOC) and a close personal friend of **Olympic Games** founder **Pierre de Coubertin**. He attempted to have winter sports, specifically **figure skating**, added to the Olympic programme.[1] Balck was unsuccessful until the **1908 Summer Olympics** in **London**, which featured four figure skating events.[2] **Ulrich Salchow** (10 time World champion) and **Madge Syers** won the individual titles.[3]

The first Olympics after the war, the **1920 Games** in **Antwerp** featured **figure skating** with the addition of **ice hockey**.[4] At the **IOC Congress** held the following year, it was decided that the organizers of the **1924 Summer Olympics**, France, would also host a separate "International Winter Sports Week", under the patronage of the IOC. This "week" (it actually lasted 11 days) of events in **Chamonix** proved to be a great success. More than 200 athletes from 16 nations, competed in 16 events.[6] Fewer than 15 of the athletes were women and they were only allowed to compete in figure skating events.[4] **Finnish** and **Norwegian** athletes dominated the events.[7] In 1925 the IOC decided to create a separate Olympic Winter Games,[4] and the 1924 Games in Chamonix were retroactively designated as the **first Winter Olympics**.[4][8]
Climate Change/Global Warming
Figure 6. Northern Hemisphere temperature reconstructions from paleoclimatic sources. The three series are Mann et al. [1998, 1999] (thick), Briffa et al. [1998] (medium) and Jones et al. [1998] (thin). All three annually resolved reconstructions have been smoothed with a 50-year Gaussian filter. The fourth (thickest) line is the short annual instrumental record also smoothed in a similar manner. All series are plotted as departures from the 1961–1990 average.
Franz Josef Land, 80.6N 58E
September Mean Temperature, 1958-1999

South Pole (Amundsen-Scott U.S.)
Temperature & Carbon Dioxide Compared

The Arctic Rim, 1951-2000
Annual Mean Temperature [°C]

Svalbard Surface Temperatures

Atmospheric Carbon Dioxide Measured at Mauna Loa, Hawaii
Arctic Circulation/Currents

Day Length at Different Latitudes
16] SEARCH Science Steering Committee, *Draft SEARCH Science Plan*,
http://psc.apl.washington.edu/search/search_plan/Science_Plan_9.html, Polar Science Center,
University of Washington, Seattle, 2000

http://www.john-daly.com/polar/arctic.htm
Point Barrow, AK 71 23N August at ½ hour intervals

Nansen’s Team for First Crossing of Greenland – ‘A Ski Trip’ – 1888
Fram is the strongest vessel in the world. This remarkable vessel has advanced further north and further south than any other surface vessel. Fram also carried Raold Amundsen for South Pole expedition 1911.
Nansen-Petersen water sampler (used until 1960’s; forerunner of present day Niskin bottles) and a plankton net.
Sled Dogs and Bear Problems

Polar bears were danger, but unknowingly a source of Vit. C
Greenland Recent Melt Features – Lake, Runoff, Moulin

I. Joughin, U. Washington
Scenery of Greenland Like Nansen and His Team May Have Seen on Clear Days
As soon as ever I began to study the ice regions, I found the facts of the case pointed to a new plan of the voyage we have been making. This has been the great hindrance to the ascent of the New Siberian Sea. In my opinion, the great hindrance. A most unfortunate mistake in this plan. These constant moving seas which has been the great hindrance and often crushed them as means of dogs and sledge, and thus often reached the interior of these regions, I have been to penetrate. And it is generally spoken of in the expedition.
Life on *R/V Fram*

Crew of 13 was onboard *Fram*, mostly locked in ice, for 3-year Arctic expedition.

Otto Sverdrup was Capt., but Nansen was in charge.

*Fram* had to be abandoned once because of crushing ice – but was spared and reboarded!
“Polar exploration was littered with dead bodies,” Roland Huntford
The Inspirational Life of Fridtjof Nansen – ‘The Daring Viking’
The Inspirational Life of Fridtjof Nansen – ‘The Daring Viking’
The Inspirational Life of Fridtjof Nansen – ‘The Daring Viking’
The Inspirational Life of Fridtjof Nansen – ‘The Daring Viking’

Nuclear Sub Skate 1958

Pargo 1993

Charlotte 2006
The Inspirational Life of Fridtjof Nansen – ‘The Daring Viking’

Nuclear Sub Skate
1958
Caption 50 years after Peary reached Npole, Skate mission was to demonstrate operations possible from the polar ice year round! – Skate near NP – First vessel to sfc on Mar 17, 1959 following Nautilus' trek beneath NP August 9, 1958, "quote captain Calvrit - , " ... I looked around ... and saw the vast stretches of ice reaching in all directions to the horizon and realized that without our ...
Race to claim Arctic Ocean economic zones

Possibly $\frac{1}{4}$ of world’s undiscovered oil and gas reserves may reside here/less ice cover key

Russia, Norway, Denmark, Canada, U.S. are placing claims, but are required to have accurate bathymetric maps to support claims to UN Law of the Sea Convention

See National Geographic
May 2009
On August 2, 2007, the Russians planted a Russian flag on the seafloor beneath the North Pole using the submersible Mir I at 14,000 ft depth.

Why? A new race to North Polar region!!

Call attention to Russian territorial claims; No legal significance

Note Vladimir Putin in photo of Mir I
For Perspective: What Items, Information and Technologies Were Not Yet Available to Polar Explorers (1850 – 1920’s)?

* Foods with proper nutrition (Scurvy cause was unknown)
* Desalination units for freshwater
* Well-insulated clothes/proper snow goggles (for snow blindness)
* Proper heaters for warmth and cookers for food/melt ice for H$_2$O (diurnal $\Delta$T up to 40°F)
* Maps and water depths of regions yet to be explored
* GPS (celestial navigation only)
* Radar for navigation (where were coasts, icebergs, hazards)
* Radio and satellite communication (totally out of contact!)
* Weather and tidal data and forecasts
* Snowmobiles
* Others: computers, iPods, Blackberries, TV, DVDs, video games

Nuclear Sub Skate 1958

North Pole Web Cam

2008
Baffin Island, 69˚00`N 72˚00`W, is the largest island in Canada and the fifth largest island in the world, with an area of 507,000 km². It has a population of 11,000 people, most of them living in Iqaluit, which is the capital of the territory Nunavut.

Spectacular environment
Much of the treeless island, and the waters around it, are protected national parks. A mountain ridge goes across the island and the highest peak is Mount Odin, raising 2147 m above sea level. The vast, unspoiled tundra, the mountainous interior, the big glaciers and the hundreds of bays and fjords of the rugged northern coast make Baffin Island to a unique place in the world.

People
Most of the people on Baffin Island are Inuit and some are still living out of fishing and hunting. Inuit in Nunavut are recognized internationally for their stone sculptures, fine art prints and fabric arts. Nowadays tourism is a growing industry in the Inuit economy.

Climate
Baffin Island has a typically arctic climate, with short winters and long, cold summers.
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North Pole Web Cam

2008