

NANSEN CENTER 1986-2011

A View from La Jolla

VISION: To serve the society through advancing knowledge on the marine environment and climate system in the spirit of Fridtjof Nansen

PRIORITIES: Arctic, Remote Sensing, Modeling
Climate

Ola Johannessen chose them well.



25 YEARS COLLOQUIUM, 18TH NOVEMBER
2011

25 years
in science
1986 - 2011



A BIT OF HISTORY

1939

WM Summer at SIO

HUS Director of SIO – 15 People

Gudrun → Tennis → Dinner

Melting at underside of ice sheets

Norway is the Leader in Oceanography



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A BIT OF HISTORY

1893-1896

Nansen **FRAM** 86°14'N

1918-1925

Amundsen **MAUD** Sverdrup

Bjerkness School in Bergen

Physikalische Hydrodynamik

H. Mohn

Sverdrup joins Amundsen

WWII

Norway occupied

ASW + Waves

Leadership Passes to U.S. & Others



SVERDRUP ON NANSEN

1861-1930 Skier, Explorer, Scientist, Statesman

1888 (age 27) Thesis

1888 (27) Greenland (boats burned)

1892 (32) Fram

1921 **(60) Science cut-off**

1921 (60) League of Nations Commissioner for Refugees

1922 (61) Nobel Peace Prize

1930 (69) Nansen Died

1938 Nobel for NANSEN OFFICES FOR REFUGEES

Nansen's Mission: "...even one refugee left without a future is one too many."*



75 years



*From the Remarks of United Nations Secretary-General Ban Ki-Moon at the World Refugee Day Nansen Lecture (2011)

ACOUSTIC TOMOGRAPHY IN FRAM STRAIGHT

Hanne Sagen & Peter Worcester (2010, 2011, 2012)

Wunsch and Munk 1979 (one-way and reciprocal)

4 Transmissions per day for two years

190-200 Hz slides in 60 s. 190 dB re 1 mPa at 1 m

4 RAFOS per day to navigate gliders under ice
to monitor noise (including whales)

Many remaining problems

Sverdrup: Melting underside of floating ice sheet

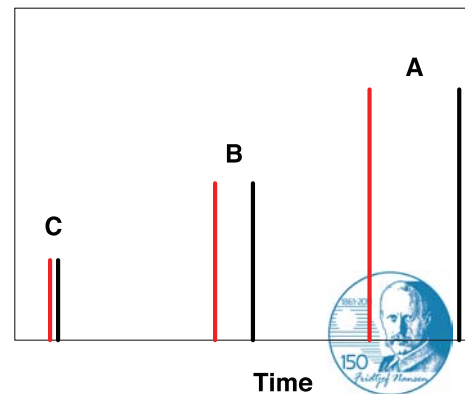
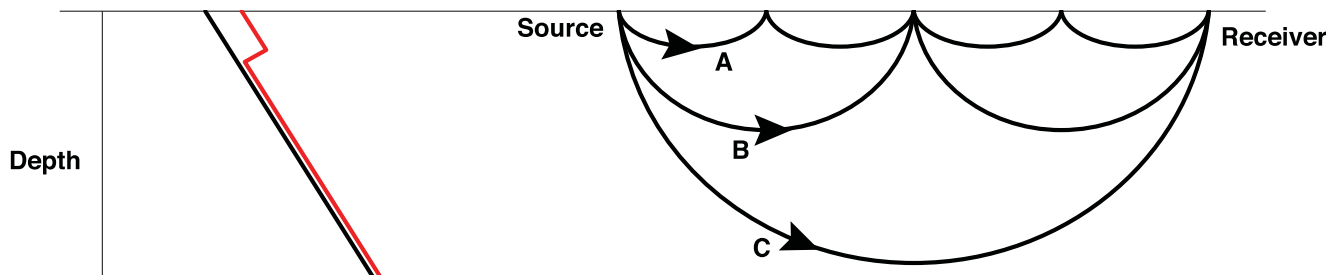
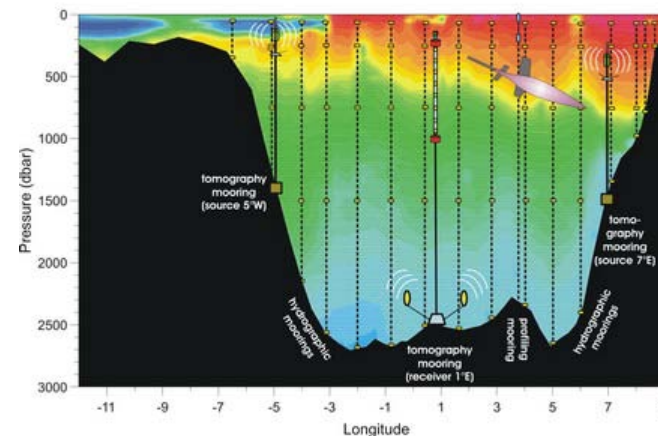
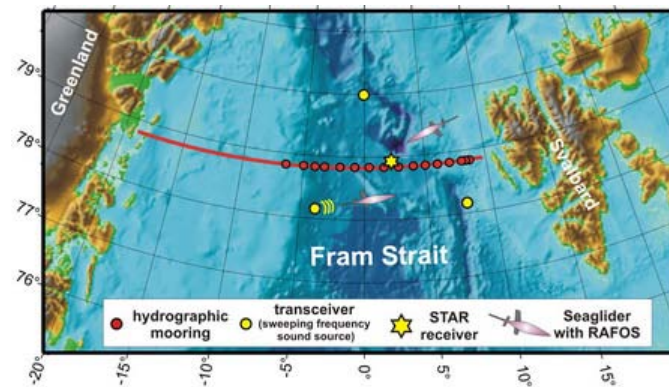


Figure 1: Hanne Sagen and crew return from the Nansen Straight tomography experiment aboard the *Håkon Mosby*.





Figure 2: Hubbard Gletscher on the Inglefield Bredning fjord, in Baffin Bay, Greenland (photo Michael Studinger, NASA). Mountain glaciers flow into the oceans and come off the bottom at the grounding lines, continuing as floating ice sheets to the ice front.



NANSEN CENTER'S FOREIGN PARTNERS

1992 St. Petersburg, Russia

1998 Kerala, India

2003 Beijing, China

2010 Cape Town, South Africa

2012 Bangladesh

201? ...

2011 Svalbard Lectures to international students on the future of the Arctic

...even one oceanographer left without a future is one too many.

HAPPY 25th BIRTHDAY!



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