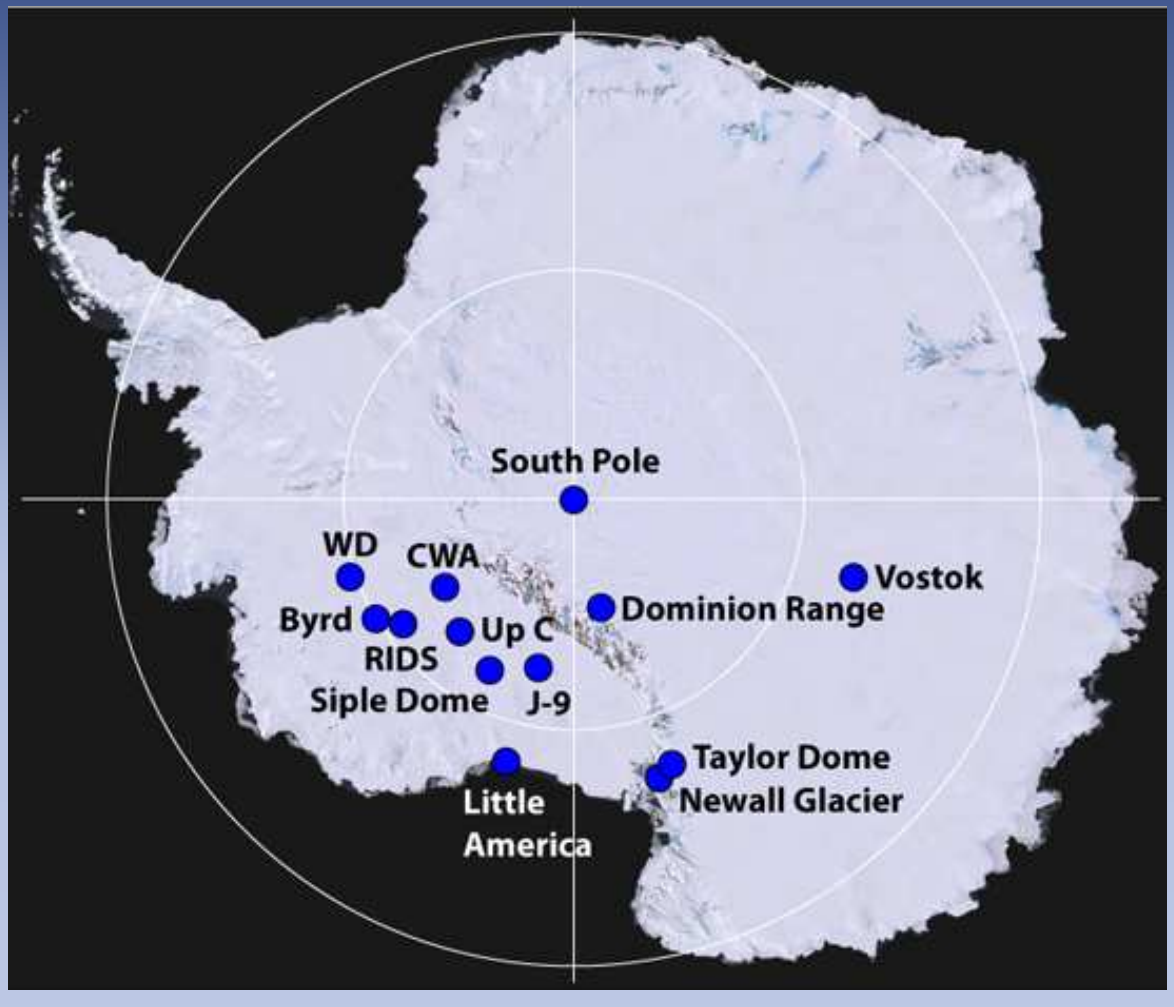

NSF


USGS
science for a changing world

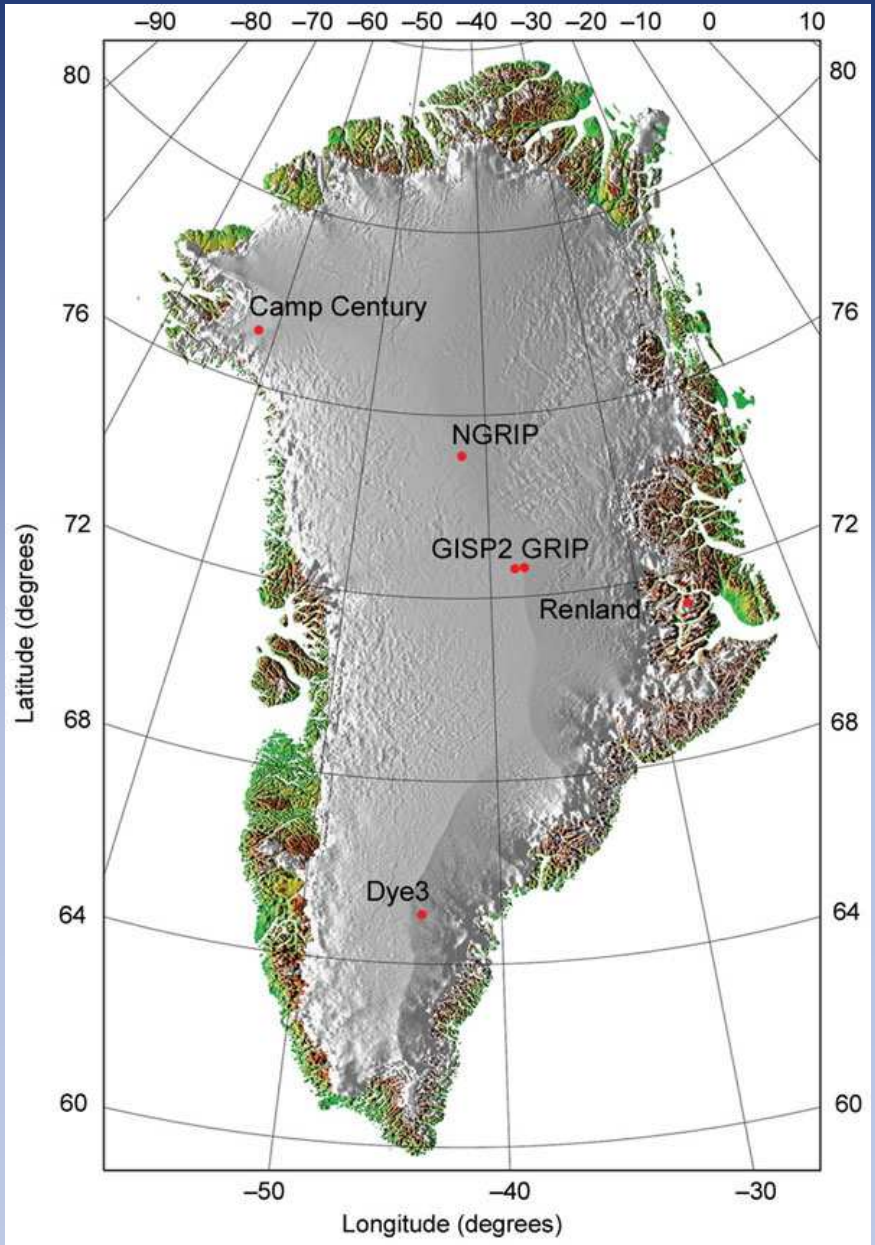

University
of New Hampshire

Disclaimer

Antarctic Core Sites



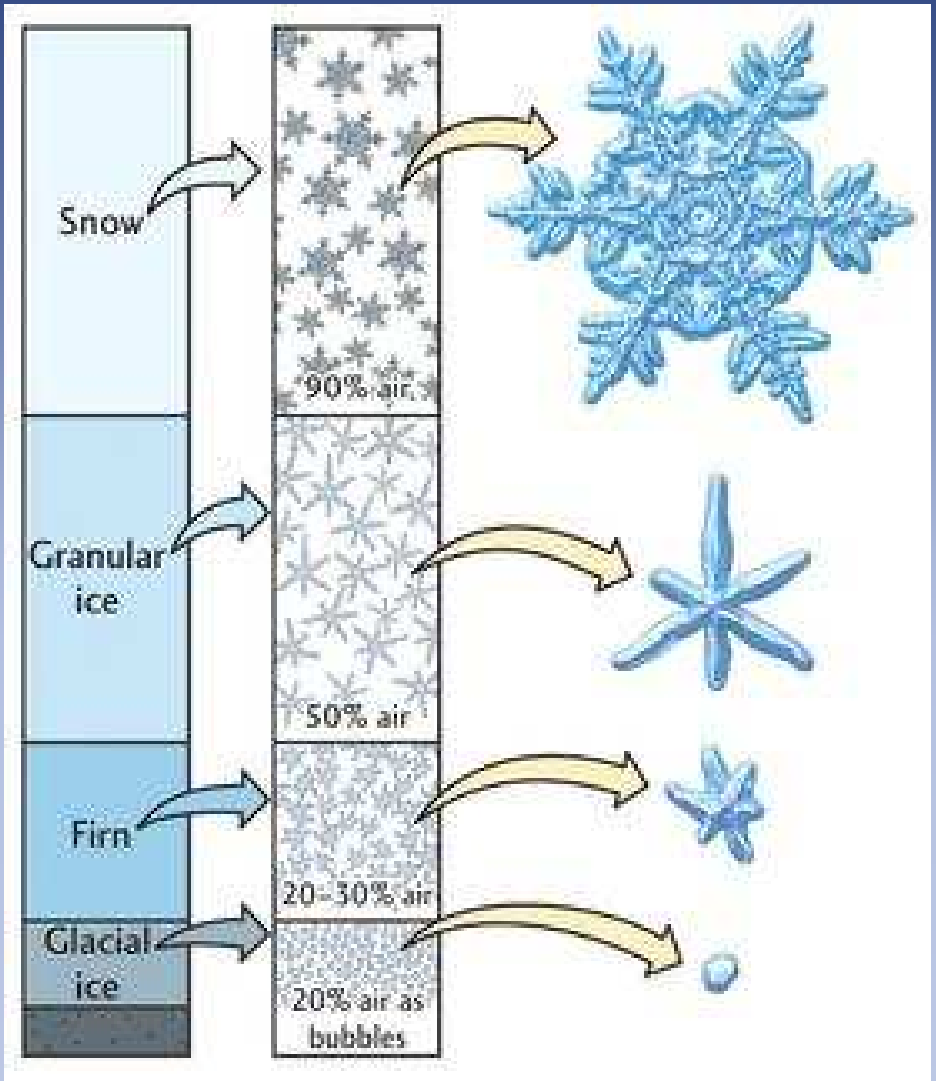
Greenland Core Sites



Source: http://www.nature.com/nature/journal/v431/n7005/fig_tab/nature02805_F1.html

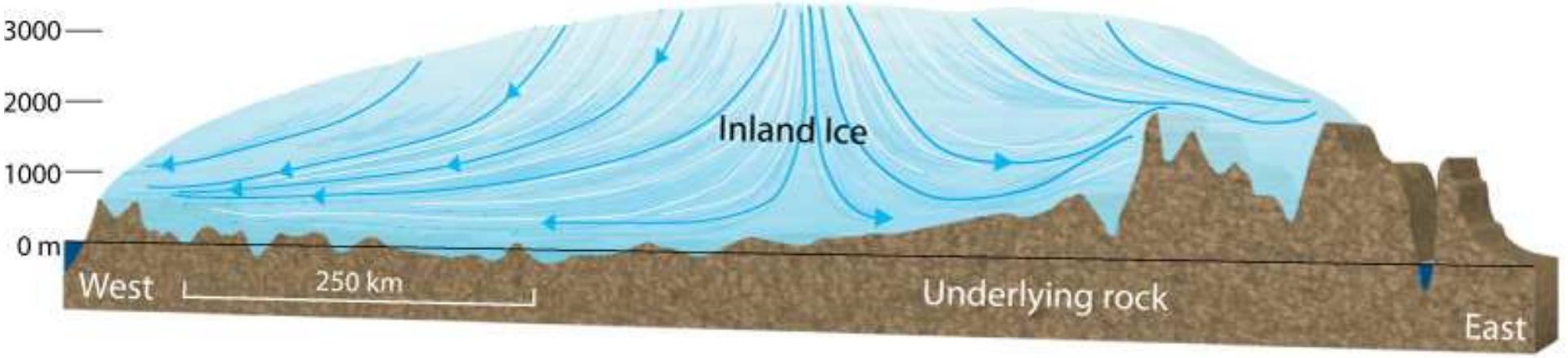

Alaska
Greenland
Himalayas
Andes
Mt. Kilimanjaro
West Antarctica
East Antarctica

Formation of Ice



http://glaciers1011r1.wikispaces.com/Firn

Site Selection



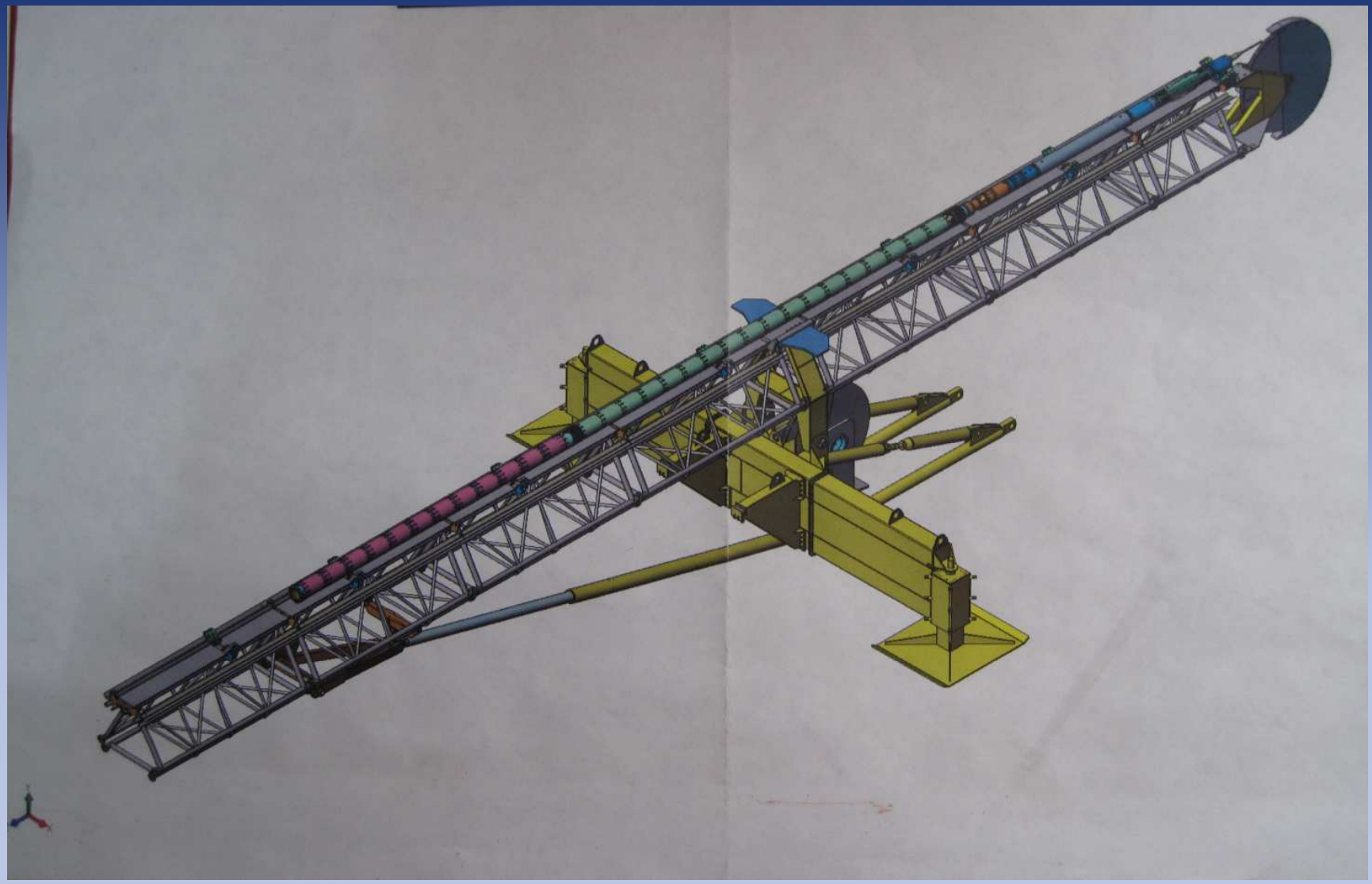

30493
U. S. AIR FORCE
NEW YORK AIR GUARD


WAIS

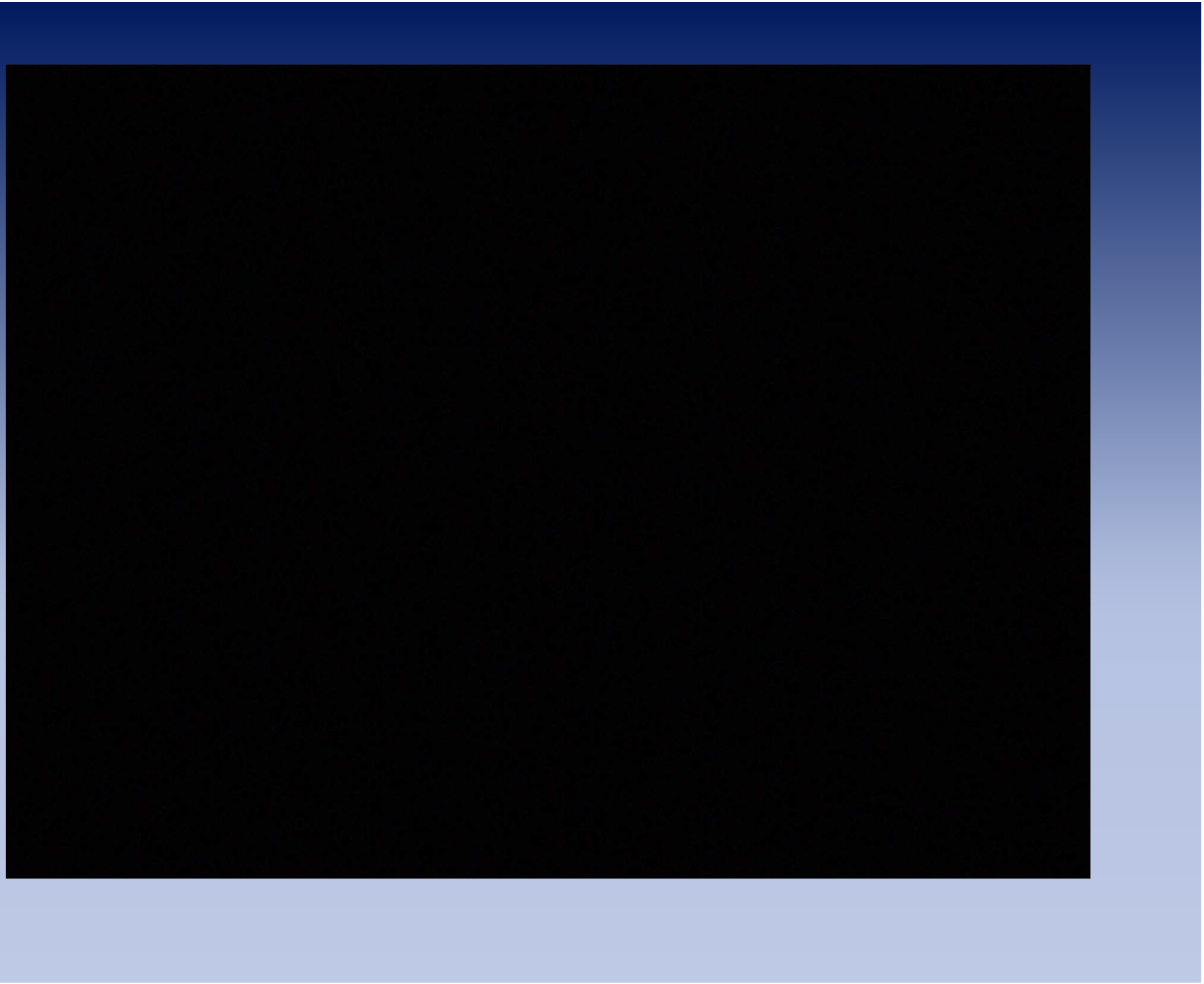

EXIT

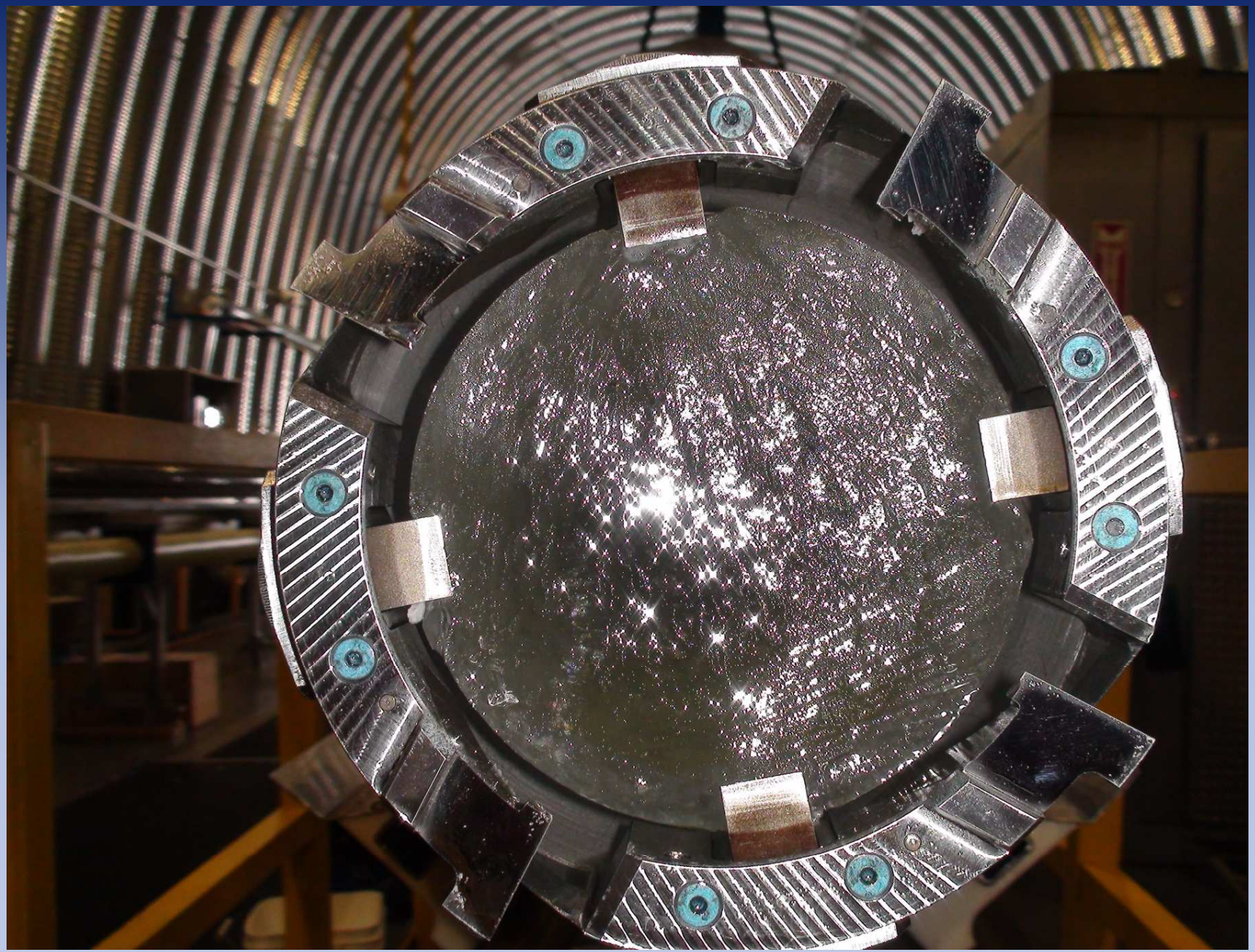

8508


2005-06 Season
(~ 8-Jan-2006)
2006-07 Season
(early Nov-2006)
2007-08 Season
(early Nov-2007)
2008-09 Season
(~ 1-Nov-2008)
2009-10 Season
(early Nov-2009)
2010-11 Season
(~ 8-Nov-2010)



IDDO drawing of DISC DRILL






E450RSC
WDC06A-R
TUBE 5/3


953C
CAT


21094

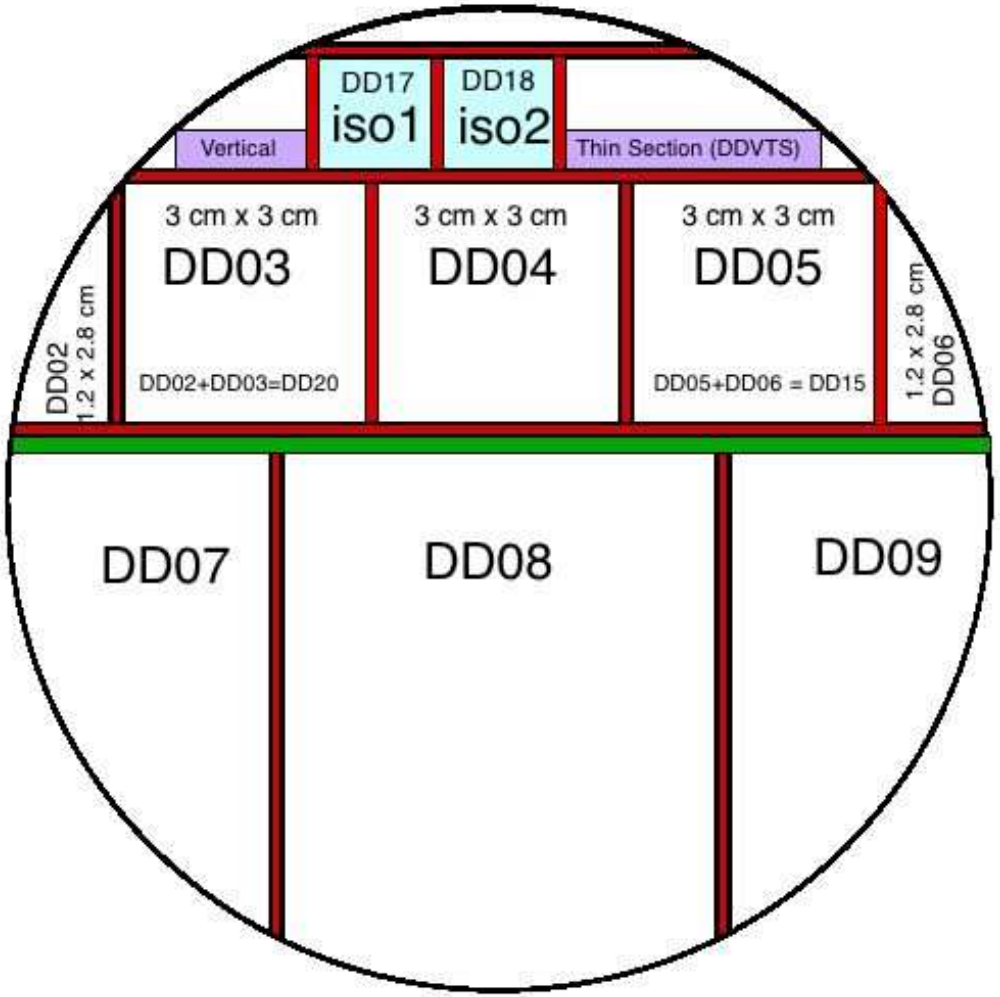

M/V AMERICAN TERN

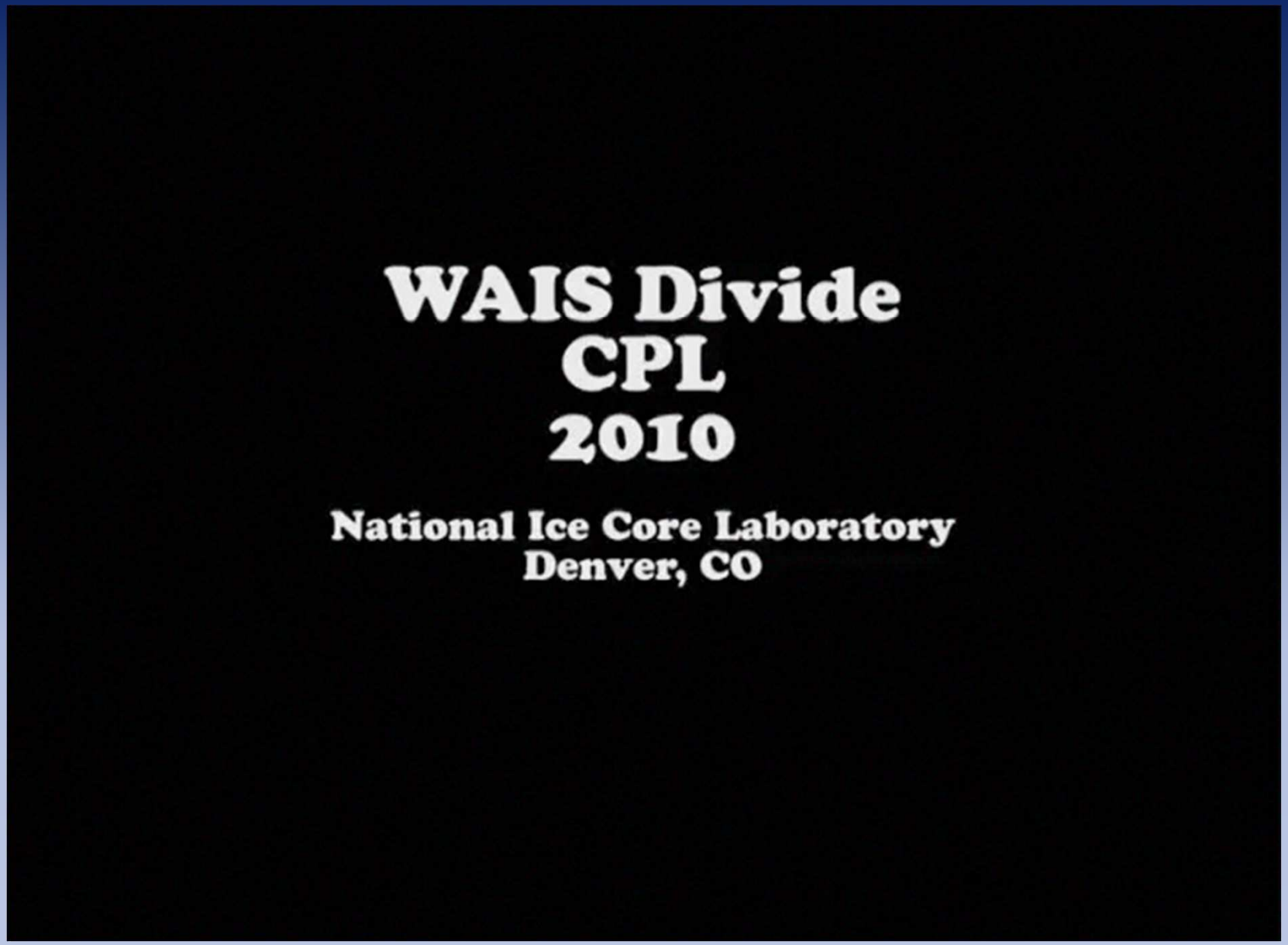

DREXEL
DREXEL


Box 224
Box 207

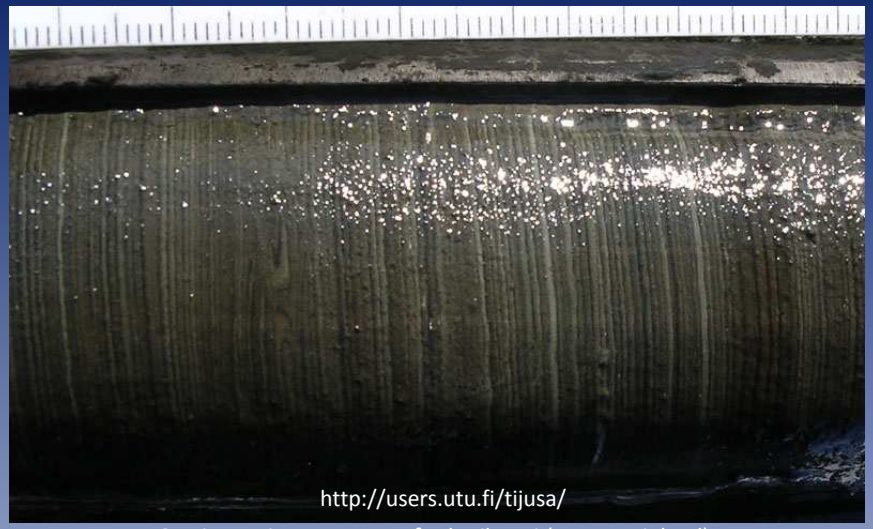
WAIS 2011 CUT PLAN

Kerf (Red line) = 2mm

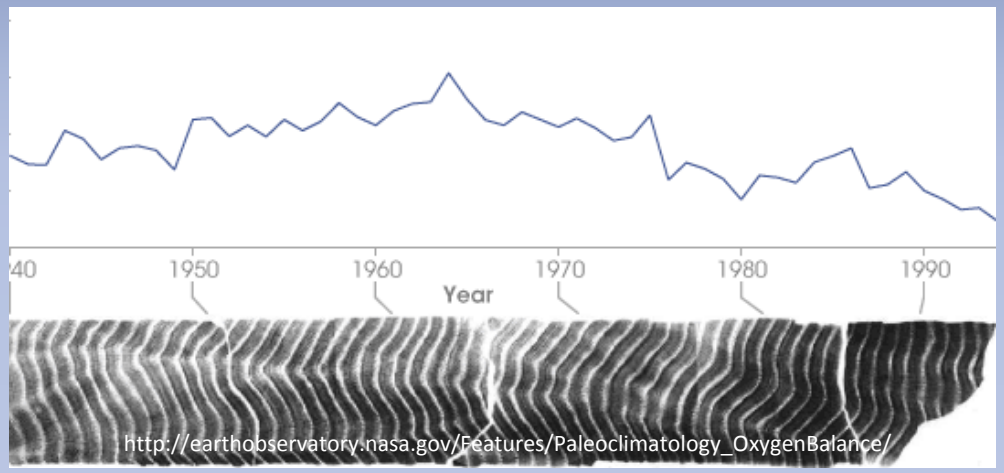



WAIS Divide
CPL
2010
National Ice Core Laboratory
Denver, CO

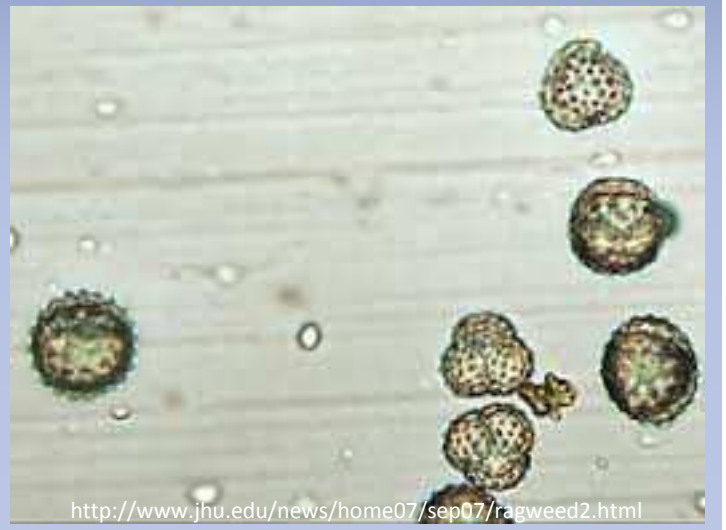
Tree rings



Saarinen, Timo J. Varves of Lehmilampi (Eastern Finland),
light layer = spring flood mineral layer, dark layer=organic summer-winter layer.



Coral growth layers

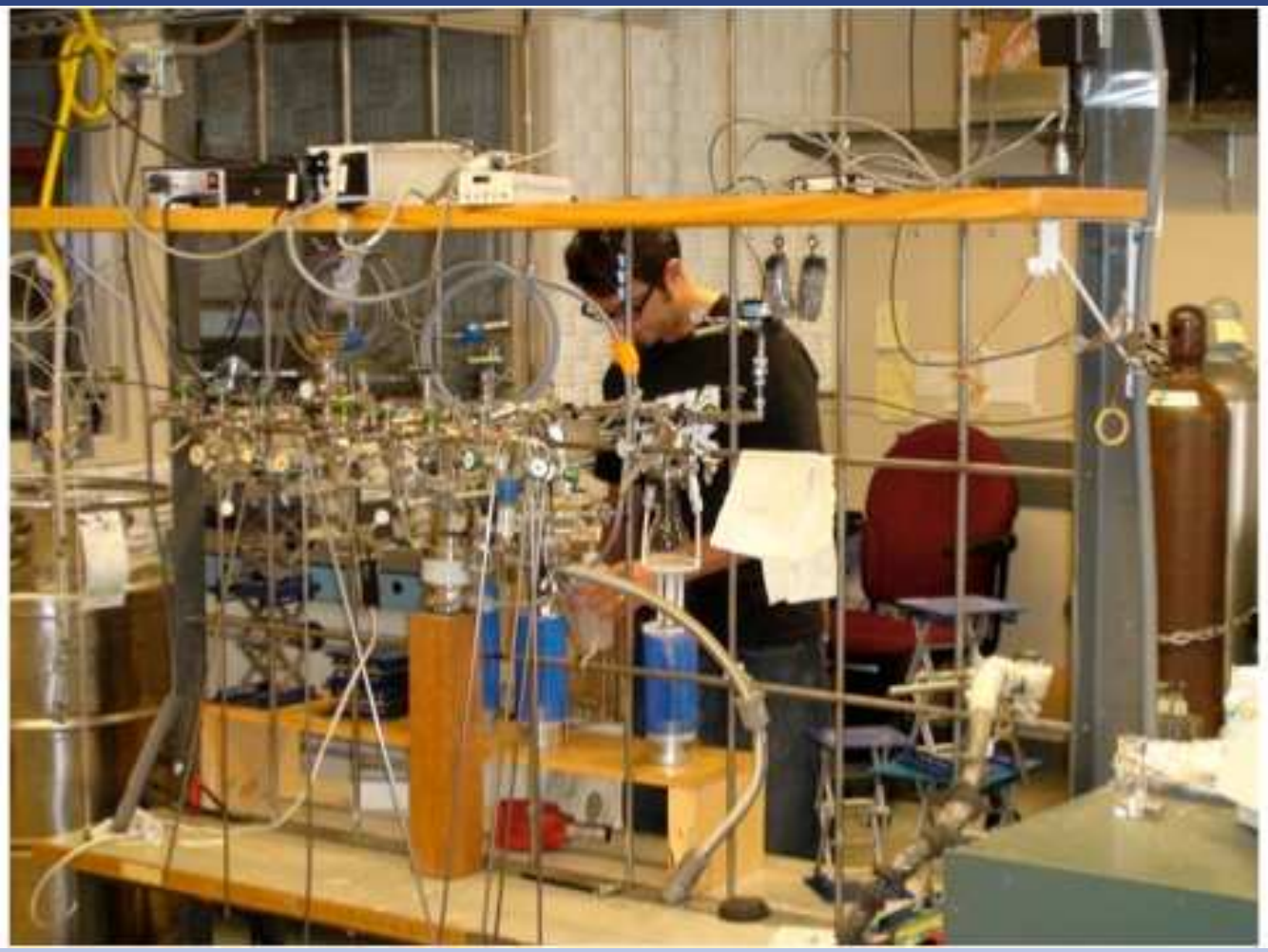


pollen

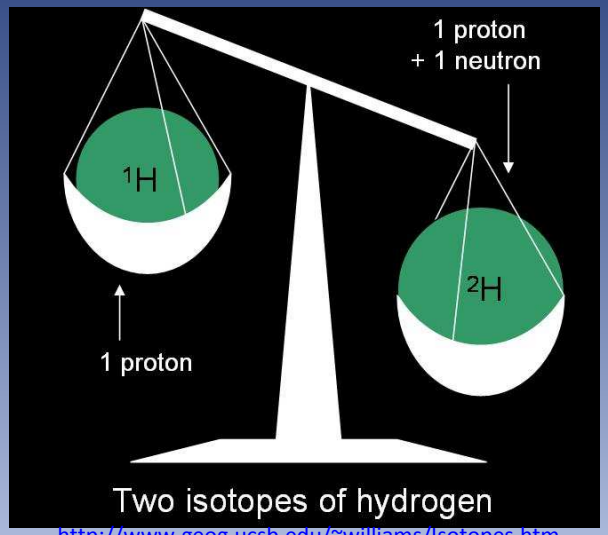
http://www.detectingdesign.org/?page_id=523

Why Ice Cores Are Such a Great Record of Past Climate

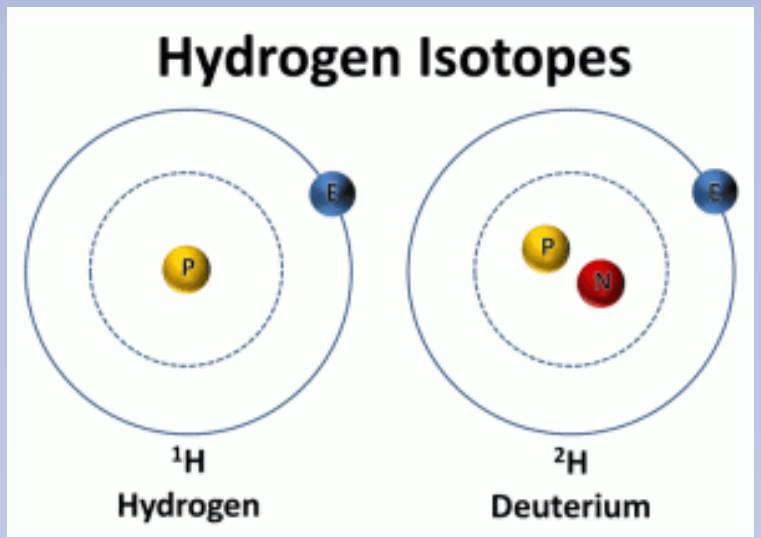
- Atmospheric Composition
  - From snowfall
  - Trapped in clathrates
- Temperature
  - Isotopes
- Dating
  - Visual Inspection of layers
  - Volcanic layers
  - ECM

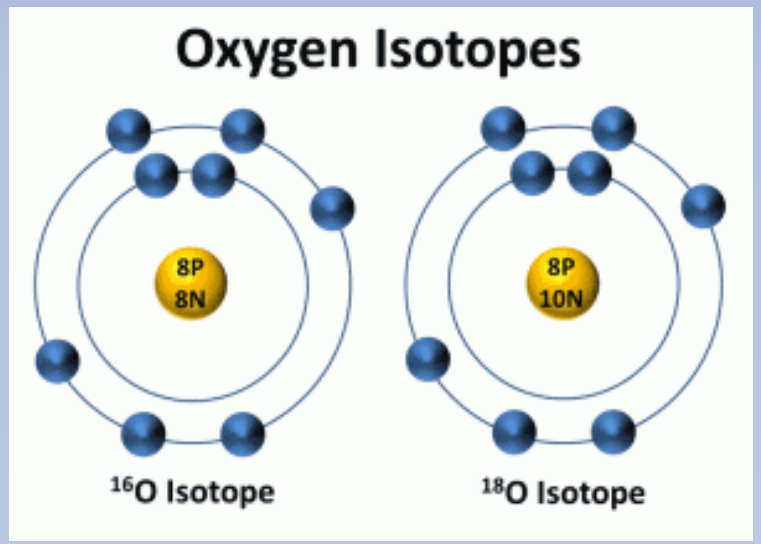


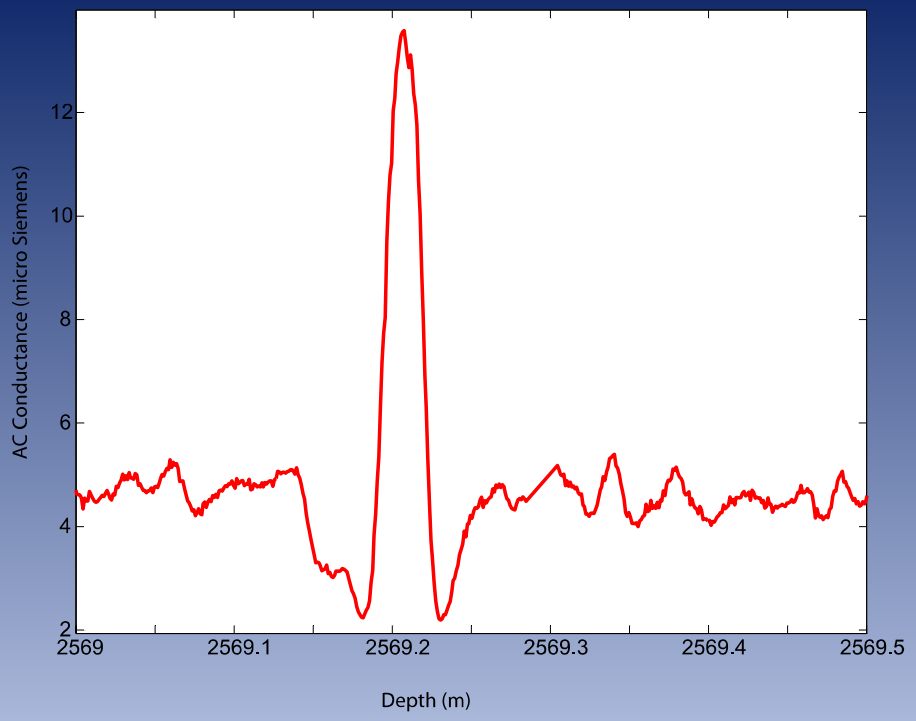
Isotopes

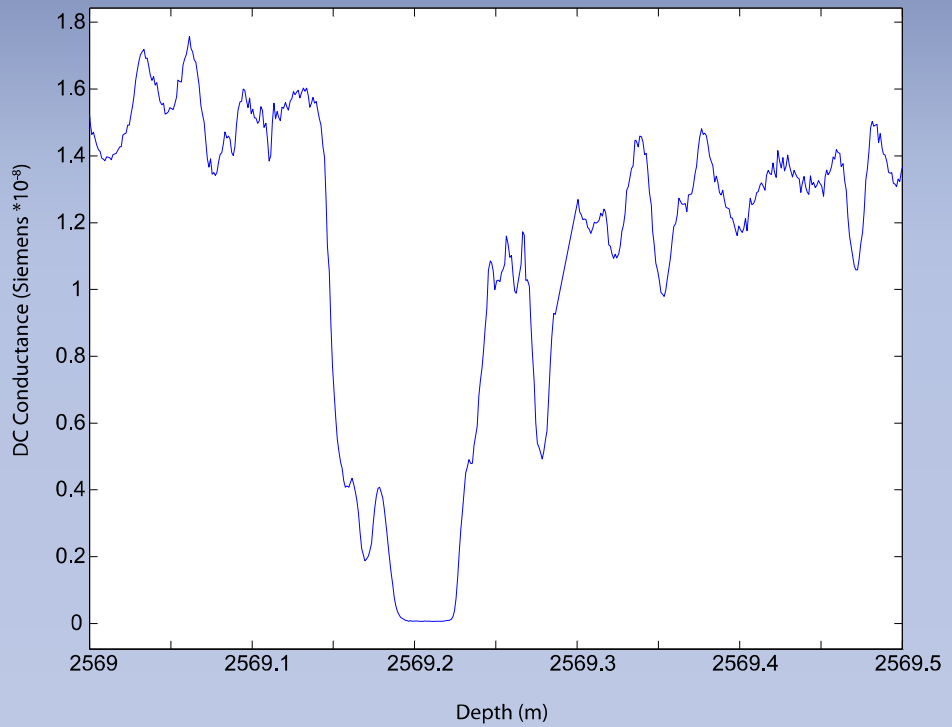


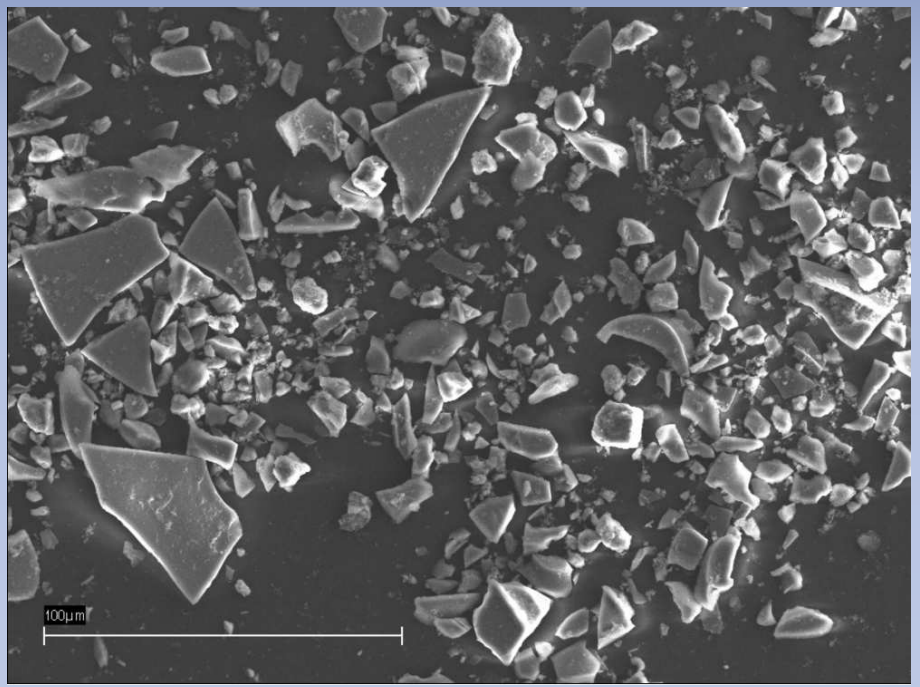
http://www.geog.ucsb.edu/~williams/Isotopes.htm



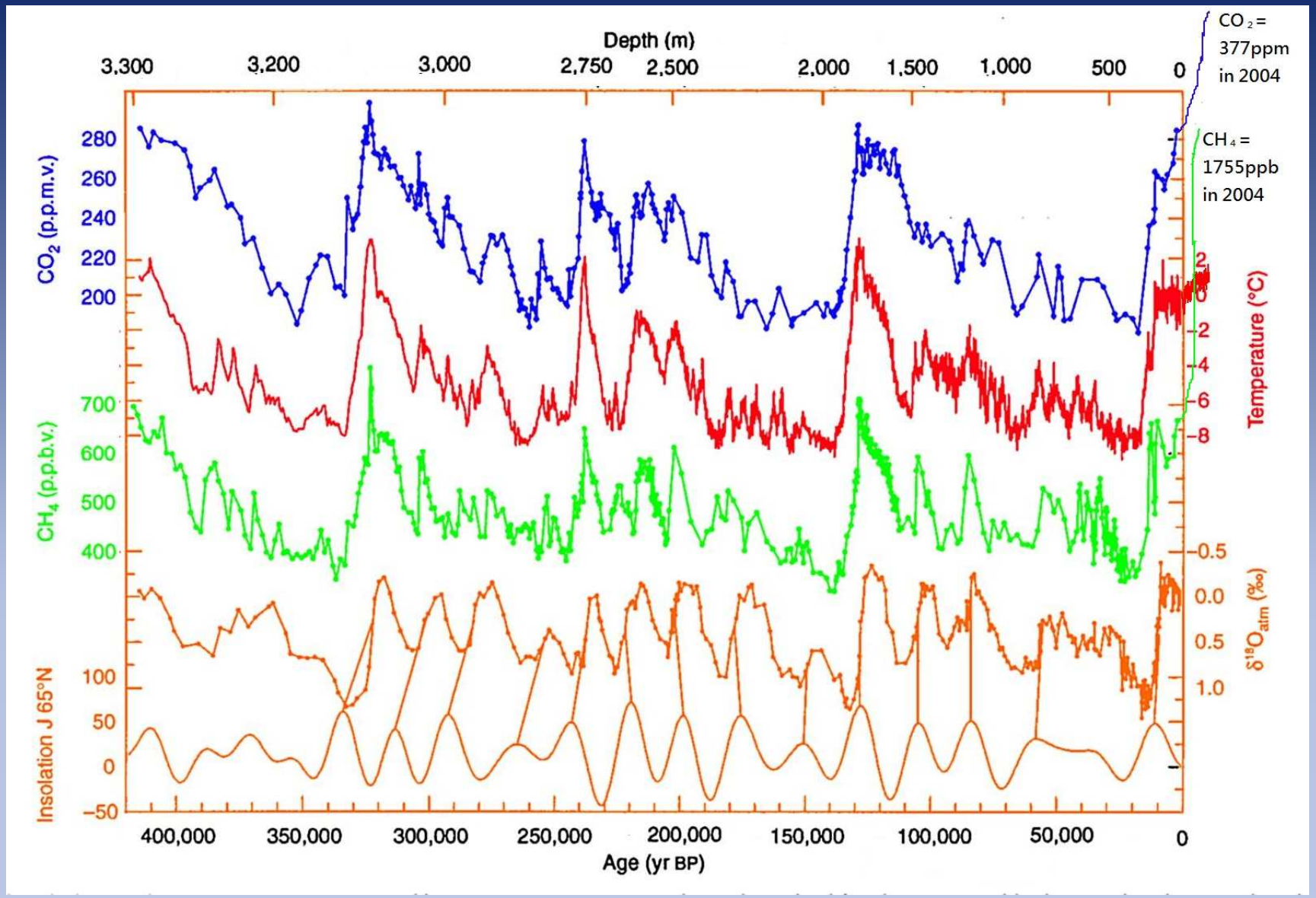



AC Conductance (micro Siemens)
12
10
8
6
4
2
2569
2569.1
2569.2
2569.3
2569.4
2569.5
Depth (m)

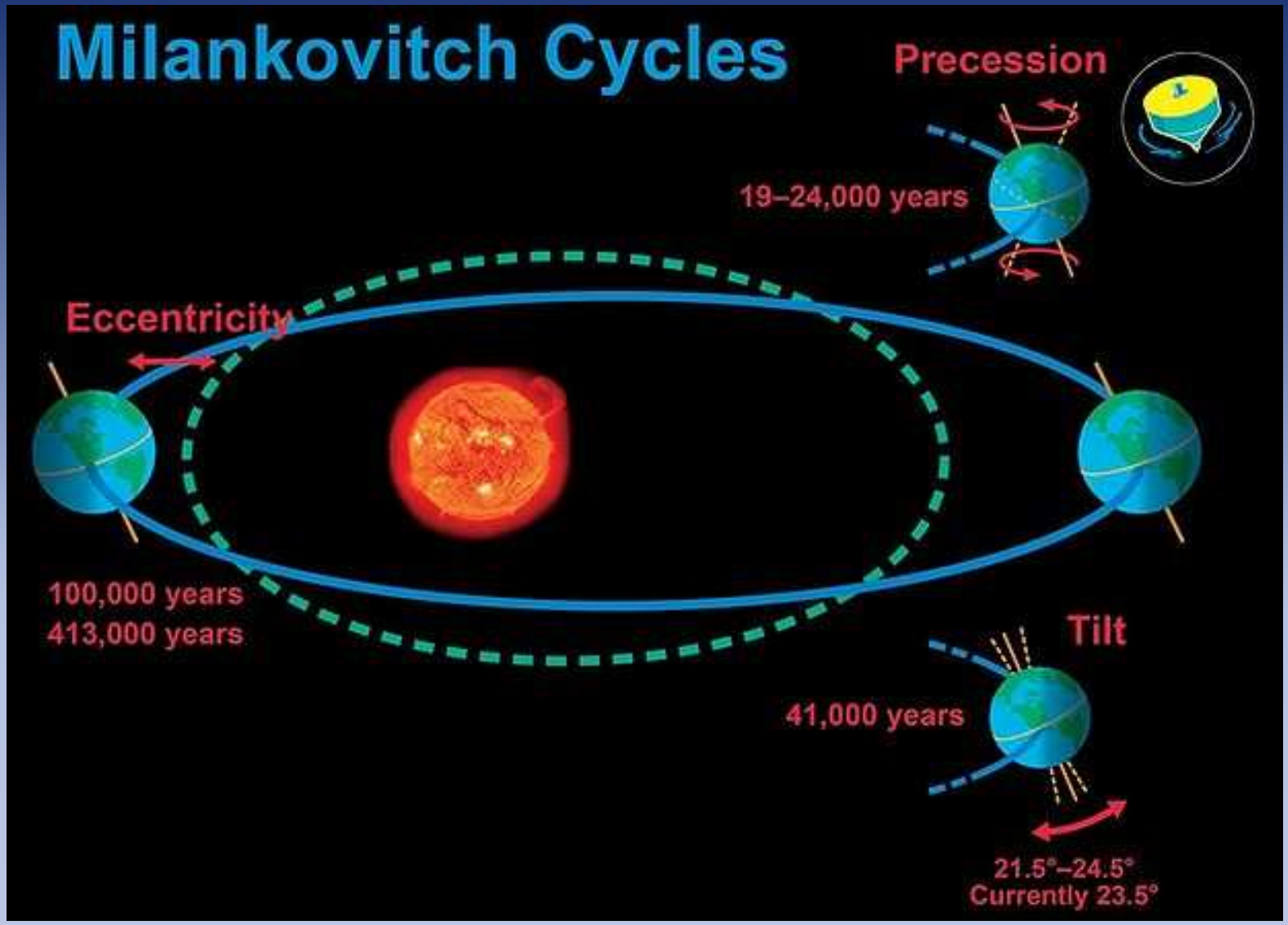

DC Conductance (Siemens *10^-8)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2569
2569.1
2569.2
2569.3
2569.4
2569.5
Depth (m)



http://www.iceandclimate.nbi.ku.dk/research/strat_dating/synch_ice_core_rec/vol_ash_layer/



http://www.antarcticglaciers.org/climate-change/



http://cnx.org/content/m38572/1.5/

Questions?

Credits

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