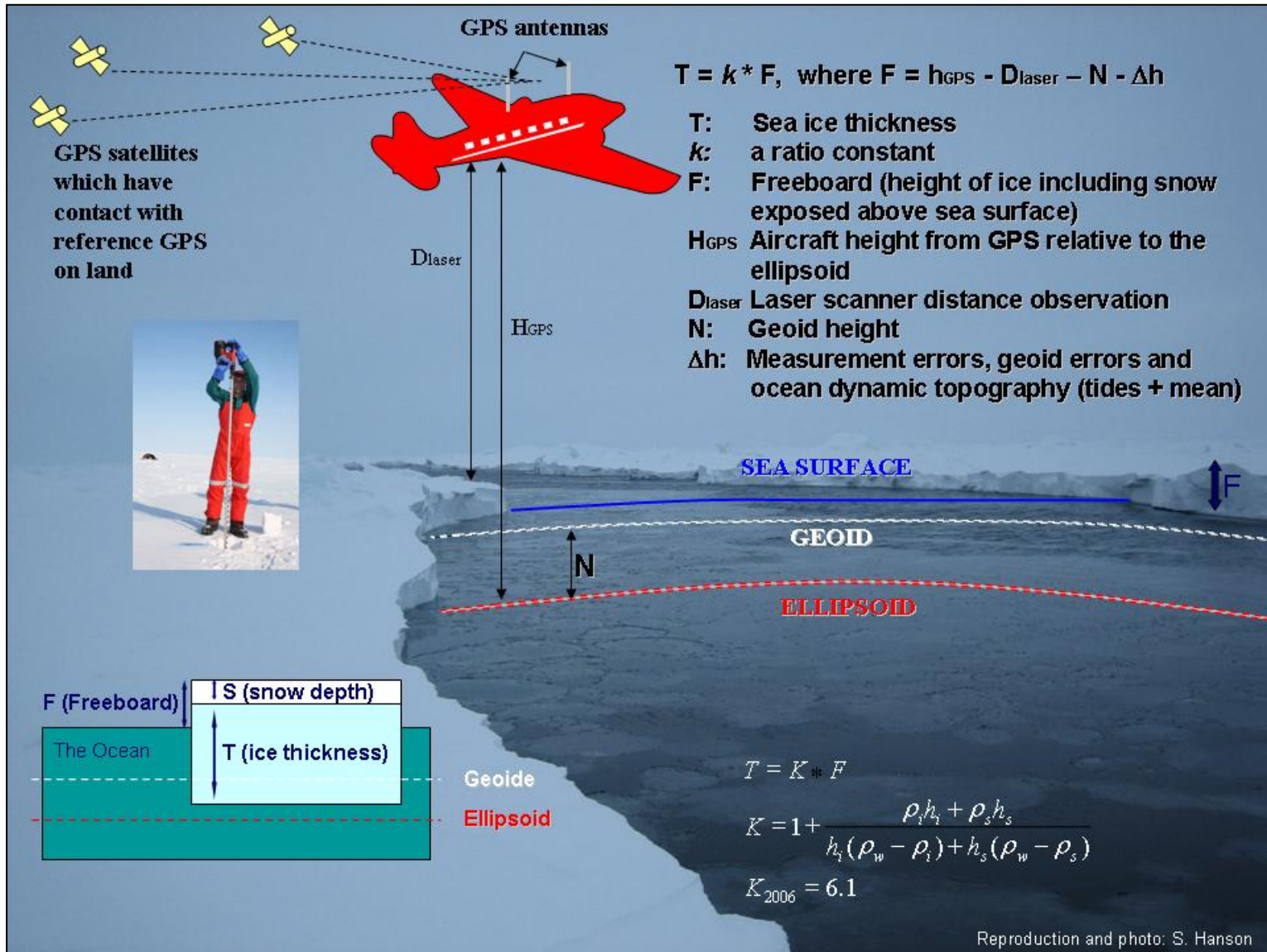


CFS Alert Validation Campaign 2008

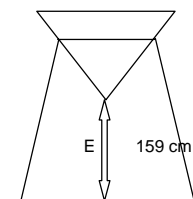
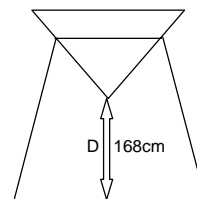
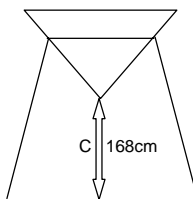
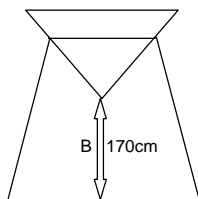
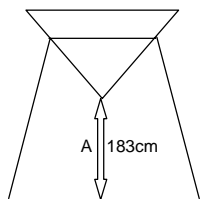
Susanne Hanson

Rene Forsberg, Malcom Davidson, Christian Haas, Stefan
Hendricks, Duncan Mercer, Marcel Nicolaus, Jeremy Wilkinson





Corner Reflectors (CR), 1 may 08, Malcom, stefan, christian, susanne, rene



Coordinates under reflector with hand GPS:

FYI-E: 82°32.776
62°34.085

FYI-W 82°32.867
62°35.139

MYI-S 82°33.3804
62°33.5618

MYI-N 82°33.6090
62°33.7219

Fuel cache
planned: 83°43.717 actual: 83.72864°
65°10.695 65.17200°

Coordinates processed from differential GPS (to follow when data processed):

GPS placed 4.5m further east from CR

GPS placed 4.5m further east west CR

GPS placed 4.5m further south from CR

GPS placed 4.5m further north from CR

GPS: lexon

GPS: MT302464747

GPS: lexon

GPS: MT302464747

FYI-E:

FYI-W











MYI-S

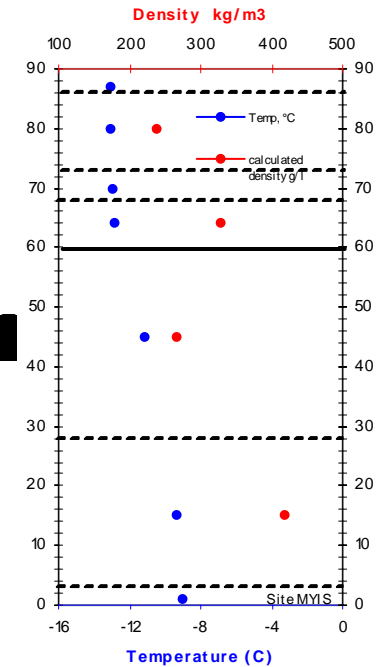
MYI-N

Fuel cache





I. Unmetamorphosed (New) Snow	II. Equitemperature (Destructive) Metamorphism	III. Temperature-Gradient (Constructive) Metamorphism	IV. Firnification
(See Mogano-Lee Classification for details)	II-A-1. Original crystal forms easily distinguishable	III-A-1. Angular crystals, none layered (begins in new snow)	IV-A. Multi-freeze metamorphism; grains bonded by freezing
I-A. Little or no wind, crystals largely intact			
I-B. Wind-drift, crystals fragmented	II-A-2. Original forms distinguishable with difficulty	III-A-2. Small and poorly formed layered crystals	IV-B. Pressure metamorphism; grains bonded by compression and recrystallization (freezing also possible)
			
	II-B-1. Original forms fragmented and no longer recognizable; fine-grained old snow	III-A-3. Mature, fine- or medium-grained depth hoar, prominent layering	(Glacier ice—noncommunicating pores)
			
	II-B-2. Rounded ice grains	III-B-1, III-B-2. Similar sequence to III-A, but begins in old snow and leads to coarse-grained depth hoar	
			



Note:
 86-73cm: <1m; I-B;finger
 73-68 cm: <1mm; I-B;knife
 68-60 cm:1 mm; II-B-2;finger
 60 cm : ice lens
 60-28 cm:1-6mm;III-A-2;fist
 18-3cm:1-4 mm;III-A-3 medium grained;pencil
 3-0 cm:1-8mm; III-A-3 mature
 surface: dry

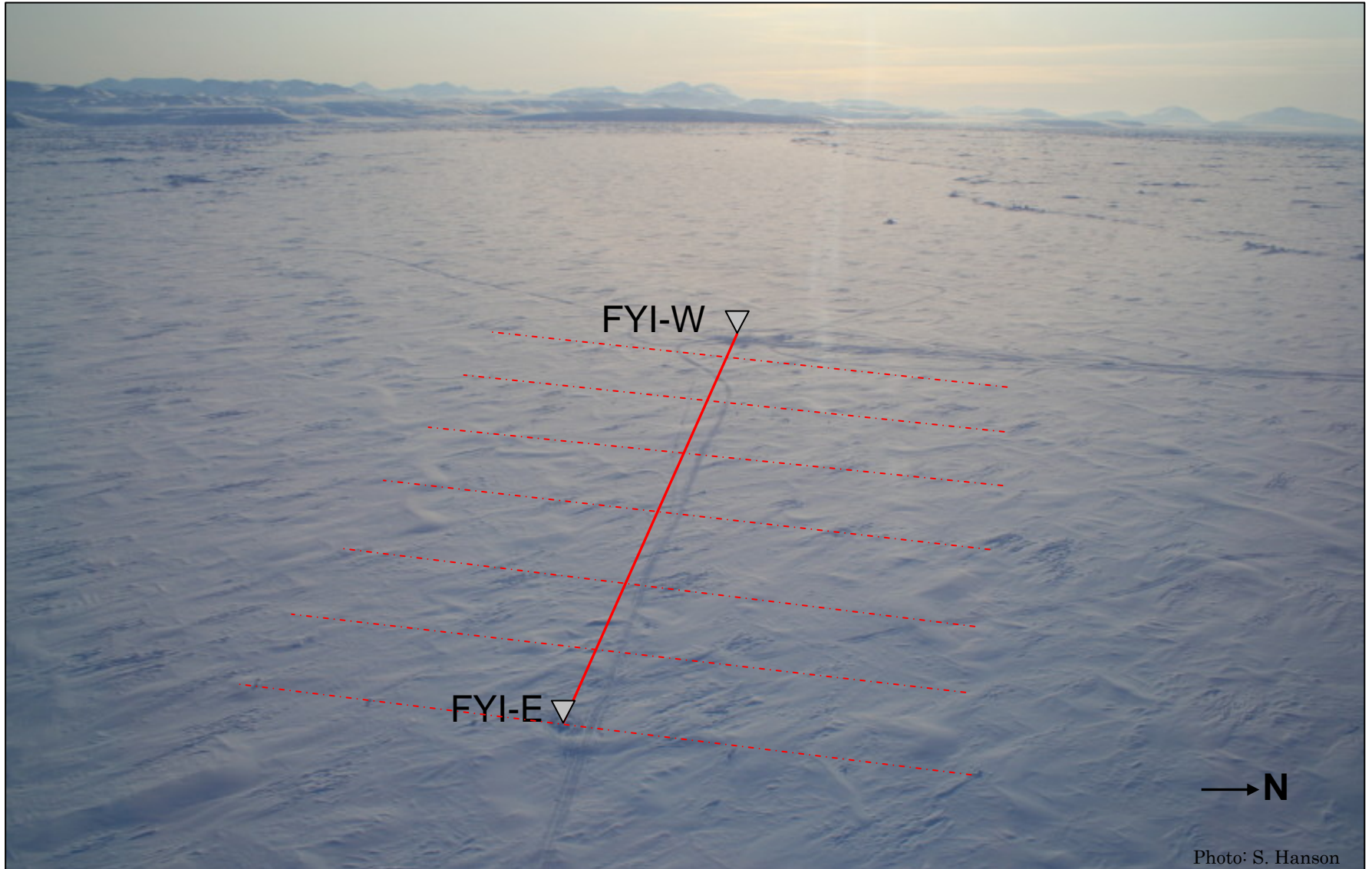
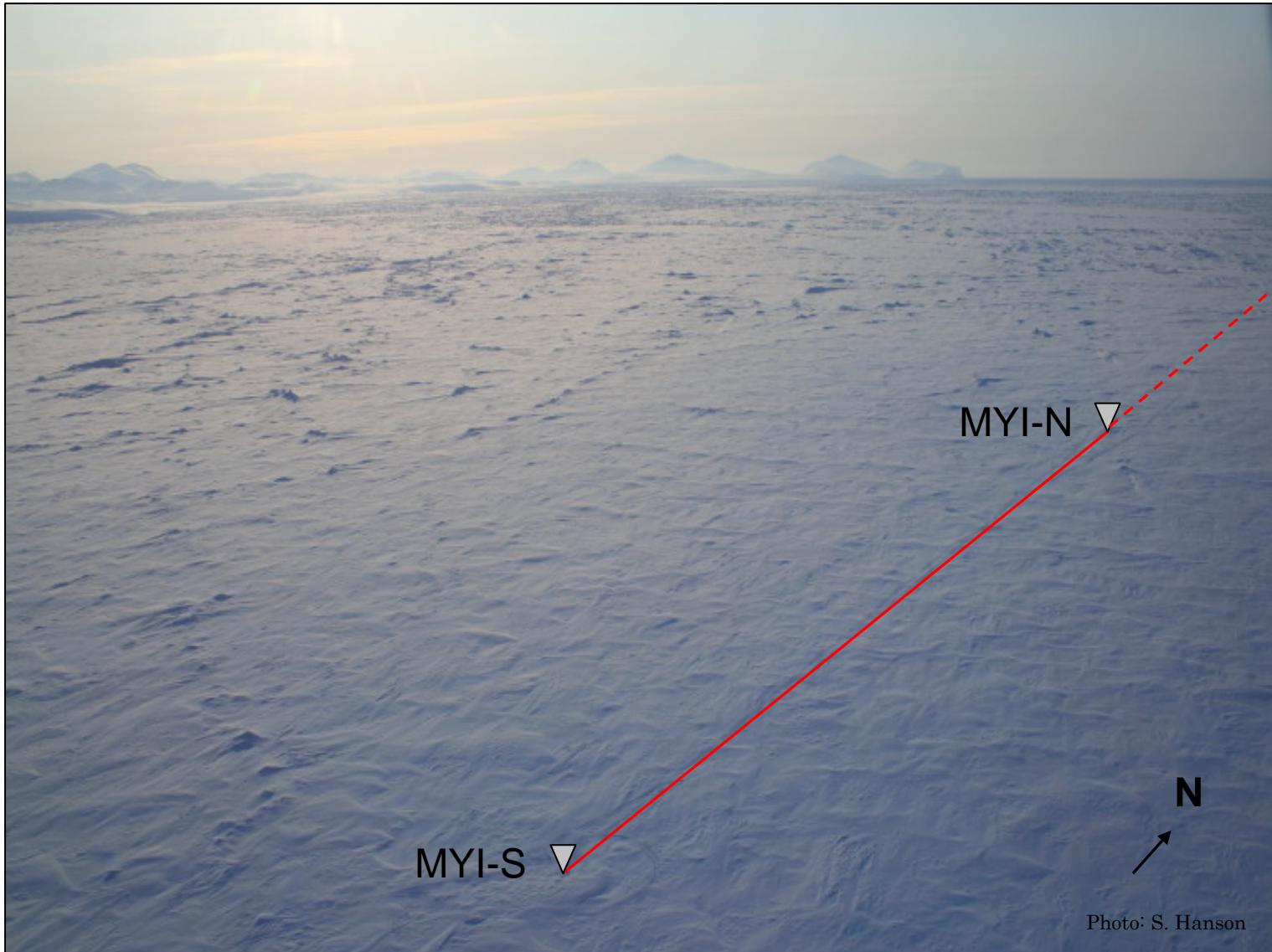
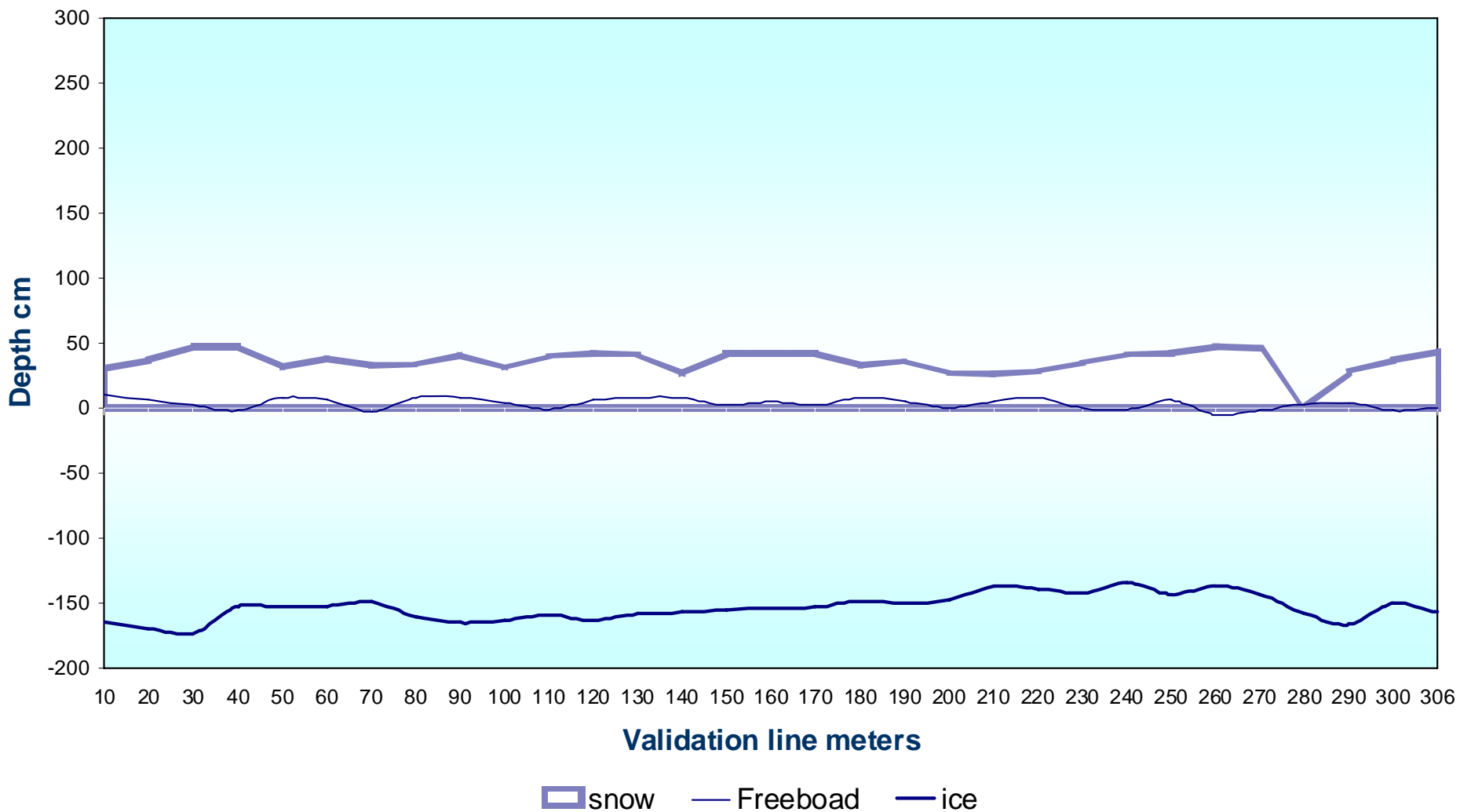


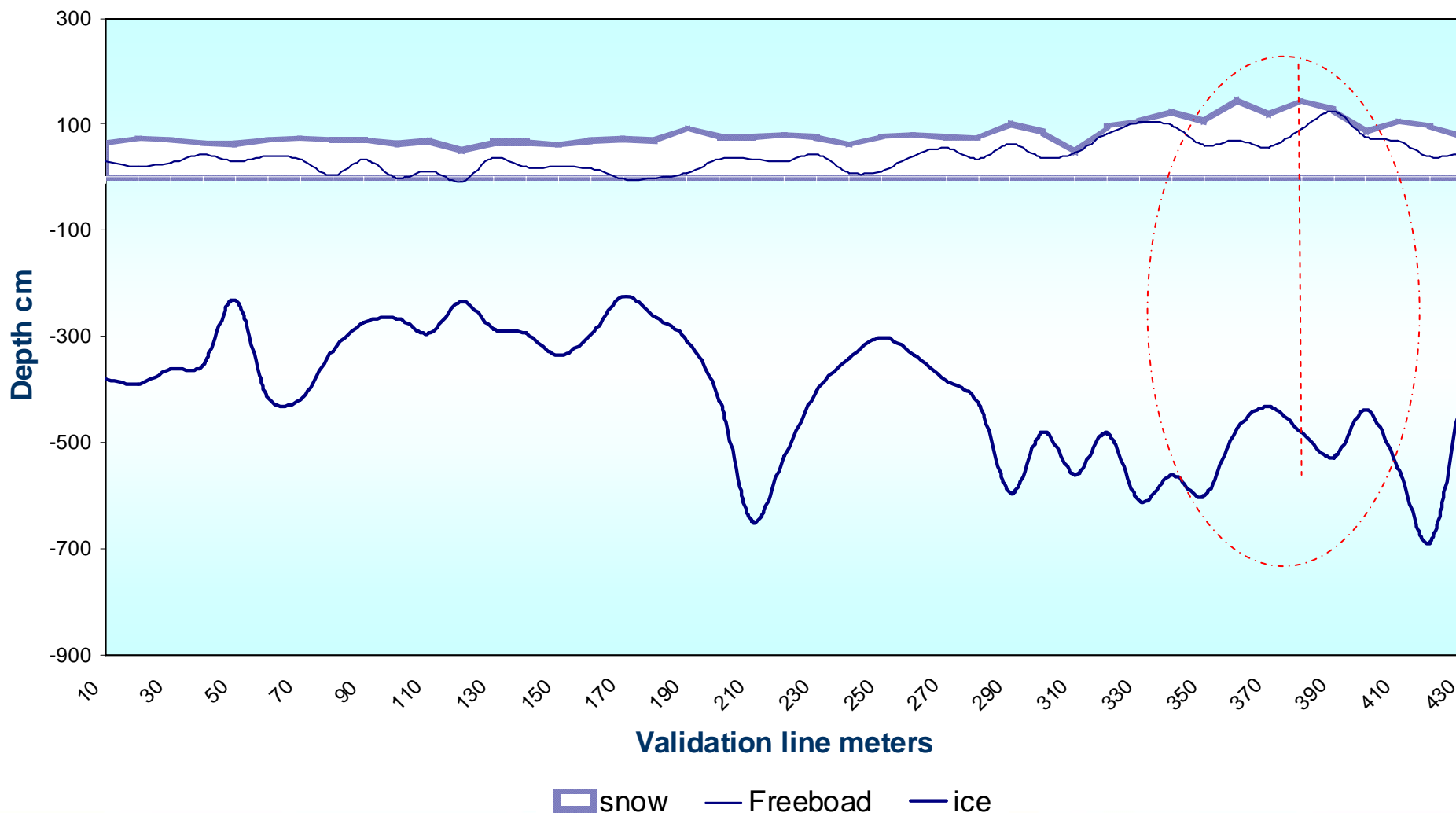
Photo: S. Hanson



FYI Validation Line, CFS Alert April 2008

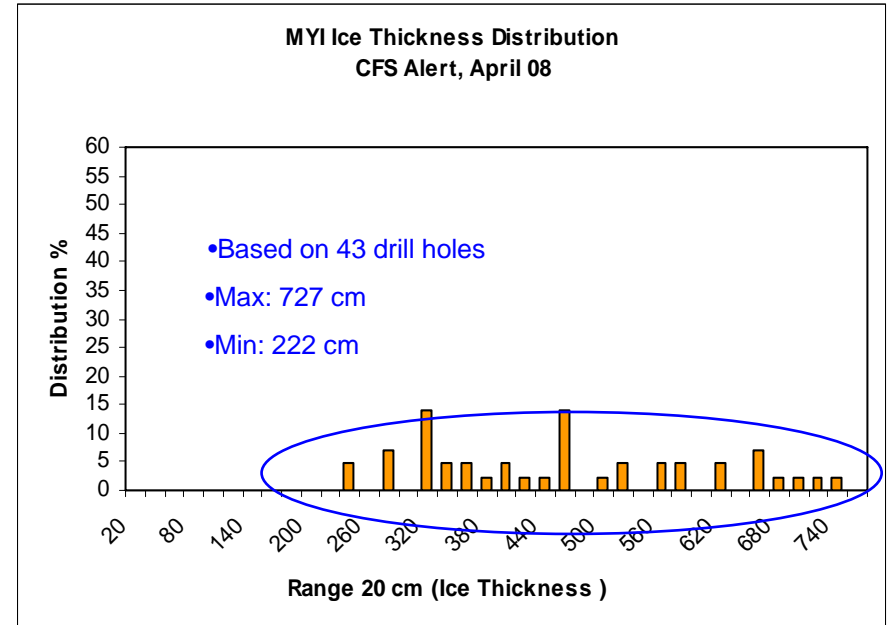
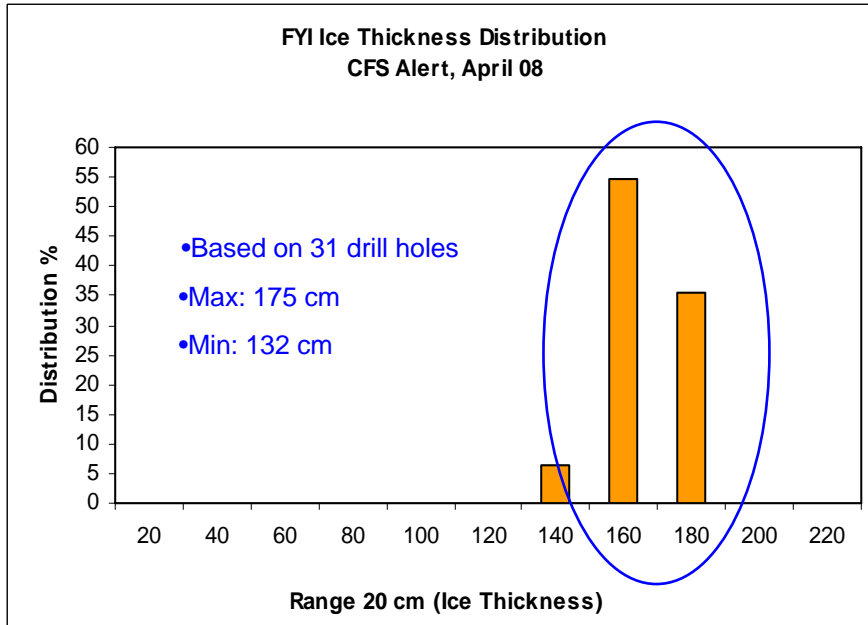


FYI Validation Line, CFS Alert April 2008



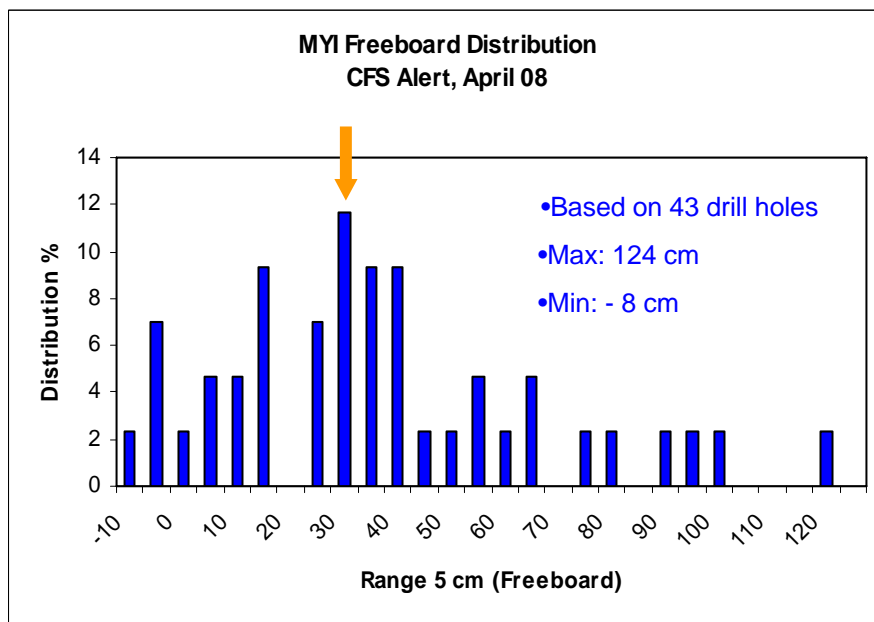
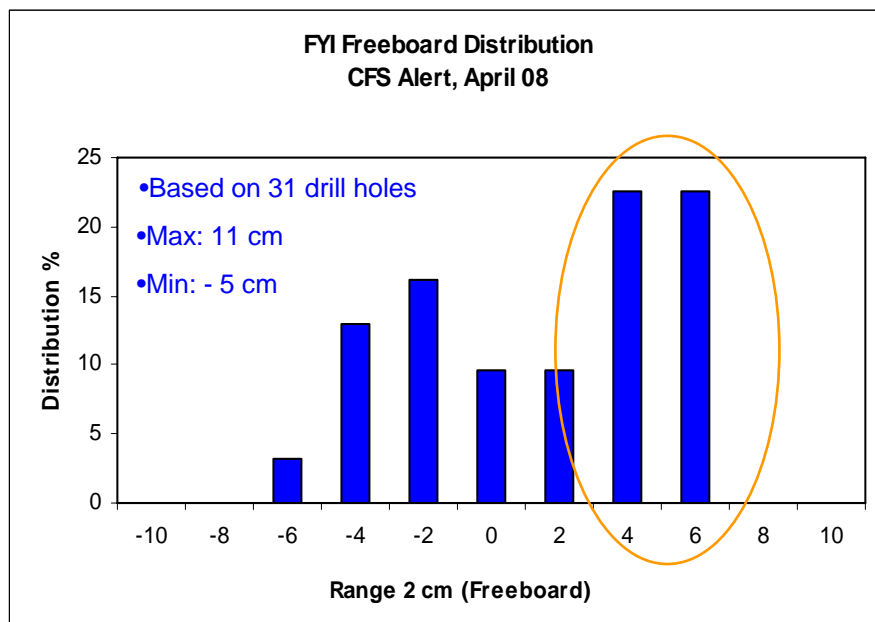


FYI & MYI Ice Thickness Distribution



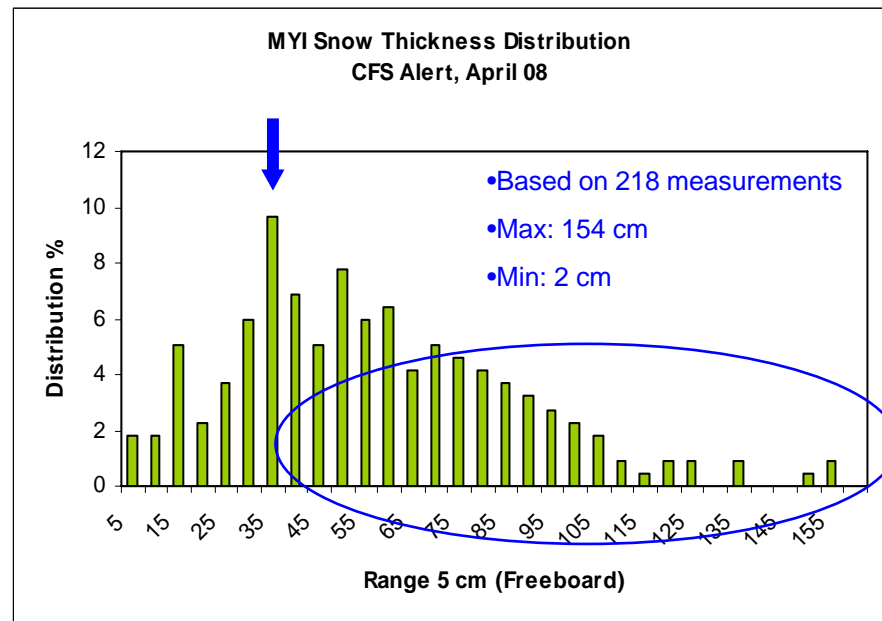
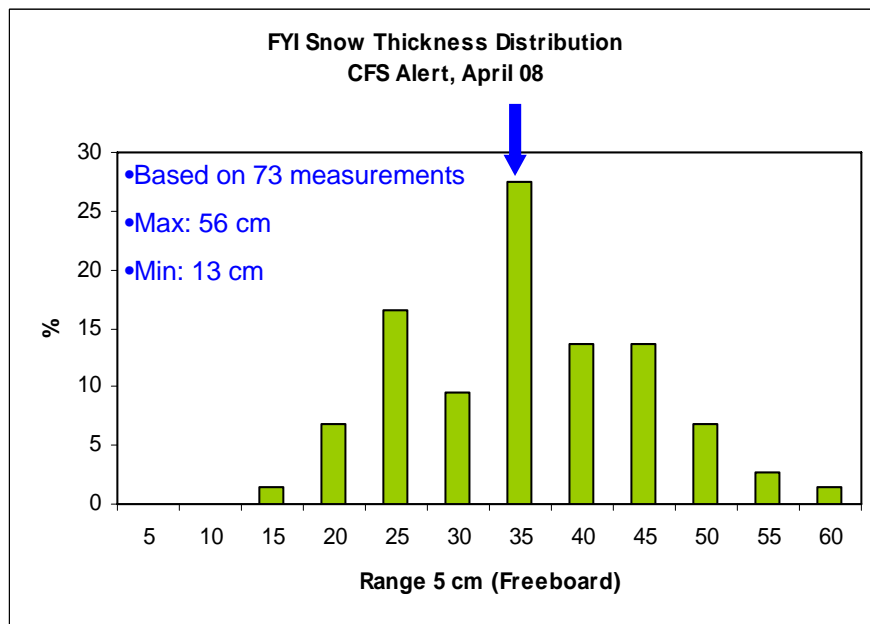
FYI is very level ice with an ice thickness of 150 – 180 cm...

Where MYI ice has a broad distribution of ice thickness between 250 – 760 cm with no representative ice thickness



Again FYI has a more simple distribution of freeboard between -6 – 6 cm with the most pronounced values around 5 cm

The distribution of MYI freeboard represent the complexity of the ice with a range from -10 – 124 cm with a typical value of 35 cm



FYI snow thickness is within the range of 10 – 70 cm with a normal distribution around 35 cm

The snow distribution at the MYI has also a representative value close to 35 cm (40 cm) but also mirrors the complexity of the surface of the MYI with an huge range of snow thickness

IPY-DAMOCLES status rapport 2008:

littel progress has been made towards interpreting the satellite results (over sea ice) – due to lack of validation data. It is recommended that efforts are made wherever possible within field campaigns to acquire such data, given the overarching importance of the satellite products”

