# Report – field campaign summer 2009 - climatology team

## (July 31<sup>st</sup> – August 19<sup>th</sup>)

## Participants on the summer 2009 field campaign:

- Matthias Braun, ZFL, University of Bonn
- Roman Finkelnburg, TU Berlin
- Bob McNabb, Geophysical Institute, University of Alaska, Fairbanks
- Marco Möller, RWTH Aachen University

#### Logistic support:

- Piotr Glowacki and MS Horyzont II
- Veijo Pohjola and Swedish Polar Research Secretariat
- Veli-Pekka Salonen and MS Farm

#### Associated colleagues:

- Regine Hock, Geophysical Institute, University of Alaska, Fairbanks
- Dieter Scherer, TU Berlin
- Christoph Schneider, RWTH Aachen University

## **Objectives:**

- Investigation of mass and energy balance of Vestfonna and De Geerfonna
- Meteorological measurements
- Assessment of spatial variability in local and regional climate setting
- Documentation and analysis of snow stratigraphy
- Obtainment of ground truth data for DTM generation
- Preparation for future assessment of ice dynamic information

## **Conducted fieldwork:**

- Gathering data from four automatic weather stations (Kinnvika research station; De Geerfonna ~240 m asl; NW ramp of Vestfonna ~370 m asl and ~375 m asl (Regine Hock))
- Dismounting of one full energy balance automatic weather station at Kinnvika research station

- Fixing and maintaining of one full energy balance automatic weather station at the NW ramp of Vestfonna (~370 m asl)
- Fixing and maintaining of two automatic weather stations (De Geerfonna ~240 m asl and NW ramp of Vestfonna ~375 m asl (Regine Hock))
- Gathering data from two automatic camera systems at Franklinbreen (Bob McNabb)
- Dismounting of one automatic camera system at Franklinbreen (Bob McNabb)
- Fixing and maintaining of one automatic camera system at Franklinbreen (Bob McNabb)
- Metering and maintaining of ablation stake networks on Vestfonna and De Geerfonna
- Clearing Kinnvika research station

## LOG of activities:

<b>Date</b> 31.07.2009	Workings Arrival in LYR	<b>Weather</b> Cloudy	<b>Site</b> LYR
01.08.2009	Preparing field campaign	Cloudy; sunny and warm in the afternoon	LYR
02.08.2009	Preparing field campaign; little hiking trip	Sunny; windy and cloudy in the evening	LYR
03.08.2009	Preparing field campaign	Cloudy, light wind, drizzle at times	LYR
04.08.2009	Flight to Kinnvika; gathering data; dismounting KV-AWS	Cloudy / Heavy fog, drizzle, light wind	LYR / Kinnvika
05.08.2009	Packing Zarges Boxes; Preparing trip to Vestfonna	Heavy fog, drizzle, light wind	Kinnvika
06.08.2009	Lift with MS Farm to Isvika; trip from Isvika to the NW fringe of Vestfonna; setting up camp; trip to Regine's station; gathering data; reading Veijo's ablation stakes	Sunny, light wind, detached clouds	Kinnvika / NW fringe of Vestfonna

07.08.2009	Trip to VF-AWS370; gathering data; maintaining/fixing VF-AWS370; reading ablation stakes; observing polar bear	Cloudy, light wind, light drizzle at times	NW fringe of Vestfonna
08.08.2009	Dismounting camp; trip to fringe of De Geerfonna; setting up camp; trip to DG- AWS; gathering data; maintaining/fixing DG-AWS; reading ablation stakes	Cloudy, light wind, light drizzle at times; heavy fog in the evening	NW fringe of Vestfonna / fringe of De Geerfonna
09.08.2009	Efforts to reach cameras at Franklinbreen were unsuccessful due to bad visibility	Heavy fog, light drizzle at times	Fringe of De Geerfonna
10.08.2009	Dismounting camp; trip to Isvika; Lift with MS Farm to Kinnvika; Arrival of MS Horyzont II in the evening; clearing and fixing Kinnvika research station	Heavy fog, light drizzle at times / Cloudy, sun at times	Fringe of De Geerfonna / Kinnvika
11.08.2009	Clearing and fixing Kinnvika research station; trip to trapper's hut	Foggy in the morning, cloudy and good visibility in the afternoon	Kinnvika / MS Horyzont II
12.08.2009	Trip from Isvika to Regines station; changing empty battery and logger program	Foggy in the morning, cloudy, light wind in the afternoon, fog at Vestfonna, sunny at night	MS Horyzont II
13.08.2009	Trip from Nordvika to Franklinbreen; gathering data; dismounting camera A; maintaining/fixing camera B	Cloudy in the morning, sunny and windy in the afternoon	MS Horyzont II
14.08.2009	Recovering (sleeping, etc.)	Cloudy, light wind, one or two snow flakes in the evening	MS Horyzont II
15.08.2009	Clearing and fixing Kinnvika research station	Cloudy, sunny in the evening	MS Horyzont II / Kinnvika

16.08.2009	Recovering (sleeping, etc.); sightseeing at Magdalenenfjorden	Cloudy, sun at times	MS Horyzont II
17.08.2009	Clearing MS Horyzont II; Recovering (sleeping, etc.)	Sunny, clouds at times, light wind, strong wind in the evening	MS Horyzont II / LYR
18.08.2009	Recovering (sleeping, etc.)	Cloudy, windy, drizzle at times, strong wind in the evening	LYR
19.08.2009	Departure from LYR	Cloudy, windy, sun at times	LYR

## Photos:



Gathering data from KV-AWS (Roman Finkelnburg, Marco Möller)



Lift to Isvikka with MS Farm (Marco Möller, Roman Finkelnburg)



*Trip to ice edge of Vestfonna (Roman Finkelnburg, Marco Möller, Bob McNabb)* 



Camp at NW fringe of Vestfonna (Roman Finkelnburg, Marco Möller)



*Trip to Regine's station (Bob McNabb, Roman Finkelnburg, Matthias Braun)* 



Maintaining Regine's station (Roman Finkelnburg, Bob McNabb, Matthias Braun)



Blister emergency (Bob McNabb)



*Trip to ECS2 station (Bob McNabb, Roman Finkelnburg, Marco Möller)* 



Fixing VF-AWS370 (Roman FinkeInburg, Matthias Braun, Bob McNabb)



Camp at fringe of De Geerfonna



Arrival of MS Horyzont II in Kinnvika



Landing at Nordvikka (Bob McNabb, Matthias Braun, Piotr Glowacki)



*Trip to cameras at Franklinbreen (Roman Finkelnburg, Bob McNabb, Marco Möller)* 



Bob McNabb and broken camera A



(Matthias Braun, Roman Finkelnburg, Bob McNabb, Marco Möller)



Cleaning of Kinnvika research station (Matthias Braun, Bob McNabb)