

Minutes of WG 1 & 2 meeting

3 November 2016 10:00-14:00, Granada, Spain

Present state of WG 1 & 2 tasks *Leena Leppänen*

- Progress of WG2 tasks
- Short look to WG1 tasks

Results of 1st field campaign in Erzurum *Nacho Lopez Moreno*

- Results of 1st field campaign in Erzurum are almost finalized.
- Guidelines will be written before 2nd field campaign in Reykjavik. Guideline working group: Nacho Lopez Moreno, Bartek Luks and Leena Leppänen.
- Discussion about the sources of errors but the dataset is limited → what's next ?
- Discussion about the conclusion “electronic scales are more accurate than mechanical scale”

2nd field campaign in Reykjavik *Pavla Waldhauserova*

- 2 propositions for the field trip:
 - o P1- excursion on a glacier, 2h drive. Albedo& impurities measurements by Icelandic colleague → demonstration. Other measurements such as density and SWE are possible but little time can be allocated.
 - o P2- strict follow-up of the 1st field campaign (site closer to Reykjavik) → focus on snow depth and/or SWE and COST deliverable.
- Need to define precisely the objective → choose the site after depending on the objective.
- A solution is to mix two propositions. A few people can do P1 using STSMs, then most people do only P2.
- MC meeting 4 November decided that the 2nd field campaign will concentrate to HS and SWE (P2 option), and testing the guidelines.
- Organizing working group: Pavla Waldhauserova, Nacho Lopez Moreno, Ghislain Picard, Leena Leppänen, and probably Charles Fierz (tbc).

Questionnaire results and instrument database *Leena Leppänen*

- Questionnaire has total 95 answers, more from Denmark, Norway, Sweden and Russia needed.
- Close it as soon as possible (max end of 2016)
- 40% from operational services, 60% from research
- Main result: Macrostructural properties are the most measured: snow depth, SWE, snow presence.
- Working Group to analyze and draft a paper is identified (led by Roberta Pirazzini, Leena Leppänen). Expect a draft to circulate in 2017.

Report of Albedo Workshop in Helsinki *Roberta Pirazzini*

- Measurement artifacts and recommendation have been discussed.
- Report is in progress.
- Preparation of an intercomparison of instruments in two steps:
 - o 1- In lab characterization of the instruments and inter-calibration. Different possible labs but FMI development of a calibration facility dedicated to snow seems an appropriate option.

Approximate date: ~ Summer 2017. A few groups have notified their interest. Short questionnaire to be circulated among the participant of the workshop to express interest.

- 2- In situ measurements. Postponed to 2018
- COST tools: workshop + WG meeting or STSMs

Global Cryosphere Watch: introduction, report, and discussion *Wolfgang Schöner*

- WMO initiative
- Concept of CryoNet STATIONS and CryoNet SITES to address the complexity of cryospheric environment/ site.
- Submissions for STATIONS are welcome. See the criteria on the web-site.
- GCW Guide and Manual for snow observations to be written (coordinator for snow is Charles Fierz)

International Snow Classification, CAAML & SnopViz *Cristoph Marty*

- International classification for seasonal snow on the ground: back to 1954 + 2 revisions
- CAAML: standard to exchange snow observations, especially "CAAML Profile" → exchange of snow profiles: <http://caaml.org>
- SnopViz: visualization tool for snow profiles. <http://snopviz.org>

Discussion on Webpage of data sets based on questionnaire results

- Co-operation with GCW and CryoNet related to webpage of datasets and dissemination booklet (Charles Fierz).

Discussion on undone tasks

- WG2 Task 1: Review of remote sensing instruments (space-borne and ground based)
 - Remote sensing reviews could be started by funded COST members in EArsL workshop with novel/emerging products. Also ESA documents on this topic will be checked.
- WG2 Task 5: Methods to measure mechanical properties of snow (stability)
 - Working group: Carles Garcia Selles, Pavel Nejedlik and possibly someone from SLF
- WG2 Task 4: Methods to measure snow grain size
 - IACS workgroup will process results from Grain Size Workshop 2014 and those will be used also for COST. Contacts by Ghislain Picard.
- WG1 Task 3: Snow network optimization
 - Led by David Pulido Velázquez (Spain)

Additional: related subjects in MC meeting 4 November

- Next winter 3rd field campaign could be organized with STSM funding (to have more inter-comparison like measurements) e.g. in Sodankylä. Sending all instruments to one place was also suggested, but not got support.
- Training school in summer/autumn 2017-2018 (autumn 2018 too late because of the approaching end of the project). Suitable conferences to attend was considered but together 2 weeks is probably too long time.
- Database for instrument videos: for harmonization and also teaching material. Every country/group could make video of one instrument (SWE/HS).