On 12th – 14th June 2019 a total of 66 participants from 19 countries and 33 avalanche warning services met for the 20th EAWS General Assembly at the Norwegian Water Resources and Energy Directorate (NVE) in Oslo.

Chairman Rune Engeset (NVE, NO) and Coordinator Thomi Stucki (SLF, CH) presented the main achievements of the two years since the last General Assembly in Tutzing:

- Since 1st June 2019 the revised EAWS homepage is online at www.avalanches.org. Coordination, planning and content management was mainly carried out by Norbert Lanzanasto (AT) and Solveig Kosberg (NO). Funding for the revision was provided by NVE and needs to be organized in the next years if EAWS is willing to further develop and extend its online presence. The main improvements are:
  - Responsive design, which facilitates usage via mobile devices,
  - Location search in the map,
  - Detailed “about” section to inform the public on the philosophy, history and goals of EAWS,
  - New logo, which can easily be downloaded and should be displayed on all web sites of members (as well as templates for word and powerpoint),
  - The web site is using Wordpress, which allows a comfortable content management by EAWS.
- The implementation of new EAWS standards by the current members was regularly checked by the Chairman, the compliance improved and is now generally good. The recommendations formulated at the last GA in Tutzing (English avalanche bulletin, easy location search, afternoon publication of the bulletin) were implemented by most of the
members, but there is still a number of members that failed to offer English versions. The EAWS encourages its members to further harmonize our products.

- The common language in EAWS is English, and TAB established a language task force (Mark Diggins, UK, Samuel Morin, FR, Fabiano Monti, IT, and Chris Mitterer, DE) to deal with translation issues.

The three working groups (1. Matrix/Scale, 2. Best practice in regional avalanche warning and 3. Best practice in local avalanche warning) presented their results. The reports were approved by the General Assembly. The reports implied no changes to the standards for EAWS for the time being.

- WG 1 was trying to find a common understanding of the main terms defining the avalanche danger scale, and a common process for determining the avalanche danger. This is the first step for improving the EAWS Matrix and danger scale. More time and discussions are necessary to come to conclusions. However, the report stated that “Avalanche danger is a function of snowpack stability, its spatial distribution and avalanche size.” and that “EAWS will use this definition of the avalanche danger, and, use the Conceptual Model of Avalanche Hazard as the reference for future work and development on the terms used in the European Avalanche Danger Scale and EAWS Matrix”.

- WG 2 split up in various subgroups trying to find best practices in training, observations and data exchange in the different services. In general the amount of work and ideas was too extensive to be tackled in two years. Realistic, achievable goals should be defined in the future.

- WG 3 sent out a survey on the workflow of local avalanche warning and presented the results at the GA and ISSW 2018. There were fruitful discussions and the working group is willing to continue its work in the next years.

Beni Zweifel informed about a meeting between representatives from EAWS and North-American AWS’ at ISSW in 2018, which concluded that the avalanche problems used in NA and Europa were similar and could be used in parallel. He also presented a decision aid SLF is using to define typical avalanche problems in a workflow, which will be will be available on OneDrive for testing.

The work of the language and communications task forces was presented by Diggins and Engeset.

The membership committee reported that A LURTE applied for membership in EAWS. A probation time of three years was granted by the GA. The next GA will decide on full membership. Besides that an application is expected from the Avalanche Warning System in Ukraine (UAWS) and possibly from Sweden.

Our North-American colleagues presented highlight of what is going on in the US and Canada.

A number of forecasting tools, as well as user tools and future needs were presented on Thursday and Friday. All presentations are available on OneDrive.

The following procedure for the next two years was approved by the GA:

- Rune Engeset (NO) and Thomi Stucki (CH) were approved as Chairman and Coordinator for another two-year term period
- Next GA will take place 9th-11th June 2021 in Davos, Switzerland, hosted by SLF.
• TAB with the following members was approved:
  o Norbert Lanzanasto (AT)
  o Igor Chiambretti (IT)
  o Thomas Feistl (DE)
  o Christoph Mitterer (AT)
  o Karsten Müller (NO)
  o Fabiano Monti (IT)
  o Mark Diggins (UK)
  o Beni Zweifel (CH)
  o Christian Jaedicke (NO) as leader of working group 3

• Thomi Stucki thanks the resigning members S. Morin, M. Biskupič and A. Studeregger for their valuable contributions to the TAB during the last two years.

• Members of the membership committee were approved (Jürg Schweizer, CH, Gloria Marti, ES, Aleš Poredoš, SI, Rudi Mair, AT, and Igor Chiambretti, IT. Due to a technical voting problem, Vincenzo Romeo, IT, did not appear in the election. Due to this and the fact that Chiambretti is on the TAB, Vincenzo Romeo replaces Igor Chiambretti in the MC.

• New WGs are:
  o WG1, Matrix/Scale: Formulate definitions of the contributing factors to avalanche danger to gain the basis for common routines and workflows. A revision of the scale will be the final step. The working group leader is Karsten Müller (NO).
  o WG2, Funding and organisation: A permanent secretary is favorable to professionalize EAWS as an organization. Further development of the internet homepage needs to be financed. The search for possible sources and writing proposals is the task of WG3. The working group leader is Christoph Mitterer (AT).
  o WG3, Local avalanche warning: Formulate definition of regional vs. local avalanche warning and formulate common or best practice workflows for local warnings. The working group leader is Christian Jaedicke (NO).

Generally WGs should not be too big, in order to ensure effective and result-oriented work. WGs should allocate enough time and conduct physical meetings, and produce tangible products for the members every time (ensuring transparency and progress). Applications for joining working groups have to be submitted to the Chair (rue@nve.no) and Coordinator (stucki@slf.ch) by 9th August 2019. Interested members need to have the knowhow and time to contribute to the task and WG members have to be approved by the TAB.

There are a number of opportunities and issues the EAWS should deal with in the future, such as

- Keeping updated fatality statistics and glossary in relevant languages on www.avalanches.org
- Recommend standardized use of CAP by members for avalanche danger
- Revise the information pyramid
- Create training tools on www.avalanches.org for training forecasters and observers
- Use a nomination task force to get more candidates up for elections

The GA thanks NVE for the perfect organization and constructive and interesting days in Oslo!

The reports, proposals, presentations, photos and the summary of the GA are uploaded to Onedrive.
Everybody can access the public documents from avalanches.org:
https://www.avalanches.org/downloads/#publicdocuments

If anyone needs access to all EAWS documents he/she needs to do the following:

1. You create an account at www.onedrive.com (or use your existing one if you have)
2. You send an email to Norbert (norbert.lanzanasto@tirol.gv.at) or Karsten (kmu@nve.no) with your Onedrive-username
3. They add you to the EAWS group and you receive a confirmation by email
4. Now, you should see a folder called “EAWS documents” in the “Shared” section when logging into your Onedrive-account