

November 2012. The program had a wide range of exciting papers and topics being covered. The ICA Commission on Maps and the Internet sponsored the activities of SOMAP 2012 symposium.

## Future Plans

The Commission is currently arranging for a pre-conference workshop prior to the ICC 2013 meeting. The workshop will be held in Plzen, Czech Republic the week before the ICC meeting and will include a poster session, paper presentations, social activities and cultural immersion events. Plzen is a short 240km from Dresden by car and approximate 4-hour travel time by train service through Prague. A call for posters and presentations will be sent out early in 2013. For those interested in attending, please contact Rex Cammack for additional information.

**Rex Cammack** | Chair | ICA Commission on Maps and the Internet | USA ●

## Mountain Cartography

[www.mountaincartography.org](http://www.mountaincartography.org)

### Workshop in Taurewa, New Zealand

The ICA Commission on Mountain Cartography holds its traditional Workshops every other year, alternating with the International Cartographic Conferences (ICC). The New Zealand Cartographic Society was pleased to host the 8th Mountain Cartography Workshop at the Sir Edmund Hillary Outdoor Pursuits Centre at Taurewa, near Tongariro National Park, 1-5 September 2012. The meeting gathered 25 mountain cartographers and enthusiasts from nine countries: Argentina, Austria, Canada, Germany, Norway, Slovenia, Switzerland, USA

Participants of the 8th Mountain Cartography Workshop held in Taurewa near Tongariro National Park, New Zealand | *Photography Karel Kriz*



The Sir Edmund Hillary Outdoor Pursuit Centre at Taurewa turned to be an ideal venue for the Mountain Cartography Workshop | *Photography Karel Kriz*

and New Zealand. One needed to be very keen to come so far to the middle of a New Zealand winter! However, the weather was relatively kind, at least on the day programmed for excursions and nobody stayed in the warmth of the lodge.

The Workshop theme *Mapping Mountain Dynamics: From glaciers to volcanoes* set the mountain scene and the central focus for presentations and discussions. The Workshop opened on Saturday evening, 1 September, with an excellent presentation from Dr Harry Keys of the Department of Conservation who not only informed us of the natural and cultural context that we were in, but updated us on the devastation caused by recent volcanic explosions on nearby Mt Tongariro. The remainder of the evening was spent on catching up with friends and colleagues, enjoying a shared supper and planning the next day.

Taking advantage of the favourable weather on Sunday, all participants split into several groups, each targeting a different type of activity, from hiking, through snowboarding and ski touring to mountaineering. Many local bush

walks saw a number of international hikers enjoying lush vegetation, bird songs and the smell of bush flowers. The Mt Ruapehu's snow fields accommodated a lonely snowboarder who couldn't resist pushing his limits on the challenging piste in Happy Valley. The fearsome peaks of Mt Ngauruhoe (2287m) and Mt Tongariro (1967m) fell to a group of experienced mountaineers, who conquered their summits in gale force winds. Finally, the famous Mt Ruapehu Crater Lake saw a small group of mountaineers and ski touring enthusiast at its shores, enjoying panoramic views of Summit Plateau from nearby Dome (2672m). The day finished with plenty of talks, photo presentations and a movie taken during one of the trips.

The next three days featured 21 scheduled presentations grouped into six themes:

- Mountain Mapping
- Glacier Mapping
- User-related Studies
- Mobile Media
- Professional Cartography
- From the Ocean Floor to the Mountain Tops

In addition several unscheduled presentations and projections enriched the Workshop's programme.

The *Mountain Mapping* session took us on a journey to mid 1930's when one of the first New Zealand hiking maps was produced of the Tararua Mountains (Geoff Aitken, NewTopo). We then moved to the challenges of contemporary photorealistic representations of mountainous terrain (Dušan Petrovič, University of Ljubljana) and illustrative cartography of Mt Everest, including state of the art data capture (Martin Gamache, National Geographic Society). Finally, an innovative geographical atlas of Argentina incorporating 1:500,000 overview maps with corresponding satellite imagery was presented (Carlos Nelson, Instituto Geográfico Nacional).

A review of cartographic depiction of glacier dynamics (Roger Wheate, University of Northern British Columbia) introduced the *Glacier Mapping* session. Other presentations described semi-automated approach to

reconstructing glacier DEM based on historical maps (presented by Stephan Wondrak, ETH Zurich) and application of digital photogrammetry techniques to create a new DEM of Tasman Glacier in Southern Alps (Sebastián Vivero, University of Otago).

The last session of the day, devoted to *User-related Studies*, included presentations covering themes as diverse as the user interface for the Tyrolean Avalanche Warning Center portal (Karel Kriz, University of Vienna), evaluation of panoramic maps of Switzerland (Stefan Räber, ETH Zurich) and assessment of small scale mountain maps for an exhibition (Karel Kriz).

Following day, the programme started with the *Mobile Media* session. Georg Gartner (Vienna University of Technology) presented some wayfinding challenges in context of “emo-maps”, i.e. maps describing people’s emotions. Mobile devices attracted two studies, one on the development of mountain-related applications (Karel Kriz), the other on multimodal exploration of rugged digital terrain (Antoni Moore, University of Otago).

*Professional Cartography* session focused on recent developments with respect to tools and solutions in both, digital and hard copy environments. Martin Gamache talked about the use of new relief tools in production of National Geographic maps and illustrations, while Roger Smith (Geographx) demonstrated how to interpret geomorphology from suitably designed maps. The new and crisp approach to topographic mapping (Geoff Aitken) and creating our own terrain maps in digital environment (Nathaniel Kelso, Stamen Design) presentations wrapped up the session.

Tuesday afternoon was spent on recreation, mixing some walking in the rain with a visit to the Tongariro National Park Visitor Centre, and finishing off with a nice coffee at The Grand Chateau in Whakapapa Village. Despite the weather, everybody enjoyed the outing but was equally pleased to be back in the safety and warmth of the lodge for an evening meal.

The last day featured just one session – *From the Ocean Floor to the Mountain Tops* – regarded by some as the highlight of the entire Workshop. Four presentations took us on an amazing rollercoaster ride from the unseen mountains at the bottom of the Pacific Ocean near Hawaii (Tom Patterson, US National Park Service), to the climbing routes of the famous El Capitan vertical world (Martin Gamache), through the hidden and forgotten pilgrimage trails of the Athos Peninsula (Peter Howorth) and finally back to the ocean depths depicted on a new ocean floor map (Martin Gamache).

Throughout the course of the Workshop, several informal presentations were made as people found more and more things to share with others. Participants learned about combining grayscale and coloured raster without losing colour intensity or hillshade



Mt Ruapehu's Pinnacle Ridge with Mt Ngauruhoe and Mt Tongariro in the background | Photography Igor Drecki

detail (Aileen Buckley, Esri), current projects at TU Dresden concerning glacier dynamics (Benjamin Schroeter, Dresden University of Technology), the use of LIDAR technology for flood mapping (Andrew Steffert, Horizons Regional Council) and many more. Georg Gartner, President of ICA, Karel Kriz, Chair of the ICA Commission on Mountain Cartography, and Igor Drecki, Vice President of the New Zealand Cartographic Society jointly chaired the concluding session and thanked Geoff Aitken, Chair of the Local Organising Committee, and his team for superbly organised event.

The ICA Commission on Mountain Cartography held its business meeting at the Workshop on Tuesday, 4 September 2012. The minutes are available from the Commission website together with Workshop presentations. The Workshop proceedings will be published in time for the ICC 2013 in Dresden, Germany.

## Future Plans

The next, 9th Mountain Cartography Workshop is planned to take place immediately before or after Easter 2014 in Banff or Lake Louise, British Columbia, Canada. Roger Wheate leads the local organising committee. The exact dates and place will be confirmed at the Commission’s business meeting during ICC 2013.

Igor Drecki and Geoff Aitken | Members | ICA Commission on Mountain Cartography | New Zealand

## Open Source Geospatial Technologies

[ica-opensource.scg.ulaval.ca/](http://ica-opensource.scg.ulaval.ca/)

### First Open Source Geospatial Research and Education Laboratory in USA

The first Open Source Geospatial Research and Education (OSGeoREL) Laboratory in the USA

has been established at the Center for Earth Observation, North Carolina State University (NCSU) at Raleigh. OSGeoREL at NCSU is led by Dr Helena Mitsova and Dr Laura Tateosian. The laboratory has an established program in graduate education in geospatial information science and technology using FOSS4G and extensive research in geospatial analysis, modelling and visualization with focus on natural resources.

Dr Helena Mitsova is an Associate Professor at the Department of Marine, Earth and Atmospheric Sciences, OSGeo charter member since 2006, member of the OSGeo education and conference committees and Sol Katz award recipient. She has been actively involved in the GRASS GIS development since 1991 and together with Markus Neteler she has co-authored the first book about GRASS GIS. Dr Laura Tateosian is Research Assistant Professor at the Center for Earth Observation Her research interest focus is on visualization, human visual perception, computer graphics, geospatial sciences, non-photorealistic rendering, and human-computer interaction.

More details on the lab can be found at [gis.ncsu.edu/osgeorel/](http://gis.ncsu.edu/osgeorel/).

### Launch of First African ICA/OSGeo Laboratory, South Africa

The Centre for Geoinformation Science (CGIS) celebrated the official launch of the first ICA/OSGeo Laboratory in Africa at the University of Pretoria on 5 October 2012. In addition to representatives from the University of Pretoria, the launch was attended by Prof Elri Liebenberg, former Vice President of the ICA, and OSGeo Board member, Jeff McKenna. As part of the ICA/OSGeo Laboratory launch celebrations, CGIS also organised two open source geospatial workshops at the University of Pretoria. An introductory, hands-on MapServer workshop was presented by MapServer Project