

ADMAP-2 Workshop at SCAR Kuala Lumpur, Sunday 21st August, 2016.

(convened by Detlef Damaske and Fausto Ferraccioli)

Dear ADMAP supporters,

the most recent meeting of the ADMAP community took place at Renaissance Hotel in Kuala Lumpur, just before the start of the 2016 SCAR meeting. With completion of the ADMAP2 compilation just a step or two away, the meeting was a full and exciting one, with much to arrange for the coming year. The report in this letter summarises our discussions and some of the next most important steps to bringing ADMAP2 to a successful conclusion. The next planned meeting will be a splinter meeting at EGU 2017.

Agenda

• Introduction

Detlef Damaske: Report on ADMAP-2 Workshop Goa 2015

• Presentations - Antarctic magnetic case studies I

Antonia Ruppel.: Aeromagnetic high-resolution survey over the Lanterman Range during 2015-16 austral summer”

Graeme Eagles: “Magnetic survey progress with AWI aircraft since 2014”

• Open discussion part I: ADMAP-2 roadmap & data products part I

• Presentations - Antarctic magnetic case studies II

Rene Forsberg/Fausto Ferraccioli: “PolarGAP” survey during the 2015-16 field season

Jörg Ebbing, presented by Fausto Ferraccioli: “GOCE + Antarctica”

Jörg Ebbing, presented by Fausto Ferraccioli: “Merging satellite and aeromagnetic data”

• Presentations - ADMAP-2 compilation status & techniques to process, assimilate, archive & release data

Alexander Golynsky.: “ADMAP-2: The next generation Antarctic magnetic anomaly map”

Fausto Ferraccioli: New airborne geophysical insights into the structure and evolution of the Antarctic continent; overlapping with CGG

• Presentations - Antarctic magnetic case studies III

Sun Bo: “CHINARE Airborne geophysical investigations in Princess Elizabeth Land, East Antarctica during the 2015-16 and the plans for the coming field season

Duncan Young: “Brief report on UT-AAD ICECAP/EAGLE effort”

Alan Aitken: “Wilkes Land-work”

Enrica Quartini/Duncan Young: ”MBL-work”

• Discuss the ADMAP-2 roadmap & products part II

Open discussion

• ADMAP Expert Group business meeting

- Election of new Chair of ADMAP Expert Group
- Call for a Special Publication on ADMAP-2
- Review of the meeting & date of next meeting
- AOB

List of attendees

- 1) Fausto Ferraccioli (UK - BAS) - ffe@bas.ac.uk
- 2) Detlef Damaske (Germany - formerly at BGR) - djdamaske@hotmail.com
- 3) Alexander Golynsky (Russia - VNIIO) - sasha@vniio.nw.ru
- 4) Graeme Eagles (Germany – AWI) - geagles@awi.de
- 5) Martin Melles (Germany – Univ. Cologne) – mmelles@uni-koeln.de
- 6) Geoff Grantham (South Africa – Uni. Johannesburg) – ghgrantham@uj.ac.za
- 7) German Leitchenkov (Russia – VNIIO) – german_l@mail.ru
- 8) Dmitry Golynsky (Russia – VNIIO) – dmitry.a.golynsky@gmail.com
- 9) Christine Siddoway (USA – Colorado) - csiddoway@coloradocollege.edu
- 10) Massimo Pompilio (Italy – INGV) – massimo.pompilio@ingv.it

- 11) Laura Crispini (Italy – Uni Genova) – crispini@dipteris.unige.it
- 12) Milos Bartak (Czech Republic - ?) – mbartak@sci.muni.cz
- 13) Gianni Capponi (Italy – Uni Genova) – capponi@dipteris.unige.it
- 14) Anne Grunow (USA – Byrd Polar Ohio State Uni) – grunow.1@osu.edu
- 15) Mirko Scheinert (Germany – Uni Dresden) – Mirko.Scheinert@tu-dresden.de
- 16) Anna Maria Fioretti (Italy – CNR) – anna.fioretti@igg.cnr.it
- 17) Joachim Jacobs (Norway - University Bergen) - jja083@uib.no
- 18) Andreas Läufer (Germany – BGR) - andreas.laeufer@bgr.de
- 19) Jesus Galindo-Zaldivar (Spain – University Granada) - jgalindo@ugr.es
- 20) Antonia Ruppel (Germany- BGR) - antonia.ruppel@bgr.de
- 21) Fernando Bohoyo (Spain - IGME) - f.bogoyo@igme.es
- 22) Karsten Gohl (Germany - AWI) - karsten.gohl@awi.de
- 23) Duncan Young (USA - UTIG) - duncan@ig.utexas.edu
- 24) Enrica Quartini (USA - UTIG) - enrica@ig.utexas.edu
- 25) Alan Aitken (Australia – UWA) – alan.aitken@uwa.edu.au

Main points raised:

1) The report from the Goa workshop was reviewed. It was confirmed that most of the action points from that workshop had been completed.

2) We discussed the ADMAP2 roadmap and data products in three levels of complexity:

- Coarse (Antarctic-wide grids & geotiffs – original and smoothed data - at ~1.5 km resolution)
- Medium for science users (1 Hz databases with lon-lat-altitude-time-survey-LINE_ID-final levelled-microlevelled solutions and attendant grids, by sub-region)
- Fine (full 1 Hz databases with all available ADMAP2 channels, by survey or by sub-region)

The sub-regions discussed are:

- West Antarctic Rift System excluding the Ross Sea
- Antarctic Peninsula regional (BAS, RAE data, ICEGRAV, some USAC data)
- Antarctic Peninsula detailed (~1 km spacing BAS)
- Dronning Maud Land regional (RAE, AWI, AFI-Coats Land and IceBridge-Troll (ICEGRAV) surveys)
- Dronning Maud Land detailed (~1 km spacing BAS and RAE)
- Lützow-Holm Bay to Enderby Land
- Lambert Rift, Gamburtsevs & Vostok
- N. Victoria Land-Ross Sea-Wilkes Land-Transantarctic Mountains
- Wilkes Basin
- Weddell Sea
- vintage data
- offshore aeromagnetic corridors in (1) Weddell (2) Bellingshausen and (3) Riiser Larsen seas and (4) off the DML continental margin
- marine shipborne magnetic data

Action: Members to decide about whether to split Wilkes Land into a separate regional compilation

Action: Members to decide on best way to organize data in the ‘fine’ product (i.e. by sub-region or by survey) to ensure that end-users have access to all used ADMAP2 channels in the database.

3) The group discussed remaining tasks and a draft timeline for the completion and publication of ADMAP2:

TASK: A handful of datasets remain to be incorporated into the ADMAP2 database (BBAS, AGASEA, WISE-ISODYN, GIMBLE, ICECAP).

Action: Sasha and Dmitry to incorporate the final data sets (BBAS, AGASEA, WISE-ISODYN, GIMBLE, ICECAP) by end October 2016

Comment 11/11/16: Owing to illness, Sasha reports this will be delayed – probably until the end of November.

TASK: The ADMAP2 database needs to be prepared and split into the regional and multi-resolution products that we intend to make freely available. The ADMAP contributor community should have a fair first opportunity to capitalize on their commitment to ADMAP2.

Action: Sasha and Dmitry to split the main product into regional medium and fine-scale databases by end of December 2016

Action: Sasha to provide the full science-user databases to all project partners by end of December 2016

Comment 11/11/16: Owing to illness, Sasha reports this will be delayed until January 2017.

TASK: Release of the ADMAP2 database should be heralded by a peer-reviewed paper in a prominent journal such as GRL or G-Cubed, which has yet to be written. The lead authors will be Sasha and Fausto. Co-authors will be drawn from the wider group of contributors to ADMAP.

Action: Sasha and Fausto to start work on ADMAP2 release paper in January 2017.

Comment 11/11/16: With the necessary pre-requisite steps in October-December 2016 sliding into the new year, this should be postponed into the later part of Q1 2017. Sasha and Fausto to liaise.

Action: Sasha and Fausto to prepare a first draft version of release paper ready for feedback at EGU 2017.

Action: Graeme and Fausto to request a joint splinter meeting with the CGG group at EGU 2017.

TASK: The ADMAP2 database will be made freely available for download from portals in Germany (PANGAEA), the UK (BAS) and the US (NSIDC).

Action: Graeme to upload all ADMAP2 products to PANGAEA by mid-2017

Action: Fausto to upload all ADMAP2 products at BAS by mid-2017

Action: Duncan to upload all ADMAP2 products at NSIDC by mid-2017

Comment 17/11/16: Although not discussed at Kuala Lumpur, Graeme has also contacted Hyung Rae Kim to follow up the possibility of a fourth host site, in Korea.

TASK: A print version of the ADMAP2 map should be completed and available to publicize at the AGU Fall meeting in 2017. Total costs are likely to be in region of 2500 euro for 500 print copies. The map must have a doi to make it fully citeable.

Action: Graeme will request a contribution to printing costs from AWI Geophysics.

Action: By Email, Steering Committee to discuss a suitable Registration Agency (e.g. CrossRef) to contact for granting a doi.

Action: All members please consider other sources for funding the print map.

TASK: The ADMAP2 release paper should be submitted for peer review by the end of 2017 at the absolute latest.

Action: By the end of 2017, Sasha and Fausto to finalize and submit the paper after considering feedback from members at and after EGU 2017.

4) Election of new Steering Committee and Chair of ADMAP Expert Group:

Action: The new steering committee now consists of the following members:

Graeme Eagles (GER, chair)

Fausto Ferraccioli (UK, co-chair)

Detlef Damaske (GER, co-chair)

Sasha Golynsky (RUS, data manager)

Ralph von Frese (USA)

Marta Ghidella (ARG)

Hyung Rae Kim (KOR)

Duncan Young (USA)

Dimitry Golynsky (RUS, early career member)

Antonia Ruppel (GER, early career member)

5) Call for a Special Publication on ADMAP-2

Action: Discussion of details postponed to the splinter group meeting at EGU 2017.

6) The next full ADMAP meeting will happen at SCAR 2018 in Davos.

7) AOB. There was no further business.

With best regards from the Chairs,

Graeme Eagles (AWI), Detlef Damaske, Fausto Ferraccioli (BAS)