



## Darwin Plus DPLUS065: Mapping the Falklands and South Georgia coastal margins for spatial planning (Coastal Mapping).

Project Management Group (PMG) Summary Minutes  
Monday 10<sup>th</sup> September - SAERI Office / Skype  
11:00hrs UTC-3 / 15:00 hrs BST

### Attendees:

Tara Pelembe (Chair) (SAERI)  
Neil Golding (Secretariat) (SAERI)  
Paul Brewin (SMSG Ltd)  
Paul Brickle (SAERI)  
Michael Harte (OSU)  
Gwawr Jones (JNCC)  
Sue Gregory (GSGSSI)

### Apologies:

Paul Robinson (JNCC)  
Helen Havercroft (GSGSSI)  
Denise Blake (FIG)

### Summary of Actions:

- *ACTION 2018-09-01: NG to follow up with GJ regarding staff changes at JNCC in relation to the project budgets. **COMPLETE***
- *ACTION 2018-09-02: NG to disseminate details of the 1956 geo-referenced imagery to PMG members. **COMPLETE***
- *ACTION 2018-09-03: NG to revise Risk Register and place update on Trello. **COMPLETE***
- *ACTION 2018-09-04: NG to include currency conversion on Issues Log and place update on Trello. **COMPLETE***
- *ACTION 2018-09-05: NG & TP requested that ALL members review the M&E plan ahead of the next meeting.*
- *ACTION 2018-09-06: NG to follow up with GJ after meeting about SD bathy models. **COMPLETE***
- *ACTION 2018-09-07: NG to follow up with HH regarding SG broad scale map peer review. **COMPLETE***
- *ACTION 2018-09-08: NG to follow up with DB regarding peer review of Falklands broad scale map peer review. **COMPLETE***

## Agenda:

1. Approve agenda & AOB & sign-off minutes from PMG (11<sup>th</sup> June 2018)
  - **GJ** stated that Paul Robinson would not now be participating in the project due to a role change; **GJ** will take over Paul's role in the project as the JNCC lead and the primary contact.
  - **NG** requested an additional agenda item on Satellite Derived Bathymetry – to be inserted after agenda item 4. Some additional items under AoB were also suggested.
  - The final minutes from the 11<sup>th</sup> June 2018 PMG meeting were approved by the group. There were no alterations made.

**ACTION 2018-09-01: NG to follow up with GJ regarding staff changes at JNCC in relation to the project budgets.**

2. Review project plan and budgets
  - **NG** reported back on the summer placement which **Brandi Black** was in progress of undertaking through the coastal mapping project. The placement was going very well, and **Bran** had made excellent progress with delivering the South Georgia broad scale maps on time (end of July '18). While the placement is due to end on the 15<sup>th</sup> September, **Bran** will continue contributing to the project, as her availability allows.
  - ESB grant FY 18/19 – in the original project submission, a letter of support from FIG stated that “The Environmental Planning Department is able to offer in principle a contribution from the Environmental Studies Budget (ESB) up to five thousand pounds per annum to this project, subject to further approvals within government”. **NG** stated that an application was made to the ESB for £5000 to cover year two of the project, and was successful.
  - **MH** raised the fact that the exchange rate was presenting challenges with respect to the research agreement between SAERI and OSU. **MH** stated that things were ok as they currently stood but worth keeping a watching brief on this as the project progresses, especially at a time when invoices are submitted.
  - Key deliverables review - there are two significant deliverables over this period:
    - The broad scale habitat map for South Georgia were delivered on time to GSGSSI (at the end of July 2018) – On behalf of SAERI, **NG** thanked **Bran** at OSU for the significant effort she put in to deliver a first class product. **SG** passed on thanks to the project team from GSGSSI for the broad scale maps.
    - The Falklands Islands broad scale habitat map is due for delivery at the end of September 2018. Work is still on going with this – **NG** has been out in the field this month collecting ground validation data whilst **Bran** will be working on the habitat models in Google Earth Engine (GEE).
    - Geo-referencing of 1956 aerial imagery – a lot of effort has been put in by **pb** at the IMS-GIS data centre. **pb** has made excellent progress with this, and the imagery will be shown as a geo-referenced digital map on a webGIS system, and is on track for delivery at the end of September 2018. **NG** commented that delivery of this output would have been extremely difficult had it not been for the approach developed by **pb** to create some code which automatically georeferenced each of the 3880 images. This code gives a broad geo-referenced image suitable for most uses. It was originally estimated that to complete this work package using a manual geo-referencing approach would have taken three months. **NG** commented that there was a lot of interest in this product, including at the Stakeholder workshop. This has been a real success story of the project. **P Brickle** mentioned that there could be a range of uses for this new product.

**ACTION 2018-09-02: NG to disseminate details of the 1956 geo-referenced imagery to PMG members. COMPLETE**

Link to the Coastal Habitat mapping webGIS, which includes the 1956 geo-referenced aerial images:

[https://data.saeri.org/saeri\\_webgis/lizmap/www/index.php/view/map/?repository=v07&project=fi\\_coastal\\_hab\\_map](https://data.saeri.org/saeri_webgis/lizmap/www/index.php/view/map/?repository=v07&project=fi_coastal_hab_map)

### 3. Feedback from Stakeholder Prioritisation workshops

- **NG** ran through the two stakeholder workshops for the Falklands and South Georgia, which were run when **Michael Harte** and **Bran Black** were down from OSU. The workshop reports are in the final stages of drafting. He has received comments back from the Falklands workshop rapporteurs and will be circulating the draft of the South Georgia report to a select group in the next few weeks.

From the Falklands perspective, the key themes that were highlighted in the workshop were agriculture, erosion, habitat restoration, non-native invasives, broader habitat mapping to quantify areal extent and shallow coastal bathymetry.

Priority areas for fine scale mapping (based on WorldView imagery) were:

- *Cape Pembroke/Stanley Common*
- *Mare Harbour*
- *Jason Islands*
- *Ruggles Bay & Johnsons Farm (joint fourth)*

Priority areas for fine scale mapping (based on drone imagery) were:

- *Cape Pembroke/Stanley Common*
- *Kidney Island / Tussac Islands*
- *Port Sussex (Calafate – invasive species)*

**NG** flagged that consideration needs to be given to whether fine scale mapping can be easily undertaken at Mare Harbour, considering the challenges around access and potentially flying a drone within a military establishment. Once the Stakeholder workshop reports are finalised, this needs further discussion by the PMG. Potential, it may be necessary to prioritise mapping in other areas over and above Mare Harbour. **ALL** agreed to defer this discussion until the Falklands Stakeholder report was completed. Work will continue on fine scale mapping for the other priority areas regardless.

Round the table, **P Brewin** stated that the Falklands Stakeholder workshop was very productive, with good participation from all the tables. **P Brickle** stated that everyone was very engaged, and where some participants may have arrived with a degree of scepticism about the event, this was soon blown away once they saw the imagery, and realised the potential of the project.

From the South Georgia perspective, this workshop was run slightly differently, in the form of a teleconference. Despite some challenges around the communication, stakeholders had an opportunity to contribute, and there was a good range of views expressed with respect to priorities. The headlines areas, from a prioritisation perspective, were around King Edward Point (KEP) and other research stations on South Georgia. In addition, a combination of those tourist sites, perhaps where visitor management plans are in need of updating or are absent, could be considered a priority. A useful point which was also flagged by BAS (Adrian Fox) and GSGSSI (Steve Brown) as it arose through the discussions were the acquisition of high resolution imagery (from drone) which could form a baseline for future wharf development work at KEP. **P Brewin** fed back that there were some useful discussions on derived work that could occur following the development of baselines through this project.

**SG** highlighted the need to ensure key people such as the Visitor Management & Biosecurity Officer (Ross James) and Director of Environment & Fisheries (Mark Belchier) feed in before final decisions on South Georgia fine scale mapping priorities are reached. **SG** also passed on GSGSSI's thanks for a very productive workshop.

#### 4. Review project management documents:

NG highlighted that all the project management documents can be found on Trello.

- *Review project risk register:* NG highlighted that following the review of the risk register, some risks have come down. “Data” was scored as 22 (red) – this was revised down to 13 (orange). “Lack of stakeholder consensus and/or disruptive stakeholder(s)” was scored as 21 (red) – this was revised down to 18 (orange). “Data confidentiality/sensitivity” was scored as 21 (red) – this was revised down to 14 (orange). “Fieldwork” was scored as 22 (red) – this was reduced to 19 (orange). GJ noted that an additional consequence associated with fieldwork risk should be considered, and this reflects the fact that factors outside the projects control (weather etc) may result in insufficient data being collected, which would then have a knock-on effect to the quality of the final products. NG added this as an additional consequence to this line (No 10) of the risk register.

***ACTION 2018-09-03: NG to revise Risk Register and place update on Trello. COMPLETE***

- *Review project issues log:* this was updated as issues have been resolved. Specifically, the underspend issue with satellite imagery spend was resolved, and marked as cleared. In addition, the ‘delayed project start’ which was marked as an issue has been marked as cleared, as the project has been re-planned and is now on schedule and delivering. NG requested that ALL PMG members remember to bring any issues related to the project to his attention, so they can be recorded in the Issues Log. ALL requested inclusion of currency conversions on the Issues Log.

***ACTION 2018-09-04: NG to include currency conversion on Issues Log and place update on Trello. COMPLETE***

- *Review M&E plan:* NG reminded ALL that it is the PMG member’s responsibility to ensure compliance with the M&E plan. A copy of the M&E plan can be found on Trello. TP requested that all members take some time to review the M&E plan, and feedback any comments to the group.

***ACTION 2018-09-05: NG & TP requested that ALL members review the M&E plan ahead of the next meeting.***

- *Review project communications:* NG has been posting weekly on Twitter and Facebook about the project, ensuring that all partners are tagged as per the Coastal Mapping Project Outreach document (on Trello under Project Outreach - <https://trello.com/c/6ywnUocd/6-files-associated-with-coastal-mapping-project-outreach>). We’ve had a good response so far to this outreach. P Brewin suggested #MappingMonday. NG encouraged partners and ALL agreed “in principle” to assist with the project social media outreach, via Facebook/Twitter. In addition, Bran will be drafting a blog following her Coastal Mapping experience down in the Falklands last month.

#### 5. Satellite-Derived Bathymetry work

- NG explained that some work is being done through the project to develop a shallow water satellite-derived bathymetry dataset for the Falklands. The work is being undertaken by Environment Systems Ltd, for which some validation data (in the form of soundings in water <20m) is being collected. The specification is currently being drafted, and has been developed with input from OSU (Bran/Chris Goldfinger) and JNCC (GJ). The plan is for this work to happen in Q3 FY 18/19. This work will be a pilot for the Falklands, and will feed into the wider habitat models being developed. GJ flagged that at the UK Earth Observation Conference the previous week, there was a company developing shallow water bathymetry from satellite (specifically WorldView).

***ACTION 2018-09-06: NG to follow up with GJ after meeting about SD bathy models.***

6. Fieldwork update:

- *Subtidal fieldwork (Falklands)* – **NG** is being able to piggy-back on some existing work happening around the southern half of East Falkland (18<sup>th</sup> Sept). Crucially, this will allow some single beam echo sounder data to be collected to help validate the shallow water satellite-derived bathymetry (SDB) model. This is extra subtidal fieldwork, which wasn't originally planned in, but allows the project to collect some extremely useful information for the SDB modelling.

Chris Goldfinger is also scheduled to come down to the Falklands for two weeks, arriving Sat 27<sup>th</sup> October. He will be down for two reasons: collecting subtidal data to contribute to the shallow water marine component of the coastal habitat maps, as well as undertaking some training for project partners on the processing of side-scan data (using Triton software).

- *Terrestrial fieldwork (Falklands)* – **NG** has been out collecting ground validation data for supply to Bran for the broad scale and fine scale habitat maps, using the Coastal Mapping project Android smartphone application, developed by the IMS data centre for the project.

**NG** has been in discussion with Dynasafe (**John Hare**) and **Guy Marot** as following the Falklands Stakeholder workshop, there was interest in collecting drone imagery from minefields soon to be cleared. **FIG** was interested to understand habitat restoration in cleared minefields – York Bay was of particular interest within the Cape Pembroke/Stanley Common area.

There was also interest from **Ross Chaloner** (PWD, **FIG**) to use aerial imagery from the drone surveys – they have offered to come out with their own RTK GPS unit. This collaboration is therefore of benefit both to the project but also to **FIG**.

Finally, **Graham Harris** from WCS (who own Steeple and Grand Jason) is interested in providing some support to allow the collection of coastal mapping data (drone imagery and ground validation information) from the Jason islands. **NG** to follow up with Graham Harris regarding this to see how it would fit into existing plans.

- *Terrestrial fieldwork (South Georgia)* – Much will depend what comes out from the stakeholder workshop report. A key point coming out from the workshop was an option to focus data collection around **KEP** as a priority. **SG** requested that information regarding priorities is routed through **Steve Brown** as well.

Work planning the coastal mapping component of the 19C sealing archaeological expedition is progressing. **NG** has been focussing on the research permit, as well as sorting letters of support from the Bird Island station leader.

**P Brewin** mentioned that a Darwin proposal has been submitted for **SG**, that if successful, could provide conceptual or actual links with this coastal mapping project.

7. Independent peer review of project outputs:

- South Georgia broad scale maps: **SG** stated that broadly, **GSGSSI** were very supportive of a peer review process, but much would depend on time/cost. **NG** stated that from the project side, we would be keen for the peer review process to be progressed by **GSGSSI** or alternatively, for **GSGSSI** to sign off the maps as a deliverable.

**ACTION 2018-09-07: NG to follow up with HH regarding SG broad scale map peer review. COMPLETE**

**ACTION 2018-09-08: NG to follow up with DB regarding peer review of Falklands broad scale map peer review.**

**NG** flagged that the peer review process was not to be led by the Coastal Mapping project manager, but by the end recipient of the maps, and **ALL** agreed.

8. AOB

- **P Brickle** thanked the PMG and **NG** for the all the hard work on the project
- **NG** updated the PMG on the Shackleton Scholarship – **Nicole Durfee** will be coming down at the end of Nov, as a series of coastal mapping related events will be planned.
- **NG** raised the point about using volunteers on the Coastal Mapping project fieldwork; for example, Steffi Carter (from the Soils project) has been assisting to date on the fieldwork. With a busy few months ahead from a fieldwork perspective, any volunteers who are not (1) a project partner (2) Hold PRP or (3) Falklands resident will need to apply for a work permit as well as complete the SAERI volunteer forms. The latter two will only need to complete the SAERI volunteer forms. Volunteer forms are not required for project partners.