

**UK- Environmental Observation Framework**  
**13<sup>th</sup> Management Group Meeting**  
**10.00-16.00 19<sup>th</sup> May 2011**  
**Engineers' House, The Promenade, Bristol, BS8 3NB**

**NOTE OF MEETING**

**Attendees:**

Doug Wilson	EA (Chair)
Andy Nisbet	NE
Cathy Johnson	DECC
Caryn Le Roux	WG
Lawrence Way	JNCC
Liz Fox	Defra (telephone)
Michael Schultz	NERC (telephone Item 3 only)
Owen Dowsett	ERSC
Peter Costigan	Defra
Geeta Puri	SG
Richard Walmsley	EA
Amber Vater	UK-EOF (notes)
Andrea Sharpe	UK-EOF
Beth Greenaway	UK-EOF

**Apologies**

Bruce Truscott/ Ali Price	Met Office
David Allen	CCW
Ian Davidson	EEA / GMES / SEIS
James Skates	WAG
Keith Porter	NE
Mary Barkham	LWEC
Nathan Critchlow-Watton	SEPA
Pat Corker	DOENI
Richard Howe	FC
Ruth Boumphrey	UK Space Agency

**1. Welcome and introductions**

- 1.1. The new Chair welcomed the group, particularly new members and a tour de table was carried out.

**2. Update and progress**

Paper A – Minutes and Actions from the 12<sup>th</sup> MGM (January 2011)

- 2.1. Outstanding actions from the 12<sup>th</sup> MGM were discussed;  
*Action 3 – Members to confirm and send back signed hard copies of the co-funders agreement (carry forward for EA, NERC, NIEA).*  
*Action 14 – Members to provide Secretariat with high level investment information (carry forward – members to provide as much as they can as early as possible).*

- 2.2. Action 21 from the 12<sup>th</sup> MGM meeting note should be corrected to read "Keith to liaise with CLR regarding using this mapping to inform the Evidence workstream of the Natural Environment Framework in Wales" This has been completed

**ACTION 1: Secretariat to amend 12<sup>th</sup> MGM meeting note to reflect the correct Welsh Government workstream, 27<sup>th</sup> May 2011**

- 2.3. The minutes of the previous meeting were agreed with the noted amendment.
- 2.4. Actions from the 4<sup>th</sup> MG Teleconference were discussed;  
Action 15 – Peter Costigan informed Members that the 'Monitoring Change in the Countryside' report would be released in the next week.
- 2.5. Members agreed that future MG teleconferences should be opened up to all Members rather than just Management Group Champions. They also agreed that the actions of the MG Teleconferences should be included in the papers for the main MG meetings.

**ACTION 2: Secretariat to include MG Teleconference Actions in future MGM papers, as required**

**ACTION 3: All Members to attend future MG Teleconferences, as required, first meeting to be held on 18<sup>th</sup> July 2011**

Paper B – Progress and highlights report

- 2.6. Beth described how the format of these meetings, will be based on reduced paperwork but with key information and discussions presented on the day. The work plan provides an overview of UK-EOF activities and reporting methods and contains a status column to.
- 2.7. Recent achievements were highlighted as in Paper B such as progress made with linking to socio-economic observations, the GCOS consultation, supported by the UK-EOF had been opened, the Data Advisory Group was still running and providing support and input into the EIF, as well as continuing to feed into GEO.

UK-EOF catalogue & Research database merger

- 2.8. The UK-EOF catalogue and LWEC research database 'back ends' have been merged to enable LWEC users to search for both observations and research projects in the same place. Both the front end search facilities will remain active since they serve different audiences. The current LWEC the Environmental Research.info will be renamed Envirobase and the search tool modified slightly to look for both types of records.
- 2.9. The difference in the types of information was discussed. The Observation records are for long term programmes who may have multiple funders and who change over time. The one record will be updated over time. They span all types of observation bodies public, private and voluntary. In contract the research projects list what is funded at any given time by the members of LWEC. There is one record per project and if new – similar – work is commissioned this is a new project.
- 2.10. Members considered that the Environmental Research database home page, where users search for observations as well as research projects must highlight the reasons for apparent duplication of content and have a health warning. Members asked to be

**ACTION 4: Secretariat to send draft text to be used on the LWEC database landing page for Members approval, 25<sup>th</sup> May 2011**

**ACTION 5: Members to provide comments on the new LWEC database landing page text by 2nd June 2011**

2.11. It was agreed that the secretariat should investigate the full extent of duplication and its potential impacts on users in the new combined database before considering how this should be addressed. User feedback should be considered before any attempt was made to resolve the duplication issue.

2.12. Members asked LWEC and UK-EOF to consider if a single-update process (to provide research and observation updates simultaneously) would be useful to them. No conclusion was drawn.

**ACTION 6: Secretariat to investigate the level of duplication in the new LWEC database, 30 August 2011**

**ACTION 7: Secretariat to ask LWEC directorate to collect feedback about the usability of the LWEC database, 30<sup>th</sup> June 2011**

**ACTION 8: UKEOF and LWEC to consider if the catalogue and research database update processes - i.e. the way member organisations input their information can be streamlined, 30<sup>th</sup> August 2011**

#### INSPIRE Environmental Monitoring Facilities Theme

2.13. The INSPIRE Environmental Monitoring Facilities (EMF) Theme data specification is due for release for consultation in June. This will require metadata about monitoring facilities – in a format compliant with the specifications- to be available by December 2013. The similarities and differences with the metadata already collected by UKEOF need to be analysed and then members need to be consulted over which way the UK should implement this part of the directive. A contract has been let by UK-EOF to investigate the implications on the catalogue and this will be discussed at the Data Advisory Group in July.

#### Financial update

2.14. Members were briefed on the current UK-EOF finances and contributions. All but NIEA have confirmed their contributions for 2011 and Defra's commitment is confirmed until 2014. Full details of finances were available on Central Desktop.

#### UK-EOF Work Plan

2.15. The work plan was reviewed. The potential for the secretariat to continue working towards work area 2.3 ('Assess the level of demand on UK monitoring to meet EU legislation') was discussed. Robert Lawson had now been replaced by Ian Davidson in the GMES bureaux in Europe and he is keen for the UK-EOF to continue to gather evidence that can be taken to Europe. Members considered that this was a large piece of work which should not be taken on in full.

2.16. Catalogue updates were considered curtail to maintain the credibility of the information but in light of the current work plan and staff availability in organisations this should be done on an ad hoc basis this year.

#### LWEC scorecard

2.17. Beth informed Members that the LWEC strategy and scorecard was being presented at the LWEC Partners Board on 26<sup>th</sup> May. This would be useful for MG Members.

**ACTION 9: Mary Barkham to distribute the LWEC strategy and scorecard to UK-EOF Management Group Members, by end June.**

### **3. Refreshing the UK-EOF**

3.1. The aim of this session was to agree the priorities for UK-EOF in light of organisation's individual and collective needs. Doug summarised the comments received from his discussions with UK-EOF stakeholders, funders and Champion, Bob Watson. Many were aware of the benefits already derived from the UK-EOF and the discussion had concluded that the frameworks original aims were still very relevant in today's climate. However the breath of the remit of UK-EOF sometimes makes it difficult to see the tangible impacts UK-EOF has for individual organisations in driving collaboration and making efficiencies. He therefore proposed UK-EOF secretariat refocused their efforts onto investigating and creating opportunities for collaboration in a select number of areas or themes.

3.2. Exploration of 'themes' or 'thematic scoping studies' would provide evidence of potential areas where collaboration and further investigation is required. Not all organisations would have a particular interest in each of the chosen themes but the UK-EOF should look at areas where bilateral discussions may not be sufficient. Other organisations, apart from those involved in the Management Group, may need to be involved in the thematic scoping studies where relevant.

3.3. A new theme investigation could start every 3 months. The level of detail needed for each study may vary but the purpose would be to investigate if there is a real issue or a perceived issue and to start to bring the right people together to resolve or discuss the next steps. If the outputs of the scoping studies warrant further work this would need to be undertaken by the collaborative groups. The UK-EOF may provide some support to these groups in the future but this would need to be addressed when considering the future and resources of the UK-EOF.

3.4. Members generally agreed that this was the right way to help organisations with their key areas of concern over doing more or sustaining observations with reduced income. They also wanted to create an emphasis on finding opportunities for new science, adoption of new technologies or for knowledge sharing. The key would be to have the right people involved and to have a manageable plan. The need for strong integration across the devolved administrations was highlighted. Creating collaborative opportunities should lead to more efficient monitoring.

3.5. Specific issues such as marine, uplands, ecosystems, climate or legislation were considered as trial thematic scoping studies. Cross cutting issues that could be investigated included, use of volunteers, sustainable funding, data access and social sciences.

- 3.6. Members enquired as to how the thematic scoping studies would align with the LWEC challenges. Linking to LWEC challenges was encouraged however the outputs of the LWEC Challenge workshops were not yet available and workshops were ongoing until September so the early themes may not necessarily align directly.
- 3.7. Members were keen to ensure that a national perspective of observations and links to other ongoing UK, EU and global initiatives that UK-EOF provides would be maintained. Beth reassured Members that UK-EOF would continue working on other UK-EOF priorities whilst carrying out theme investigations.
- 3.8. Doug will discuss the new approach with Bob Watson. The process of how to identify thematic scoping studies will be agreed at the next MGM teleconference in July. In the meantime UK-EOF will consider today's feedback and propose a way forward. The process would be reviewed after one or two initial studies have been carried out.

#### Identifying collaborative opportunities

- 3.9. Each Member presented their organisations top 5 challenges /issues /risks/ opportunities.<sup>1</sup>

#### **3.10. NERC (Michael Schultz)**

Michael provided an update from NERC informing Members that the national capability efficiency savings would be announced shortly. The 5 priority areas include:

1. Move towards an integrated framework for environmental observations.
2. Move to a prioritised approach to survey and monitoring.
3. Take account of UK-EOF (and international equivalents) in terms of identification of national (international) needs, approach to prioritisation (start/stop/continue) land awareness/leverage of other funders' investments.
4. Increase levels of autonomy in observation systems.
5. Focus NERC funded observations on a limited number of multi disciplinary observation sites and platforms.
6. Ensure observations are properly calibrated and validated.

#### **3.11. Defra (Peter Costigan & Liz Fox)**

Peter suggested the National Ecosystem Assessment and Defra White Paper highlighted many issues and challenges;

1. Need to increase linkages to citizens as data providers and users e.g. INSPIRE, EIF.
2. Improve interoperability of data so that it can be contextualised, interpreted and reported in a meaningful way to become knowledge.
3. Need to align observations and modelling e.g. NERC virtual observatory to give Defra the ability to do more for less.
4. Move towards collecting data that's needed to manage and value the environment (contextualisation) rather than raw data collection e.g. value of ecosystems rather than pure biodiversity measurements.

Liz stated that the biggest issue for data work is coordinating the many initiatives and maximising the added value of each of these.

#### **3.12. DECC (Cathy Johnson)**

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<sup>1</sup> Detailed lists of issues/challenges will be provided once all Members have provided a return to the secretariat

1. Sustainable funding. There is increasing pressure on budgets and observations which are funded by research budgets e.g. Argo are at risk. What is needed is a strategic view of long-term datasets agreed by UK players so as to help ensure continuity of funding where needed.
2. Difficulty in identifying all users of data - this is particularly the case where data have both operational and research uses. Some of the operational users may not be at the UK-EOF Management Group table and therefore not yet part of the discussions.
3. Quantifying spend - UK-EOF struggle to encourage Members to identify their spend on observations. It would be worth trying to understand better why some organisations struggle with this, with a view to requesting the information in a form which is easier for funders to provide.

### 3.13. JNCC (Lawrence Way)

1. Maintaining and developing terrestrial effort and shifting towards more function related data e.g. ecosystem services.
2. Innovation and efficiencies required including renewed partnerships with volunteer groups (increasing effort for same costs).
3. Legacy of UK organised sampling with devolved policy responsibilities. Collaboration within countries plus need to consider UK level response e.g. Countryside survey.
4. Innovation in application of remote sensing for land based observations.
5. Ensure monitoring system meets (shifting) needs of all drivers including EU directives, Devolved strategies etc in light of changes in requirements e.g. The Birds Directive has changes to be outcome focused and (assessments of outcomes). The Habitats Directive is now a legal requirement.
6. Increased collaboration for biodiversity related requirements (especially marine e.g. ships, vessels and platforms).

### 3.14. EA (Rich Walmsley)

1. Visibility – both in terms of understanding what monitoring is done within the Environment Agency by other parts of the business and by other monitoring organisations. To deliver efficiencies we need to work at site and activity level. Skills also important
2. Accessibility –EA’s ability to share our data and information and gather similar from other organisations. Issues around data quality, IPR, data licensing, IS issues and knowing what else is available.
3. New Technology – challenging how evidence is gathered in terms of planning, gathering, analysis and sharing data. This will involve finding new ways of gathering the same data, articulating what information is needed and in some cases find new ways of presenting this evidence. This also encompasses EA’s desire to make greater use of modelling and in particular to develop modelling and monitoring strategies.
4. Working with others – working more with other organisations and developing use of the volunteer networks. The benefit of UK-EOF will be to learn from the experiences of others.
5. Cultural change – many of the new initiatives will be different to the more traditional approaches. There will be some reluctance to embrace these changes (in priorities, technologies and people) and we will need to take people with us and demonstrate the benefits of what we are trying to achieve.

### 3.15. NE (Andy Nisbet)

1. Finances - Budget reductions require a more focused and prioritised programme and some elements previously monitored will be reduced or stopped. Maximum (integrated) benefit from limited programme spending.

2. Capability - Development of in-house capacity, working with partners and volunteers to help overcome some of the financial constraints. Prioritise volunteer and staff inputs through adoption of structured surveillance and improved data flows via on-line recording. Developing staff's monitoring skills through training and mentoring. Identify where shared staff skills and resources with other Defra organisations can reduce our need to recruit or re-train our staff.
3. Collaboration - There are opportunities to join up our monitoring activities under the (Defra) Arms Length Body reviews, sometimes by combining monitoring sites and in other ways by sharing services (e.g. framework contracts, laboratory and GI services, IT systems) and analysis skills.
4. Data - Existing data storage systems are a major constraint on the extent to which NE can integrate monitoring and get the maximum value from our evidence. Improving this is a considerable challenge particularly because of financial and procurement restrictions on IT development.
5. Value, function and future of UK-EOF -
  - Making better use of members at management group meetings, developing more topic specific and practical working, identifying and focusing on specific collaborative actions.
  - Clarity on the boundary between UK-EOF and LWEC.
  - Clarity on the future of the UK-EOF project after 2012.

### 3.16. Welsh Government (Caryn Le Roux)

1. Establishing a robust and effective surveillance network supported by a policy specific investigative network. Maintaining long-term monitoring programmes e.g. ECN and establishing a series of observation networks which are where possible comparable, compatible and complimentary at surveillance level, and specific in nature at investigative level. The monitoring and surveillance needs for this are likely to be based on ecosystem function – what observations will need to be made?
2. Linking observations with predictive modelling methods & innovation – will become more relevant as fewer resources are available to construct and deliver monitoring frameworks.
3. Establishing confidence in our monitoring programmes – reduced resources and greater reliance on external and volunteer methodologies could introduce risks to the security, quality and volume of data gathered.
4. Linking measurements and observations across and within departments – for example the State of the Environment Reporting team are developing indicators as are the MSCC and Climate Change strategies and indicators. All have data issues but some of that is because there is lack of awareness of what is already available to use.
5. Access and availability of data to ensure efficient decision making and open government.

She summarised as needing to raise awareness and use of observations; improving the usability of the data, addressing the capacity issues and the potential skills gaps.

For CCW Caryn highlighted that the Environment Delivery Body Review is also ongoing.

### 3.17. Scottish Government (Geeta Puri)

1. Re-aligning monitoring needs - the CAMERAS environmental monitoring focus paper to continue to work with the UK-EOF.
2. Need to gain a consensus on where the main gaps in monitoring are both for Scotland and the UK along with some form of ranking.

3. Innovation - The need to evaluate innovative methods to monitoring, particularly remote sensing - the SG CAMERAS initiative has established a group to look at the range and potential for new monitoring technologies led by SEPA.
4. Cost efficiency - Are there more cost effective and efficient approaches to monitoring? e.g combining surveys, economies of scale.
5. Data access - How can access to and availability of environmental monitoring data be improved? (e.g. national soils data for Scotland now available at no cost). SEPA is leading on an SG sponsored initiative to develop a environmental website and database for Scotland (SEWEB). This aims to be a single website where all environmental monitoring data, summaries and trends can be accessed.

### 3.18. **ESRC (Owen Dowsett)**

1. To develop an understanding of how socio-economic challenges and data may inform environmental observation practices; and
2. To develop an understanding of how environmental observations and monitoring can best be adapted and applied to address economic and social challenges.

Beneath these broad commitments, more specific objectives may be to:

3. Ensure that further opportunities are provided for the establishment of an interdisciplinary community in this area (facilitating knowledge exchange, networking, and establishment of a common language between social and environmental scientists).
4. Support further links between Understanding Society (and other social science data resource providers) and the environmental science community.
5. Enable environmental observation resources to feed into possible new investments in social science (e.g. flooding, environmental regulation, geoengineering, increasing resilience to natural hazards programme (consortia on earthquakes and volcanoes)).

3.19. Updates from the **Met Office** (Bruce Truscott) and **UK Space Agency** (Ruth Boumphrey) were provided to Members for information (see Annex 1 and 2 respectively).

3.20. Doug enquired if innovation issues could be helped by the UK Space Agency programme and expressed the importance for data users to ensure UKSA are aware of user needs. Members were referred to the government Information from the Space Sector (GIFTSS) review. It was noted that Rachael Mills had been involved in this process and had been liaising with the JNCC and others. Lawrence agreed to reconnect with Rachel (or Ruth Boumphrey) in regards to the GIFTSS review. The review is due to close at the end of May.

**ACTION: Members to provide written summaries of their organisation top 5 issues/challenges/risks/opportunities to the secretariat, 25<sup>th</sup> May 2011**

**ACTION: Lawrence to connect UKSA in regards to the GIFTSS review, 31<sup>st</sup> May 2011**

3.21. The following issues were derived as common to most organisations;

- **Citizen science**
  - Can volunteers be shared/encouraged to measure many parameters at the same site?
  - What issues are there around volunteer data quality?
  - Many organisations do not currently use volunteers and are keen to learn lessons from those who do.



- Will there be a limit on capacity of the volunteers if many public agencies begin to ask more of them?
- **Maintaining existing capability**
  - How can organisations maintain existing programmes and cope with new needs with the real funding pressures? Could organisations focus on common interests to alleviate funding pressures?
  - How will organisations show efficiency savings when they can not currently estimate their observation spend?
- **Innovation in data collection**
  - How can we innovate to enhance data collection efficiencies?
  - How can space technologies be utilised?
  - Automated data collection and data handling systems are required which requires the issue of power in the field to be addressed.
  - How can we collect data differently?
  - How can we involve citizens more in data collection?
- **Data access and data sharing**

This is a common issue. Some specific action could be taken in small areas to show progress is possible.
- **Contextualization of modelling**
  - Develop links between observations and modelling.

3.22. The Chair invited Members to discuss and propose ways in which UK-EOF could make a difference in light of the issues raised. With so many issues raised, those affecting multiple organisations should be priority.

3.23. It was suggested that these issues could be addressed on an area basis e.g. uplands or coasts. Members were reminded of the work being carried out by Keith Porter (NE) to map observation sites. These geographic locations may potentially be void of volunteers, have power issues etc and would be a good example of where innovation and modelling could be useful. These examples would also cross cut all devolved administrations and many other organisations.

3.24. Owen informed Members that ESRC may have documentation referring to using volunteers as data collectors and agreed to circulate any relevant information.

3.25. Members agreed the way forward should be to address issues raised in the meeting. The process for dealing with these issues would be developed by the secretariat and reported to the Members at the 5<sup>th</sup> Management Group Teleconference.

**ACTION 10: Owen to investigate whether ESRC have carried out any research on volunteers/volunteering and distribute relevant reports to Members, 24<sup>th</sup> June 2011**

**ACTION 11: Secretariat to scope the first thematic scoping study and report back to Members at the 5<sup>th</sup> MGM Teleconference, 18<sup>th</sup> July 2011**

**ACTION 12: Members to discuss how to address thematic scoping studies at the 5<sup>th</sup> MGM Teleconference, 18<sup>th</sup> July 2011**

#### **4. Do we have the right suite of observations?**

- 4.1. Andrea presented preliminary results gained from the UK-EOF Assessment against Need. Nine organisations had provided scores for all their organisations activities and three organisations had provided some scores. 490 programmes/activities had been scored in total. Results were presented by organisations and by mean score (against issue 1 of the headline issues) and by use to organisation (issue 9).

#### Analysis by mean score (example – issue 8)

- 4.2. Members were satisfied with the scoring so far and agreed that there would be benefits in other (carefully selected) organisations being involved in the scoring process. It was recommended that a column with the number of organisations who had scored the activities into the mean scores spreadsheet would allow a more detailed insight to the results.
- 4.3. Members expressed their concern about the number of activities which had not been scored at all. This could be wrongly interpreted by other organisations (especially volunteer organisations) who may be put off collecting the information if they think their activities are not valued. However scoring all 1200 activities and programmes in the catalogue was too much to ask. Therefore there should be concentration on the programme level ones. If other organisations were to be asked to score activities, it would be much easier to ask them to score say 200 programmes.

#### Outlier analysis

- 4.4. Andrea explained the analysis of the differences in scores submitted. The analysis highlighted that the UK-EOF scores based solely on the catalogue entry information were often significantly different to Members own scores. There was a discussion if the UK-EOF score should reflect the UK / agreed / combined view and if so, should these scores be modified to reflect this. It was agreed that this should represent **‘the view of the UK-EOF Membership, which has UK wide representation’** as opposed to the UK view which may be misinterpreted in a political context.
- 4.5. There were differences of opinion about what a members score represented – a personal or an organisational view? It was agreed that as Members are sent by their organisations to represent their organisation, these scores should reflect the organisations view.

#### Use to organisation score (issue 9)

- 4.6. There was general agreement that the scores indicating use to an organisation provided valuable information. However only 18 members had so far been requested to score activities and therefore no firm conclusions could be drawn on UK wide use. Members were asked to consider which other organisations should be included if the assessment were to continue. The list could be vast so an ad hoc basis when the results are used may be the best approach.
- 4.7. Members were able to see areas where the outputs could be advantageous to their organisations individually or collectively For example activities scoring 1 or 2 from several organisations could be considered vulnerable due to a lack of priority from any one owner but collectively adds value to many UK issues and organisations. Such activities could become the focus for UKEOF efforts to ensure effective collaboration is reached by all involved.
- 4.8. Cathy suggested this type of output would be useful to the GCOS review. However it was noted that some of the major investors in Argo, for example, such as MOD had not yet been asked to score it. It would be key to contact these and gain their views should Argo be reviewed by DECC.

## Summary of discussion

- 4.9. It was proposed that the secretariat should endeavour to link activities to programmes so that scoring would only be necessary for programmes. This would reduce the number of records to be scored to approx 200. Members were informed that JNCC had already undertaken considerable work to link biodiversity activities to programme, thus this should reduce the amount of effort required. Members agreed to provide input into this exercise to ensure activities and programmes in their area of expertise were linked logically and continue scoring at the programme level after this exercise had been completed.
- 4.10. Members will then need to ensure there is an organisationally agreed score for each of the programmes.
- 4.11. After the second round of scoring the secretariat should address the UK-EOF differentiation in scores issue and the item discussed at the next MGM.
- 4.12. The outputs should be presented to LWEC Partners Board as the UK-EOF opinion.
- 4.13. Each member will consider how the assessment could be used for their own organisation and collectively.
- 4.14. It was agreed that Members should provide financial information at programme level if they had not already done so any efficiency savings can be calculated.

**ACTION 13: Members to consider how their organisation could use the assessment results and provide feedback at the MG teleconference, 18<sup>th</sup> July 2011**

**ACTION 14: Members to provide input to ensure activities and programmes are linked in the UK-EOF catalogue, 20<sup>th</sup> June 2011**

**ACTION 15: Secretariat to update links in the catalogue to reflect input from Members, 31<sup>st</sup> June 2011**

**ACTION 16: Members to consider who else should be involved in the assessment, 18<sup>th</sup> July 2011**

**ACTION 17: Members to ensure their organisation has scored the programmes and provide the financial information for these by end August.**

**ACTION 18: Members to discuss the 'outlier' issue after the secondary scoring of programmes has been completed, 14<sup>th</sup> MGM October 2011**

## **5. Items for information**

### EIF

- 5.1. Beth reported an update from the EIF. Peter Costigan is on the Delivery Group. A paper has gone for information to LWEC and a Strategic Business case will be drawn up over the next few months.

### GCOS

- 5.2. Cathy outlined the progress made with the GCOS consultation to review climate observations. Although the UK is not under any legal obligation to provide this information to GCOS, it was deemed helpful to provide an informed response. UK-EOF has been supporting DECC with this consultation, which is due to close at the end of May 2011. The next steps are dependant on the responses received in this

## GMES

- 5.3. Liz described the recent work progressed by the GMES in situ group led by the EEA. Members were asked to note the list of UK requirements provided in Paper D. Liz acknowledged the usefulness of the UK-EOF catalogue and stated that she would be working through the requirements to understand the position of each of the data owners and their ability and willingness to supply the information. There would be a workshop held in October (TBC) to discuss associated issues. Members were asked to send contact details of someone within their organisation that Liz could liaise with in regards to the in-situ requirements and the planned workshop.
- 5.4. Not all Members were aware that this would be a regulatory requirement. Liz informed Members that this would be a Member state requirement. Some of the data would be delivered through INSPIRE but much does not come in that category. Members were reminded that data delivery would need to be ongoing to ensure the GMES services remain operational.
- 5.5. The responsibility for delivering multi-funded programme data (e.g. Argo) was questioned. Liz stated that the UK government had asked the EEA but no clear response had been provided. Members also raised concern about programmes which have insecure funding, and whether they should feature on the in situ lists. They asked if programmes with unstable funding sources could be funded through GMES. GMES provides small amounts of funding but for additional data requirements only.
- 5.6. Members discussed the use of GMES services and stated that the UK would be unlikely to be a major consumer, other than for raw data. Land was highlighted as a potential area which could be useful for JNCC.
- 5.7. The data policy for GMES in situ data is expected to be published in the next 6 months.
- 5.8. Tagging of UK-EOF catalogue records with a 'GMES' keyword was suggested. It was agreed that this would be a question to be addressed later.

**ACTION 19: Members to send Liz contact details for personnel within their organisation to deal with in-situ GMES requirements, 8<sup>th</sup> June 2011**

**ACTION 20: Members to consider tagging GMES activities in the catalogue, October 2011**

## **6. A.O.B & proposed dates/locations for next meetings**

- 6.1. It was agreed that all Members would attend the Management Group teleconferences. The date had been agreed for Monday 18<sup>th</sup> July 2011 (14.00-16.00).
- 6.2. The secretariat agreed to send out a doodle poll for availabilities for the 6<sup>th</sup>, 11<sup>th</sup> and 14<sup>th</sup> October to hold the 14<sup>th</sup> MGM in Swindon.
- 6.3. Cathy expressed her thanks to the team and said that the GCOS consultation would be a good example to showcase the use of UK-EOF.

**ACTION 21: Secretariat to trawl for availabilities for the 14<sup>th</sup> MGM and set a date, by 3<sup>rd</sup> June 2011**

**Meeting closed at 15.55**

**Table of Actions**

	<b>Action</b>	<b>By Whom</b>	<b>By When</b>
1	<b>Secretariat to amend 12<sup>th</sup> MGM meeting note to reflect the correct Welsh Government workstream</b>	Secretariat	27 <sup>th</sup> May 2011
2	<b>Secretariat to include MG Teleconference Actions in future MGM papers</b>	Secretariat	As required
3	<b>All Members to attend future MG Teleconferences, as required, first meeting to be held on 18<sup>th</sup> July 2011</b>	All Members	5 <sup>th</sup> MGM telecom 18 <sup>th</sup> July 2011
4	<b>Secretariat to send draft text to be used on the LWEC database landing page for Members approval</b>	Secretariat	25 <sup>th</sup> May 2011
5	<b>Members to provide comments on the new LWEC database landing page text</b>	DW, MS, LW	2nd June 2011
6	<b>Secretariat to investigate the level of duplication in the new LWEC database</b>	Secretariat	30 <sup>th</sup> August 2011
7	<b>Secretariat to ask LWEC directorate to collect feedback about the usability of the LWEC database</b>	Secretariat	30 <sup>th</sup> June 2011
8	<b>UKEOF and LWEC to consider if the catalogue and research database update processes - i.e. the way member organisations input their information can be streamlined</b>	Secretariat & LWEC database manager	30 <sup>th</sup> August 2011
9	<b>Mary Barkham to distribute the LWEC strategy and scorecard to UK-EOF Management Group Members</b>	Mary Barkham	End June 2011
10	<b>Owen to investigate whether ESRC have carried out any research on volunteers/volunteering and distribute relevant reports to Members</b>	Owen Dowsett	24 <sup>th</sup> June 2011
11	<b>Secretariat to scope the first thematic scoping study and report back to Members at the 5<sup>th</sup> MGM Teleconference</b>	Secretariat	5 <sup>th</sup> MGM telecom 18 <sup>th</sup> July 2011
12	<b>Members to discuss how to address thematic scoping studies at the 5<sup>th</sup> MGM Teleconference</b>	All Members	5 <sup>th</sup> MGM telecom 18 <sup>th</sup> July 2011
13	<b>Members to consider how their organisation could use the assessment results and provide feedback at the MG teleconference</b>	All Members	5 <sup>th</sup> MGM telecom 18 <sup>th</sup> July 2011
14	<b>Members to provide input to ensure activities and programmes are linked in the UK-EOF catalogue</b>	All Members	20 <sup>th</sup> June 2011
15	<b>Secretariat to update links in the catalogue to reflect input from Members</b>	Secretariat	31 <sup>st</sup> June 2011
16	<b>Members to consider who else should be involved in the assessment</b>	All Members	5 <sup>th</sup> MGM telecom 18 <sup>th</sup> July 2011
17	<b>Members to ensure their organisation has scored the programmes and provide the financial information for these</b>	All Members	End August 2011
18	<b>Members to discuss the 'outlier' issue after the secondary scoring of programmes has been completed</b>	All Members	14 <sup>th</sup> MGM October 2011
19	<b>Members to send Liz contact details for personnel within their organisation to deal with in-situ GMES requirements</b>	All Members	8 <sup>th</sup> June 2011
20	<b>Members to consider tagging GMES activities in the catalogue</b>	All Members	14 <sup>th</sup> MGM October 2011
21	<b>Secretariat to trawl for availabilities for the 14<sup>th</sup> MGM and set a date</b>	Secretariat	3 <sup>rd</sup> June 2011

## Met Office Observations: *Key Improvements Required*

**Sustaining the established observational data feeds** will remain the top priority for the Met Office given the essential underpinning nature of the observational data as an input to almost all Met Office products and services. This objective is however challenging given the need to secure and implement solutions for maintaining a range of key operational capabilities, most notably:

- 1) Renewing the aging Met Office / EA weather radar network to tackle potentially serious future obsolescence problems
- 2) Successfully establishing successor programmes to the EUMETSAT MSG<sup>2</sup> and EPS<sup>3</sup>
- 3) Addressing the risk of serious gaps in the provision of ECV (Essential Climate Variable) records as technology demonstrator satellite programmes reach the end of their operational life (see annex 1)

Sustained delivery alone will however not adequately fulfil future Met Office requirements for observations, even in the relatively short term. Requirements have developed rapidly in recent years as capabilities such as numerical weather prediction models have been developed to address the forecasting changes associated with small scale, convective weather phenomena for example.

There is therefore an urgent need to improve our capability by developing:

- 1) a continued **understanding of current and future observation requirements**;
- 2) an increasingly efficient **process for specifying an appropriate observing network for meeting the collective requirements**;
- 3) **a higher spatial and temporal resolution network of boundary layer profiles** of wind, temperature and humidity to support nowcasting, convective scale modelling, emergency response and customer specific applications;
- 4) **a higher spatial and temporal resolution network of surface (land & marine) observations** of all parameters, but particularly marine observations and subjective observations such as visibility, cloud (base, amount and depth), state of ground and precipitation type to support our ability to monitor the UK environment, nowcasting and customer specific applications;
- 5) **sustainable climate quality observations** of: air and surface temperature, humidity and daily precipitation amount over both land and sea; global sub-ocean profiles of temperature and salinity; at sufficient density to improve the evidence base for climate change and initialise, constrain, monitor and verify seasonal, inter-annual and decadal forecasts;
- 6) **improved access** (for both internal and external users) to our observational data and the associated metadata to enable it to be used appropriately to support all real time users of observations as well as consultancy;
- 7) **improved visualisation** (for both internal and external users) to enable the commercial exploitation of our observational data and allow us to compete with other data suppliers;

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<sup>2</sup> Meteosat Second Generation (European geostationary meteorological satellite)

<sup>3</sup> European Polar System (European low earth orbiting meteorological satellite)

- 8) **access to overseas observations** at the necessary density and quality required to support the production and validation of our global products and services and enhance forecast accuracy for the UK;
- 9) **more efficient methods** of delivering existing observations.

We also need **to promote our capabilities**, observing networks and data within the Met Office, nationally, internationally **and through the Met Office web site** to:

- provide the public with an evolving picture of the current state of the environment;
- encourage new business opportunities;
- encourage complementary development of the UK and Global environmental monitoring networks;

and

- prevent unnecessary duplication of environmental monitoring networks.

Provided by Bruce Truscott.



**Space Innovation and Growth Strategy (IGS) Recommendation 5: Progress update**

IGS Recommendation 5 stated that, "The UK Government should procure an innovative indigenous Earth Observation (EO) data service that meets all Public Sector needs and creates wealth for the UK in domestic and export markets. Industry, in parallel, will offer innovative technical and commercial options to provide a PFI service and work with UKTI to maximise export opportunities".

- UKSA and industry have been working in partnership to develop a sound evidence base for taking this work forward. The initial stage of the work is a short review to identify the rationale for assigning longer term resources to designing and implementing an EO information service. The initial work will also, at a high level, identify the key elements of any proposed service.
- A number of interviews/discussions have been held with Government Departments and agencies including, Defra, DfID, MoD, EA, MMO. NERC responses have been requested by email. So far, there has only been feedback from CEH and NERC Space Geodesy Facility. UKSA will be attending the NERC EO Forum on 1 June to talk about IGS Recommendation 5.
- Emerging messages from the review indicate that Government departments and agencies would like to explore using satellite information either more or in areas where it hasn't been routinely used. Key issues/barriers to uptake and subsequently potential elements to ensure are covered in any EO Information Service design include accessing data (knowing where it is and what is relevant), identifying sources of expertise (both within and outside Government departments and agencies), training (to increase a broad understanding and awareness - particularly for those organisations that haven't used satellite information before) and more opportunities to test applications
- The review contractor has discussed using the UK-EOF requirements tables as a resource to identify how satellite information could facilitate more effective environmental monitoring programmes. The final report will include a complete set of these tables (agreed with the UK-EOF and LWEC project teams) with relevant sources of satellite information identified with broad details of how it can be accessed and likely cost. E.g.
  - Trends in agricultural **habitat extent**. Could be provided by the DMC Constellation. Cost: **data only = £0.0082 per km**; processing costs TBD
  - Effects on urban environments on **water cycle** could be provided by GMES (Geoland 2 Spatial Planning). Cost = **free to registered users**
  - **marine temperature, salinity**. Could be provided by GMES (My Ocean - coastal and marine environment). Cost = **free to registered users**
  - Impacts of **opening sea routes**. Could be provided by GMES (My Ocean - Marine Safety Sea Ice Concentration, Edge, Type and Drift). Cost = **free to registered users**
- The final report is expected to be available at the end of June. It will be discussed with the Space Leadership Council on 16 June.

Provided by Ruth Boumphrey