

MINUTES
PWSCG (56) Meeting
10:00 – 16:00 17th October 2023
Hybrid meeting

Attendees

PWSCG Members		DSIT and Met Office	
Duncan Potts (DP)	PWSCG Chair	James Shapland (JS)	PWSCG Secretariat (DSIT)
Kim Shillinglaw (KS)	Independent Member	Paul Riches (PR)	PWSCG Secretariat (DSIT)
David Gibbs (DG)	Civil Aviation Authority	Lindsay Jamieson (LJ)	DD, DSIT
Matt Sheldon (EC)	Maritime and Coastguard Agency	Ian Cameron (IC)	Met Office
Darren Cormack (DM)	Scottish Government	Simon Vosper (SV)	Met Office
Agostinho Sousa (AS)	UK Health Security Agency	John Harrison (JH)	Met Office
Chris Field (CF)	Welsh Government	Alison Wood (AW)	Met Office
Matt Steele (MS)	Ministry of Defence	Will Lang (WL)	Met Office
<u>Apologies</u>		Lisa Martin (LM)	Met Office
Gemma Cox (GC)	National Highways (England)	Becki Takle (BT)	Met Office
Shaun West (SW)	National Police Chiefs' Council	Kristina Costar (KC)	Met Office
Andy Brown (AB)	Environment Agency	Rosie Nation (RN)	Met Office
Dee Payne (DP)	Cabinet Office	John Hammond (JH)	Met Office
Ian Collins (IC)	Local Government Association		
James Kelly (JK)	Northern Ireland Government		
Ben Brook (BB)	National Fire Chiefs Council		

Actions

	Owner	Action	Due date
1.	Ian Cameron	Keep the Ind Mem updated on the conversations with the city of London insurance sector and national insurance risk of flooding.	When update available
2.	MO PWS Sec	Revisit the topic of machine learning and how this will link into the new supercomputer	At a future HPC update item (April)
3.	Simon Vosper	Met Office to investigate further to ascertain what could be behind the poorer performance in the wind direction metric under the comparative accuracy results	By Jan 2024
4.	Will Lang/John Hammond	Circulate the quarterly review of civil contingency service highlights to PWSCG via the Secretariat	By 31 st Oct
	Will Lang / Lisa Martin	Investigate introducing city names to warning maps so that the public know where they are in relation to warnings	By March 31st
5.	MO PWS Sec	Met Office to investigate the intent and use of thunderstorm warnings in relation to high intensity rainfall events. If a decision required bring back to PWSCG	By Feb 2024

	Owner	Action	Due date
6.	Will Lang/Darren Cormack	Scottish Government to work with Met Office to support the engagement with responders in Scotland	Ongoing
7.	MO PWS Sec	Met Office to take forward Option 2 in response to the discussion on an extreme cold warning.	Ongoing
8.	Alison Wood	MO to provide the Secretariat with plans for verifying the effectiveness of option 2 to cover extreme cold.	By 30 Nov
9.	Will Lang	Met Office to share the operating plans to explain the scenarios for when joint communications would be issued for extreme cold.	By 30 Nov
10.	Alison Wood	MO to discuss with Comms team how to enhance partnership communications to ensure mountain forecasts are reaching the public at the point which they start an outdoor leisure pursuit.	Update by Dec 2023
11.	MO PWS Sec	Met Office to keep the PWSCG up to date on plans to revamp the Met Office App and associated provider. Offer a session to interested PWSCG members on the new App when development ideas are available.	When available

Item 1: In Camera Session

DP welcomed attendees and spoke about the items that he suggested the group focus on.

Item 2: Minutes and Actions

PR confirmed that the minutes of the April were circulated and that no comments or queries received and as such they could be adopted as the formal record and published on the Met Office website. PR highlighted a couple of areas of interest regarding progress on Actions from the last meeting.

Item 3: Updates and Reports

- a) DSIT Update: LJ introduced herself as the new Deputy Director in DSIT with responsibility for the PWS and a wider sponsorship portfolio for organisations such as the MO, NPL, IPO and UKRI. Lindsay provided an update on key DSIT priorities including the focus of Ministers and the Department on the global Artificial Intelligence summit to take place at Bletchley Park in November. LJ noted the opportunity for the Met Office and the PWS area of being able to showcase and raise awareness of the work with the full DSIT Ministerial Team and NEDs who will be holding their full Board meeting at the MO in November. PR also provided a brief update on public appointments relating to the MO.
- b) Chair's Update: DP summarised the activity he has undertaken over the summer months. He noted the challenges relating to the introduction of the revamped UKHSA Heat Health Alerts. DP spoke about his continued focus on the everyday 'thrive' objectives in the customer supplier agreement as the safety theme and delivery of the National Severe Weather Warning Service (NSWWS) is well established and operating very effectively. DP has been in close dialogue with the Met Office on the upcoming London Economics Met Office Economic value study. DP highlighted the importance

of this report to ensure evidence is sufficient to meet the PWS needs in future spending reviews.

- c) Independent Member Update: KS spoke about her recent engagement with Broadcasters at the Media and Reach Group meeting she Chair's. The MARG is proving a very valuable forum for understanding and working with third parties who play a key role in communicating the PWS outputs. The membership has grown further and now includes the likes of GB News and TalkTV which means a greater portion of the UK audience is represented in the discussion. KS informed the group that there had been some debate about the extreme heat witnessed in Europe over the summer which meant broadcasters were increasingly being asked to explain the weather to climate change context. KS noted that broadcasters praised the Met Office information and guidance on that matter. Other challenges explored included an increase in climate misinformation with some examples from attendees in the room but that there was consensus that they could work together as a sector to try and correct the narrative through their own organisation channels.
- d) Met Office Update: IC updated the group on the delivery timeline of the new supercomputer. Members were told that delivery is still on track for a go live date in April 2024. There is still a huge amount of work before that point including software integration and porting the code. There will be a clear focus on the auditable benefits which MO will have to report into central government as it is one of the governments major infrastructure projects. IC spoke about the positive outcome of the pay deal being accepted by the union which brought an end to the industrial action. IC informed the group of some recent engagement with the finance and re-insurance business sectors in the city of London. Conversations here explored that the single biggest national insurance risk is flooding, and that Met Office has a role to play in this sector going forward. KS noted her interest in hearing more about those opportunities as they develop. Other engagement included meeting the CEO of the MCA and recent feedback from the Board meeting held at the RNLI which highlighted the impressive collaboration on beach safety forecasts through the Met Office App. Feedback from recent Amber rain warnings in Scotland was very positive although noting some concerns from Transport Scotland on the number of yellow warnings issued.

MS enquired about the impact of inflation on service costs and how that factored into the pay settlement. PR noted that some costs have come through from the £1,500 cost of living payment which wasn't funded by HMT and there is an affordability angle being worked through with DSIT. MS also enquired about how machine learning would be exploited with the new supercomputer and with Microsoft. It was agreed to include machine learning at a future PWSCG.

Item 4: Met Office Forecast Accuracy Discussion

SV presented to the group on the lenses through which MO assess and measure accuracy. The delay to supercomputer implementation is now seeing some effects filtering through into the accuracy measurements as the usual timeline for upgrades through Parallel Suites is paused. Future improvements will come from the introduction of enhancements to post processing for the public (IMPROVER). On comparative accuracy Met Office performance is largely the same as last year although now showing ranked 5 with the target to be in the top 3 using the ForecastWatch data. A competitor who wasn't in the stats for last year is in the top 3 which has pushed the MO down one place in the rankings.

KS pleased MO looking at the three different strands of accuracy, actual, comparative and perceptions but noted that the PWSCG have been asking MO to assess their position in the

marketplace for many years. KS wanted it noted that there is an emphasis placed on the urgency of doing this comparison. KS noted it was encouraging to see the perceptions of accuracy scoring well but noted that MO shouldn't get complacent as she has witnessed other organisations over look this and then experience a sharp decrease in perception. DP noted that we may still witness a lag effect on perception of accuracy scores given the delays to upgrades. SV recognised the frustrations expressed by the group but noted a couple more months would provide us with a much fuller analysis. On the analysis of accuracy, the data is compared against observation sites which are not primarily where people live (i.e. Airports or Defence locations) so need to improve that comparison. SV noted that post-processing will provide a more consistent forecast across a range of sites. Others including MS share the frustrations in the delay of improvements coming through. MO clarified the date for the enhanced post-processed data for the public (IMPROVER) with a Beta service running over the winter and full roll out in spring 2024. Others picked up on the poorer performance of wind direction which MO acknowledge as surprising and are investigating why.

Item 5: Accuracy Roadmap

RN provided the group with an update on the forecast accuracy roadmap and where new science can be pulled through into operations earlier. This includes looking at whether the 14 day forecast could be introduced earlier than parallel suite 47 planned for the start of 2025.

One potential consequence is that the enhanced post-processing for the public (IMPROVER) does not optimise the forecast at current observing sites to boost verification scores but generates a better forecast everywhere so there could be a small drop in some verification scores compared to best data. DG enquired about this possible drop in scores noting that the observing sites we often at airfields. MO confirmed that the enhanced post-processing for the public (IMPROVER) is only being introduced for PWS automated services such as the Website and App, and therefore it won't impact other customer services supported by Operational Meteorologists.

Item 6: Review of Weather and Warnings

WL provided the group with a summary of events over the summer and recent weeks with a discussion on current warnings and Storm Babet. JH provided the group with an explanation of the subjective verification process. On the weather events, the group covered the challenges about messaging when there was an Amber Heat Health Alert out but no NSWWS warning. AS noted that the UKHSA Alert service is one that is delivered jointly by them and MO and that they have been discussing the levels of the service. KS and others noted that more needs to be considered in terms of communication activity and educating the public, in particular by adding some place names to warning maps. The group also covered interest in El Nino and what the MO communicate in terms of impacts on weather and also climate. MO confirmed it was in their interest to communicate what they know into the public discourse on that. JH spoke about MO carefully coordinating its messages in that space and what gets provided to government departments. On survey results, DP was encouraged with the figures for warnings given the lack of storms last winter and with the challenge of thunderstorms and showers which can be hard to predict and can negatively impact perceptions of accuracy.

Item 7: Review of Theme 1 performance measures

JS provided a summary of the performance of Theme 1 which is focussed on 'stay safe' and NSWWS. The group discussed thunderstorm warnings with LM noting that it was hard to develop the right target given more unpredictable nature of that weather type. The MO took away an action to delve deeper into whether the MO were issuing thunderstorm warnings when in fact a warning for heavy rain was more appropriate.

Item 8: Update on Theme 1 Deliverables

- a) WL provided an update on plans to expand access of civil contingency services. Greater access to Hazard Manager being looked at as well as new training to be rolled out to the resilience community in the New Year in 4 key training areas. The group agreed it was important to get this information out to the voluntary sector. DC offered assistance to work with MO and the Scottish resilience community.
- b) Cold Warnings
The group debated and discussed preferences for the options presented to move forward with a decision on an extreme cold warning. All members were comfortable with either Option 2 being an enhancement to communication activity or Option 3 launching a full extreme cold warning. There was still some concern expressed about how the warnings would align with existing snow and ice warnings but also support for the fact that there was an extreme heat warning, so it makes sense to have one for the other end of the scale. Others sighted the variation in service across the UK as there are only health alerts for England. Others felt Option 2 might provide the middle ground given the difference in services currently across the UK from a health perspective. MO clarified that in terms of language it would be called an extreme cold warning. MO confirmed that the system wouldn't be ready to launch for this winter given we are only a few weeks away so the earliest it could start would be next winter. The group noted that a lot of resource and effort will be required to introduce either option.

DP summarised the various discussion points and brought the group together to reach consensus on **backing Option 2**.

Importantly the group raised the importance of judging the effectiveness of the activity, how will we measure success. AW confirmed that MO would be looking to verify the success of implementing Option 2 measures which could be tracked through ad hoc surveys or subjective verification. MO agreed to take an action to put forward suitable verification options to the PWSCG. The group also asked to understand the trigger points for issuing joint communications and JH confirmed MO could share that information.

- c) Mountain Hazard Information
BT summarised the progress and what has been delivered to improve the visibility of mountain hazard information. Information has been made more prominent in the App for mountain locations similar to the enhanced safety information for coastal areas. The final report is not due until November with some final research findings to be received and reviewed. The group welcomed this clear and detailed work. KS asked for a clearer articulation of any partnership strategy that would help to get this information out to people that need it e.g. working with National Parks. It was worth thinking about this piece of work beyond the digital offering but also in a physical sense. Others noted that it was important to think about where people first interact with the outdoors before setting off and that the most likely to have accidents are the least likely to check. BT confirmed she would be working with MO Comms on options. AW acknowledged that point and agreed she would discuss the opportunity for partner working.

Item 9: PAG Reports and Performance updates

JS provided a summary of the key achievements from recent PAG meetings and updated on Theme 2 deliverables. There was a discussion on a couple of items, one around descopeing of data from aircraft in favour of using radiosonde data. MO noted that scientists would have their reasons for making that switch. IC spoke about the MO pressing ahead on matters and one area that could see a development is allowing third parties to post process data as in some cases they may be able to do this better than MO which would in turn improve the MO output.

Item 10: 14-day Forecast

AW provided a summary of the proposal to deliver an interim solution to providing a full 14 day forecast due to delays with the supercomputer programme and 14-day post-processed data for the public (IMPROVER). The group discussed the proposed offering with some concerns about the length of the video output and have they tested how that would be received by users. MS queried the timeline until when 14-day post-processed data for the public (IMPROVER). would be ready and whether it would be better to wait until that was implemented. MO noted that a 14-day forecast wasn't the top priority output when the post-processed data for the public (IMPROVER) launches on the Web and App. DP was clear that this was very much an interim offer and that the PWSCG is pushing for 14-day data forecast as that is the common offering with almost all other major players. IC provided clarity on MO capability at this time and informed the group that at the moment it was technically impossible to offer a full 14 day forecast as they have not got a 14-day data flow. IC noted that they do have a major overhaul of the App coming. The group were keen to stay up to date on developments with the App and agreed MO need to start collecting user requirements for a new App. The group were concerned about the timeframe for the 14-day forecast and IC agreed to explore options to try and push for a quicker solution. **The Group did agree that the MO should move forward with the interim solution.**

Item 11: Economic Value Study

KC updated the group on the economic value work being undertaken with London Economics and explained the process for completing the report and stages remaining. The interim report has recently been shared by London Economics and is being reviewed. At this stage it is lacking many of the numbers but that is to be expected as the numerical analysis is still underway. The first draft of the final report is on track to be presented in January. Following consultation with DP and JS, the report will cover the use to the public of the PWS and Met Office services. KC explained that other value studies looking at Defence and the Hadley Centre Climate Programme will be complementary to the overall value study. KC noted that the study was also looking more widely and linking up with the Bank of England and HMT regarding top level forecasting. The group were very supportive of this work and recognise the importance of this independent evidence that will be crucial for the next Government Spending Review.

Item 12: In Camera Session

DP informed members that he would be attending the MO Board in November. MS referred to impact of the pay costs and how that filters through to budget conversations on services with the Met Office as MoD are speaking to MO about costs of their services. The group spoke about the use of machine learning and are keen to come back to that as a discussion point with MO in the future.