



Met Office User Forum / 8

31st October 2011

Venue: Met Office, Exeter, commencing 1100

Agenda

- Agenda Item 1: Welcome and Introductions
Agenda Item 2: Review of actions since MOUF/7
Agenda Item 3: Review of Met Costs
Agenda Item 4: 2012-13 R&D outline proposals
Agenda Item 5: Cessation of Metfax
Agenda Item 6: Issuance of snow warnings and their operational impact
Agenda Item 7: Update on forecast provision for alternate planning
Agenda Item 8: The future for UAD in the 4D environment
Agenda Item 9: GRIB2 - Benefits and turbulence forecasting
Agenda Item 10: Dissemination of specials directly to the Met Office
Agenda Item 11: Any other business
- Trial inclusion of Exeter on London VOLMET South
 - Change from millibars to hectopascals
 - Met O forecaster returning to Heathrow for the new Heathrow Operational Efficiency Centre (HOEC)
- Agenda Item 12: Date of next meeting

Attendees

Doug Johnson	Met Office	DJ
Nigel Gait	Met Office	NG
Darren Hardy	Met Office	DH
Andy Wells	CAA	AW
Colin Hord	CAA	CH
Peter Cox	BALPA	PC
Dominic Haysom	Easyjet	DH2
John MacCaskill	HIAL	JM
(John Hamshare*)	BAA	JH)
* represented by Dave Cran		DC

Apologies received

John Batty	BBGA	JB
Kevin Loy	NATS	KL
Rich Jones	UKFSC	RJ
Sandy Leggett	NATS	SL
Steve Smith	Thomson Airways	SS
Simon Buck	BATA	RW
Terry Marsden	AOA	TM
Judy Mitchell	NATS	JM
Gill Brook	BA (representing IATA)	GB
Tim Kinvig	Loganair	TK
Steve Copeland	AOPA	SC
Stuart Petts	NATS	SP
(Paul Clarke*)	Flybe	PC)
(John Hanlon*)	ELFAA	JH)
*to be represented by Nick Rhodes		NR

Summary of Outstanding Actions and New Actions

OUTSTANDING ACTIONS

Reference:	2010/04
Action:	<p>Submit proposal for research into high level ice particles to CAA Met Authority, for consideration as a potential future R&D programme of work.</p> <p>DH reported that the Met Office is involved in an EU funded project, involving a consortium of companies including airlines, engine manufacturers, Meteo France etc called HAIC (High Altitude Ice Crystals). It is a 3 or 4 year project, and will commence in 2012</p> <p>There is also an R&D proposal put forward on 12th Oct, which would assess the improved use of satellite data to detect the presence of Cb cloud tops and by extension, the potential presence of this hazard.</p> <p>DH agreed to provide a report on the progress of HIAC for the next meeting.</p>
Action on:	DH
Status:	OPEN

NEW ACTIONS

Reference:	2011/01
Action:	<p>Consider the ability of the Met Office to receive local special reports from HIAL airports.</p> <p>CH to liaise with NATS. DH to act as Met Office focal point.</p>
Action on:	JM, CH & DH
Status:	OPEN

Reference:	2011/02
Action:	Provide a list of airports participating in the 2011-12 Winter Ops Trial.
Action on:	CH
Status:	OPEN

Reference:	2011/03
Action:	Invite Phil Layton (NATS ATC Manager, Heathrow) and Paul Templeman (NATS MET Focal Point) to the next MOUF.
Action on:	DH
Status:	OPEN

Reference:	2011/04
Action:	Arrange the date of MOUF/9 at CAA House, London.
Action on:	DH
Status:	OPEN

Agenda Item1: Welcome & introductions

DJ opened the meeting, and thanked everyone for attending. Introductions were made and the minutes of the previous meeting were confirmed as a true account.

Agenda Item 2: Review of actions from previous MOUFs

Reference:	2009/01
Action:	Arrange with the Met Office to provide a PowerPoint presentation of the Frankfurt trial to BAA. MO attended meeting with BAA in February about wake vortices and presented.
Action on:	JH
Status:	CLOSED

Reference:	2010/01
Action:	Provide Met Workshop presentations on request to attendees.
Action on:	AW
Status:	CLOSED

Reference:	2010/02
Action:	Users invited to provide feedback to CAA relating to the cost recovery of WAFC and VAAC provisions AW reported that feedback was provided by some users.
Action on:	All
Status:	CLOSED

Reference:	2010/03
Action:	Highlight concerns of group relating to the provision of NOTAM data to Flight Operations Liaison Group. Since the Grimsvotn eruption, the Volcanic Ash Advisory Group (VAAG) was set up – the group has a remit to review the provision of NOTAMs, and CAA have been active in presenting 2 papers on the subject.
Action on:	CH
Status:	CLOSED

Reference:	2010/04
Action:	Submit proposal for research into high level ice particles to CAA Met Authority, for consideration as a potential future R&D programme of work. DH reported that the Met Office is involved in an EU funded project, involving a consortium of companies including airlines, engine manufacturers, Meteo France etc called HAIC (High Altitude Ice Crystals). It is a 3 or 4 year project, and will commence in 2012 There is also an R&D proposal put forward on 12th Oct, which would

	<p>assess the improved use of satellite data to detect the presence of Cb cloud tops and by extension, the potential presence of this hazard.</p> <p>DH agreed to provide a report on the progress of HIAC for the next meeting.</p>
Action on:	DH
Status:	OPEN

Reference:	2010/05
Action:	<p>Assess the current Met Office effort in generating forecast QNHs for the 20 ASRs.</p> <p>Superseded by events.</p> <p>AW provided the meeting with a summary of CAA activities in reviewing the existing RPS areas. Some statistical analyses were provided by the Met Office on the potential use of 9 new areas (to replace the existing 20 areas). However, it became evident that significant pressure ranges were possible over individual ranges. So, CAA continue to consider changes for the optimal number of RPS areas.</p> <p>There was discussion on the potential use of VOLMET. However, AW noted that the value would be limited away from the largest airports. PC considered that most other States do not feel the need for RPS areas and that commercial aviation funds the provision of these but does not benefit from their use.</p>
Action on:	DH
Status:	CLOSED

Agenda Item 3: Review of Met Costs

NG gave a presentation on the price of regulated aviation meteorological provision for 2011-12 and a forecast for 2012-14. This presentation is available at **Annex A**.

NG explained the composition of overall met costs included WAFC, VAAC, UK low level aviation Met services, Aviation R&D and technical support to CAA. However, recent additional services have enhanced the support to volcanic ash events such as the provision of a Civil Contingency Aircraft (CCA) and new supplementary volcanic ash products, with further ash services currently being developed; the cost of these services are expected to be recovered in 2012 and 2013.

A review of overall met costs is still to be completed by CAA ahead of Eurocontrol Reference Period 1 (2012-2014 period). However, the offer provided accounts for an accumulated saving of £8,216 million over the 3 year period which represents a 12.1% saving on the 2011 Unit Rate. The overall cost may also change depending on how VA products are used by other States (which could place a lower burden on the UK rate). Further efficiencies are expected to come from WAFC automation and semi-automation of other products. The Met element of the Unit Rate currently represents 4.5% of the total UK Unit Rate.

NG also noted that the provision of aerodrome weather warnings will become a terminal charge from 2013 subject to CAA consultation, which means that provision of



these warnings will be through individual contracts with airports. PC enquired what the expected take up from airports might be. AW commented that this was unknown, but did state that the value of these warnings was often fully recognised by some airports.

The meeting discussed in some detail the development of the products supporting volcanic ash events and the quality of existing products. DH2 noted a perception amongst some users that the dispersion model tended to lead to 'conservative' results in the past and asked what fine tuning has occurred to the model. NG explained that work on the development of improved satellite imagery has taken place, and also that forecasters may now intervene in the output following receipt of information received from aircraft and lidar etc. DJ also noted that the Numerical Atmospheric-dispersion Modelling Environment (NAME model), the Met Office dispersion model, had recently been independently reviewed and found to operate well. Overall DJ felt that the ability for forecasters to intervene was very important but overall the model output provided realistic results within the limitations of the uncertainty in parameters such as the emission source parameters and the vertical distribution of the ash etc.

PC asked whether work had taken place to co-ordinate the actions undertaken by different Volcanic Ash Advisory Centres (VAACs), for example the recent Chilean eruption suggested that output produced by France, Argentina, Australia and New Zealand varied significantly. AW described the various ICAO led international activities aimed at generating harmonised approaches to ash forecasting within the VAACs and the consistent use of the information provided. These groups included IAVWOPSG (international Airways Volcanic Watch Operations Group), IVATF (International Volcanic Ash Task Force), VAAG (Volcanic Ash Advisory Group), Volcanic Ash Observations Revir Group (VAORG) and the Volcanic Ash Science Advisory Group (VASAG). There is consistent agreement internationally on the need for harmonisation of the science, modeling and products produced. CH also noted that one outcome of the VAAG was that teleconference discussions would take place during events and that an exercise would take place later this year; forecasters have undergone training on how to present information during these conferences. DJ agreed that all VAACs should benefit from a more consistent approach, and noted that output differences resulted from the fact that it was proving difficult for airframe/engine manufacturers to agree on a consistent safe threshold, meaning that different VAACs applied different algorithms to their models.

DC asked whether products produced for previous eruptions had missed areas of ash. DH2 recalled that on one occasion during the Grímsvötn eruption, the Met Office changed the VA graphical product to account for the presence of ash in an unforecast area.

DH2 enquired on the progress made regarding a more equitable cost recovery mechanism for WAFC. AW noted the representations made by ELFAA and that CAA are actively involved in discussions on this. It was noted that users could take WAFC products freely from the United States however EU regulations require a level of resilience and an ability to verify the quality of output from WAFCs London and Washington, so there was probably a continuing requirement for 2 WAFCs. So, in terms of an equitable cost recovery of WAFC London products, CAA are concentrating on liaison with EU States, some of whom support the concept of a Europe wide recovery mechanism. CAA are putting a Paper on this subject to the



Eurocontrol Enlarged Committee on 23 November 2011 that proposes the establishment of a task force with the remit to resolve this inequity. AW confirmed that CAA are fully committed to support an equitable cost recovery method for WAFC. DH2 welcomed the news and expressed the view that most operators tended to take the WAFC London products in preference to those produced by WAFC Washington.

Agenda Item 4: 2012-13 R&D outline proposals

NG provided a brief presentation on potential Met R&D proposals for 2012. This presentation is available at **Annex B**. In total 10 proposals were put forward at the recent Met R&D Steering Group meeting, with agreement on those required to be developed expected in December.

DJ also provided a review on the Met Office involvement with SESAR. SESAR is the European air traffic control infrastructure modernisation programme. The Met Office will have a key role in SESAR Work package 11.2 – this work package is split into 2 projects; the requirements for MET information and MET information system development, verification and validation. This particular project has the involvement of a consortium of 7 Met Services. The Met Office will lead the requirements project. Amongst this, close collaboration with users through ATM workshops would be undertaken, and SESAR are highly committed to encouraging stakeholders to attend these workshops. In the second project the Met Office will develop a variety of prototypes for the ATM community and the Met Office would lead the design of the 4DwxCube. It is expected that this work will commence in January 2012 and last for 4 years. WP 11.2 represents almost the entire Met requirement of SESAR.

Regarding RVR forecasting, PC noted that at Heathrow, there is a procedure to place flow restrictions during periods that the control tower is in cloud (named 'VIS2'), and that maybe a slant visibility forecast may benefit operations. DC noted that, due to the height of the tower at Heathrow, this is perhaps an issue unique to that airport. DJ commented that rather than a forecast of slant visibility, it might be preferable to develop the forecasting of the cloud base. DJ also noted that over this winter a forecaster will be embedded at Heathrow and could make use of a variety of tools such as 'Weather Windows' to generate probabilistic forecasts of cloud base at certain thresholds.

DH2 enquired whether there may be opportunities for collaboration with WAFC Washington. NG agreed, noting that the Met Office already works very closely with counterparts in the United States in order to avoid the duplication of work where possible. PC asked whether the Chinese Met Service were carrying out R&D to develop their own WAFC potential. AW commented that there was little evidence of this presently. DJ also commented that the Met Office have met with the Chinese Met Service to exchange ideas but they have not produced any verification statistics yet so it is hard to draw conclusions on their ability.

DJ drew the group's attention to the opening of the Met Office Hazard Centre in April 2011. The work of this centre offers support to a wide range of bodies, for example the Environmental Agency for flood forecasting, but also works closely on VAAC activities and with the British Geological Society. There is an increasing emphasis on the forecasting of 'space weather', in particular solar storms, which offer the potential for severe disruption to power and communications. In partnership with NOAA, the



Met Office are working to develop outcome based forecasts in anticipation of a future ICAO requirement. PC noted the effect of space weather on Sat Nav systems and DC noted that the next solar activity peak would be coming in the next year or two. DJ agreed, commenting that there was a view that the next peak may be stronger than previous ones. DJ also noted another potential outcome based forecast could be to warn of heightened solar radiation risks over transpolar routes.

Agenda Item 5: Cessation of Metfax

DH brought to the attention of the group the cessation of the MetFax service with effect from 1 October 2011. MetFax was the faxed based mechanism to disseminate aviation products on demand. The end of this service followed a period of user consultation and strong evidence suggesting that users rely almost universally on the internet to retrieve meteorological information to support flight planning and briefing. A paper describing this is reproduced at **Annex C**.

Agenda Item 6: Issuance of snow warnings and their operational impact

DC commented on a perceived difference within BAA on CAA consultation documentation regarding the issuance of snow warnings for light snow events, and sought clarification on the requirements to issue warnings for light snow flurries. CH recalled that user consultation found some respondees wished for snow warnings to be issued only when it would lead to an operational impact, though others felt that it was the in the remit of Airport Operations to decide on the actions to take in response to these warnings. CAA determined that airports should be warned on the likelihood of snow in order that they can respond accordingly, and that where appropriate the forecaster will highlight the fact that snow will not settle or melt on impact with the ground. DH noted the terminology agreed with CAA and that consequently, 2 types of snow warning templates had been defined by the Met Office, as follows:

1. Snow:

SNOW (OR RAIN AND SNOW MIXED) IS EXPECTED AT THE AIRFIELD.
SLIGHT/MODERATE/HEAVY SNOWFALL IS FORECAST, WITH
ACCUMULATIONS OF XXCM. SNOW TYPE WET/DRY. VISIBILITY IS/IS NOT
EXPECTED TO FALL BELOW 600M IN THE SNOWFALL, WITH A MINIMUM
VISIBILITY OF XXXXM. WINDS ARE/ARE NOT EXPECTED TO BE >15KT WITH
THE POSSIBILITY OF DRIFTING.

2. Snow (nil accumulations)

SLIGHT SNOW IS FORECAST AT THE AIRFIELD BUT NO SIGNIFICANT
ACCUMULATIONS ARE EXPECTED.

DC agreed that this procedure made good sense and that even a light dusting of snow can cause significant disruption.

DC also enquired about the promulgation of warnings around the airport. DH explained that the Met Office would send warnings by one agreed method, such a fax, email or SMS. It was then the responsibility of the recipient to disseminate them around the airport to interested parties. DJ noted that once the provision of warnings was de-regulated, there may be opportunities for airports to specify additional



requirements, and CH commented that the Met Office and CAA would look at other innovative ways for airports to receive warnings in the future. DJ also noted the provision of warnings from the Public Weather Service that assist in planning in the vicinity of airports.

Agenda Item 7: Update on forecast provision for alternate planning

DH2 noted the potential benefit of having TAFs available for alternate airports when that airport is closed. CH noted the representations made by CAA and the Met Office to ICAO on the use of the term 'NOFCST' that would permit 24 hour TAFs to be maintained during periods that no METARs are available. However, this received little support outside of Europe, mainly since the provision of 9 hr TAFs only occurs in the European region. Additionally ICAO had highlighted it was reluctant to develop global provisions to resolve regional issues. ICAO Annex 3 does not explicitly require that complete METAR should be available to maintain such a review, however ICAO recommends that other suitable observational data are available e.g. observations from automatic weather stations. However, due to the way in which aerodrome weather observations are arranged in the UK, it was considered that without METAR the UK believes it would be problematic to verify and amend TAFs. CH noted that the UK was leading an ICAO group to more clearly define the extent of observational guidance information required for TAFs. For now however, there was a need for users to lobby airports to encourage the provision of AUTO METARs during non-operational hours, which would permit the production of TAFs for that airport. The meeting discussed the difficulties of encouraging airports to invest in their observational infrastructure to provide AUTO METARs during non-operational hours due to the lack of financial incentive for doing so.

DH2 noted that in Spain, the issue had been resolved due to all airports receiving 24 hour TAFs, but that this issue continues to occur for Belfast City and Durham Teesside airports, as well as others. It was unclear how Spain maintains suitable observational data to maintain these TAF.

AW cited the Coventry air crash in the 1990s, in which the AAIB found that the observation provided to the aircrew was 55 minutes old but that conditions had worsened in between. It was clear that the provision of timely observations information was important. Consequently, ICAO Annex 3 required the ability for TAFs to be kept under continuous review. Whilst ICAO does not explicitly define requirements, it is evident that site specific information from METARs was an intrinsic aspect of maintaining the currency of TAFs..

Agenda Item 8: The future for UAD in the 4D environment

DJ noted that the Met Office wind resolution exceeds ICAO requirements for the production of gridded wind forecasts and that work is progressing to achieve a 12 km resolution of Europe, and ultimately a 4 km resolution by 2020. It is also possible to achieve a higher resolution over terminal areas, which can be integrated into a flight management system. DJ also described the work undertaken during the EU FLYSAFE project, which concerned the uplinking of data directly into the cockpit and work on Continuous Descent Approaches (CDAs), citing a successful study

undertaken at Arlanda airport in Sweden. Such work is also an intrinsic aspect of the forthcoming work on 4D wind fields in support of SESAR Workpackage 11.2.

Agenda Item 9: GRIB2 - Benefits and turbulence forecasting

NG confirmed that GRIB2 is now the ICAO standard. GRIB2 has an increased number of vertical and horizontal levels, and updates every 3 hours rather than every 6 hours. R&D work on turbulence is expected to feed improvements into WAFC products, though the timescales are largely driven by ICAO.

DH2 noted that Easyjet currently apply basic shear rates for turbulence and set way points. NG confirmed that GRIB2 will deliver an improvement on this.

Agenda Item 10: Dissemination of specials directly to the Met Office

JM enquired on the feasibility of supplying local special reports directly to the Met Office. DH noted the benefits to the Met Office in receiving special reports from airports, and confirmed that forecasters have access to specials from a number of UK airports already, and these are very valuable in maintaining the ongoing accuracy of TAFs. In many cases, these are sent from Muir Matheson MetCom systems, which are widely in use at HIAL airports. DH also noted that, since the dissemination of local special reports is not an ICAO requirement, the Met Office have worked with airports and NATS to ensure that this information only goes to the Met Office and is not disseminated on the international exchange.

CH agreed to liaise with NATS over the potential routing of HIAL local reports direct to the Met Office and DH agreed to act as the Met Office focal point for this.

Reference:	2011/01
Action:	Consider the ability of the Met Office to receive local special reports from HIAL airports. CH to liaise with NATS. DH to act as Met Office focal point.
Action on:	JM, CH & DH
Status:	OPEN

Agenda Item 11: Any other business

- **Trial inclusion of Exeter on London VOLMET South**

PC enquired on the result of the trial inclusion of Exeter on the VOLMET South broadcast. AW confirmed that the trial went well and that that Exeter is now part of the VOLMET South Broadcast. The main consideration during the trial was to establish whether the addition of a 10th airport would mean that the looped broadcast would regularly exceed the 5 minutes limit defined by ICAO, especially during the winter months when messages were generally longer. The trial concluded that the 5 minutes limit was not exceeded on 98.5% of occasions, and that consequently, Exeter airport was formally added. AW noted that the CAA now just need to update



UK publications and the Air Navigation Plan. The trial also concluded that the provision of an 11th airport was very unlikely. PC asked whether the other VOLMET broadcasts were close to capacity. AW commented that there was a possibility that Blackpool airport could be added to the VOLMET North broadcast.

PC enquired whether runway state group information supposed to be included in VOLMET reports. CH commented that this was unlikely due to the difficulties in decoding the extensive information provided in runway state groups. AW said that instead of decoding the group, the basic alphanumerics could be spoken. PC noted that the availability of these groups was considered important, and DH2 commented that it was evident that many airport METARs still do not contain this information during periods of snow contamination on runways. CH noted the work under taken at the request of CAA by the Met Office Inspection Team to encourage all airports to report these groups when appropriate, however, it is clear that ATC can only report these in METARs if Airport Ops routinely provide the information to them. CH also noted the work of CAA on getting a number of airports involved in the 2011-12 Winter Ops trial, and committed to forwarding the group a list of the airports participating in this.

Reference:	2011/02
Action:	Provide a list of airports participating in the 2011-12 Winter Ops Trial.
Action on:	CH
Status:	OPEN

- **Change from millibars to hectopascals**

PC asked whether any issues had been encountered during the change from Millibars to Hectopascals. AW reported that CAA Information Notice 43/2011 had been issued and the change was expected to become operational on 17th November 2011.

DH also noted that that the Met Office had made a number of procedural changes to documentation and that the Met Office was already using hPa in all products.

- **Met O forecaster returning to Heathrow for the new Heathrow Operational Efficiency Centre (HOEC)**

DJ reported that the Met Office have embedded a forecaster at Heathrow control tower through this winter. This has been provided to BAA as a free trial for 2 months, with BAA paying for the remainder of the period. After the winter it is possible that BAA will require a continuing presence at Heathrow, and that a tender would be issued. The scope of work for the forecaster at Heathrow is mainly to support the specific demands of winter forecasting at Heathrow, which operates at full capacity, and forecasters would also take part in regular teleconferences and face to face briefings with users (but not necessarily pilots). DJ also confirmed that they will have access to 'Weather Windows' and the Met Office are open to considering other specific services if required.

PC noted that the on-site presence of forecasters at Heathrow could assist with the Heathrow VIS2 procedures (see Agenda Item 4), and restated that slant visibility

rather than cloud base was the crucial issue in this regard. There were also discussions on the possible additional benefits in terms of entering and exiting LVPs. The meeting noted that it would be beneficial to seek the views of NATS on this, and it was noted that no representative from NATS Services Ltd (NSL) had been invited to this meeting.

Reference:	2011/03
Action:	Invite Phil Layton (NATS ATC Manager, Heathrow) and Paul Templeman (NATS MET Focal Point) to the next MOUF.
Action on:	DH
Status:	OPEN

PC enquired whether the potential benefit of forecasters having access to the contingency control tower at Heathrow had been considered and also whether the scope of work catered for the provision of forecasts for the approach route into Heathrow. DJ confirmed that supporting operations in the vicinity of Heathrow had been included in the forecasters role.

PC asked whether there were plans to install forecasters at other airports. DJ considered that the Met Office would be receptive to this, with perhaps a presence at a Scottish airport, though it was agreed that the capacity issues at Heathrow were unique in the UK.

- **Provision of METARs by Met Office personnel**

DJ noted a recent approach made to the Met Office by NATS to provide METARs in certain situations, and enquired whether this might be considered as cost recoverable from the en-route charge, given that it is an ICAO Annex 3 requirement. AW commented that it is questionable whether this would be regarded as an en-route or terminal charge. This prompted a discussion between DJ and DC on the potential wider uses of a forecasters based on-site and whether the primary role of forecasters could be compromised by the need to generate METARs. DJ considered that observing provision may improve the overall value of forecaster presence and would liaise with BAA on this.

- **Transition altitude**

CH noted that the CAA and NATS would be consulting with users shortly over potential changes to the transition altitude and regional pressure setting areas, as part of the Harmonised European Transition Altitude work.

- **Proposed Met observation production changes**

CH reported that the CAA will shortly issue a consultation paper to airport ATS providers on proposed changes to the production of aviation met reports. A number of issues will be raised including the requirements for CAT II and CAT III airports, equipment requirements, the reporting of certain weather and cloud information such as TS & CB and observer training.



- **WAFS Sig Weather outages**

DH2 noted a recent inability of Easyjet to receive WAFC Significant weather charts. NG commented that this particular issue was related to PNG formatting during a recent migration of the forecast production platform, where the Met Office lost 2 data runs. During this period, the service was successfully backed up by WAFC Washington. One other issue concerned an issue in October which was found to be due to a configuration issue with the Lido visualization software.

Agenda Item 12: Date of next meeting

It was agreed that the date and location of MOUF/9 would be agreed by email shortly. This meeting is expected to take place during September/October 2012 following the 2012 R&D Steering Group meeting and would be held at CAA House, at the kind invitation of CAA.

Reference:	2011/04
Action:	Arrange the date of MOUF/9 at CAA House, London.
Action on:	DH
Status:	OPEN

DJ offered his thanks to all attendees for their valuable contributions and the meeting closed at 1430.

Report On Met Costs



Met Office




Met Office Unit Rate 2012 - 2014

Nigel Gait
Aviation Manager
31st October 2011

www.metoffice.gov.uk

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Overview of Met Costs

- Standard direct and core services continue basically unchanged, WAFC, VAAC, UK Low Level Aviation Met service, Aviation R&D, technical support to CAA.
- Significant new services include:
 - Civil Contingency Aircraft
 - New supplementary volcanic ash products developed in 2010/11
 - Further new ash services being developed in 2011/12
 - The cost of these services incurred in 2010 and 2011 will be recovered in 2012 and 2013
- At request of IATA price for 2010 was kept at 2009 level. Resulting under-recovery recovered in 2012
- CAA review of met costs still ongoing

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Price Proposal 2012 - 2014 Under Consideration By CAA

- Met Office and CAA have been in negotiation over 2012 to 2014 price
- The offer which has been included in the NPP tables for met provides:
 - An accumulated saving of £8,216 million on 2011 prices over the 3 years
 - Over the 3 years a 12.1% saving on the unit rate which is -4.2% compound annual growth rate
 - Efficiencies coming from planned automation of WAFC and semi automation of other products. Removal of aerodrome warnings from en-route charge
- Negotiations continue particularly with regard to the level of aviation Core contribution costs

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Met Costs Included In NPP

Based on NPP						
£,000	2009	2010	2011	2012	2013	2014
Total Charge	27453	27453	29623	29073	29220	29806
Inflation (%)		3.3	2.5	1.7	1.8	1.9
Over/under recovery			-407	3441	590	295
Total Charge incl VA	27453	27453	29216	32514	29810	30101
CSU's	9914	9567	9971	10325	10667	11035
Unit Rate incl VA (£)	2.77	2.87	2.93	3.15	2.79	2.73
VA Costs	0	1053	300	0	0	0
MOCCA	0	1820	1048	856	521	4

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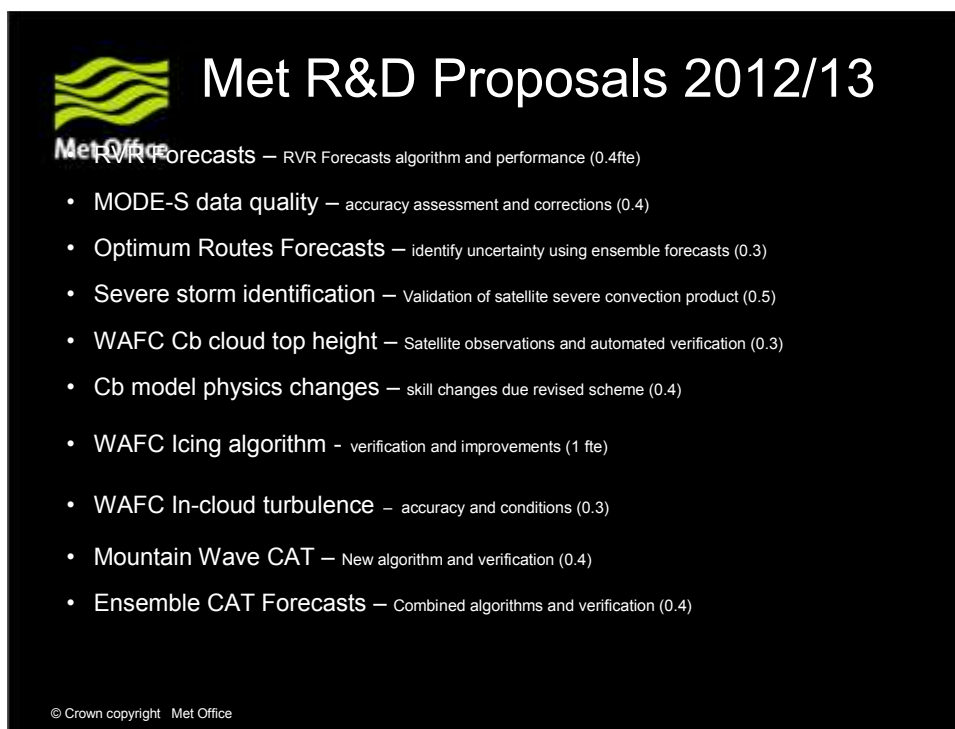


NPP Met Costs At 2011 Prices

Prices Relative to 2011						
2011 prices £,000	2009	2010	2011	2012	2013	2014
Charge		29946	29216	31961	28776	28505
VA Costs		1053	300	0	0	0
MOCCA		1820	1048	856	521	4
Charge excluding VA		27073	27868	31105	28255	28501
CSU's		9567	9971	10325	10667	11035
Unit rate (£)		3.13	2.93	3.10	2.70	2.58
Annual Efficiency			0.00%	5.64%	-12.85%	-4.25%
CAGR (%)						-4.2%

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2012-13 R&D outline proposals



Annex C

Ag Item 5: Review of future provision of faxed based products for General Aviation

Background

The Met Office recently consulted with users of General Aviation meteorological flight briefing products over some proposed future changes to the scope of services provided.

The Met Office is designated by the United Kingdom Met Authority in the Civil Aviation Authority as the air navigation service provider of aviation meteorological services in the UK. As such, we have responsibility to provide and disseminate a wide range of meteorological products to support safe and efficient air transport.

Our remit extends to GA and a number of specific forecasts are produced to serve the GA Community. The dissemination of these products must also ensure they are readily available to users, commensurate with current IT capabilities and ease of access.

The Met Office and CAA routinely review the methods by which GA access products, to ensure that dissemination best matches user need. From this review, the following changes to service are proposed.

MetFAX

MetFAX provided weather information via fax machine. Each call cost 75 pence per minute, which was charged to recover the administration costs of our third party provider.

Our review concluded that use of MetFAX has been steadily declining over recent years, and is now at such a level that suggests there is very little demand for the service. Year on year the number of calls has dropped by 50% in the past 12 months, a figure mirrored over both the summer flying season and winter off season.

This is almost certainly the result of universal access to the public internet and the increasing availability of internet enabled mobile devices to retrieve briefing information. Fax is increasingly becoming a redundant technology and we considered that the GA community can access data from web based technology at home or at flying clubs.

Some statistics illustrating this fact can be seen at **App A**.

Figures suggest that there are around 140 users of MetFAX. On the other hand there are 30,000 subscribers to our GA web site.

As a result, the Met Office consulted with users over the removal of MetFAX *with effect from 30th September 2011*. The consultation consisted of:

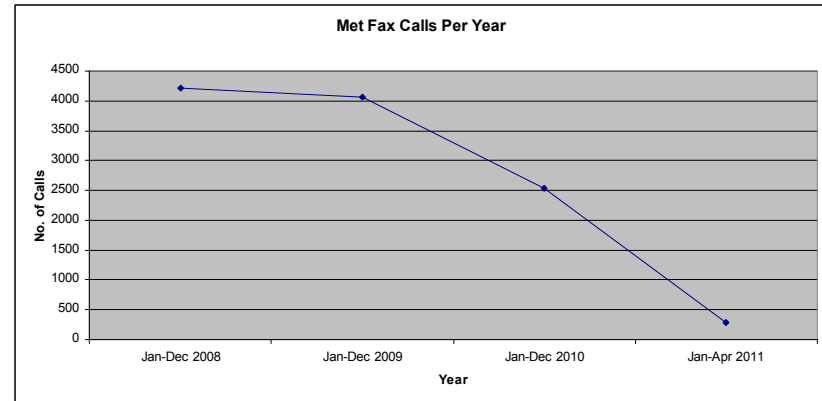
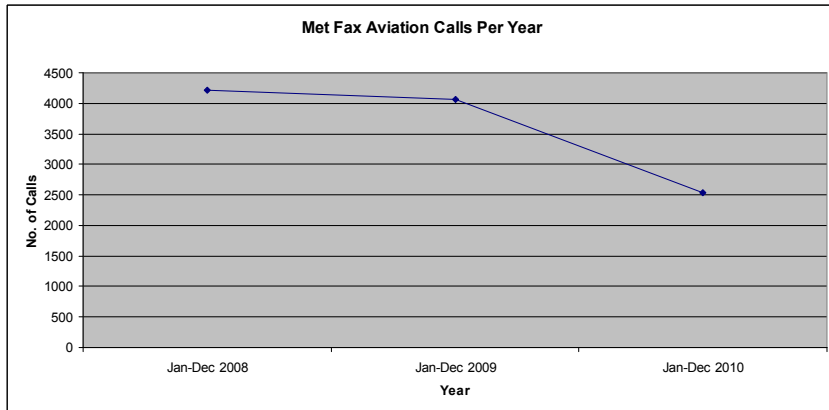
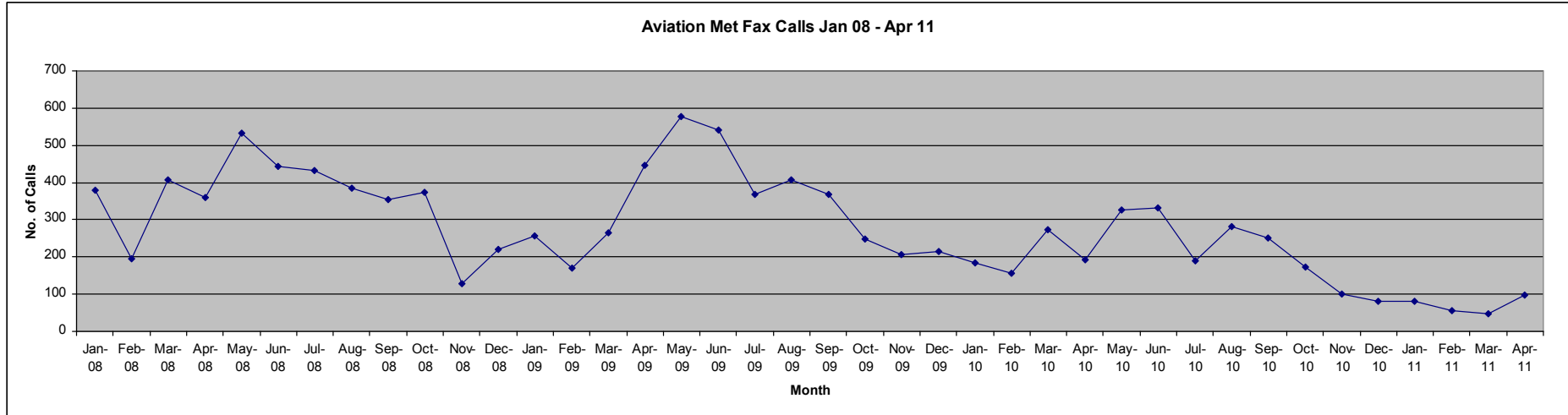
- posting a message on the GA web site in May,
- sending a fax to each of those using MetFAX over the past 12 months outlining these details on 23rd June.
- making this information available at the Aeroexpo held at Sywell in June.

The period of consultation resulted in a total of 3 responses. These are detailed at **App B**. The 3 respondees account for about 0.1% of GA pilots registered on the Met office web site, and about 2.5% of MetFAX users. On that basis of this negligible response, the decision was made to continue with the cessation of MetFAX on 30th September.

Subsequent to this, a further notice confirming the removal of MetFAX was posted on the GA web site and to all known MetFAX users by fax. This note is shown at **App C**.

Following the cessation of the service, no adverse feedback has been received.

Darren Hardy
24th October 2011



Met Fax Withdraw Feedback: June – July 2011

Total no of responses: 3
 Respondent 1 saw the notice on the GA website. Respondents 2 & 3 received the fax message. No feedback was received in July.

1.

Date: 09/06/11
Respondent Name: Bill Beavis
<p>Feedback Received</p> <p>Hello, I'm : a registered user of GA Met briefing services online (Bill607Beavis) : an active (2/3/4 times a month) flier from EGNT Newcastle : a retired ATPL.</p> <p>I note the march of technology, and recognise the frequent need to replace Old with New systems. I have never personally felt the need to use the Metfax facility, I must confess, but I know it's there as my 'long-stop' for obtaining the basics for a VFR flight in the UK if internet access isn't possible.</p> <p>I can think of more than a few places around the UK where the airfield and its available facilities are basic; wi-fi or smart-phone-internet access is Not always possible (we're in the hands of the Mobile Network operators who place their masts and equipment where they'll generate revenue). Besides, a few airfields don't have the ability for a visiting pilot to access their one computer: it's Behind the Desk in the Office Area; or just doesn't even have a computer. Such places, run more than ever on a thin shoestring budget, don't necessarily want to leave a computer accessible in their briefing hut or caravan, as the local jobs might unplug and take it away. But a FAX machine...what's that? Is it worth nicking?? More likely that a fax might be left alone JUST because it's old tech and it couldn't be sold "off the back of a lorry".</p> <p>May I suggest, in the interests of flight safety, that part of your opinion survey to establish the need for continuing or terminating the Metfax service would be to e-mail or write to all UK airfields (with or without flying club or schools), to ask the operators whether:</p> <p>1) Briefing services are easily and readily accessible to based and visiting pilots by computer terminal access ((Gloucester EGBG take a bow here, for example));</p> <p>2) If internet access is not readily accessible, do they at least offer access to the fax machine;</p> <p>3) If a flying club or flight training organisation, whether they set-up their fax machines to auto-dial in to Metfax at a certain time each day, say, 30 minutes before the first instructor arrives for work. I know this used to be the practice at the local aero club before it closed.</p> <p>Fax contact is sometimes more reliable than all the components needed to get info from the website:</p> <p>Computer won't boot-up correctly; keyboard batteries have gone flat last night; can't get broadband, or even dial-up to work, etc.etc. So what are your back-up plans on offer, for when Metfax does get withdrawn...?</p> <p>Will a customer be able to phone in to your Office and request an individually-faxed four pages of TAF, Metar, F215 and F214's? I know you are ALL very helpful (I've had occasion with failed access myself in the past), but can you spare the staff? I hope so!</p>



End of cogitations on above matter. However, I once tried to convince a B737-436 (customer airline? YOU do the detective work!!!)'s FMC if it would accept a pilot-created flight-plan to EGRR (as the Bracknell Met Office was just a couple of miles up the road from where I lived at the time in RG12; however, it didn't want to know, as it couldn't work out where that "airport" was... ☹️ !

Best regards to a First Class team at the Met Office over my 40 years of flying (although the NE coast ones get a little wobbly sometimes ...you should take some more local-knowledge input from Paul Mooney and his team at BBC Newcastle... err, maybe you do !)

Bill Beavis ATPL 215438

2.

Date: 26/06/11

Respondent Name: Catherine Madigan

Feedback Received

Dear Enquiries Officer/s, I'm writing as a pilot of hot-air balloons who was one of the early commercial pilots to take the CAA's original exams, which required a higher level of Met knowledge and understanding than most balloon pilots are expected to have in local clubs. As a result, I always preferred to use my own judgement on forecasts, particularly where a club forecast was clearly unreliable and I came to rely on the MetFax service. It was wonderful to have comprehensive metcharts instead of a scribbled piece of paper.

The MetFax service is in many ways still the best option but it is something I gave up using because there were basic and frustrating operational problems at the Met Office end (although I appreciate you might have contracted out the MetFax service).

The three most common problems I encountered were:

1 - Using either manual retry or setting my fax to automatic retry, it was sometimes impossible to get through to the fax service, which was constantly engaged.

2 - Despite calling the correct number, which had not been changed and was clearly displayed as correct on my fax machine, the forecast allocated to that particular number was replaced by a completely different and irrelevant one that, according to Met Office details, was allocated to a different number option. Even retrying the number to see if it was a one-off would result in the same wrong forecast coming through. This problem was intermittent but the odds against my trusting it again shortened each time I hit problems.

3 - The forecast update times were not observed with adequate punctuality by the MetFax providers. In terms of an early morning flight from a launch field without a fax machine and no possibility of speaking to a forecaster, it is essential to be well-prepared beforehand so such a service simply isn't good enough. Although I appreciate there are now many more options than a fax, it is very helpful to have a reliable A4 hard copy in your flight bag and a fax is still a more reliable printer than the average laserjet.

Therefore, I hope the Met Office will not close the MetFax service completely, simply because fewer people are using it. Costs should not be the only consideration where aviation safety is concerned. Yours sincerely Catherine Madigan

3.

Date: 26/06/11

Respondent Name: Valentin ROUSSEAU

Feedback Received

I don't like the idea of removing the fax service; even if it is less popular it is a back up option in case the internet service doesn't work for any reason. I think it is a very important service, and that users shouldn't have to rely fully on only one service.



Notice of Withdrawal of Met Fax Service – 30th September 2011

Usage of the MetFax service has been declining year on year and is now at such a level that demonstrates there is very little demand for the service.

This is partly the result of almost universal access to the public internet and the increasing availability of internet enabled mobile devices to retrieve briefing information. In addition, fax is increasingly becoming a redundant technology and we consider that the GA community can access data from web based technology at home or at flying clubs.

Following consultation with users of the service, the Met Office has decided to withdraw Met Fax with effect from **30th September 2011**.

Our GA Briefing Service is available online and provides free of charge the same range of information as MetFax and also provides enhanced features as part of a low cost subscription service. In addition, our Talk to a Forecaster service provides pilots with access to one-to-one discussions with a Met Office aviation forecaster.

Please visit <http://www.metoffice.gov.uk/aviation/ga-briefing-services> for details on our GA briefing Services.

Thank you for your use of the Met Fax Service. We continue to provide the GA community with relevant services and we ensure that they are delivered in the most appropriate manner. We trust you will find our GA Briefing Services of great benefit and will help you make the most of your flying time.