

annual report 2007



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## Foreword by Steering Committee Chairman

The MET Alliance was formally inaugurated on 12 January 2005 at the headquarters of the Royal Netherlands Meteorological Institute in De Bilt, the Netherlands. The year 2007 therefore marks its third year of existence. This marks a good time to reflect briefly on how it has developed since its inception and how successful it has been in meeting its mission objectives. It is also relevant at this time to consider the future direction of the organisation.

The raison d'être for the MET Alliance is recognition of the fact that the provision of more efficient and cost-effective meteorological services for the aviation sector would best be achieved by pooling resources and generating economies of scale, optimising the expertise and particular specialities of its constituent members. This requirement was given added impetus by developments related to the Single European Sky initiative of the European Union. The developments at European level will ultimately compel aviation meteorological service providers to re-evaluate fundamentally the organisation and provision of aviation meteorological services.

The MET Alliance has been involved in this process of self-examination since its inception and has met many of its initial objectives. Details of these achievements are included in previous annual reports and in the activity report of the Board Chairman below. Landmark projects include centralised AutoTAF production and TAF verification, the development of common key performance indicators in quality environments and common approaches to terminal weather services. The MET Alliance also considers common approaches to training and automated aviation observations and has developed a centralised approach to the implementation of Annex 3 changes. The organisation has made significant and continued progress in 2007 in these areas.

The aviation community in Europe is at the cusp of an era of significant change, and this applies in particular to aviation meteorological service providers (METSPs). Major strategic changes will occur in the near and medium term, and METSPs must be in a position to ensure that these changes enhance safety and are cost effective. The MET Alliance is well positioned to make a significant contribution in all these areas.

Developments at European level will be the main trigger for change in the near and medium terms. One example of a key area for development is the widespread recognition that the TAF fails to meet the requirements of congested European airspaces and airports. This implies that new products and services will be required by air traffic management organisations. Processes have already been incorporated into plans for the development of Functional Airspace Blocks, which will define these new requirements and prescribe systems to fulfil them. The MET Alliance is well placed to make a significant contribution to these processes and, at a strategic level, influence developments in the European domain.





The MET Alliance hosted an important workshop on aviation meteorological service provision in Functional Airspace Blocks in Dublin in July. One of the main outcomes was that greater definition of these requirements was needed, both from the air traffic control organisations and the European Commission. The different options for service provision were discussed, including no changes to the current arrangement, a single service provider and joint service provision. The relationship between National Supervisory Authorities was also mentioned as an important issue.

Dennis Hart of KNMI resigned as Board Chairman in 2007 to take a position with Eurocontrol. Dennis is recognised internationally for his knowledge, expertise and effectiveness in international aviation meteorology and has made substantial contributions to the success of the MET Alliance, of which he was a founding member. We thank him for his crucial contribution to the MET Alliance and wish him well in his new career. The new Board Chairman is Dr Marcel Haefliger of MeteoSwiss.

Declan Murphy of Met Éireann resigned as Chairman of the Steering Committee during 2007 and was succeeded by Remco den Besten of KNMI. Fortunately Declan will remain a member of the Committee so his experience and expertise will not be lost to us. Declan was the first Steering Committee Chairman and his contribution to the success of the MET Alliance is inestimable.

I would also like to welcome a new staff member to the organisation. Tamara Comment, previously of MeteoSwiss, was appointed Research and Development Officer with the MET Alliance in late 2007. Tamara brings to the position experience, professionalism and energy and will make a significant contribution to the development of the MET Alliance in the future.

Building on the firm foundation of past achievements and the experience and expertise of its members, the MET Alliance can look forward with confidence to meeting the challenges facing us all in the coming year and in years to come.



Remco den Besten Steering Committee Chairman

# allance Activity report by Board Chairman

The year 2007 was one of continuing solid development for the MET Alliance. This report provides a summary of its activities during the year. These activities are specified in more detail in the body of the report.

On the personnel front, there were three notable developments in 2007. Dennis Hart, then of KNMI, resigned as Board Chairman to take a position with Eurocontrol. I would like to extend my best wishes to Dennis in his new career and thank him for the crucial contribution he made to the development of the MET Alliance.

Declan Murphy resigned as Steering Committee Chairman and was replaced by Remco den Besten of KNMI. Declan remains a member of the Steering Committee.

MET Alliance appointed Ms Tamara Comment as full-time officer to provide research and development expertise for the MET Alliance. Ms Comment previously served with MeteoSwiss, and I am confident that given her expertise and energy she will make a significant contribution to the MET Alliance.

During its meeting on 17 and 18 April, the Steering Committee provided essential policy and strategic guidance to the Board.

Meeting on 25 and 26 January and on 12 and 13 July, the Board continued to develop the programmes already being implemented by the MET Alliance. The Board also set the work priorities for the year. These included continued development of AutoTAF, TAF verification, common key performance indicators, common training programmes and approaches to terminal weather services and central implementation of Annex 3 changes.

A workshop on aviation meteorological service provision in Functional Airspace Blocks under the Single European Sky was organised by the MET Alliance in Dublin on 11 July. This meeting involved the participation of aviation MET providers from Austria, Belgium, France, Germany, Ireland, the Netherlands, Switzerland and the United Kingdom, who considered the range of options for such provision given the ideas currently in the public domain from organisations such as the High-level Group, Eurocontrol and the European Commission. A very useful aviation seminar was organised by DWD in Langen in November and was attended by MET Alliance members.



Marcel Haefliger Board Chairman

#### Summary list of activities in 2007:

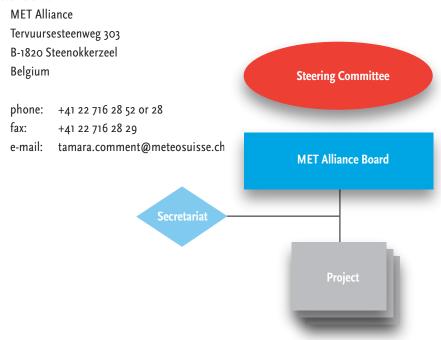
Board Meeting	Berlin 25/26 January 2007
Steering Committee Meeting	Salzburg 17/18 April 2007
FAB Workshop	Dublin 11 July 2007
Board Meeting	Dublin 12/13 July 2007
Aviation Seminar	Langen 26-30 November 2007

# Organisational Support and Communication

#### **Establishment of the Secretariat**

The Secretariat acts as the focal point and clearing house for external and internal communications. All communication with the MET Alliance is now handled by the Secretariat.

The Secretariat contact details are:



#### Website

The website is a useful source of information for external users and an efficient platform for internal communications.

The website address is:

www.met-alliance.com



# Ongoing Activities in 2007

#### **Strengthening Research and Development**

The MET Alliance significantly strengthened its research and development capacity in 2007 through the recruitment of a full-time officer. The person appointed was Ms Tamara Comment, previously of MeteoSwiss. Ms Comment has extensive experience in aviation forecasting. Her energy, commitment and enthusiasm provide the MET Alliance with a significant advantage in stepping up the pace of current projects and in designing and implementing new ones.

Ms Comment's initial priority will be to become well acquainted with the structure and activities of the MET Alliance and to gain a solid understanding of the member organisations. This will be her primary task for the first few months.

Along with the Secretariat, the reinforcement of research and development capacity provides the MET Alliance with an effective and streamlined structure and will optimise the organisation's ability to meet its future challenges.

#### **Common Key Performance Indicators**

The work done in developing common key performance indicators (cKPIs) has been extended in 2007 to include Deutscher Wetterdienst. The survey work for this project has been updated and will lead to specific cKPIs in the near future. This will give the member organisations a significant advantage, particularly in environments subject to quality management systems. The cKPIs will have been endorsed at international level and will provide auditors with confidence in the performance standards for the organisation.

Of course, the consideration of cKPIs is directly linked to the project to design a central verification scheme for terminal aerodrome forecasts (TAFs).

#### **Cooperation in Training and Assessment**

The MET Alliance has a mandate to ensure that training is centralised as far as possible and that common training programmes are provided for member organisations. To this end, the Board previously established a standing Working Group to monitor training requirements and to ensure coordination of training events. This Group continued its work during 2007 and reported its findings to the Board.

An aviation seminar hosted by Deutscher Wetterdienst in Langen, Germany, between 26 and 30 November was attended by MET Alliance members. In addition to content expected for an aviation meteorology event, the seminar also included extra and valuable content such as presentations on human factors principles and quality management for aviation meteorological service providers.



#### **Airport Capacity Forecasts**

Consideration of aviation meteorological service provision in Functional Airspace Blocks has again raised the issue of the limitations of the terminal aerodrome forecasts to meet the requirements of air traffic management organisations in congested airspaces and, especially, at congested airports. These considerations have raised the matter of new weather forecasts to support decision-making at airports. MET Alliance members have implemented a variety of solutions to this problem and the Board is keeping close watch on developments at European and ICAO level on this important matter.

#### **Automated Aviation Weather Observations**

MET Alliance members have achieved varying degrees of progress on the implementation of automated aviation observations in 2007. Alliance members share their experiences of automation and also discuss developments at ICAO on this issue.

#### **AutoTAF**

The MET Alliance has implemented AutoTAF as a core project. The outputs from the system are produced by KNMI and are made available to all members for their airports. The system remains under assessment by members in 2007. In addition, AutoTAF will be assessed by the assessment scheme for TAFs.

#### **Verification of Terminal Aerodrome Forecasts**

MET Alliance has implemented a core project on TAF verification. The system was assessed by members during 2007 and the results used in their own organisations. A workshop in Linz, Austria, in October recommended that the system be significantly upgraded. This proposal will be considered by the Board.

The Board is also working on setting cKPIs for forecast accuracy from this system. These can then be used in the members' respective quality management systems.

#### **Implementation of ICAO Annex 3 Amendments**

In 2007, MET Alliance members established a coordinated system for the assessment and implementation of amendments to Annex 3. This process makes the amendment procedure more efficient and gives members a high degree of confidence that the changes are being implemented properly and completely.



### Workshop on MET Provision in Functional Airspace Blocks

The MET Alliance hosted a workshop on aviation meteorological service provision in Functional Airspace Blocks (FABs) in Dublin in July. In addition to the MET Alliance, the workshop was also attended by representatives from Meteo France and the UK Met Office. The format of the workshop was an open-agenda brainstorming exercise to identify the options for meteorological services in FABs. The participants were those organisations which would be involved in FABs comprising the MET Alliance countries (viz. France in the FABEC FAB and the UK in the UK/Ireland).

The discussion revealed that:

- there are still many options available to provide MET services in a FAB;
- the FAB concept was still at an immature stage of development.

The top-level options available for MET provision were:

- a single service provider;
- joint or multiple service provision;
- no change to current arrangements.

No clear option has yet been specified by the European Union.

The issue of competition was also raised. Current Single European Sky (SES) legislation permits a state to designate a MET service provider. However, it was noted that the Eurocontrol Performance Review Commission and the Highlevel Group had both recommended that MET services should be provided under market mechanisms in the second package of SES legislation.

The concept of "unbundling" MET services prior to their provision under market mechanisms, also recommended by the High-level Group, was also ill-defined.

The workshop did not reach any specific conclusions, but discussion of the options available provided useful information for the participants.





## Strategic Developments and Single European Sky

The main strategic issues impacting the development of the MET Alliance arise from the continued implementation of the SES legislation. MET Alliance member organisations also participate in other organisations dealing with SES issues, including Avimet.

The current initiatives on Functional Airspace Blocks involving MET Alliance members are the FAB Europe Central (FABEC), comprising the Netherlands, France, Belgium, Switzerland, Germany and Luxembourg, and the UK/Ireland FAB. It is important that MET Alliance monitor developments in these FABs to ensure that any proposals relating to MET provision enhance safety, efficiency and cost-effectiveness.

The MET Alliance is also interested in associated developments such those related to the Single European Sky ATM Research (SESAR) programme, and its members actively participate in the deliberations of the Avimet Programme of EUMETNET.

The MET Alliance also monitors and discusses developments at ICAO, especially outputs from the MET Group of the European Air Navigation Planning Group and the Aeronautical Observing and Forecast Study Group.

Developments in the science of aviation meteorology are also monitored to ensure the timely implementation of best practice by the MET Alliance and it member organisations.

The MET Alliance facilitates this type of strategic approach to aviation meteorology and service to customers and users and provides a ready platform for its members to discuss these important matters and make appropriate decisions.







#### The Year Ahead

The MET Alliance looks forward with confidence to the challenges and opportunities of 2008. It has established relevant and important programmes. It provides a platform for its member organisations to discuss and take action on relevant matters and offers users a safe, efficient and cost-effective service.

Strengthening its research and development capacity will permit the MET Alliance to step up the pace of delivery of its programme outputs and ensure that it remains not just relevant, but essential to its members.

The main challenges facing the MET Alliance in 2008 are linked primarily to developments at European Union level. Issues such as MET service provision in Functional Airspace Blocks, the continuing drive for efficient production systems and cooperative and cost-efficient provision of service will provide the main contextual background for the work of the organisation. Detailed consideration of these matters and the development of associated programmes will be of crucial assistance to members in discussions on their individual FAB developments. Crucially, the Met Alliance will examine all proposals from the safety perspective.

The MET Alliance will also provide its members with enhanced performance standards benchmarked against international best practice. These standards will feed into the quality management systems of the individual organisations and will give users a high degree of confidence in member organisation performance with regard to operations and other areas.

With a strengthened organisational structure, the MET Alliance is confident that it will meet its current mission objectives and set new and achievable ones in 2008.



# Profile of Member Organisations

#### **Austro Control**

The Austrian MET Service Provision for Civil Air Navigation is one of the core processes of the national Air Navigation Service Provider Austro Control. The MET Service Units are located at six international airports (Vienna, Linz, Salzburg, Innsbruck, Graz and Klagenfurt), the Vienna office is Meteorological Watch Office. In addition, Austro Control is partly responsible for service provision to the Austrian Air Force. The Vienna office is also one of the three European OPMET Databanks providing the world with OPMET information.



#### **MeteoSwiss**







with the meteorological offices at Dublin, Cork, Knock and Casement airports. It issues forecasts (TAFs and local area forecasts) for the various airports and smaller airfields in the country, as well as local warnings, SIGMETs for the Shannon Flight Information Region (FIR), en route documentation and briefings. Meteorological services for the Defence Forces and meteorological training are provided at Casement Aerodrome.

#### Belgocontrol



Belgocontrol is an autonomous public company in charge of the safety of air navigation in the civil airspace for which the Belgian state is responsible. It controls aircraft movements in and around Brussels Airport and the four regional public airports: Antwerp, Charleroi, Liège and Ostend. The company has its own in-house meteorological service. The Belgocontrol's Met Office produces weather forecasts and warnings, while ensuring the meteorological watch for the Flight Information Region of Belgium and Luxembourg. Furthermore, the Brussels office is also one of the three European aeronautical meteorological databases serving aeronautical users.

#### KNMI

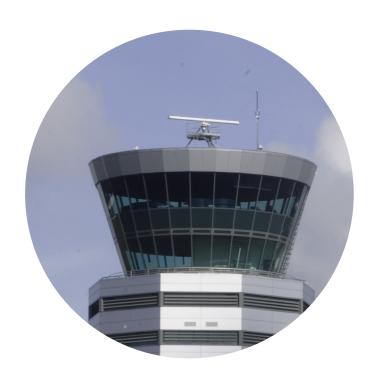


KNMI is responsible for the service provision in Dutch airspace and at all the international and regional airports of the Netherlands. The central forecasting unit of KNMI, located in De Bilt, is the central production facility for all the forecasts and warning, and is supported by small units at the regional airports and the weather dependant deployment of forecasts at the Schiphol Airport site. Furthermore, the central office is performing the tasks of Meteorological Watch Office for the Dutch FIR and for the Dutch continental shelf (North Sea).

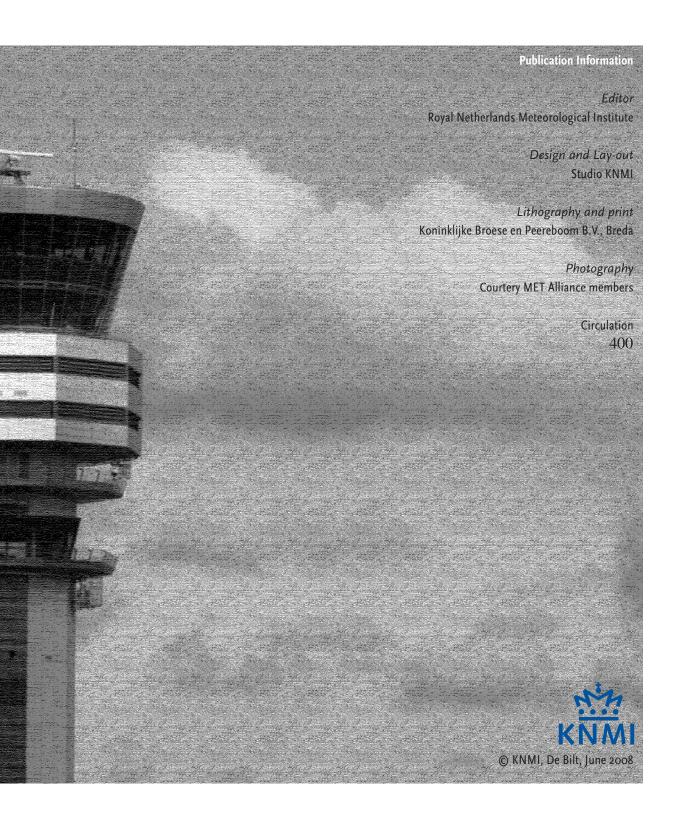


#### DWD

The German Meteorological Service Deutscher Wetterdienst (DWD) is a federal authority under the Federal Ministry of Transport, Building and Urban Affairs. As a statutory task laid down in the Law on Aviation and the Law on Deutscher Wetterdienst, the Department Aviation Meteorology of DWD is responsible for the meteorological support of civil aviation in Germany. To fulfil this task, DWD operates seven regional advisory centres for IFR and VFG traffic. Five of them act as meteorological watch offices for aviation weather watch and warning. In addition, the Department Aviation Meteorology provides special meteorological services for summer and winter field operations at the German HUB airports and for ATCs.









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Swiss Confederation

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