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| **World Meteorological Organization** | **ETR-PAN-27/Doc. 10** |
| **EC PANEL OF EXPERTS ONEDUCATION AND TRAINING** | Submitted by: | Dr Jordaan |
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## Agenda Item 4.2:

# WMO Global Campus Feasibilty study

#  4.2.3 AVIATION

# SUMMARY

### The Panel are invited to:

1. PROVIDE FEEDBACK on the aviation courses and assessors available in WMO RTC’s and WMO affiliated Training Institutions in line with the WMO Global Campus aims and Milestones: Aviation activities.
2. ASSIST with the compilation of all the offerings.
3. IDENTIFY potential new partners or options for increasing support.
4. Offer RECOMMENDATIONS for future progress

### CONTENT OF DOCUMENT:

The Table of Contents is available only electronically as a Document Map[[1]](#footnote-1)\*.

# 4.2.3 WMO Global Campus Feasibilty study: AVIATION

## Introduction

1. EC-66 in 2014 approved the initial feasibility study of the WMO Global campus as reported in other papers in this session. The Seventeenth World Meteorological Congress in 2015 endorsed and continued the feasibility study. Approving three demonstration activities came after many discussions and deliberations with the relevant stakeholders. The key deliverables of the feasibility study in the period to EC-70 June 2018 are:

* The WMO Global Campus searchable Calendar
* The development of training offerings to assist aviation competencies (in various languages)
* Development of training offerings in Climate Services

For the Aviation Competencies the following main milestones were identified:

* Demonstrate that increased training offerings, in multiple languages, are being developed and offered for AMP’s
* List of assessors for the AMP (that is for forecasters and aviation observers) and their credentials.
* Best practice examples of the courses for AMP
* Generic advice on training for assessors

## Background to the different available aviation competency courses (offerings):

2. With the inception of the aviation competencies in December 2013, there was an increased need in Continuous Professional Development (CPD) for forecasters (as well as Aviation Observers) as expressed by Member States. As a good practice example, to meet growing training needs, the CIMH with help from COMET, started to develop an Aeronautical meteorological course called AEROMET. This course was given successfully for the Caribbean countries on several occasions, helping to alleviate the gaps that were identified by the competencies. This course was also successfully run by IMTR with the support from CIMH and WMO.

3. From this slow beginning, numerous courses have been developed internationally to assist forecasters (as well as aviation observers) to brush up on their knowledge with regard to aviation forecasting (and observations). COMET also developed material for “safe skies over Africa” for the African meteorological forecasters.

4. To get a grip on what has been developed in what languages, it was deemed appropriate to start listing the courses on one local spreadsheet to see what is available and what languages are being addressed. It became also important to look at the assessors of these competencies and list if they had national training and are registered nationally. This will help the aviation competency group as well to see what is still outstanding.

5. The excel spreadsheet has been circulated to all RTCs and WMO affiliated training institutions to be filled in with their relevant courses. The feedback for these different groups are very slow. All relevant information available by end November 2015 was collated and sent to the WMO ETR Office Director to be discussed at the CAeM Expert Team on Education, Training and Competency (ET-ETC) meeting in the period of 30 November - 3 December 2015 in New Zealand to get their comments and information. Close collaboration with this working group is essential to prevent duplication as they are very interested with the training available for Aviation Forecaster and Observers.

6. A summary of the information collected so far is available in Appendix A

## General considerations

* Responses have not been received from all recipients of the questionnaire which is why not all WMO recognized languages are represented.
* It is very difficult on the moment to give any comment about the quality of the courses as the subject material is only listed. On the moment the Training Providers themselves have the primary responsibility for the quality of their offerings and its quality assurance, and thus creates the basis for responsibility of the national educational and training system within each Member-State.
* The assessor information is giving a good indication of the assessor quality and numbers.
* All the information has been shared with the working group on aviation competencies (CAeM Expert Team on Education, Training and Competency (ET-ETC))

## What next?

* More information is needed to get a better idea of what offerings are available thus the Training Institutions must be encouraged to submit their information.
* As soon as the information gathered is more complete, closer collaboration will be sought with the WMO Commission for Aeronautical Meteorology (Expert Team on Education, Training and Competency (ET-ETC) as mentioned in the beginning) to get what they regard as the best practice examples of the aviation courses.
* In such cases there needs to be an active seeking of a number of RTCs and other training Institutions who are willing to work together to develop and deliver such identified courses.
* If there is a gap in identified languages, more countries will be encouraged to develop aviation forecasting and observation courses based on the best practise examples identified.
* The training Institutions must be encouraged to list their courses onto the WMO Global Campus calendar
* Guidance on assessors of competencies, and suggested assessor courses needs to be given.

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# APPENDIX A:

**Summary of Information collected so far:**

Only fourteen of the institutions requested gave input to the spreadsheet by end January 2016. Out of the fourteen, most of the courses were given in English. The WMO official languages listed included English, Spanish, Russian and Arabic. The other languages covered were: German, Bahasa Indonesia and Persian.

For the summary of the number of courses available and their delivery method see table 1 below:

**Table 1: Number of courses for AMF and AMO**

|  |  |
| --- | --- |
| **AMF** | **AMO** |
| *Number of courses* | *Blended learning* | *Face to face*  | *Assessments* | *Number of courses* | *Blended learning* | *Face to face*  | *Assessments* |
| 14 | 9 | 13 | 7 full assessment4 partial assessments | 11 | 4 | 7 | 5 full assessments5 partial assessments |

Only five countries indicated that there are national training courses for assessors and four indicated that their assessors are nationally registered.

For the courses and subjects mentioned,most courses listed are for the aeronautical forecasters. The full forecaster course that include public weather forecasting (and some marine) is also listed.

Specialized courses for forecasters include: Radar, Severe Weather Forecasting via NWP, Mesoscale meteorology, Satellite, Tropical meteorology for aviation forecasters, volcanic ash, Fog and low stratus, TAFs.

The aviation observation courses listed include: The full Meteorological Technician course, a course specializing in aviation observations, QC methods for meteorological data, METAR and SPECI, Radiosonde and Lidar

1. \* In MS Word 2007 or 2003, go to “View” > “Document Map”. In MS Word 2010, go to “View” > “Navigation Pane”.
In MS Word on a Mac, go to “View” > “Navigation Pane”, select “Document Map” in the drop-down list on the left. [↑](#footnote-ref-1)