



World Meteorological Organization
Organisation météorologique mondiale

Secrétariat

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Weather • Climate • Water
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Our ref.: ETR/BIP-M

GENEVA, 21 January 2015

Annex: 1

Subject: Compliance of meteorology courses offered by universities and training centres with the Basic Instruction Package – Meteorology

Dear Sir/Madam,

With reference to the *WMO Technical Regulations* (WMO-No. 49), Volume I, “General Meteorological Standards and Recommended Practices”, I am writing to seek your assistance in contacting the universities and training centres in your country who deliver meteorological courses.

As you will recall, the Sixteenth World Meteorological Congress (Cg-XVI) in May 2011 incorporated a set of learning outcomes known as the Basic Instruction Package – Meteorology (BIP-M) into Volume 1 of the *WMO Technical Regulations* [Resolution 32 (Cg-XVI)]. Employers of Aeronautical Meteorological Forecasters (AMF) who are providing meteorological services to international air navigation are required to show that their AMF comply with the BIP-M qualification requirements specified in paragraph 5.1.1 in the 2012 update to the 2011 edition of WMO-No. 49 Volume 1 “General Meteorological Standards and Recommended Practices” by 1 December 2016. Documentation of the AMF qualifications should be in accordance with the quality management system being used by the meteorological service provider.

As WMO is not an accrediting or certifying authority, the providers of BIP-M courses are expected to review their courses against the BIP-M and provide their graduates with a statement specifying the degree of compliance of the course. The WMO Executive Council in 2012 further clarified that the version of the BIP-M that should be used for determining compliance was the one that was valid at the time the person did their training (*Abridged Final Report with Resolutions of the Sixty-fourth Session of the Executive Council* (WMO-No. 1092) paragraph 4.6.20). The two key documents detailing the BIP-M are WMO-No. 258 *Guidelines for the Education and Training of Personnel in Meteorology and Operational Hydrology – Volume I*, 4th edition, for staff completing their training prior to 30 November 2013 and WMO-No. 1083 *Manual on the Implementation of Education and Training Standards in Meteorology and Hydrology – Volume I*, 1st edition for staff completing their training on or after 1 December 2013. For staff who completed their training prior to 1 January 2002 it will be necessary to use the appropriate earlier edition of WMO-No. 258.

To: Permanent Representatives (or Directors of Meteorological or Hydrometeorological Services) of Members of WMO (PR-6810)

cc: Hydrological Advisers to Permanent Representatives

The WMO Secretariat has received a number of queries from NMHS staff and staff in other organizations asking WMO to certify that their course was compliant with the BIP-M specified in WMO-No. 258 or WMO-No. 1083. However, it should be well understood that the responsibility of ascertaining the compliance of a course with the BIP-M rests with the provider of the course. Thus I am requesting your assistance as the Permanent Representative of your country with WMO to establish a consultative mechanism with the universities or other education and training institutions in your country providing meteorology courses to evaluate the compliance of their current and previous courses against the WMO qualification requirements spelt out in WMO-No. 1083 or WMO-No. 258. Based on such an evaluation, the respective institutions would be able to provide, upon request, their graduates with a statement detailing the compliance of their course with the BIP-M at the time.

Copies of the two publications detailing the BIP-M can be downloaded from the WMO library in multiple languages at the following addresses:

- (a) WMO-No. 258, 4th edition, for those completing their courses between 1 January 2002 and 30 November 2013
http://library.wmo.int/pmb_ged/wmo_258-v1_en.pdf;
- (b) WMO-No. 1083, 1st edition, for those completing their courses on or after 1 December 2013
http://library.wmo.int/pmb_ged/wmo_1083_en.pdf.

It is also understood that some institutions may not be able to provide a statement showing the compliance of their course(s) with the BIP-M. Further guidance for obtaining statements of compliance and options for dealing with the situation when no statements are available is included in the Annex.

Within the WMO Secretariat, the Director of the WMO Education and Training Office, Mr Jeffrey Wilson (detr@wmo.int) is the key point of contact if you or the universities or training institutions have further questions on this matter.

I thank you for your continued support to WMO.

Yours faithfully,



(M. Jarraud)
Secretary-General

GUIDANCE FOR OBTAINING STATEMENTS OF COMPLIANCE OF A COURSE WITH THE BIP-M

Employers of Aeronautical Meteorological Forecasters (AMF) who are providing meteorological services to international air navigation are required to show that their AMF comply with the BIP-M qualification requirements specified in paragraph 5.1.1 in the 2012 update to the 2011 edition of WMO-No. 49 Volume I - *General Meteorological Standards and Recommended Practices* (http://library.wmo.int/pmb_ged/wmo_49-v1-2012_en.pdf) by 1 December 2016.

Documentation of the AMF qualifications should be in accordance with the quality management system being used by the meteorological service provider.

Obtaining statements of compliance with the BIP-M

As each Member has education and training structures and requirements specific to their national circumstances there are no uniform approaches for obtaining statements of compliance with the BIP-M. Some common scenarios are:

If most, or all, of the AMF have received their BIP-M related education and training from a single training institute: The employer should approach the training institute to provide a statement of compliance of their course(s) with the BIP-M and records of successful graduates of those courses. If the institution is not a nationally accredited university the employer may wish to request a further statement from the training institute demonstrating that the training course was conducted at university degree level.

Where multiple institutions in the country are involved in the education and training of the AMF: Depending upon the number of staff involved the employer should approach the training institutes to provide a statement of compliance of their course(s) with the BIP-M and records of successful graduates of those courses. In some instances the employer may request the AMF to contact the training institute and seek the statement. If the institution is not a nationally accredited university the employer or AMF may wish to request a further statement from the training institute demonstrating that the training course was conducted at university degree level. Liaison between a major employer and a national education and training institute should be encouraged to ensure that the training institute is responsive to the needs of a major employer of its graduates.

Where institutions in other countries are involved in the education and training of the AMF: The WMO Regional Training Centres have already been advised to expect requests from Members regarding the compliance of their courses with the BIP-M and whether a particular student has successfully completed the course. Depending upon the number of staff involved the employer could approach the training institutes to provide a statement of compliance of their course(s) with the BIP-M and records of successful graduates of those courses. In some instances the employer may request the AMF to contact the training institute and seek the statement. If the institution is not a nationally accredited university the employer or AMF may wish to request a further statement from the training institute demonstrating that the training course was conducted at university degree level.

When a statement of compliance is not available

Where it is not possible to obtain a statement of compliance of a course with the BIP-M for an AMF's course it is up to the employer in consultation with the Permanent Representative of the country with WMO (PR) and the Meteorological Authority of the country to decide how to handle the situation.

If there are sufficient numbers of AMF involved and the course documentation and resources are available, a review of the course could be conducted by an appropriate university department, the NMHS training institute or a professional body. The reviewing body could then make a recommendation to the PR regarding the compliance of the course with the BIP-M.

In cases where the course was undertaken many years ago, or the training institute or course details no longer exist, or the training institute is located in another country, national rules and procedures will be a major factor in how to address the situation. Options include formal testing for prior learning, supervised work and performance monitoring for a specified period or requiring staff members to undertake some or all of a course that is currently compliant with the BIP-M, or an assessed "top-up" or "refresher" course to ensure that the identified gaps with the BIP-M requirements are bridged.

Whatever approach is taken, it should be documented in accordance with the national quality management system.
