

Review Process of the Basic Instruction Package for Meteorologists and Meteorological Technicians BIP-M and BIP-MT

2018-2021



BIP Review Meeting. Geneva, 27-28 November 2018

BIPs Review Process

Following an Executive Council decision (EC-70) to review the Basic Instruction Package for Meteorologists and Meteorological Technicians (BIP-M and BIP-MT), a global survey was conducted during 2018. The results of this survey were presented and discussed during a meeting held in Geneva 27-28 November 2018. Position papers from USA, Russia, and COCOM were presented and discussed. There was good engagement regarding views on necessary BIP-M changes. Discussion at the Geneva meeting touched on aspects such as relationship between BIPs and competency frameworks, needs of research versus operational staff, advances in modelling, remote sensing and more. The meeting agreed that review teams should be formed to examine and update the BIPs.

Chris Webster (New Zealand) and Winifred Jordaan (South Africa) were appointed to co-chair the review process, which started by setting up 2 working groups to review the BIP-M and the BIP-MT. The groups worked mostly independently during 2019 and 2020, as described below. In 2021, BIP-M and BIP-MT were once again combined into a single document to form the new edition of the WMO No-1083. Part I of the WMO No-1083 was rewritten to explain the changes in the new edition. Minutes of Review Team meetings were recorded and are available for consultation (on request).

BIP-M Preparation Process

Review team composition:

BIP-M Review Team	Country	RA
Steven Callaghan / Sally Wolkowski (team lead)	UK	RA-VI
Somenath Dutta	India	RA-II
Kevin Scharfenberg	USA	RA-IV
Peter Odjugo	Nigeria	RA-I
Peter Davidson / Mick Pope	Australia	RA-V
Yao Xiuping	China	RA-II
Isabelle Beau / Ludovic Bouilloud	France	RA-VI

Once review team established, we had initial conversations to determine a plan during early 2019. During May 2019, the team prepared a paper setting out the key requirements and highlighting areas which needed most work, based on the previous work and our discussions. Due to the existing

position papers and views presented during the Geneva meeting, the team saw no need to consult or survey member states at this point.

An early draft of an updated BIP-M was circulated in January 2020 to ETR and the review coordinators (Chris Webster (New Zealand) and Winifred Jordaan (South Africa)). Team workplans were adjusted based on feedback received.

During July 2020, a new draft was prepared and circulated to a small group of university, learned society, and NMHS reviewers, and to Bob Riddaway (UK). This elicited some excellent detailed contributions concerning technical content, pedagogical aspects, and language.

A discussion was held with the WMO PWS competencies team on boundary between competency frameworks and BIPs.

Feedback from this initial external review resulted in changes being made, including contributions from several of the review team in late 2020. Review team confirmed they were happy with this third draft. An early review of this draft by Patrick Parrish (WMO, retired) provided some valuable additional improvements.

A brief was given on the work and approach to the COCOM group on 28 October 2020, followed by a positive, supportive, discussion.

During February 2021, the updated draft was distributed to RTCs, WMO secretariat and commissions, and NMHS stakeholders for review. An online seminar was held for a number of US delegates on 23 March 2021, with discussion, which was supportive of the work and approach.

A new draft incorporating feedback from a large list of reviewers complete 15 July 2021. Substantive feedback was received from Spain, India, USA, Canada, WMO secretariat, WWRP, and SERCOM AVI.

The CDP reviewed the draft during September 2021.

At SYMET-14, Winifred Jordaan presented the final draft to RTC directors (22-26 November 2021).

BIP-MT Preparation Process

Invitations to be part of the BIP-MT review team were sent out in February 2019 and by early March most Team members had accepted it, with the exception of RA V, which was only finalized in July of 2019.

BIP-MT Review Team	Country	RA
Colleen Rae (team lead)	South Africa	RA-I
Diakaria Kone	Niger	RA-I
Moira Doyle	Argentina	RA-III
John Peters	Barbados	RA-IV

Noer Nurhayati	Indonesia	RA-V
Anna Timofeeva	Russian Federation	RA-VI

During the third quarter of 2018 a survey was sent out to Member Countries by WMO regarding the need to relook at the BIPs. However, as only a small percentage of Member Countries responded to the survey, (especially regarding the BIP-MT) the Review Team complied a more detailed survey which was put onto Google Forms and which each Team member circulated to Member Countries and National Meteorological Training Centers. Marina Petrova also sent through a comprehensive list of contacts from the RA II and RA V Regions. Responses to the survey were accepted up to the end of June 2019 for regions I, II, III, IV and VI with a deadline for September for Region V as the surveys were sent out later in this Region.

As responses were received, they were added to an Excel spreadsheet and related pie charts created.

By the end of 2019, the response to the survey question regarding the need for changes to the format of the BIP-MT, 63% of the responders supported changes to be made.

In addition, the focus of the Review Team changed to what the various suggestions were collated and how this would translate into the proposed new BIP-MT format.

In total there were 71 responders out of a total of 186 which equates to a 38.2% response rate.

- For the question on what qualification is used at NMHS's, 44% stated BIP-MT, 23% Old Class 4, 17% Old Class 3 and 16% Old Class 2. (A few NMHS's have Met Technicians with qualifications ranging from all four).
- For the question on what work old class 2 or Senior Level Meteorological Technicians perform, 32% are involved with analysis and 22% with aviation forecasts.
- For the question on the need to make changes to the BIP-MT, when looking specifically at the six WMO Regions individually, all regions, *with the exception of North America*, were in favour of changes to be made in the BIP-MT format.

As a direct result of feedback, the review team held webinars in March and April 2021 with representatives from NOAA and UCAR. The purpose was to explain proposed changes to the BIPs. It became apparent that the main organisation in USA that was interested in the BIP-MT was the US Air Force, which is military rather than civilian. Their concerns were thus heard and addressed, as recorded in the meeting minutes of 12 May 2021.

From 2020, the new format for the BIP-MT was drawn up and circulated once again for comments and responses received were considered and implemented where necessary.