Agenda Item: II/5
Discussed in WG-II

NOAA Review of Satellite Data BUFR Descriptors in WMO Codes Forms

Summary and Purpose of Document:

This paper summarizes the outcome of NOAA/NESDIS' review of satellite data BUFR descriptors in the WMO Codes Forms used for exchange of satellite data (as detailed in the WMO-WP-10) and provide suggestions, remarks, or requests as necessary to the WMO Satellite Programme for communication to the CBS Chair OPAG ISS.

NOAA/NESDIS' review has led to the following remarks:

1) Concurrence with Appendix A of WMO-WP-10, but request the addition of the Aqua satellite to the Common Code Table C-5.
2) Concurrence with Appendix B of WMO-WP-10; no changes requested.
3) Concurrence with Appendix C of WMO-WP-10.

Action Requested:

NOAA/NESDIS requests the addition of the Aqua satellite to the Common Code Table C-5.

NOAA Review of Satellite Data BUFR Descriptors in WMO Codes Forms

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1. Introduction

The CGMS requested that all satellite operators review the WMO WP-10 document which describes the latest additions to the satellite data BUFR descriptors recommended by the CBS/Expert Team on Data Representation and Codes Meeting in Arusha, Tanzania from 17 to 21 February 2003. At that meeting, the CBS/Expert Team also examined the requirements for additions (Appendix A of WMO WP-10) to binary code tables for encoding satellite data and recommended changes to the Tables of the BUFR WMO Code Form for experimental pre-operational use with a view to their full operational implementation in November 2005. The WMO Chair of the CBS/OPAG on Information Systems and Services and the CBS President endorsed the proposed additions to binary codes. CGMS understood that use of the new descriptors in pre-operational mode could be performed prior to November 2005 since these new code additions had been tested and validated. It also contains a proposed set of additions for AIRS (Appendix B of WMO WP-10) and ENVISAT (Appendix C of WMO WP-10) data. NOAA/NESDIS has reviewed the WMO WP-10 document and its comments are presented in the following section.

2. NOAA/NESDIS Comments on the WMO WP-10 Document

a) APPENDIX A: Additional BUFR Code Table Entries for Satellite Data

NOAA/NESDIS concurs with the proposed addition and cancellation of BUFR code table entries. NOAA/NESDIS requests the addition of the Aqua satellite to the Common Code Table C-5.

b) APPENDIX B: Additions to BUFR Tables for Pre-Operational Implementation; Descriptors for AIRS Satellite Data

NOAA/NESDIS concurs with these additions and does not propose any changes be made to these descriptors at this time. Since October 9, 2002, NOAA/NESDIS has been routinely providing the Numerical Weather Prediction (NWP) community with near real-time AIRS radiance products from the Aqua satellite in BUFR format using the template described in Appendix B of the WMO WP-10 document. The NWP community has been successful in decoding these data and using the data in their respective operational data assimilation/forecast systems. NOAA/NESDIS does not plan on making any changes to the format of the AIRS BUFR radiance product datasets.

c) APPENDIX C: New Allocated BUFR Entries Awaiting Validation; Additions for ENVISAT Data

NOAA/NESDIS concurs with these additions and does not propose any changes be made to these descriptors at this time.

References

Goldberg, M., Y. Qu, L. McMillan, W. Wolf, L. Zhou, and M. Divakarla, 2003: AIRS Near-Real-Time Products and Algorithms in Support of Operational Numerical Weather Prediction. *IEEE Trans. GeoSci. Remote Sensing*, Vol. 41, 379-389.