

Paper for Consideration by TSMAD27

[Short descriptive title]

Submitted by:	United States (NOAA)
Executive Summary:	This paper provides a brief status update of the JCOMM/ETMSS Weather Overlay Project
Related Documents:	S-100
Related Projects:	S-101

Introduction / Background

At TSMAD 26, NOAA's Ocean Prediction Center (OPC) presented a status update on the development of the S-100 based product specification for Weather overlays. OPC is managing this project on behalf of the WMO JCOMM/ETMSS working group.

Analysis/Discussion

Since June 2013, OPC has continued to make progress on the development of the Weather Overlay Product Specification. They are currently going through a WMO review of the Weather Feature Catalogue and have created an initial draft of the product specification.

During the drafting of the product specification several questions were raised on how to interpret S-100 and they are seeking guidance from TSMAD on how to best proceed.

Annex A is the latest draft of the Weather Product Specification
Annex B is the draft symbolization catalogue for portrayal purposes.

Question 1: S-100 specifies two types of Coordinate Reference Systems – Single and Compound. S-101 uses a compound coordinate reference system because of the need for a negative depth value. How would the weather specification specify its CRS with the following parameters?

Background:

Meteorologists, like hydrographers, generate their products using multiple vertical reference systems. In the Weather Overlay, three different vertical reference systems will be used: altitude will be displayed in terms of height, pressure, and 'surface'.

Multiple references:

- Height
 - o Distance/vertical extent of a feature above sea level
 - o Sea level is defined as zero, with values increasing upward
 - o Values below sea level defined as negative numbers
 - o Measured in meters (m), dekameters (dam)
- Pressure
 - o Defines the value of atmospheric pressure at a particular point vertically in the atmosphere
 - o Higher values are at and near the Earth's surface and decrease with increasing altitude
 - o The upper limit of the atmosphere is roughly defined as zero atmospheric pressure.
 - o Measured in hectopascals (hPa)
 - o Standard sea level pressure: 1013 hPa
- Surface
 - o Defined as being located at the surface of the Earth, regardless of the altitude of the land above sea level.

Based on the above is the CRS defined as a single or as a compound?

Question 2: The weather product specification has currently eliminate the use of FOIDs as the rationale is that this product would never issue an update but rather a replacement. Does TSMAD see the need for the use of FOIDs in this specification?

Question 3: JCOMM/ETMSS would prefer to have an "S" number for this specification since it is closely tied to S-101. There is already precedent for having an "S" number for joint WMO/IMO/IHO specifications such as S-53, so how does JCOMM/ETMSS apply for an IHO "S" number.

Action Required of TSMAD

The TSMAD is invited to:

- a. discuss the questions that are posed in this paper and provide JCOMM/ETMSS with feedback.