From: [redacted]
To:
Cc:
Subject: RE: Weather data from Edwards Air Force base on October 31st
Date: Monday, January 05, 2015 3:02:47 PM

Hello Paul,

This is what I have for an answer and [redacted], added some more.

1. The two soundings at 0900Z and 1153Z originated from the Edwards rawinsonde facility (B3520), which is about 1 mile north of the base weather station (B1202). The data you obtained from the NOAA archive is likely our 1153Z raob (suggest you compare the surface data). Edwards is not a synoptic site so there was no conventional 12Z raob. The data we provided should look very similar to the NOAA archive but will be slightly different. Our product has a header followed by 1,000 foot, mandatory and significant level data. This is referred to as the NASA Meteorological Data Transfer Format (MDTF) and has become somewhat of a standard across the various test ranges. Where it differs most is in the significant data and winds. What you get from NOAA is from the WMO coded message that is sent out to the world. The significant level data in the WMO code is generated by the sounding system (Lockheed Martin Sippican LMG6) vendor software (Win9000) and is subject to a minor reduction in fidelity due to the coding rules for height, pressure and temperature. On the other hand, the mandatory and significant level data in the MDTF format is created by an in-house local script that creates the entire MDTF message. It usually selects more significant levels than the vendor software. The vendor software that creates the WMO code also smoothes the wind data per the coding rules whereas the MDTF winds are not smoothed. Lastly, the 1,000 foot and significant level data in the MDTF product are in geometric feet but the mandatory level data is in geopotential feet.

2. We issue R2508 Mission Execution Forecasts (MEF) twice a day for the R2508 Restricted Area Monday-Saturday and once on Sunday. Saturday and Sunday's R2508 has a shorter valid time. The AM MEF is issued no later than 0500L (5AM) and the PM no later than 1300L (1PM). The aviation weather hazards on the R2508 are forecasted for a type II aircraft. An F-16 Falcon is a type II. It would be difficult to forecast for every aircraft type because Edwards flies many different aircraft profiles. We tailor the weather hazards based on the Military Operating Area's (MOA) that are embedded into the R2508. For example, we might have mountain wave turbulence forecasted in the Owens MOA, but not in any other MOAs (Saline, Isabella, Panamint or R2515). This product is amended based on pireps and weather activity in the R2508. Surface winds on the R2508 are for Edwards.

3. Weather contractors at Edwards produce the R2508 forecast, Test Ops forecast and 5-day forecast that was included in the data save.

4. The KEDW Terminal Aerodrome forecast (TAF) is issued by the 25th Operational Weather Squadron (OWS) at Davis-Monthan AFB, AZ 3 times per day. Edwards forecasters provide input to the 18Z and 02Z TAFs (we basically write these) and the 10Z TAF is done solo by the 25th OWS.

[redacted]

-----Original Message-----
[redacted]

[redacted]

Subject: Weather data from Edwards Air Force base on October 31st

Good morning[redacted]

I'm working on the Spaceship 2 accident case as the NTSB meteorologist. The Edwards wx package is a great data source that you and the folks at Edwards have provided to us regarding the weather conditions surrounding the accident. I just had a couple questions regarding the data. It looks like there are two sets of sounding data from the day of the accident provided. One sounding at 0900 and the other sounding at 1153 UTC and both of these soundings look different than the 1200 UTC sounding I have from Edwards that I gathered off the archive site from NOAA. Were these extra soundings that Edwards released, in addition to the "official" 1200 UTC sounding? If so how best would it be to reference them? Or how do you reference them? I see there is a "mission execute" forecast? Are these forecast done for Edwards daily or everytime there is a mission? What criteria are most important for your pilots to know there...especially given the terrain surrounding southern CA? Are the Edwards forecast prepared by folks on base there or by others at a different location, or a combination of both?

Thank you for your time! I just want to make sure that I reference any of these data sources correctly if we end up using them. Have a good morning,

[redacted]

[redacted]