HRIT Solicitation Number DG133E-02-RP-0028 – FAQ2

CLIN0001

1. The government has specified a Vertex 7.2 meter antenna and foundation in the requirements definition. Does this imply that NOAA has calculated a link margin and shown it to be sufficient with this antenna size; thus removing the burden from the responders for responsibility of this requirement? If NOAA does not accept this responsibility then what is the satellite EIRP and BER requirements that NOAA is using for the link margin calculation?

A. NOAA has performed a link analysis to determine the antenna size; however, each Offeror is required to provide analysis showing its link budget calculation. Eumetsat provides information on the MSG satellite performance at the website http://www.eumetsat.de

2. Is there a GFE furnished climate controlled location close to the downlink antenna of sufficient size, space, and power to house the appropriate down-converters and amplifiers necessary to get the signal to sufficient amplitude before transmission over the fiber-optic cables?

A. There is no GFE shelter provided at the antenna foundation.

3. Will the government accept a letter from the modem manufacturer stating their equivalence with the matched filter requirements even though the exact filter specified is not used?

A. No, as stated in the requirements, the specified matched filter is a hard requirement.

4. What age is considered too old for the received data (needed to size the proper storage)?

A. The MSG HRIT data will be received continuously for rebroadcast; there is no requirement for data archiving in the PHRS. As stated in the requirement, "The PHRS shall provide any storage necessary for buffering to maintain and continuous HRIT DOMSAT broadcast."

5. What kind of power will be available at the PHRS antenna location?

A. Electrical utility power will be provided as stated in the Antenna System Specification Requirements paragraph 5.4.

6. Since NOAA has performed a link analysis to determine the antenna size, can this analysis be provided as a guideline to the Offerors?

A. The Offeror is required to provide a detailed link analysis on how the system proposed will meet the requirements stated in the Antenna System Specification Requirements paragraph 3.3.

8. In the Eumetsat document there are 3 possible satellite transmitter EIRP's to use: 18.5 dBW (Nominal S3), 16.1 dBW (Worst Case S3), and 13.8 dBW (Worst Case Degraded S3 inferred). Which of these transmitter EIRP's does NOAA wish the receive system to be designed for?

A. The receive system should be designed to meet the requirements of Antenna System Specification Requirements paragraph 3.3.

9. Since the ground station facility lies outside the S3 zone; how much extra loss is NOAA attributing to the fact that the receive station is not favorably pointed to the transmit antenna?

A. NOAA stated that the VERTEX/RSI Model KXL-7.2 would be acceptable. It is a requirement of the Offeror to provide the detailed analysis supporting their system design, using this model antenna or an equivalent.

10. Since the proposal calls for an Ortel 10341A transmitter, which is meant to go into a 10000 series chassis, and there is no GFE shelter at the antenna foundation, is it up to the bidder to provide a weatherproof chassis (or building to house chassis) so that this transmitter can be used?

A. Yes, the Offeror will provide the waterproof enclosures in accordance with the Antenna System Specification Requirements paragraph 4.11 and 5.1.

11. Does NOAA not consider demonstrated equivalent performance to be a satisfaction of the requirements for the satellite modem matched filter?

A. The matched filter is a mandatory requirement of the receiver. This is stated in the MSG HRIT Satellite Data Receiving Subsystem Specification.

12. An exact quote from the specification is "Unattended operations shall include scheduled data acquisitions, data ingest, data dissemination, data processing, and data storage management, including removal of old/unneeded data." What is the maximum age of data before it falls into the old/unneeded data qualification?

A. The MSG HRIT data will be received continuously for rebroadcast by the HBS, there is no requirement for data archiving in the PHRS. As stated in the requirement, "The PHRS shall provide any storage necessary for buffering to maintain a continuous HRIT DOMSAT broadcast." It will be up to the Offeror to determine what storage capacity will be necessary in the SHRS system design and/or if the capacity is fixed or variable.

CLIN0002

1. Is there a GFE furnished climate controlled location close to the uplink DOMSAT antenna of sufficient size, space, and power to house the appropriate equalizers and amplifiers necessary after a 1000 meter run of IF cable?

A. Yes there is a shelter at the DOMSAT antenna; however, the demarcation point is at the DOMSAT modem in the Operations building. There should be no requirement for cabling to the DOMSAT antenna.

2. Is all equipment GFE once an IF has been provided at the DOMSAT antenna?

A. Yes, all DOMSAT transmission equipment is GFE.

3. Since the DOMSAT uplink antenna, downlink antenna, LNA/B are GFE and no satellite transponder uplink/downlink characteristics or raw data rate (no forward error correction) is given, it is impossible to guarantee the bit error rate of 10^-8. Does this mean that NOAA is taking responsibility for sufficient margin on the DOMSAT link?

A. The following information is provided for the minimum performance requirement of the GFE DOMSAT: Bit Error Rate (BER) of 10-8; circuit delay of 600 milliseconds; and data availability of 99.5%. The DOMSAT point of contact at Americom Government Services is Larry Wheeler. Americom can be reached at (609)987-4235.

4. It was stated above that "There should be no requirement for cabling to the DOMSAT antenna." However, in the requirements document it states: "The Offeror shall provide all equipment and cabling necessary to interface with the GFE DOMSAT Earth station at NOAA Wallops CDA Station. For pricing purposes, the maximum distance from the Operations building to the DOMSAT antenna location is 1000m." What is the proper requirement, cabling or no cabling?

A. The demarcation point between the Contractor supplied DOMSAT modem and the GFE DOMSAT service is located in the WCDAS operations building. 1000m is given as the distance to the DOMSAT shelter for costing purposes, should cabling be necessary.

5. Since Americom Government Services runs the GFE DOMSAT links, shouldn't the requirement to provide analyses to demonstrate how this BER(10-8) is achieved be removed from the RFQ since the Offeror has no control over the link management or quality?

A. Americom guarantees a BER of 10-8 for 99.5% of the time. A 1.2 MHz bandwidth DOMSAT link will be GFE. The additional 200 KHz of bandwidth may be utilized by the Offeror to enhance their system BER by an encoding process.

CLIN0003

1. Is all equipment to the received IF before the modem/demodulator GFE (i.e. antenna, LNA/B)?

A. Yes, all DOMSAT receive equipment is GFE.

2. What is the storage requirement of the processing station?

A. Sufficient storage on the SHRS is needed to fully process complete HRIT image data files. There are no data archiving requirements.