

INU-15-006 Telemetry Receivers and Combiners

1). Q. It looks as though the procurement group wants to go with a 100% off-the-shelf product that has already been fielded.

A. *This is correct.*

2). Q. Is that the case, or will this be a mixture of COTS and custom-designed equipment?

A. *This is expected to be a standard product coherent with IRIG standards.*

3). Q. The RFI document indicates a maximum FMpcm rate of 40 Mbps. Although we could provide this rate, it would be a cost driver. Is a maximum FMpcm rate of 23 Mbps acceptable?

A. *We will accept 20Mbps for this specification.*

4). Q. IRIG Space Time Coding is identified as a requirement. There currently is not an IRIG specification for Space Time Coding. Does NASA have a specification identifying the details (training symbols, etc.) for what it desires? Or, Is this a future requirement that only requires the receiver to be upgradable to support it?

A. *The standard for STC will be released in IRIG 106-15 soon, and it is acceptable to have a product "field upgradable" to include this in the future.*

5). Q. IRIG Low Density Parity Check FEC is required. Is the current IRIG draft standard (pink sheet) acceptable or is this a future support requirement?

A. *The standard for LDPC will be released in IRIG 106-15 soon, and could be considered a "field upgradable" requirement.*

6). Q. Can you clarify the interest in using a non-PC based Receiver?

The Background section of the Request For Information states "Apparent is the decreasing number of spare parts available to support future repairs of these legacy PC-based units." Observation: It would appear that utilizing a proprietary solution has a significantly higher risk for future upgrade capability, long term parts availability, and continued support than a more open and widely adopted architecture such as a PC based solution.

A. *The use of non-pc based devices will mitigate existing concerns for IT security complexities, future concerns of unsupportable or disqualified (NASA) operating systems and hardware replacements that become obsolete or hard to find such as power supplies and mother boards. It is desirable to have a spares program that is targeted at receiver components only.*

7). Q. Will AFRC DATR be publishing exact requirements addressing the technical details of each of these data encoding methods so vendors can build and test for compliance with AFRC DATR requirements?

A. *NASA will be utilizing the LDPC and STC standards to be released in IRIG 106-15.*