

## **Frequently Asked Questions to BAA07-55 Optical RF Communications Adjunct (ORCA) Effort.**

The document contains questions provided by interested companies concerning BAA07-55.

**Question 1.** Since this BAA is for full and open competition and there is a reasonable expectation that more than one qualified offeror will submit a proposal, would you consider waiving the requirements for the submission of cost and pricing data?

Answer 1. A decision as to whether or not cost or pricing data will be submitted or waived will be made by the ORCA Contracting Officer at AFRL.

**Question 2.** Is the temperature range presented in the comments on page 39 of the BAA (-56.5 to +130 degrees C) an operational temperature or a storage (or survival) temperature requirement.

Answer 2. This should be considered as the operational temperature range. Storage temperature would be expected to within a smaller range well inside these extremes.

**Question 3.** The minimum overall data rate and overall information rate are specified and the error correction coding is called out to be either 1/2 rate or 3/4 rate depending on the link. Are the specified code rates required as long as the information rate meets the go-no go metrics of data rate, information rate, and bit-error rate or is it allowable to select a lower code rate that still meets the go-no go criteria under the measurement conditions?

Answer 3. The coding rates were guidelines in meeting the go-no go metrics. The contractor's responsibility is to provide reliable links with the data rate, information rate, and BER. These are thresholds only.

**Question 4.** The uncorrected and corrected bit-error rates specified for the links are only two decades apart, which indicates a much lower correction capability for the indicated 1/2 rate and 3/4 rate codes than expected. Is it allowable to operate at an uncorrected bit error rate that does not meet of the go-no go metric but still meets the corrected bit error rate metric?

Answer 4. The uncorrected and corrected bit-error rates specified for the links are around a factor of two different, not two decades. That stated, the numbers in the Go / No Go Metrics are what any proposer will be judged against, i.e., the Overall Data Rate and Information Rate. As noted in the Industry, we gave a possible way that they could be achieved as an illustrative example, i.e., 1/2 code plus 10% protocol overhead, and not as the required means for achieving the minimum metric values. The contractor is free to propose other means for achieving those minimum numbers, or greater. In other words, the coding values presented in Appendix A are used as guidelines to provide estimates of the overall information rate.