

Question #	Source Document	Paragraph	Question	Answer
1	Attachment 1	1. RIB	What is the Beam Spot Drift Spectral Density Frequency Range: (T) and (O)?	0-50 Hz (T) 0-100 Hz (O)
2	Attachment 1	1. RIB	Should Beam Spot Jitter Power Spectral Density Frequency Range for (O) be 10 Hz to 300 Hz?	No, as long you're capturing drift spectral density at the lower rates
3	Attachment 1	1. RIB	What is the maximum aimpoint angular offset in output space: (T) and (O)?	400 microrad (T); 600 micrad (O)
4	Attachment 1	1. RIB	What is the aimpoint angular offset resolution in output space: (T) and (O)?	<= 10 microrad (T); <= 6 microrad (O)
5	Attachment 1	1. RIB	What is the aimpoint angular offset error resolution in output space: (T) and (O)?	Derived
6	Attachment 1	1. RIB	What is the aimpoint angular offset sample rate in output space: (T) and (O)?	Derived
7	Attachment 1	1. RIB	What is the maximum angular size of an illuminated extended source target in output space for 5, 10 and 18 km?	Mission & System Under Test Dependent; For planning consider example targets for different engagement scenarios. Nominally: 5 m - 10 m (T); 20 m (O)
8	Draft-DET-RWP-3.16.22	5.5,7.0	RWP states > 6 TRL capability developments (in the first section on the first page). Do we need to demonstrate a system at current TRL 6 level, or show a system and path to get to > TRL 6?	The Government will expect a discussion of any capability at TRL 6 and any past demonstrations that justify the rating of TRL 6. No demonstration is necessary until the TRL is improved beyond TRL 6.
9			What contract type do you anticipate?	Firm Fixed Price agreements are expected.
10			Is MIL-STD-464C Table 4. Maximum external EME for ground systems what the goal is?	The external EME for the Ku-band is not what's listed on MIL-STD 464C
11			when do you expect the final RFP to drop?	The team is finalizing the Request for White Papers (RWP) and will be provided as soon as possible.
12			Is there an estimated due date?	The estimated solution preparation time is four weeks.
13			When will a due date be determined?	The due date will be published with the official RWP.
14	Attachment 1	1. RIB	Is the RIB expected to provide a dynamic target that allows the HEL system to measure quantities (track error, WFC, jitter & drift, AP offset, AP control) by providing truth or is the RIB expected to provide them by receiving HEL system measurements and comparing to truth?	Target is not dynamic but the atmosphere is.
15	Attachment 1	1. RIB	Does the simulated target type need to be selectable from a list of generic target types with specified background features, background relative brightness and relative velocity?	Mission & System Under Test Dependent; For planning consider example targets and backgrounds for different engagement scenarios. "The RiB system shall include point and extended targets with variable brightness to allow for acquisition and tracking characterization with signal-to-noise in the sensor. The RiB shall provide output signals to simulate point source and illuminated extended source targets in the far-field. For both the inputs and outputs RiB will need to conform with requirements of the systems being tested."
16	Attachment 1	1. RIB	Does the target scene need to be provided to the HEL system as WFOV as well as NFOV for WFOV acquisition with hand-off to NFOV tracking?	Yes
17	Attachment 1	1. RIB	Should the HEL or SHEL irradiance profile be provided relative to the beam centroid out to some maximum I/D radius? Does the fraction of energy within some maximum I/D need to be captured?	PiB
18	Attachment 1	1. RIB	Provide both near field HEL/SHEL intensity and phase and far field HEL/SHEL irradiance profiles simultaneously?	No, RiB only provides far field parameters.
19	Attachment 1	1. RIB	What maximum HEL on-time is expected for HEL measurements?	10 s
20	Attachment 1	1. RIB	Will the HEL system provide track and beacon illumination to the RiB that will in turn provide the point source and extended source surrogate target returns to the HEL system or will RiB need to provide these sources also?	"The RiB must be able to provide simulated return irradiance at the appropriate level of the MWIR target signature, TIL return and BIL return to the HELWS being evaluated. The RiB system shall include point and extended targets with variable brightness to allow for acquisition and tracking characterization with signal-to-noise in the sensor."

21	Attachment 1	1. RIB	Do adjustable background signal levels for these wavebands also need to be provided independent of target signals?	Mission & System Under Test Dependent; For planning consider example targets and backgrounds for different engagement scenarios. "The RiB system shall include point and extended targets with variable brightness to allow for acquisition and tracking characterization with signal-to-noise in the sensor. The RiB shall provide output signals to simulate point source and illuminated extended source targets in the far-field. For both the inputs and outputs RiB will need to conform with requirements of the systems being tested."
22	Attachment 1	1. RIB	What is the desired SWaP and form of the RiB system for transport to test locations? Single or multiple units acceptable for different RiB functions?	"The RiB system should be designed for ease of transportation on a flatbed truck. The RiB system shall include measurement sensors integrated into a single transportable (e.g., via flatbed trailer) and ruggedized container designed for ease of rapid set up."
23	Attachment 1	1. RIB	RiB placement by crane, helicopter, or ground transport options acceptable?	"The RiB system should be designed for ease of transportation on a flatbed truck. The RiB system shall include measurement sensors integrated into a single transportable (e.g., via flatbed trailer) and ruggedized container designed for ease of rapid set up."
24	Attachment 1	1. RIB	What is the desired metric for HEL LOS alignment? Relative to specified GPS location?	"The RiB system shall include alignment aids to ensure propagated HEL beam is aligned with power and irradiance diagnostics. The RiB system shall include all required optical alignment fixtures, tools, and procedures including alignment to the HEL source and the APT Line-of-Sight. Alignment requirements for individual RiB components shall support HEL systems large angle slew as part of the engagement sequence. The RiB system shall not require realignment within 24 hours after initial setup unless source geometry is changed. The Range in a Box capability is aligned with the HEL system aperture and beam to simulate far-field environments to verify acquisition, pointing, and tracking (APT) performance."
25	Attachment 1	1. RIB	What are the limits of placement of RiB relative to HEL System output aperture? Closest and farthest distances from aperture, minimum and maximum height AGL or above platform level?	"The RiB system includes a method to align to the line-of-sight of the HEL system before and after installation on the ground, maritime, or airborne platform, and be able to isolate the RiB from both mechanical and acoustic disturbances, and or characterize the disturbance to account for the RiB disturbance in the diagnostic measurements."
26	Attachment 1	1. RIB	Provide atmospheric distortion to FF targets to verify AO System for both static and dynamic atmospheric distortions?	Yes
27	Attachment 1	1. RIB	What are the limits of atmospheric turbulence strength expected for selection?	WSMR Percentile Profiles: 10th Best, 50th Night, 50th Day, 90th Worst Day, 80th Worst Spring; 50th Day (T), 10th Best and 80th Worst Spring (O)
28	Attachment 1	1. RIB	Do atmospheric distortions need to be agnostic to dispersion effects for multiple wavelength sources?	No
29	Attachment 1	1. RIB	Do the High power HEL, TILL, BILL measurements near field profile and beam power need to be made simultaneously?	No
30	Attachment 1	1. RIB	What is the maximum runtime expected for HEL measurements?	10 s
31	Attachment 1	1. RIB	Relative to isolation from mechanical and acoustic disturbances; what is the range of magnitude levels of disturbances expected and over what frequency spectrum?	Mission & System Under Test Dependent; Isolate for standard seismic & acoustic background and monitor excursions. Nominally - Acoustic: 1 Hz - 2 kHz; Mechanical: 5 Hz - 500 Hz

