

Question #	Date Recd	Source Document	Paragraph	Question	Answer
1	1/10/2022			For Domain B, are there any priority to the 6 topics, i.e. are there more urgent government need than others?	No priority. All are validated needs from the Services. Awards will be based on the whitepaper merit and available funding.
2	1/11/2022			Reference Domain A-2 1) What is the spatial resolution 2) Will a commercial imagery sample be provided	A1) The spatial resolution goal per image is 2048x2048 pixels with 4096x4096 highly desired. A2) The government does not have public releasable imagery available at this time. Representative commercial imagery may be found on the internet. CUI level imagery may be provided if selected.
3	1/12/2022			Attachment 1 (Requirements), Domain B Topic 4, Page 4: Bullet #5 about DIGITALLY COMBINING is not clear as the system under test (assumed to be analog output) and the environment channels are also analog. Would you elaborate this bullet. Bullet 3, 4, 5: Do you mean the environment is the air-channel emulator - emulating loss over 1000km, dynamic range 100dB?	In the EW Arena as channels combine to arrive at one antenna (either at the SUT or the Threat Simulator(s)) the combination should be made digitally, and a single waveform be generated for analogue RF injection into the cable representing the antenna. ANS to second part of question: Yes, but the latency associated with doing all the calculations to achieve realism at 1km range is more difficult. If the signal which would be generated on the back channel for a target at 1000km (2000km there and back) or at any range exceeds 100dB the EW Arena really does not need to generate any RF signal back to the threat simulator.
4	1/12/2022			Attachment 1 (Requirements), Domain B topic 4, On page 4, 2nd bullet: It requires I/O pairs to be COMBINED(?). The channel pairs are to be analog RF (as we understand it). Would you elaborate on the requirement for COMBINING? Would combining by a switch be sufficient on the transmit side (or receive side) where the user can select which transmitter (or receiver) to use? Or do you need analog summation on the transmit side?	I&Q signals may be implemented however the WP proposes. Either using 2 channels or complexly (a EE pun) one channel. In the EW Arena analogue RF signals only exist in the cables at the threat simulator or at the SUT simulator, all calculations and combining is done digitally. There has been some suggestion that a chamber with and actual SUT with free space waves to and from the SUT, but that would add a whole level of complexity not requested here. For one thing how would angle-of-arrival (AoA) be calculated from a non-flat wave front?
5	1/12/2022			In the Attachment 1 (Requirements), Domain B - Topic 4: How are the test system and the system under test connected to each other? Over the air or cables? Can you give an example of the test scenario with multi-channels?	Already answered above. For an additional example assume calculating AoA from a two-antenna system on the SUT using phase. That would require 2 or 4 channels one way depending on how I&Q data is addressed. The threat simulator would generate a tracking pulse, which is turned into two digital RF signals entering the EW Arena with all the RF and natural environment factors listed in the first answer calculated. The appropriate digitally calculated RF waveform for the threat pulse would be generated in the two cables representing the two AoA antenna on the SUT simulator, and presumably the resulting phases compared to provide the AoA. "Presumably" because that is why we test.
6	1/24/2022			Reference Domain A-2 1) What is the spatial resolution 2) Will a commercial imagery sample be provided	Same as Q2 above.
7	1/25/2022			In the T&E/S&T Program Overview slide there is a gray box in the right lower corner that says "Space Systems (new in FY22)." Is there already a vision of how space systems tie into your current testing architecture? Additionally, how do you see space playing a role – from the standpoint of airborne platforms being able to detect and characterize SATCOM signals or from the standpoint of existing RF signal generators on a given EW range emitting representative SATCOM signals of interest? On the space side we are able to clearly replicate signal environments for testing new Space EW systems and for training on existing ones, much like you have systems at locations like the PMRF to test airborne platforms against. We really wanted to find out what "Space Systems" being included in T&E/S&T in the future meant for the larger space communities efforts so we could hopefully provide expertise and decades of experience into the arena.	The Space Systems TTA will be managed by a different group. There are potential future space EW test needs that could be collaborated between the Space Systems TTA and EWT, but there are no known space T&E needs that overlaps with EWT at this time.
8	2/4/2022	Domain & Topic Areas	1	What is the TRL level expected for Topic 3?	It depends on what is being proposed. T&E/S&T funds efforts that start no lower than TRL-3. It is up to the offeror to propose where their technology maturation effort would end. In some cases, TRL 6 is achieved for a final prototype/technology.
9	2/4/2022	Domain & Topic Areas	3. Signal Generation Translation Technology	Will more details about the data formats/structure and examples be made available ?	No additional information is being provided beyond the requirements and details listed in the topic.
10	2/4/2022	"EWT RWP Vendor Questions	3. Signal Generation Translation Technology	Is the requirement to just develop the logic/algorithm to implement the translation or do we have to implement the algorithm in software? OR will this be implemented in Phases?	It is up to the offeror to propose what is to be done to mature technology as required by the topic.
11	2/22/2022	Domain & Topic Areas		What is the anticipated PoP for each project?	The PoP is proposed by the vendor to align with delivering a prototype.
12	2/23/2022	5.4.1 pg 17, 2nd para		guidance indicates the pricing should address "... (e.g., installation/set-up, initial training, sustainment costs, upgrade costs and other associated/add-on services) for a Production/Maintenance environment." Isn't such pricing above and beyond the scope of an S&T project aimed at maturing and demonstrating technologies at the system/subsystem/model level?	Not necessarily. If "installation/set-up, initial training, sustainment costs, upgrade costs and other associated/add-on services" are required for the prototype demonstration period, then they should be incorporated into the vendor's proposal.
13	2/24/2022	T and E EWT Domain and Topic Area Technology Development Prototype Requirements 15-Dec-2021 v17	3. Signal Generation Translation Technology	Is any knowledge about the EWIRDB data base assumed for this project? Are the WDWs being referenced the same as the emitter models in the EWIRDB database? Given the Keystone tool is called a Real-Time tool, is the signal translation expected to happen in real-time while the tool converts WDWs to PDWs?	The most advantageous vendors to the Government might be those that have knowledge of the EWIRDB. Yes. The WDW referenced are those in the EWIRDB. The signal translation technology proposed (e.g. real-time or non-real-time) is up to the vendor.

14	2/24/2022	T and E EWT Domain and Topic Area Technology Development Prototype Requirements 15-Dec-2021 v17	3. Signal Generation Translation Technology	Can you expand on what you mean by 'levels' of EWIRDB information?	No. The most advantageous vendors to the Governmen might be those that have knowledge of the EWIRDB.
15	2/24/2022	T and E EWT Domain and Topic Area Technology Development Prototype Requirements 15-Dec-2021 v17	3. Signal Generation Translation Technology	In the example, what does SRS stand for? If it is the Sounding Reference Signal, do we need to take this into consideration given the problem is only about generation of the RF signal and is not concerned with the actual transmission/injection and hence channel quality?	Unsure, but it is likely the NEWEG System Requirements Specification (SRS) governing signal generation requirements. What SRS stands for is not really relevant, but what is relevant is the given frequency accuracy spec is ~1 Hz. It is up to the vendor to propose technology that meets that specification.
16	2/24/2022	T and E EWT Domain and Topic Area Technology Development Prototype Requirements 15-Dec-2021 v17	3. Signal Generation Translation Technology	The description states that "Baseband signal generation sampling rates may be different from EWIRDB sampling rates". Is this what is being referred to in the example re: the RFGEN's resampling with a 5/2 resampling factor?	Baseband signal generation sampling rates may be different from EWIRDB sampling rates.
17	2/24/2022	T and E EWT Domain and Topic Area Technology Development Prototype Requirements 15-Dec-2021 v17	3. Signal Generation Translation Technology	If I had to reword the problem, is this about faithfully creating the baseband signals based on emitter models where there are 2 problems: a. the rounding up of timestamps in the PDWs and 2. the difference in the DAC's sampling rates of the baseband RFGEN (this has to be higher but is not equal to the EWIRDB rates) causing the RFGEN to do "interpolated approximations between the PDW samples" ?	It is up to the vendors to propose advanced technologies that best address all the specification in the topic.