## DON 20.4 Webinar Q&A -2

In order of webinar discussion at https://www.navysbir.com/webinar20-04.htm

- Question: How is the Navy handling the level of funds available under this "super topic?" Might we see only one award per "focus area?" Historically, it's unusual to see more than 4 Phase I awards per topic.
- Question: are scans limited to external only or will they include interiors?
- Is 3d scanning capability topic being asked for by a particular syscom or community or applicable across all. I.e is NAVAIR asking for this but NAVSEA hasn't asked?
- So to give an example, the idea with this scan is that you would bring your solution to an aircraft, scan it, and the results would tell you what repairs, maintenance, etc. would have to be performed on the aircraft, from paint to wheels?
- Also is 3d scanning currently being used within the DoN by any community?
- Question for Topic #3 Is there a minimum reach you need to get to areas that you want to inspect?
- Question for Topic #3 Are the priority surfaces planar or cylindrical, and what precision is the Navy trying to achieve for LP testing (20 100 microns?)
- For the "end effectors", are these also for autonomous repair systems? For instance, a crawler that might enter a vehicle, like an aircraft interior, and then reach inside tight spaces?
- is teaming with a warfare center a possibility for this SBIR?
- So, the basic vision for the repair container is a device the size of a container that could be flown/transported to where there might be a ship, a plane, or ground vehicles, and repair them on-site, regardless of how big or small. Similarly for the scanning concept. Yes?
- Topic 4. Can we assume power input and other materials (e.g., paint) is supplied to the 1x1x1 foot end-effector?
- For topic #1, smart boxes, could you inform on what type of materials (i.e. steel, aluminum) may be maintained?
- You mentioned "rendering" w.r.t. Topic 2. Is the DON interested in more advanced data visualization, possibly AR/VR renders, for more rapid decision making and diagnosis based upon the 3D scans?
- For Topic #3, do you anticipate the autonomous NDI will be performed from an unmanned vehicle of some kind?
- Topic 4: Is a solution that can be used in-situ (e.g., while the ship is underway vs. only when in depot) desirable and within the scope of this SBIR?
- For Topic #1 Does the prototype Smart box include repair equipment (welders, grinders, 3D printers) or is that provided by the Navy?

- How much reduction in labor effort/downtime is sufficient to be of interest? 1%? 10%? cut in half?
- for topic #1, will depot maintenance quality control be required for the work performed?
- N204-A01-4 (End Effectors). University partnerships allowed sticking to the SBIR Program requirements?<sup>[p]</sup>
- can you say something about how quickly phase 2 decisions will be made after phase 1?<sup>[p]</sup>
- Does this webinar only cover N204-A01 and will there be similar discussion about A02 thru A04?<sup>[P]</sup>
- Question can you please clarify what the end application is for area 4 (microelectronics)? it states "cleaning, coating removal, inspection, re-profiling, re-coating" what are these processes to be use for? Cleaning and coating of what?
- For Topic #4, can you talk about how the functionality, does it need to perform a mechanical task or an inspection task or a combination? Is there an emphasis on multiple tasks over a single task?
- Are there documents available that describe priority Navy components (on ships/planes/vehicles) that require common inspection/repair i.e., priority components?
- N204-A01-4 (End Effectors). If safeguards and OSHA-like standards are used, are use of laser based methods acceptable?<sup>[p]</sup>
- Is the capability expected to be utilized by ship's force or a tech team visiting [p]
- For topic #3, does a sensor based coating applied to the structure be considered as an autonomous system as proposed topic 3?
- For focus area #3, is the focus on the mechanism/system/platform that provides the autonomy for the NDI, or does it also include the NDI technologies (ultrasonic, penetrant, etc.) themselves?
- N204-A01-4 (End Effectors). Reciting of adhesives & paints often requires mill roughness requirements per coating manufacturer. Do you have a surface roughness (ie. Reprofiling) number? [p] recoating\*
- To reframe my previous question: Does Topic #3 include the end effectors themselves?
- How how much do you value or weigh having an prime OEM support letter for phase I? PN204-A01-4 (End Effectors).
- Can awardees currently completing Phase II with another branch of the DoD apply to direct to Phase II?
- Do we need an MOU from a Navy end user to apply to Phase I? [#] May we reach out and speak to end users to ensure we hone our proposal to exact needs?

- N204-A01-4 (End Effectors). For the 1'x1'x1 cube, can you contrast the importance of crack detection vs. corrosion detection. It is an important part of an optical method [27]
- May we reach out and speak to end users to ensure we hone our proposal to exact needs?
- Where would testing of components that are not part of the platforms fit?
- For example, part of depot maintenance is sometimes radio components, night vision components, that are not part of the platform. Are they covered in this BAA?
- For the NDI focus area, will depot NDI technical personnel (including ASNT Level III personnel) be involved as points of contact from the start in Phase I, or in later Phases of the program?
- Can you specify the coating (paint type), for example some paints are CARC resistant or have metal particles N204-A01-4 (End Effectors)
- Topic 2 Are Depots looking for converting scans to 3D models for first article or missing TDP documentation?
- if we can do a demo in phase 1, is it possible to do at a depot?
- Sorry back to the mechanics of applying Volume 3 template I don't see it listed on the links and forms web page.
- For Topic 1, Area 2 Will developmental technologies be considered?
- what is the timeframe to receive notification about proposals: accepted/rejected?
- If we submit it earlier, do we get brownie points? Or, does it matter?
- What about 20.1? When will the announcements be made?
- Topic 3 (NDI): Have the depots identified particular components of interest or defects/damage/material states of interest? If so, can you share them?
- Back to the question about testing components: under which topic does it fit best?
- N204-A01-4 (End Effectors). Correct that "end effector" is attached to a robotic system such as OC Robotic-USAF Hill? Therefore the robotic element does not need to be addressed in the proposal and only the 5 functions (cleaning, coating removal...)
- Topic 1-2: Given earlier developmental technologies, how strict will the initial prototype requirements be for end of Phase demo? (e.g., May be difficult to get to a packaged unit in Phase I, but could show significant potential for a integrable system in handheld, UAV, underwater use for non-dry dock inspections, etc.)
- Recent SBIR topics have had language such as "The technology within this topic is restricted under the International Traffic in Arms Regulation... Offerors must disclose any proposed use of foreign nationals..." I don't see this language on this topic at this point. Is that intentional or likely to change (or am I missing it)?

- We see no ITAR language in the topic description. Can we safely assume no such restrictions will be imposed on the execution and commercialization of the technology or, alternatively, is there an overarching Navy SBIR guidance that now everything will be rolled under ITAR just to be safe? It's a little hard to see products from this effort appearing on the USML...
- are you looking for the highest TRL possible? Eg: preference for TRL 7 vs 4?
- Great question: are we able to work with workers who have green cards? of does it have to be US citizens only?
- Is it anticipated that there will there be a 'classified setting' requirement in Phase I or  $II?_{SEP}^{[p]}$
- - critieria "C" for phase 1 is "commerciapl application". Can you talk about how you evaluate/level of detail required here? N204-A01-4 (End Effectors
- The 3D scan topic seems to be the prime focus; with damage inspection being secondary, but also extremely beneficial byproduct. Is there specific visual damage that is more critical to the Navy to focus on (e.g., corrosion analysis, cracks)
- can you provide clarification on what the desired deliverable for topic #1 is?
- Do you want a paper study or for us to lease a container and outfit it?
- Would it be acceptable to do a demo of a Navy damaged panel as a prototype demonstration? (e.g., we procure a piece damaged equipment to scan)

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