HR0011SB20254-14
Narcissus
Frequently Asked Questions (FAQs)

1. Will window images/video data be provided to accomplish this task?
   A: No, part of the task will be to generate images to test proposed method against (caustic image simulator).

2. Do you expect multi-building scenarios (e.g., three facades with occlusion), or only a single facade for Phase 1?
   A: Phase 1 will focus on only one building, with the window parameters as described in the solicitation.

3. Should we include dynamic elements (cars/people) in reflections for Phase 1, or keep the environment static?
   A: The environment can be kept static for phase 1

4. What is the minimum resolution (arcseconds per pixel) required for faint-object detection at GEO or cislunar ranges using window-glass optics?
   A: We are expecting that proposals and/or work conducted under the program will specify what the limit of the possible is for resolution. This is an open question that successful proposers will be able to clearly baseline against their proposal.

5. For computational imaging, does DARPA require Phase II demonstrations to scale beyond a single 900-pane building into multi-building array coherence?
   A: No.

6. Are there defined GPU/compute throughput benchmarks (e.g., TFLOPS per pane-equivalent) for real-time photon flux inversion during Phase II demonstrations?
   A: No.

7. Will the sensors have overlapping views? Are they geolocated or localized to each other (position and orientation)?
   A: The proposer can choose to utilize any viewing geometry or localization as long as they use the 30x30 windowpane scenario on a single building outlined in the solicitation. Multiple buildings are not required.

8. I would like to propose a concept for using computational imaging, machine learning and lensless imaging but requires development of new hardware. can I propose hardware development in Narcissus?
   A: The hardware concept may be proposed, and used in the concept, but only simulation work is expected under Narcissus Phase 1. Hardware development to enable a successful concept can be proposed in Phase 2.

9. How big is the secondary mirror corresponding to a primary cluster of 3 x 3 panes? What is the size of the image?

A: This may depend upon the specifics of the method proposed. It is not of interest to have one secondary mirror for every 3 x 3 cluster – this would not scale well to using a full building as an imager. Other innovative concepts with some, but not a large amount, of hardware, are welcome. The amount of hardware to use the full building as an imager should be clearly specified.