DARPA-PA-25-07-05 Liquid Surge
Frequently Asked Questions (FAQs)
as of 10/21/2026

2Q: I interpret the call as requiring the system to be capable of generating a Mach 2 shock in the liquid test region for phase 1 and Mach 4 for phase 2. Could you confirm that this requirement applies to the shock propagating through the liquid, with the Mach number based on the sound speed of the unshocked liquid at its initial temperature and pressure, rather than to the incident shock in the gas before transmission into the liquid?

2A: Yes, the requirement applies to the shock propagating through the liquid with sound speed based on the quiescent unshocked liquid. DARPA is not interested in shocks in gases or incident shock or re-shocked media.

1Q: Must the liquid be at room temperature immediately before shock arrival, or are elevated initial liquid temperatures permitted for phase 1?

1A: The desired based conditions (subscript 0) refer to pre-shocked conditions. For Phase 1 DARPA is interested in room temperature pre-shocked fluid but achieving elevated temperatures in anticipation of Phase 2 metrics is allowed.