

# NWSC-2 Vendor Day

## February 24, 2015

Computational & Information Systems Laboratory

CISL



# Agenda

Topic	Start
Welcome & Introductions	9:00 AM
NWSC-2 procurement update	9:15 AM
Overview of the NWSC facility and plans for Module A	9:45 AM
Facility tours	10:15 AM
Lunch	12:00 PM
One-on-one meetings	1:00-3:00 PM

# Disclaimers

Nothing in this presentation should be construed as a Request for Proposal (RFP) and no offers are to be submitted at this time.

UCAR reserves the right to discontinue plans to procure the NWSC-2 Computing Platform with no responsibility to interested parties. UCAR will not be responsible for costs incurred by companies that respond to the RFI, attend the Vendor Day at NWSC, or respond to any subsequent RFP, and will not reimburse companies for such costs.

# NWSC-2 Procurement Updates

- Schedule
- Benchmarks
- Technical Specifications

# NWSC-2 Schedule

*Subject to change*

- **October 20, 2014:** Released Draft Technical Specification (DTS) and Yellowstone workload study
- **December 19, 2014:** Feedback on DTS due
- **January 31, 2015:** Benchmarking files and instructions available
- **February 24, 2015:** Vendor Day at NWSC Facility
- **April 1, 2015:** Formal Request for Proposals available
- **May 1, 2015:** Proposals due
- **2H-2015:** Vendor selection, negotiation, NSF approval
- **2H-2016:** Equipment delivery, acceptance, friendly-user
- **January 1, 2017:** Production
- **December 2017:** Decommission Yellowstone

# Updates to Technical Specifications

1. Will allow for storage-only proposals, compute + storage, and compute only.
2. Will allow for design variations - provided all required elements of the proposals are met (design, performance, cost, etc.)
3. Require that Offerors provide at least two variations on their interconnect: 1) the primary proposed network architecture; and 2) one that is tapered such that there are large islands, at least 512 nodes in size, with a minimum tapering of 2:1 between islands. If the primary architecture is tapered, then Offeror should provide an alternative such that it has the maximum bisection bandwidth for the proposed architecture.
4. Option to provide a follow-on to the Erebus Arctic Mesoscale Prediction System (AMPS). This will be specified in the Technical Specification as a system of roughly the size and storage capacity as the NWSC-2 test system.

# Benchmarking Update

1. GPU benchmark: LQSR is being replaced by SHOC (**S**calable **H**eter**O**genous **C**omputing).  
<https://github.com/vetter/shoc> Input cases to follow.
2. Capability Improvement is being removed. It will be replaced by a requirement to demonstrate at acceptance that scalability at least as good as Yellowstone. We will use a large MPAS case for this.
3. FLOPS/Byte for storage system performance will be replaced by minimum bandwidth (400 GB/s).
4. Yellowstone Sustained Performance calculation will be released in the next 2 weeks.
5. Numerical validation criteria will be added to benchmark instructions.

# Sources of Information

- Procurement website:

<https://www2.cisl.ucar.edu/NWSC-2>

- Letter to Interested Parties
- Draft Technical Specification
- Yellowstone Workload Study
- NWSC Science Justification
- NCAR Benchmarks

- Cisl website

<https://www2.cisl.ucar.edu/>

# Thank you!

# Questions?