

# JOWOG34

## Sandia Site Report

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Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000. SAND -2005-6648P

- **Merle Benson retires**
- **Bill Camp retires**
- **Ron Detry retires**
- **Ken Washington departs**
- **ASC program restructured (internally)**
- **Research budget significantly impacted**
- **Effort centralize of procurement of capacity systems across labs (Matt's talk)**
- **Serious debate over rotation for capability systems**
- **ASCI Red retired after 9 years of service (in Top 500)**



## Some major accomplishments

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- **Red Storm upgraded to 125TF (5 rows, dual core) ... #2 on Top 500 @ 101.4TF**
  - general availability March 26th (ready in September '06)
  - plan to add 1PB storage (currently 170TB each end)
  - possible memory upgrade to take each node to 8MB
  - upgrade path to quad core XT4
- **Thunderbird SW stack ... #6 on Top 500 @53TF ~40% > peak; ~20% > throughput**
  - 10Gbps upgrade to DISCOM network completed
  - Ethernet over DWDM
  - Sustaining ~200MB/s over network in tests
  - 400MB/s from LANL to Red Rose
  - 650MB/s from Red Storm to Red Rose disk
  - Create restart files on Red Storm at 8GB/s
- **Full ISO certification of desktop support**
- **Michael Dell visit**



# Optimistic about the future

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- Executive leadership focusing on HPC
- Strategic focus on Engineering Transformation and Operational Excellence
- Institutional model for classified computing
- Call for major investment in ITS capacity computing
- Orange network funded and commenced
- Common Engineering Environment under design
- New Mexico supercomputing center funded
- Competed for NSF platform in partnership with Intel and PSC
- New cyber security doctrine under development