<table>
<thead>
<tr>
<th>Experiment</th>
<th>Location</th>
<th>Status</th>
<th>Start of operations</th>
<th>Nominal end of operations</th>
<th>Physics</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUPP/PICO 2L</td>
<td>SNOLAB</td>
<td>Operating</td>
<td>Dec 2013</td>
<td>Dec 2014?</td>
<td>Dark Matter</td>
</tr>
<tr>
<td>COUPP/PICO 60</td>
<td>SNOLAB</td>
<td>Operating</td>
<td>June 2013</td>
<td>Dec 2015?</td>
<td>Dark Matter</td>
</tr>
<tr>
<td>Darkside 50</td>
<td>LNGS (Gran Sasso)</td>
<td>Operating/Calibrating</td>
<td>Jan 2014</td>
<td>Dec 2016?</td>
<td>Dark Matter</td>
</tr>
<tr>
<td>DAMIC</td>
<td>SNOLAB</td>
<td>Operating</td>
<td>Dec 2012</td>
<td>Dec 2014</td>
<td>Dark Matter</td>
</tr>
<tr>
<td>Dark Energy Survey</td>
<td>CTIO, Chile</td>
<td>Operating</td>
<td>Sep 2013</td>
<td>Feb 2018</td>
<td>Dark Energy</td>
</tr>
<tr>
<td>Pierre Auger</td>
<td>Argentina</td>
<td>Operating</td>
<td>2008</td>
<td>2015 (for FNAL)?</td>
<td>High Energy Cosmic Rays</td>
</tr>
<tr>
<td>Holometer</td>
<td>Meson Lab</td>
<td>Commissioning</td>
<td>Spring 2014</td>
<td>2015</td>
<td>Spacetime</td>
</tr>
</tbody>
</table>
SuperCDMS Soudan Operations Plan

• Warmup for maintenance (1 month)
  • Replace cold head on cryocooler
  • Service He pumps

• Studies over the next 6-12 months
  • Extended calibrations (detailed detector response)
  • Better understanding of backgrounds
  • Study electrical and vibrational noise sources and ways to reduce these
  • Determine reasons for failures of detector channels
  • New CDMSlite physics run with lower backgrounds and lower energy thresholds
COUPP/PICO Operations Summary

G2 not funded but positive reviews, R&D encouraged

- Main objective over next 6 months is to continue particulate sampling and understand particulate nucleation of bubbles
  - Water from both PICO-2L and COUPP60 extracted via filter in early July
  - Clear evidence for particulates in both, samples sent to PNNL for radioactivity and chemical analysis
- Setting up chambers at Fermilab and Queen’s University to do particle spike tests
COUPP/PICO Operations Summary

G2 not funded but positive reviews, R&D encouraged

• In parallel, at SNOLAB preparing for a refill of PICO-2L with LAB liquid scintillator buffer instead of water
  • Test of new cleaning procedures (preliminary work necessary before a new jar is placed in service)
  • Engineering run to improve operational performance
DarkSide-50 Status

● Main operation: TMB removal

● Neutron Veto (TMB and PC mixture)
  • Observed a high 14C rate due to TMB
  • Originally 50% of TMB
  • TMB removal and filling with new PC
  • Distillation plant:
    • Purification of new PC batch. DONE
    • Separation of old PC from the TMB: Aiming towards 0.1% of TMB
      Achieved 0.08% DONE
  • Complete procedure FINISHED

● Modifying veto readout system to accommodate longer capture times

● TPC: Used to monitor TMB removal
June-July 2014

• Completed shield upgrade to eliminate 210Pb bgd
  • New inner shield made of ancient and new low radioactivity lead.
  • Installation completed at Snolab.
  • Currently analyzing the new data. It looks good, ~10x reduction in the observed bgd.

• DAMIC-100 detectors packaging
  • First batch already at Fermilab.
  • Flex circuit production completed: first batch at Fermilab.
  • Silicon substrate being diced at Kadco Ceramics.
  • Plan to start packaging the CCDs next week.

Status: taking data with prototype detectors. Uptime >95%. High quality data.
August 30, 2013 < Season 1 < February 10, 2014

Now DECam is being used by other experiments/projects until DES restarts in August 15, 2014.

We have the new observing schedule from CTIO

Meanwhile, DES is

- Working on completion of science publications. 3 submitted. See 3rd one to right. one accepted so far. Several more “in the works”
- Y1A1 processing started continues
- Preparing for Y2 observations and processing on FermiGrid

Activities between June 30 - July 27

- SD efficiency: 98.3% efficiency in the past five weeks, on-going maintenance, upgrade R&D activity (involves SD) continuing in the field, very stable.
  - number of black tanks < 22

- Recent FD observation period: - June 17 - July 7; smooth, periodic high wind (>50km/h) on July 4, rain on June 25
  - July 17 - Aug 5; smooth, rain on July 23, 26

- Radio array (AERA) is running stable, part of overall monitoring system

- June 30 - July 27: Number of triggers from cosmic rays (E > 10^{18} eV) per minute ~ 12000 / day
Holometer (E-990) Operations Status:

- Beginning 1-year operations phase July, 2014
  - Interferometers running stably and high quality data being taken at near full power
  - Uncorrelated shot noise is integrating away nicely
- Operations phase tasks
  - Develop in situ signal calibration schemes
  - Investigate and mitigate any sources of MHz frequency noise which may be uncovered by increased sensitivity levels
- Seismic/acoustic stability is still an issue
  - One of the interferometers still leaks 30% more power than the detectors can handle.
  - Investigating electronic and mechanical fixes (alignment control, tethering hut down)

Photocurrent cross-correlation averaged down over ~1M samples reveals clean, uncorrelated spectrum