

Status of SNOLAB Science preparations

SNOLAB Objectives

- To promote an International programme of Astroparticle Physics
- To provide a very deep experimental laboratory to shield sensitive experiments from penetrating Cosmic Rays
- To provide a very clean laboratory
- Entire lab at better than class 2000 to mitigate against contamination of experiments.
- To provide infrastructure for, and support to, the experiments
- Focus on dark matter, double beta decay, solar & SN experiments requiring depth and cleanliness of SNOLAB. Also provide space for prototyping of future experiments.
- Large scale expt's (ktonne, not Mtonne)
- Goal has been to create a significant amount of space for an active experimental programme to support current generation of experiments as early as possible.

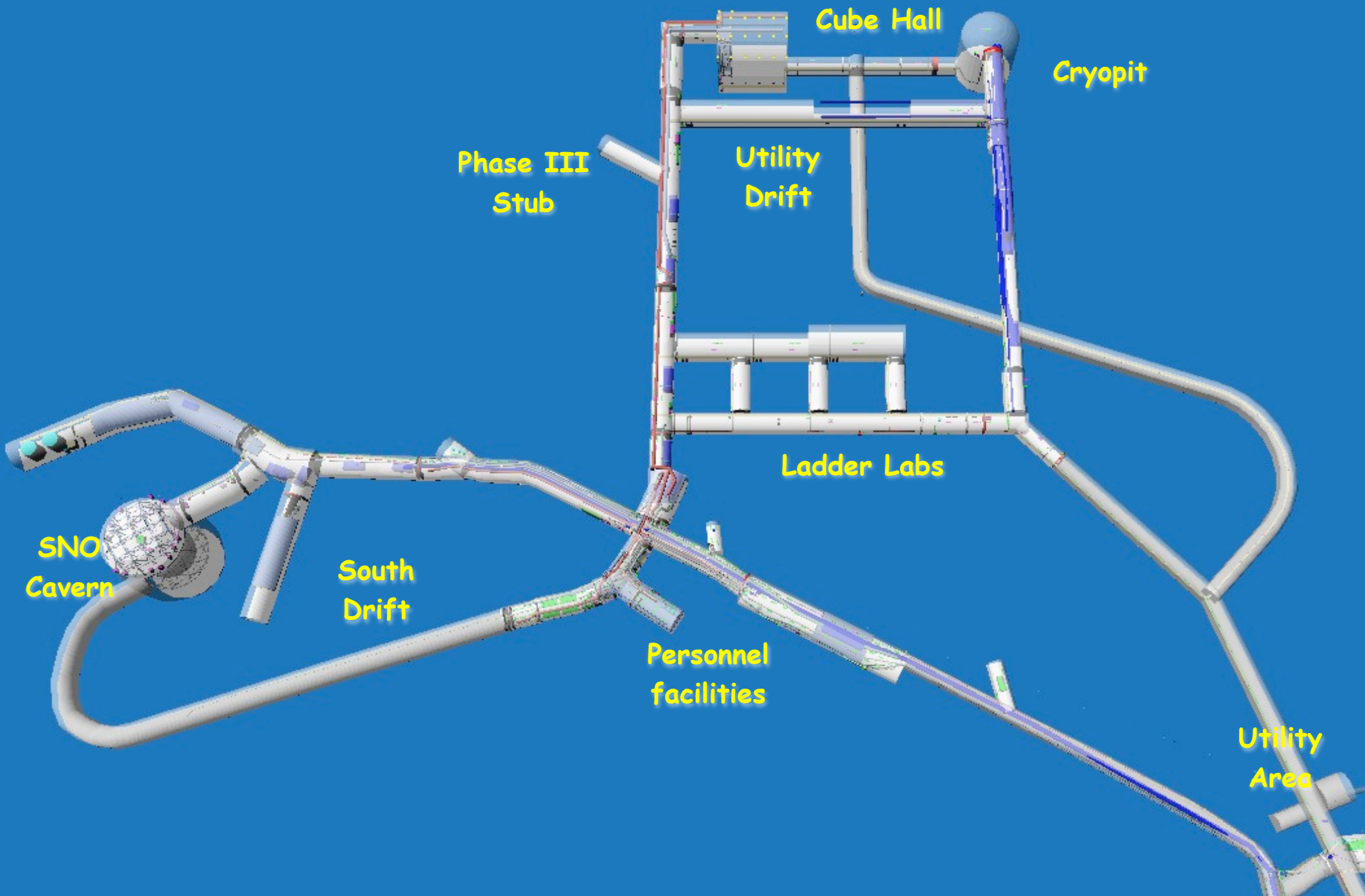
SNOLAB Schedule

- Underground Construction (Cube Hall, Cryopit, Ladder Labs, Lab Entrance)
 - Excavation 100% complete. Outfitting began June 2007. Now complete.
 - Spaces available now for experimental infrastructure installation..
 - Final infrastructure (Chiller, MPC, waste water plant) commissioned
 - Ladder labs opened, going clean.
- Surface Facility
 - Operational since 2005.
- Experimental Programme
 - Initial assignments of space underground.
 - Current allocations to: PICASSO, DEAP I, SNO+, DEAP-3600, MiniCLEAN, HALO.
 - Anticipated or under discussion: CDMS, EXOgas 200, COUPP, 2-phase LAr, low background counters to measure ^{39}Ar , future Cobra upgrade...

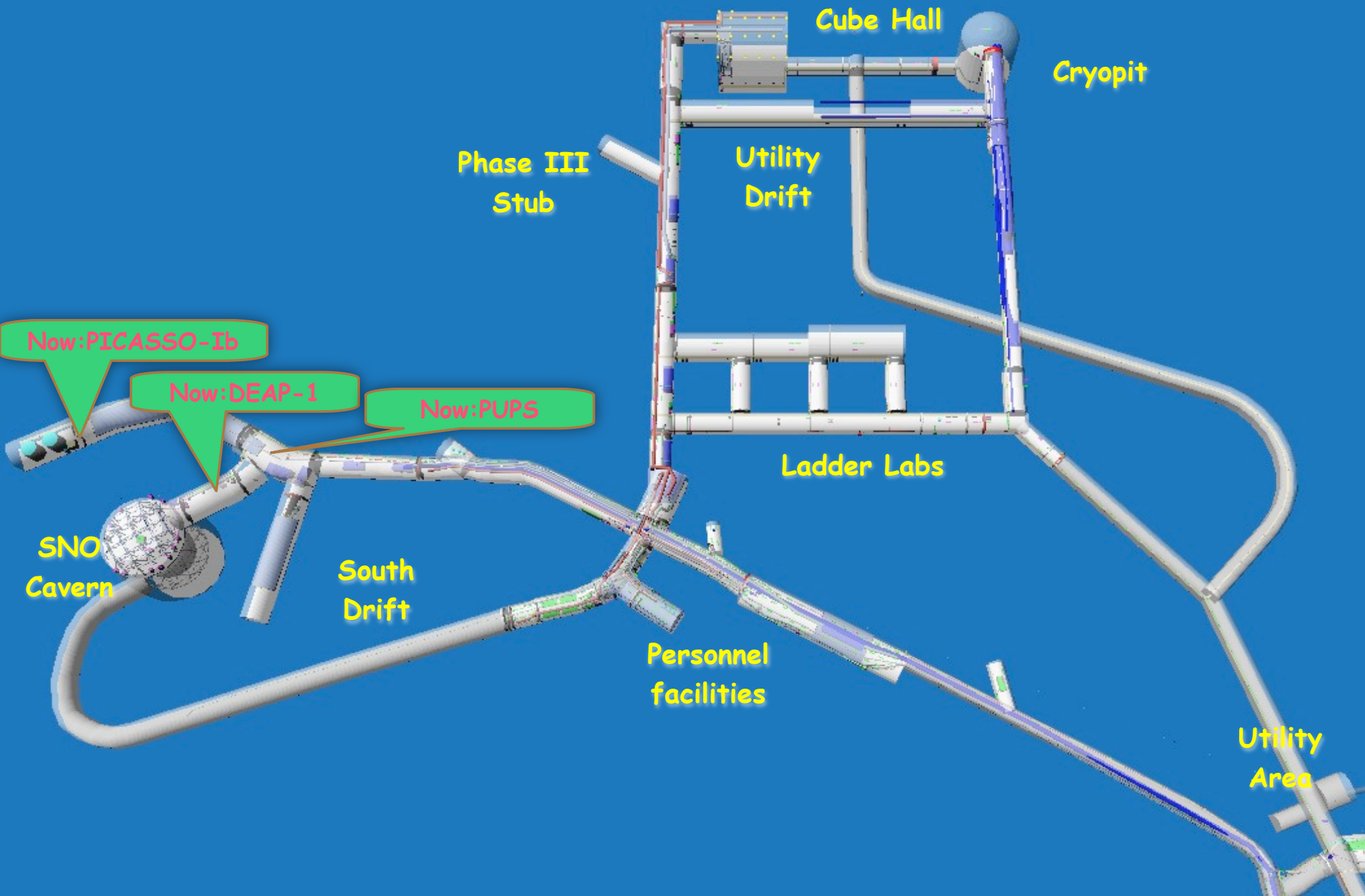
Experimental Programme

Experiment	Solar nu	OnuBB	Dark Matter	SuperNovae	Geo nu	Other	Space allocated	Status
SNO+	√	√		√	√		SNO Cavern	Underway
PICASSO			√				SNO Utility	Running
DEAP-1			√				SNO Control	Running
DEAP-3600			√				Cube Hall	Underway
miniCLEAN			√				Cube Hall	Underway
HALO				√				Underway
PUPS						Seismicity	Various	Running
SuperCDMS			√				Ladder Labs	Request
EXO-gas		√					Ladder Labs	Request
COUPP			√				Ladder Labs	Request
DarkSide			√				Ladder Labs	Request
PICASSO-III			√				Ladder Labs	Planning

Experimental Programme



Experimental Programme



Experimental Programme



Experimental Programme



- Experiments currently requesting ladder lab space:
- EXO 200 Gas
 - PICASSO-III
 - COUPP
 - LAr 2phase (DARKSIDE)

SNOLAB science programme

- Initial detectors operating in available SNO spaces
 - to be relocated as programme develops
- SNOLAB facility coming on-line
- Initial SNOLAB detector infrastructure construction is planned and underway
- Great science to be done...
 - let's hear about it!