

South Pole Station Modernization (SPSM) MREFC Project Status

Description:

- SPSM replaces 1970's era Dome Station for safety and capacity reasons
- Two-story elevated structure, supporting 154 persons
- 115,464 SF of new facility infrastructure, including remote structures

Purpose:

SPSM facilitates NSF's goals to:

- Support science at the South Pole
- Maintain U.S. presence at the South Pole in accordance with U.S. policy

Summary:

- Construction started November 2000, completion by March 2010
- 92.3% complete, Elevated Station and all science facilities in full use
- Cost to Date = \$137.6M
- Total Project Cost = \$149.3M

South Pole Station Construction & Science Progress



Construction Progress & Status (11/06 – 2/07)

Science



Siding & Chamfer



Water Well Rodwell #3



Cryogen Facility



SPTR 1 Upgrade



Dome & Arch Demolition



South Pole Telescope

Construction Completed (1997 – 2006)

Before

After



South Pole Station 1997



Elevated Station 2007 & Computer Rendering



Elevated Station 100% Occupied February 2006



Communications December 2005



New Medical February 2004



IceCube Project



New Dining Facility February 2003



Dark Sector Lab January 2003



New Power Plant January 2001



Garage/Shop Facility December 1999

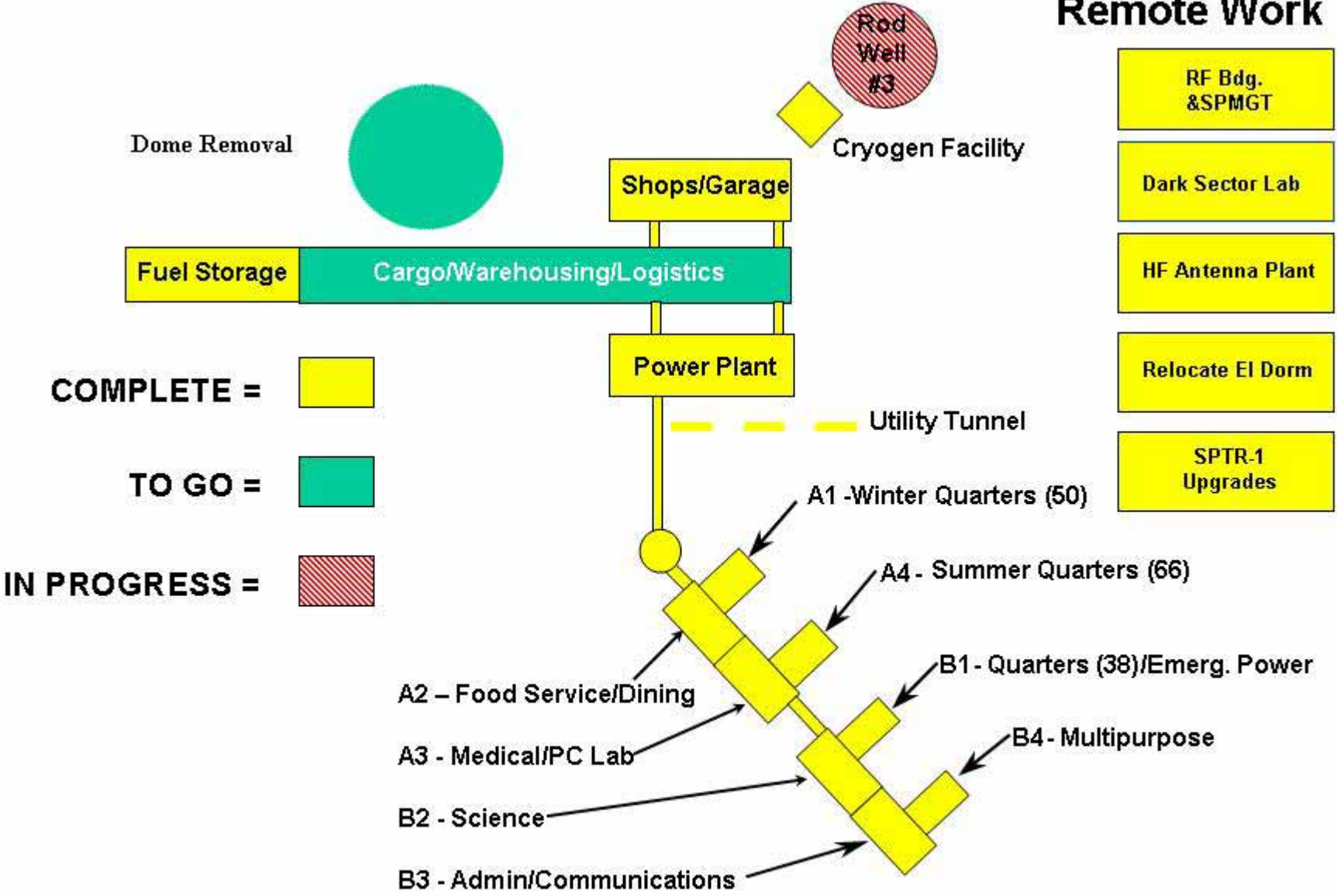


Fuel Storage December 1998



QUAD/BICEP

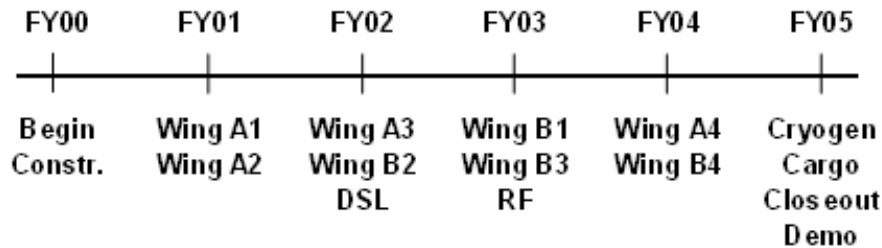
Remote Work



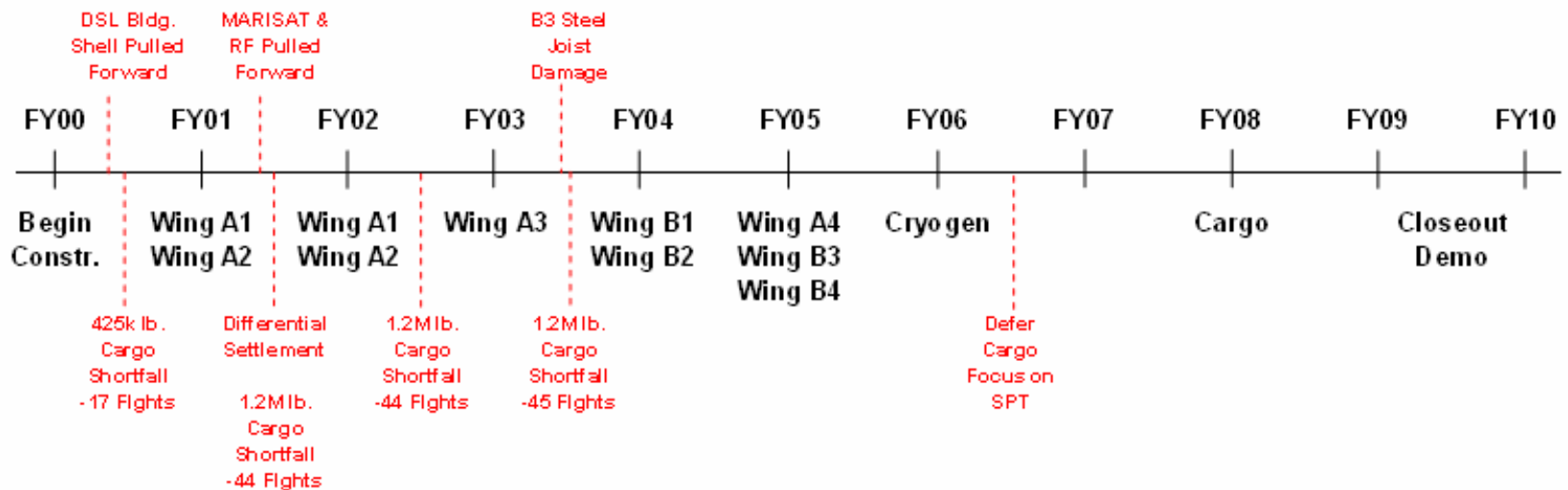
SPSM Facility Complex

SPSM – MREFC Project Status

Original Project Plan Timeline



Current Project Plan Timeline



SPSM – MREFC Project Status

SPSM Budget Summary (Millions)		
1998 Appropriation		\$127.9
2003 Revision 1	\$5.5	\$133.4
Wing A4 Berthing Extension (110-154)		
Schedule Extension (WX & Settlement)		
Additional Fuel Cost		
2007 Revision 2	\$9.3	\$142.7
Airlift Cost Increases		
Engineering/Construction Changes		
Labor Overruns		
2008 Revision 3*	\$6.6	\$149.3
Schedule Extension (Logistics Facility Deferral)		
SPTR-1 Upgrade Cost Increase		
Add 20% Contingency		

Re-baseline

10.6% over re-baseline

*receipt pending FY08 continuing resolution

Cost at Completion	\$149.3
Actual Cost to Date	\$137.6
Funds Remaining	\$11.7
Estimate to Complete	\$10.4
Contingency (11%)	\$1.3

SPSM – MREFC Project Status

Remaining Challenges

Labor

- Personnel Turnover
- Workforce hiring

Schedule

- Potential conflict with resources (people/equipment)
- Little Float in schedule

Budget

- Rising labor/fuel costs

SPSM – MREFC Project Status

Scope Remaining

FY08

Logistics Facility	Start
Water Well #3	Finish
Station Siding	Continue
Fueling Module / Fuel Utilities	Start

FY09

Dome and Skylab Demo	Start
Logistics Facility	Finish
Station Siding	Continue
Fuel Utilities	Finish

FY10

Siding	Finish
Dome and Skylab Demo	Finish
Punchlist	Finish
Commissioning	Project Complete