



National Aeronautics and Space  
Administration  
Jet Propulsion Laboratory  
California Institute of Technology



WSDC Management

# WISE Science Data Center CDR

## WSDC Management

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WISE Science Data Manager



WISE Science Data Center CDR – January 29-30, 2008

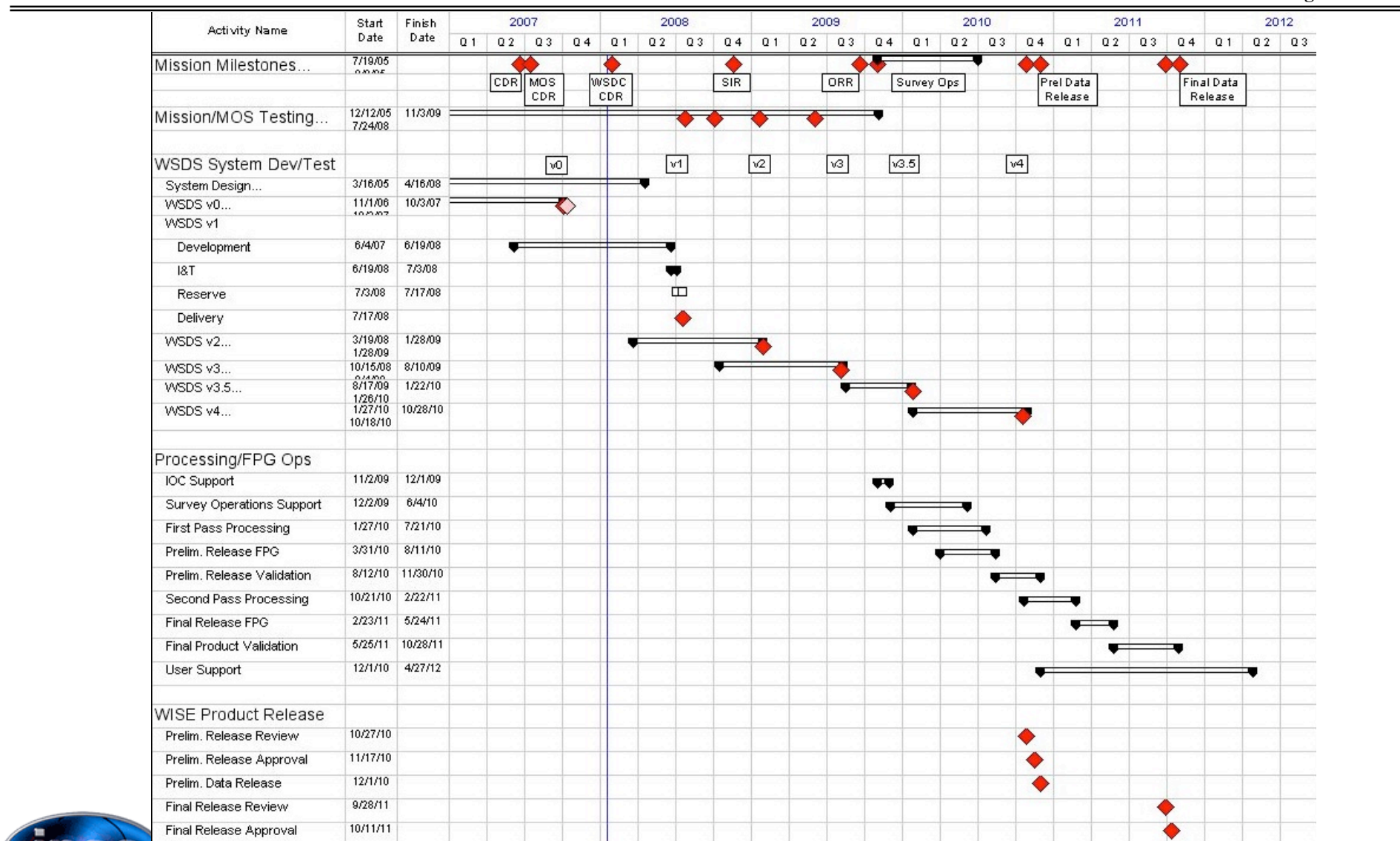
RMC - 1



# WSDC Top Level Schedule



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WISE Science Data Center CDR – January 29-30, 2008

RMC - 2

# Schedule Coordinated with Key Mission Activities

- MUB testing (5/07) - Ingest prototype
- Mission Scenario Testing
  - WSDS v1 supports MOS end-to-end test (MST 2 - 10/3/08)
  - WSDS v2 supports volume load test (MST 7 - 6/23-24/09)
- Operations Readiness Testing (6/23/09 - 9/09/09) - WSDS v2
- Launch/IOC (11/1/09) - WSDS v3
- Nominal (6 month) operations - WSDS v3.5
- Two-stage processing/data release
  - WSDS v3.5 supports Preliminary (12/1/10)
  - WSDS v4 supports Final (11/2/11)

# WSDC WBS and Task Plan



## WSDC Management

Fiscal Year	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Total
Phase	B	B/C	C	C/D	D/E	E	E		
<b>Project Lead</b>									
Lead Scientist	0.56	0.60	0.73	0.80	0.80	0.80	0.50	0.00	4.79
Lead Engineer	0.42	0.50	0.50	0.50	0.50	0.50	0.17	0.00	3.08
Lead QA/Analysis Scientist	0.30	0.30	0.50	0.50	0.50	0.50	0.31	0.00	2.91
<b>Subsystem Development Engineers</b>									
Pipeline Executive/Config. Mgmt./I&T	0.00	0.13	0.81	1.00	0.92	0.29	0.00	0.00	3.15
Data Ingest System	0.00	0.18	0.47	1.00	0.58	0.00	0.00	0.00	2.23
Instrumental Calibration	0.00	0.00	0.50	0.50	0.50	0.22	0.00	0.00	1.72
Image Construction/Mosaicing	0.00	0.21	0.83	1.00	1.00	0.54	0.17	0.00	3.75
Source Detection	0.00	0.21	0.50	0.50	0.50	0.29	0.00	0.00	2.00
Source Photometry	0.00	0.21	1.82	2.30	2.30	1.88	0.34	0.00	8.85
Position Reconstruction	0.00	0.58	0.83	1.00	0.92	0.50	0.17	0.00	4.00
Bandmerge	0.00	0.00	0.33	0.50	0.42	0.00	0.00	0.00	1.25
Artifact Identification	0.00	0.21	0.50	0.83	1.00	0.54	0.10	0.00	3.19
Photometric Calibration	0.00	0.00	0.33	0.83	1.00	0.88	0.08	0.00	3.13
Known Solar System Object ID	0.00	0.00	0.00	0.27	0.28	0.00	0.00	0.00	0.55
Quality Assurance System Development	0.00	0.00	0.33	0.71	0.92	0.46	0.02	0.00	2.44
<b>Operations, QA, Analysis, Support</b>									
Pipeline Operations	0.00	0.00	0.08	1.00	2.00	1.58	0.04	0.00	4.71
Instrument Characterization Scientists	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quality Assurance Scientists	0.00	0.00	0.00	1.08	2.00	2.00	0.33	0.00	5.42
Documentation and User Support	0.00	0.00	0.00	0.03	0.20	0.48	0.31	0.00	1.02
<b>Archive</b>									
Archive Interface/Load	0.00	0.00	0.04	0.42	0.50	0.26	0.07	0.00	1.29
Archive Support (DBA, Metadata Mgmt, Tool Dev)	0.00	0.00	0.04	0.92	2.00	2.00	0.56	0.00	5.52
Test Data Archive Curator	0.00	0.00	0.11	0.10	0.03	0.00	0.00	0.00	0.23
<b>Total Staff (FTE)</b>	<b>1.28</b>	<b>3.13</b>	<b>9.27</b>	<b>15.79</b>	<b>18.86</b>	<b>13.72</b>	<b>3.17</b>	<b>0.00</b>	<b>65.20</b>
<b>PostDoctoral Analysts (FTE)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.75</b>	<b>3.00</b>	<b>3.00</b>	<b>1.25</b>	<b>0.00</b>	<b>9.00</b>
<b>Total Workforce by Month (FTE)</b>	<b>1.28</b>	<b>3.13</b>	<b>9.27</b>	<b>17.54</b>	<b>21.86</b>	<b>16.72</b>	<b>4.42</b>	<b>0.00</b>	<b>74.20</b>

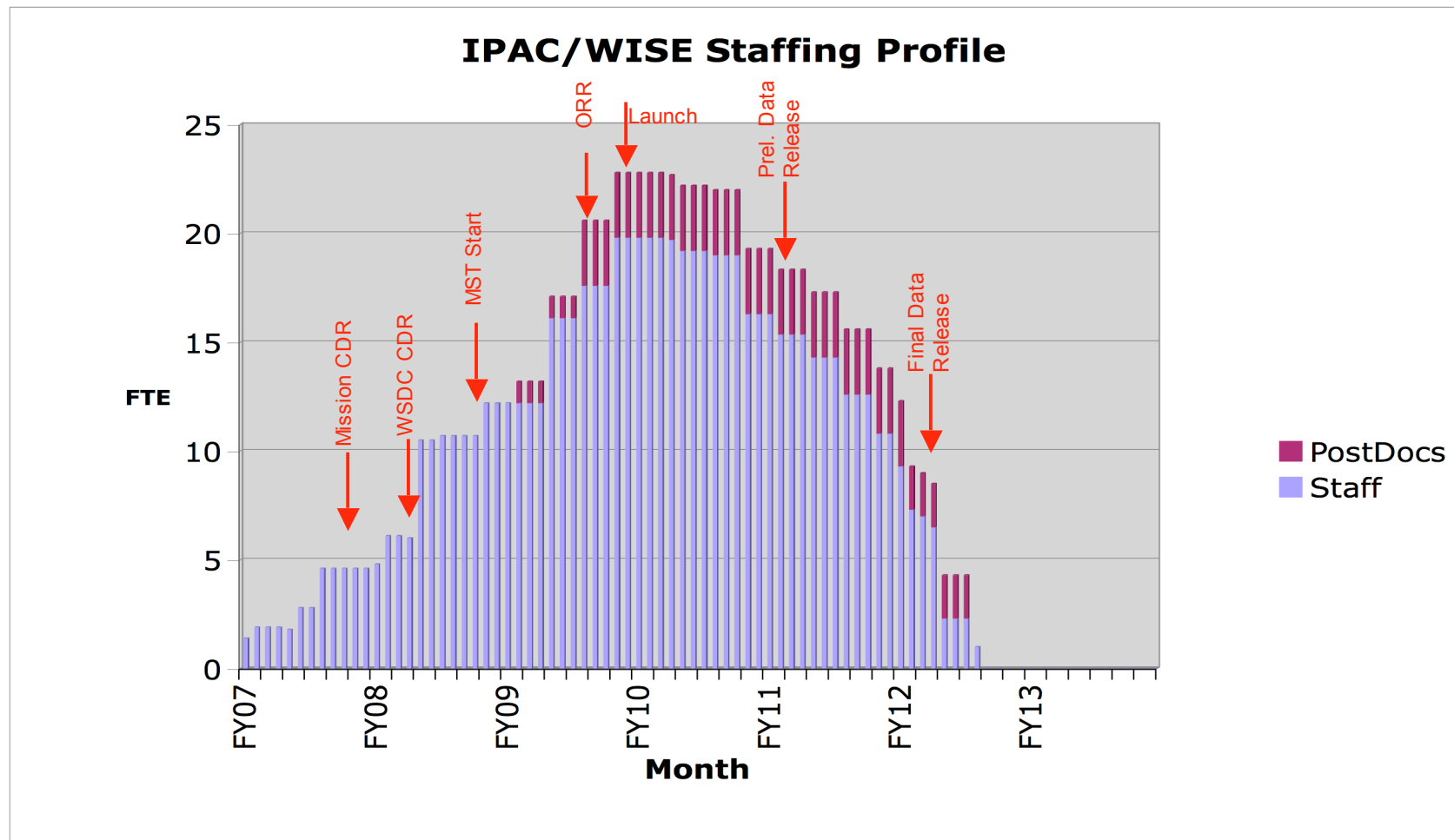




# WSDC Staffing Profile



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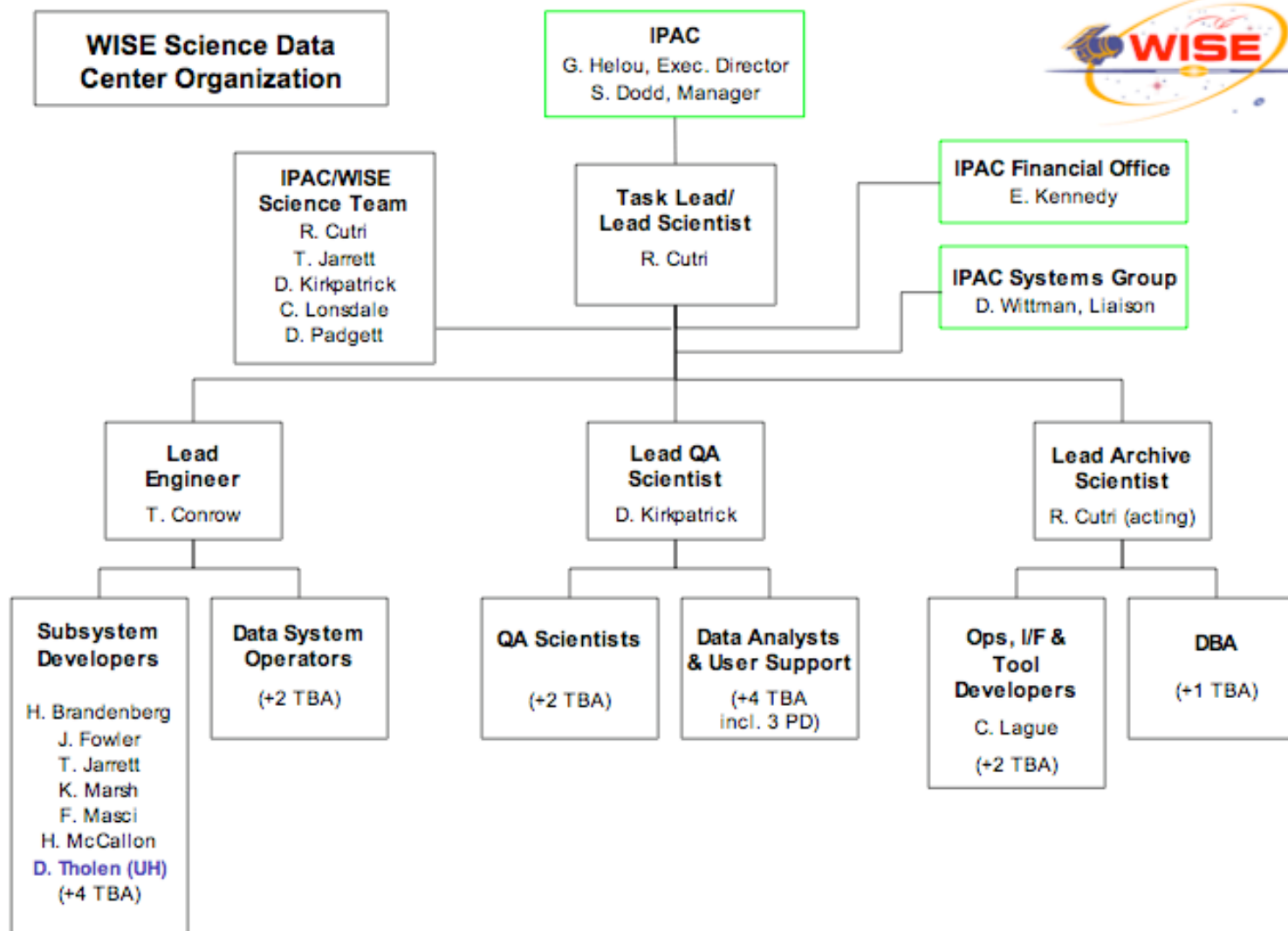




# WSDC Organization



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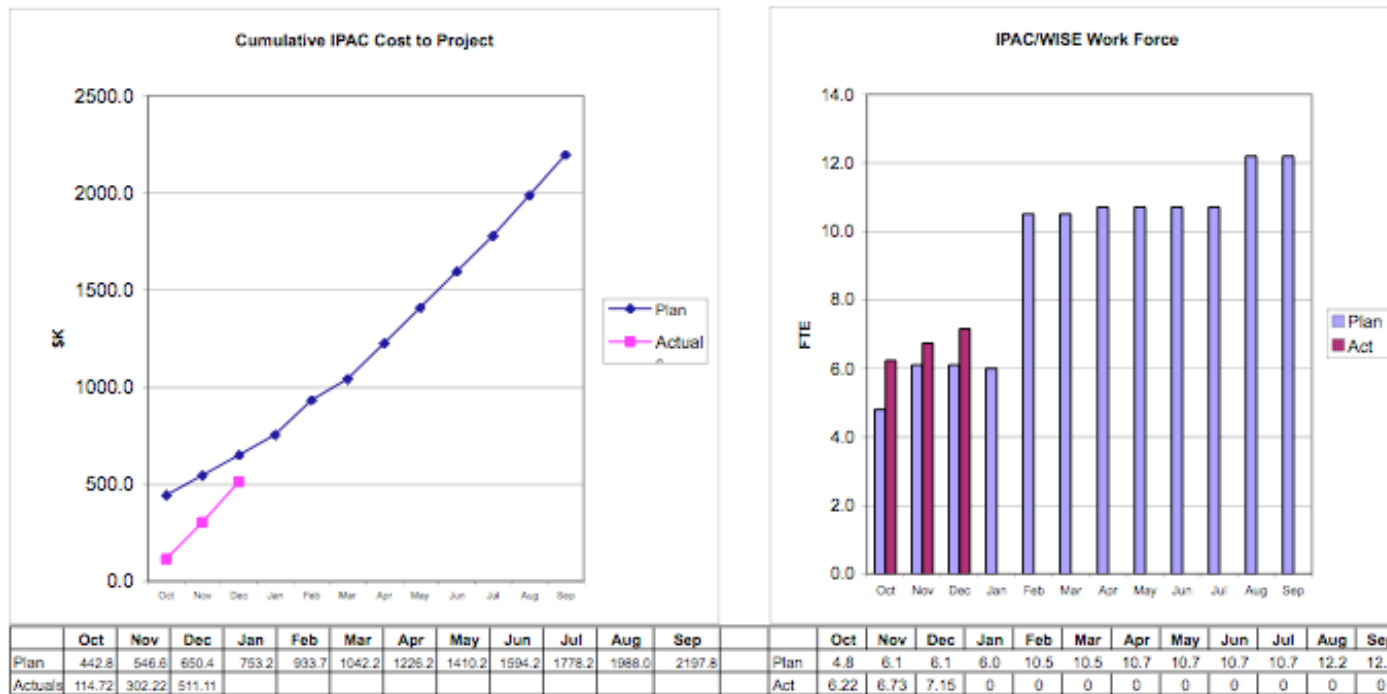




# Monthly Resource Tracking



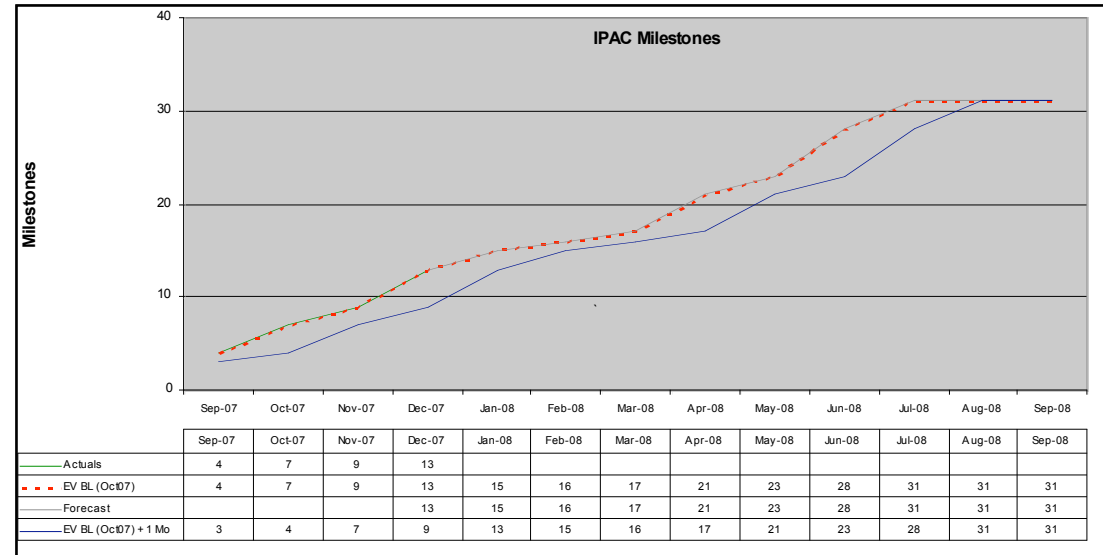
- Full Phase C/D/E cost and staffing plan (one month resolution) submitted to WISE project management and incorporated into WISE budget plan
- Monthly Staffing/Financial reports provided by IPAC accounting office summarize actuals versus plan
- Budget reserve is held/managed at project level. Formal lien process in place.



# Milestone Performance Tracking

- Phase C/D/E schedule developed by WSDC, and integrated into Project Master schedule
  - Maintained in-house with FastTrack
- One year look-out “rolling-wave” milestone plan tied to schedule, updated every 6 months

- Approximately one milestone/\$100k
- Tracked by WSDC and WISE project office
- Graphical reports provided by project office







# Project Level Reporting



- MOS Monthly Management Reports (MMR)
  - Detailed schedule, cost, milestone reporting
  - Sub-element achievement/status reports
- Monthly Project Element Status Report (PESR) telecons
  - High-level status/milestone reports from all project elements
- Monthly Management “Face-to-face” meetings
  - Project level strategic planning discussions
  - Lien process and risk tracking
- Weekly “tag-up” calls with Project Scientist
  - Discussion of science-related developments, algorithms, issues





## Coordination with Other Project Elements



- Weekly Mission Systems Engineering Team telecons (Cutri)
- Weekly V&V Team telecons (Kirkpatrick)
- MOS Design Team meetings, when appropriate (Conrow)
- Monthly Science Team telecons and bi-annual face-to-face meetings (Cutri, Jarrett, Kirkpatrick, Lonsdale, Padgett)



# WSDC Internal Reporting

- Bi-weekly meetings with IPAC Executive Director
- Weekly WSDC staff meetings
  - Project news, reports from ISG, IRSA liaisons, status reports from each developer and scientist
- WSDC document, reports shared on internal *wiki*, web pages
- Monthly written status reports from each subsystem/module cognizant engineer/scientist to incorporate into MMR
- Frequent informal discussions to work specific design and implementation topics