

# GLAST Large Area Telescope:

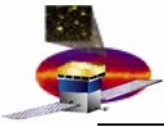
## I&T Integration Kickoff Meeting

### IFCT – Status of LAT integration facility & training

**March 9th, 2004**

**Larry Wai – IFCT Manager  
Tom Borden – IFCT Engineer**

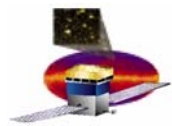
**wai@slac.stanford.edu  
tborden@slac.stanford.edu**



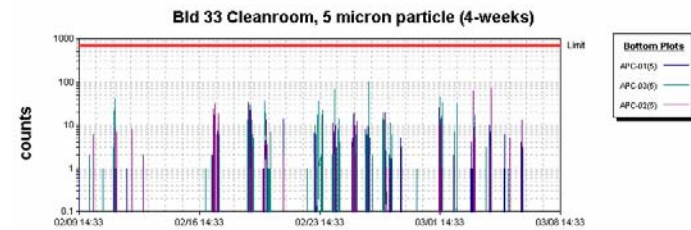
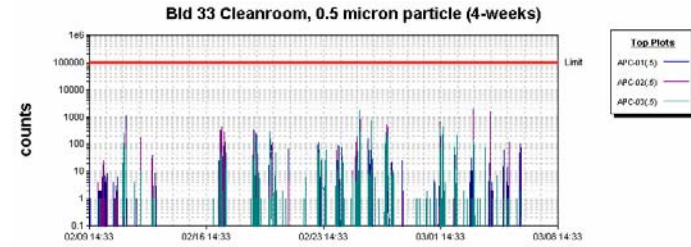
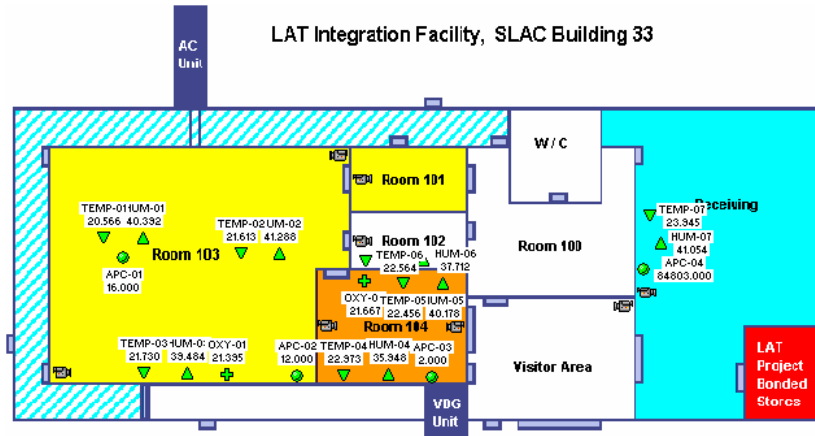
# Outline

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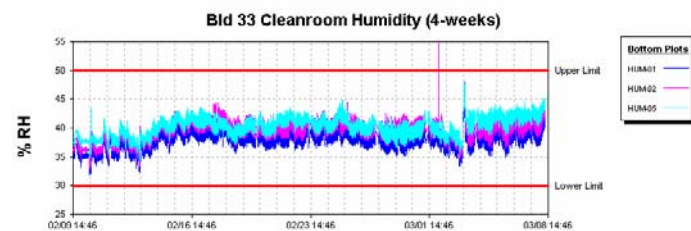
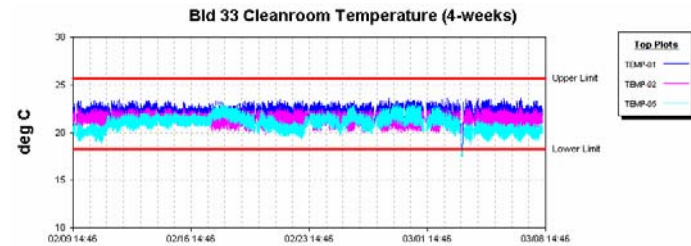
- 1. Facility overview / monitoring system**
- 2. Facility overview / controls & safety**
- 3. Facility project schedules**
- 4. Facility documentation**
- 5. I&T Training**
- 6. Facility access / training**
- 7. I&T mock-up overview, status**
- 8. Hiring status**
- 9. Summary / concerns**



# 1. Facility Overview / Monitoring system



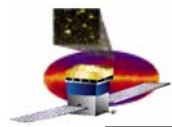
Time: 02/09/04 14:33:36 to 03/08/04 14:33:36, Duration: 28 days + 00:00:00



Time: 02/09/04 14:46:41 to 03/08/04 14:46:41, Duration: 28 days + 00:00:00

## Example of monitoring system data:

- Cleanroom operating within limits 99.7% of time in last 4 weeks; hardware bag w/ nitrogen purge covered remaining 0.3% of time



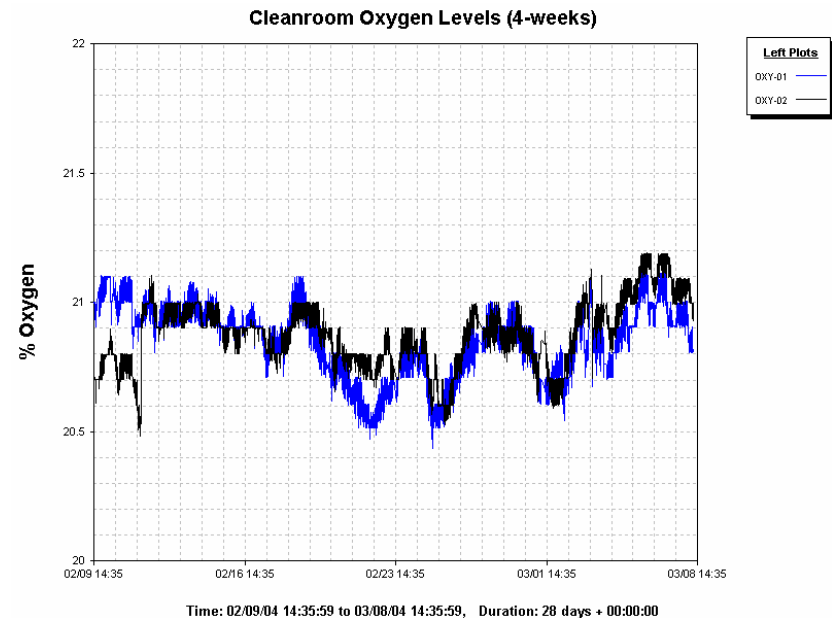
## 2. Facility overview / controls, safety

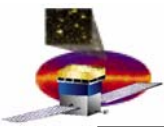
### Cleanroom controls / certification:

- Cleanroom certification (HEPA filter tests, air balance) – complete and report is in hands of LAT QA
- Contamination controls (witness plates, etc.) in place – approved by LAT QA
- Cleaning contract in place – approved by LAT QA
- ESD controls in place – implemented by NASA certified trainer

### Facility safety

- Building safety program in place – passed inspection by OSHA (Feb. 9, 2004)
- Oxygen deficiency alarm system in place (doubly redundant) – final approval on Mar. 10, 2004
- VDG operation approved by SLAC radiation safety, VDG earthquake safety done

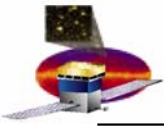




## 3. Facility Project Schedules

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- **Building 33 power substation (Forrest Brown) – long item parts on order; completion 30-Sept-04; power contingency plan in place by 31-Mar-04**
- **ACD test area (Phil Cutino) – plan tentatively approved by Dave Thompson on 11-Feb-04; long lead item parts to be ordered as soon as ACD I&T manager Jim La approves plan (12-Mar-04); completion 31-May-04**
- **Bld 33 network firewall (Jean Pierre) – parts in hand; completion 31-Mar-04**
- **Purge line certification (Joe Cullinan) – completion by 31-Mar-04**



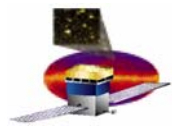
## 4. Facility Documentation

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- **Facility emergency plan – held by Stephen Mahaley**
- **Facility plan (LAT-MD-1386) – next update 3/31/04**
- **Calibration records – held by Jeff Tice**
- **Facility access training records – held by Diana Viera**
- **Cleanroom certification, contamination analysis reports – held by Joe Cullinan**
- **Cleanroom sensor data – maintained by SLAC computing services; completion of SCS back-up system by 31-Mar-04 - Rodney Wong**

# 5. I&T Training status

I&T: 26 total	Omnilock 1	Omnilock 2	ESD date	Contamination	ODM safety	Mate/Demate	Crane	VDG
<b>Bhatnagar, BJ</b>	2003-04		x	x	x	8/5/2003		
<b>Bloom, Elliott</b>	2003-02	2003-02	8/6/2005	x	x	8/5/2003		
<b>Borden, Tom</b>	2003-02		x	x	x	x	x	x
<b>Chen, Xin</b>	2003-08	2003-09	x	8/6/2003	x			
<b>Claus, Ric</b>	4/30/2003	4/30/2003	8/6/2005	x	x	8/5/2003		
<b>Cohen-Tanugi</b>	2003-02	2003-09	x	x	x			
<b>do Couto e Sil</b>	2003-04	2003-04	5/1/2005	x	x	8/5/2003		
<b>Gawehn, Eric</b>	2003-02	2003-02	12/1/2005	8/6/2003	x	8/5/2003	12/13/2002	
<b>Godfrey, Gary</b>	2003-04	2003-04	8/6/2005	x	x			7/1/2003
<b>Grist, Brian</b>	2003-02	2003-02	5/1/2005	8/6/2003	x	8/5/2003		
<b>Kamae, Tune</b>	2003-09	2003-09	8/6/2005	x	x			
<b>Mizuno, Tsune</b>	2003-10	2003-10	5/1/2005	8/6/2003	x	8/5/2003		
<b>Molini, Mark</b>	2003-02	2003-02	5/1/2005	8/6/2003	x	8/5/2003	x	x
<b>Ortiz, Eliazar</b>	2003-12	2003-12	4/1/2005	8/6/2003	x	x	x	x
<b>Panetta, Jim</b>	2003-07	2003-09	5/1/2005	12/1/2003	x	8/5/2003		
<b>Rogers, Reg</b>	2003-02	2003-02	12/1/2005	x	x	x		
<b>Tajima, Hiro</b>	2003-08	2003-09	12/1/2005	12/1/2003	x	8/5/2003		
<b>Tuvi, Selim</b>	2003-05	2003-05	12/1/2005	12/1/2003	x	8/5/2003		
<b>Wai, Larry</b>	2003-02	2003-02	12/1/2005	12/1/2003	x	8/5/2003	12/13/2002	7/1/2003
<b>TBD Mech Tech</b>			x	x	x	x	x	x
<b>TBD Mech Tech</b>			x	x	x	x	x	x
<b>TBD Mech Tech</b>			x	x	x	x	x	x
<b>TBD EE</b>			x	x	x	x		
<b>TBD Elec Tech</b>			x	x	x	x		
<b>TBD Elec Tech</b>			x	x	x	x		
<b>TBD Elec Tech</b>			x	x	x	x		



# 6. Facility Access/Training Status

TKR: 7 total					
	Omnilock 1	Omnilock 2	ESD date	Contamination	ODM safety
Baldini, Luca	2003-02	2003-09	4/1/2005	x	x
Fiorucci, Massimo	2003-04		x	x	x
Johnson, Robert	2003-02		4/1/2005	4/1/2003	x
Latronico, Luca	2003-02	2003-02	x	x	x
Tice, Jeff	2003-02	2003-02	x	x	x
Williams, Roger	2003-07	2003-11	x	x	x
Ziegler, Marcus	2003-08	2003-09	4/1/2005	4/1/2003	x

Electronics: 3 total					
	Omnilock 1	Omnilock 2	ESD date	Contaminator	ODM safety
Haller, Gunther	2003-02		x	8/6/2003	x
Huffer, Mike	2003-08		4/1/2005	8/6/2003	x
Nelson, David J.	2003-02	2003-09	5/1/2005	8/6/2003	x
Sapozhniko v, Leonid	2003-10	2003-10	5/1/2005	12/1/2003	x

Mechanical: 4 total					
	Omnilock 1	Omnilock 2	ESD date	Contaminator	ODM safety
Campell, Marc	2003-02		x	8/6/2003	x
Lam, Giang	2003-02		5/1/2005	8/6/2003	x
Nordby, Martin	2003-02		x	x	x
Shipp, Ken	2003-08	2003-08	12/1/2005	12/1/2003	x

CAL: 3 total					
	Omnilock 1	Omnilock 2	ESD date	Contamination	ODM safety
Bogaert, Gilles	2003-08	2003-09	x	x	x
Giebels, Berrie	2003-08	2003-09	5/1/2005	x	x
Grove, Eric	2003-07	2003-09	x	x	x

Project/QA: 7 total					
	Omnilock 1	Omnilock 2	ESD date	Contaminator	ODM safety
Clinton, Jerry	4/25/2003	4/25/2003	5/1/2005	x	x
Conceicao, Albert	2003-04	2003-04	5/1/2005	8/6/2003	x
Cullinan, Joe	2003-10	2003-10	x	x	x
Gobin, Richard	2003-11	2003-11	4/1/2005	8/6/2003	x
Jimenez, Bill	2/24/2004	2/24/2004	x	x	x
Liew, Y.C.	2/24/2004	2/24/2004	x	x	x
Marsh, Darren	2003-02	2003-02	x	8/6/2003	x

Facility: 3 total					
	Omnilock 1	Omnilock 2	ESD date	Contaminator	ODM safety
Chan, Kingston	2003-02	2003-02	x	8/6/2003	x
Thaler, Brian	2003-02	2003-02	x	x	x
Zhou, Ken	2003-08	2003-09	12/1/2005	12/1/2003	x

## 7. I&T Mock-up

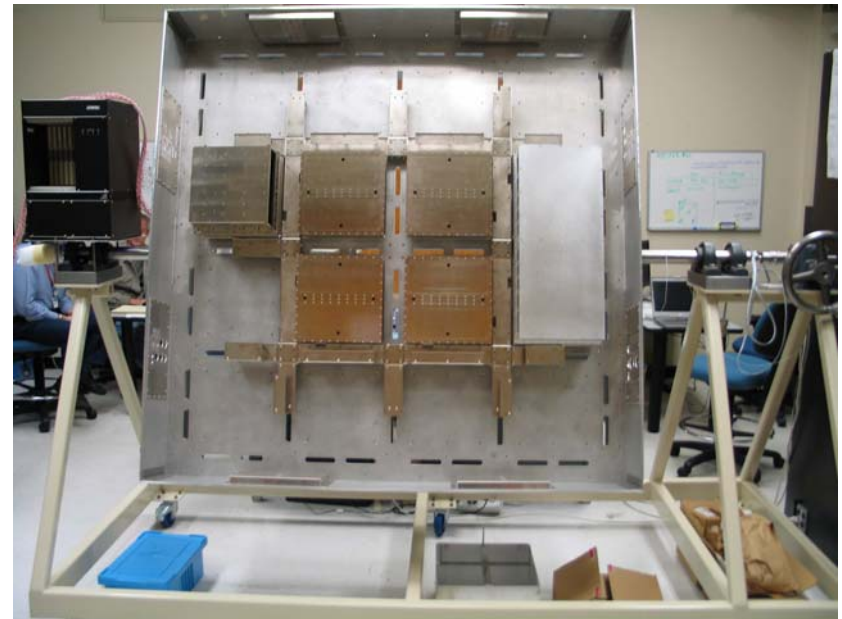
### Description of parts:

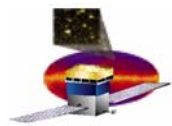
- **Rotation stand supporting plate spanning full-width of LAT**
- **EM single bay can fasten to central bay**
- **CAL baseplate external features**
- **Shear plates**
- **Cable trays**
- **Population of cables, electronics boxes for bays 8-15 (50% of LAT)**

### Status

- **All major parts in hand or in manufacturing**
- **Ready for training 31-Mar-04**

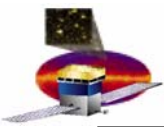
ELX test bed – I&T mock-up will have much more mechanical detail, but only 50% LAT population





# 8. Hiring Status

		New Position Status							Status as of: 3/8/2004 16:59	
Job Req#	Job Title	Req Written	Req. Approved	Job Posted	Interviewees Selected	Interviews Scheduled	Interviews Complete	Hired	Action Needed	Actionee
22399	IFCT, Mechanical Technician, Lead	●	●	●	●	●	●	○		Tim, Elliott, Eliazar
22400	IFCT, Mechanical Technician	●	●	●	●	●	●	○		Tim, Elliott, Eliazar
24265	IFCT, Mechanical Technician	●	●	●	●	●	●	○		Tim, Elliott, Eliazar
22395	IFCT, Electrical Engineer	●	●	●	○	○	○	○		
22396	IFCT, Electrical Technician	●	●	●	○	○	○	○	Picking interviewees	Tim, Elliott, Brian, Larry
22397	IFCT, Electrical Technician	●	●	●	○	○	○	○	Picking interviewees	Tim, Elliott, Brian, Larry
22398	IFCT, Electrical Technician	●	●	●	○	○	○	○	Picking interviewees	Tim, Elliott, Brian, Larry
○	Not started									
●	In-Process									
●	Complete									



## 9. Summary/Concerns

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- **No show stoppers for facility**
- **Hiring process for mechanical techs nearly complete; training program for mechanical techs in place**
- **Hiring process for electrical techs / engineer in progress; training program for electrical techs will require significant effort in definition and availability of training beds in order to be ready for IRR**