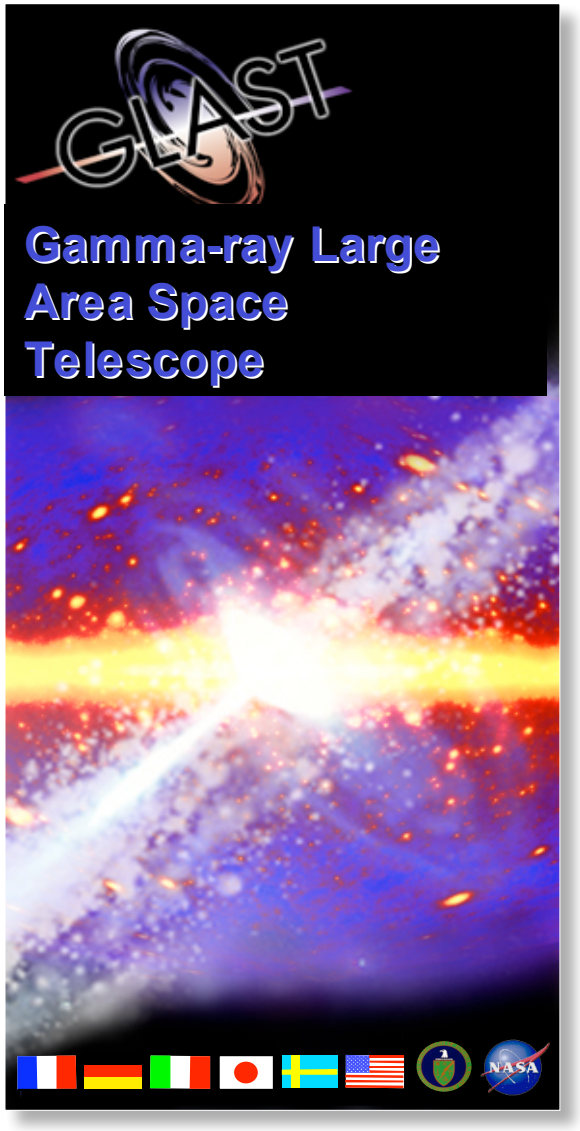

GLAST Large Area Telescope:

TKR Hand-off review for Tower 6

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Power Consumption

- Values for MCM measurements account for the increase due to PS voltage itself, not current increase due to voltage increase.

Tower 6	Pisa	SLAC	MCM
Tower total	10.3 W	9.8 W	9.13 W
Tower + TEM/TPS	20.4 W	19.3 W	N/A
Leak current @100V	137 μA	107 μA	N/A

Band Channels (Tower 6)

Layer	Pre ship (Pisa)	Handoff (SLAC)					Layer
	disconnect	disconnect	dead	noisy	others (offline)	total	
Y17	12	1	4	7	0	10	Y17
X17	1	1	0	0	0	1	X17
X16	0	0	0	0	1	1	X16
Y16	4	1	1	4	0	6	Y16
Y15	14	9	5	2	0	15	Y15
X15	1	1	0	1	0	2	X15
X14	0	0	0	0	0	0	X14
Y14	8	8	0	0	0	8	Y14
Y13	0	0	0	0	0	0	Y13
X13	0	0	0	0	0	0	X13
X12	3	1	1	5	0	6	X12
Y12	0	0	0	0	0	0	Y12
Y11	0	0	0	0	0	0	Y11
X11	4	0	4	0	0	4	X11
X10	0	0	1	3	0	3	X10
Y10	8	0	4	4	0	8	Y10
Y9	14	0	6	8	1	15	Y9
X9	2	0	1	1	0	1	X9
X8	7	2	0	6	1	9	X8
Y8	0	0	0	0	0	0	Y8
Y7	0	0	0	0	0	0	Y7
X7	5	1	1	5	2	8	X7
X6	0	0	0	0	0	0	X6
Y6	2	0	2	0	0	2	Y6
Y5	6	0	6	1	0	7	Y5
X5	2	0	2	0	1	3	X5
X4	12	0	12	0	0	12	X4
Y4	10	0	10	0	0	10	Y4
Y3	16	0	15	1	0	16	Y3
X3	21	0	21	0	0	21	X3
X2	4	0	3	1	0	4	X2
Y2	0	0	0	0	0	0	Y2
Y1	6	0	3	3	0	6	Y1
X1	8	0	4	4	0	8	X1
X0	0	0	0	0	0	0	X0
Y0	8	1	7	0	1	9	Y0
Total	**178**	**26**	**113**	**56**	**7**	**195**	
Fraction	0.32%	0.05%	0.20%	0.10%	0.01%	0.35%	

No major change observed.
(except for layers indicated by yellow background.)

Hit/Trigger Efficiency

	pre-ship	error	hand-off	error	delta/error
Y0	99.5	0.07	99.2	0.08	-2.9
X0	99.6	0.07	99.5	0.06	-1.0
X1	99.8	0.04	99.7	0.04	-1.0
Y1	99.9	0.03	99.7	0.04	-2.0
Y2	99.9	0.03	99.8	0.03	-1.0
X2	99.8	0.04	99.7	0.04	-1.0
X3	98.9	0.10	98.9	0.08	0.0
Y3	99.4	0.08	99.1	0.08	-2.8
Y4	99.5	0.07	99.4	0.06	-1.0
X4	99.3	0.08	99.2	0.07	-0.9
X5	99.8	0.05	99.7	0.05	-1.0
Y5	99.7	0.06	99.6	0.05	-1.0
Y6	99.9	0.03	99.7	0.05	-2.0
X6	99.8	0.05	99.8	0.04	0.0
X7	99.8	0.05	99.6	0.05	-2.0
Y7	99.8	0.05	99.8	0.04	0.0
Y8	99.9	0.03	99.9	0.03	0.0
X8	99.7	0.06	99.6	0.05	-1.0
X9	99.8	0.05	99.8	0.04	0.0
Y9	99.9	0.03	99.2	0.07	-7.0
Y10	99.9	0.03	99.6	0.05	-3.0
X10	99.7	0.05	99.7	0.04	0.0
X11	99.8	0.04	99.8	0.04	0.0
Y11	99.9	0.03	99.8	0.04	-1.0
Y12	99.9	0.03	99.9	0.02	0.0
X12	99.8	0.04	99.5	0.06	-3.0
X13	99.9	0.03	99.8	0.03	-1.0
Y13	99.9	0.03	99.9	0.02	0.0
Y14	99.4	0.07	99.3	0.06	-1.0
X14	99.9	0.03	99.8	0.03	-1.0
X15	99.9	0.03	99.9	0.02	0.0
Y15	99.6	0.06	99.5	0.05	-1.0
Y16	99.9	0.03	99.7	0.04	-2.0
X16	99.9	0.03	99.9	0.02	0.0
X17	99.7	0.05	99.6	0.05	-1.0
Y17	99.7	0.05	99.3	0.07	-4.0
average	99.74	0.01	99.61	0.01	-10.0

trigger combination	handoff
C0-1-2	97.6
C1-2-3	96.7
C2-3-4	96.0
C3-4-5	95.7
C4-5-6	97.2
C5-6-7	98.1
C6-7-8	98.4
C7-8-9	97.9
C8-9-10	97.8
C9-10-11	97.8
C10-11-12	98.2
C11-12-13	98.6
C12-13-14	98.1
C13-14-15	98.1
C14-15-16	98.0
C15-16-17	97.8

- **Sizable drop in Y9 and Y17 (No change in # of bad channels.)**
- **Small degradation (0.1%) of average efficiency might be due to TACK delay timing difference. (0 μs @Pisa, 1 μs @SLAC.)**

Other Anomalies

- TE701 (Trigger Jitter test) failure on both towers.
  - This is an issue of requirement interpretation.
  - Working with trigger group to define clear requirement.
- TE301 (Noise and Gain Test) failed on layer X3.
  - Known issue from Italy.
- Tower 6 failed clock duty cycle margin test @ 58%.
  - Y2-LO and X9-LO failed on data readout test.
  - It passed at 55% (within specification).