Special Test Request Form	STR Number 15r01
Part 1 – Test Definition Section	

Test Title: Parallel CAL Electronic Calibration	**Test Requestor**: Eric Grove, David Smith and Lester Miller

Test Purpose and Justification:
Run parallelized calibGen suite on 6 towers using new v3 software.

Parallel calibGen suite includes a fix to a configuration error present in all current SLAC calibGen runs (all installed CALs): this configuration error makes the electronic calibration step size in the HEX8 and HEX1 energy ranges ~10 times larger than intended. While the data products from the erroneous configuration are analyzable (and all current datasets have been analyzed), they create only coarse electronic calibrations near the muon peak and thus are susceptible to needless systematic errors in extrapolation through the HE energy band.

The configuration error came from NRL CAL calibGen suite v2.3. All FM CALs were delivered with calibGen runs from later, fixed versions of calibGen, but this bug fix has never been migrated to SLAC suites. With the advent of the parallel calibGen, we (Miller and Grove) chose to implement the fix in the parallel version.

Test Description:
Collect calibGen electronic calibration suite under v3 CAL online software.

EGSE Configuration:

Current configuration updated with v3 CAL online software.

LAT Configuration:
Current configuration. No impact.

Expected Results/Acceptance Criteria:

Data collection completes with no errors.

Expected Duration:

1 hour run time; additional time is certainly required for preparation

Expected Offline Analysis Duration:

1 workday

Test Procedure:

1. Verify that instrument is powered.
2. Run calibGen in parallel for 6 towers.

Test Script:

Parallel v3 calibGen suite

Part 2 – Impact Assessment Section
Procedure development: Procedures for execution of parallel calibGen exist. A blackline will be required for this test.
Script development and checkout: Scripts have been tested on EM CAL. This STR requires a new release of CAL scripts/suites for flight use.
Impact to schedule: 2 hours setup and teardown, 1 hour data collection.
Risk Assessment: Procedure poses no risk to flight hardware.
Required Resources: GASU based test stand without muon telescope at building 33. Please notify Eric Grove and/or David Smith. Needs presence of an operator for equipment power on/off at start and end of each test period.
Other Affected Parties:

Part 3: Signature Approval:

Required Authorizations	Printed Name	Signature	Date
Quality	Joe Cullinan	(Signature on file)	6/29/05
I&T	Elliott Bloom	(Signature on file)	6/29/05
Program Office	Lowell Klaisner or Dick Horn	(Signature on file)	6/28/05
Systems Engineering	Pat Hascall	(Signature on file)	7/1/05
Affected S/S managers	N/A		
Instrument Scientist	Steve Ritz or Eduardo do Couto e Silva	(Signature on file)	6/28/05
Other	N/A		
Other	N/A		
Other	N/A		
Other	N/A		