

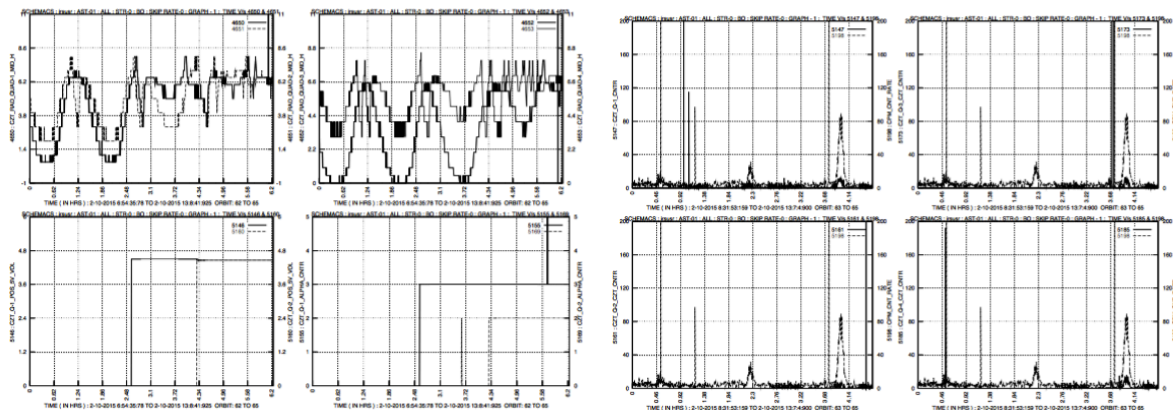
## Switching ON of CZT Imager

The CZT Imager Processing Electronics (PE) was switched ON on the auspicious day of Gandhi Jayanti (Oct 2) during Orbit 62. The moment command was given, like clock work, all basic parameters started streaming: clock, SPS time updated every 16 s, mode information: the system is waiting for data from the detector, which will be activated after the High Voltage (HV) is switched on.

In the next orbit Qudrant 1 was switched on (the nomenclature is Q1,2,3,4). All low voltages were as per expectations; alpha count was about 750. But CZT detector started showing a few counts.

In the next orbit the other 3 quadrants were switched ON. Everything was normal. All quadrants showed counts. It was immediately suspected that heavy charged particles might register events even without HV. This was CONFIRMED by plotting the detector counts along with CPM. It also confirms, indirectly, that the detector ASICs are functioning normally.

The High Bit-rate Telemetry (HBT) data are also normal. Automatic transmission of the Level 1 data package to the CZTI Payload Operation Centre at IUCAA and subsequent automatic pipeline analysis worked just as expected.



Top left: Q1/Q2 temperature. Initial swing was due to heater on/off; stabilized after Q1 switch ON. Top right: Q3,Q4 temperature. All quadrants ON gives stable temperature at 8 C, swing barely a degree. Bottom panels: stable voltages

Clockwise from top-left, Q1 to Q4 counts overplotted with CPM counts. Ignore the spikes (data errors) and squint at the last SAA bump: detector counts follow CPM counts.