

CRP6 status

Jun 11, 2024

Soamasina Herilala Razafinime

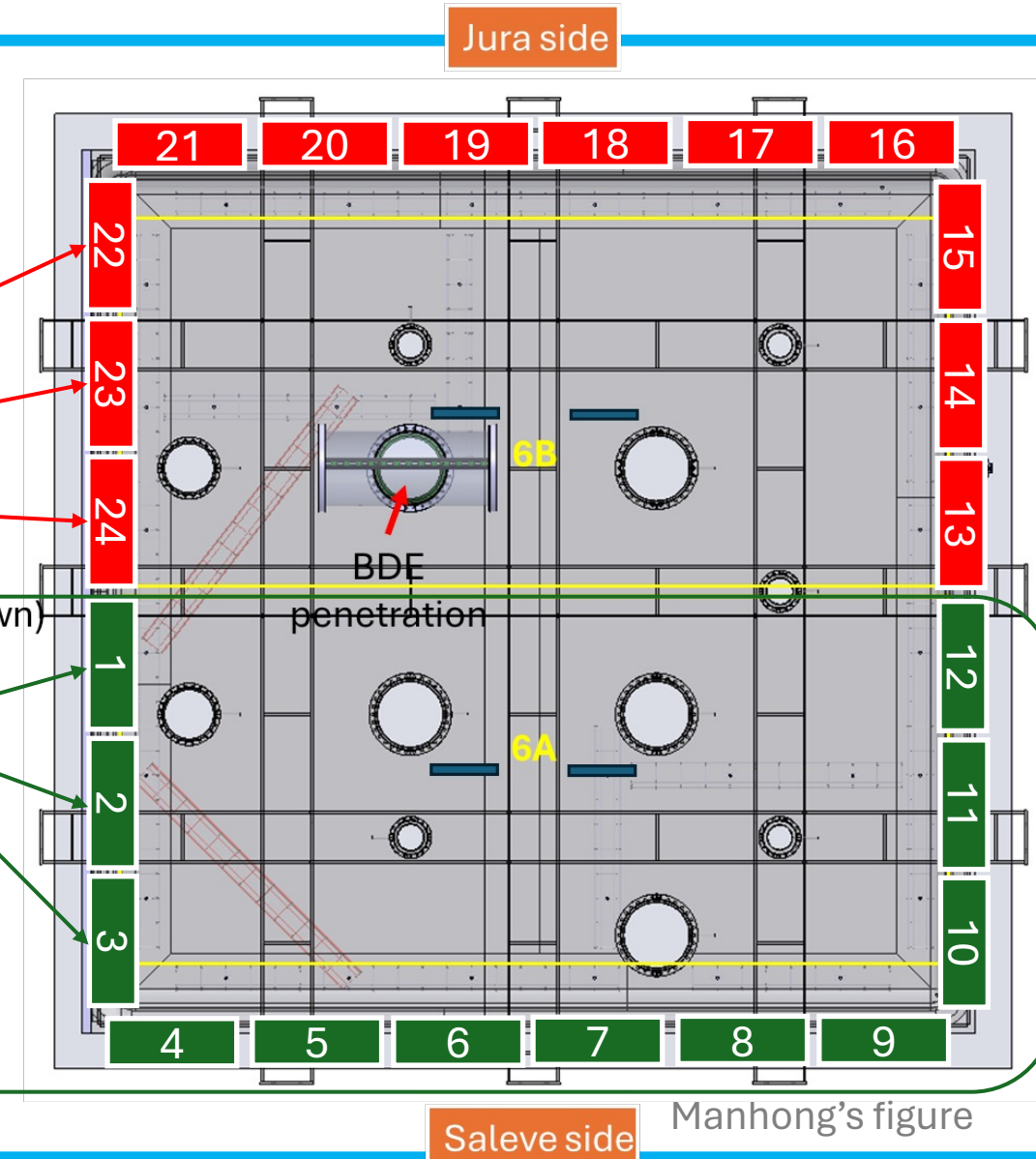
CRP 6 : FEMBs installation

► **Wednesday:** With Manhong, finished replacing all the 12 FEMBs on the CRP6-A side.

- **Red :** 12 Old FEMBs for CRP6B

- **Green :** 12 New FEMBs changed for CRP6A (still have 3 FEMBs for spare)

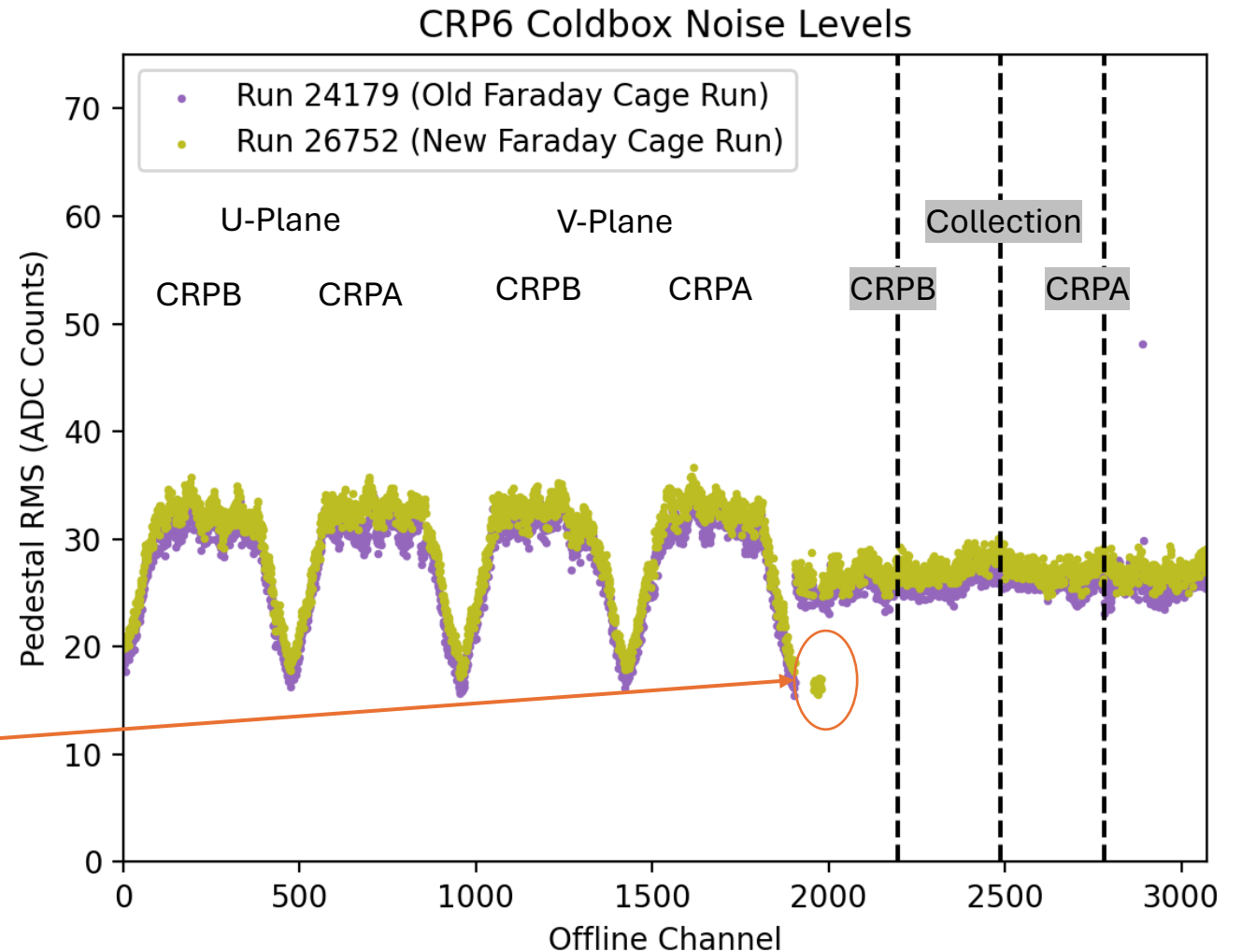
Top View
(Looking down)



CRP6 Faraday cage Test

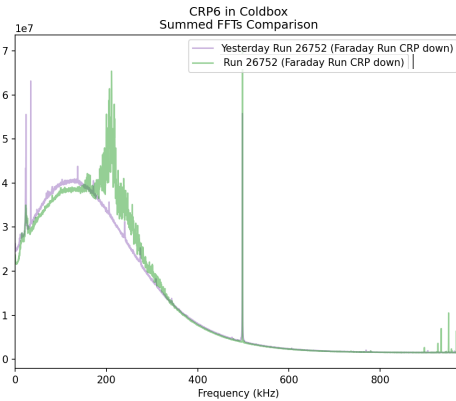
- ▶ **Thursday:** Started taking Faraday Cage noise run for CRP 6.
- ▶ Overall noise levels with new run (green) as expected when compared to previous Faraday Cage run taken around February (purple).

- The adapter board pins are masked (close to the FEMB 15)

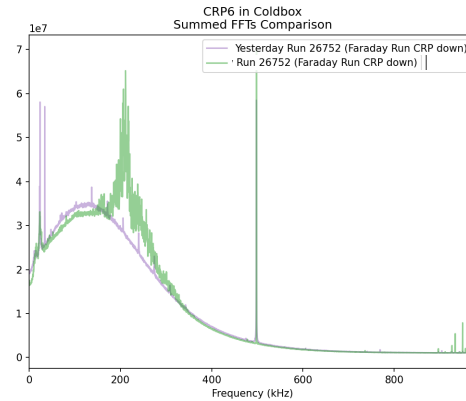


CRP6 Faraday cage Test – CRP6A FFT Plots

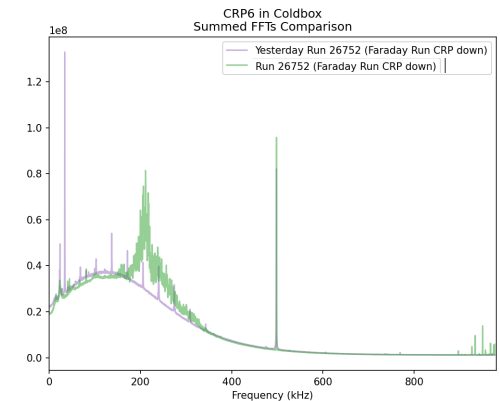
FFT for Induction 1



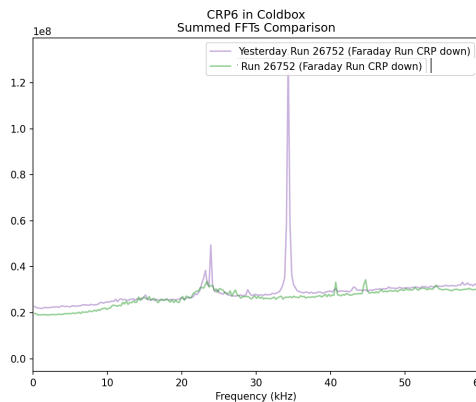
FFT for Induction 2 plane



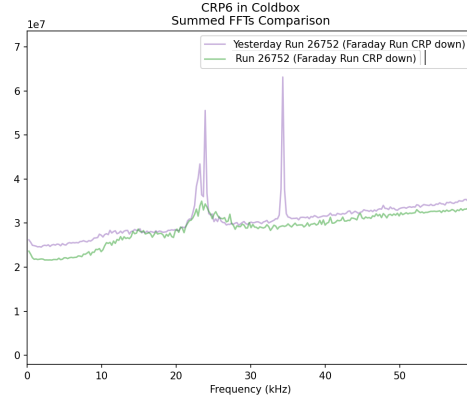
FFT for Collection plane



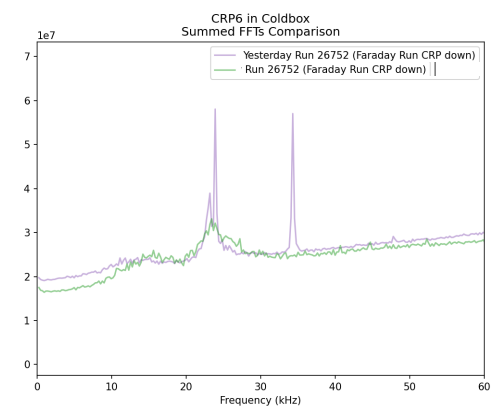
Zoomed FFT for Induction 1



Zoomed FFT for Induction 2 plane



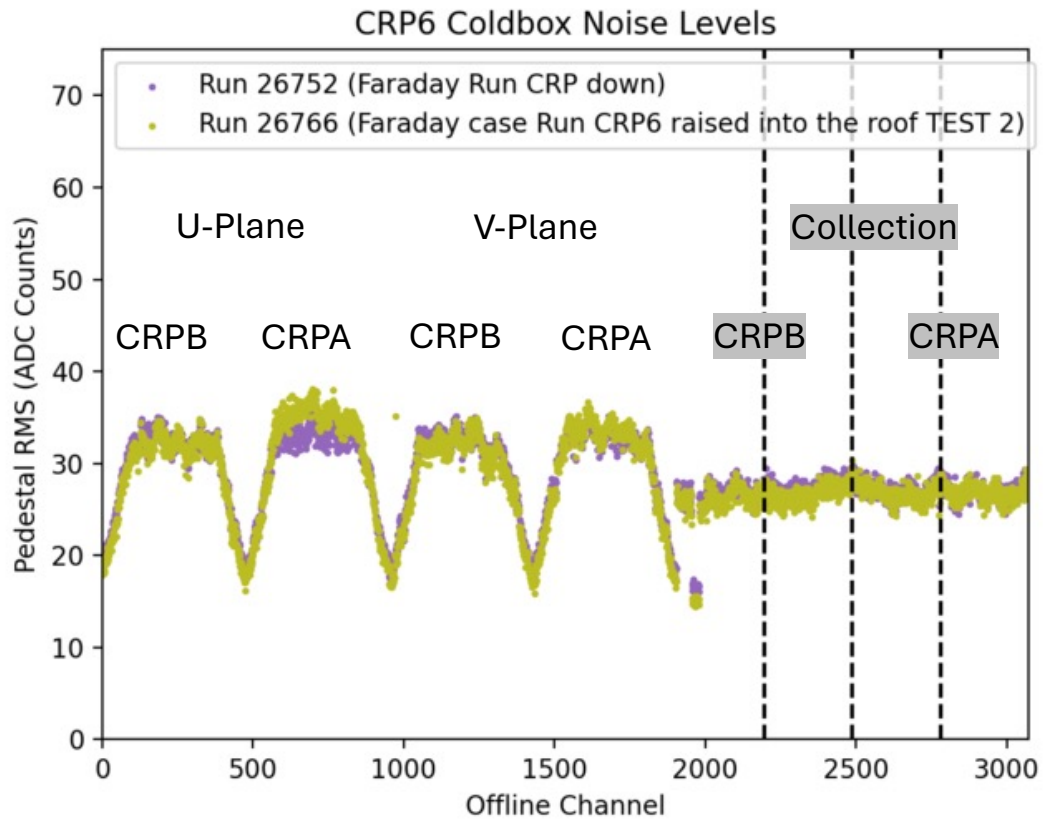
Zoomed FFT for Collection plane



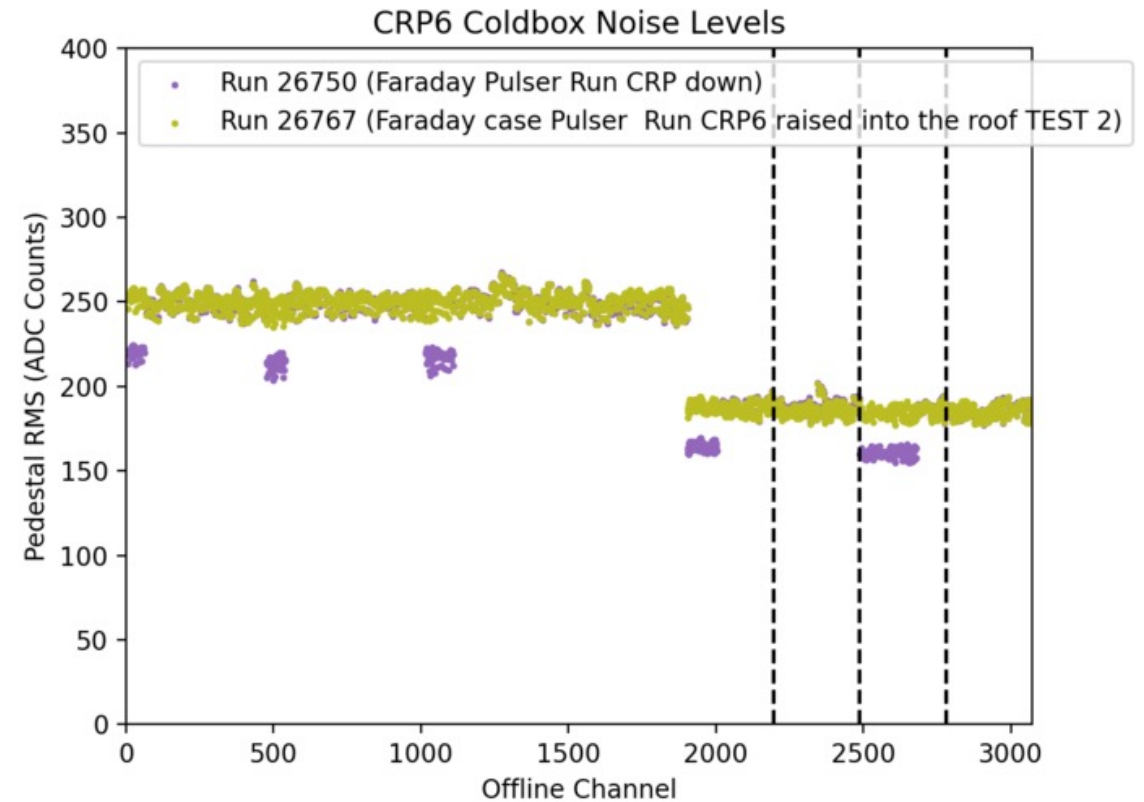
- ▶ **500 kHz peak** : environmental noise from the Faraday Cage conditions (seen in new and old runs).
- ▶ **25kHz peak**: usual coherent noise pick-up due to electronics grounding and powering scheme / **35kHz peak**: environmental, as it disappeared once inside the Cold Box.

CRP6 Faraday cage Test

► CRP6 raised to the roof



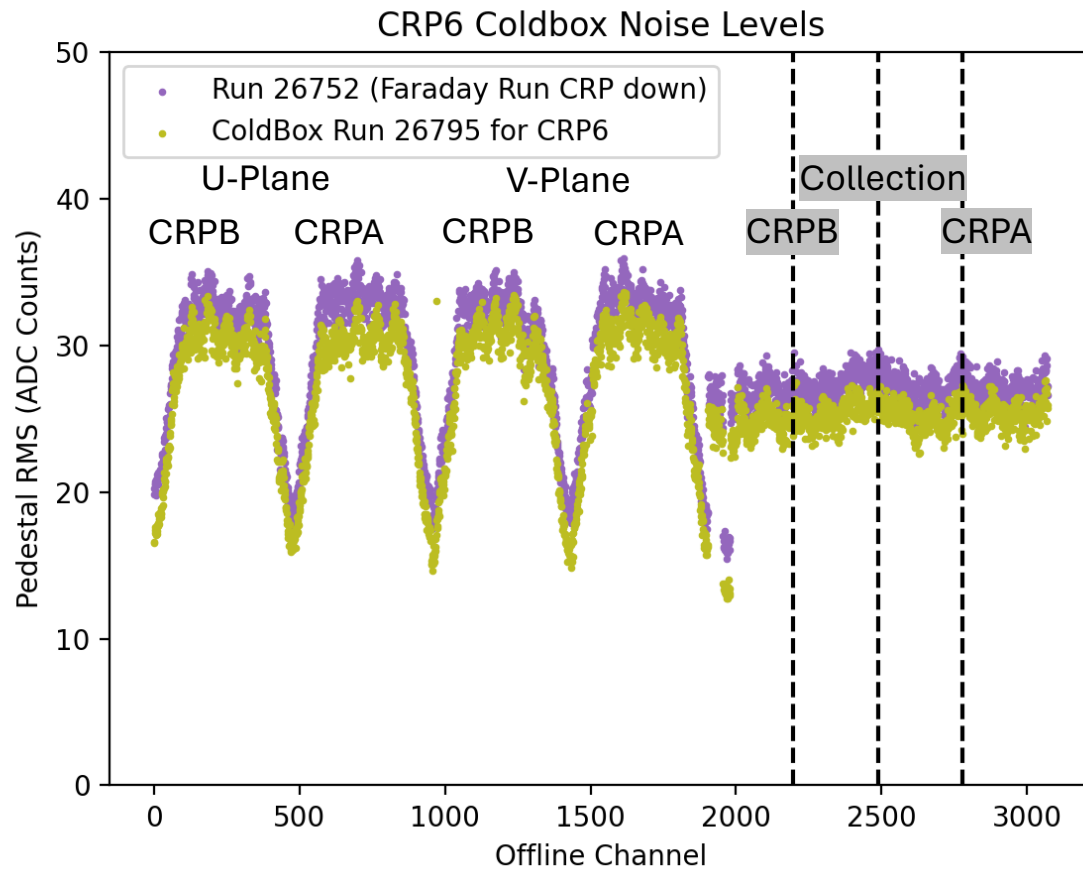
Noise Runs



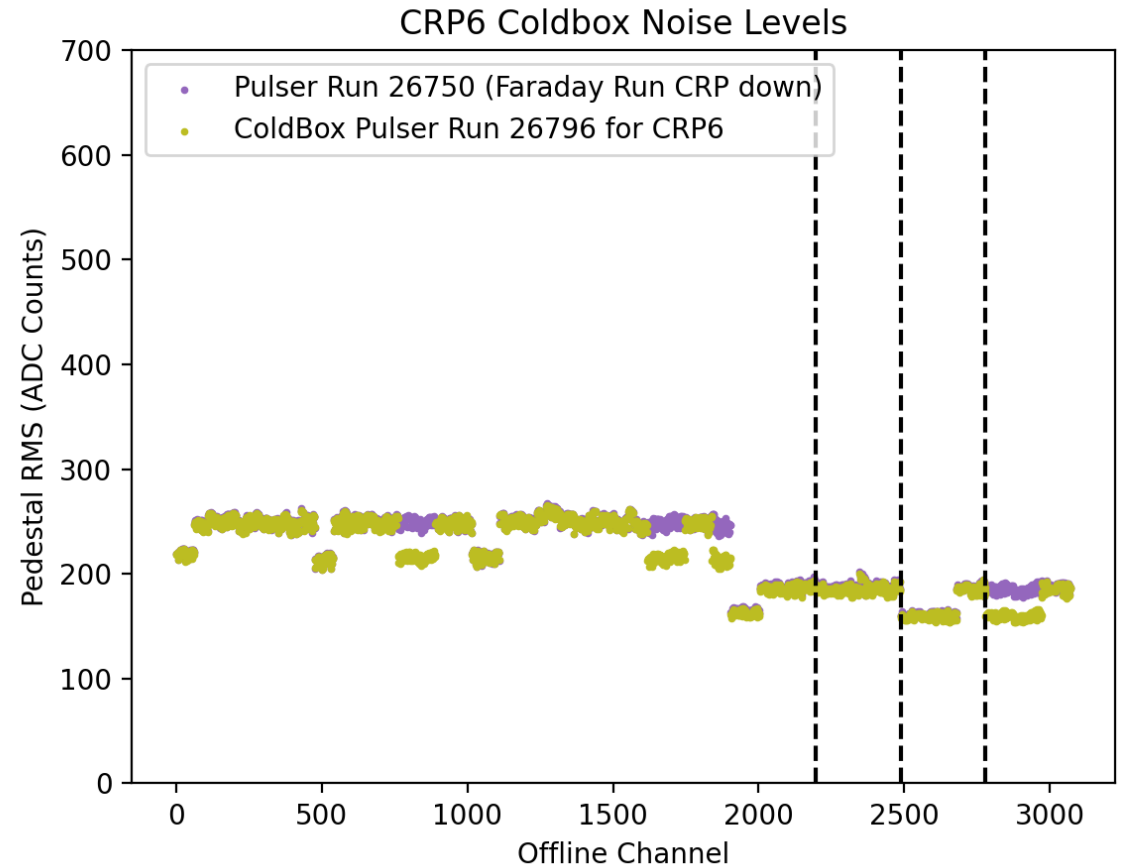
Pulser Runs

CRP6 in ColdBox

► Friday: CRP6 Moved to the ColdBox



Noise Runs

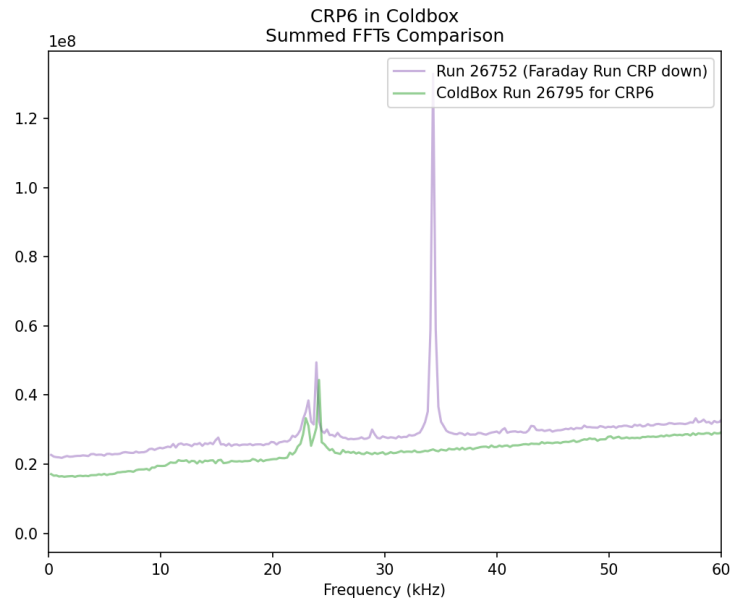


Pulser Runs

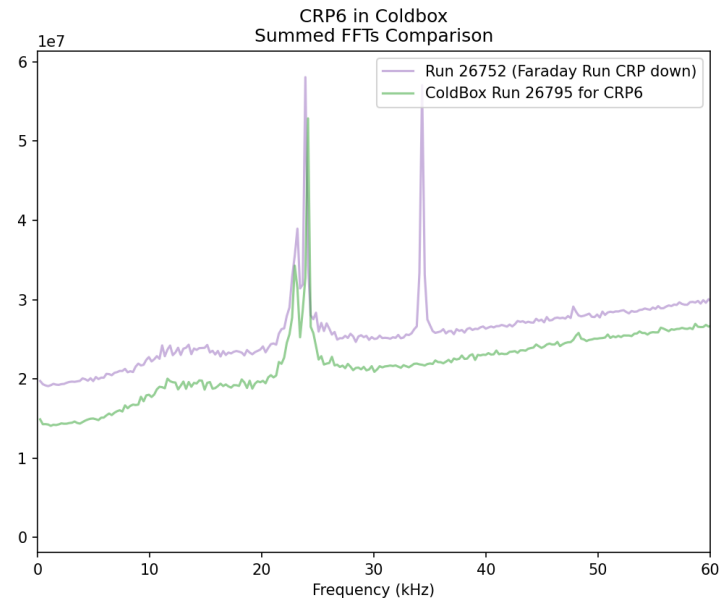
CRP6 in ColdBox – CRP6A FFT Plots

► Friday: CRP6 Moved to the ColdBox

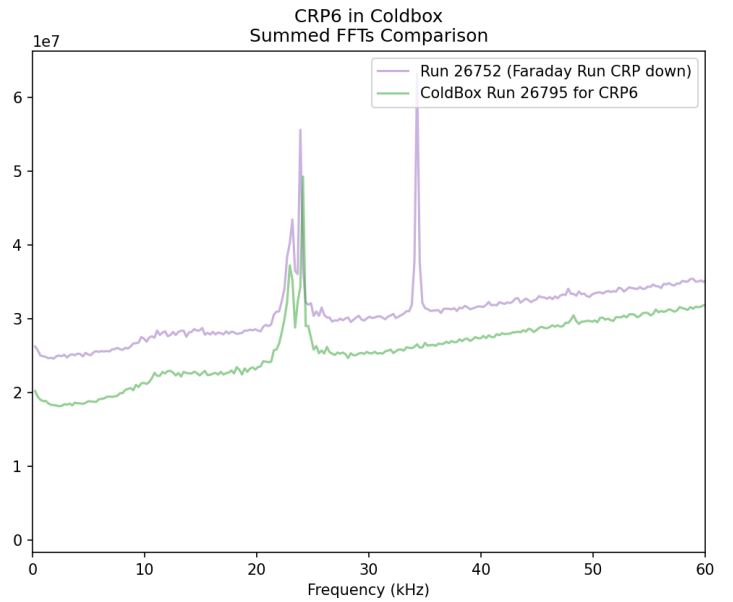
FFT for Induction 1



FFT for Induction 2 plane



FFT for Collection plane



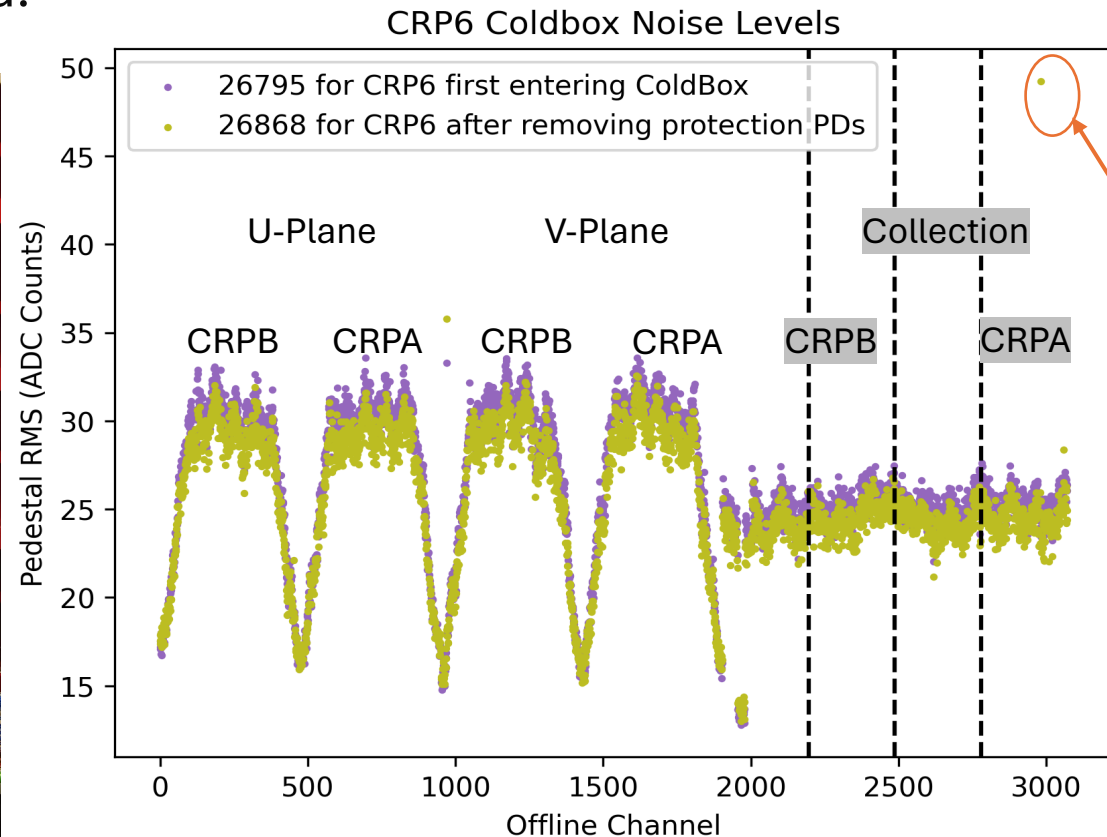
► 35kHz peak: present during the Faraday Cage run has disappeared once inside the Cold Box.

CRP6 taken out of the ColdBox

- ▶ **Monday: CRP6 had to be taken out of the ColdBox** – due to some protections left on the ColdBox walls that needed to be removed.



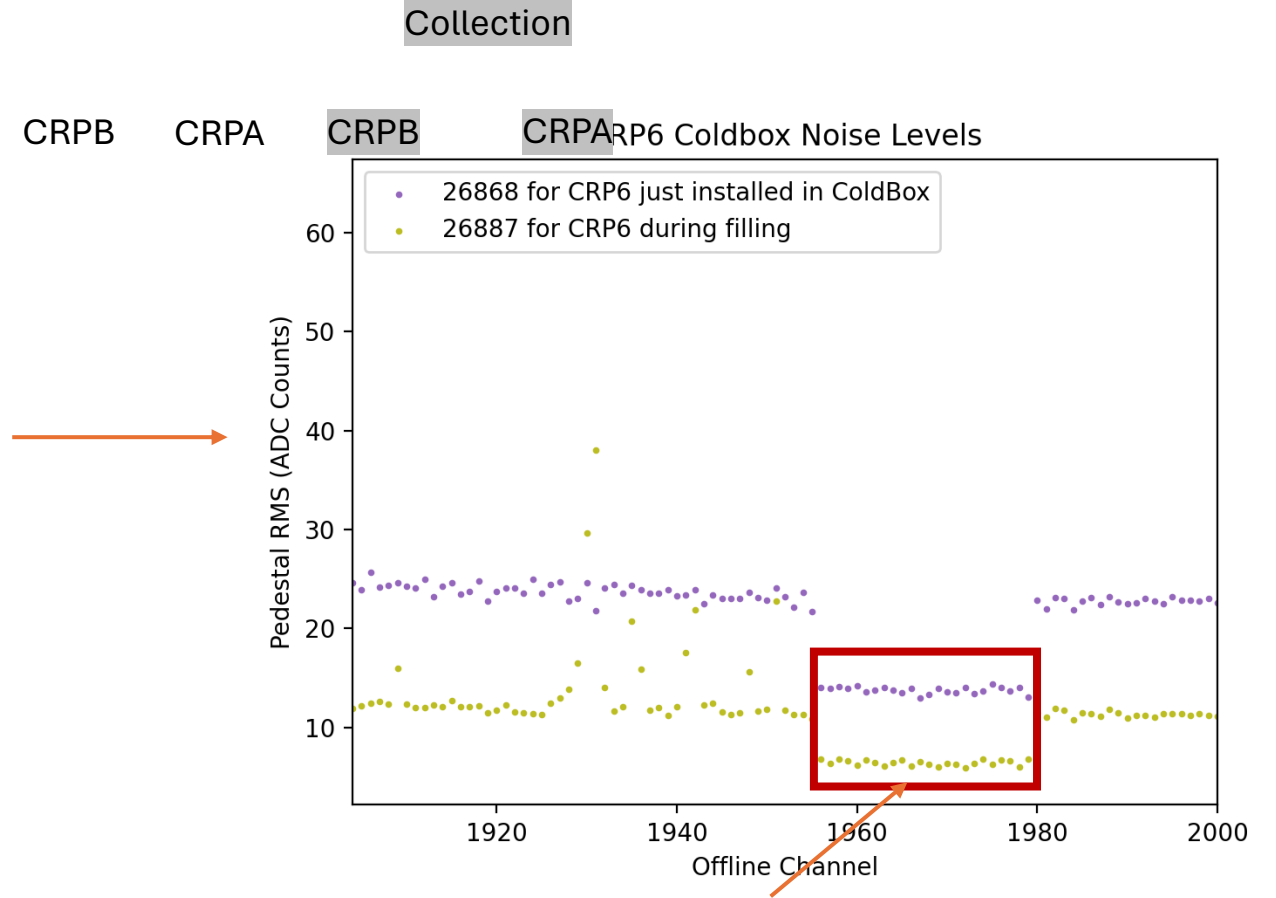
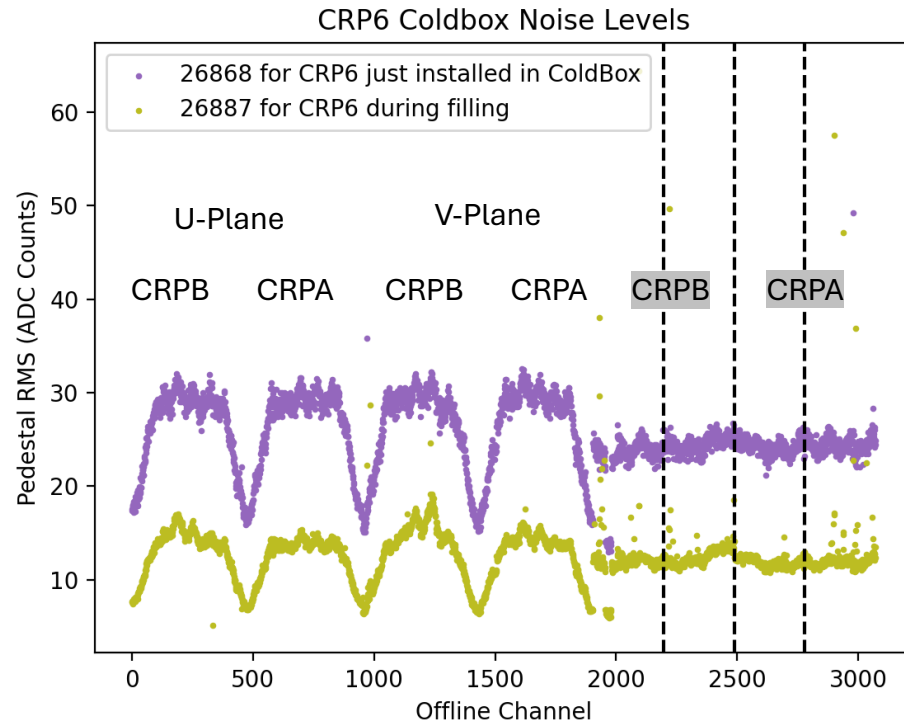
Dominique's photo



- ▶ **CRP6 Put back in ColdBox:** a channel on the Collection plane had a higher noise.

CRP6 in ColdBox – During Cool Down

► Today: Cool down and filling process

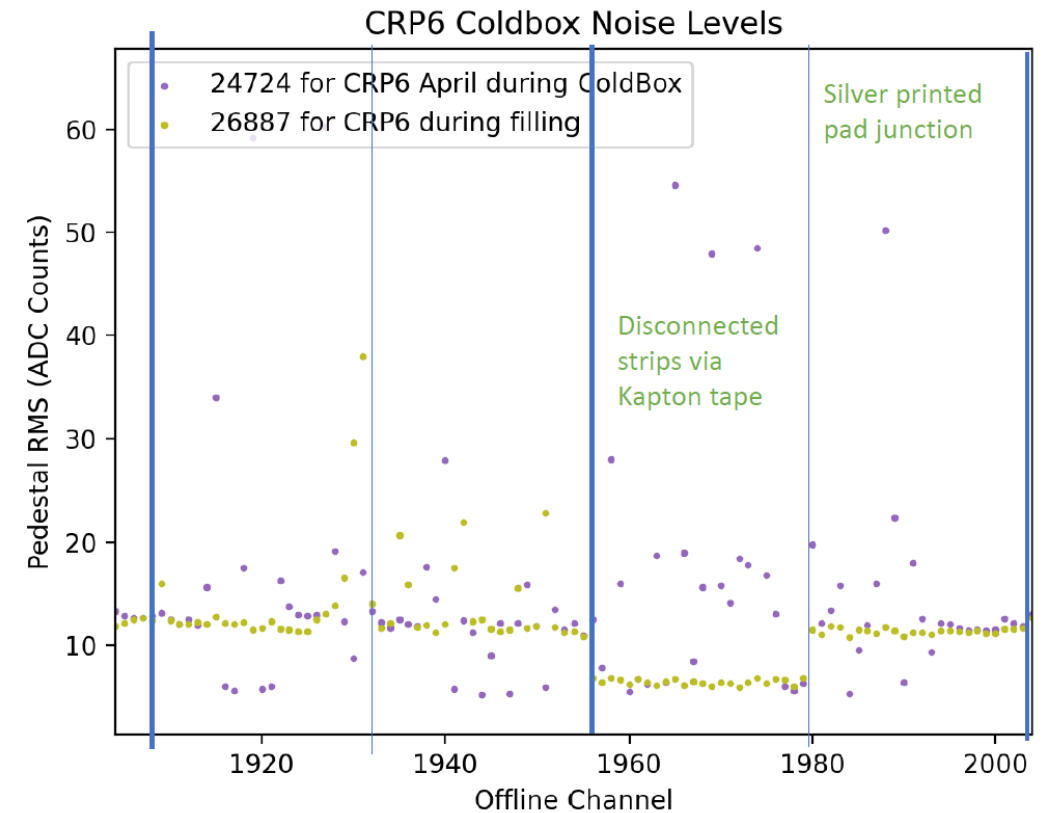
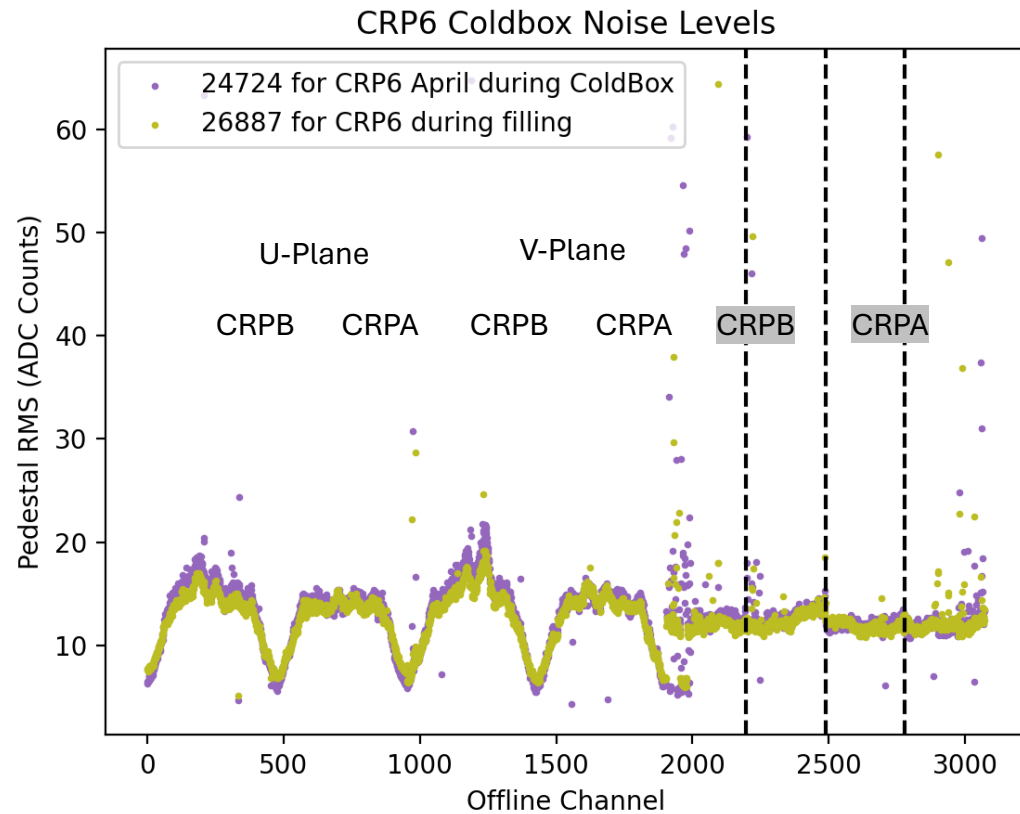


► Several high noise channels began appearing.

► The 24 masked off channels are still all low noise so far.

CRP6 in ColdBox – Comparison with old runs

► Comparison with an old run from previous CRP6 Cold Box Test (April)



► Will keep monitoring high noise channels as cool down continues.

► CRPB Collection channel : 24 channels masked and 24 channels with silver printed pad junctions.