

Sujet: Re: Lida encoder elevation / elongated images

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Date: Fri, 12 May 2006 11:07:26 +0200

Pour: Gert Raskin <gert@ster.kuleuven.be>

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Hi Gert,

Both the LIDA curves and the images look much better. Well done ! It would be good if the azimuth encoder could receive the same cleaning procedure.

Have a nice weekend.

Cheers,

Geert

Quoting Gert Raskin <gert@ster.kuleuven.be>:

Hi all,

Today I thoroughly cleaned the Lida rail and the 2 reading heads of the elevation axis.

I took some measurements of the incremental sinusoidal signals before and after cleaning:

	BEFORE	AFTER	
LIDA 1	2.4 - 2.8	2.9 - 3.5 V	(signal amplitude V pk-pk)
LIDA 2	2.3 - 2.7	2.8 - 3.2 V	

This is largely within specs (1.8 - 4 V). I did not check the complete range before cleaning (measured at a 3-4 points), after cleaning I did a complete check (slow speed of the 'raquette' -

The assymetry between the two incremental signals was also smaller after cleaning but I do not really have quantitative measurement of this. This is hard to quantify by means of an oscilloscope (but clearly visible though), next time I try to measure this with a phase meter.

I also did some measurements with the LIDAELE2.PRC procedure. The results of today are attached (2 files with different sampling step and speed) and also one file of last Saturday for comparison. The improvement is clear I think....

Next time I'll do this scan over the complete elevation range. I'll also try to clean and test the azimuth axis this way.

Another test that remains to be done: check if the assymetry between the 2 signals is the same for both heads at the same rail position.

Cleaning procedure:

- Rail: optical paper drenched with 96% pharmaceutical alcohol, one gentil wipe over the rail, disposal of paper and continue with a new drenched paper...
- Reading head: same procedure but fold paper double or triple, then slide it between head and rail and pull it to one side (repeat this several times) The head does not need dismounting for this operation. I first tried with isopropylic alcohol but this left much stronger evaporation marks.

At least, the first focus exposure of tonight did not show a strong elongation (1.5")...

Maja, I didn't have time to remount everything completely. The bottom cover of the elevation axis drive is still open. Don't put your hands in there while the telescope is moving (the telescope will never move when the LN2 tube is out of his holder).

Saludos,
Gert