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To: Mark 5 Development Group

From: Dan L. Smythe

Subject: Solid State Drives with Mark 5

I do not expect any standard disk drives to work at the high altitude of the new radio telescopes in Chile. See Mark 5 Memo # 38.2. In an effort to find disk drives that will work with the Mark 5 at these high altitudes, I have tested three different models of solid state drives in a Mark 5B+ system. They all work, but two of the three write too slowly for use in an 8-pack at 2048 Mb/s.

The INTEL Model SSDSA2MH160G1GC, purchased as a Kingston SNM125-2SB/160GB, is capable of writing at around 500 Mb/s, but not at 512 Mb/s. I recorded several scans on this drive at 256 Mb/s, with scan lengths ranging from 10 minutes to 30 minutes. I expect an 8-pack of these drives to write at 2048 Mb/s with no problems.

A summary of the tested drives, their specified and measured write rates, and price are shown below:

Brand	Model	Write		Price		Warranty
		Spec	Measured	Price	per GB	
INTEL	SSDSA2MH160G1GC	800	500 Mb/s	\$465.86	\$2.91	3 years
Kingston	SNV125-S2/128GB	560	200 Mb/s	\$227.51	\$1.78	3 years
OCZ	OCZSSD2-1SLD250G	720	175 Mb/s	\$563.36	\$2.25	2 years
Adtron	A25FD-128GC30N	1000	??? Mb/s	\$???.??		? years

Note that we are currently paying about \$0.10 per GB for standard hard disk drives, which are specified to work only up to 10,000 feet.

Conduant has tested Adtron and Intel, and they both “look good”.

Memoright is fixing a problem that Conduant found.

Conduant has had a bad experience with STEC.