

The Doc's Battery Test Report

Battery Details

Brand	Grandcell
Size	AAA AA C D 9V 6V
Type	Ni-MH Ni-Cd RAM Alkaline Titanium
Current in mAhs	Not known
Stated Voltage	1.5 volts 1.2 volts
Number of batteries	Single Set of 2 Set of 4
Battery Set used	Set 1
Times charged before test started	5
Charger used to charge	Rezap RBC883 Vanson Speedy Box UBA4 Grandcell
Time Batteries charged in charger	Over 8 hours

Test Procedures

Spreadsheet name	Grandcell RAM AAA-Set1.123 (Discharge data file)
UBA file name	N/A
Select Resistance 5 or 10 ohms	5 ohms 10 ohms
Voltage cut off	3.5 volts 3.6 volts
Date of test	05/10/03

Summary of test

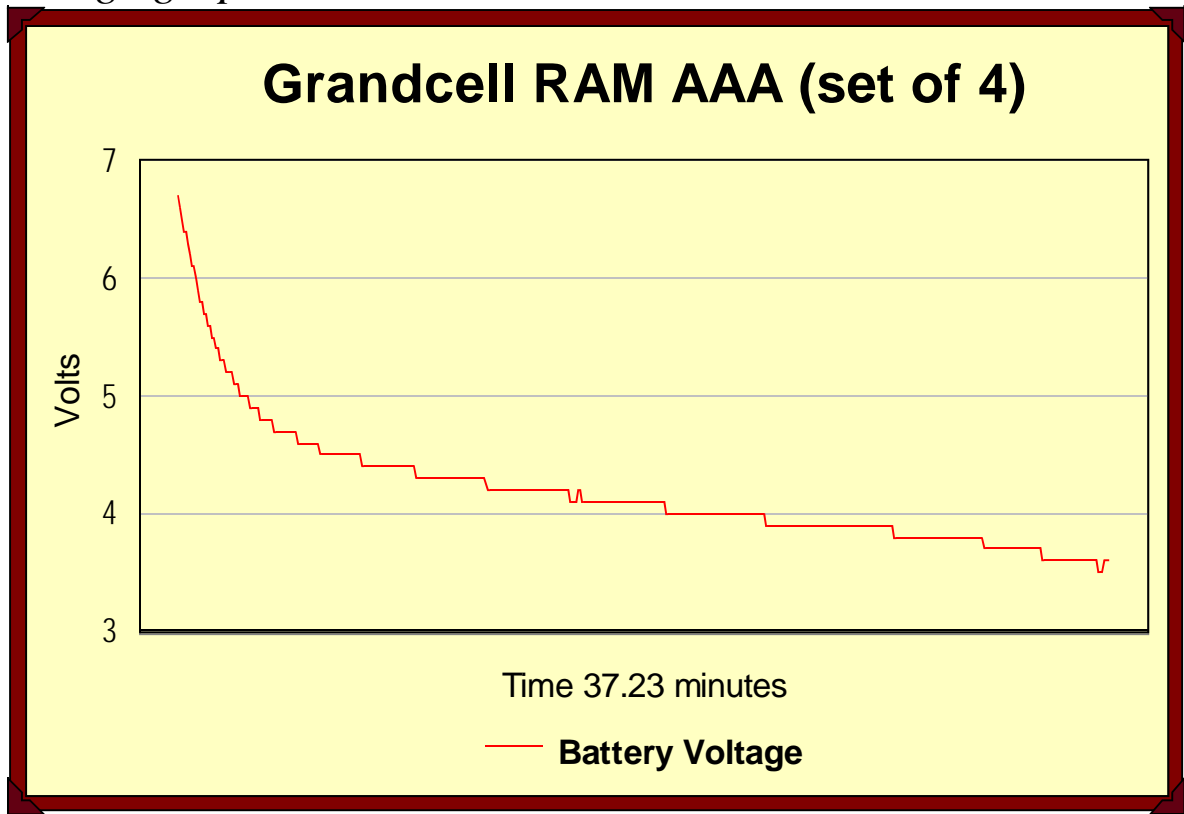
Voltage	Starting voltage 6.7 volts, cut off voltage 3.6 volts
Test duration	37.23 minutes
Max Battery Temp	26.9 degrees Celsius
Min Battery Temp	25.6 degrees Celsius

Methodology

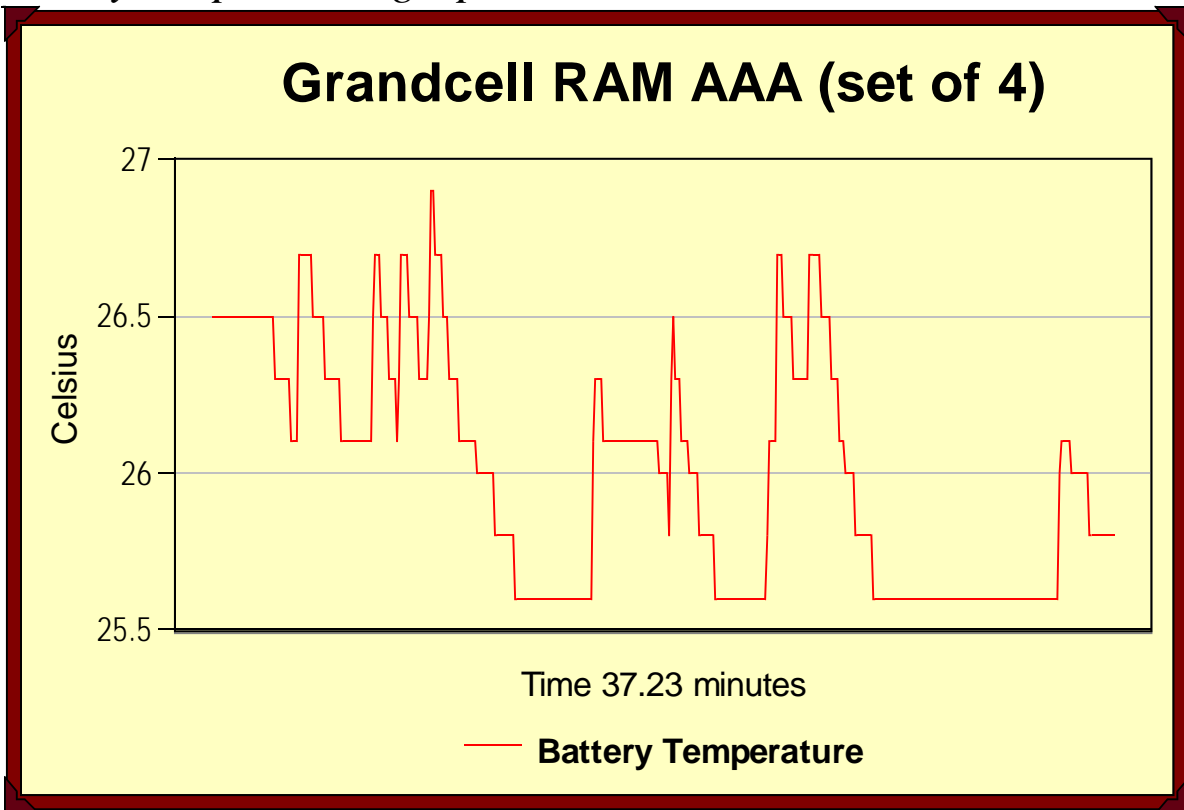
The methodology needed to be changed for these batteries, as only the Grandcell charger and Rezap are able to charge Rechargeable Alkaline Manganese batteries. In this test The Doc only used the Grandcell charger.

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Voltage graph



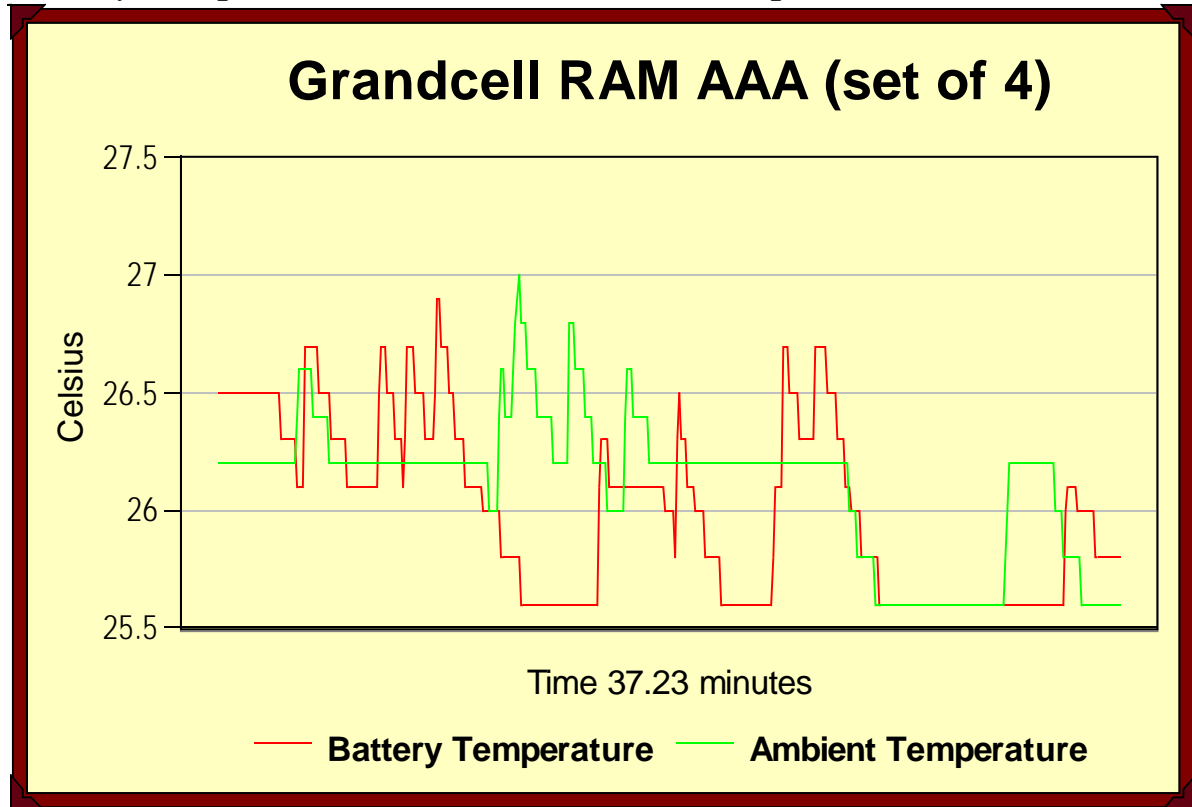
Battery temperature graph



The battery temperatures graph has a very narrow range compared to Ni-MH batteries and the temperature bounces all over the place (using scientific talk here). The temperature does not rise sharply as do Ni-MH batteries. But (there is always a but) the Grandcells only last 37.23 minutes, whereas the Energiser 750's lasted 84.5 minutes.

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Battery temperature -v- Ambient air temperature



Conclusion

The performance of Grandcell RAM AAA's batteries faired much better than the Grandcell RAM AA, which were not up to the rigors of high drain devices. So much so, the Grandcell AA batteries failed to take a full charge after about 5 recharges. Under the lighter load of 10 ohms at least the Grandcell RAM AAA batteries were still taking a charge. Nothing about the Grandcells really make them shine out from the pack. They maybe be sutibale for low drain devices, like non-backlight remotes where you do not wish to charge thebatteries every 2-3 months (as you would need to do if you used Ni-MH batteries). The Grandcells leave The Doc fairly flat. Your money is better spent elsewhere.

Run Time (10 ohm)	37.23 minutes
Battery build quality	Fair
Place of Origin	Malaysia
Cost (set of 4)	AUD\$11.00

Report date: 14 February 2004

<http://www.users.on.net/mhains/>

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