

The Doc's Battery Test Report

Battery Details

Brand	Grandcell 1800
Size	AAA AA C D 9V 6V
Type	Ni-MH Ni-Cd RAM Alkaline Titanium
Current in mAhs	1800
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	11
Charger used to charge	Rezap RBC883 Vanson Speedy Box UBA4
Time Batteries charged in charger	See UBA graph.

Test Procedures

Spreadsheet name	Grandcell1800NiMH-AA-Set1.123 (Discharge data file)
UBA file name	Grandcell1800NiMH-AA-Set1-11.uba (Charge file)
Select Resistance 5 or 10 ohms	5 ohms 10 ohms
Voltage cut off	3.5 volts 3.6 volts
Date of test	02/05/04

Summary of test

Voltage	Starting voltage 5.8 volts, cut off voltage 3.6 volts
Test duration	5,454 seconds or 97.56 minutes
Max Battery Temp	28.8 degrees Celsius
Min Battery Temp	21.4 degrees Celsius

Methodology

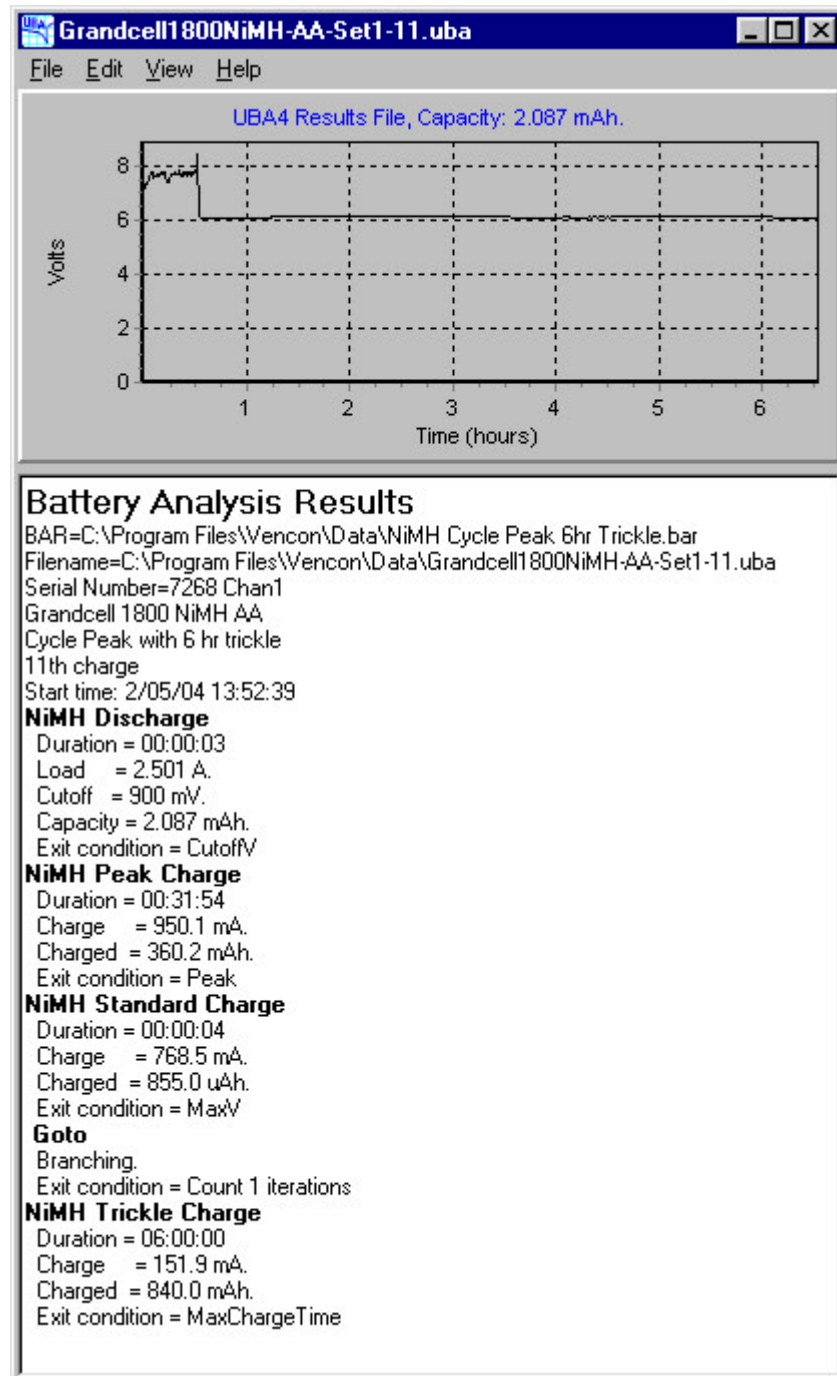
The battery set being tested has been charged at least 5 times. The charge actually used in the test is noted above. The battery set is charged in a Universal Battery Charger (UBA4). It is then tested under a load of 5 ohms, in the scientific dooverlackie. The following pages give various data, including:

1. charging information from the UBA4;
2. a graph of the voltage during the test (cut off voltage being 3.6 volts);
3. a graph of the battery temperature during the test; and
4. a graph of the battery temperature verse ambient air temperature during the test.

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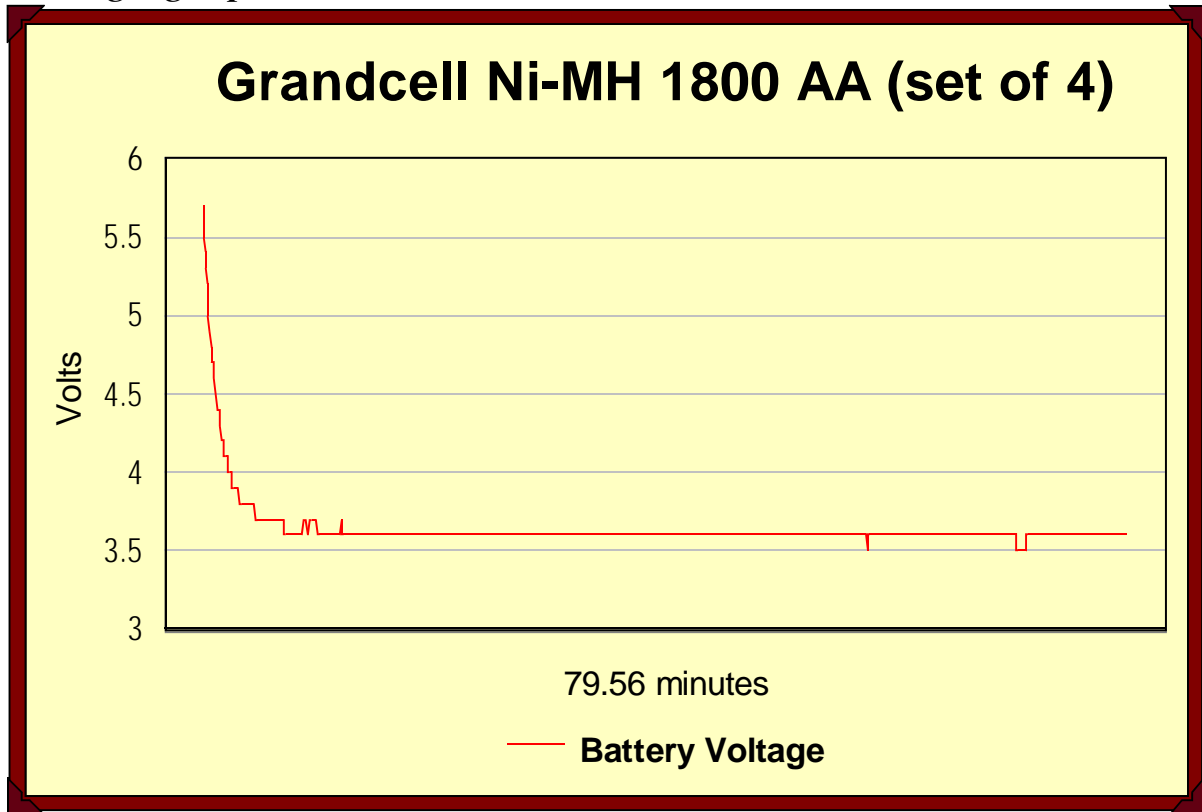
UBA report

The graph and charging information from the UBA4.

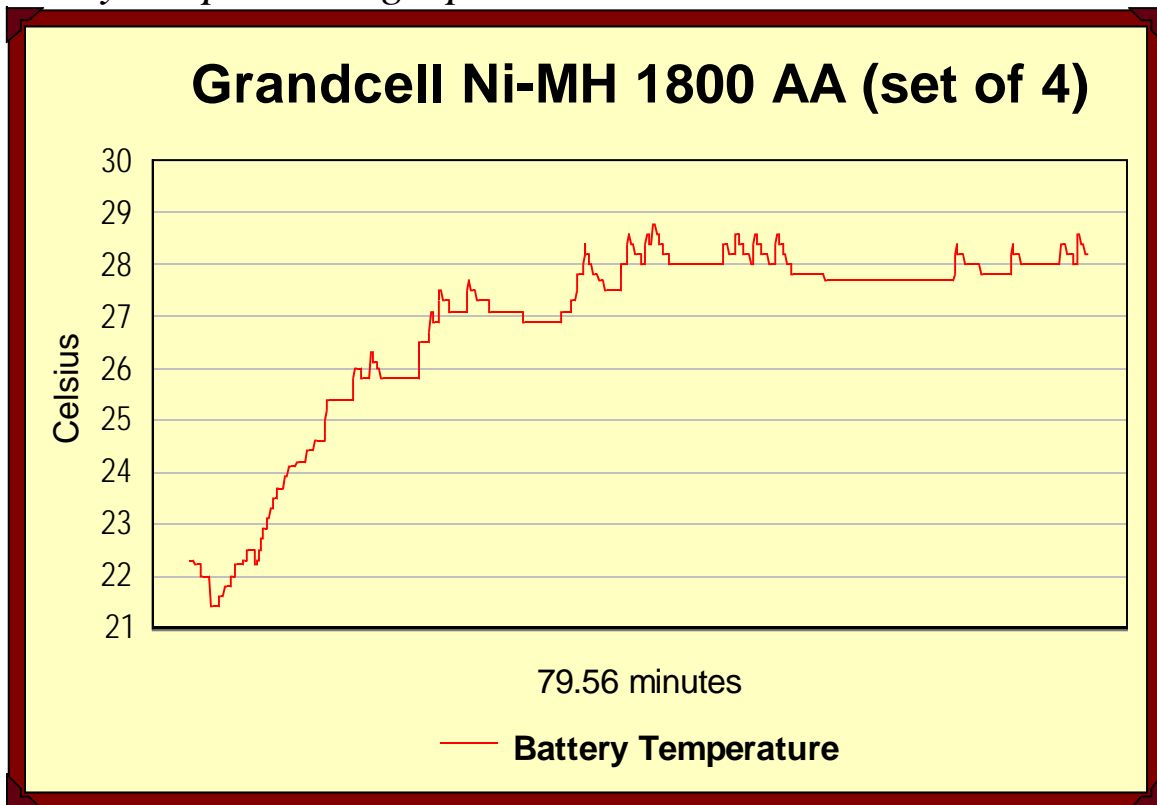


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Voltage graph

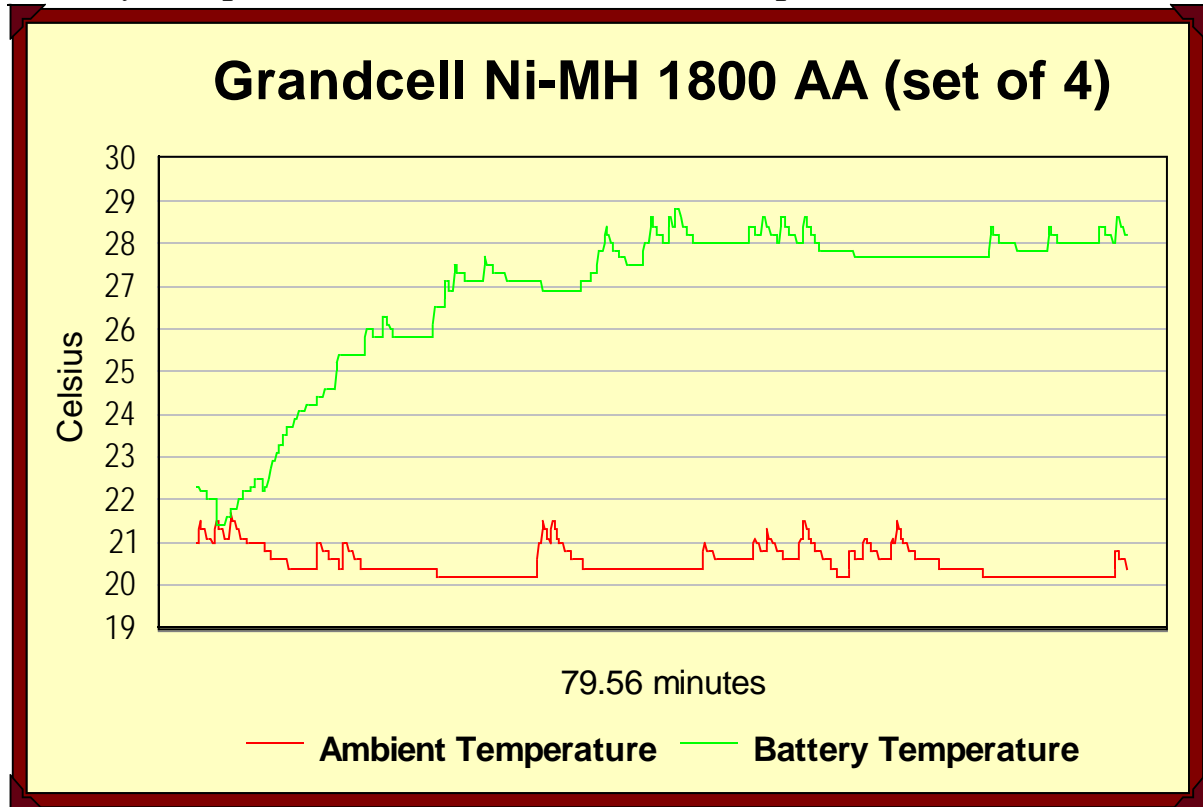


Battery temperature graph



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Battery temperature -v- Ambient air temperature



This battery set had the greatest difference between ambient air temperature and battery temperature The Doc has seen, almost 9 degrees.

Conclusion

Grandcell is a name regularly sold in Supermarkets here in Australia. Their RAM batteries performed very poorly, so here is a chance for Grandcell to redem themselves. Sadly, the Grandcell 1800's are also poor performers, soundly beaten by the Powertech 1650's and the Digitors 1700s. They were even beaten by the Kingcell 1800's, which are no longer the wooden spoon holders. This award now goes to Grandcell. Almost any other brand is a better performer, these Grandcell batteries perform like batteries rated at 1200 mAh, not the specified 1800 mAh.

Run Time (5 ohm)	79.56 minutes
Battery build quality	Fair
Place of Origin	China

Report date: 6 June 2004

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

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