The Doc's Battery Test Report

Battery Details	
Brand	Sanyo 2500
Size	AAA AA C D 9V 6V
Type	Ni-MH Ni-Cd RAM Alkaline Titanium
Current in mAhs	2500
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	12
Charger used to charge	Rezap RBC883 Vanson Speedy Box UBA4
Time Batteries charged in charger	See UBA graph.

Test Procedures	
Spreadsheet name	Sanyo2300NiMH-AA-Set1.123 (Discharge data file)
UBA file name	Sanyo2300NiMH-AA-Set1-10.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	18/12/04

Summary of test	
Voltage	Starting voltage 5.5 volts, cut off voltage 3.6 volts
Test duration	19,317 seconds or 321.95 minutes
Max Battery Temp	30.9 degrees Celsius
Min Battery Temp	26.5 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 10 ohms, in the scientific dooverlackie. This is the first test using the new load of 10 ohms (previous tests used 5 ohms for AA batteries). 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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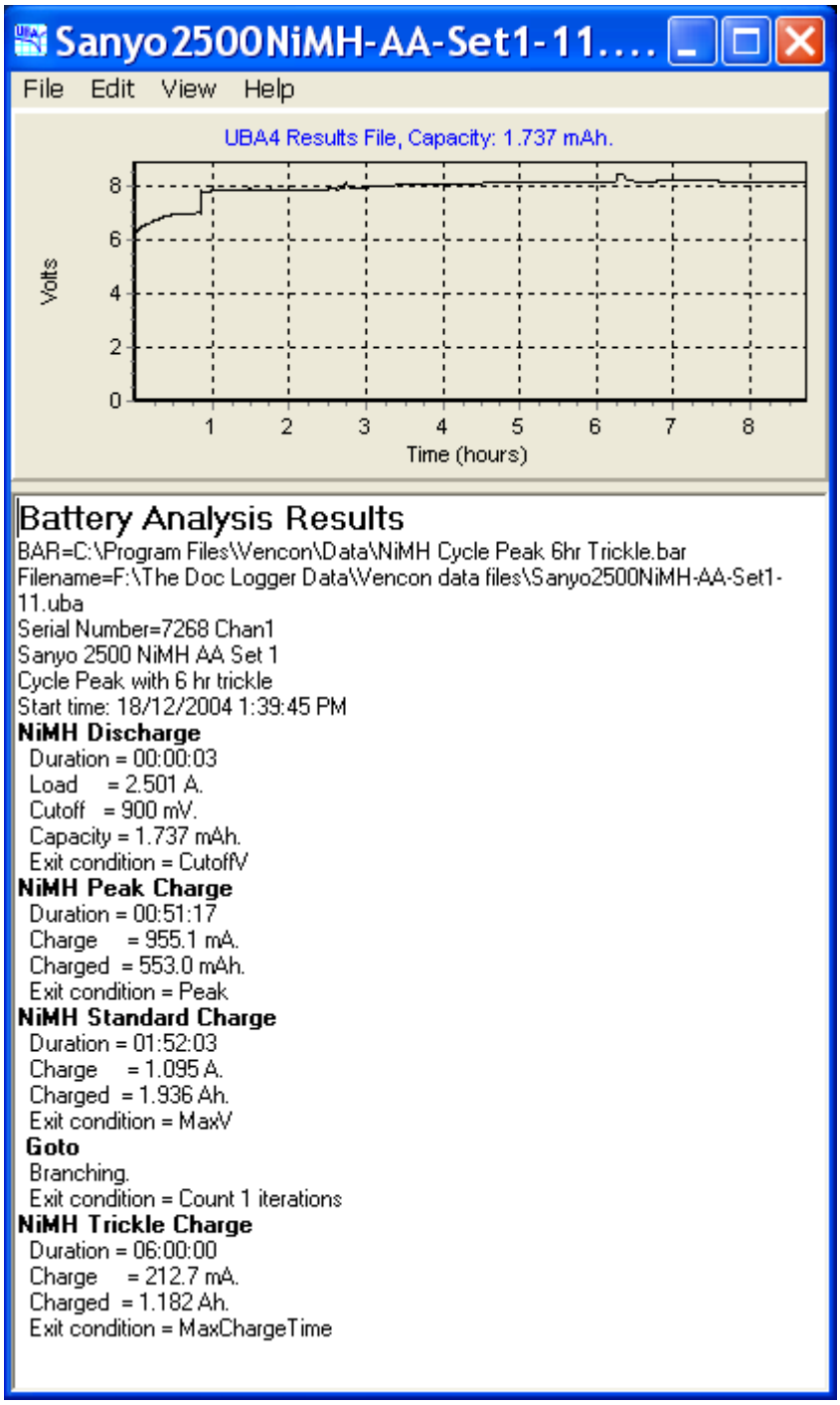
UBA report

The graph and charging information from the UBA4.



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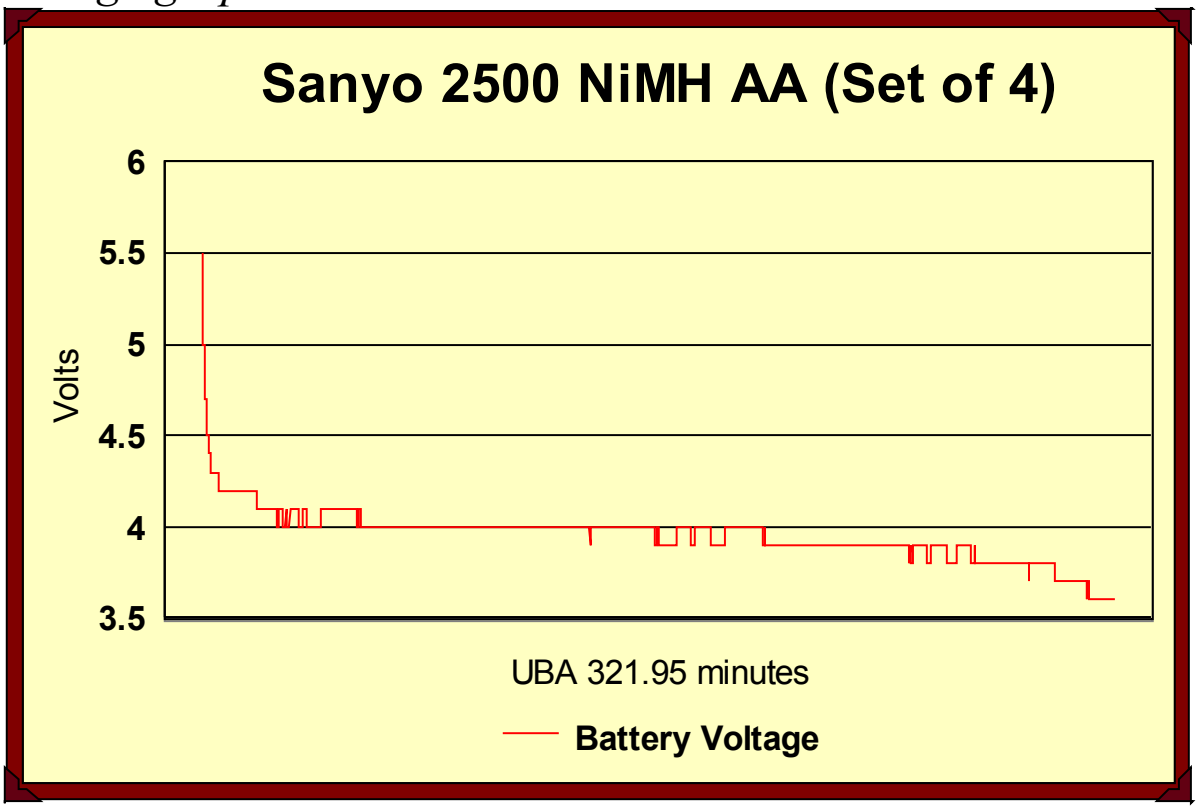
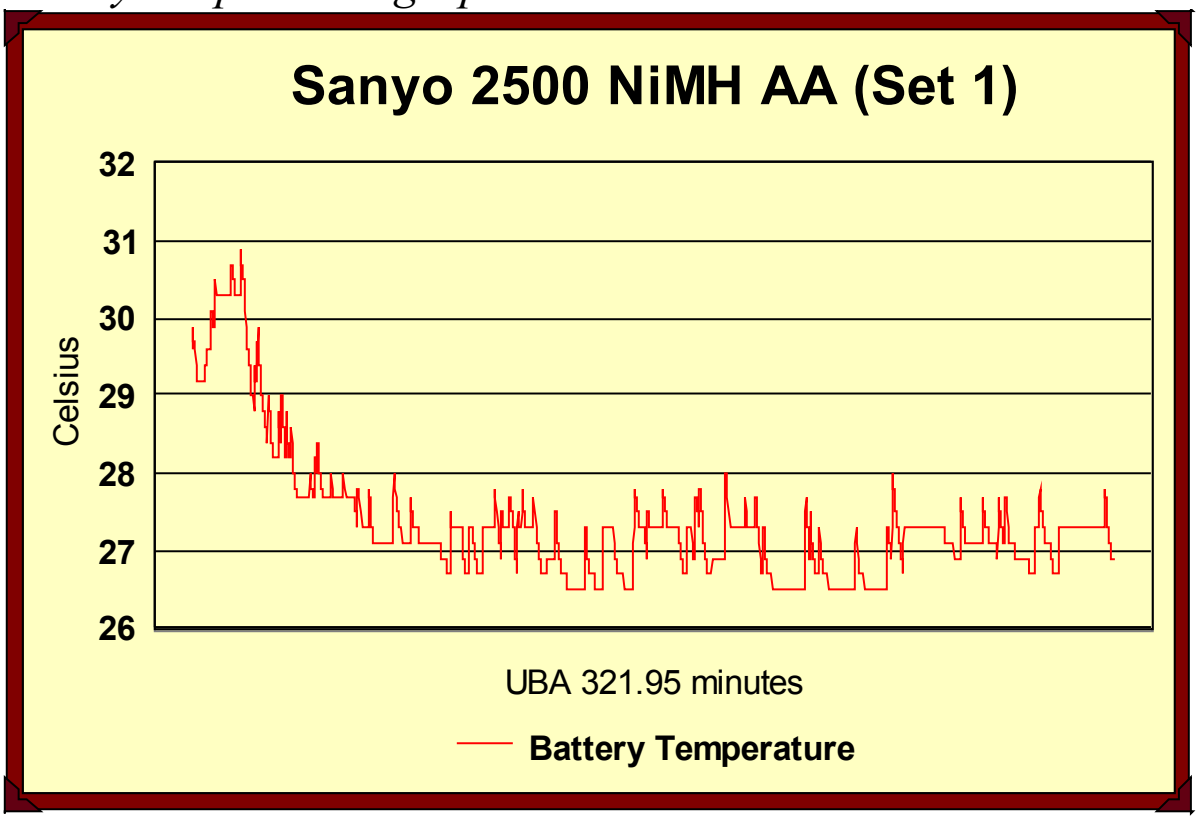
Voltage graph



Battery temperature graph



Because of the lower 10 ohm load, the battery temperature did not rise, as is common with batteries being tested under 5 ohms. The battery easily handled the lower load.

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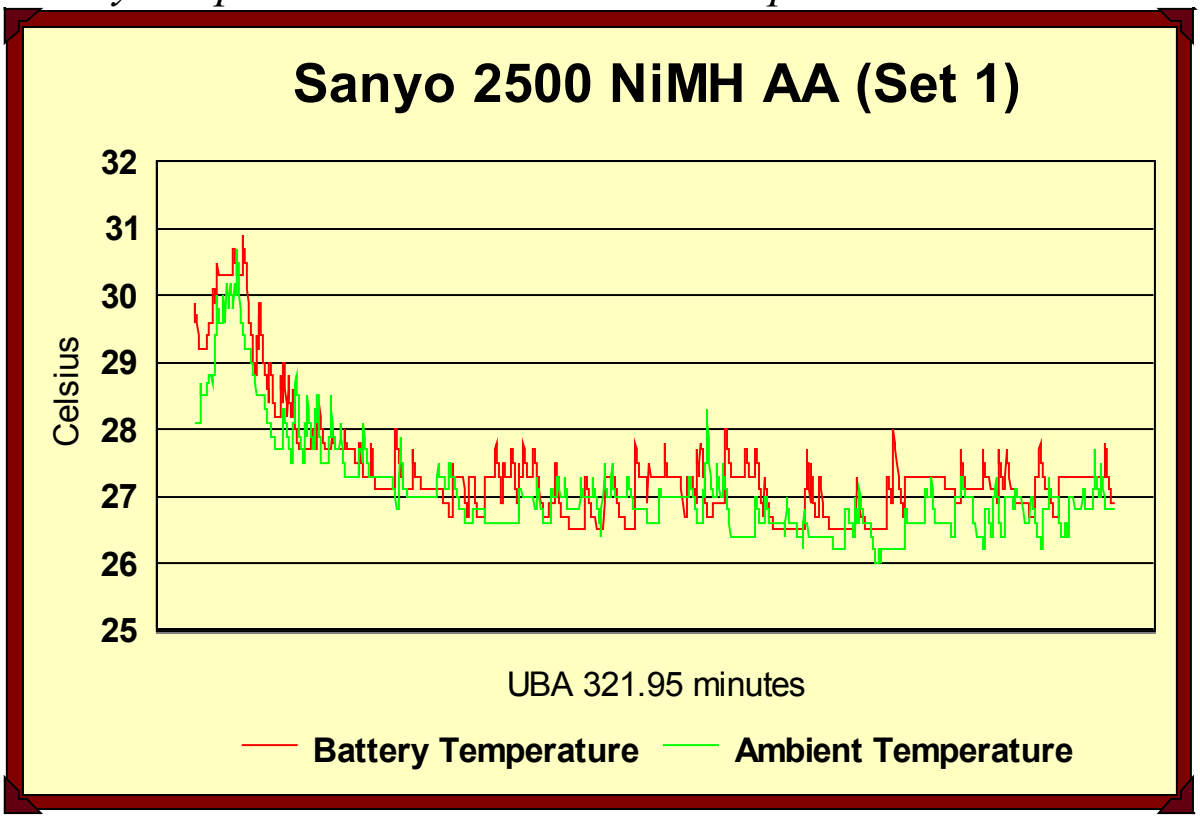
Battery temperature -v- Ambient air temperature



There is a close correlation between ambient room temperature and battery temperature. In contrast, when using a test load of 10 ohms the battery temperature typically increases by 5 degrees Celsius or more above ambient room temperature.

Conclusion

The Sanyo 2500 is an outstanding battery. It is the new performance champion as of January 2005. To put this outstanding performance in context, you need to understand that the next best performing battery lasts only 266 minutes.

Run Time (5 ohm)	**321.95 minutes**
Battery build quality	**Excellent**
Place of Origin	**Japan**

Report date: 26 January 2005

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

thedoc@internode.on.net

