

The Doc's Battery Test Report

Battery Details

Brand	Sanyo 800
Size	AAA AA C D 9V 6V
Type	Ni-MH Ni-Cd RAM Alkaline Titanium
Current in mAhs	800
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	Sanyo800NiMH-AAA-Set1.123 (Discharge data file)
UBA file name	Sanyo800NiMH-AAA-Set1-13.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	31/07/04

Summary of test

Voltage	Starting voltage 5.5 volts, cut off voltage 3.6 volts
Test duration	95.90 minutes
Max Battery Temp	23.3 degrees Celsius
Min Battery Temp	18.2 degrees Celsius

Methodology

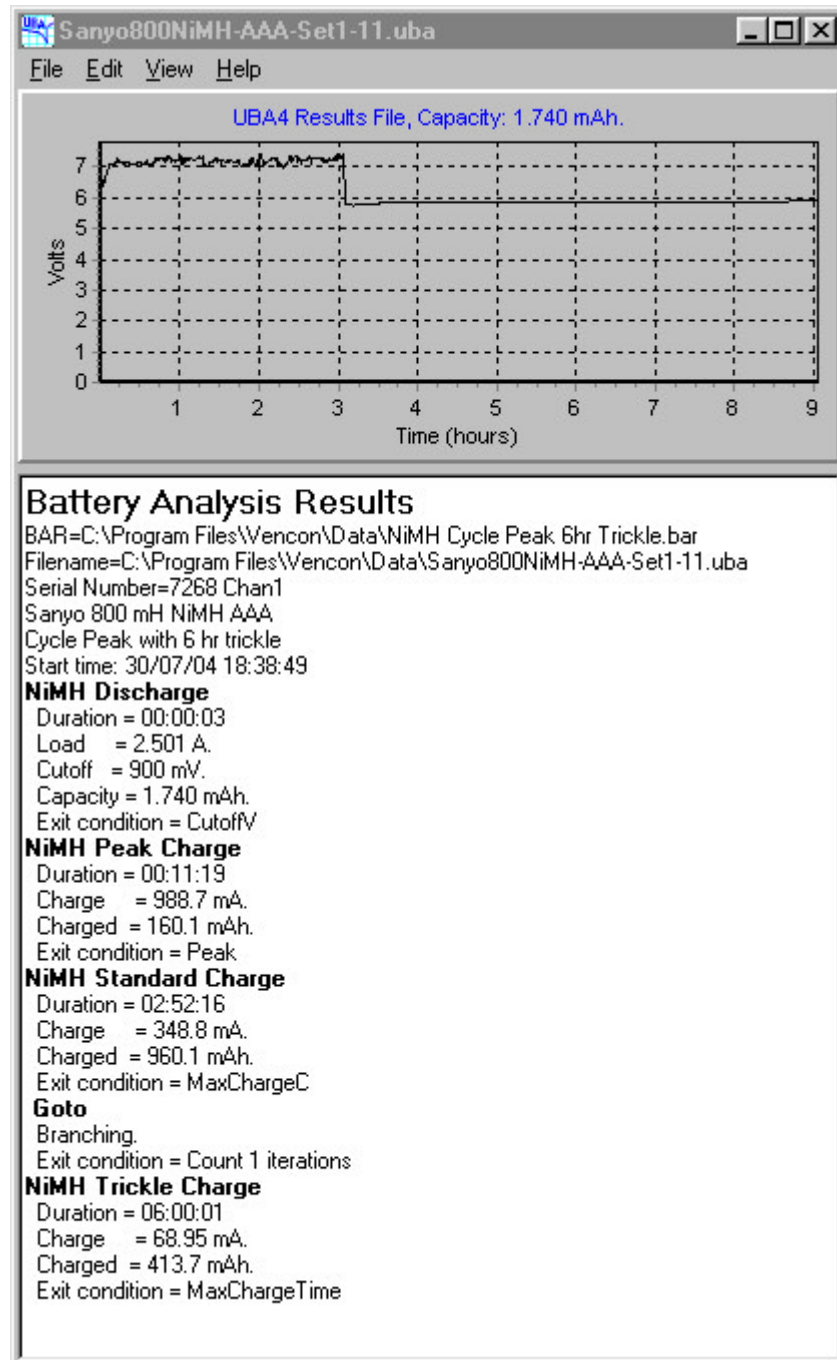
The battery set being tested has been charged at least 5 times. The battery set is charged in a Universal Battery Charger (UBA4). It is then tested under a load of 10 ohms in the scientific dooverlackie (the AA batteries are tested at 5 ohms). In this test the battery set was also charged in several different types of charger. The Doc has created a charge cycle specifically for test purposes. The UBA4 runs a peak charge cycle, once completed the battery set is automatically put on a trickle charge for 6 hours. 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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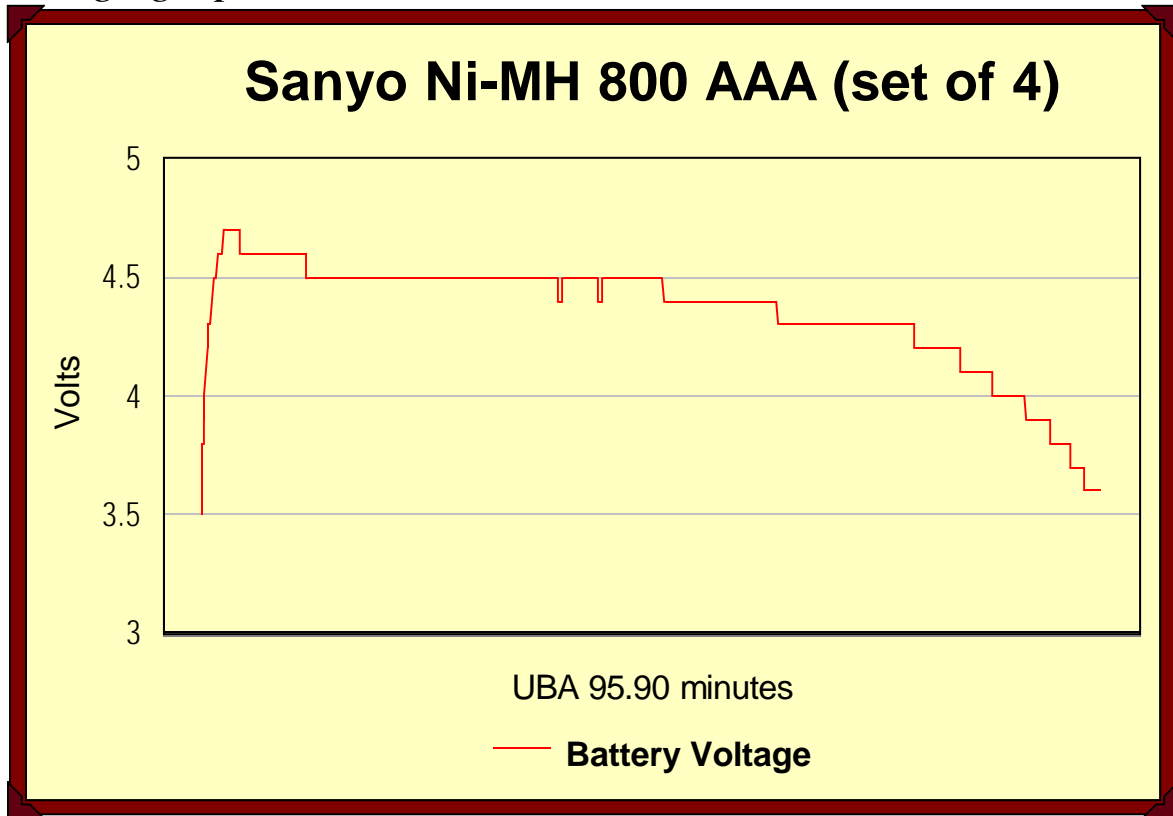
UBA report

The graph and charging information from the UBA4.

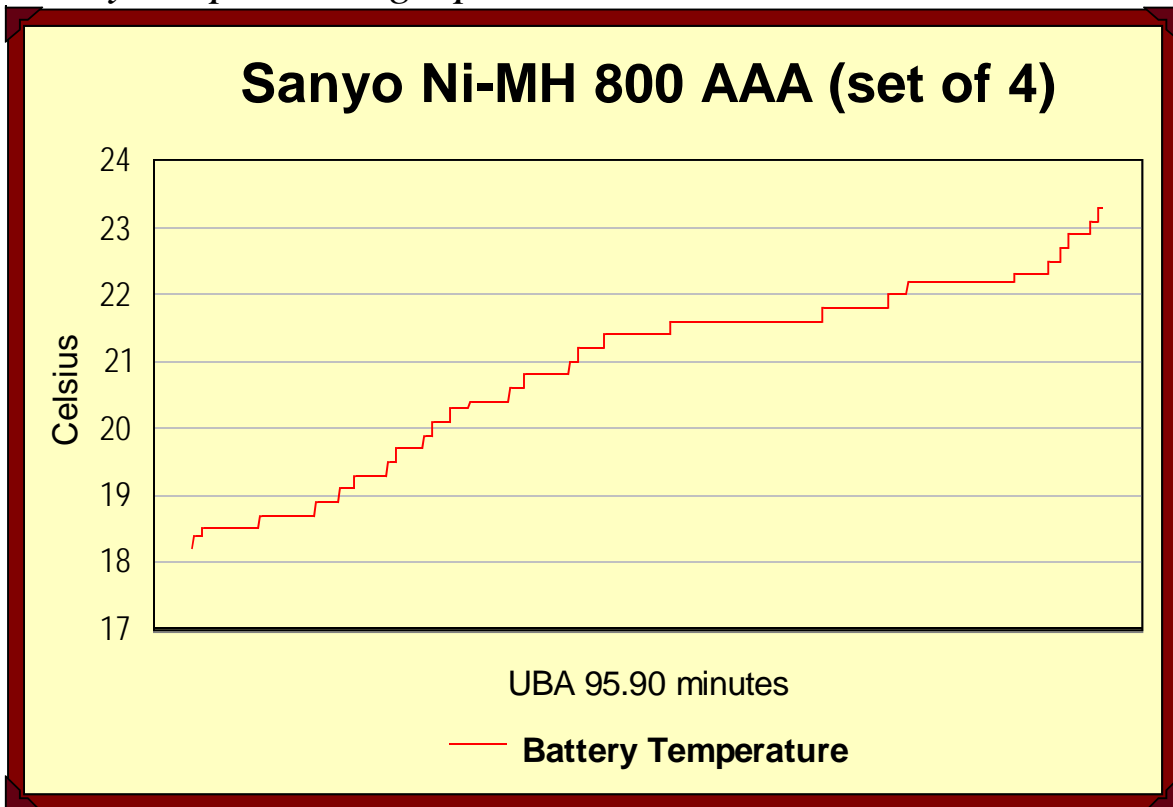


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Voltage graph



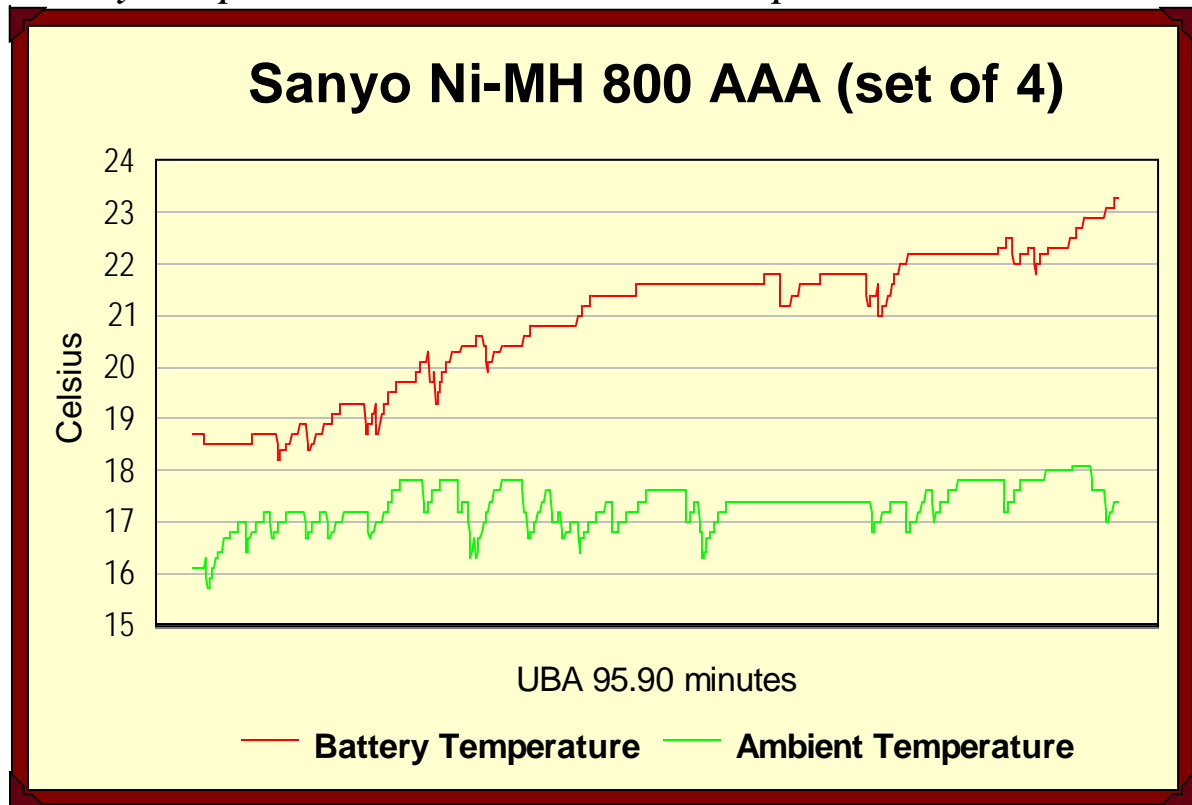
Battery temperature graph



As with AA batteries the battery temperature rises as the battery discharges more energy. This battery set had a greater range than the previous AAA sets. But this should not pose any issues in use, since AAA battery sets are rarely under intense loads for long periods.

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Battery temperature -v- Ambient air temperature



Conclusion

Developments in the AAA market are slow, because if greater power is needed the manufacturers choose AA batteries instead to power the gadget. In this test there is an unusual spike in the voltage after the test started, which was repeated in another test. It did not, however, seem to impact on performance. The Sanyo 800 is the new performance pick for AAA batteries.

Run Time (10 ohm)	95.90 minutes
Battery build quality	Very Good
Place of Origin	Japan

Report date: 12 August 2004

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