

The Doc's Battery Test Report

Battery Details

Brand	Sanyo Cadnica 600
Size	AAA AA C D 9V 6V
Type	Ni-MH Ni-Cd RAM Alkaline Titanium
Current in mAhs	600
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	Sanyo600NiCd-AA-Set1.123 (Discharge data file)
UBA file name	Sanyo600NiCd-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	13/01/04

Summary of test

Voltage	Starting voltage 5.4 volts, cut off voltage 3.6 volts
Test duration	2,800 seconds or 46.66 minutes
Max Battery Temp	35.6 degrees Celsius
Min Battery Temp	31.6 degrees Celsius

Methodology

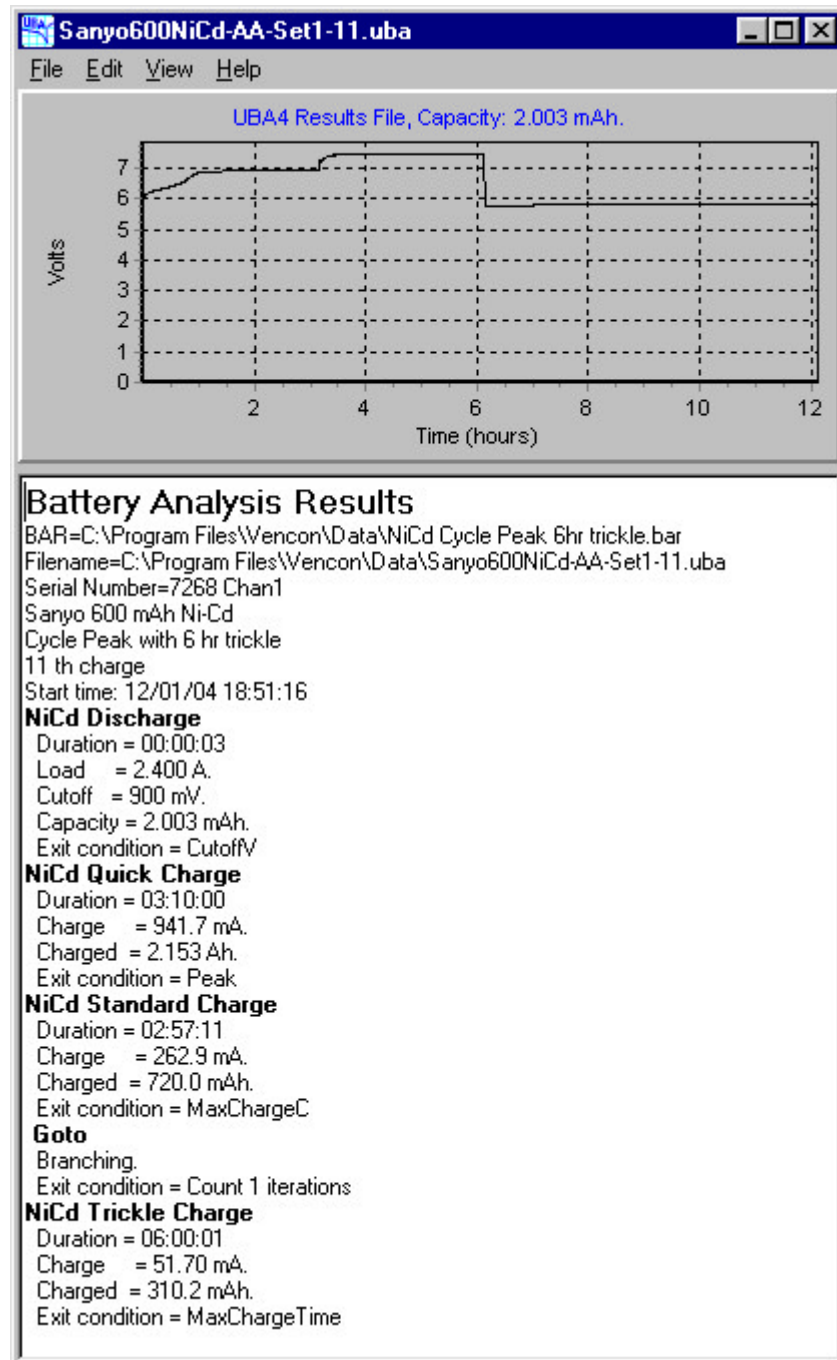
The usual methodology was used here. The following pages give various data, including:

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.

The Doc's Battery Test Report

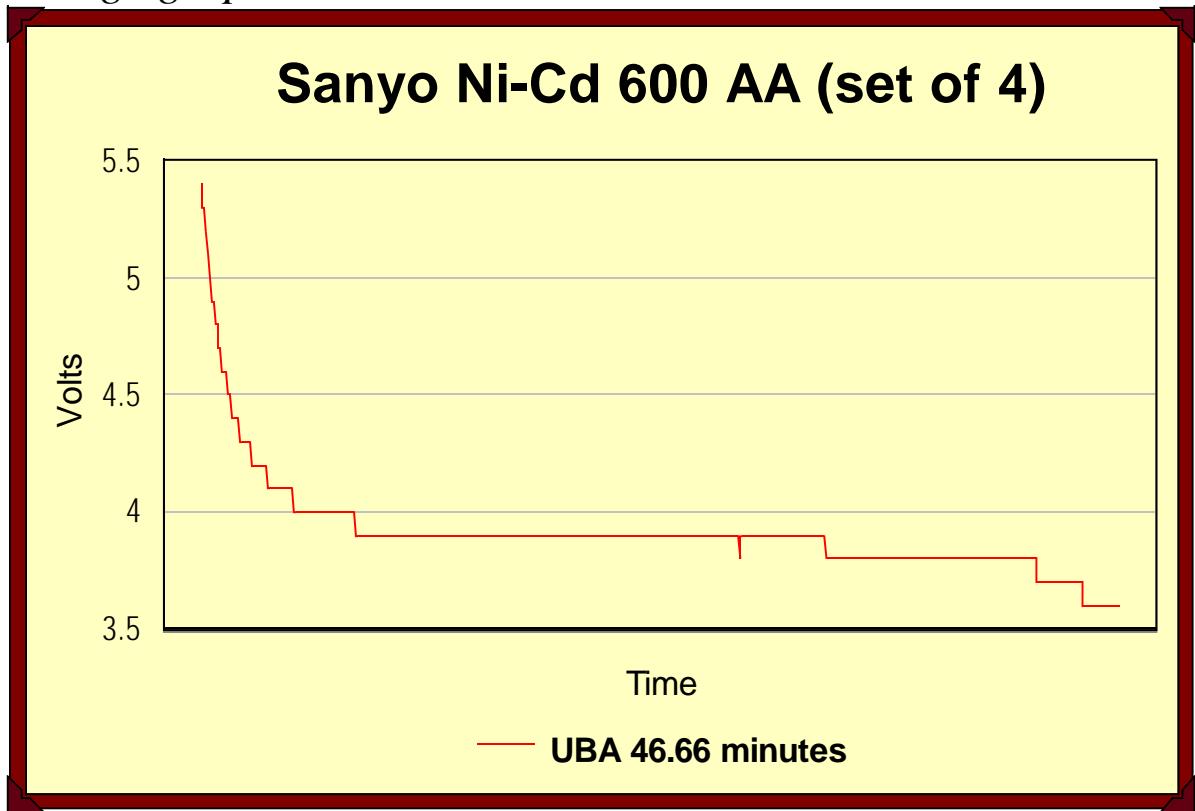
UBA report

The graph and charging information from the UBA4.

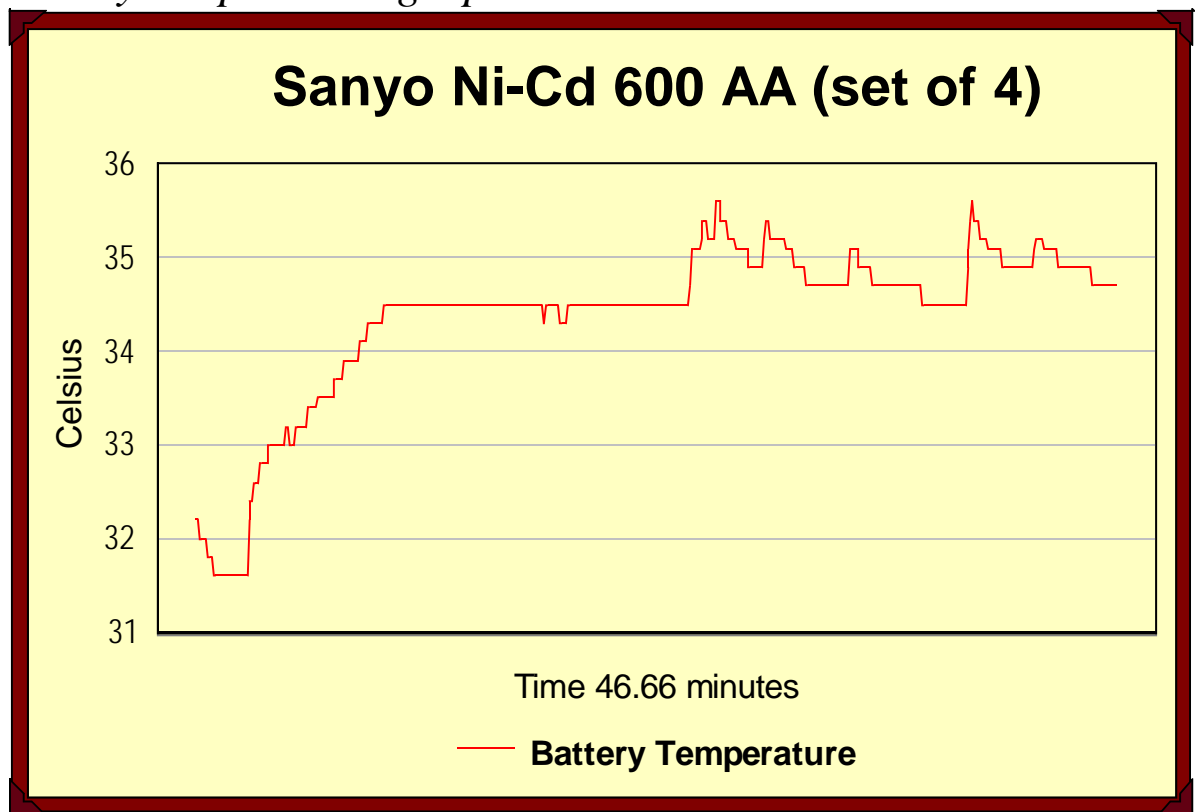


The Doc's Battery Test Report

Voltage graph

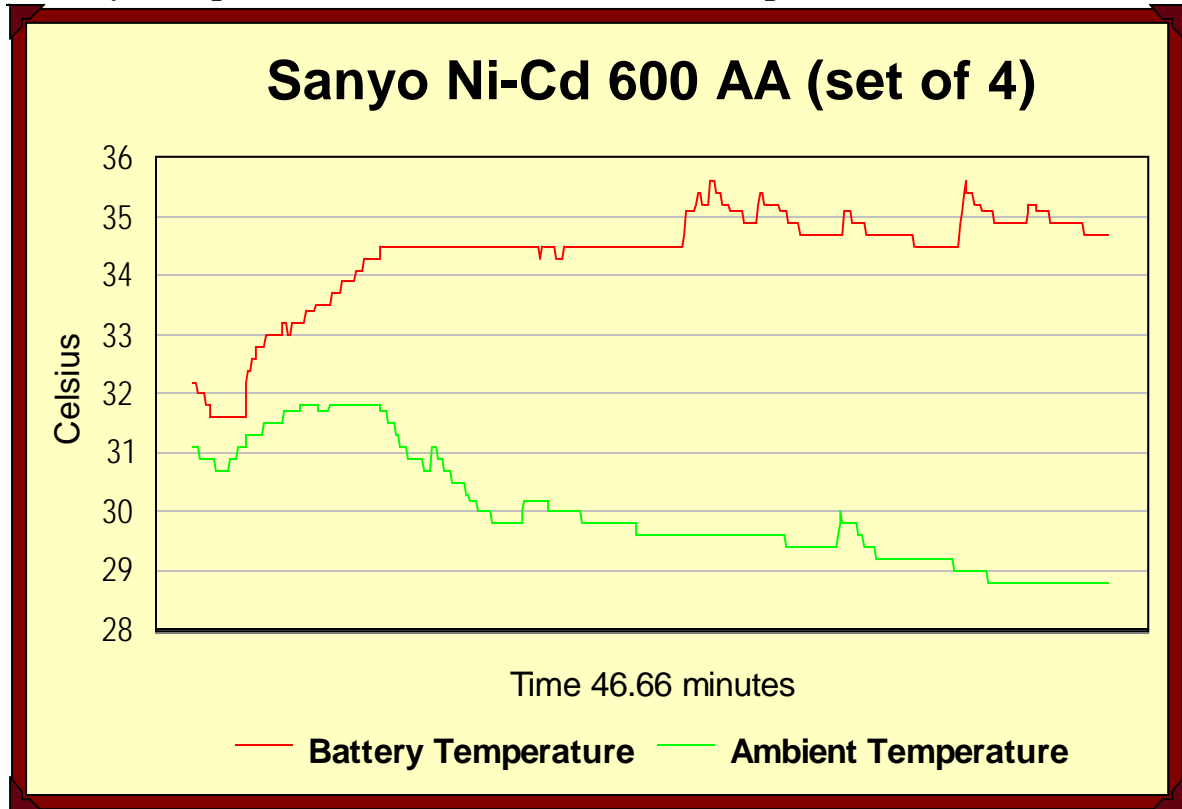


Battery temperature graph



The Doc's Battery Test Report

Battery temperature -v- Ambient air temperature



Conclusion

The ambient air temperature does affect the ability of a battery to take a full charge and its performance while under load. The Sanyo Cadnica 600 test was between 29-31 degrees Celsius, whereas the Arlec was between 25.5-27 degrees Celsius. While this may account for some performance advantage to the Arlec, it does not account for the large difference in run time of 46.66 minutes for the Sanyo and 52.48 minutes for the Arlec. The Arlec are the better performer. The build quality of the Sanyo's are the best The Doc has seen in any battery, truly superb. While they are not the performance leader, they are built to last. So they would be good for devices with lower power demands. Personally The Doc would go for a Ni-MH battery to avoid cadmium and the dreaded memory of Ni-Cd batteries.

<i>Run Time (5 ohm)</i>	<i>46.66 minutes</i>
Battery build quality	The best The Doc has seen, bar none.
Place of Origin	Japan
Cost (set of 4)	Retail price not known.

Report date: 18 January 2004

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