SHACKNEWS

HIGHVELD AMATEUR RADIO CLUB

PO Box 1111, Bedfordview, 2008 **SEPTEMBER 2005**
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www.qsl.net/zs6ssc/

COMMITTEE

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Sunday morning BULLETINS - 145.7875 MHz &  **Hz @ ±08h45.**

COMMUNICATION IS THE NAME OF THE GAME

Meeting. The AGM has come and gone with no change to the committee as can be seen above. One major change has taken place and that is the bulletin reading. After many years as the Sunday morning bulletin compiler/reader, I (Ed.) asked for others to assist. This panned out well as there are now six compilers/readers working to a roster. If anyone has any news items or interesting snippets of info they fell could be of use then please send to the e-mail address above in the header.

ROSTER- taken off the web

04-09 Berridge	27-11 Berridge
11-09 Gus	04-12 Gus
18-09 Gene	11-12 Gene
25-09 Norman	18-12 Norman
02-10 Doug	08-01 Doug
09-10 Yvonne	15-01 Yvonne
16-10 Berridge	22-01 Berridge
23-10 Gus	29-01 Gus
30-10 Gene	05-02 Gene
06-11 Norman	12-02 Norman
13-11 Doug	19-02 Doug
20-11 Yvonne	26-02 Yvonne

SSC meeting was held at the QTH of Errol ZS6KED and Betty. A good turnout of members who went away with full bellies. It was nice to see where Errol operates from. It was decided that as this is a social club there is no real need for a chairman. In future the amateur of the QTH where the meeting is held will perform the duties of "chairman". Not a very difficult task. The next meeting is to be held the QTH of Gus – ZS6GT. The address is: 24 Sunset View, 22 Protea Ave, Weltevreden Park. Entrance is in Samanie Ave. Map on last page

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Found on the WWW

Go to **google.earth.com** Download the freebee.

Satellite pictures of the whole earth are available here at various resolutions. Built up areas like Gauteng have a high resolution while country areas are lower. Some cities in the states have a resolution of 2 feet!
Below is an example of my QTH seen from about 6277 feet.

Charging nickel-metal-hydride

Nickel-metal-hydride chargers require more complex electronics than nickel-cadmium systems. To begin with, nickel-metal-hydride produces a very small voltage drop at full charge and the NDV is almost non-existent at charge rates below 0.5C and elevated temperatures. Aging and degenerating cell match diminish the already minute voltage delta further. This makes full charge detection difficult.

A nickel-metal-hydride charger must respond to a voltage drop of 8-16mV per cell. Making the charger too sensitive may terminate the fast charge halfway through the charge due to voltage fluctuations and electrical noise. Most of today's nickel-metal-hydride chargers use a combination of NDV, rate-of-temperature-increase (dT/dt), temperature sensing and timeout timers. The charger utilizes whatever comes first to terminate the fast-charge.

Nickel-metal-hydride should be rapid charged rather than slow charged. Because of poor overcharge absorption, the trickle charge must be lower than that of nickel-cadmium and is usually around 0.05C. This explains why the original nickel-cadmium charger cannot be used nickel-metal-hydride.

It is difficult, if not impossible, to slow-charge a nickel-metal-hydride. At a C?rate of 0.1-0.3C, the voltage and temperature profiles fail to exhibit defined characteristics to measure the full charge state accurately and the charger must rely on a timer. Harmful overcharge can occur if a partially or fully charged battery is charged with a fixed timer. The same occurs if the battery has aged and can only hold 50 instead of 100% charge. Overcharge could occur even though the battery feels cool to the touch.

Lower-priced chargers may not apply a fully saturated charge. Some will indicate full-charge immediately after a voltage or temperature peak is reached. These chargers are commonly sold on the merit of short charge time and moderate price.

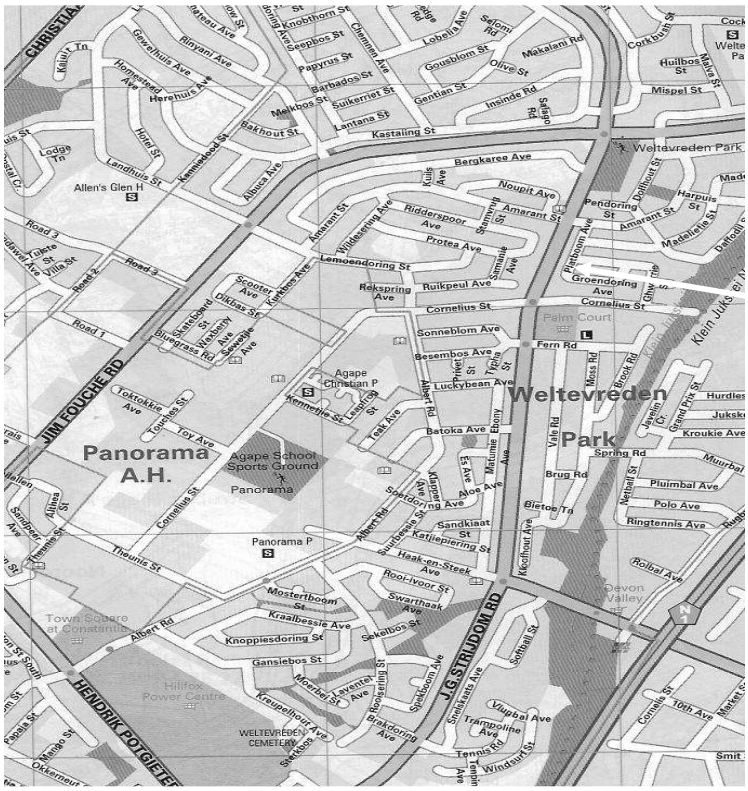
Simple Guidelines:

Avoid high temperature during charging. Discontinue the use of chargers that cook batteries.
A charger for nickel-metal-hydride can also accommodate nickel-cadmium, but not the other way around. A charger designed for nickel-cadmium would overcharge the nickel-metal-hydride battery.
nickel-based batteries prefer fast-charge. Lingering slow charges cause crystalline formation (memory).
nickel- and lithium-based batteries require different charge algorithms. The two chemistries can normally not be interchanged in the same charger.
If not used immediately, remove the battery from the charger and apply a topping-charge before use. Do not leave nickel-based battery in the charger for more than a few days, even if on trickle charge.
A well-designed charger is a reasonably complex device. Taking short cuts will cost the user in the long run. Choosing a well-engineered charger will return the investment in longer lasting and better performing batteries.

WHY WE LOVE KIDS

POLICE # 1
While taking a routine vandalism report at an elementary school, I was interrupted by a little girl about six years old. Looking up and down at my uniform, she asked, "Are you a cop?" "Yes," I answered and continued writing the report. "My mother said if I ever needed help I should ask the police. Is that right?" "Yes, that's right," I told her. "Well, then," she said as she extended her foot toward me, "would you please tie my shoe?"
POLICE # 2
It was the end of the day when I parked my police van in front of the station. As I gathered my equipment, my K-9 partner, Jake, was barking, and I saw a little boy staring in at me. "Is that a dog you got back there?" he asked. "It sure is," I replied. Puzzled, the boy looked at me and then towards the back of the van. Finally he said, "What'd he do?"

Gus's QTH



X markes the spot

73 & 88 (where applicable)

Berridge