

## Knowledge + Application = Growth

Unless you study the Bible you are probably not familiar with Charles Swindoll and his study guides. He begins each one encouraging the student "to apply what we learn so that we will change and grow."

Those of you that have been around GSSS for awhile know that I am a firm believer that knowledge without application is, to say the least, a waste of your time. There are those that would say my encouragement is on the verge of exhortation.

In this issue of PNL I want to issue another challenge to each GSSS member to grow in our hobby/sport of model rocketry through knowledge and then application in a couple different ways.

## NARTREK, Again

It's the acronym for National Association of Rocketry Training Rocketeers for Experience and Knowledge.

There are three basic levels, bronze, silver, and gold. After completing these levels you can select from several advanced levels.

Now, to make is easier for you I have become a NARTREK Deputy for GSSS. What this means is that you can get everything you need to start on the Bronze from me at a launch. As the deputy I can witness your flights, issue your certificate and present your patch right at the launch in which you complete the requirements.

There is a \$5.00 fee for each of the levels. But, as incentive to continue after you complete the Bronze level you can start on the Silver level and that fee will be paid through a special "scholarship" fund I have set up. It is not, I repeat not, coming from the GSSS treasury. We hope by then you will want to "go for the Gold" as well as some of the advanced

levels.

To get you thinking. The requirements for the Bronze level are very easy. Many of you have done them in the past (sorry those flights cannot be used) at sport launches or competitions.

They are:

- 1) Make a successful flight of at least 60 seconds duration using a motor of no more than "B" total impulse and recovered by a parachute.
- 2) Make a successful flight of at least 30 seconds duration using a streamer recovery device with a motor of no more than "B" total impulse.
- 3) Make a successful two-stage rocket flight using at least a type "A" motor in the lower and upper stages.
- 4) Make a successful flight of a model rocket using a type "D" motor.

All rockets for these requirements are to be built by you from existing model rocket kits.

There must also be a photograph of each of the rockets attached to the certification sheets.

The good thing is that you probably

have these models in your fleet right now. However, if you don't and would like to make sure you have what you need, I suggest ordering the Bronze NARTREK Package from Qualified Competition Rockets (7021 Forest View Drive, Springfield, VA 22150 or, email: brown007@bellatlantic.net). Cost is \$22.00 plus 7.00 shipping and handling.

SO, see me at the next launch and sign up for the Bronze level and begin then.

One last thing, you must be an NAR member, in good standing, at the time you complete any of the levels.

## TEAM AMERICA ROCKETRY CHALLENGE

This is another area where we can grow through the application of knowledge; as mentors. I have contacted Trip Barber to have our Section listed as one willing to give advice to a team that needs local expertise.

It is sponsored by Aerospace Industries Association and the NAR. With \$50,000 in U.S. Savings Bonds being divided among students of the top teams.

Its purpose is to teach high school students the practice of aerospace system design by having them design and build a safe and stable two-stage model rocket that lifts a fragile payload (2 raw eggs) to exactly 1500 feet and return this payload safely and undamaged, The model cannot weigh more than 3.3 pounds at liftoff and must use one or more commercially-made NAR safety-certified model rocket motors.

Each team has one attempt to accomplish this at a "fly-off", April 12-13, 2003 held near Washington D. C.

I don't know if we will be contacted or not. What I need now though is the names of members of GSSS willing to be part of our "team of mentors". See me at a launch, write me, call me, or email me; jacknmel@optonline.net And, thanks, thanks for wanting to share your knowledge.

Yes, you are right this could have appeared in the newsletter. I believe the newsletter should present what you and

the section has been doing. This "rag" is to share with you what I am doing for you and the section.

One last thing, I received this the other day and just had to share it...

A reminder on a Coast Guard vessel's bulletin board that fresh water is at a premium aboard ships on extended cruises was footnoted as follows:

"The USS Constitution (Old Ironsides) as a combat vessel carried 48,600 gallons of fresh water for her crew of 475 officers and men. This was sufficient to last 6 months of sustained operations. She carried no evaporators."

However, let it be noted that: "In July 1789, the USS Constitution set sail from Boston. She left with 475 officers and men, 48,600 gallons of fresh water, 7,400 cannon shot, 11,600 pounds of black powder and 79,400 gallons of rum. Her mission: To destroy and harass English Shipping."

"Making Jamaica on 6 October, she took on 826 pounds of flour and 68,300 gallons of rum. Then she headed for the Azores, arriving on 12 November. She provisioned with 550 pounds of beef and 64,300 gallons of Portuguese wine.

On 18 November she set sail for England and in the ensuing days she defeated five British Men-of-War and captured and scuttled 12 English merchantmen salvaging only the rum. By 26 January, her powder and shot was exhausted."

"Unarmed, she made a night raid up the Firth of Clyde. Her landing party captured a whiskey distillery and transferred 40,000 gallons aboard by dawn. Then she headed home."

"The USS Constitution arrived in Boston on 20 February 1799, with no cannon shot, no food, no powder, no rum, no wine, no whiskey and---48,600 gallons of stagnant water."

Keep 'em flying!

Jack Sarhage GSSS President

24 Canterbury Ct., Piscataway, NJ 08854