



# Altitude!



South Jersey Area Rocketry Society Official Newsletter  
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NAR Section #593  
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## SoJARS Turns Two!

### President's Corner

By Art Treiman

This issue I'd like to discuss our meetings. As I said in my email a few weeks ago, attendance at meetings has been steadily dwindling. My concern about this is for a couple of reasons. First, the presentation part of the meetings requires the presenters to put a good deal of time and effort into their presentations. While the quality of the presentations is excellent, it is unfortunate if someone spends time and money to do a talk or demo that is seen by only a couple of people. My other concern is that it is difficult to get a consensus of the group regarding decisions that affect the club when only a small percentage of the group is at meetings.

Since my initial email about this I've received a lot of feedback from the membership. I also posted my concerns to a listserver composed of officers of NAR sections all over the country. Much to my surprise, I found that pretty much ALL sections have low turnout at meetings. The feedback I got from our group was pretty much along the lines of "the meeting is valuable, I enjoy it, but I have to be at my job/kids soccer/doctor appointment, etc." This seemed to be similar not only with our group, but with all the other clubs, too. My bet is that the past year of high attendance was a burst of enthusiasm as we built the structure of our new club. Now it seems that things are pretty much getting done outside the setting a formal meeting. Email has made this possible so that much of the "business" now done at the meetings has already been discussed and decided ahead of time. Although most seem to enjoy the meetings, the time they require is a luxury that most of our group does not have.



A Great Turn-Out on a Perfect Spring Day

However, given that meetings are regarded as enjoyable and the presentations considered worthwhile, I still would like to continue them with a few minor changes. First, because some of you have a problem staying later, I'd like to propose that we do the presentations first, at 7:00pm. Then, business can be done when presentations are over. This does pose a risk as it seems that about 25% of the group arrives late, but I'd like to try it. Secondly, as we did a year or so ago, I'd like to move even more of our business to email. There are only a couple in our group without reliable email access. As I've said before, it will be important for people to speak up (or "mail up") if you have concerns, issues, or things you want done that aren't being done. You've all recently received a current club phone and email list. Soon the listserver will be up to speed. Let's see how it works out.

### Editorial

By Joe Libby

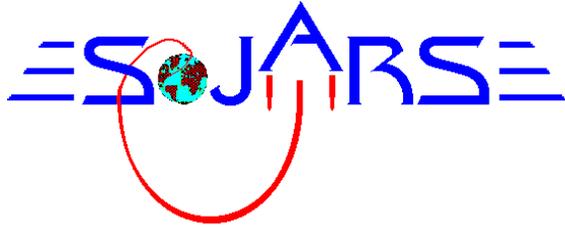
Boy was it nice to get out there and launch on Easter Sunday. I christened the Mach Buster, the Crest Patrol flew well, that is when *both* motors lit, and Junk Mail rose from the ashes (on an F39-6). All in all it was a beautiful day in

the April sun; and I made it home before my company arrived!

With this issue we celebrate SoJARS' second birthday. We've really grown tremendously since our first meeting, 26 May 1999. Last I heard, we have over 60 members! We've done so much in the last two years that I decided to go through my files to try to summarize some of our accomplishments to date... see Page 11.

This year also marks the 40<sup>th</sup> anniversary of the first man to fly into space and orbit the Earth – see

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Please visit the frequently updated **SoJARS** website at **<http://www.sojars.org>** or call the **SoJARS Hotline: 856-424-5905**

## **Calendar of Events**

### **SoJARS Meetings**

Unless otherwise specified, all meetings take place at the Cherry Hill Public Library, 1100 North Kings Highway, Cherry Hill, NJ. (856) 667-0300. Directions are available on our web site. For 2001, all meetings will be held on the 4th Tuesday of the month, 7:00pm - 9:00pm, in Room A.

Tuesday, May 22.

Presentations: Aerial Photography.

Art Treiman will entertain and educate us with a talk on aerial photography.

Tuesday, June 26.

Presentations: NARAM and Competitions.

Chris Taylor will tell us about his experiences and share some advice.

Tuesday, July 24.

Presentations: TBA

### **SoJARS Launch Dates**

Unless otherwise specified, our launch area is at the Gloucester County College. Directions are available on our web site.

Sunday, June 10, 11:00pm to 4pm.

Raindate: June 17.

Theme: "SoJARS Summer Challenge." Events will include ½A Boost Glider and B SuperRoc Duration. Trophies will be given for 1st, 2nd, and 3<sup>rd</sup> place overall. Application form needs to get to Tom Mitchell before the launch date, or at least send an email saying what events you're going to fly: **tmitchell@citnet.com**

Sunday, July 15, 11:00pm to 4pm.

Raindate: July 22.

Theme, Funtest, Vendor: TBA

Sunday, August ??, 11:00pm to 4pm.

Raindate: TBA.

Theme, Funtest, Vendor: TBA

### **GSSS, NAR #439**

Launches usually are held on the fourth Saturday of each month, 10am - 3pm: June 23, July 28, Aug 25, Sept 29, Oct 27, Nov 24, Dec 29, 2001.

Location: North Branch Park, near Somerville, NJ

GSSS Hotline: (908)-658-9417

Website: **<http://www.robnee.com/gsss/>**

## Calendar of Events

Continued

### **MARS, TRA #105**

Next Launch: TBA.

Location: Sod Farm, Allentown, NJ.

Website: <http://www.njtripoli.org/>

### **METRA, TRA #94**

Next Launch: June 8, July 9, August 5, 2001.

Location: Rickey Farms, Vernon, NJ.

Web: <http://www.metrocketclub.org/>

### **Garden State Tripoli, TRA #74**

Next Launch: RATS X has been CANCELLED.

Location: Cederville, NJ.

Website: <http://www.njtripoli.com/>

### **PARA, NAR #520**

Next Launches: June 3 & July 1, 11:00a - 4:00p.

Location: a farm 9 miles north of Doylestown, PA

Phone: You may call Chuck Arkens (215) 855-5599 or David Stoetzer (215) 412-4348 the night before or the morning of the launch for verification.

Website: <http://users.erols.com/dstoetz/para/>

### **Deleware Tripoli, TRA #106**

Next Launch: TBA.

Location: Harper Farm, Rhodesdale, DE

Website: <http://www.detripoli.org/>

### **Maryland Tripoli, TRA #68**

Next Launch: TBA.

Location: Higgs Dairy Farm, Price, MD

Website: <http://www.mdtripoli.org/>

### **NARAM - 43**

August 4 – 10, 2001, NARAM will be held relatively close to us, in Geneseo, NY! Contests planned include: 1/2A BG, 1/2A FW, A ALT, B SR ALT, C SD, C EL ALT, D HD, SpSc, and R&D. SoJARS members should be there!

## Altitude! Deadlines

Submissions for publication are accepted continuously by the editor. The Deadline for the July/August issue will be July 6.

## Editorial

Continued from Cover Page

Barry's fine story starting on Page 6. Russ Mozier likewise gives us a glimpse of history in his story of his trip to a Titan Missile Museum, Page 7.

Additionally we have an EGGcellent story from Art, a report on the East Coast Hobby Show, news of Mark's & my fun day at the Hartford School, some cool website stats, several FYIs and tips, and tons of photos from our latest launches (Bob Jonas flooded my email-box!) Thanks to all for the stories and pictures alike.

## Launch Reports

### **April 15, 2001**

By Barry Berman

It's Spring. It's Easter Sunday. What were we doing flying rockets today? I've just returned home from the launch field, hot and thirsty with the tang of Black Powder still lingering in my nostrils. I have a terrible case of "farmer's tan". My new rocket didn't stage properly and pranged...

And yet, it was one of the best days on the launch field that I can recall in a long time. We flew around 110 flights. We had a terrific turnout. Sure, some familiar faces were conspicuous in their absence, and others could only stay for a little while, but those who were there witnessed one of the most enjoyable rocket flying days that I can remember.



Here's the winning formula: Take a hobby, which is already loads of fun in itself, and add some of the most agreeable people you could possibly find. Add 68-degree weather, mostly sunny skies, and almost no wind at all, and you get an absolutely great SoJARS launch day.

Being Easter Sunday, the theme of the day had much to do with eggs, egg lofting, and Easter-related themes in general.



John Coles, our resident oddroc-er, flew a carrot roc, and a rabbit roc, which, not so surprisingly, flew respectably well despite being covered in “fur.” I wonder what the “boundary layer” looks like on that one. Does “Rocksim” have a finish setting for “fuzzy?” John did do a conventional (for him, I suppose) egg loft, however always unpredictable, he piston-launched his egg in a rocket resembling a bazooka shell. John also flew his “Harold” (the purple crayon), built from a large toy bank resembling a Crayola crayon, on a F40-4. An all-too-familiar “Coles Bonus Delay” created a brief tense moment, however all was well, and the chute deployed in the nick of time.



Chris Taylor, also prone to flying strange birds, flew an inflatable Easter-Egg-beach-ball equipped with foam fins to a remarkably nominal flight. Chris also flew his Quest Cam, which took real time video of its flight. This video was showing on his laptop computer immediately following the flight. He and Art also flew some of his Nano-Gliders, which Chris makes and sells.

Paul DeCrane’s egg launcher was called the “Holy Hand Grenade” and for those who are familiar with the movie *Monty Python and the Holy Grail*, rest assured that three was the number of the countdown. Not two, not four... ..five was “right out!”



Providing equal time to the other religious festival currently on the calendar, Club President Art Treiman flew a matzoh box with fins designed to look like boards of Jewish unleavened bread, also with remarkable results. Not just “Kosher” but aerodynamically stable, too! Art wanted to call it the “Matzoh Fly,” but he and I would probably be the only ones to get the joke. Happy Passover!

Art also managed to do something spectacular. After a short but decent flight, his egg-loft entry, the Eggscalibur, landed right back on the pad it took off from, snagging one of it’s two chutes on the launch rod, and scoring a rocketry hole-in-one!!! For those who weren’t there, we have witnesses and photos to prove it. [See story on Page 8 – JL]

We had some spectacular failures as well. Henry Rosenblatt flew his Eliminator on a G-80 on what started as a nominal flight. Unfortunately, the recovery device failed to deploy, and at the opposite

end of the field, we could hear it whistle loudly as it augured in hard. It shredded the upper section and it took several minutes to extract the nose cone from the turf.



Similarly, my ill-fated (not again?!) Big Farside staged I to II fine, however stage III failed to light, and the sustainer and attached 2nd stage drilled itself into the grass. Post-failure analysis revealed failure of the sustainer and 2nd stage motor mounts due to use of inappropriate adhesives (Elmer's). Just like Henry's rocket, the payload section adjacent to the nosecone was shredded, and the nose-cone imbedded into the ground. And yes, it's already been repaired, using epoxy!

#### Miscellany:

We had a Big Bertha drag race won by Steve Bastow, and a Silver Comet drag race won by yours truly. Paul Hoffmaster ("that's 'Hoff MASTER'!") flew several nice models "low and slow" just like he likes them. He should buy A8-3's by the case! It took Joe Libby two tries, but his "model of the month"-winning Crest Patrol had a great twin-engine flight, thereby proving that a rocket with three fins placed 90 degrees apart is still stable. Pat Flanagan's Saturn V launched on an E this time instead of its customary D, and wasn't underpowered anymore. What it was, was all-over-the-sky scary. Reports Pat: "needs nose weight." Steve Bastow managed to catch his Super-Vega on the fly about 20 feet from

the launch pad, after a nice flight. We thought this was cool until Art's "mother of all spot landings"!



For me, though, one of the high points of the day was the flight of Randy De Pasquale's scratch-built X-51. Randy's model sported a long length of body

tube around the central tube acting as a stabilizer in place of fins. NO fins. He described it as “a big heads up” and he wasn’t kidding! It string tested OK, but in flight on a D12-3, it flew everywhere, taking a harrowing 5 - 6 seconds to figure out where it wanted to go before landing safely. Meaning it didn’t injure anyone! Of course the fact that it strongly resembled a javelin and sported the pointiest nose cone I have seen in a long time, made it even more frightening! Post flight debriefing by the rocket scientist (John Coles) suggested that the outer tube was too long. This caused the air to preferentially go around the tube rather than through it, creating the instability in flight. Of course HE’s the one who cleared it for flight! Back to the drawing board for Randy, but I can’t wait to see the next one.

Next launch is Sunday, May 20th at our new launch time of 11AM. Hope to see you there.

## **Members’ Forum**

### **40th Anniversary of Yuri Gagarin’s Historic Flight: April 12, 1961 - April 12, 2001**

By Barry Berman

Most of us received Joe Libby’s recent e-mail reminding us that Thursday, April 12 marked the 40th anniversary of Yuri Gagarin’s 1961 flight into history, when he became the first man in space and the first to orbit the Earth. Since I have long been absolutely fascinated by the Soviet space program, I thought I’d share some additional material about Yuri Gagarin’s flight.



Here in the “decadent western capitalistic nations” we seem to have an affection for names over numbers, and accordingly names such as Atlas, Redstone, Saturn, etc. were used for our missiles and boosters. This degree of creativity being somewhat lacking in the “workers paradise” the Soviets named

their ICBM booster used for Gagarin’s flight the R-7, for “rocket number 7.” In some books and articles you might see it referred to as the “Semyorka” booster. This translates from Russian as “Ol’ Number Seven,” and it was the Soviets’ affectionate nickname for this very versatile booster. Of course now they have cool names like Proton and Energia, but they’re capitalists now!

If you have seen the old Estes kit, or any model rocket plans for the “Vostok” you’ll recognize it right away. The Semyorka had the appearance of a central sustainer surrounded by four strap-on boosters. Actually, since Russian missile technology at the time did not have large rocket motors, the R-7 was made up of many small motors clustered in the sustainer and in each booster. In actuality, the name “Vostok” refers to just the capsule at the top. This booster, with modifications, was the backbone of Soviet manned space flight for many years. With a second stage added, it also launched the two (and three)-man Voskhods.

Like almost everything else in the Soviet Union at the time, Gagarin was reportedly chosen for his political reliability as well as piloting skills and bravery. Many of us have seen the famous photo or movie clip of Alan Shepard stopping to look up at the Redstone booster he was about to ride on. In a similar, but typically Soviet fashion, Gagarin stood at the base of the rocket and made a small speech about the triumph of the Soviet system before putting on his space helmet and riding to the top of the Semyorka-Vostok spacecraft. One report suggests that Gagarin felt that a speech was expected of him, but after he began, he saw the slightly pained looks on the faces of his superiors, and cut the speech short.

In equally typical Soviet fashion, Gagarin had absolutely no control over anything in the Vostok, remaining a passenger during the entire flight. Every aspect of the flight was handled by mission control. It is reported that due to Soviet paranoia, the reentry/retrofire codes were kept a secret from the Cosmonauts. Going against direct orders, Sergei Korolev, the Soviet “Chief Designer,” reportedly gave these codes to Gagarin just before the hatch was sealed.

It is also reported that Gagarin shouted “poyekhali” (here we go) on takeoff. This is nice, but for my money, nothing can touch Scott Carpenter’s “Godspeed, John Glenn!” (Go ahead. Call me “nyekulturny.” I don’t care!)

The USSR didn’t have the resources (\$\$\$) to build and staff the extensive network of tracking stations and ships as the USA did. Nor did they have enough friendly nations to allow these stations to be built around the world, again as was done by the United States. These necessities caused the flight

path to be designed specifically to stay over the USSR as much as possible. Those of you who watched the recent death dive of Mir, may have noticed the same thing - that the station's flight path on the final (de)orbit passed almost entirely over Russian airspace before passing over, and eventually into the Pacific.

These engineering and political limitations made it absolutely imperative (for the Soviets) that Gagarin land within USSR territory, and therefore ON LAND, rather than "splashdown" in the ocean as was called for in the American Mercury capsule design. In later Soviet capsule designs, such as Voskhod and Soyuz, a landing rocket fired just prior to the moment of impact allowing a safe dry landing. This was not available for the Vostok, so the limitations of Soviet engineering technology at the time made it impossible for Gagarin's Vostok spacecraft, known as the "Swallow," to make a safe landing without killing or injuring it's pilot.

Therefore a very interesting recovery sequence took place. After firing it's retro rockets and reentering the atmosphere in the usual way, the Vostok spacecraft opened its parachute, slowing it for landing. All more or less standard up to this point. After the craft slowed and stabilized, Gagarin EJECTED FROM THE COCKPIT, landing independently with a personal parachute, and allowing the now pilotless Vostok to make a controlled crash onto Soviet turf. Legend has it that he landed on a farm and was quickly joined by a peasant woman who, seeing him in his spacesuit and helmet, asked if he had come from outer space. Gagarin reportedly laughed and answered that he had indeed done just that!

The details of Gagarin's landing was a Soviet state secret for many years because the Federation Internationale Aeronautique (pardon my French) required that in order to qualify for one of their coveted prizes (altitude records, speed records, etc.), a pilot was required to actually LAND his ship. NO payoffs for crash landings even if you had set a record before you crashed. The USSR kept this little technicality a secret and claimed (and received) the Federation prize on Gagarin's behalf, for the first manned space flight.

This in no way diminishes from Gagarin's amazing accomplishment. Prize or no prize, he was the first man in space and the first to orbit the Earth. Although Alan Shepard flew a few weeks later on May 5th, 1961, his was a suborbital flight which lasted only 15 minutes. Before we could launch John Glenn into an Earth orbital flight in February, 1962, the Soviets had made more, and longer orbital flights.

Ironically, the "weaknesses" of Soviet space technology and the "strengths" of the American

program is what gave the Russians the prize. Not having the necessary big boosters, the Soviets merely clustered many smaller motors together, while the "think big" Americans took more time to develop superior rocket motor technology (Atlas, Titan II, and eventually the amazing Saturn-V). The US lagged behind the Russians, appearing to the world as a second-rate space power. More ironically, if the "space race" hadn't taken place in this way, real space planes like the Air Force's X-20 might have been our ticket to space instead of the ludicrous idea of sitting an astronaut on top of an ICBM!

Fastest promotion in the history of space flight! LIEUTENANT Yuri Gagarin took off and orbited the Earth once. MAJOR Yuri Gagarin landed approximately 90 minutes later!

Tragically, Yuri Gagarin died only 7 years after his historic flight. Part of the irony is that after the flight, he was practically worth his weight in platinum to the Soviets for his propaganda value alone. They kept him off flight status, much as American space officials (reportedly on JFK's orders!) did with John Glenn. However on March 27, 1968, while test-flying a MIG-15 fighter airplane near Moscow, he reported to ground controllers that he was on a compass heading of 220 degrees. It was the last time his voice was heard. About 45 seconds later, the plane smashed into the ground. He was 34 years old.

More information about the Soviet space program may be found at James Oberg's excellent website at: [www.jamesoberg.com](http://www.jamesoberg.com)

## **Titan II Missile Museum**

By Russ Mozier

Several months ago I read an article in Sport Rocketry about the Titan II Missile Museum in Green Valley Arizona. At the same time my wife and I were planning a trip to Phoenix to visit our son Russ and his wife Becky. Our son is former military and both Russ and Becky are currently in the Air National Guard. They know of my interest in the military so they set us up with a visit to Luke Air Force Base in Phoenix and a visit and tour of Davis-Monthan Air Force Base in Tucson. I decided that while we were in Tucson I wanted to go to the Titan II Museum in Green Valley.

I enjoyed the fighters at Luke and the fighters and the boneyard at Davis-Monthan but my wife was not as impressed - I think she tags along on these side trips to humor me. Things were different after the Titan Museum visit; she has said several times that she really liked that tour. When she talks about our trip she describes that as one of the best tours she has

taken with me. Who knows, maybe one day I'll get her to launch a model rocket.

This Titan site is the only one of the 54 original sites left, all of the others have been filled in or gutted. The Titan II was the largest ICBM developed by the United States. The missile is 103 feet long and 10 feet in diameter. These missiles were fueled, loaded with nuclear warheads and ready to launch from 1963 through 1987. The missile could be launched within one minute of receiving the launch codes. The Air Force has never released the actual yield of this weapon, but it can be said that it was in the megaton range (millions of tons of TNT) and was the largest single warhead in the United States' missile arsenal. It is awesome to realize what the launch of these 54 missiles could have done to the world.

The guide on the tour we took was in the Air Force and was stationed at this silo while the missile was active. He told us there were four to a crew, two officers and two enlisted and that they worked a 24 hour duty shift. Because of security checks it took 45 minutes to change a shift. They had to use the buddy system and stay in twos all of the time, one could never be alone. Each missile was programmed for three targets, the one it was launched toward was determined by the code they received and the men in the silo had no way of knowing what the target was. On it's way to the target the missile would fly for about 5,500 to 6,000 miles, attain a top speed of just under 17,000 MPH and exceed 500 miles in height, all of this in about 35 minutes. Once the missile has been launched it is totally inertial: the crew cannot communicate with it in any way, the target cannot be changed, it cannot be turned around and it cannot be destroyed.



The photo is looking down at the missile in its silo through the clear glass cover. To be there and see it in person gives you chills, the amount of destructive power we had at our fingertips.

## East Coast Hobby Show

By Joe Libby

Pat Flanagan deserves a ton of credit and our gratitude for getting us a booth at this year's East Coast Hobby Show, March 24 – 25, 2001, especially on such short notice!



Now, I had never been to a hobby show before, let alone the biggest one on the East Coast. Needless to say, I was quite impressed. I had no idea how big this event would be, even though I did visit the website before I went ([www.hobbyshow.com](http://www.hobbyshow.com)). According to the website stats, last year some 18,000 people dropped in on the 200+ vendors and exhibitors. I'd say there were at least that many this year. If I may start with a negative, though, I was very surprised, and a little disappointed, how few rocketry vendors were there. Likewise, I was not only disappointed but frankly shocked that we were the only rocketry club there. I totally expected PARA, GSSS, and at least one of the Triploi sections to be there. But then as I said, it was all new to me.

The first thing I noticed, and one really couldn't miss it, was that at least half of the displays were on roailroading. I never realized how popular that hobby is. However, except maybe for some impressive landscapes and one train with a little video camera attached that made for a cool TV display, they got nothin' on us!

Rocketry vendors there included Aerotech, Public Missiles Ltd. (PML), LOC Precision, Quest, and (while not specific to rocketry, they did have a boatload of rocket kits on sale for 40% off) Allied Hobbies. The Aerotech people had some cool on-board-camera rocket videos, and lent us a section of an M reload (demonstrator) for our display. The LOC guys were very friendly and knowledgeable, as were the Quest and PML vendors. I was a little surprised Estes wasn't there, nor some of our local hobby shops. [Later in the month I stopped by D&K

*hobbies in Cherry Hill and they told me they went on Monday, which was hobby stores only day.]*

While I really can't say who had the most popular display, and I admit to bias, we drew a heck of a crowd at times. I was only there Sunday, but heard Saturday was as if not more busy. Quite a few SoJARS members participated, too. I especially enjoyed when little kids would stop by and get all excited and ask all kinds of great questions. Of course, a few dads did some reminiscing (I could hear the BAR bug buzzing!), too.



All in all, the East Coast Hobby Show was a lot of fun and also a great success for SoJARS. We got to meet some of the "names" in model rocketry, we got to see some other hobbies and share ideas, and we got to show off why we enjoy our hobby so much to a lot of interested people. As Pat reports below, following the Hobby Show we had a nice jump in our website hits. And at our April Launch, even though it was on Easter Sunday, quite a few new faces showed up, having seen us at the Hobby Show.

We should definitely plan to be there next year!

## **Hartford School Demo**

By Joe Libby

I am so glad I went to the "Science-Sational Day" at the Mount Laurel Hartford School. As you may know, Mark Duerr told us about it at the meeting on Tuesday, March 27. In spite of the short notice, I think we did a good job, and had a lot of fun, too!

Mark was there already when I arrived at just before 10am. He had brought a variety of rockets & props. The rockets ranged from Estes Mighty Mites to an unfinished North Coast Rocketry Lance Beta. Mark also had a pair of Estes RTF X-Flyers and a Quest Thunder, too. A launch pad, streamers, a parachute, flameproof wadding, several Estes motors, igniters, and a launch controller facilitated our show and tell presentations. We stressed the importance of safety, showed the parts of a rocket, how a motor

works, and fielded lots of great questions from the kids. Then we went out & launched a bunch of rockets with the kids shouting out each countdown! We did this for three groups of kids. Steve Bastow arrived in time for the third group.

We had to launch small stuff as our "field" was a very irregular area behind the gym, about 250 feet by 150 feet max. A baseball field (occupied!) was maybe 100 yards from the gym. Woods surrounded all and where I could see through trees I saw houses. For our first group we spent a little too much time on the indoor presentation, so only had enough time for three launches. Mark started with two Mighty Mites on 1/4As and then put up his Quest Thunder on an A8-3. One of the Mighty Mites suffered a shock cord separation, which Mark repaired for the next group.

We were a little more efficient with the second group, allowing time for five launches. Mark again started with the Mighty Mites, this time on 1/2As, then the Thunder on an A8-3 again. I then launched old reliable Big Bertha on a B6-3, with an encore flight to appease the cheering kids.

We managed even more time with the third group, getting in seven launches. This time when Mark started off with a Mighty Mite he must not have realized he installed an A3-T! Needless to say the tiny rocket went out of sight – our only loss for the day. We next put up the Thunder on an A8-3, then an X-Flyer on a C6-5 – almost losing it! Mark found it at the edge of the woods, about 150 yards downrange. The Big Bertha flew next on a B6-3 and came down fast as the 'chute didn't open. Suffering no damage, she flew again with a clean recovery. Steve then thrilled the crowd with his Estes RTF Skywinder, with it's cool helicopter recovery. At first it was underpowered on a B6-4, but then flew beautifully on a C6-3.

All in all it was a great day of outreach for SoJARS, M&G Hobbies, and the School, too. Event organizers Nancy and Jeff MacPhee have told me that both parents and kids alike found it very entertaining and educational. Mark and I had even chatted with a few of the dads who seemed very interested. SoJARS and M&G flyers were given out to all.

## **Eggscaliber Lands On Its Launch Pad**

By Art Treiman

Email Replies Follow

Sorry to shout, but I've hit the mother lode of spot landing... the hole-in-one of the rocketry world... I landed my B egglofter right back on its pad!!!

I've got witnesses in case you doubt. The scene: SoJARS launch today [*Easter Sunday, April 15,*

2001]... gorgeous... mid 60's, partly cloudy, no wind (well, ok... maybe a few gusts to 3 - 5 mph!) Chris Taylor wandering around in a fluorescent orange wide-brimmed hat... SoJARS Easter Egg loft theme fun-test... I've already successfully flown my Astron Matzoh (that's right, kids... I've already flown a box of matzoh on this day!). The contest: SoJARS is not exactly a hotbed of competition rocketry. We are actually planning our first sanctioned contest. 60 members, exactly two (maybe three) have actually flown in a sanctioned contest. Most we've ever gotten to fly in a "fun-test" was three people (I came in second all around!). That being said we are always trying. Today was to be B Eggloft duration funtest. Our group is filled with such dedicated contest flyers that the contest director decided Saturday (yesterday) that being home with family on Easter was more important than burning black powder. We started flying early today due to the holiday at 11:00. Weather as I've said was perfect. After around 100 flights and 4 hours later, one Mr. John Coles decided to fly his scratch built egglofter. Actually, he started trying to fly it 3 1/2 hours after we started but it took him three tries and half an hour to actually get airborne. Now, you need to understand Mr. Coles a little. An aerospace engineer by profession, it sucks to be competing against someone who actually really IS a rocket scientist. Not only does he know some serious stuff, he's a pretty talented modeler. So, JC whips out his modified somethingorother (I think) with fins cut to fit inside his piston and tube launched bazooka launch pad (built just for today's funtest... as I said, it sucks to compete against an aerospace engineer). Fortunately for me, the more complex you get in modrocs, it seems the more there is to fail. Hence three tries to get airborne, and finally, after giving up on the tube, JC turned in the rousing score of 25 seconds. Well, I smelled opportunity. Sure, I could beat 25 seconds. So I whip out trusty Eggscalibur...my "form is better than function" scratch built egglofter. Basically, an Estes Omlold nose, 18" of bt-56, and four very large curvy fins meant to look like eggs. Painted blue, white, and with the fluorescent orange nose, Eggscalibur is one of my more attractive rockets. I didn't want to put a monster chute in it and lose it so I just threw it in my box figuring if I flew, I'd place in the top three as always! Well... as I said... I figured I could beat that 25-second time. I scrounged a couple of 18 in chutes from my range box (yeah, I could have built a 24" one earlier, but that would have actually been competitive) and loaded up my now big and heavy bird w/ a B6-2. You could feel the tension in the air...all five of us left (the other 40 had already gone home to be with their families or something... wassup with that?) watched closely as the countdown hit

zero. RSO Chris Taylor hit the launch button of the clubs 10 station dual relay rechargeable modular with optional remote firing button launch system (designed & built by guess who... that's right... Mr. Coles) and Eggscaliber's mighty B motor roared to life. She accelerated like a Yugo with a bad tank of gas into the afternoon sky. The ground shook as the ice fell away from the liquid oxygen tanks. Then, at perfect apogee of about...oh...75 feet or so, she hovered for a long second and then ejected. She began the race against gravity as the weight of her precious embryonic avian cargo pulled her down. At about 25ft agl, the massive pair of 18" parachutes opened, the home designed red mylar glinting in the sun while the gorgeous purple and white Estes chute joined it at its side. And then... she settled gently right back onto the rod from which she had thundered forth...a mere six seconds earlier. Picture on ABMR.

Thank you all, and good night.

Art Treiman  
South Jersey Area Rocketry Society  
NAR# 34201  
Level I

Art,

Since you achieved the rocketry equivalent of a hole in one it only seems fitting that you receive a special gift. A fresh new package of Estes B6-2s is waiting for you at M&G Hobbies with my regards. Also, to let every one know the LOC/Precision order arrived today. Lots of goodies and some great kits!

Mark Duerr  
M&G Hobbies

"...and he who can land Eggscalibur back on its rod shall be crowned king!" ALL HAIL KING ARTHUR!!!!

Randy DePasquale  
Barry Berman

*[Independently, simultaneously submitted by both – JL]*

I pushed the button. It went up almost straight to I would guess maybe 50 or 60 feet. It tilted (could not call it an arch - NO WIND) and while the rocket was virtually motionless it spit the nosecone and slid backwards and the two chutes opened. It came down just in front of the pads and the red mylar chute hooked the rod! And the same rod from which it launched from! Needless to say it was very cool.

Chris Taylor

NOOOOO WAAAAAY!!!!

I want pictures (video would have been better, and mind blowing!), I want witness testimonials, and

I want the write-up in doc format so I can put it in next newsletter!  
Joe Libby

I agree with Joe. Sounds a little "EGG"sagerated to me. The pictures, and there better be plenty, will have to prove this "EGG"xact spot landing!  
Steve Bastow

HEY I witnessed this! I was the one who pushed the button AND the one who damned myself for not taking video of what I thought would be a Ho Hum flight :-). You really could NOT have asked for a better rocket flying day. Warm but not hot. Slight "shifting" breeze every now and then to keep things cool but nothing really drifted - even a little thermalling here and there. Also mostly cloudy which kept the sun from baking us. AND both my D engines flights worked (Miracle) and one was the Eggsrific! And Mother Nature did not object with a 30mph gale wall this time :-).  
Chris Taylor

Allright losers!!! Just click on <http://members.home.net/thetreibans/easter.htm> and see it all!  
Art



## SoJARS at Two: A Look Back

By Joe Libby

As I mentioned in the Editorial, I just *had* to dig through my files to remind myself how much we've done the past two years. Here are just some of the many highlights that jumped out at me...

26 May 1999, our first meeting. Thanks to Art!  
18 July 1999, our first launch. 11 fliers made 58 launches! Pat Flanagan holds the honor of First Official SoJARS Launch with his Estes X-Wing on a C6-3. By our second outing we had broken 100 flights, the 100<sup>th</sup> by Nicholas Romano with his Estes R2-D2 on a C6-3. By November 1999 Mike Rossbach logged our 200<sup>th</sup> flight with his Stretch Blobbo on a D12-5. We put up 111 rockets on that date alone.

We've thus far had a total of 18 launches (not counting about 3 "secret" launches and 3 demo launches - see below) in 22 months of flying, having cancelled just 4 times. I don't have complete statistics, but for the 14 launches that I do have totals we logged 1105 flights for an average of 79 per outing, with a range of 26 (at the January 2000 "Fire-on-Ice" launch) to 126 (October 2000). So we've literally put 1000s of rockets into the skies of South Jersey!

As for demos (we'll just ignore the "secret" launches for now) there was the Whitehall School demo in May 2000, the Cape May Air Show in August 2000, at least one Boy Scouts Demo, and most recently a Demo at the Mount Laurel Hartford School.

In addition to demos, let's not forget the East Coast Hobby Show just this March 24 - 25. We had tremendous exposure, not to mention a lot of fun. And Pat recorded a big jump in hits on our website afterwards (see story that follows)!

We have some true craftsmen to be proud of, too. Here's a listing of our Model of the Month winners:  
September 28, 1999, Tony Romano's Tan-Sam won our first "Rocket of the Month" contest.  
October 26, 1999, Nike-Ajax and Phoenix tied.  
November 15, 1999, Steve Wilson's Sandhawk.  
December 13, 1999, John Coles' Estes F-14 Tomcat.  
January 2000 meeting was canceled due to snow.  
February 22, 2000, John Coles' Tango Papa 1.6x Mars Lander.  
March 28, 2000, Darren Wright's high-power Hawk Mountain 'Transonic'.  
April 25, 2000, Steve Childs' SA-14 Archer.  
May 23, 2000, Tom Mitchell's Aerobee.  
June 27, 2000, Steven Wilson's Little Woody.  
July 25, 2000, Bob Ross' Saturn V.  
August 22, 2000, No Entries.  
September 26, 2000, Bob Ross' SR-71.  
October 24, 2000, Steve Wilson's WAC Corporal.  
November 28, 2000, Russ Mozier's Exocet Missiles.  
December 2000, meeting cancelled due to holiday.  
January 23, 2001, Bob Ross' Mercury Redstone.  
February 26, 2001, John Coles' Purple Crayon.  
March 27, 2001, Joe Libby's Crest Patrol.  
April 24, 2001, No Entries.

I know there's some concern about poor attendance at the meetings lately. Well, consider this: we had 16 people at our first meeting, and since then have ranged from 8 (7/99, 12/99, & 8/00) to 20 (5/00) averaging 14 people for the 21 meetings in 23 months (we had cancelled only 1/00 & 12/00 due to weather and holidays respectively). In other words, we have a pretty consistent showing, though I agree it would be nice to have more. Consider further what we've accomplished at the meetings, aside from creating the only NAR section in South Jersey. We've learned a lot from each other from the following presentations: Finishing Techniques, Airbrushing Techniques, A History of Rocketry, Glues and Adhesives, Fiberglassing, Rocket Stability, Kennedy Space Center Trip, High Power (Talks 1 through 4, including building a Level One Rocket right before your eyes), Knots, Motors, Parachutes... not to mention all the impromptu talks on how-to and tips, lots of videos and photos of our own launches, even the Model-of-the-Month often turns into a mini-presentation... See how much you may have missed already!

All of this is not to mention the camaraderie of spending a couple of hours with a dozen or two friendly people who share a common interest. That's what a hobby is all about. It's about getting away from the stuff you *have* to do and spending some time (even if it's just a little time per month) doing something you *want* to do. And as you can see, we've really done a lot in a short time. Let's stay motivated for many years of fun yet to come!

## FYI

### **SoJARS Website Stats**

By Pat Flanagan

I was paroozing the web stats this evening and ran across some lovely stuff... It seems this March is the highest scoring day in the history of the site. For this month we've been visited 1,031 times for a total of 14,594 hits and 221,277,141 bytes transferred. Last March we got 38 visits of 370 hits at 1,063,896 bytes transferred. The records are like this:

Most Hits: 1,034 (March 26, 2001)

Most Bytes: 16,393,033 (March 26, 2001)

Most Visits: 58 (September 17, 2000)

Most PViews: 376 (March 02, 2001)

From those numbers it looks like the East Coast Hobby Show drew a massive crowd. The forum is remaining as the most popular section accessed at 1,091 hits for March. The index is second and the library third. By physical volume our newsletters are

the highest-ranking files, most likely due to their enormous size compared to the rest of the site.

Here's a real interesting part. Our visiting domains (the suffixes from which people come) are not limited to the United States! Here's the list:

8,196 hits	139,060,318 bytes	.com = US Commercial
5,031 hits	51,329,514 bytes	.net = Network
1,033 hits	19,074,629 bytes	.xxx = Unresolved Domain
142 hits	3,260,296 bytes	.us = United States
12 hits	2,408,022 bytes	.ca = Canada
49 hits	1,201,228 bytes	.edu = US Educational
8 hits	998,574 bytes	.uk = United Kingdom
27 hits	984,241 bytes	.mil = US Military
13 hits	845,725 bytes	.de = Germany
23 hits	686,300 bytes	.org = Non-Profit Organization
7 hits	488,610 bytes	.it = Italy
30 hits	384,977 bytes	.fr = France
1 hit	227,296 bytes	.il = Israel
18 hits	165,029 bytes	.pl = Poland
4 hits	162,382 bytes	.jp = Japan

Now for the not so bad news. It looks like 7 hacking attempts have been made on the site. All unsuccessful. I've noticed no problems but if you run across any let me know before it becomes an embarrassment to the club. Don't need any foul language or anything like that. Looks like most of the attempts were php phreaking attempts. Probably trying to get credit card numbers. Since we don't store any info of members on the servers let alone even use php the attempts failed in a 404 not found for them.

## **Origin Of The Countdown**

By Barry Berman

An integral part of all rocket launches, including ours of course, is the countdown. But have you ever given any thought to where this procedure came from?

For the pros, the countdown starts many days before the actual launch, and contains pages upon pages of required steps which all must be done in the proper sequence in order to launch a multi-million dollar rocket. For us, the 5-second count before launch primarily serves as an attention getting device to focus everyone's mind on the launch for safety reasons. The prepping leading up to the launch is done on one's own time. German film director Fritz Lang invented the countdown for his 1929 film *Frau im Mond* (Woman on the Moon) as a tension-creating plot device. The early practical rocketeers, coincidentally also Germans, adapted the technique for V2 launches. As Wernher von Braun is reported to have said, "We aim for the moon, but sometimes we hit London." Another case of "life imitates art." Of course, that's "art" with a small "a."

## **Olympus Digital Camera Tips**

By Russ Mozier

Several members have the Olympus D-340 digital camera like mine. They may be interested in knowing that they can *upload* photos into the camera from their computer. It's not in the manual but, using the "Camedia" program that came with the camera, highlight the photos you want to upload and click on upload photos. This is great for creating slide shows.

Also, if the smart media card becomes corrupted it can be reformatted. I had this problem and I called Olympus and they told me how to do it. You will not be able to recover the photos on the disk. All you do is hold the erase button down then turn the camera on with the green button on the back. Next you press the shutter button and the disk is reformatted.

## **SoJARS Summer Challenge**

By Tom Mitchell

A reminder that the "SoJARS Summer Challenge" will be held June 10, 2001. Events will include 1/2A Boost Glider and B SuperRoc Duration. Trophies will be awarded for 1st, 2nd, and 3rd place overall. Anyone who has an application form needs to either get it back to me before the launch date (or at least send me an email saying what events you're going to fly: [tmitchell@citnet.com](mailto:tmitchell@citnet.com))

## **Parachute Website**

Submitted By Russ Mozier

A good parachute site is: [www.para-gear.com](http://www.para-gear.com)

## **Meeting Minutes**

### **March 27, 2001 Meeting**

By Jeff Gage

#### Attendance

Meeting called to order at 7:15 pm by President Art Trieman. Attending: Barry Berman, John Coles, Jeff Gage, Bob Jonas, Russ Mozier, Joe Libby, Tom Mitchell, Mark Duerr, Steve Bastow, Chris Taylor, Jim Duffy, Bruce Canino, Peter Menard, Pat Flanagan & son.

#### Treasury Report

John reports that the cash box has \$65.00 and the checking account balance is \$839.00.

#### Launch Dates

April 15: The first annual Easter EggStravaganza is set for noon, but Art is trying to get a "go" for an 11:00am early start. Bring your egglofters, purple crayons and lots of Grade A large eggs.

May 20 (raindate May 27): Theme is "The Berman-Trieman Barbie Open." Bring a chute for Barbie because we don't want any of the "Barbie's Rights" folks complaining about the ELEO's.

June: Date to be announced. Things are firming up for our first NAR sanctioned section contest. The competition will feature B SuperRoc and 1/2A Boost Glide duration. It is hoped that this section contest will help us gain experience in hosting and running an "official" contest. Plans are in the works for our first "Annual SoJARS Open". Contact Tom Mitchell if you would like to help with this or any other contest.

#### Range ops report & Failure debriefing

Two priority issues were discussed:

1. Launch rod angles and wind. We as a group must ensure that no rockets are allowed to descend onto Tanyard Road. Please allow the RSO/RCO to advise you on the proper rod angle during windy conditions. Nobody wants to recover their "hood-prang" from an angry motorist!
2. Smoking in the prep and launch areas. This is a major safety issue. Signs and tape barriers will be erected in the near future to remind everyone of this important issue.

#### PR Committee

Barry Berman has agreed to chair the outreach/welcoming committee. Discussion involved ways to welcome new members, a new members packet, and putting together a Build & Take program for younger rocketeers. Anyone interested in assisting in these activities may contact Barry.

#### Newsletter

Once again Joe Libby presented us with a great looking newsletter. Great work Joe. [*And much thanks to Drake too! – JL*]

#### Model of the Month

Joe Libby's "Crest Patrol" odd-roc got the nod for Model of the Month with 10 votes. His Crest rocket gets your teeth white but leaves a black powder after-taste. Other entries were: a super-roc, the Barbie Special and a Mach Buster.

### Lecture Calendar

April: Videos by Darren Wright and odd-roc construction by Joe Libby.

May: Aerial photography by Art Trieman.

### Other Business

Mark Duerr of M&G Hobbies brought lots of boxes of rocket components. All those goodies! Mark reports that he is now sole owner of M&G. Congratulations Mark! We all wish you continued success. Mark has also changed his hours of business to allow for precious "family time." M&G will be closed on Sundays as well as Tuesday and Thursday evenings.

### Group project

No report at this time.

### Dues, members

Dues are almost caught up, with only a few members who still need renew.

### Launch Fees

The new "Ticket to Fly" launch cards are looking good! They are quite a bargain at \$15.00 for 4 launches. (A \$5.00 savings!)

All club members present agreed that flyers under 18 years would fly free. Same day/single launch fees remain at \$5.00. (The "Ticket to Fly" thingies are looking better!) New Flyers still pay no fee for their first launch.

### Revised NAR Safety Code

The recently revised NAR safety code was briefly discussed. It is also published in the January / February issue of "Altitude!"

Business meeting adjourned at 9:05.

### Lectures

Russ Mozier gave an excellent presentation on parachute design. Russ explained the different designs and functions of the 3 main parachute types. Construction materials and design parameters were of interest to all. Thanks Russ for a great presentation!

## **April 24, 2001 Meeting**

By Art Treiman

### Present

Art Treiman, John Coles, Tom Mitchell, Lisa Paullin, N. Mustaro. The meeting was opened by President Art Treiman.

### Orders of Business

March's meeting minutes were reviewed and approved.

### Treasurer's Report

John Coles reported \$932.00 in our treasury. Plans to purchase mid power launch pad(s) and a controller were discussed.

### Future Launch Dates

May 20, rain date May 27

June 10, rain date June 17

July 15, rain date July 22

Reminder: M & G will be at all launches, call ahead with your orders!

### Contest schedule & Plans for Sanctioned Event

Tom Mitchell reminded us of the following:

May 20: BTBO (Berman/Treiman Barbie Open).

June 10: NAR Sanctioned Contest – 1/2A Boost Glider and B Superroc Duration.

### Lecture Calendar

May: Aerial Photography - Art Treiman

June: A Trip to NARAM - Chris Taylor

July: TBA

I had forgotten my camera at the March meeting, then missed the April meeting due to my wife getting sick (she's all better now), so no pictures from the meetings. However, below is my March Model of the Month winning "Crest Patrol."



## Photo Finish

All photos by Bob Jonas



Displaying our banner proudly at April 15 Launch!



Pat's Saturn V sizzles on the ground!



Lots of goodies available c/o M&G Hobbies!



Close up of the damage... looks fixable!



Even if just two, we always do a Silver Comet Race!



John Coles launches another of his finely crafted rockets into the beautiful spring sky...