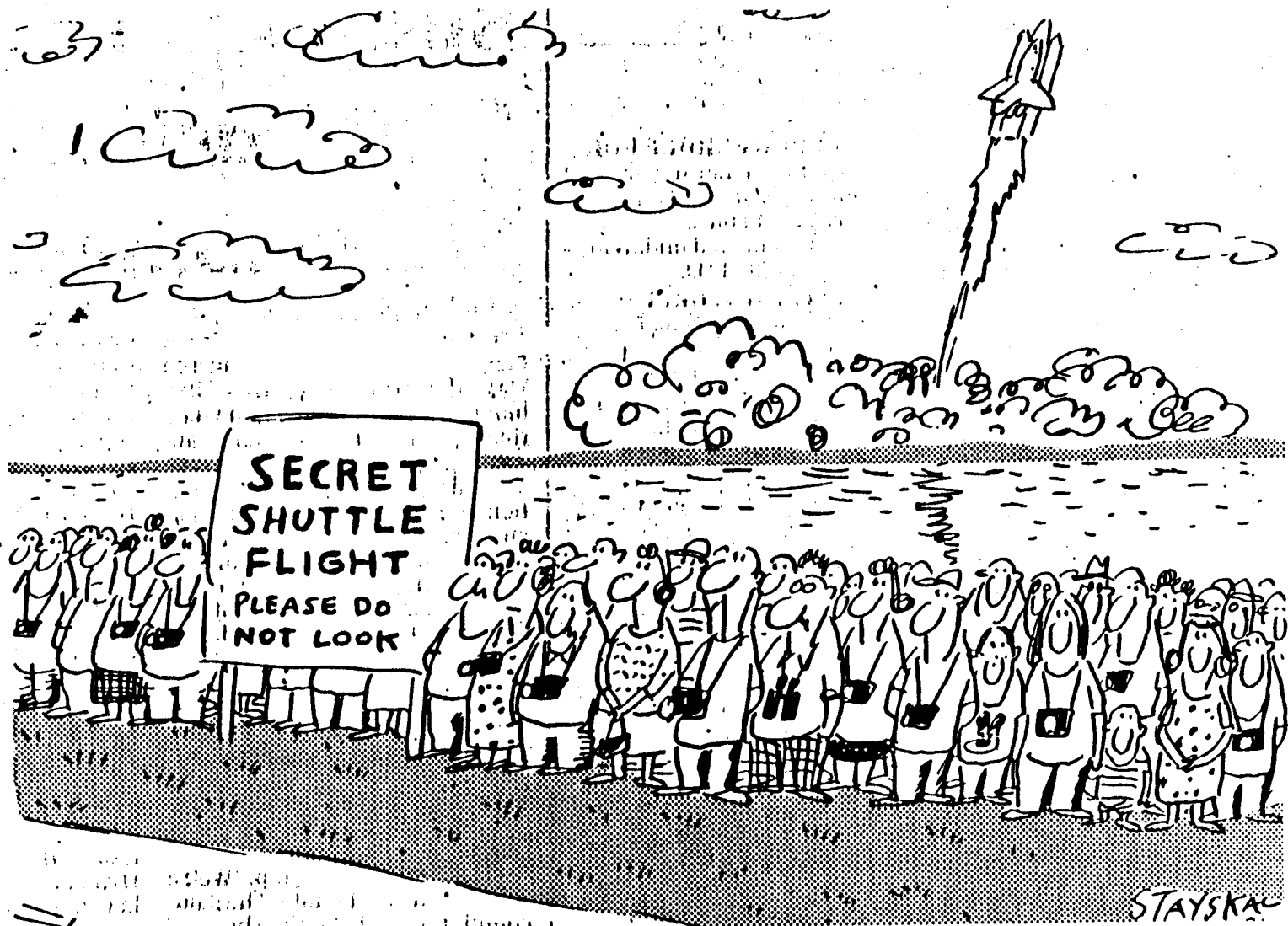


THE SPAAR  
COUNTDOWN

DEC. 88  
VOL #1 #7

MERRY  
CHRISTMAS!



THE SPAAR COUNTDOWN

Volume 1, Issue 7

December, 1988

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The SPAAR Countdown is the official journal of the Southern Pa. Area Association of Rocketry, PO Box 127, Reamstown, Pa., 17567, and is published on a monthly basis as a service of the members of SPAAR.

The Southern Pennsylvania Area Association of Rocketry is an officially chartered Section of the National Association of Rocketry, (#503).

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COMING EVENTS

December 18, Sunday, 1 PM: Section sport launch, Cocalico High School, Denver

December 19, Monday, 7 PM: Section Meeting, Lancaster Library

1989:

January 14, Saturday, 10:30 AM to 4:30 PM: SPAAR Winter Workshop, Delta-Cardiff Fire Co.,  
Delta, Pa; topic: Basic Construction & Finishing Techniques.

January 16, Monday, 7 PM: Section Meeting, Lancaster Library, (Election of Officers).

February 11, Saturday, Time to be announced: SPAAR Winter Workshop, Delta-Cardiff Fire Co.,  
Delta, Pa; topic: Competition Model Rocketry.

February 20, Monday, 7 PM: Section Meeting, Lancaster Library

March 11, Saturday: SPAAR Winter Workshop, place and topic TBA.

March 20, Monday, 7 PM: Section Meeting, Lancaster Library.

March 26, Sunday, 1 PM: Section Sport Launch, Cocalico High School, Denver.

April 17, Monday, 7 PM: Section Meeting, Lancaster Library.

April 22, Saturday, 9 AM: NICE-9, Open Meet, Manassas, Va., hosted by NOVAAR; Events:  
½A-RG; B-Helo; A-B/G multi; A-SD multi; A-Super-Roc, & B-Eggloft Duration.

April 23, Sunday, 1 PM: SPAAR Section launch, poss. Section Demonstration, Contest.

May 15, Monday, 7 PM: Section Meeting, Lancaster Library.

May 20-21, Sat/Sun: ECRM-16 (East Coast Regional Meet #16), Manassas, Va., hosted by NOVAAR; dress rehearsal for NARAM-31, which is to be hosted also by NOVAAR at the same location in August '89. Events: B-Alt; D-Eggloft Alt.; C-Payload; A-Rocket/Glide; C-SD; Sport Scale; ½A PD; & A-Flexie. CD is Trip Barber, sport fliers welcome.

From the Acting Prez

At this time of the year, it is traditional, and somewhat natural, to look back on the year gone by, and to look to the year ahead; to reflect on where you've been, and to look to where you are going or where you hope to be.

As we as a group look back, we see that it was not too long ago that we didn't even exist as a club. At times, it seems like it's been a lot longer than seven months. From a loose group of individuals that first got together in May, we've formed an association that I firmly believe has been beneficial to all. Not only have we learned from each others' thoughts and experiences, but new friendships have been formed. That in itself makes the whole thing worthwhile.

During the past few months, we've developed from an unorganized group with a common interest, into a unit that enjoys being together, and having fun. That by itself may not sound like a very stirring or lofty goal, considering all of the more "important" things that each of us are involved with. Our familys, our jobs, our educations, are more important than this, our participation with this hobby. But in this day and age, everyone needs an outlet, a way to forget the day to day cares, and to have fun. And we're getting better at it!

So where do we go from here? That's up to each and every one of us. As I've said and written before... this is your club; no one person "runs" it; it will go where you want it to go. I hope we all have our own ideas. I know I have mine. They won't do any good if we keep them to ourselves. Express your thoughts and ideas, especially at meetings. They won't do anyone any good if you keep them bottled up inside! Personally, I feel that we have the foundation of good, interested people that can take this club as high and as far as it wants to go... and at the same time, never losing sight of the common goal - to have fun.

Finally, I'd like to take this opportunity to say that Teresa and myself (and the little Beaver thats on the way) feel that we are richer for having made the friendships that we have made with all of you, and we hope that you all have a very Merry Christmas and a Happy New Year!

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New Product Notes

Those of you who are NAR members and recieve the American Spacemodeling magazine may have noticed a coupon on the back cover of several issues that came out this summer, which could be redeemed to the MRC Co. for one "Hotshot" kit; "all" you had to do was send them the box top from one of their starter sets, and they'd send you the rocket kit. Guess what? It works! Sometime ago I found myself in need of a replacement for my 20 year old wooden Estes "Tilt-a-Pad"; yes, I'm afraid the old thing just plain wore out. So, one day I just happen to be in Smitty's Hobby Shop in the Manor Shopping Center in Lancaster, and I spied an MRC starter set, which featured the MRC "Lunar Launch Pad", the MRC "Electro Launcher Kit", and the "Rebel" already-done-built-stick-an-engine-in-it-and-go-fly-it-dummy rocket. So, for a price that I won't mention here in case my wife reads this, I bought it.

Now, the MRC company is located in New Jersey, and has been in the hobby business for some time, mostly importing plastic models from overseas, particularly Japan. In 1987, however, MRC (Model Rectifier Corp.) entered the Model Rocketry market with a series of simple, easy to build single stage kits, and a line of model rocket motors, manufactured by a sub-contractor in West Germany. MRC's entry into the market was welcomed, as it gave some much needed competition to the industry giant, Estes. So anyway, I sent in the box top and within 10 days I received my free "Hotshot" kit, and a very nice 22 page brochure. More about that later.

I must admit that I did build one MRC kit prior to tackling the "Hotshot"; this was the "Starfire", which I purchased at the Kraft Korner on Rt. 322 in Ephrata in 1987. I like the rocket, and it flys well, but I couldn't beleive how flimsy the body tube was! After I opened my free "Hotshot", I see that improvements haven't been made. The "Hotshot" employes a BT-50 size main body tube, and a BT-20 size tube init's motor mount;

both tubes require care in handling, because they are both so flimsy and cheaply made that any carelessness will result in their destruction.

The plastic nose cone is of a unique shape, but the molding process leaves a lot to be desired. In fact there were noticeable "pucker" marks in the plastic, something which I have never noticed in the plastic nose cones of other manufacturers. The 12" plastic parachute is of standard kit quality, but throw away the heavy kite string-like shroud lines. I substituted heavy-duty carpet thread. The launch lug is made of compressed cardboard like material, and requires a coat or two of clear dope or sanding sealer before it will accept paint. The balsa fins are pre-cut, and are of good stock. The "press-on" decals are interesting, and give a nice appearance, but you must be careful in applying them, or the paint will strip off of the rocket.

The design of the "Hotshot" appears that it will be capable of good, high performance flight, however I haven't had a chance to fly mine yet.

The "Lunar Launch Pad" is everything the "Hotshot" isn't. That is, it appears that it is of heavy construction, with some unique features. The plastic it is molded in is gray in color, and heavier in gauge than other plastic launchers I've seen on the market. The design also features a ball-in-socket swivel, which seems to be more effective than it's Estes counterpart. As a matter of fact, Estes just introduced their re-designed "Porta-Pad II", which looks strangely similar to the MRC product. Remember what I said about competition? The MRC launch rod is 1/8" X 36", and you may throw it away, or use it as I do, as a parachute stuffer. The reason? It's made from a plastic/fiberglass combination, which just doesn't cut it. The hand held "Electro Launcher" looks a little heavier than most launchers on the market, but probably has the same faults, ie, being totally unreliable. MRC isn't alone with this problem.

Finally, the "brochure". For now, at least MRC has decided to market it's model rocketry products on the retail level only, and does not carry on a mail order business. I personally think that this is a mistake, however I suppose they must know what they are doing. Currently, MRC produces 14 kits, all of which appear to be Skill Level 1 type rockets, and a full line of accessories, such as A thru C class motors, recovery wadding and replacement parts for the kits.

If MRC decides to compete fully in the model rocket market with Estes, FSI, etc, then in my opinion they are going to have to improve the quality of the body tubes, establish a line of more "difficult" kits, and service customers by mail order.

For the MRC brochure, write: MRC, 200 Carter Drive, Edison, NJ, 08817. Cost: \$2.00  
\*\*\*\*\*

Recently I received a copy of "The Model Builder's Wishbook", the catalog of the Sig Manufacturing Co. The Sig Co. has been in existence since 1951, serving the flying model aircraft hobbyist. They carry complete lines of kits, finishing materials, parts, adhesives, woods, and tools, just to name a few. Those of us in model rocketry can look to Sig for such items as: high grade balsa, spruce, birch plywood, and hardwoods for use in fins, boost- or rocket-glider bodies, nose cones, etc; decals; bottle and spray enamals and dopes; adhesives; tools; and millions of little hard to find parts, such as Klett hinges for helicopter recovery models. This catalog is a very handy item! Write: The Sig Manufacturing Co., Inc., 401-7 South Front St., Montezuma, Iowa, 50171. "The Model Builder's Wishbook", all 168 pages, costs \$3.00.  
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Some of you may have seen Pactra's new line of products aimed at the model rocketry market, which are a series of spray paints called "Astro Color" rocket paints. They claim to provide a "tougher, smoother, lighter finish for Model Rockets". About a month ago, I purchased, at \$2.29 & tax, a 3 oz. can of "AC 526 Sanding Sealer". I thought to myself, "I've seen a lot of gimmicks before, but spray sanding sealer?" So why did I buy it? 'Cause I gotta try something new at least once, that's why! I had decided before I bought it, however, not to waste the stuff on balsa fins; the overspray alone would mean using a whole can for just one model. So, I decided to try it on body tubes to help fill the spiral seam found in every body tube. To my surprise, it works! I recently had built an "Ozone Bay" SD bird, and I used two coats of this sealer on the tube, sanding with 600 grit paper between coats. It may not fully replace the body putty method, but it's a start. The only thing I wasn't impressed with was the price!

## Section Meeting Minutes

Date: 21 November 1988

Present: John Yost, Dick Rhoat, Bill Rhoat, Rick Hackman, Bryon Beiler, Glenn Feveryear, Dave Wenrich, Jess Wenrich, Dave Bender, Ed Miller, George Beever. Prospective Member: Dale Greene.

All members were introduced to SPAAR's newest member, Bryon Beiler.

The Treasurer's Report was presented, which indicates a balance in the General Fund of \$89.37.

John Yost gave an update on his progress with the Section launch system.

The rained out Nov. 20 launch was re-scheduled for Sunday, December 4, with the regularly scheduled December launch to still be held on Dec. 18, at 1:00PM, at Cocalico.

Dave Bender was welcomed, who was attending his first Section meeting.

Dave Wenrich states that he has discovered the reason for his prang with the Killer Ninja on Oct. 30 - the ejection charge failed to activate.

Dale Greene was introduced to the membership. Dale answered our membership mailing in October, and he has been active in model rocketry off and on since 1966, and recently attended NARAM 30 in Huntsville, AL., as an observer. We welcome Dale, and hope that he decides to join the Section.

The SPAAR charter certificate from the NAR was passed around for everyone to see.

The dates for the SPAAR winter workshops were set as follows: Sat., Jan. 14, 1989: Basic Construction and Finishing Techniques. Sat., Feb. 11, 1989: Competition Model Rocketry. Times and costs to be announced. Both sessions will be held at the Delta-Cardiff Fire Co. hall. Directions will be provided.

The membership was reminded that the December meeting will concern itself with the nominations for the club officers.

Discussion was held on the future use of Cocalico High School as a launching facility. Members were urged to keep their eyes open for an alternative field.

NEW BUSINESS: Rick Hackman showed the members his idea for a club membership card.

Glenn Feveryear passed around 3 different designs for the Section logo, for use on patches, business cards, membership cards, stationary, etc. In addition, Glenn submitted an estimate from a printer for the business cards, at \$19 for 500 cards.

Glenn stated that he had spoken to the owner of Yorktowne Hobbies in Cockeysville, Md., who didn't like the idea of putting a poster in the shop, but thought that flyers would be a good idea.

Ed Miller stated that he had spoken with the owner of "The Rail Fence", who stated that posters or flyers would be fine, and offered Ed a 10% discount.

Dick Rhoat suggested that we put up posters in our places of employment. George suggested placing posters or flyers on bulliten boards in area grocery stores.

Ed asked how many contests the Section will hold next year. The consensus of the membership was "as many as we want to."

The idea was discussed about attending a model rocketry meet to gain experience in contest flying and on how such meets are run.

For the competition flying workshop, Glenn proposed putting together kits of a particular model, possibly the "Perihellion", for everyone to build. That way, everyone would have the same model, which could be flown in a section contest amongst ourselves. Everyone present felt that this would be a good idea. In addition, George proposed somewhat the same setup for the "Basics" workshop.

George proposed using the first club launch of 89 in March as a way of getting used to the new club launch control system, and to flying again in general after the winter lay-off, and then holding a large demonstration launch in April, as part of our membership drive.

John mentioned that with the new club launch system, the members' own launch stands will be used at first, and that the club can decide on purchasing materials for constructing our own stands in the future.

John then presented his video, which showed highlights of a NOVAAR launch in Virginia in May. '88, and of SPAAR launches in August and October, '88.

The meeting adjourned at 9 PM.

Section Launch Activities

Sunday, December 4th, 1988. We came. We saw. We stayed. We launched. We froze. We're nuts.

On Sunday, Dec. 4th, SPAAR held it's scheduled November launch at the flight facilities at Cocalico High in Denver. The launch had originally been scheduled for Nov. 20, but rain caused the cancellation. In keeping with the SPAAR tradition of crummy weather, Dec. 4 dawned clear, cold, and very, very windy. Temperatures at 1 PM hovered around 35 degrees, with winds gusting from 15 to 30 mph. Did this stop us? Nooo.... All in all, however, everyone got in a decent amount of flying, and once things got going, it really wasn't all that bad. Considering the weather, only one launcher was set up, however there was no waiting in line. Actually, it was a very pleasant sport launch. As is typical of cold weather, there were a lot of parachute problems, in which the plastic had time to "set" prior to the rocket being launched, keeping it from deploying fully. It was so cold, in fact, that one of the plastic fins on Rick Hackman's Estes Alpha III broke upon landing. Ed Miller took his turn as RSO/LCO, which means we'll need a volunteer for Dec. 18... yes, folks, we're gonna do it again!

<u>Flight #</u>	<u>Name</u>	<u>Model</u>	<u>FLIGHT LOG</u>			<u>Misc.</u>
			<u>Motor</u>	<u>Time</u>	<u>Dur.</u>	
1	George	TurkeyBird	½A3-2	1325	29.0	DQ-streamer failed
2	Ed	X-1	½A3-2	1335	37.4	DQ-streamer torn
3	Bill	Jalopy B	B4-2	1340	53.0	DQ-separation
4	Rick	Alpha III	A8-3	-	12.1	chute problems
5	Jess	S.C.R.A.M.	A10-3	-	23.7	GF
6	Dave B.	Eggspress	C6-5	-	30.5	chute problems
7	Derek Y.	Ninja	A3-4	1413	33.7	GF
8	Ed	Helicopter	C6-5	1416	26.8	GF
9	John	Mini-RotoRoc	½A3-2	1420	42.7	GF
10	Rick	Javelin	½A3-2	1424	15.4	GF
11	Dave W.	Lazer	B8-5	1432	33.9	GF
12	Rick	Super Flea	½A3-2	-	20.2	separated
13	Dan Y	Transtar Carrier	B4-2	1445	17.8	GF
14	Dave B.	Astro	½A6-2	1446	6.0	GF
15	Rick	Beta	½A3-2	1448	17.9	GF
16	Ed	Scorpien	B6-0/A8-5	1449	56.3	GF
17	Rick	Mini-Bertha	½A3-2	1455	48.7	GF
18	Jess	Lazer	B6-4	1500	24.8	GF
19	Ed	Transtar Carrier	B6-4	1508	10.9	GF
20	John	Delta Star	A8-3	1509	21.9	GF
21	George	TurkeyBird	½A3-2	1511	27.3	DQ-streamer failed
22	Dave W.	Mini Mars Lander	A10-3	-	8.15	GF
23	Rick	Wolverine	½A3-2	-	11.5	GF
24	Dave B.	Astro	A8-3	-	16.5	GF
25	Ed	Nike Smoke	C6-5	-	32.1	GF (12" chute)
26	Rick	Streak	½A6-2	-	4.0	GF

FLIGHT LOG (cont.)

Date: 4 December, 1988.  
 Place: Cocalico High School, Denver.  
 Number of participants: 10  
 Number of flights: 26  
 Number of succesfull flights: 19  
 Number of DQs, prangs, etc: 7  
 Number of flights, per person:  
 Ed 5  
 Rick 7  
 John 2  
 Bill 1  
 Derek 1  
 Dan 1  
 Dave B. 3  
 Jess 2  
 Dave W. 2  
 George 2  
 Total.....26

Motors fired, by type:  
 1/2A3-2 9  
 1/2A6-2 2  
 A8-3 3  
 A3-4 1  
 A10-3 2  
 A8-5 1  
 B4-2 2  
 B6-4 2  
 B8-5 1  
 B6-0 1  
 C6-5 3  
 Total.....27

New records set or broken:  
 1/2A Helicopter Duration, John Yost,  
 flight #9, 42.7 seconds, 1/2A3-2 motor,  
 Mini-RotoRoc. Old record: John Yost,  
 6/5/88, 24.2 seconds.

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This month's Useless Bit of Information, otherwise known as a "yewbee": Every rocket that Rick Hackman flew on Dec. 4, except for his Alpha III, was a long out-of-production Estes kit, and yes, I would like to get a set of measurements and parts lists to make re-productions of them. Hint, hint.

\*\*\*\*\*

Bryon Beller didn't have a flight listed, and in a way, he was lucky. Bryon had an Estes Eggspress prepped and ready to go out on the pad, but a missfire occurred. Bryon went to replace the igniter, and if I have the story right, accidently broke the motor mount. Which in a way was good. You see, if the motor had ignited the first time, the mount would have broken out under power. And yes, there was an egg on board!

\*\*\*\*\*

Overheard by the secret SPAAR microphone: "Hey Bill, what do you call that?"..."Stupidity"..."OK, this is Bill Rhoat's stupidity on the pad..." "No! The rocket's called the Jalopy... the stupidity is me out here today launching this thing!"

\*\*\*\*\*

Ever notice how the Wenrich Bros. rockets are brought to check-in, they belong to Dave... but as they head downrange and need somebody to chase them, they suddenly belong to Jess? Amazing.

\*\*\*\*\*

If anyone needs to have a model weighed, I have a triple-beam balance scale at home. How did I get one? In my business, don't ask.

\*\*\*\*\*

Model Rocketry and Winter

If you live on the east coast of the United States, especially the northeast section of the country, you can't escape it. It comes each year, as certain as the sun coming up in the east every day... Winter. A northeast winter usually brings with it such niceties as snow, slush, sleet, plummeting temperatures, wind and the worst thing of all, CABIN FEVER.

So where does this cheary outlook leave us model rocketeers, who normally thrive in warm, sunny weather, when the flying is good? Well, don't despair because there are a million and one things that you can do over the winter months to keep yourself from getting the dreaded Cabin Fever. I bet you're thinking "and I bet he's going to list them" and, of course, you're right! So here it is, the SPAAR List Of Things To Do To Keep From Going Crazy Over The Winter:

1. Clean out that range box, which you've been meaning to do since last April. (Oh, so there's were those scissors got to!)
2. Attend a SPAAR workshop.
3. Stock up on motors, especially since the manufacturer's prices are going up (again).

4. Stock up on the commonly used parts, such as parachutes, nose cones, engine blocks, etc..
5. Design and build that sport, demonstration, or competition bird that you've been thinking of all summer, but never had the chance to work on.
6. Write that article or draw that plan for the Countdown that you've just been meaning to for months.
7. Get re-aquanted with your family, whether that means your mother, father, wife, sisters, brothers, or the family hamster. They probably haven't seen you for a while.
8. Avoid writing articles like this for the Countdown, which lead to nowhere and show the first signs of Cabin Fever setting in to the author.

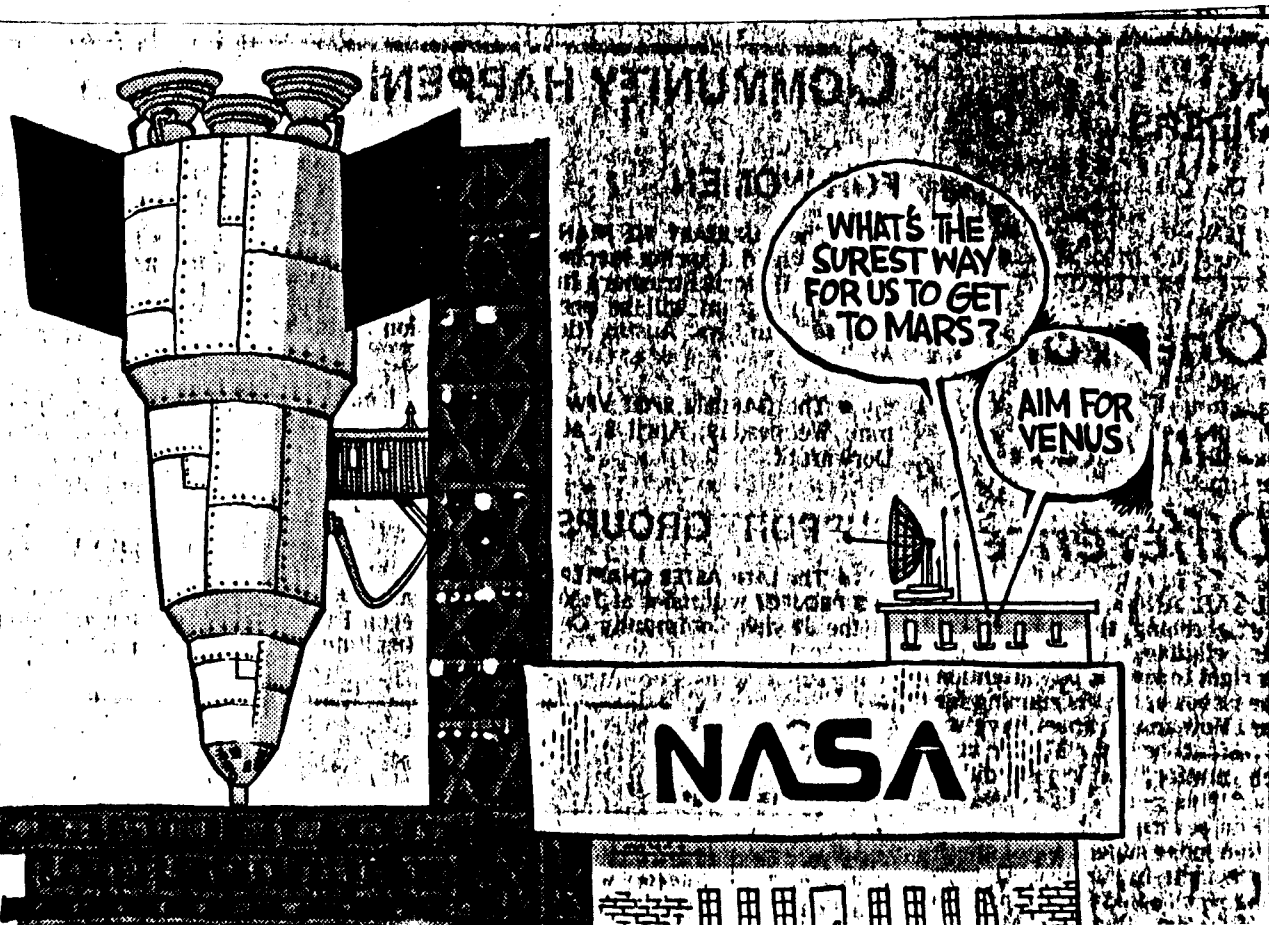
The Basic Construction and Finishing Techniques Workshop

The first SPAAR winter workshop will be held on Saturday, January 14, 1989, at the Delta-Cardiff Fire Co. hall in Delta, Pa., from 10:30AM until 4:30PM. This workshop will concern itself with basic construction and finishing techniques. For a fee of \$3.00, everyone will receive an Estes "Wizard" kit, which is a discount off of the retail price. We should be able to order the kits in quantity from Belleville Wholesale Hobbies, but I need to know if you are going to attend this workshop no later than Monday, December 19. Each person should bring the following items:

White or aliphatic resin glue, such as Elmer's Glue or Elmer's Carpenter's Wood Glue; some type of cyanoacrylate or "super" glue; ruler; hobby knife, such as an X-Acto blade or a single edge safety razor blade; pencil and pen; masking tape; 320, 400, and 600 grit sandpaper; newspaper or other suitable table covering; and last but not least, lunch. Directions will be provided, and anyone who wishes to help out with car-pooling arrangements is welcome.

The object of this workshop is to acquaint everyone with the basic techniques and ideas behind model rocket construction and finishing. Hopefully, everyone will benefit in some manner. In the future, it is hoped that the complete costs of these workshops will be taken up by the club, but for the present that is not possible. But for \$3, you can't beat it, and let's face it, what else did you have planned for a cold Saturday in January, anyway?

If anyone has problems with obtaining the items listed above (things that you need to bring), let me know. In addition, if anyone has a fin-alignment guide, Estes or otherwise, please bring that along, too. It would be a big help.





THE JALOPY B  
A Super-Roc design by Bill Rhoat

**Parts list:**

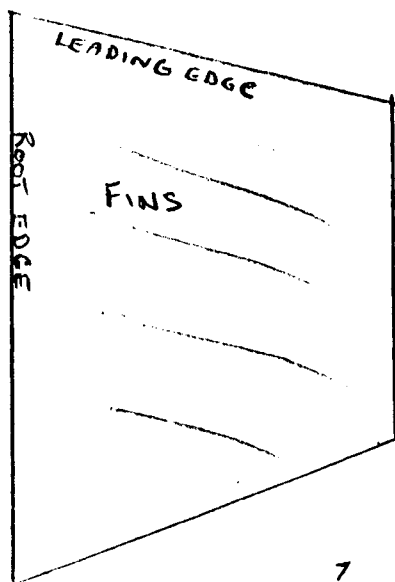
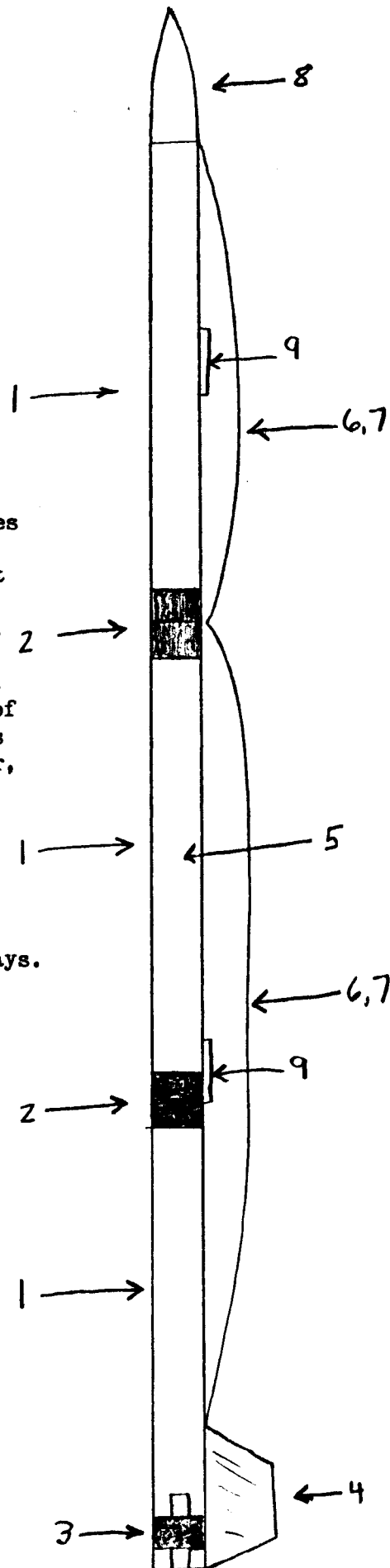
(all parts Estes)

1. Three (3) 18" BT-50 Body tubes
2. Two (2) JT-50 stage couplers
3. One (1) EM-2050 engine mount
4. Three (3) fins, made out of 1/16 balsa or similer plywood
5. One (1) parachute, your choice
6. Sewing elastic
7. String or heavy duty thread
8. One (1) PNC-50K nose cone.
9. Two (2) launch lugs

**Assembly**

1. Assemble motor mount and install in 1 section of BT050.
2. Cut out fins, airfoil, and finish. Glue onto section of BT-50 with motor mount, 120 degrees apart.
3. After glue on fins dries, install a stage coupler to the power section of the rocket, so that  $\frac{1}{2}$  is in the tube; glue a second section of BT-50 to the power section, check to make sure the tubes are straight, and put aside to dry.
4. Glue second coupler into remaining section of BT-50, so that it protrudes 1".
5. Take a peice of heavy duty thread or elastic, approx. 40" long, and glue to one fin/body tube joint.
6. Take a peice of heavy duty thread or elastic, approx. 20" long, and attach to nose cone, and attach nose cone to the 18" section of BT-50, opposite of the end with the stage coupler. The shock cords run on the outside of the body tubes. Tie the shock cords together, leaving a loop for parachute attachment.
7. Install launch lugs.
8. Install a spent engine casing, and tape the lower shock cord to the body tube at the Center of Gravity (balance point) of the lower tube. Tape the shock cord to the CG of the upper tube.

The Jalopy-B will fly with A, B, or C class motors with short delays. Because the total lenght is 146.5 cm, or 57 5/8", the Jalopy-B qualifies for NAR Atlas (A), Titan (B) and Mammoth (C) class Super-Roc events. (Rule 28.5, NAR Pink Book)



Fin Pattern  
Full Size  
Make 3

