

COUNTDOWN

Official Newsletter of SPAAR

THE SOUTHERN PENNSYLVANIA AREA ASSOCIATION OF ROCKETRY



- *RAMTEC-6*
- *June, July & August Sport Launches*

COUNTDOWN

Volume 11, Issue 4
July/August 1998

President
Mark Kamide

Vice President
John Yost

Secretary-Treasurer
George Beever

Section Advisor
Glenn Feveryear

Member at Large
Renee Feveryear

Newsletter Editor
Randy Brust

COUNTDOWN is the newsletter of SPAAR, the Southern Pennsylvania Area Association of Rocketry, NAR Section #503. **COUNTDOWN** is published 6 times a year for the benefit of SPAAR club members. Any information contained in **COUNTDOWN** may be used as long as proper credit is given. Please address all correspondence to:

SPAAR
PO Box 127
Reamstown, PA. 17567

Visit the SPAAR website at:
<http://www.cyberia.com/pages/feveryear/index.htm>

and the Countdown website at:
<http://members.aol.com/rcbrustec/index.html>

**The Editor's Corner**

This month, thanks go out to George Beever, Glenn Feveryear, Rick Hackman, and Mark Kamide for contributing to this issue of the Countdown. *Thanks guys!*

Randy

Letters to the Editor

Dear Sir,

I want to extend my sincere apologies to my premature assumption on the rocket flight that I commented on in April 1998 concerning the RATS launch. I had no intentions on hurting anyones feelings, please accept my honest apology.

Guy DeStefano

The President's Corner

The June 28th Rotor-Rock contest really turned out to be a lot of fun for everyone. Tim Dinger (a first time Rotor-Rock flyer) won the number one slot. It must have been that silver paint. Way to go Tim. Glenn Feveryear took second and Tony Rossi won third place only after flying a tie breaking flight against John Yost. What a great finale to end the contest (John, sorry no trophy for fourth place).

The club generated quite a bit of money with the auction and at this point we are still waiting for all the donation checks to arrive before a total may be calculated. However, the purchase of a high power launch pad looks pretty good.

The club equipment is holding up pretty well, although we need to spend a little money on purchasing new igniter clips for the High Power Launch Pads. We also need to replace several of the Green Launch Pad Stakes. The ones we have been using are showing signs of being beaten one to many times into the hard Cocalico School clay.

We will discuss this at the next club meeting.

It is great to see new volunteers coming forward to man the Launch control system. Part of being a member of a club is to help out with things like this. Each person doing one small task results in everyone having fun.

With fall and winter year-end activities starting to be planned, we have quite a bit to accomplish. Next year's Launch Schedule will be mapped out during the October 16th club meeting, along with taking final orders for our winter building project. We need to start to thinking about the SPAAR SPAM launch on November 1st and how spicy the Chili will be. We also need to start discussions for the year-end Banquette. Just think, sprinkled in between all that, we still have plenty of rocket flying activities scheduled. All in all we are going to be a very busy bunch right up till the end of the year. So come on out to the meetings and take part in the planning sessions.

Mark

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On the Cover

Mark Kamide's scratch built Black Brandt II is off on an Aerotech G40-4W at RAMTEC-6 in Center Valley, Pennsylvania. (Brust)

Section News Notes

September/October Launch Changes: Don't forget, the September and October launches will be held at Cocalico High School. The launches will be on September 13th and October 18th and will run from 1PM to 5PM. Please update your calendars accordingly.

Upcoming Events:

Friday, August 21st, 1998 - SPAAR Monthly Meeting, 7PM to 9PM, APRIA Community Room, Lancaster, PA.

Sunday, August 30th, 1998 - SPAAR Sport Launch (Best Sport Scale Rocket, altitude tracking available), 9AM to 5PM, Cocalico High School, Denver, PA.

Friday, September 18th, 1998 - SPAAR Monthly Meeting, 7PM to 9PM, APRIA Community Room, Lancaster, PA.

Sunday, September 13th, 1998 - SPAAR Sport Launch, 1PM to 5PM, Cocalico High School, Denver, PA.

Friday, October 16th, 1998 - SPAAR Monthly Meeting, 7PM to 9PM, APRIA

Community Room, Lancaster, PA.

Sunday, October 18th, 1998 - SPAAR Sport Launch, 1PM to 5PM, Cocalico High School, Denver, PA.

Saturday, October 24th - Sunday, October 25th, 1998 - RATS VIII High Power Meet, Cedarville, NJ. Contact Damian Russo at 609-794-2689.

Sunday, November 1st, 1998 - SPAAR Sport Launch/SPAARSPAM 1998 (Best Scratch Built Rocket), 1PM to 5PM, Cocalico High School, Denver, PA.

Section Meeting Minutes by George Beever

June 26th, 1998

Meeting called to order at 7:10PM.

Present: G. Beever, D. Feveryear, G. Feveryear, Rene Feveryear, D. Greene, M. Kamide, T. Rossi, J. Yost.

Mark Kamide extended a special thanks to the Feveryears and Brusts for the work they put into RAMTEC, and to Tony Rossi for handling the SPAAR Web Auction.

The president stated that he had received a request for a group photo of all members who built the winter workshop Mercury-Redstones. This will be July 12th.

Mark displayed some submissions that he has received in the "Kill The Keystone" campaign. Keep them coming.

Randy Brust was thanked for devising the new sport flight card. Suggestions will be forwarded to him to improve the card.

An update was received from John Yost regarding his compilation of the Field Book. This will be kept at the range head, and will contain information such as membership roster, certified motor listings, etc.

A report was requested from the Field Search Committee. George Beever had nothing to report.

Committee Reports:

Treasurer: George Beever reported a balance brought forward of \$330.03. There was an expenditure of \$153.13 to Randy Brust for the newsletter. There was an

income of \$209. Current balance, \$385.90.

Section Advisor: No report.

HPR: The president initiated a discussion for a replacement for Ed Miller, who resigned the position in May. It was decided to approach Randy Brust.

Competition: Glenn Feveryear announced the award of NARAM-41 to Pittsburgh Space Command. It will be held outside of Pittsburgh, August 9th-13th, 1999. The events will be: 1/2A Flex Wing Duration, A Helicopter Duration Multi-round, B Rocket Glider, A Streamer Duration Multi-round, 1/2A SuperRoc Altitude, C Payload Altitude, B Eggloft Duration, Open Spot Landing, Sport Scale, and R&D.

The events for RAMTEC-7 next June will be: A Helicopter Duration, B Rocket Glider, B Eggloft Duration, A Streamer Duration, and 1/2A SuperRoc Altitude.

The events for ECRM-26 next May will be: A Helicopter Duration, B Payload Altitude, 1/4A SuperRoc Duration, Giant Sport Scale, and 2 x 1/2A Cluster Altitude.

Old Business: No report.

New Business: George Beever advised that he made an expenditure of \$15 in club funds to purchase bagels for the grounds staff at Cocalico for recovering models from the roof for many years.

The meeting adjourned at 9:00PM.

July 17th, 1998

Meeting called to order at 7:10PM.

Present: D. Feveryear, G. Feveryear, Rene Feveryear, Rita Feveryear, D. Greene, M. Kamide, F. Murphy, T. Rossi.

Web Auction: The Web Auction was deemed to be a great success. Thank you Tony for your help and a big thank you to the donations from fellow club members.

Kill the Keystone Contest: The submissions are still coming in from club members. Keep up the good work. A poster displaying Space Shuttle Mission Patches was passed around for ideas.

Flight Cards: The new flight cards are working out very well. Although a flight comments section needs to be added to allow the LCO to just quickly circle the appropriate outcome (Prang, Unstable, Good Flight, Cato).

Winter Workshop: We discussed the next winter build project. Several ideas floated around the room such as a Little Joe 1, Gemini-Titan, and Estes Mercury Atlas. A decision needs to be made to select a kit for the Winter Build at the next club meeting.

Launch Site Perimeter Flags: The club is in need of another set of perimeter flags. Several club members expressed an interest in finding new ones for the club. If we can not locate free flags we will purchase a set. It is important to keep club members from walking into the inner launch circle.

NARAM: Glenn solicited help to stuff envelopes for NARAM contestant packets. A group of volunteers will gather at the Feveryear's house to perform this task.

Committee Reports: No reports.

The meeting adjourned at 8:00PM. **CD**

RAMTEC-6

June 20th-21st, 1998
by George Beaver

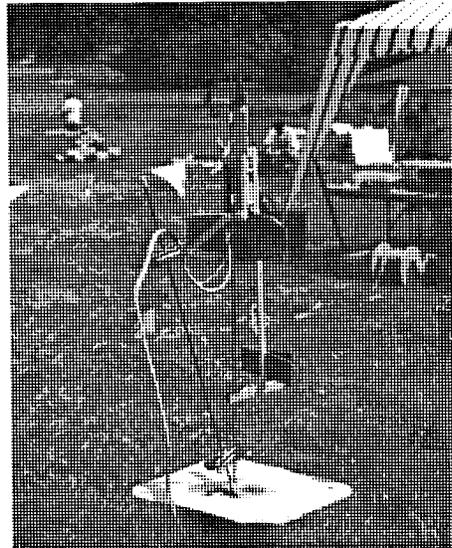
The biggest RAMTEC ever was held in Center Valley, PA. over the Father's Day weekend of June 20th-21st. A record number of 30 individual competitors and teams took part. They represented six NAR sections, as well as independent flyers. In addition, almost 150 sport flights were made over the two days, another RAMTEC record.

The weather conditions were perfect for flying. As always, 1/4A PD was a real challenge. Not only were the 10.5mm Apogee 1/4A motors a bugger to ignite, but parachute packing skills were really tested also. Mike Filler took A Division at 37 seconds, Doug Hillson B Division at a remarkable 164 seconds, and Chris Kidwell C Division at 268 seconds. Snowballs Chance captured Team Division at 235 seconds.

B Streamer Duration used to be a battle of Estes B6 motors. Not anymore! Apogee B2s and B7s, as well as Estes B4 motors were in abundance. B Division's Rachel Brower was the only contestant, of all 4 divisions, to gain three 180 second maxes in B SD Multi-round. One of her flights, at 222 seconds, qualified for a new US B Division record. Great job Rachel!

D Dual Egg-lob also provided its share of hilarity and heartbreak. The new Apogee D10 motors made their first RAMTEC appearance with mixed results. In the end, it was NOVAAR's RAAVON Team (NOVAAR spelled backwards) that had the best single flight of the meet at 295 meters.

1/2A SuperRoc Duration also saw a new US record set. The Snowballs Chance Team's 8500 points in that event set the



An A Boost Glider by the Flirtin' with Disaster team awaits launch. (Beever)

new mark. A Boost/Glide was also competitive, with Ellis Langford, Doug Hillson, John Viggiano, and Flirtin' With Disaster taking first place in their respective divisions. NOVAAR came away with the most points, at 10575.

It used to be that most of the sport flying was done after 12 noon on Sunday, but not anymore. Katie Brust from nearby Coopersburg flew her nicely finished pink Estes Fatboy a number of times on C6-3s, for nice flights each time. Dave Grumbine flew a vintage Estes Orbital Transport for two perfect flights. Dave also attained his Level 1 Certification, powering a Mountainside Hobbies Mercury-Redstone with an Aerotech H128 for a great flight. Speaking of Mountainside Hobbies, Mark "Hey this is great!" Kamide flew his stable of large sport-scale models over the weekend, such as the Viking 10, Little Joe I,

Gemini-Titan (a real project just to get it lit), Black Brandt II, and Mercury-Redstone. Another SPAAR member, Stephen Knight, flew everything in sight, making a whopping 15 flights. His Launch Pad Nike-Ajax drew a lot of attention on its perfect flight.

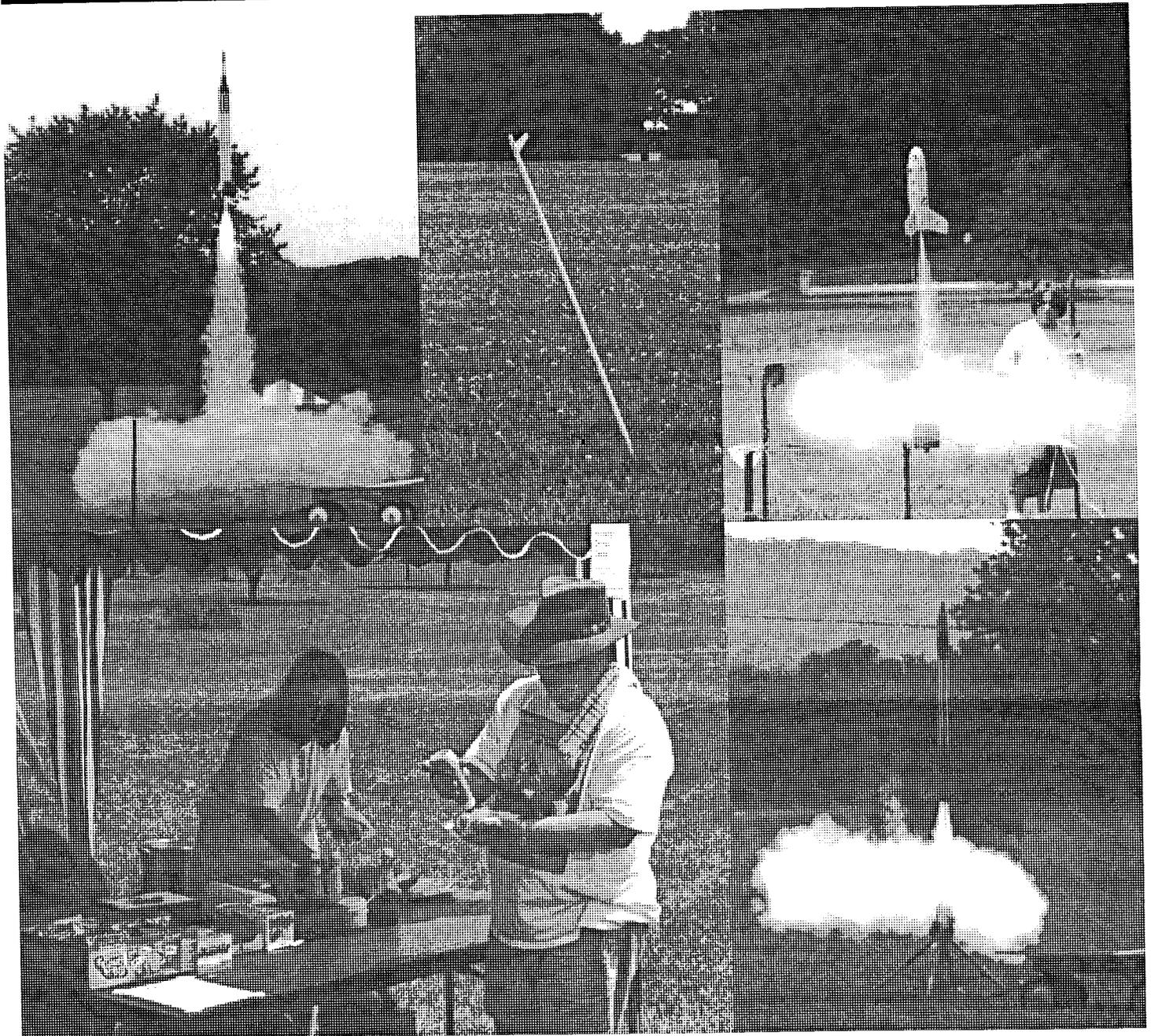
NARHAMS' John McCoy flew some unique birds, including one that he calls *Peanut Butter & Jelly Sandwich*. Just imagine two plastic jars, one for peanut butter and one for jelly, with slices of bread for fins. Hey, it flew great! John also flew his 1970-era Estes Saturn V, for its two millionth flight. Well, maybe not 2 million, but we're close.

Mark Beever of SPAAR flew at RAMTEC for the first time, although he's attended quite a few (and WUBBAs before that!). He had some nice flights with his Estes Deep Space Transport, SR-71, and X-Wing Fighter. His father George honored Countdown editor Randy Brust with something called *Randy's Van*, which would really take too long to explain [*Editor's Note: You're a riot George, a real riot!*].

Speaking of Mr. Brust, if he ever decides to get out of the newsletter business, he has a future in fast food. Randy and his wife, Lauren, were the proprietors of The SPAAR Cafe, offering hot dogs, chips, soda, and candy right on the field all weekend. They did a fantastic job, putting in a lot of work, time and effort. Thanks guys! And, as always, a huge amount of credit goes out to the Feveryear family for all of the work that they put into RAMTEC. All that they do ensures that SPAAR's annual RAMTEC weekend is unique among rocketry events. It's more than just flying rockets, and we hope that we have even more friends attend next year. **CD**



RAMTEC-6 nestled into the hills of Center Valley, PA. (Beever)



Clockwise from top left: Dave Grumbine's Mercury-Redstone is off on a successful level 1 certification flight powered by an H128W. This 1/2A SuperRoc had some deployment problems. Katie Brust had her pink Fatboy decorated with Winnie-the-Pooh stickers. Eric Kane got all four D12's to light for a great flight with his LOC Viper 4. Lauren Brust serves up a hotdog to Contest Director Glenn Feveryear at the SPAAR Cafe. (Beever, Brust)

#	Flyer	Model	Motors	Result	#	Flyer	Model	Motors	Result
1	George Beever	FSI Hercules	Aerotech F25-6W	Good Flight	20	Randy Brust	Estes Fatboy	Aerotech RMS E18-4W	Good Flight
2	George Beever	NCR Juno-1	Aerotech G80-4T	Good Flight	21	Randy Brust	LOC Precision LOC-4	Aerotech RMS H128W	Good Flight
3	George Beever	Microbrick Primero	Aerotech G40-7W	Good Flight	22	Randy Brust	Estes Mach-12	Aerotech RMS D13-7W	Good Flight
4	George Beever	Scratch Randy's Van	Aerotech F25-6W	Good Flight	23	Randy Brust	Estes Mach-12	Aerotech RMS D13-7W	Good Flight
5	George Beever	Aerotech Strong ARM	Aerotech G35-7W	Good Flight	24	Guy DeStefano	Scratch Bullpup	Aerotech RMS G64-7W	Good Flight
6	George Beever	Scratch The Raven	Aerotech RMS G33-5J	Good Flight	25	Guy DeStefano	LOC Precision Ibis	Aerotech RMS G64-7W	Good Flight
7	Mark Beever	Estes Deep Space Xport	Estes C6-3	Good Flight	26	Guy DeStefano	Scratch Juice	Aerotech RMS G64-7W	Good Flight
8	Mark Beever	Estes Deep Space Xport	Estes C6-3	Good Flight	27	Guy DeStefano	LOC Precision Peacock	LOC Precision Peacock	Good Flight
9	Mark Beever	Estes SR-71	Estes C6-3	Good Flight	28	Guy DeStefano	MSH V-2	Aerotech RMS H238T	Good Flight
10	Mark Beever	Estes X-Wing Fighter	Estes C6-3	Good Flight	29	Rob Edmonds	Edmonds CiCi	Quest C6-3	Good Flight
11	Mark Beever	Estes X-Wing Fighter	Estes C6-3	Good Flight	30	Rob Edmonds	Edmonds CiCi II	Estes D12-0/D12-3	Good Flight
12	Jimmie Blackaby	Estes F-22	Estes B6-4	Good Flight	31	Rob Edmonds	Edmonds Ecee Mod	Estes A3-4T	Good Flight
13	Jimmie Blackaby	Estes F-22	Estes C6-3	Good Flight	32	Rob Edmonds	Edmonds Ecee Thunder	Estes D12-3	Good Flight
14	Jimmie Blackaby	Scratch The Fixed Cat	Estes D12-5	Good Flight	33	Rob Edmonds	Edmonds Ecee Thunder	Estes D12-3	Good Flight
15	Jimmie Blackaby	Estes Wizard	Estes B6-4	Good Flight	34	Rob Edmonds	Edmonds Modified Ivey	Estes 1/2A3-2T	Good Flight
16	Katie Brust	Estes Fatboy	Estes C6-3	Good Flight	35	Matthew Filler	Quest Falcon	Estes C6-3	Good Flight
17	Katie Brust	Estes Fatboy	Estes C6-3	Good Flight	36	Matthew Filler	Estes Space Shuttle	Estes C6-3	Good Flight
18	Katie Brust	Estes Fatboy	Estes C6-3	Good Flight	37	Emily Flynn	Estes Bailout	Estes B6-4	Good Flight
19	Randy Brust	Estes Fatboy	Aerotech RMS F24-7W	Tangled Chute	38	Jim Glasson	Estes Fatboy	Estes C6-7	No Chute

39	Jim Glasson	Scratch Little Linda	Estes D12-3	Good Flight	94	Stephen Knight	Scratch Paper Ugly	Estes A8-3	Good Flight
40	Jim Glasson	Scratch Little Linda	Estes D12-3	No Chute	95	Stephen Knight	Scratch Soylent Green	Estes C6-5	Good Flight
41	David Grumbine	MSH Mercury-Redstone	Aerotech RMS H128W	Good Flight	96	Stephen Knight	Estes Wizard	Estes C6-7	Good Flight
42	David Grumbine	Estes Orbital Transport	Estes B6-4	Good Flight	97	Family LaFleur	Estes Firestreak	Estes C6-5	Good Flight
43	David Grumbine	Estes Orbital Transport	Estes B6-4	Good Flight	98	Mike LaFleur	Estes Firestreak	Estes A8-3	Good Flight
44	David Grumbine	Scratch Red Eye	Aerotech RMS G33-5J	Good Flight	99	Mike LaFleur	Estes Gnome	Estes 1/2A3-2T	Good Flight
45	David Grumbine	MSH V-2	Estes D12-5	CATO	100	Mike LaFleur	Estes Gnome	Estes 1/2A3-2T	Good Flight
46	Doug Hillson	?	Estes B6-0/B6-6	Good Flight	101	Mike LaFleur	Estes Intruder	Estes D12-5	Good Flight
47	Doug Hillson	?	Estes B6-0/B6-0/A8-5	Took Rod	102	Mike LaFleur	Estes Maniac	Estes 1/2A3-2T	Good Flight
48	Doug Hillson	Scratch Chandeleur 2	Estes C6-3	Good Flight	103	Mike LaFleur	Estes Ninja	Estes 1/2A3-2T	Good Flight
49	Chris Humma	Estes Bullpup	Estes B6-4	Good Flight	104	Mike LaFleur	Quest Whiplash	Estes B6-6	Good Flight
50	Chris Humma	Estes Bullpup	Estes A8-3	Good Flight	105	Mike LaFleur	Quest Whiplash	Estes A8-3	Good Flight
51	Chris Humma	Estes Bullpup	Estes C6-5	Good Flight	106	Rob LaFleur	Estes Firestreak	Estes B6-6	Good Flight
52	Chris Humma	Estes Bullpup	Estes C6-5	Good Flight	107	Ellis Langford	Scratch Unlimited 1 B/G	Apogee A2-3	Good Flight
53	Chris Humma	Estes Bullpup	Estes C6-5	Good Flight	108	John Langford	Scratch B/G	Apogee A2-5	Good Flight
54	Steve Humma	NCR ?	NCR F62-4	Good Flight	109	John McCoy	Testors F104-C Starfighter	Estes C6-3	Unstable
55	Steve Humma	NCR Phantom	NCR F62-4	Good Flight	110	John McCoy	Scratch PB&J Sandwich	Estes D12-3	Good Flight
56	Steve Humma	NCR Phantom	NCR F62-4	Good Flight	111	John McCoy	Estes Saturn V	Estes D12-3	Good Flight
57	Steve Humma	NCR Phantom	NCR F62-4	Good Flight	112	John McCoy	Estes Saturn V	Estes D12-3	Good Flight
58	Steve Humma	NCR Phantom	NCR F62-4	Good Flight	113	John McCoy	Estes Sup. Starship Vega	Estes D12-5	Good Flight
59	Steve Humma	NCR Phantom	NCR F62-4	Good Flight	114	John McCoy	Revell X-15 PMC	Estes B6-4	Good Flight
60	Team Hyperspace	Scratch Easter Basket	Aerotech E30-4T	Good Flight	115	John McCoy	Revell X-15 PMC	Estes B6-4	Good Flight
61	Mark Kamide	Scratch Black Brandt II	Aerotech G40-4W	Good Flight	116	Ken Paduch	Estes Fatboy	Estes D12-5	Good Flight
62	Mark Kamide	Scratch Gemini-Titan	Aerotech G40-4W	Good Flight	117	Ken Paduch	Estes Longshot	Estes D12-0/C6-7	Good Flight
63	Mark Kamide	QCR Helicopter	Estes C6-3	Good Flight	118	Ken Paduch	Estes Shadow	Aerotech RMS F12-3J	Good Flight
64	Mark Kamide	Scratch Little Joe I	Aerotech G40-4W	Good Flight	119	Ken Paduch	Estes Shadow	Aerotech RMS F39-4T	Good Flight
65	Mark Kamide	MSH Mercury-Redstone	Aerotech G80-4T	Good Flight	120	Ken Paduch	Estes Shadow	Aerotech RMS F24-4W	Good Flight
66	Mark Kamide	Estes Trans Wing	Estes C6-3	Good Flight	121	Rich Prew	Estes Alpha III	Estes B6-6	Good Flight
67	Mark Kamide	Scratch Viking 10	Aerotech G40-4W	Good Flight	122	Rich Prew	Estes Astrocam	Estes C6-7	Good Flight
68	Bridget Kane	Estes Fatboy	Quest C6-5	Good Flight	123	Rich Prew	Estes Astrocam	Estes C6-5	Good Flight
69	Eric Kane	Vaughn Bros Buzzard	Estes A8-3	Good Flight	124	Rich Prew	Estes Flash	Estes B6-6	Good Flight
70	Eric Kane	Estes Maniac	Estes A8-3	Good Flight	125	Rich Prew	Estes Longshot	Estes D12-0/C6-7	Core Sample
71	Eric Kane	Vaughn Bros Mini-EX	Estes D12-3	Good Flight	126	Rich Prew	Estes Yellow Jacket	Estes B6-6	Good Flight
72	Eric Kane	Estes Orbital Transport	Estes A3-4T	Good Flight	127	John Sabatini	Estes Helicat	Estes B6-2	Good Flight
73	Eric Kane	Estes Phoenix	Quest C6-5	Good Flight	128	John Sabatini	Estes Quark	Estes A10-3T	Good Flight
74	Eric Kane	LOC Precision Viper 4	Estes D12-3	Good Flight	129	John Sabatini	Scratch Silver Bullet	Aerotech D12-5	Good Flight
75	Hannah Kane	Estes Beta	Estes D12-5(4)	Good Flight	130	John Sabatini	Aerotech Strong ARM	Aerotech RMS F40-4W	Good Flight
76	Hannah Kane	Estes Wizard	Estes A8-3	Good Flight	131	Zach Smith	Launch Pad Bullpup	Estes D12-5	Good Flight
77	David Klouser	Scratch B Boost Glider	Estes A8-3	Core Sample	132	Zach Smith	Launch Pad Bullpup	Aerotech E15-5W	Took Rod
78	David Klouser	Scratch B Boost Glider	Apogee 1/4A2-2	Good Flight	133	Zach Smith	Scratch My First Cluster	Estes C6-3(2)	Good Flight
79	David Klouser	Scratch B Boost Glider	Apogee 1/4A2-2	Good Flight	134	Zach Smith	Scratch Pd. Cluster Glider	Estes B6-4(2)	Good Flight
80	David Klouser	Scratch Easter Bunny	Estes C6-0(2)/C6-3	Good Flight	135	David Stoetzer	Scratch Harpoon AGM-84	Aerotech RMS E28-4T	Good Flight
81	David Klouser	Scratch Football Model	Estes A10-3T	Good Flight	136	David Stoetzer	Scratch Harpoon AGM-84	Aerotech RMS E28-4T	Good Flight
82	Stephen Knight	Aerotech Arcas	Aerotech RMS G64-4W	Good Flight	137	David Stoetzer	MSH V-2	Aerotech RMS F39-9T	Good Flight
83	Stephen Knight	Launch Pad Bullpup	Estes D12-5	Good Flight	138	Scott Tyrrell	Aerotech Arreaux	Aerotech D15-4T	Good Flight
84	Stephen Knight	Launch Pad Bullpup	Aerotech RMS E28-7T	CATO	139	Scott Tyrrell	Estes Intruder-D	NCR F62-6	Good Flight
85	Stephen Knight	Scratch Green Needle	Estes A3-4T	Good Flight	140	Tom Whymark	Scratch IQSY Tomahawk	Estes D12-P	Good Flight
86	Stephen Knight	Scratch Green Needle	Estes A10-3T	Good Flight	141	Tom Whymark	Scratch IQSY Tomahawk	Estes A10-3T	Good Flight
87	Stephen Knight	Estes Loadstar	Estes B6-0/B6-4	Good Flight	142	Tom Whymark	Estes Redstorm	Estes C6-5	Good Flight
88	Stephen Knight	Estes Loadstar	Estes B6-0/B6-4	Good Flight	143	Tom Whymark	Estes Redstorm	Estes C6-5	Good Flight
89	Stephen Knight	Launch Pad Maverick	Estes B6-0/B6-4	Good Flight	144	Tom Whymark	Estes Redstorm	Estes A8-3	Good Flight
90	Stephen Knight	Scratch MR-20	Aerotech RMS E28-7T	Good Flight	145	Tom Whymark	Estes Redstorm	Estes B6-4	Good Flight
91	Stephen Knight	Rocket R&D Navy Strike	Estes C6-7	Good Flight	146	John Yost	Estes Unknown	Estes B6-4	Good Flight
92	Stephen Knight	Launch Pad Nike Ajax	Aerotech RMS G64-7W	Good Flight	147	John Yost	Estes Calypso	Estes C6-7	Good Flight
93	Stephen Knight	Launch Pad Nike Ajax	Estes D12-5(3)	Good Flight			Aerotech Mustang	Aerotech F14-6J	Good Flight
			Estes D12-5(3)	Separation					

Launch Statistics - RAMTEC-6 Sport Flights

Number of Flyers: 34 Weather: Warm, Calm, Beautiful

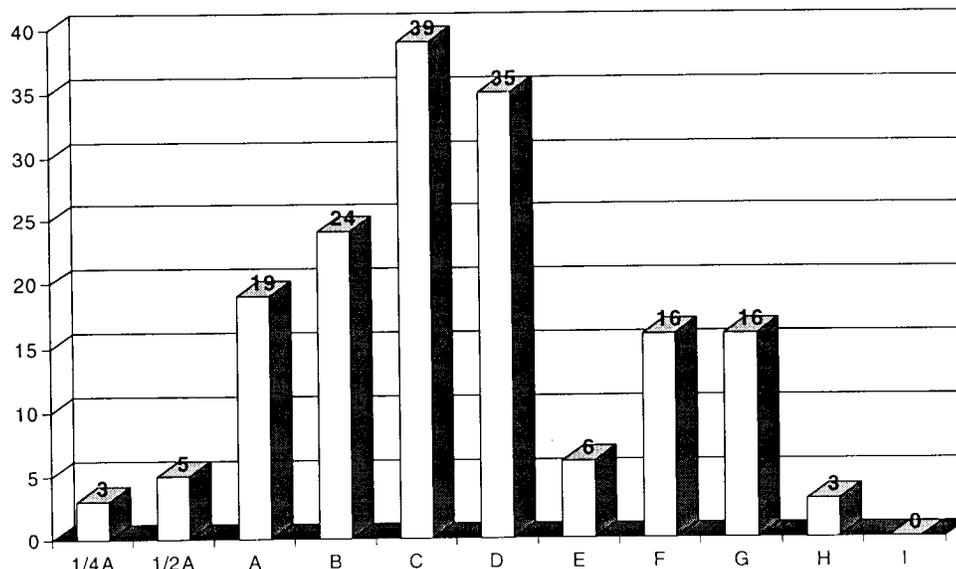
Models Flown:

Estes	43
Scratchbuilt	29
Aerotech	5
Edmonds	5
Launch Pad	4
LOC Precision	4
MSH	4
NCR	3
Quest	2
Vaughn Bros	2
FSI, Microbrick, QCR	1
Revell, Rocket R&D	1
Testors, Unknown	1

Motor Usage:

Estes	114
Aerotech RMS	24
Aerotech	13
NCR	7
Apogee	5
Quest	3

Impulse Distribution:



SPAAR Sport Launch

June 28th, 1998

by George Beever

June 28 was an unusually windy, over-cast day, but 25 flyers still made a total of 83 flights.

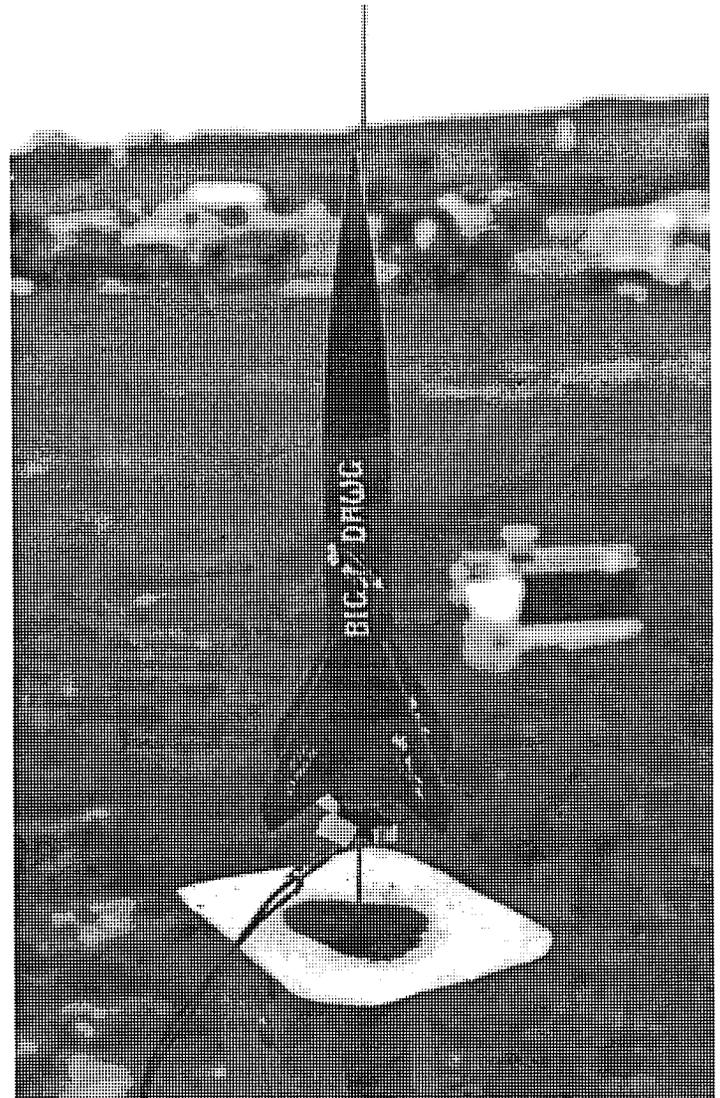
The Barnsley family from Maryland was there in force, with Ivan's collection of cluster and staged models. He just about runs out of ink filling out the *motor* portion of the flight card! One of the more interesting was his kitbashed Atlas-Agena, in which the three mainstage engine nozzles contain D12s, staged to a single D12. This configuration is just like the full size Atlas. Unfortunately, the clear plastic fins were a bit too thin, causing some stability problems. Great looking model, though. Ivan won the day's *Best Staged Model* trophy, with his *Left Overs 'n Ideas*, or was it the *Hummer*?



The winners of SPAAR's B Helicopter Duration contest. First place went to Tim Dinger (right), followed by Glenn Feveryear (center) in second, and Tony Rossi (left) in third. (Beever)



Ivan Barnsley displays his scratch built Hummer. (Beever)



Mark Beever's Big Dawg is ready to go on a B4-4. (Beever)

Either way, Ivan's models are always attention getters!

Mark Beever flew his first ever scratch built model, the *Cloudbuster*. It had two good flights, but unfortunately the roof claimed it. James Darnell had a good entry

in the multi-stage contest, too. He converted an Estes Nike Arrow into a three staged bird! All three stages ignited. We couldn't see third stage ignition, but we heard it. What a wild flight!

This was also the day for SPAAR's *B*

Helicopter Duration contest. The winner, by a wide margin, was Tim Dinger, followed by Glenn Feveryear and Tony Rossi. Two of those three, Tim and Tony, were flying in a contest for the first time! Great job guys, and congratulations! **CD**

#	Flyer	Model	Motors	Result	#	Flyer	Model	Motors	Result
1	Anita Barnsley	Estes Condor	Estes C6-3	Good Flight	43	Dale Greene	Estes Magnum	Estes D12-0/B6-6	No Chute
2	Ivan Barnsley	Estes Atlas/Agenda	Estes D12(2)/D12/D12	Good Flight	44	Mark Kamide	QCR B HD	Estes B6-4	49.97s
3	Ivan Barnsley	Scratch Hummer	Estes D12/C6/C6	Good Flight	45	Mark Kamide	QCR B HD	Estes B6-4	DQ
4	Ivan Barnsley	Scratch Leftovers-N-Ideas	Estes C6(2)/D12/D12	Good Flight	46	Eric Miller	Estes ????	Estes C6-5	Good Flight
5	Ivan Barnsley	RDC Sampson	Estes C6-5(3)	Good Flight	47	Eric Miller	Estes Big Bertha	Estes C6-5	Good Flight
6	Ivan Barnsley	Scratch Upscale Gyroc	Estes C6-3	Good Flight	48	Eric Miller	Estes Big Bertha	Estes A8-3	Tangled Chute
7	Jeanie Barnsley	Estes Bomarc	Estes A3-4T	Good Flight	49	Eric Miller	Estes Big Bertha	Estes C6-5	Good Flight
8	Jeanie Barnsley	Scratch Hat Trick Plus	Estes D(2)/C(2)/B(4)	Good Flight	50	Eric Miller	Estes Big Bertha	Estes C6-3	Good Flight
9	Jeanie Barnsley	Estes Helicopter	Estes C6-3	Doink	51	Eric Miller	Rogue Aerospace Gnat	Estes A10-3T	Good Flight
10	Jeanie Barnsley	Estes Star Blazer	Estes A3-4T	Good Flight	52	Eric Miller	Rogue Aero. Hex Courier	Estes C6-3	Separation
11	Jeanie Barnsley	Estes Star Blazer	Estes A3-4T	Good Flight	53	Eric Miller	Estes Ionizer	Estes C6-3	Good Flight
12	Jeanie Barnsley	Estes Starlight	Estes C6-5	Roof	54	Eric Miller	Estes Stardust	Estes A8-3	Good Flight
13	Jeanie Barnsley	Scratch Stilt Fin	Estes D12-5	Doink	55	Family Miller	Estes Rogue	Estes C6-3	Good Flight
14	Jeanie Barnsley	Estes Yankee Clipper	Estes B6-4	Good Flight	56	Tom Rhymer	Custom Dynamic Carrier	Estes B6-4	Good Flight
15	George Beever	QCR B HD	Estes B4-2	33.93s	57	Tom Rhymer	Estes Phoenix	Estes D12-3	Good Flight
16	George Beever	QCR B HD	Estes B4-2	35.54s	58	Tom Rhymer	Estes Sidewinder	Estes C6-3	Good Flight
17	George Beever	Scr. Romulan Revolver	Estes D12-3	Good Flight	59	Tom Rhymer	MSH V-2	Estes D12-3	Good Flight
18	Mark Beever	Estes Big Dawg	Estes B4-4	Good Flight	60	Tom Rhymer, Jr.	Estes Flash	Estes B6-4	Rocket Lock
19	Mark Beever	Scratch Cloudbuster	Estes B4-4	Good Flight	61	Tom Rhymer, Jr.	Custom Metrix	Estes 1/2A3-2T	Prang
20	Mark Beever	Scratch Cloudbuster	Estes C6-5	Good Flight	62	Tom Rhymer, Jr.	Scratch Mini Shadow	Estes 1/2A3-2T	Lost in Space
21	Mark Beever	QCR Crayon	Estes D12-3	Good Flight	63	Tom Rhymer, Jr.	Scratch Silver Streak	Estes C6-3	Good Flight
22	James Darnell	Estes Nike Arrow	Estes B6/A10/1/2A3	Good Flight	64	Tom Rhymer, Jr.	Estes Sizzler	Estes C6-3	Rocket Lock
23	James Darnell	Estes Nike Arrow Sus.	Estes 1/2A3-4T	Good Flight	65	Mike Ritchie	Quest Falcon	Estes C6-5	Good Flight
24	James Darnell	Estes Tomcat	Estes C6-3	Crash	66	Mike Ritchie	Estes Venom	Estes C6-7	Good Flight
25	James Darnell	Estes Tomcat	Estes B6-4	Doink	67	Tony Rossi	QCR B HD	Estes B6-4	42.23s
26	Guy DeStefano	Estes Corkscrew	Estes C6-5	Good Flight	68	Tony Rossi	QCR B HD	Estes B6-4	43.22s
27	Guy DeStefano	Rocket R&D Ibis	Aerotech F25-4W	Good Flight	69	Tony Rossi	QCR B HD	Estes B6-4	40.60s
28	Guy DeStefano	LOC Lil Nuke	Aerotech RMS F40-7W	Good Flight	70	Tony Rossi	Estes Deathstar	Estes C6-3	Open on Impact
29	Donna Dinger	Estes Sizzler	Estes C6-3	Good Flight	71	Tony Rossi	Estes Fatboy	Estes C6-5	Good Flight
30	Doug Dinger	Estes Fatboy	Estes C6-3	Good Flight	72	Tony Rossi	Scratch No Name	Aerotech RMS E18-4W	Good Flight
31	Melanie Dinger	Estes Bandit	Estes B6-4	Good Flight	73	Tony Rossi	Estes Sidewinder	Estes C6-5	Good Flight
32	Melanie Dinger	Estes Bandit	Estes C6-3	Good Flight	74	Tony Rossi	Estes Stingray	Estes A8-3	Good Flight
33	Tim Dinger	QCR B HD	Estes B6-4	94.10s	75	Frank Sombers	Scratch The Sylph	Estes A10-3T	Loop
34	Tim Dinger	QCR B HD	Estes B6-4	57.92s	76	Frank Sombers	Scratch The Sylph	Estes A3-4T	Good Flight
35	Tim Dinger	Estes Fatboy	Estes C6-3	Good Flight	77	Ben Weaver	Estes Sidewinder	Estes C6-5	Good Flight
36	Tim Dinger	Estes Mean Machine	Estes D12-5	Tangled Chute	78	Matt Weaver	Estes Sidewinder	Estes C6-5	Good Flight
37	Tim Dinger	NCR Tempest	NCR F62-6	Good Flight	79	John Yost	QCR B HD	Estes B4-2	27.74s
38	Tim Dinger	Quest Tomahawk	Estes C6-5	Good Flight	80	John Yost	QCR B HD	Estes B4-2	57.75s
39	Glenn Feveryear	QCR B HD	Estes B6-4	41.07s	81	John Yost	QCR B HD	Estes B4-2	23.57s
40	Glenn Feveryear	QCR B HD	Estes B6-4	45.57s	82	Matt Zimmerman	Scratch CDR	Estes C6-5	Good Flight
41	Glenn Feveryear	Scratch Grumpy Dog	Estes D12-0/D12-3	Doink	83	Matt Zimmerman	Estes Silver Comet	Estes D12-5	Good Flight
42	Dale Greene	NCR Big Brute	Aerotech F25-4W	Good Flight					

Launch Statistics - June 28th, 1998

Number of Flyers: 25 Weather: ??

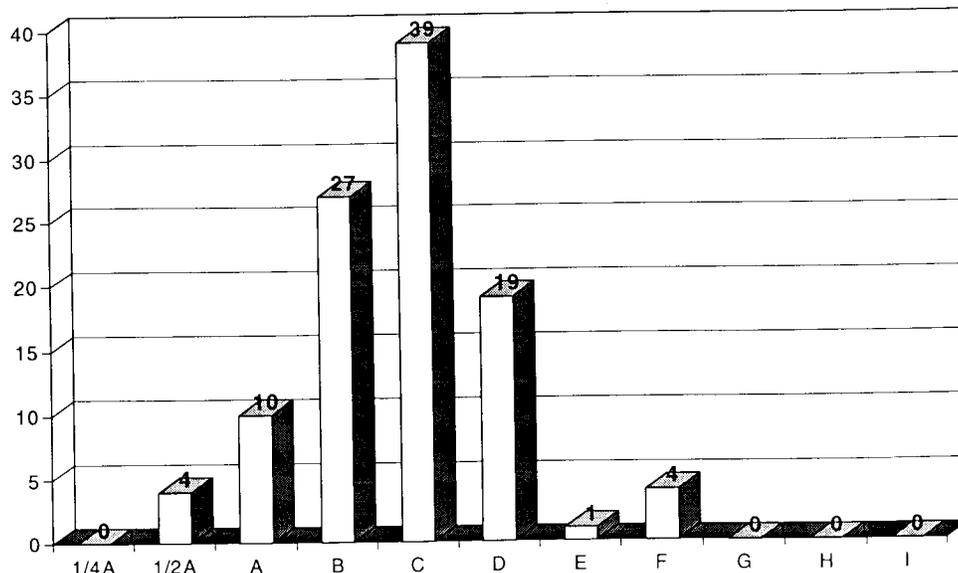
Models Flown:

Estes	34
Scratchbuilt	13
QCR	7
Custom	2
NCR	2
Quest	2
Rogue Aerospace	2
LOC Precision	1
MSH	1
RDC	1
Rocket R&D	1

Motor Usage:

Estes	99
Aerotech	2
Aerotech RMS	2
NCR	1

Impulse Distribution:



SPAAR Sport Launch

July 12th, 1998

by George Beever

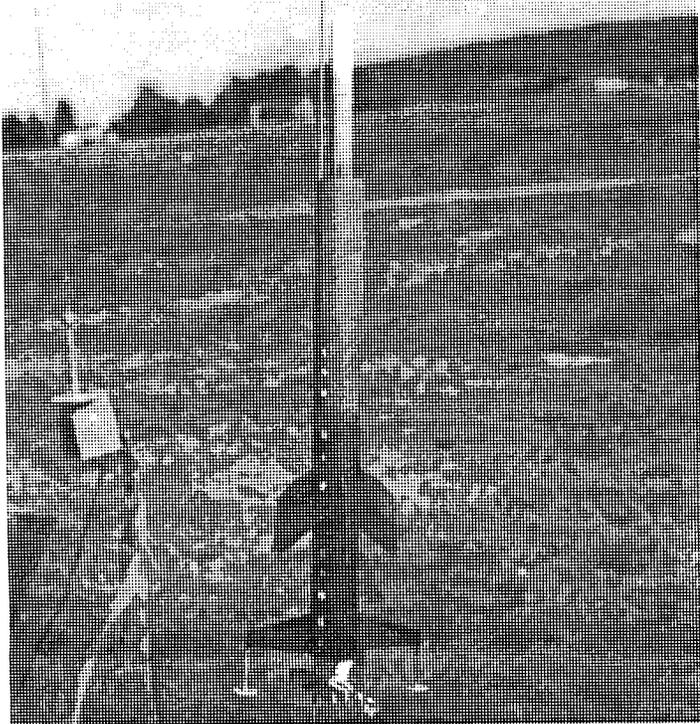
Who was that masked, bearded man? Why, it's none other than John Balmer, the

original Captain Video! We hadn't seen John in a while, and it was really great that he could make it.

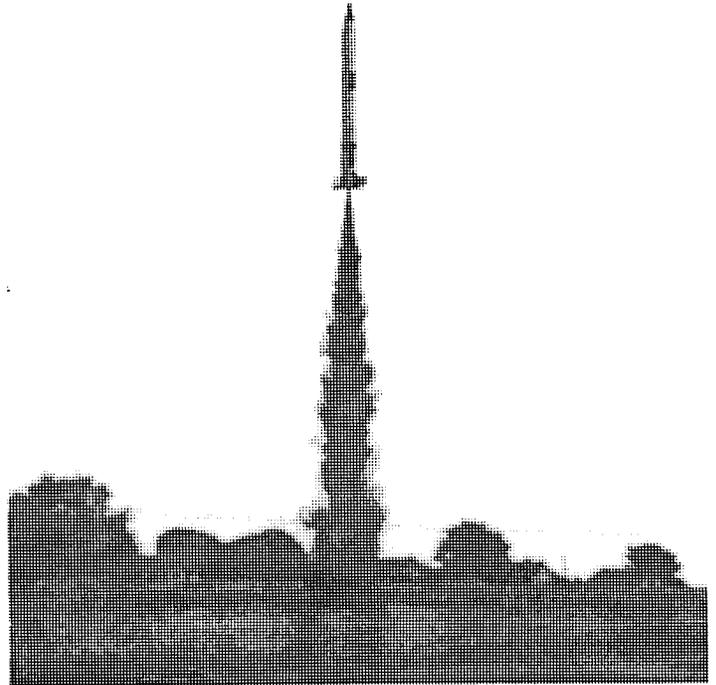
Randy Brust flew his usual Fat Boy and Initiator, and then brought out something a bit different. An Estes Mach-12, left over

from a workshop he did last year for some school students, powered by an Aerotech D13 reload. An incredible flight and he got it back, too.

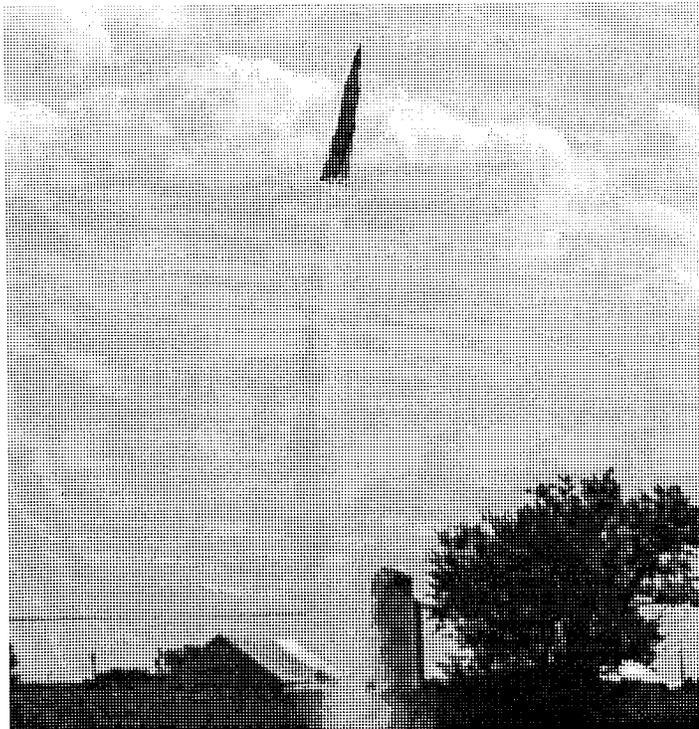
Ivan "you never know what I'll come up with next" Barnsley got everyone's at-



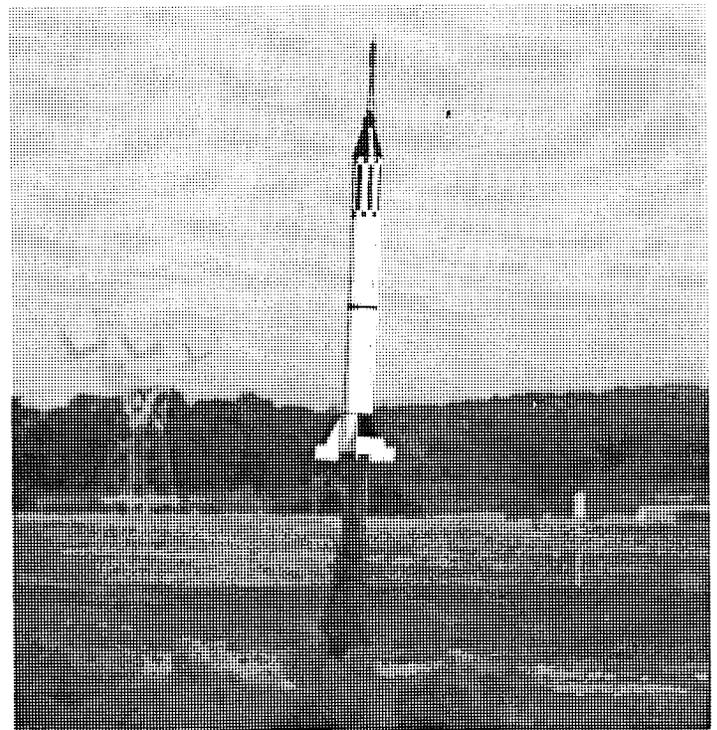
Rick Hackman's Big Bang, winner of the Ugliest Rocket contest, ready to fly with a D12 staging to a C6. (Hackman)



Mark Kamide's scratch built Gemini-Titan is off on a mission with an NCR F62. (Hackman)



Ivan Barnsley's kitbashed Atlas with three D12's staging to another D12. (Hackman)



Tony Rossi's winter workshop Mercury-Redstone also on an NCR F62. (Hackman)

tention with the Hummer II powered by an F40 reload. This model has some sort of whistle on it, so it literally shrieks on the way up. Very cool. He also flew the Sampson, a kit sold by Rocket Development Corp., otherwise known as RDC. I didn't notice this until I looked at the flight cards.

Hey Ivan, RDC went out of business around 1968! You have a real classic there! I remember getting one of their catalogs way back then. Please bring it again, I'd love to see it.

Two Mountainside Hobbies Mercury-Redstones flew, both powered by NCR F62

Dark Star motors. Tony Rossi and George Beever had good flights with them.

The president's wife had a good flight, too. First Lady (sorry, couldn't resist!) Cindy Kamide flew her Launch Pad Anubis on a D12. It flew great, but I still can't find anyone who knows what an *anubis* is! **CD**

#	Flyer	Model	Motors	Result	#	Flyer	Model	Motors	Result
1	John Balmer	Estes Astrocam	Estes C6-7	Good Flight	41	Craig Myers	Estes Sidewinder	Estes C6-5	Good Flight
2	John Balmer	Estes Astrocam	Estes C6-5	Lawn Dart	42	Matthew Myers	Estes Clear Brandt	Estes D12-5	Good Flight
3	Ivan Bamsley	Kitbash Atlas-Score	Estes D12-0(3)/D12-7	Unstable	43	Matthew Myers	Estes Quark	Estes A3-4T	Good Flight
4	Ivan Bamsley	Scratch Flapper	Estes D12-3	Good Flight	44	Matthew Myers	Estes Quark	Estes A3-4T	Good Flight
5	Ivan Bamsley	Scratch Hummer II	Aerotech RMS F40-4W	Good Flight	45	Matthew Myers	Estes R2-D2	Estes C5-3	Good Flight
6	Ivan Bamsley	RDC Sampson & Booster	Estes B6-0(3)/B6-6(3)	Good Flight	46	Tony Rossi	Estes Broadsword	Aerotech D12-5	Good Flight
7	Ivan Bamsley	Scratch Still Fin	Estes D12-3	Good Flight	47	Tony Rossi	Estes Corkscrew	Estes B6-4	Good Flight
8	George Beever	Launch Pad Amraam	Estes D12-5(2)	Good Flight	48	Tony Rossi	Estes Death Star	Estes C5-3	Good Flight
9	George Beever	Launch Pad Hawk	Estes D12-5	Good Flight	49	Tony Rossi	MSH Mercury-Redstone	NCR F62-4	Good Flight
10	George Beever	MSH Mercury-Redstone	NCR F62-4	Good Flight	50	Tony Rossi	Scratch No Name	Aerotech RMS E18-7W	Good Flight
11	Mark Beever	Estes Alpha III	Estes A8-3	No Chute	51	Tony Rossi	Scratch No Name	Aerotech RMS E18-7W	Trees
12	Mark Beever	Estes Big Bertha	Estes C6-5	Good Flight	52	Tony Rossi	Estes Tie Fighter	Estes B6-4	Good Flight
13	Mark Beever	Estes Big Dawg	Estes B4-4	Good Flight	53	Brinton Schlegel	Estes Sidewinder	Estes C6-5	Good Flight
14	Randy Brust	Estes Fatboy	Aerotech RMS E18-4W	Good Flight	54	Brinton Schlegel	Estes Silver Comet	Estes D12-5	Good Flight
15	Randy Brust	Aerotech Initiator	NCR F62-4	Good Flight	55	Jillane Schlegel	Estes Flash	Estes C6-5	Good Flight
16	Randy Brust	Estes Mach-12	Aerotech RMS D13-7W	Good Flight	56	Robin Schlegel	Estes Maniac	Estes D12-7	Good Flight
17	Rick Hackman	Scratch Big Bang	Estes D12-0/C6-7	Unstable	57	Robin Schlegel	Estes Mean Machine	Estes D12-5	Good Flight
18	Rick Hackman	Scratch Mity Midget 4	Estes A3-4T(4)	Unstable	58	Ethan Stell	Estes Scorpion	Estes A8-3	Good Flight
19	Rick Hackman	Scratch Quintar 3	Estes D12-5	Prang	59	Joshua Stell	Estes Big Bertha	Estes C6-5	Good Flight
20	Rick Hackman	Scratch R.A.T.	Estes C6-3	Lawn Dart	60	Joshua Stell	Estes Longshot	Estes D12-0/C6-7	Good Flight
21	Rick Hackman	Scratch Spartan	Estes D12-5	Unstable	61	Todd Stell	Estes Big Bertha	Estes C6-5	Good Flight
22	Cindy Kamide	Launch Pad Annibus	Estes D12-7	Good Flight	62	Todd Stell	Scratch Vellum Tiger	Estes C6-3	Good Flight
23	Mark Kamide	Scratch B Streamer	Estes B6-4	Good Flight	63	Ann Weaver	Estes Corkscrew	Estes B6-4	Good Flight
24	Mark Kamide	Scratch Gemini-Titan	NCR F62-4	Good Flight	64	Ann Weaver	Estes Skywinder	Estes C6-3	Good Flight
25	Mark Kamide	Estes Mongoose	Estes B6-0/A8-3	Good Flight	65	Ben Weaver	Estes Big Bertha	Estes B6-4	Good Flight
26	Mark Kamide	QCR Rotor Rock	Estes C6-3	Lawn Dart	66	Ben Weaver	Estes Big Bertha	Estes B6-2	Good Flight
27	John Lares	Estes Flash	Estes C6-7	Good Flight	67	Ben Weaver	Estes Big Bertha	Estes D12-7	Good Flight
28	John Lares	Estes Flash	Estes C6-7	Good Flight	68	Ben Weaver	Estes Broadsword	Estes B6-4	Good Flight
29	John Lares	Estes Tracker	Estes C6-3	Good Flight	69	Ben Weaver	Estes Corkscrew	Estes C6-3	Good Flight
30	Francis Murphy	Estes Astrocam RTF	Estes C6-5	Good Flight	70	Ben Weaver	Estes Sidewinder	Estes C6-3	Good Flight
31	Francis Murphy	Estes Astrocam RTF	Estes C6-7	Good Flight	71	Ben Weaver	Estes Sidewinder	Estes C6-3	Good Flight
32	Francis Murphy	Estes Scorpion	Estes C6-7	Separation	72	Les Weaver	Estes Blackbird	Estes C6-3	Good Flight
33	Megan Murphy	Estes X-Ray	Estes A3-4T	Good Flight	73	Les Weaver	Estes Broadsword	Estes D12-7	Good Flight
34	Megan Murphy	Estes X-Ray	Estes A3-4T	Good Flight	74	Matt Weaver	Estes Big Bertha	Estes B6-2	Good Flight
35	Megan Murphy	Estes X-Ray	Estes A3-4T	Good Flight	75	Matt Weaver	Estes Broadsword	Estes D12-7	Good Flight
36	Megan Murphy	Estes X-Wing	Estes C6-3	Good Flight	76	Matt Weaver	Estes Scrambler	Estes C6-3	Good Flight
37	Craig Myers	Aerotech Arcas	Aerotech RMS F40-4W	Good Flight	77	Matt Weaver	Estes Skywinder	Estes C6-3	Good Flight
38	Craig Myers	Aerotech Arcas	Aerotech RMS F40-4W	Good Flight	78	Matt Zimmerman	PML Viper	Estes D12-5(4)	Good Flight
39	Craig Myers	Aerotech Initiator	NCR F62-4	Good Flight	79	Matt Zimmerman	AAA Vortex Z	NCR F62-4	Good Flight
40	Craig Myers	Estes Sidewinder	Estes C6-5	Good Flight	80	Matt Zimmerman	Scratch Xarconian Chaser	Estes D12-5	No Chute

Launch Statistics - July 12th, 1998

Number of Flyers: 24 Weather: Sunny, Slight Breeze

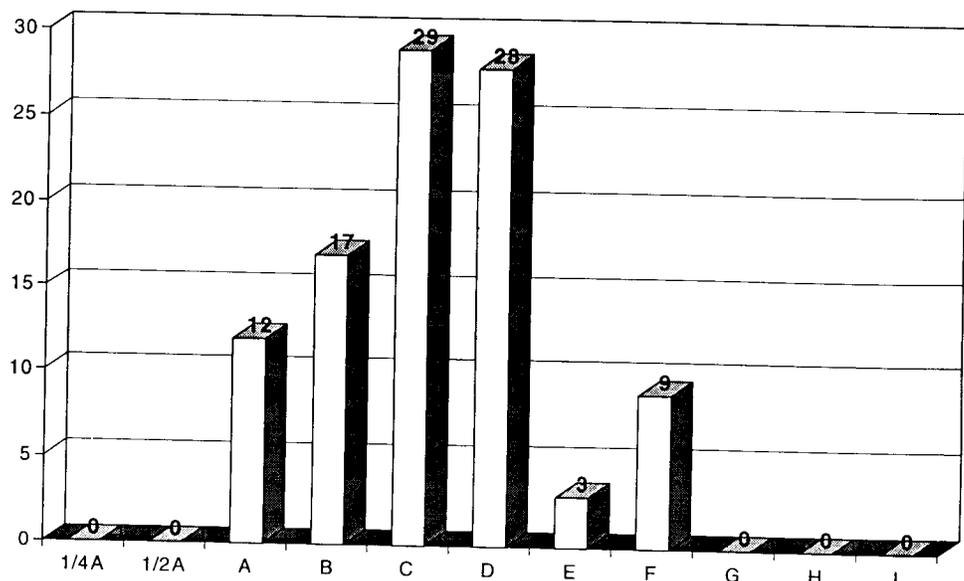
Models Flown:

Estes	40
Scratchbuilt	13
Aerotech	3
Launch Pad	3
MSH	2
AAA	1
Kitbash	1
PML	1
QCR	1
RDC	1

Motor Usage:

Estes	85
Aerotech RMS	7
NCR	6

Impulse Distribution:



SPAAR Sport Launch

August 2nd, 1998
by George Beever

This could have been called the "Will Success Spoil Rick Hackman?" launch. After a streak of bad luck, Rick had a

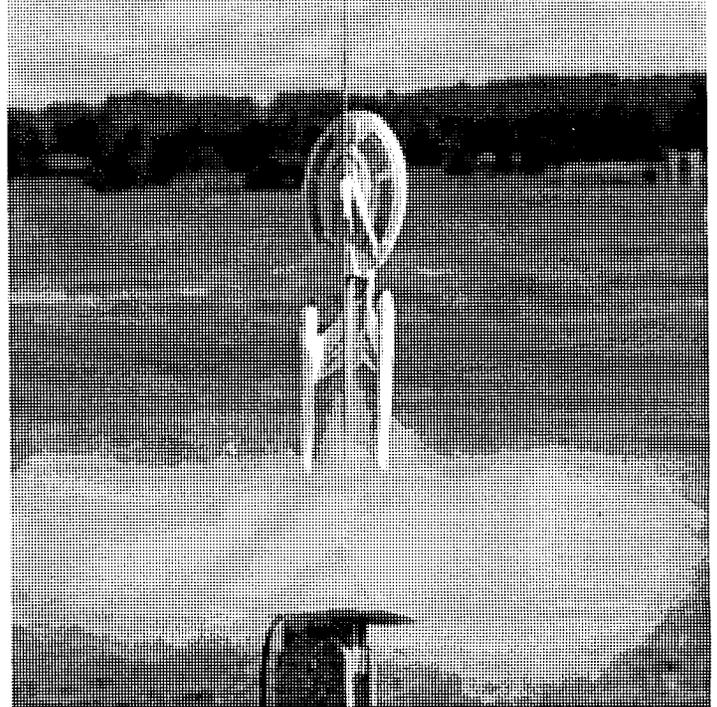
number of very successful flights at this launch. The Space Probe, a Thor look-alike, was given a booster stage, and with a D12/C6 combination, flew very well. At least we think it did. The second stage was last seen heading into Earth orbit, and we don't know if it was recovered or not. Rick

even got a great flight out of a QCR Rotaroc with an A8-3, when it caught a nice thermal. Good going Rick!

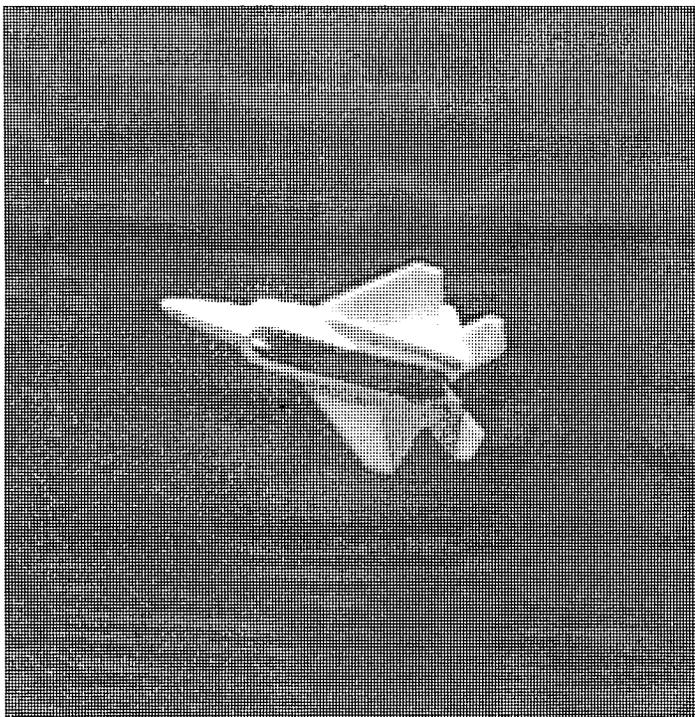
The younger SPAAR members were out in full force, like Joshua and Todd Stell, and the Dinger kids. Needless to say, Estes TIE Fighters, Fatboys, X-Rays, and Cork-



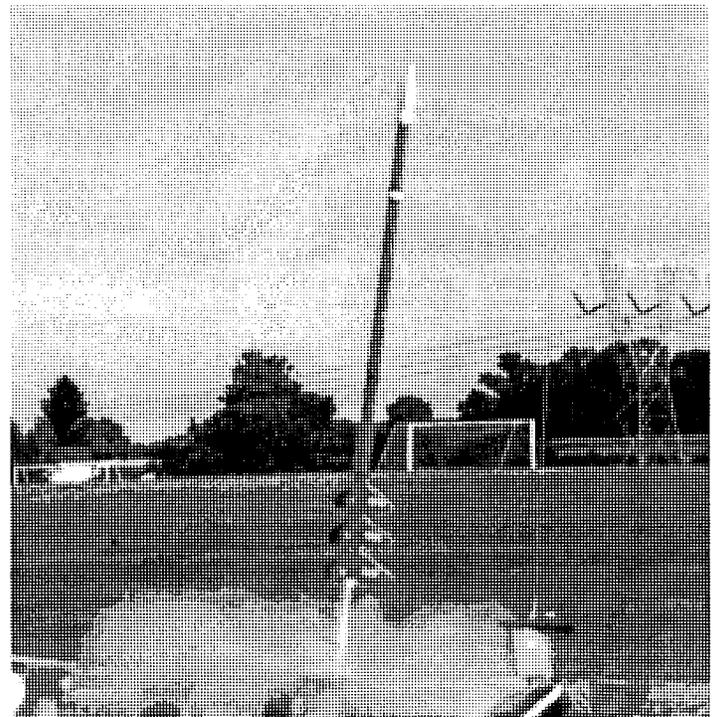
Tony Rossi's Flying Saucer is off on a C6-0. Hmmm, is that Dr. Smith in one of those windows? (Hackman)



Chris Taylor's Enterprise E leaves Earth on a dylithium crystal... er... I mean a C6-3. (Hackman)



An F22 fly-by! No, actually it's Bryce Hutchinson's Estes F22 gliding back after a successful launch. (Hackman)



Tod Stell's Commanche-3 is off on a 3 stage flight using a D12-0, B6-0, and B6-6. (Hackman)

screws were flying all over the place. Mr. Yost, John to the rest of us, had a real nice flight with his venerable (look that one up) Aerotech Mustang on an F14 Blackjack. Tony Rossi brought out a real oldie, an Estes

Flying Saucer that he flew on a C6. Neat. One of the best flights of the day, in our opinion, was Matt Zimmerman's LOC Viper IV on 4 D12s. The model has a great paint scheme, the flag colors of some Car-

ibbean country (Trinidad?). Very unique!

A huge thanks to all of those who performed range duty (you know who you are!). Without them, we couldn't have the best-run sports range in the country. **CD**

#	Flyer	Model	Motors	Result	#	Flyer	Model	Motors	Result
1	George Beever	US Rockets Aero-Roc III	Estes D12-7(3)	Good Flight	44	Eric Miller	Estes Sidewinder	Estes D12-7	Good Flight
2	George Beever	Estes Impulse	Estes D12-5(2)	Good Flight	45	Eric Miller	Estes Skywinder	Estes B6-4	Separation
3	George Beever	Scratch Saturn V	Estes C6-5	Good Flight	46	Eric Miller	? Spitfire	Estes B6-4	Good Flight
4	Mark Beever	Estes Big Bertha	Estes B4-4	Good Flight	47	Eric Miller	Estes Viking	Estes A8-3	Good Flight
5	Mark Beever	Estes Big Dawg	Estes B4-4	Good Flight	48	Eric Miller	Estes Viking	Estes A8-3	Good Flight
6	Mark Beever	QCR Crayon Bank	Estes D12-3	Good Flight	49	Tony Rossi	Estes Broadsword	Estes D12-5	Good Flight
7	Matthew Brooks	Estes Gnome	Estes 1/2A3-4T	Good Flight	50	Tony Rossi	Estes Broadsword	Aerotech RMS E18-7W	Good Flight
8	Matthew Brooks	Estes Silver Comet	Estes D12-3	Good Flight	51	Tony Rossi	Estes Corkscrew	Estes C6-5	Good Flight
9	Rob Clay	Estes Blackbird	Estes C6-3	Good Flight	52	Tony Rossi	Estes Flying Saucer	Estes C6-0	Good Flight
10	Rob Clay	Estes Blackbird	Estes C6-3	Separation	53	Tony Rossi	Estes Python	Estes D12-5	Good Flight
11	Rob Clay	Estes Skywinder	Estes C6-3	Good Flight	54	Tony Rossi	QCR Rotoroc	Estes A8-3	Good Flight
12	Guy DeStefano	Rocket R&D Ibis	Aerotech RMS F40-4W	No Chute	55	Tony Rossi	Estes Tie Fighter	Estes C6-5	Good Flight
13	Guy DeStefano	Rocket R&D Ibis	Aerotech RMS F40-4W	No Chute	56	Ethan Stell	Estes Longshot	Estes D12-0/B6-6	Good Flight
14	Guy DeStefano	Rocket R&D Peacock	NCR F62-6	Good Flight	57	Joshua Stell	Estes Big Bertha	Estes C6-7	Good Flight
15	Guy DeStefano	Scratch Spirogyra	Aerotech RMS F40-4W	Good Flight	58	Joshua Stell	Estes X-Ray	Estes X-3-4T	Separation
16	Doug Dinger	Estes ARV Condor	Estes B6-2	Good Flight	59	Todd Stell	Estes Comanche 3	Estes B6-0/A8-5	Good Flight
17	Doug Dinger	Estes ARV Condor	Estes C6-3	Good Flight	60	Todd Stell	Estes Comanche 3	Estes D12-0/B6-0/B6-6	Good Flight
18	Doug Dinger	NCR Tempest	NCR F62-6	Good Flight	61	Chris Taylor	Estes Bullpup 12D	Estes B6-4	Good Flight
19	Jenny Dinger	Estes Fatboy	Estes C6-3	Good Flight	62	Chris Taylor	Quest Enterprise E	Estes C6-3	Good Flight
20	Jenny Dinger	Estes Fatboy	Estes C6-3	Good Flight	63	Chris Taylor	Scratch Fantasy Jet	Estes C6-5	Good Flight
21	Jenny Dinger	Estes Tie Fighter	Estes C6-3	Semi Stable	64	Chris Taylor	Scratch Flexi Boost	Estes 1/2A6-2	Good Flight
22	June Dinger	Estes Corkscrew	Estes B6-4	Good Flight	65	Chris Taylor	Scratch Flexi Boost	Estes 1/2A6-2	Good Flight
23	June Dinger	Estes Corkscrew	Estes B6-4	Good Flight	66	Chris Taylor	Scratch Flexi Boost	Estes 1/2A6-2	Good Flight
24	Melanie Dinger	Estes X-Wing	Estes C6-3	Separation	67	Chris Taylor	Quest HL-20	Estes C6-3	Good Flight
25	Tim Dinger	Estes Star Destroyer	Estes D12-5	Good Flight	68	Chris Taylor	Scratch M.M.P.G.B.	Estes A10-3T	Unstable
26	Tim Dinger	NCR Tempest	NCR F62-6	Good Flight	69	Chris Taylor	Scratch Mars Lander PSC	Estes B6-4	Unstable
27	Tim Dinger	Quest Tomahawk	Estes C6-5	Good Flight	70	Chris Taylor	Scratch Nerf Spin	Estes B6-4	Good Flight
28	Tim Dinger	Estes X-Wing	Estes C6-3	Good Flight	71	Chris Taylor	Estes Prowler	Estes C6-3	Good Flight
29	Daniel Feveryear	Estes Hijax	Estes C6-5	Good Flight	72	Chris Taylor	Quest X-30	Estes C6-3	Good Flight
30	Daniel Feveryear	Estes Hijax	Estes C6-3	Good Flight	73	Ben Weaver	Estes Big Bertha	Estes C6-5	Good Flight
31	Rick Hackman	Scratch Hawk	Estes D12-5	Good Flight	74	Ben Weaver	Estes Corkscrew	Estes B6-4	Separation
32	Rick Hackman	QCR Rotoroc	Estes A8-3	Good Flight	75	Ben Weaver	Estes Corkscrew	Estes B6-4	Good Flight
33	Rick Hackman	Scratch Space Probe	Estes D12-0/C6-7	Good Flight	76	Ben Weaver	Estes Scrambler	Estes B6-4	Good Flight
34	Rick Hackman	Scratch Turbo Twister	Estes D12-5	No Chute	77	Matt Weaver	LOC Hi-Tech 45	Aerotech F62-5???	Good Flight
35	Aaron Hutchinson	Estes Fatboy	Estes B6-4	Good Flight	78	Matt Weaver	Estes Sidewinder	Estes C6-5	Good Flight
36	Aaron Hutchinson	Estes Gnome	Estes 1/2A3-4T	Good Flight	79	Matt Weaver	Estes Skywinder	Estes C6-5	Good Flight
37	Aaron Hutchinson	Estes Nike Arrow	Estes 1/2A3-4T	Good Flight	80	Matt Weaver	Estes Skywinder	Estes C6-3	Good Flight
38	Bryce Hutchinson	Estes Cobra	Estes A10-0T/1/2A3-4T	Good Flight	81	John Yost	Aerotech Mustang	Aerotech F14-4J	Good Flight
39	Bryce Hutchinson	Estes F22	Estes C6-3	Good Flight	82	John Yost	Estes Neon	Estes B6-6	Good Flight
40	Bryce Hutchinson	Estes F22	Estes C6-5	Good Flight	83	Matt Zimmerman	Scratch CDR	Estes C6-7	Good Flight
41	Scott K???	Estes Astrocam RTF	Estes C6-7	Good Flight	84	Matt Zimmerman	Estes Silver Comet	Estes D12-5	Good Flight
42	Eric Miller	Estes Gnat	Estes A10-3T	Lost	85	Matt Zimmerman	Estes Star Destroyer	Estes D12-5	Good Flight
43	Eric Miller	Estes Prowler	Estes D12-7	Good Flight	86	Matt Zimmerman	LOC Viper IV	Estes D12-5(4)	Good Flight

Launch Statistics - August 2nd, 1998

Number of Flyers: 25 Weather: Sunny, Nice

Models Flown:

Estes	44
Scratchbuilt	11
Quest	4
QCR	3
LOC	2
Rocket R&D	2
Aerotech	1
NCR	1
US Rockets	1

Motor Usage:

Estes	89
Aerotech RMS	4
NCR	3
Aerotech	2

Impulse Distribution:

