



THE MARS™ OBSERVER



OFFICIAL
JOURNAL



MONROE ASTRONAUTICAL
ROCKET SOCIETY



The publication that asks the question, "Why can't those other clubs pick names whose initials aren't MARS too, for cripe's sake?"

1 April, 1998

Rottenchester, NY

Volume 11, Number 2

OUR FIRST-EVER "TAX DAY MINUS TWO WEEKS" ISSUE



INSIDE THIS INSANE ISSUE:

Opinion / Editorial	2
As the Rocketry World Turns	3
Tunick Rocketry Catalog	4
Jeff Flightworthy's High-Impulse Rocketeer Test	6

The Sarge's Contest Rocketeer Test	6
Public Service Announcement	7
Launch Controller: Safety Interlock	8
Serious Stuff	9
REVISED 5-Month MARS Calendar	10

Op / Ed**President's Coronary****SRC BUYS MARS**

MARS has been acquired by the Syracuse Rocket Club. SRC president Bill Barzee has agreed to pay MARS \$3136 for the assets of the Monroe Astronautical Rocket Society. These assets include the launch support equipment, and the intellectual property of the organization. "We intend to use the wildly popular NYPOWER name for one of our launches, starting next year" said Barzee. He also indicated that the MARS name and logo would be sold to a NAR section in Florida.

Current MARS members will be automatically added as members of the SRC for the remainder of the year. The money received, plus the cash assets of MARS will be divided among MARS members that have paid their dues as of March 31, 1998. The sale of MARS was a difficult decision to make. The lack of membership growth of MARS, and particularly the lack of family participation, made it clear that MARS was in a downward spiral. SRC has been growing at a phenomenal rate, and had been seeking to acquire another club. They approached me about buying us out back on January 2nd, and we had conducted secret negotiations for over 2 months before an acceptable deal was reached. Part of the sale agreement stipulates that your current MARS president will be made a vice-president of the SRC, and will be paid a one time honorarium of \$250, plus a mint,

unopened Estes Saturn V kit. Other MARS officers will receive positions in the SRC as well. As part of the agreement, SRC will operate the MARS launches as scheduled, for the remainder of the 1998 flying season, while still holding their own schedule of events.

"The fliers won't notice a thing, right away, at least" said Barzee. "We will still operate the Geneseo launches under the MARS label. Any sale of the name will stipulate that we have exclusive use of it in NY for 2 years" When asked what would become of the Geneseo, Livonia and Spencerport launches after '98, Barzee refused to comment. The sale will be completed on April 1st.

Rich

Y

Rhymes of the Range

Okay, it's Tax Day Minus Two Weeks — and you know what that means: jokes (hopefully of the practical [why are they called "practical"] persuasion), lampoons, satire, and, if we've done our job, laughter. We've tried to give equal opportunity to both Sport and Contest flyers; our intention is for this to be fun at nobody's expense. If something rubs you the wrong way, please accept our apologies. After all, "Rocketry is FUN, dammit!"

MARS *Pathfinder* is published by MARS™, Section 136 of the National Association of Rocketry, as a service to its members and rocket enthusiasts in Western, Central, and Upstate New York. Domestic subscriptions are currently \$6 per year. Please write for information on subscriptions outside the United States.

Submissions from all people are welcome. We prefer electronic form; please contact us for details. We accept photographic slides, prints, and Photo CD.

Editors of other newsletters and journals are welcome to reprint material which appears in MARS *Pathfinder*, provided they extend to us a reciprocal privilege and they cite the author and this journal, unless the article, plan, or what-have-you indicates something to the contrary. Please contact the author if that's the case.

The *Pathfinder* actively supports the NAR Newsletter Exchange Program. Please participate in this important program by swapping with us and other sections! Contact the editor for more information.

MARS™ Homepage:

<http://web.syr.edu/~rmpitzer/mars/>.

MARS is a trademark of the Monroe Astronautical Rocket Society.

MARS™ Pathfinder

Founded in 1988 by Daniel W. Wolf as the Upstate Rocketeer

Editor-in-Chief: John Viggiano

Associate Editor: John DeMar

Typography: Hermann Pütterschein

Contributors: "Mad Dog" Hoagland, R. L.

Howdyshell, Rich Savory,

Rob LaFleur, Secret Agent 59024,

Jay King, Ferenc Róka, Amos Mugg,

Jeff Vincent

MARS™ Officers:

President: Rich Savory

Vice President: Patrick Finan

Treasurer: Lloyd Wood

Secretary: John Viggiano

Immediate Past President: Andy Schecter

President Emeritus: Dan Wolf

As The Rocketry World Turns

News from around and about the hobby, by Mad Dog and Amos Mugg

Next-Generation Stealth Technology Revealed

GROOM LAKE, NV (GPI) — High ranking Air Force officials have declined to confirm the rumor that the sale of Northrup-Grumman to Lockheed-Martin has been delayed until the completion of the next generation stealth technology demonstrator. Code named ROQUEFORT BLUE, it is the follow-on to Northrup's hugely successful TACIT BLUE project that ended in 1985.

The technology behind ROQUEFORT BLUE is assumed to be that developed by Dr. Korolev N. Steinmetz at the South Henrietta Institute of Technology concerning the RF absorption properties of cheese. The results of his five year research project, funded by Defense Advanced Research Projects Agency, have remained classified but they are known to involve 3 Amana Radar Ranges and a truck-load of Velveeta.

"Cheese's microwave-absorbing capability should be known to anybody who's nuked a batch of nachos," explained a source not related to the project. "And the microwave radiation used in radar is quite similar to that used in the now-ubiquitous household appliance."

The strategic implications of adopting cheese as a stealth radar absorbing material (RAM) have not gone unnoticed. Velveeta cannot be used in the demanding role of military applications and was clearly used in the academic study only as a proof of concept. The requirements for a military spec cheese would put the US at a clear strategic disadvantage considering its historical lack of robust cheese sources, Wisconsin notwithstanding. It has now been confirmed, by unnamed sources, that the US is planning a strategic cheese reserve for this contingency.

Rumors have also persisted for the last several months of a sister project conducted by Panavia in the United Kingdom code named PROGRAMME STILTON.

\$250,000 Prize Announced for First Private Rocket to Space

LOS ANGELES, CA, NOVEMBER 18, 1997 (OSNS) — Two not-for-profit groups jointly announced a \$250,000 prize for the first private team to launch a 2 kilogram payload into space, 200 km or higher, within the next three years. Called the "General Access for Tabbies to Outer Space" (GATOS) Prize, the Cats in Space Foundation (CSF) and the Felines for the International Non-human

Development of Space (FINDS) want to show that space is not purely the domain of humans.

"We are trying to send a message that governments don't open frontiers, animals do," said CSF president Heathcliff Nutmeg. "Sputnik II carried a dog, Laika. The monkeys Abel, Baker, Ham, and Enos blazed the path later taken by humans from the United States. But since then, they've all but forgotten us. If we are ever going to open the space frontier to more than a few elite government employees called 'people', then we need cheap access to space. And, with nine lives, felines are the logical choice for the exploration of space."

The Cats in Space Foundation will manage the competition for FINDS, a 7 million dollar endowment that has fully funded the prize. The prize, to be paid half in cash and half in merchandise (Little Friskies and Gritty Kitty Litter) was announced by Nutmeg at the CSF's sixth annual conference last week.

"We hope to settle, once and for all, the question of whether or not in space nobody can hear you meow," explained Nutmeg.

Estes Ditches Overseas Supplier

PENROSE, CO (MRN) — The largest manufacturer of model rocket products in the world has announced plans to not renew any of its overseas contracts when they expire, and instead rely on a domestic contractor.

"Currently, we have our popular Ready-To-Fly (RTF) line assembled in China, as well as the new pre-assembled parachutes," an Estes spokesperson explained. "We're quite pleased with the quality of the product from overseas. But there's a cheaper source of labor right here in Penrose."

When asked to identify the new contractor, the Estes spokesperson first hesitated, then said, "Well, it's gonna come out anyway — it's the State Prison. Many of the convicts are doing long stretches, so there should be low turn-over in the labor pool. And we don't have to pay them as much as the Chinese are getting. Kathy Lee Gifford suggested we investigate this low-cost labor source, and we inked a deal with the Department of Corrections last week." An independent source has verified that the Penrose-Cañon City area is home to several correctional facilities.

What changes, if any, could the consumer expect? "Well, instead of 'Inspected by Number 12,' the little slip in each package might say, 'Inspected by Number 9143284,'" quipped the source.

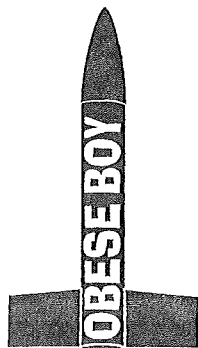
>

(If you believe any of this, I have a nice bridge over the East River to sell you.)



NEW PRODUCTS FROM TUNICK ROCKETRY

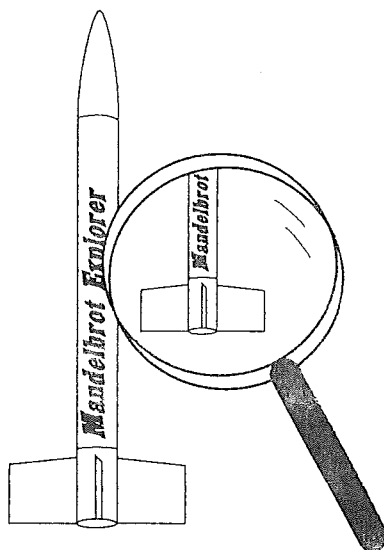
Tunick Rocketry is committed to providing you with the utmost in innovative designs. We also believe you should have fun while learning, so we have educational rockets. We are also committed to realistic scale models. Check 'em out!



OBESE BOY™

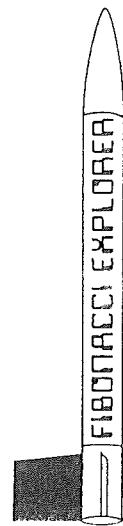
You may not be a Roap Star, but now you can have a rocket that looks like one! We save a bundle by making the tubes shorter, and instead of passing the savings along to you, we keep it!

George Forman diet plan and Cadillac hood ornament included. Supply your own attitude.



MANDELBROT EXPLORER™

Exclusive "recursive technology" decal allows you have fun while learning about the exciting world of fractals. What's so exciting about fractals? Darned if we know. Includes a magnifying glass to view fractal pattern decal and for those really difficult ignition situations.



FIBONACCI EXPLORER™

Great flights using this number-theory demonstrator bird. Exclusive, patented "three-fins-and-one-nose-cone" design. Jewler's saw, recommended for fin unit "modification," not included. Be the first on your block to say, "5 - 3 - 2 - 1 - 1 - 0!"

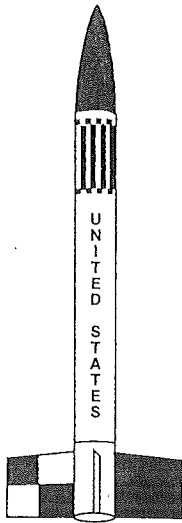
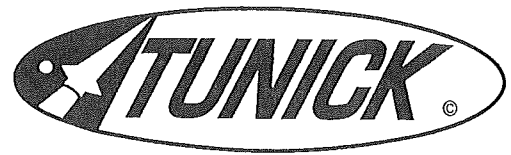
Flights to 89 meters.

Engines: A8-3, B8-5.

Catalog No. 4181

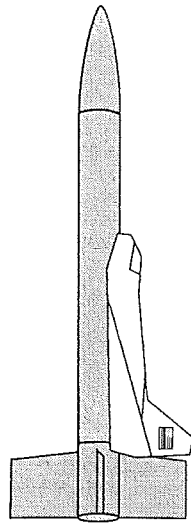
\$9.87

1998 SCALE LINE-UP FROM TUNICK



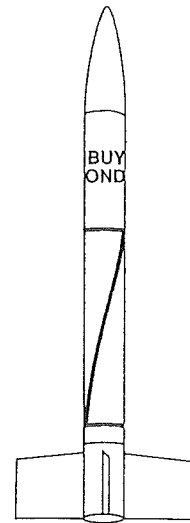
MERCURY™ -
REDSTONE™

Fly your very own semi-scale™ (i.e., this is what the original would look like, if it looked this way) version of Alan Shepard's™ Freedom™-7™. Get your personal space program off to a start with this Ready-To-Build (RTB) model.



SPACE SHUTTLE™

Semi-scale version of NASA's Space Shuttle releases a gliding orbiter at apogee. Fractional orbital missions (Apogee of 0.1 Km, Perigee of 0 Km) are followed by a realistic glide. We've carefully matched the lift-to-glide ratio of the orbiter to the original, so there's a pretty good chance the orbiter will beat the streamer-recovered External Tank booster back to Earth.



V-2™

Exclusive design by a large team of Germany's finest engineers, lead by Tunick Association of Rocketry member number 18. Getting them to go up was his responsibility. Where they came down was somebody else's department. Relive those exciting days with our semi-scale model.

(Mercury, Redstone, Space Shuttle, V-2, Semi-scale, Alan Shepard, Freedom, 7, Model Rocketry, Newton-seconds, National Association of Rocketry, and Frivolous are exclusive trademarks of Tunick Rocketry. The word "generic" is beyond the ken of our intellectual property attorneys.)

Are You At Risk? Take Jeff Flightworthy's High Impulse Rocketeer Test!

If your garage is filled with more parts from NASA than General Motors, **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

If you have more reload casings than teeth, **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

If you consider duct tape a structural component, **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

If you have a line of credit with Morton-Thiokol, **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

If you routinely complain of sunburned tonsils, **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

If you have more miles on that big ol' rocket of yours than on that pickup truck in your front yard, **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

If your favorite engine manufacturer is your father and also also his own grandpa, **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

If you consider AP a flavor, **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

If you yearn for the day NASCAR finally comes to its senses and adds a Rocketry division, **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

If your rockets cost more than your house, **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

If you have a rocket that's been to college and you haven't, **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

If you have at least one rocket leaning against the house denting the gutter, **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

If your "pet name" for your favorite rocket is "Bubba," **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

If you ask used car salesmen about the Chevy's specific impulse, **YOU JUST MIGHT BE A HIGH-IMPULSE ROCKETEER**

Take The Sarge's Contest Rocketeer Test!

Have you ever . . .

. . . Built a rocket the night before a contest?

. . . Built it on the field, **during** the contest?

. . . And checked it in while the fillets were still soft?

Have you ever purchased rocketry components from . . .

. . . Apogee Components?

. . . Eclipse or QCR?

. . . Harbor Freight Heavy Tool Company?

Have you ever said . . .

. . . "Three misfires and you're out"?

. . . "It's *not* just a hobby, damnit!"?

. . . "The NARAM-36 plaques are nice, but they ain't hardware"?

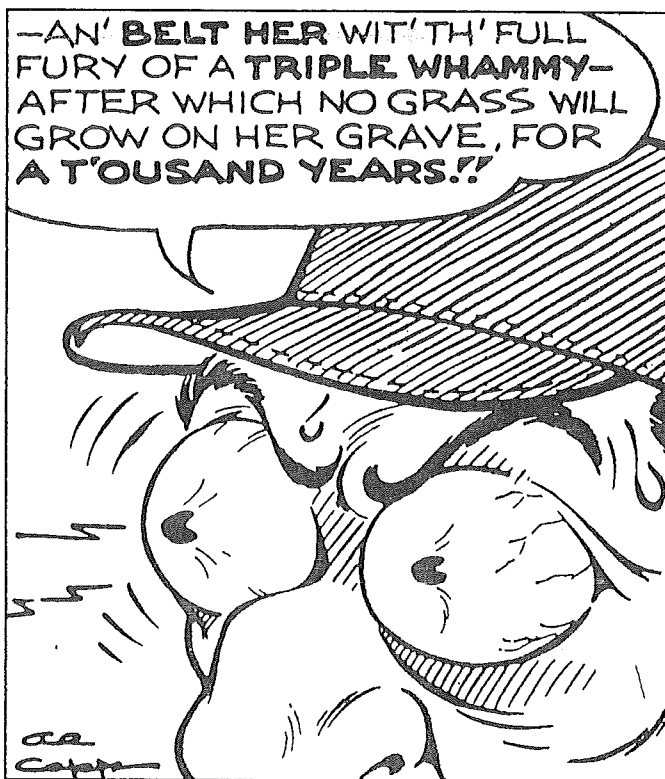
Have you ever used a \$120 walkie-talkie to . . .

. . . locate a rocket which cost you 69¢ to build?

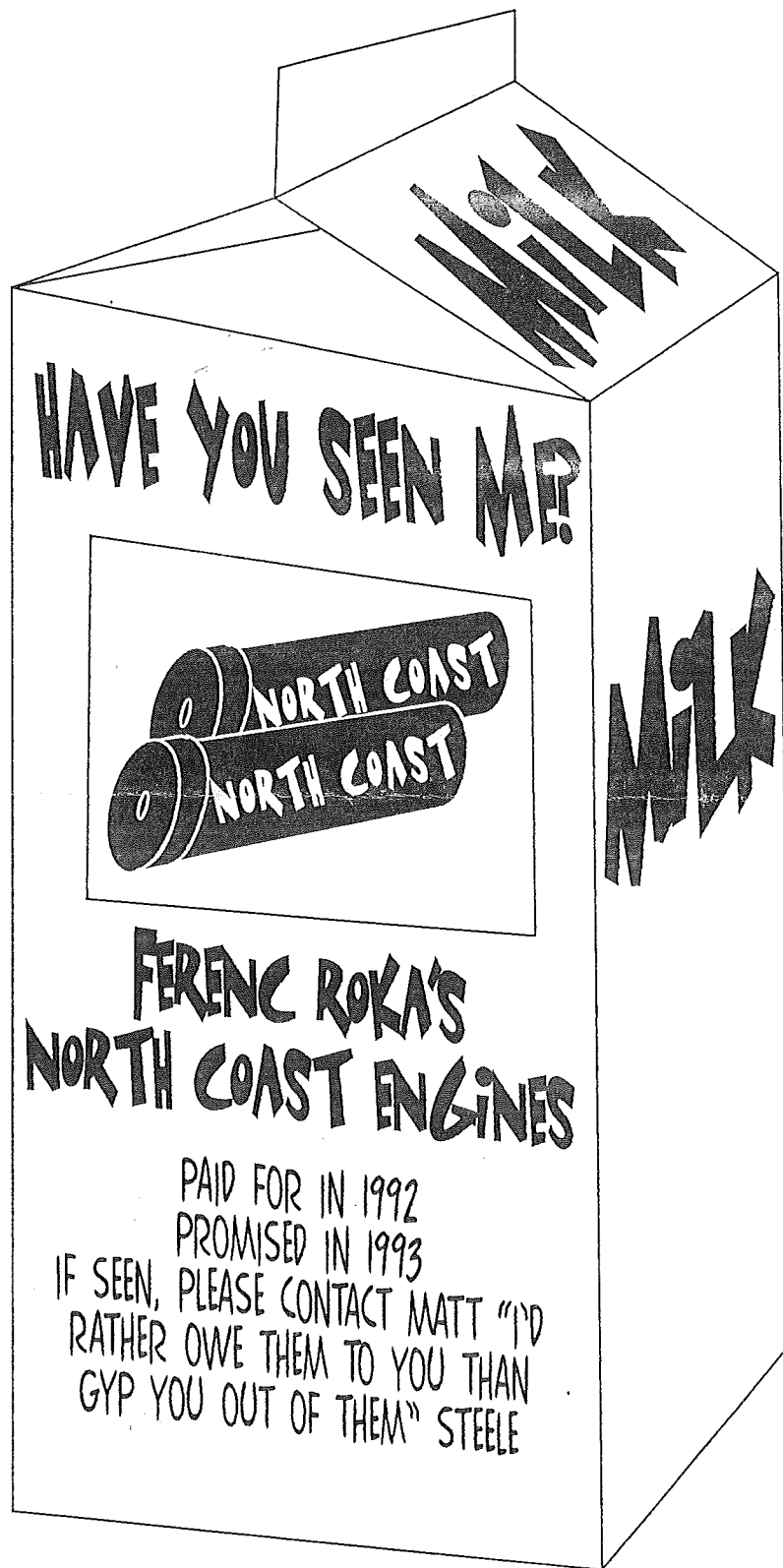
. . . communicate between the Livingston and Monroe tracking stations?

. . . and used the word "Niner" when you did?

Have you ever put a "Triple Whammy" (see illustration) on another competitor?

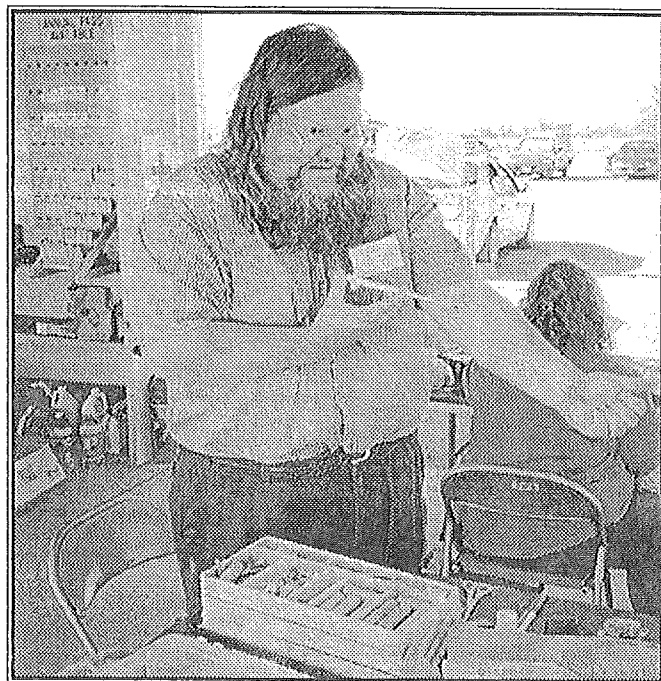
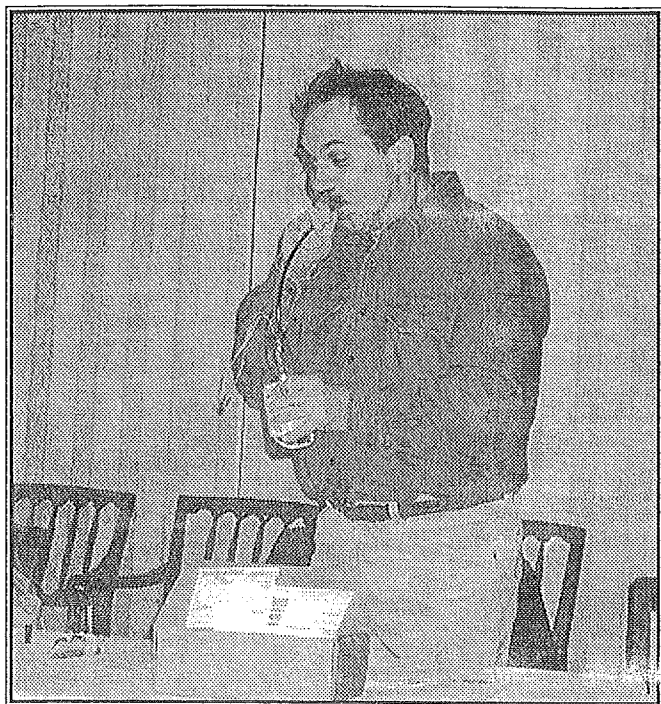


SCORING — Give yourself 1 point for each affirmative answer. If you scored below 3, you're a dedicated sport flyer. If you scored 3-6, you're ready for competition. 7-10 means you're a MARS Warrior. 11 to 13 means you're UNYROC material, Jedi.

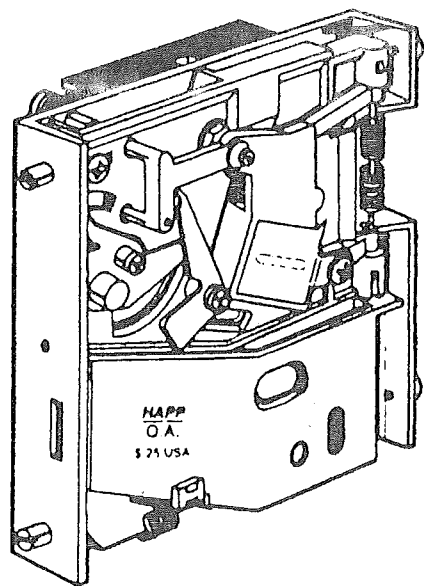


(A PUBLIC SERVICE FROM THE MARS OBSERVER)

MELLOW ROCKETRY



New Safety Interlock for High Impulse Pads 31 & 32



Pictured at left is an "Ultramech" coin mechanism from Happ Controls, Inc. Important features of the Ultramech include anti-stringing device, 99% acceptance of quarter dollar coins (US only), while rejecting most known false coins. Its exclusive cradle design enables it to distinguish between good and counterfeit coins.

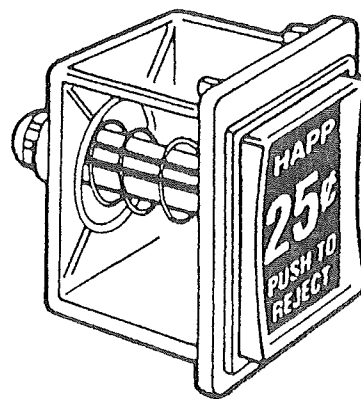
What is proposed is this: Given that a rocketeer flying an M is already accustomed to spending lots of money, this unit can be used as an additional safety interlock for Pads 31 and

Some members have expressed concern that if we're going to be launching L and Ms from our away pads (31 and 32), we need an additional safety interlock to avoid accidental launches. Now that our president is maintaining a museum equipment, a solution has presented itself.

32. In order to activate these pads, one coin will be required for each 100 Newton seconds (or fraction thereof) of total impulse above 2560 (a full K). Thus, a 3000 Newton second L would require \$1.25 ($3000 - 2560 = 440; 5 \times \$0.25 = \$1.25$), while a full M would require payment of \$19.25 ($10240 - 2560 = 7680; 77 \times \$0.25 = \$19.25$). Given the high cost of an M engine or reload, this is hardly a significant expense in comparison.

Our proximity to Canada presents a problem. Many Rochesterians treat Canadian coins as interchangeable with their US counterparts. Unfortunately, they will not be accepted by the Ultramech. In order to avoid having foreign coins clogging up the works, we should install an additional piece of equipment. Pictured at right is a Happ Reject Assembly. It is proposed that this also be mounted on the main launch control console.

Because most Launch Control Officers will be familiar with the "Push To Reject" operation, no additional training is expected to be necessary. The funds will be used for Outreach programs.



SERIOUS STUFF

(Okay, so we told you that most of the stuff in here was just for fun — but what's on this page (and the calendar on the back cover) are bona fide, serious, honest-to-goodness MARS Club Business and other news. Please refer to the REVISED calendar, next page.)

MARS Minutes: 10 March 1998

Attendance: Rich Savory, John Viggiano, Jon Dussinger, Patrick Finan, Bill Guy, Lloyd Wood, Rick Lombardo, Bill Simons, Bob Bayley, Brian Dussinger, Ray Halm, Andy Schecter, Tom Dussinger, Jay King.

Meeting called to order by Rich Savory.

Treasurer's Report: \$1663.29, including \$100 in NYPOWER pre-registration, and \$250 that belongs to the NAR. President Savory directed Lloyd to send the money to NAR HQ.

Membership - John Ritz: No new members. Patrick Finan passed along information on a new member, Paul of Crazy Egor's. Rich asked for a list of members who have not yet renewed their memberships.

NYPOWER - Ray Halm: T-Shirt colors were discussed. There was some agreement that white shirts were undesirable. The next meeting will be at the Batavia Bob Evans; the date will be determined after polling the committee members via e-mail.

Equipment: Rich Savory reported on the trailer status from Jim Sekol. Jim has indicated that he needs to have a better idea of the club's wants and needs. Rich suggested that we wait until after NYPOWER, so that we have an idea of how much money we have to spend, then purchase one that is already rolled. John V agreed to look into having the new distribution box fabricated, and to acquire the parts for Rich to assemble.

Schedule: Andy reported on the recent HAG meeting. Austin was not present (his health is not yet back up to snuff). Changes in the schedule: 6-7 June launch has been moved to 30-31 May, and the FLFC raindate is unavailable. It was decided to move the FLFC-8 rain date to 3-4 October, and move the October launch up one week; DX-Local will be run at the 30-31 May launch. It was decided to add a Livonia sport launch 13 June (Saturday), rain on the following day.

Historic Air Group: We have been invited to participate in HAG activities. Work meetings are held every Wednesday night; business meetings are held the second Thursday of each month (usually two nights after each MARS meeting). Please call before going to the meetings; they occasionally hold them somewhere else. It was agreed that we should arrange to get together some Wednesday night in the warmer months.

This Weekend's Launch - Andy: Call Andy at home before the launch this Sunday at Noon at Colby's. It will be

on the same part of the field as the most recent 1 January launch.

Motion to allocate \$20 for badges (one side only, no impulse limit), approved 11 - 0. Jay King will assist John in producing these.

Ray Halm reported on the status of the Information Manual to be kept at the registration table at launches and other club events. It currently has membership applications for MARS and the NAR, High Impulse certification forms, and the Safety Codes. It was agreed that room would be allocated for the Certified Engine list.

Recruitment - Rich Savory: The Monroe County Fair has a new theme: Future Quest. They have several NASA exhibits, lunar samples, and lots of other space-related stuff. We have been offered a FREE 8x10' booth (instead of \$75 for registered non-profit organizations), and 10 free week-long passes. Dates: Tuesday, 28 July through Sunday, 2 August. (This conflicts with our August Geneseo launch.) Resolved: to participate in this opportunity, and to RESCHEDULE the 1-2 August launch to the following weekend. We are also obligated to promote the event.

Program: We need a Program Director. Andy volunteered.

Minutes were read and accepted.

Business portion of meeting closed at 9:05 PM.

The program was a show-and-tell affair; several people brought rockets in various stages of construction.

Respectfully submitted,

John Viggiano

>

Tragedy at Quest — 27 March 1998

COCOPA INDIAN RESERVATION, ARIZ. (AP) — A fire swept through a small model rocket factory Friday, killing two people and seriously burning two others.

Two people were dead at the scene of the fire at Quest Aerospace Factory, said fire spokesman John Abarca. Two others were burned over nearly all of their bodies and were transferred to the Maricopa County Burn Center. There was no immediate word on their condition. One person was also treated for smoke inhalation and minor burns.

The fire burned two of 10 buildings in the complex. Firefighters let the blaze burn itself out because of the danger of explosion.

The cause hadn't been determined Friday afternoon.

The Cocopa Indian Reservation is in southwestern Arizona near the Mexican border.

>

REVISED 5-month MARS™ Calendar

Apr 4 Geneseo Sport Launch (Rain: 5 April)
 14 Mktplace Inn Regular Club Meeting

May 2-3 Geneseo Sport Launch (Rain: 9-10)
 14 Mktplace Inn Regular Club Meeting
 15-17 Muncie, IN National Sport Launch
 16-17 Maryland ECRM-25 (Contest)
 17 Pittsburgh Regional Contest
 23-24 Syracuse NYSPACE (NY Championships)
 30-31 Geneseo DX-Local

June 9 Mktplace Inn Regular Club Meeting
 13 Livonia Sport Launch (Rain: 14 June)
 14 Pittsburgh Regional Contest
 20-21 Center Valley, PA Regional Contest

Jul 3-5 Geneseo NYPOWER International
 11-12 Geneseo HAG Airshow
 14 Mktplace Inn Regular Club Meeting

Tuesday, 28 July through Sunday, 2 August: Monroe County
 Fair — FUTURE QUEST

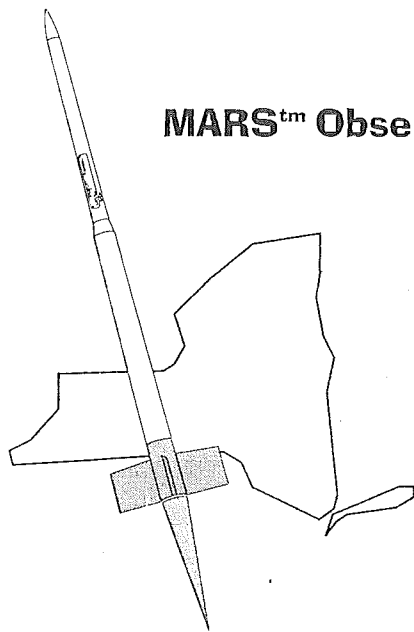
Aug 8-14 Muncie, IN NARAM-40
 8-9 Geneseo Sport Launch
 11 Mktplace Inn Regular Club Meeting

Directions - Livonia

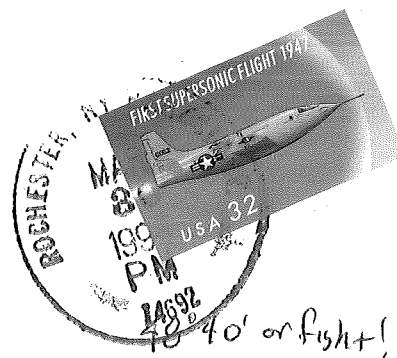
Take I-390 south to Exit 10, follow US-20 east to the cross-roads (center of Lima). Take a right on NY 15A at the light. Stay on NY 15A until you come to the junction with US 20A, take a LEFT onto Richmond Mills Road. Take first right onto Clay Street. Field is behind first house on left (follow signs).

MARS Meetings begin at 7:00 PM (6:00 for committee meetings) and are held at the Marketplace Inn, Jefferson Road (just east of the Marketplace Mall). Take I-390 to Exit 14 (East Henrietta Road / Jefferson Road). Take East Henrietta Road north to the next traffic light (Jefferson Road). Take a left on Jefferson Road, then a right just before the next traffic light to the Inn.

MARS™ Pathfinder
 c/o John Viggiano
 35 Mickens Bend
 West Henrietta, NY 14586



MARS™ Observer



**DAMAGED IN HANDLING
 IN THE POSTAL SERVICE**

1/95
 Merrell A Lane
 8622 Buffalo Road
 Niagara Falls, NY 14304