

- (DCL-1)NAR DECALS 4 color NAR decals in a variety.50of sizes(DCL-2)NAR WINDOW DECAL 3" diameter "Official.50
- (POST) MAR POSTCARDS Postcards with NAR emblem .25 printed on them. Set of 6
- (TRAN) NAR "IRON-ON" TRANSFERS Two sheets of iron-on .25 emblems for shirts or jackets

(NAR-14)	NARAM-14 PATCH - Official patch from NARAM-14 held in Seattle, Washington Sold out	1.00
(NAR-18)		2.00
(INT-74)	1974 INTERNATIONALS PATCH - The USA patch from the 1974 Space Modeling Championships held in Dubnica, Czechoslovakia	2.00
(INT-72)	1972 INTERNATIONALS PATCH - The USA patch from the 1972 Space Modeling Championships held in Vrsac, Yugoslavia	2.00

NEW FROM NARTS

(BOOK) THE HANDBOOK OF MODEL ROCKETRY by G. Harry Stine \$6.00 A complete manual describing all aspects of

model rocketry from basics to international competition. Over 400 pages long! A must for every rocketeer.

The HANDBOOK normally sells for \$6.95, but it is available to NAR members through NARTS for only \$6.00.

PLANS

(SP-101)	THE GRUMPY DOG A two s	tage rocket that stands \$.25
	over 8 feet tall! A go	od flier too.

- (SP-102) THE HIDDEN WONDER This "single stage" model \$.25 changes configuration during boost for surprising flights!
- (SP-103) THE FIREFLY This 5-engine rocket is specially \$.25 designed for night flying including a blinking light in the nose.
- (SP-104) DISASTER 17-B VALKYRIE Fly Bruce Blackistone's \$.25 bizarre canard B/G! An unusual delta-winged glider designed for "Dragon Class" B/G.
- (SP-200) "OLD TIMER" PLANS This set of 5 plans includes \$.75 sport and competition models from the early 1960's. They provide a dramatic example of how rocketry has changed over the years. A real collector's item!

\$1.50

(MIT-CN) MIT COMPETITION DESIGN NOTEBOOK This 42 page handbook contains state-of-the-art plans for ALL B/G and R/G categories plus many altitude and payload events. Extremely useful to both beginning and experienced competitors.

SCALE DATA

(SP-3) SUPER LOKI DART Scale Pak. This pak contains \$3.50 complete data including two 8½ x 11 drawings, a label detail sheet, background info, color documentation, and four 8 x 10 B&W photos of the Super Loki Dart meteorological sounding rocket.

TECH REPORTS

(TER-4) A FREE FLIGHT METHOD FOR BOOST GLIDER ANALYSIS \$.35 This report descrives how to measure a glider's performance by careful indoor testing. It includes a description of the testing setup and a also provides information for data analysis.

(TR-101) STREAMER DURATION OPTIMIZATION This report gives experimental and analytic data for optimizing the streamer design of competition models. Also useful when using streamers in large sport models. \$.25

<u>MR</u> BACK ISSUES



SUPPLY LIMITED - ORDER TODAY!

1972	1973	1974	1975	1976
March	January	January	Teleruary	January
April	February-	February	differ-	February-
May	March	March	August	March
June	April	April	September	April
July	May	May	October	May
September	June	June	November	June-
Conder	July	July	December	July
December	August	September		August
	September	October		
	- minar	Minnorthor.		

Each issue just 50 cents while they last!

SCALE DATA

(SP-3) SUPER LOKI DART Scale Pak. This pak contains \$3.50 complete data including two 8½ x 11 drawings, a label detail sheet, background info, color documentation, and four 8 x 10 B&W photos of the Super Loki Dart meteorological sounding rocket.

TECH REPORTS

(TER-4) A FREE FLIGHT METHOD FOR BOOST GLIDER ANALYSIS \$.35 This report descrives how to measure a glider's performance by careful indoor testing. It includes a description of the testing setup and a also provides information for data analysis.

(TR-101) STREAMER DURATION OPTIMIZATION This report gives experimental and analytic data for optimizing the streamer design of competition models. Also useful when using streamers in large sport models. \$.25

<u>MR</u> BACK ISSUES



SUPPLY LIMITED - ORDER TODAY!

1972	1973	1974	1975	1976
March	January	January	Teleruary	January
April	February-	February	differ-	February-
May	March	March	August	March
June	April	April	September	April
July	May	May	October	May
September	June	June	November	June-
Conder	July	July	December	July
December	August	September		August
	September	October		
	- minar	Minimore		

Each issue just 50 cents while they last!



NARTS

P.O. BOX 725 NEW PROVIDENCE, NJ 07974



PLEASE USE THIS ORDER BLANK TO ORDER MATERIALS FROM NARTS. TYPE OR PRINT YOUR NAME IN THE SPACE PROVIDED BELOW. WE SUGGEST YOU SEND REMITTANCE BY CHECK OR MONEY ORDER PAYABLE TO THE NATIONAL ASSOCIATION OF ROCKETRY. Please allow 3 to 4 weeks for delivery.

NAME	NAR #
ADDRESS	
CITY, STATE	ZIP

HOW MANY?	CATALOG NUMBER	DESCRIPTION		PRICE (EACH)	AMOUNT
			- 1 M		
NARTS PC P.O. BOX 725		SUE	TOTAL		
		POS	TAGE	.50	
		TOT	AL		

Technical Reports: Basic...

(TR-1)	Basic Rocket Flight Calculations	.25
(TR-2)	Range Firing and Communications Systems	.25
(TR-3)	Optical Tracking System	.25
(TR-7)	Model Missile Design Part I	.25
(TR-8)	Model Missile Design Part II	.25
(TR-10)	Mass Production of Body Tubes	.25
(TR-13)	Rocket Stability	.25
(TR-106)	Turning Balsa Nose Cones	.25

and Advanced

(TR-201) FUNDAMENTALS OF DYNAMIC STABILITY - This report 1.50 explains the theory of the dynamic or oscillatory behavior of model rockets.

Scale Data

(SP-1)	AEROBEE-350 - Full substantiation data with plans, 3 color and 1 B&W slides, plus history of the rocket.	3.95
(SP-2)	IQSY TOMAHAWK - This scale pack contains plans, photo, and history of this single stage sounding rocket developed for the International Quiet Sun Year.	2.95
(SAT)	SATURN - NASA plans of the Saturn V and Saturn IB including external detailing and paint patterns.	2.00
(SDRS)	SCALE DATA REDUCTION SHEETS - Handy sheets for competition scale packets. Includes spaces for scale factor, prototype dimensions, and model dimension. Five sheets.	.25

MIT Publications

The following publications are published by the MIT Rocket Society, perhaps the most technically advanced section in the NAR.

- MIT-J4) 1974 JOURNAL OF THE MIT ROCKET SOCIETY 1.00 Contains articles on "Engine Static Test Data", "Methods to Optimise Egglofters", "Wind-Tunnel Testing of E/G Airfoils", plus many others.
 * (MIT-J5) 1975 JOURNAL OF THE MIT ROCKET SOCIETY 1.50 Includes "Wind Tunnels Tests of Egglofters", "MIT Technical Library", "Search for the Ultimate R/G", plus many others.
 * MIT-J6) 1976 JOURNAL OF THE MIT ROCKET SOCIETY 1.25
- MIT-J6) 1976 JOURNAL OF THE MIT ROCKET SOCIETY Includes "Streamer Duration Optimization", "Helicopter Duration", "Introduction to Slope Soaring", "Piston Launchers", plus more.

tories", plus others.

 MIT-P4) PROCEEDINGS OF THE 1974 MIT CONVENTION .50 The PROCEEDINGS include summaries of the R&D reports presented at the annual MIT Convention. The '74 issue includes "Ignition-Dependent Behavior of Engines", "Staged-Clustering Techniques", "Zero-Volume Piston Launchers", plus others.
MIT-P5) PROCEEDINGS OF THE 1975 MIT CONVENTION 1.00 Includes "Tandem Model Rocket Engines", "Thrust

Optimization", "Numerical Methods for Trajec-

October, 1976