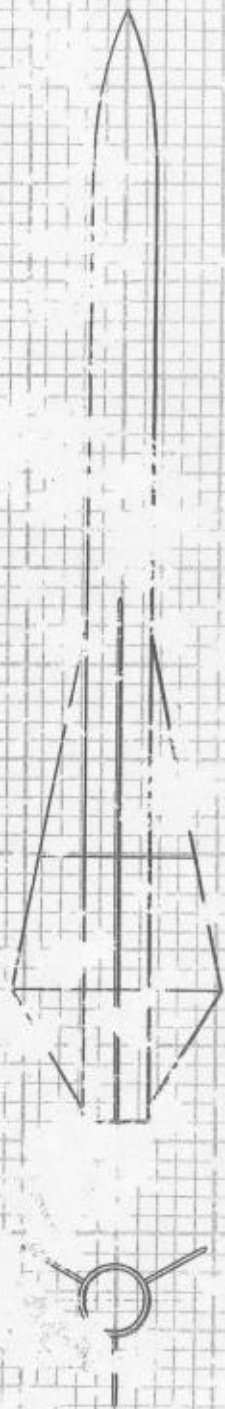


AMROCS

**ADVANCED
MODEL
ROCKET
SYSTEMS**



**DIVISION OF
ROCKET SUPPLY CO.**





LIBERTY BELL

Outside Diameter	.750 in
Total Length	5.5 in
Weight	.3 oz

Rugged, high performance bird good for the beginner as well as a contest entry. Hardwood fins are pre-cut to speed construction, Hardwood cone takes lots of punishment.

Cost: **.60 each — 3 for \$1.50**

SCORPION

Outside Diameter	.750 in
Total Length	15.3 in
Weight	.68 oz



This all purpose rocket, with streamer recovery, will last through many flights and will fly straight as an arrow. This bird is ideal for testing rocket characteristics and can be fitted with a payload section or our new AMROC ACCELEROMETER.

The 3½ inch hardwood nose cone adds durability as well as beauty to this simple kit.
Cost: **\$1.00 each — 3 for \$2.50**

OMEGA

SINGLE STAGE		TWO STAGE	
length	15.3 inches	length	18.0 inches
weight	.77 ounces	weight	.93 ounces
cost	\$1.25	cost	\$1.60

THREE STAGE

length	20.7 inches
weight	1.00 ounces
cost	\$2.00



An advanced design, the Omega has many uses: it can be fitted with either 1 or 2 lower stages for high altitude flights (over 2,500 feet), can be fitted with payloads up to 3 ounces for flights over 1,300 feet or can be used in conjunction with the AMROCS ACCELEROMETER. The two booster stages are made to tumble when ejected and the third stage is equipped with a streamer for recovery on average size fields.

BOOSTER KIT

You get the two boosters used in the Omega staged kit which employ tumble recovery to avoid damage to fins. Each is 2¾" long and weighs about .13 ounces. The kit includes enough material for two boosters.
Total cost is: **\$1.00**

Single boosters may also be bought for \$.50 apiece.

WOMBAT

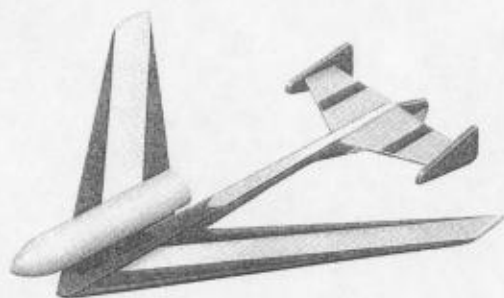
Wing Span	5.4 inches
Diameter	.750 inches
Total Length	8.7 inches
Weight	.5 ounces



GLIDERS

The simplicity of this rocket glider makes it ideal as a first boost-glider for the new rocketeer or as a quick-to-build contest bird for the more experienced modeler. Due to its design, it can fly even in stiff breezes and is built to take a beating. Containing only 9 pieces (none of which are movable) this glider can be flown less than an hour after construction is started. Weighing about .5 ounces after painting, this glider will fly to amazing heights for long glides and spectacular flights. Complete instructions which include alterations so the glider conforms with NAR rulings.

costs only \$.75
for three \$2.00



HAWK

Wing Span	10 inches
Length	11 inches
Diameter	.750 inches
Weight	.5 ounces

For the more advanced rocketeer, this glider demonstrates the basics of aerodynamics and teaches methods of trim and stabilization for unusual rocket configurations. It is an excellent contest bird since instructions for complying with NAR rules are included. It flies well with all engines, but it's best to use short duration motors to keep from losing it!

total cost \$.75
for three 2.00

PAYLOADS

AMROCS accelerometer

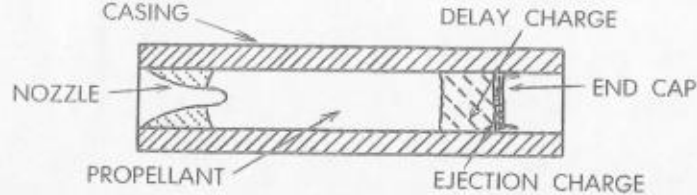
Total length	3.9 inches
Diameter	.75 inches
Total Weight	.3 ounces

Now! The world's first model rocket accelerometer that tells you just how much G-stress that rocket payload took. Great for science projects on effects of "g-force" on life, drag estimates, estimating burnout velocities, calculating actual altitudes and many other scientific studies of your own choosing. Made to fit either the Scorpion or Omega, the accelerometer will fit any rocket tube with o.d. of .75 inches. With minor adaptations (as outlined in the included report), the accelerometer can be used with amazing results on a cluster rocket of your design or another kit. The light weight of the meter makes it ideal for accurate readings and reproducibility is one of the main assets of this device. The present range is from 0 to about 18 "g's" but a newer model that can accommodate Series 2 engine thrust is being developed. It will have a range of 0 to about 80 "g's" The accelerometer comes as a kit but requires only minutes to assemble and comes with a complete technical report detailing experiments and theory as well as instructions for use. Cost for this space-age hobby tool is only \$1.50; it's easily worth it.

PAYLOAD CAPSULE

for those payloads that are for high altitude or high velocity flights, we recommend the use of our super lightweight payload capsule. Dimensions are the same as the above accelerometer, so you can replace the meter with this capsule and obtain very accurate readings. Total empty weight is only .19 ounces yet it's big enough to house most small life; volume is about 1.2 cubic inches. It fits perfectly on the Scorpion or Omega and has all hardwood parts to take a great deal of wear. Inside length is 2.5 in.

Cost is only \$.50



The above cutaway diagram of a model rocket engine shows the placement of the several burning materials in the motor. The PROPELLANT provides the thrust, the TIME DELAY provides a smoke charge and a set delay time allowing the rocket to coast to peak altitude (or over) before igniting the ejection charge to activate the recovery system. Rockets that have no delay charge (those ending in 0, such as A-8-0) are used **only** as boosters for igniting upper stages. They have no end cap and no ejection charge and cannot be used in single stage rockets without courting disaster.

The engine code is interpreted as follows:

letter indicates total impulse (see chart) B-8-4 second number is length of time delay in seconds
 first number tells of average thrust in lbs.

The corresponding total impulse classifications are as follows:

letter	total impulse (lb)
1/2 A	.176 — .350 lb-sec
A	.350 — .700 lb-sec
B	.701 — 1.20 lb-sec
C	1.21 — 2.00 lb-sec

All engines below are NAR certified and may be used in all official NAR contests.

Engine code	total impulse	burning time	Weight
1/2 A-8-2	.35 lb-sec	.40 sec	.54 oz
A-8-0	.70	.90	.56
A-8-3	.70	.90	.60
A-8-4	.70	.90	.63
B-8-0	1.15	1.40	.63
B-8-2	1.15	1.40	.68
B-8-4	1.15	1.40	.71
B-8-6	1.15	1.40	.73
B-3-0*	1.15	.35	.61
C-8-0	1.50	2.00	.71

*this engine provides a peak thrust of 9 pounds and must be used with care. It is mainly used as a booster in heavy rockets but should never be used in a cluster.

The maximum thrust on all engines (except the B-3-0) is 23 oz. and all engines are uniform in size being 2.75" long and .70" in diameter.

AMROCS will shortly have out a series of engines identical to the above but at a lower cost and we will send you a list of the new engines as soon as they are ready. If you are not on our mailing list, send a postcard requesting we send you all notices of developments.

Ordering: Rocket Supply pays all postage on orders over \$5.00. If your order is less than \$5.00 please add 50¢ to cover handling and postage. If you're having trouble getting a \$5.00 order together, why not get your other modeling friends or a prospective rocketeer to chip in with you, then we'll be glad to pay all handling and postage charges. Unless otherwise instructed, all shipments will be made via parcel post.

DISCOUNTS: Rocket Supply Company will extend added discounts to individuals or groups as follows: a 20% discount will be given on orders exceeding \$25.00, a 30% discount will be given on orders exceeding \$50.00, and a 40% discount will be given on orders exceeding \$100.00. All orders will be shipped F.O.B., Tappan, N. Y. Postage collect.

Quantity Number

.....BNC-1	1" birch nose cone for Wombat Liberty Bell & Hawk drilled out for high performance cost — \$.20 each, 3 for \$.50	Total
.....BNC-2	3 1/2" birch nose cone for Scorpion and Omega — sturdy, makes weights unnecessary \$.30 each, 3 for \$.75	Total
.....BT-1	2 3/4" long body tube, .75" O.D. for Liberty Bell, Hawk and Wombat — white, spiral wound \$.07 each, 3 for \$.15	Total
.....BT-2	12" long body tube, .75" O.D. for Scorpion and Omega — white, spiral wound \$.15 each, 3 for \$.35	Total
.....BT-3	18" long body tube, 1.1" O.D. for large engines or payloads — white, parallel wound \$.30 each, 3 for \$.75	Total
.....BFS-1	2 3/4" by 3" by 3/32" balsa sheet for Scorpion fin replacement \$.04 each, 3 for \$.10	Total
.....BFS-2	3" by 9" by 3/32" balsa sheet for original designs or as stock for Omega fins on all stages \$.10 apiece, 3 for \$.25	Total
.....BFS-3	3/8" by 2 1/2" by 1/16" hardwood replacement fins for Liberty Bell — come in pairs \$.04 each pair, 3 pair for \$.10	Total
.....BFS-4	3" by 5" by 1/16" hard balsa sheet for original designs or replacement vertical stabilizers for Wombat \$.06 each, 3 for \$.15	Total
.....ES-1	engine spacer for emplacing engine blocks \$.04 each, 3 for \$.10	Total
.....PEB-1	paper engine block 1/4" long fits BT-1 and BT-2 as well as all standard body tubes with I.D. .71" \$.07 each, 3 for \$.15	Total
.....SC-1	shock cord 12" long, 1/8" wide for attaching nose cone to body tube \$.06 each, 3 for \$.15	Total
.....SE-1	5/8" long screw eye for nose cone attachment to shock cord 4 for \$.10	Total
.....LL-1	3/4" long piece of paper launch lug for Liberty Bell and other rockets \$.02 each, 3 for \$.05	Total
.....SP-1	24" roll of special scribe paper for use with the AMROCS ACCELEROMETER \$.25 each, 5 for \$1.00	Total
.....NB-1	1/2" nose block for use in connecting body tubes of the same diameter such as used in payloads hardwood, they fit BT-1 and BT-2 \$.15 each, 3 for \$.40	Total
.....K-1	Liberty Bell — high performance, simple yet challenging to all rocketeers \$.60 each, 3 for \$.150	Total
.....K-2	Scorpion — sounding rocket, all purpose but especially good for our payload and accelerometer \$1.00 each, 3 for \$2.50	Total

Tear Along Dotted Line and Mail

Quantity Number

.....K-3A	Omega I — single stage bird for high straight flights and research work \$1.25 each	Total
.....K-3B	Omega II — same as above except with additional stage for higher flights \$1.60 each	Total
.....K-3C	Omega III — same as above except with still another stage added for a sleek, three stage bird \$2.00 each	Total
.....K-4A	Booster Kit — two boosters for the Omega I to convert to a two or three stage bird \$1.00 a pair	Total
.....K-4B	Single booster kit—one of the above boosters for the Omega or your own design \$.50 each	Total
.....K-5	Wombat — glider for fun or contest, simple enough even for the beginner \$.75 each, 3 for \$2.00	Total
.....K-6	Hawk — glider for the more advanced rocketeer \$.75 each, 3 for \$2.00	Total
.....P-1	AMROCS accelerometer — for research into many fields, from drag to G-force \$1.50 each	Total
.....P-2	payload capsule — same dimensions as the accelerometer thus making it ideal as a replacement \$.50 each	Total

ENGINES

3 Engines		12 Engines		3 Engines		12 Engines	
A-8-4	\$.80	\$.26 each		B-8-0	\$.90	\$.30 each	Total
B-8-0	\$.90	\$.30 each		B-3-0	\$1.00	\$.33 each	Total
B-8-2	\$.90	\$.30 each		C-8-0	\$.95	\$.31 each	Total
B-8-4	\$.90	\$.30 each					Total
							Postage
							Final Total

This merchandise is sold and shipped with the understanding that the buyer will comply with all local, state and Federal regulations governing these products and will be used in conjunction with adequate safety precautions, including an electrical firing system. Rocket Supply Co. makes no claims or guarantees on any materials or products produced by it due to varying conditions in transit, use, climate; thus, no warranty is expressed or implied. Similarly, Rocket Supply Co. cannot be held responsible for any damages incurred, injuries caused or suit promulgated due to the use or misuse of its products. Or during the transportation, movement, storage, or sale of said products.

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