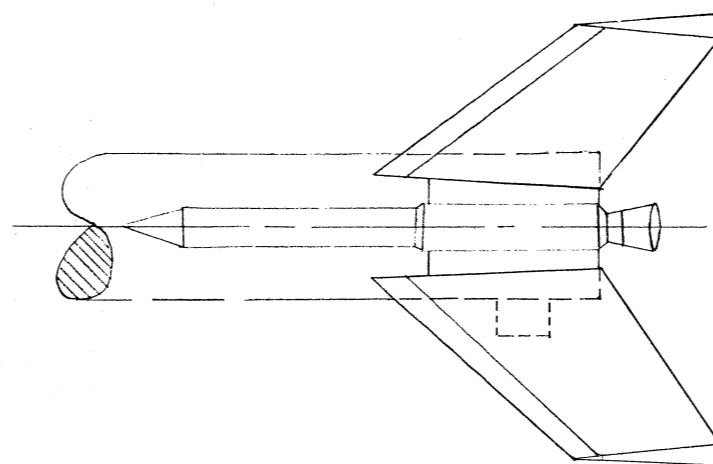
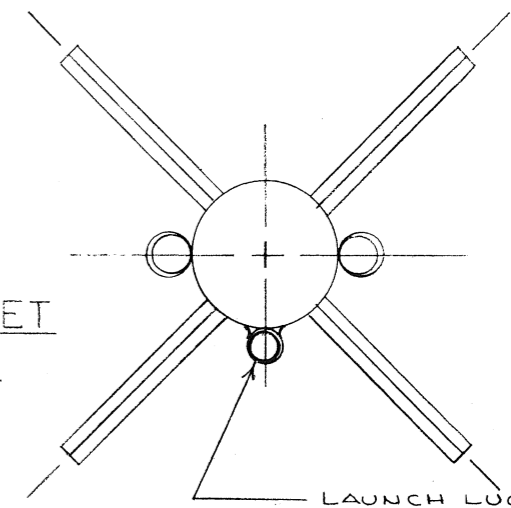


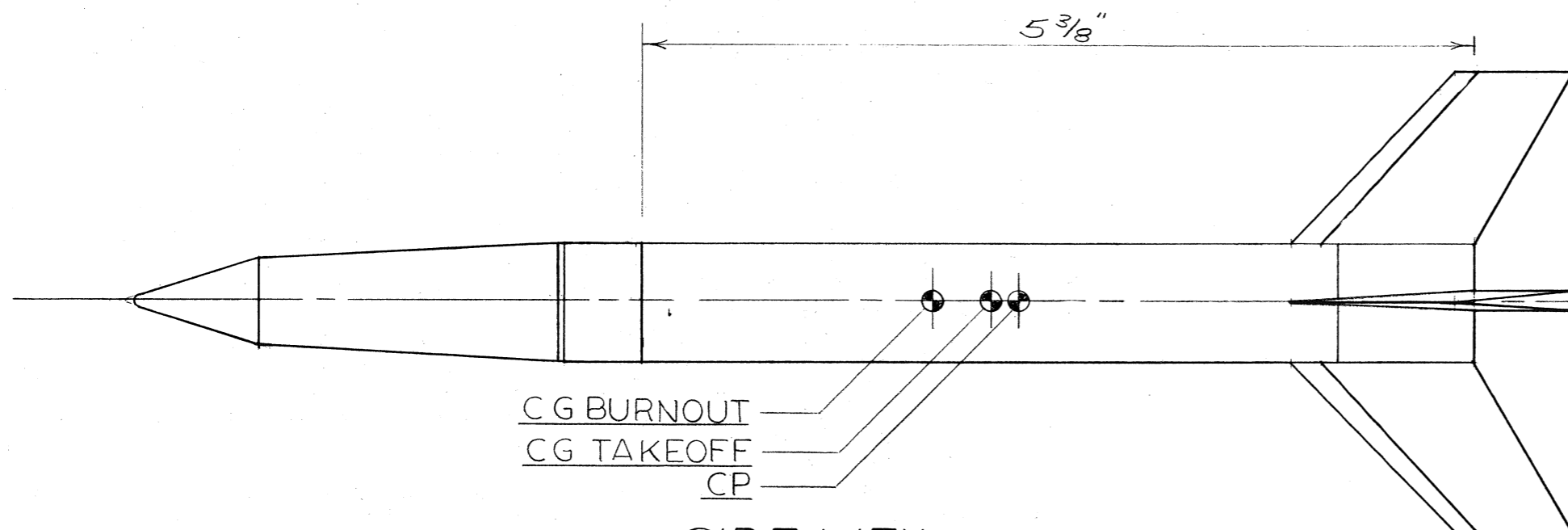
SPIN ROCKET VERSION



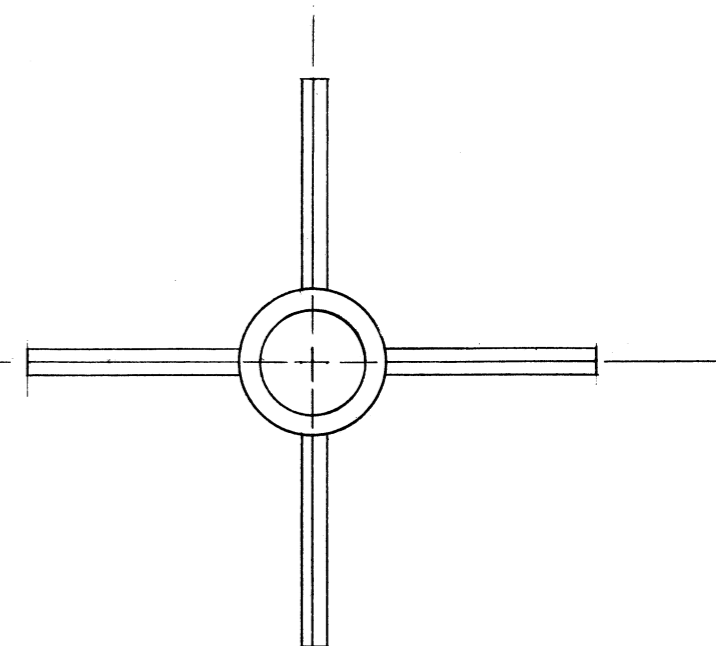
BOOST ROCKET VERSION



LAUNCH LUG

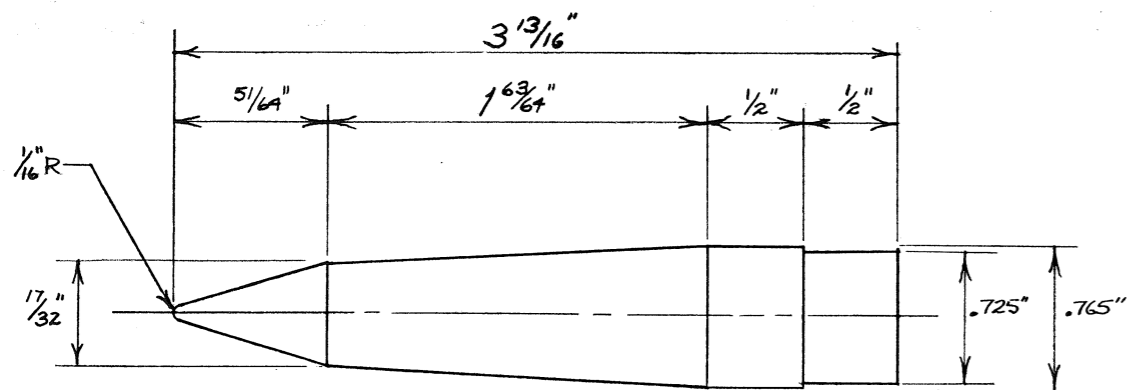


SIDE VIEW

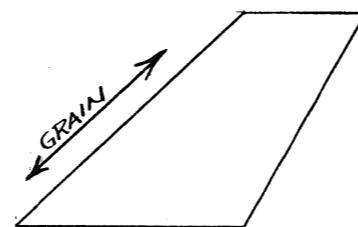


FRONT VIEW


WEIGHT (NO MOTOR): 0.8 oz.



NOSE CONE



FIN PATTERN

FOR NON COMMERCIAL USE ONLY	
 NATIONAL ASSOCIATION OF ROCKETRY PLAN PROGRAM	
ASTROBEE-1500	
MODEL SCALE: 1 to 40.5	DRAWING SCALE: Full
SCALE SOURCE: Aerojet General Corp.	
DESIGN BY: Stine	DRAWN BY: GHS
CHECKED BY: WSR	RELEASED: Sept. 1961
DRAWING NUMBER: NAR- 103	

National Association of Rocketry

Plan No. 103

PLAN PROGRAM FACT SHEET

Model Name ASTROBEE 1500

PROTOTYPE DATA: The "Astrobee 1500" is one of a family of upper atmosphere sounding rockets designed and produced by the Aerojet-General Corporation. It is capable of carrying a payload of 50 lb. of scientific instruments to an altitude of 1750 miles. It is a two-staged rocket. The lower stage is an Aerojet "Junior" solid propellant rocket engine, and the top stage is an Aerojet AJ10-41 solid propellant rocket. The rocket has a diameter of 31 inches and a length of 30 feet. It weighs 10,648 lb. at takeoff. It may be launched from a rail or a pad. Because of the simplicity of its solid propellant rocket engines, it can be easily launched from any location with a minimum of equipment.

MODEL CONSTRUCTION: The "Astrobee 1500" shown in NAR Plan 103 has been designed as a single-staged model. It is not difficult to build and is capable of excellent performance with NAR Type A or Type B engines.

Construction follows standard procedure as detailed in various NAR Technical reports. The nose cone is turned on a lathe from pine. It may be necessary to add a little lead weight to the nose cone to obtain good stability. Two nose cones -- a long one and a shorter one -- are shown on the plan. The prototype is flown with either one. The body tube is a paper tube 6" long x 3/4" i.d. x 13/16" o.d. Fins are cut from 1/16" sheet balsa with the balsa grain running along the fin leading edge as shown.

The color of the Astrobee 1500 varies depending on where it is to be flown. Tip of nose cone is white, always. Remainder of nose cone is silver. Body tube and fins may be fluorescent orange or white. One or more of the fins may be black.

The model was designed to be flown from a tower, but it may be launched from a rod if launching lugs are glued to the side of the body tube. Always fly this model from a launcher -- tower or rod.

NAR Type A or Type B engines should be used with this model.

Install the recovery system of your choice. Refer to NAR Technical Reports for recovery systems.

Always fly this model in an open area well away from trees, buildings, and power lines. Because of its high performance, it makes a good contest scale altitude model.

The model was accurately scaled from official plans supplied by the Aerojet-General Corporation, makers of the Astrobee and Aerobee rockets.

NOTE: No NAR Plan Program material may be used for commercial purposes. The NAR Plan Program is a non-profit service exclusively for members of the NAR. Members may duplicate, photostat or copy plans for non-commercial use. This service is intended to guide model rocket enthusiasts and promote safe model rocketry.