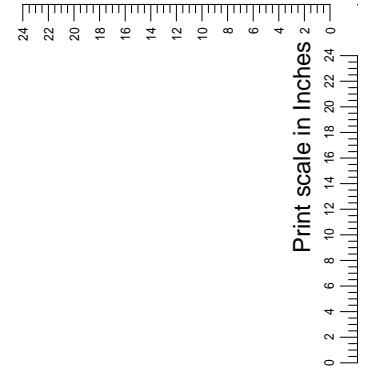
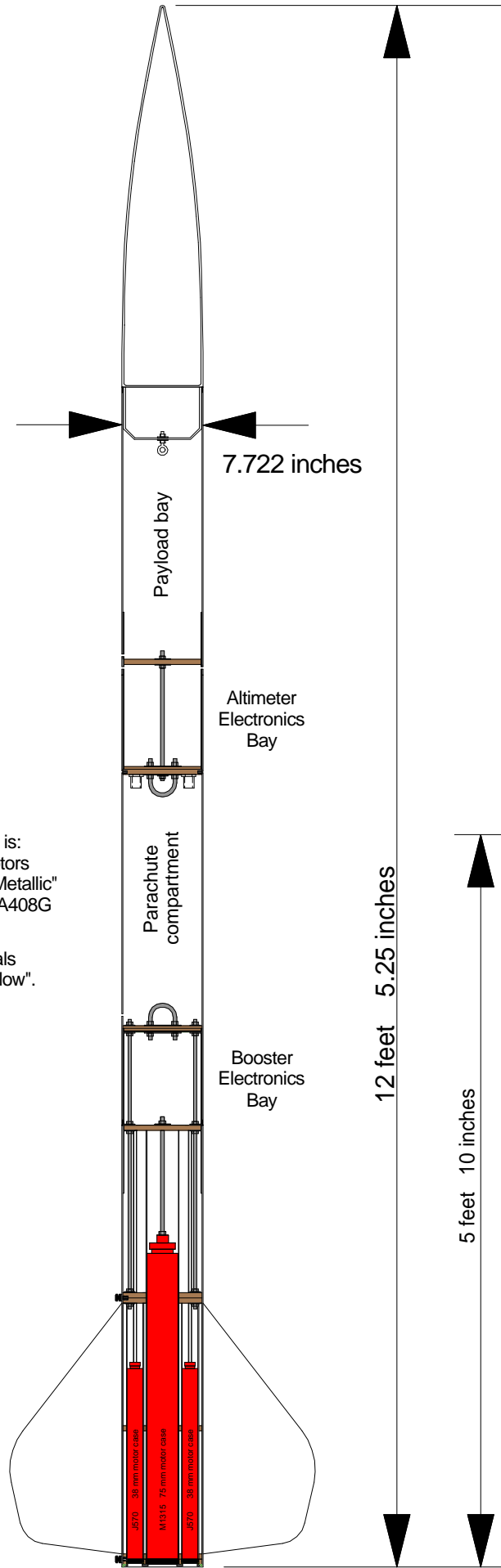


Body color is:  
General Motors  
"Medium Red Metallic"  
Color code: WA408G

All vinyl decals  
are "Bright Yellow".



All dimensions are in inches

CAD scale: 1" = 15"

# StarFire

Project:

Drawing: COMPLETE AIRFRAME AND PAINT SCHEME Rev: C

Date: Apr. 20, 2004

By: Vern Knowles

Nosecone



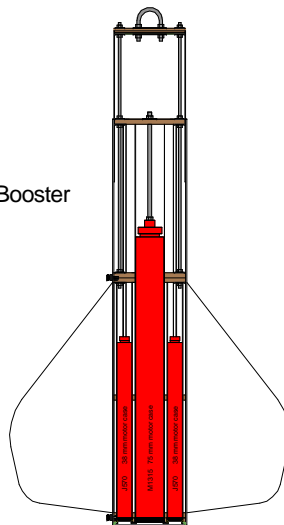
Airframe forward section



Airframe mid section



Booster



Project: **StarFire**

All dimensions are in inches

CAD scale: 1" = 20"

Print scale in Inches

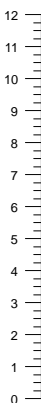
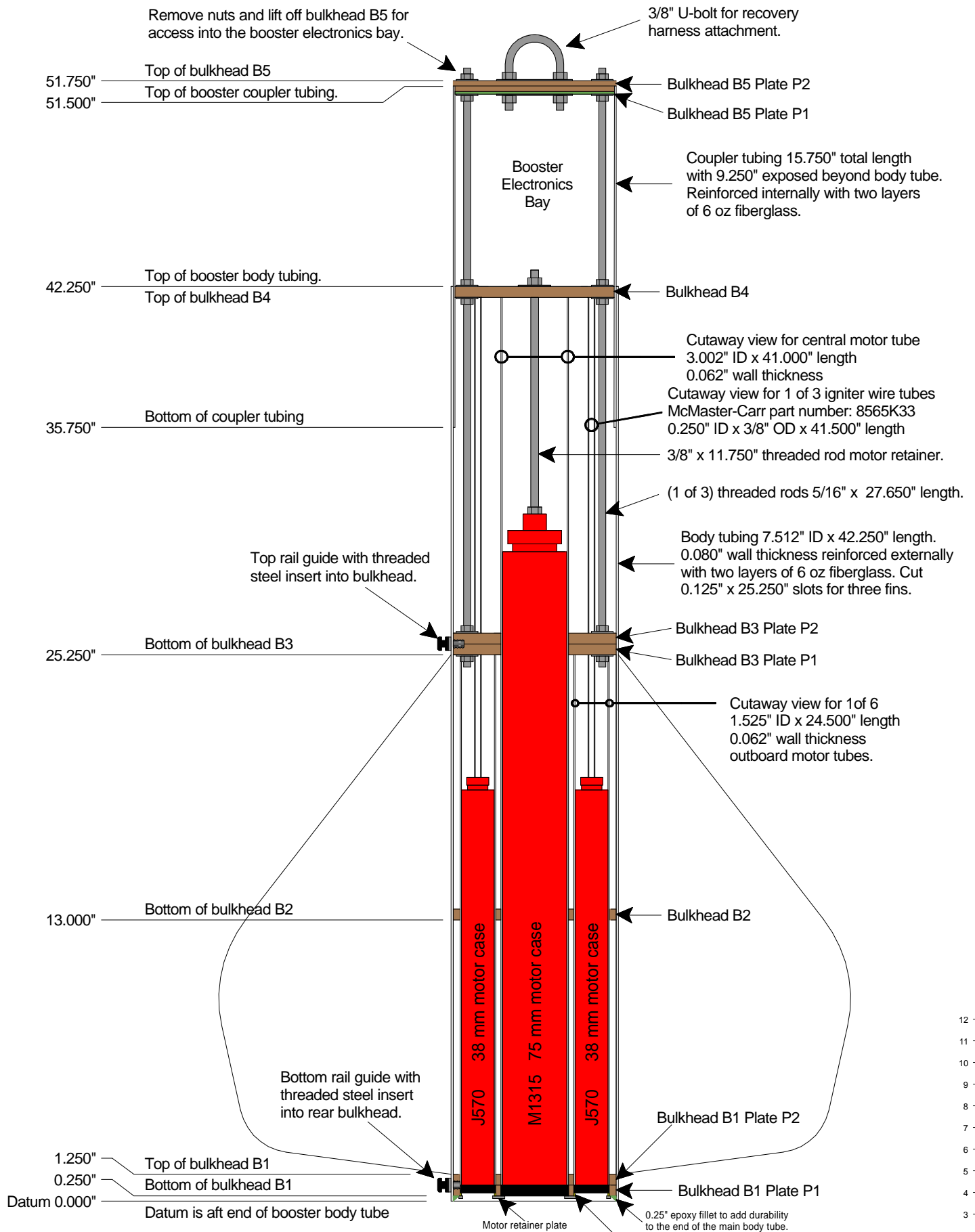


Drawing: AIRFRAME ASSEMBLY

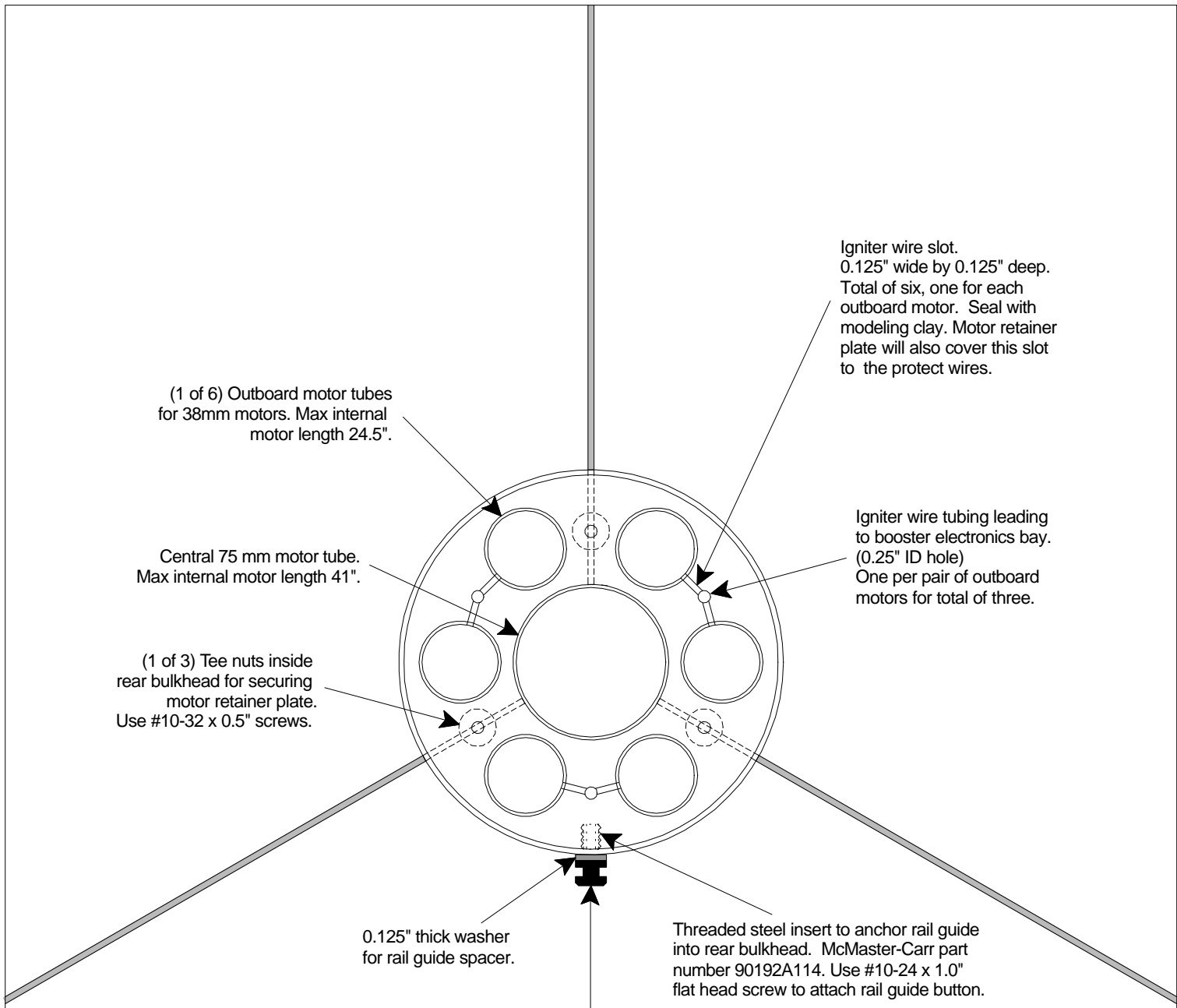
Rev: C

Date: Nov. 23, 2003

By: Vern Knowles

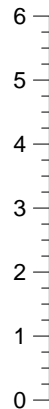


Project: <b>StarFire</b>	All dimensions are in inches	Print scale in Inches	
	CAD scale: 1" = 6"		
Drawing: BOOSTER SECTION	Rev: C	Date: Nov. 23, 2003	By: Vern Knowles

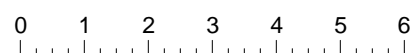


## BOOSTER BOTTOM VIEW

Coat bottom with epoxy to improve durability and to help protect the plywood.

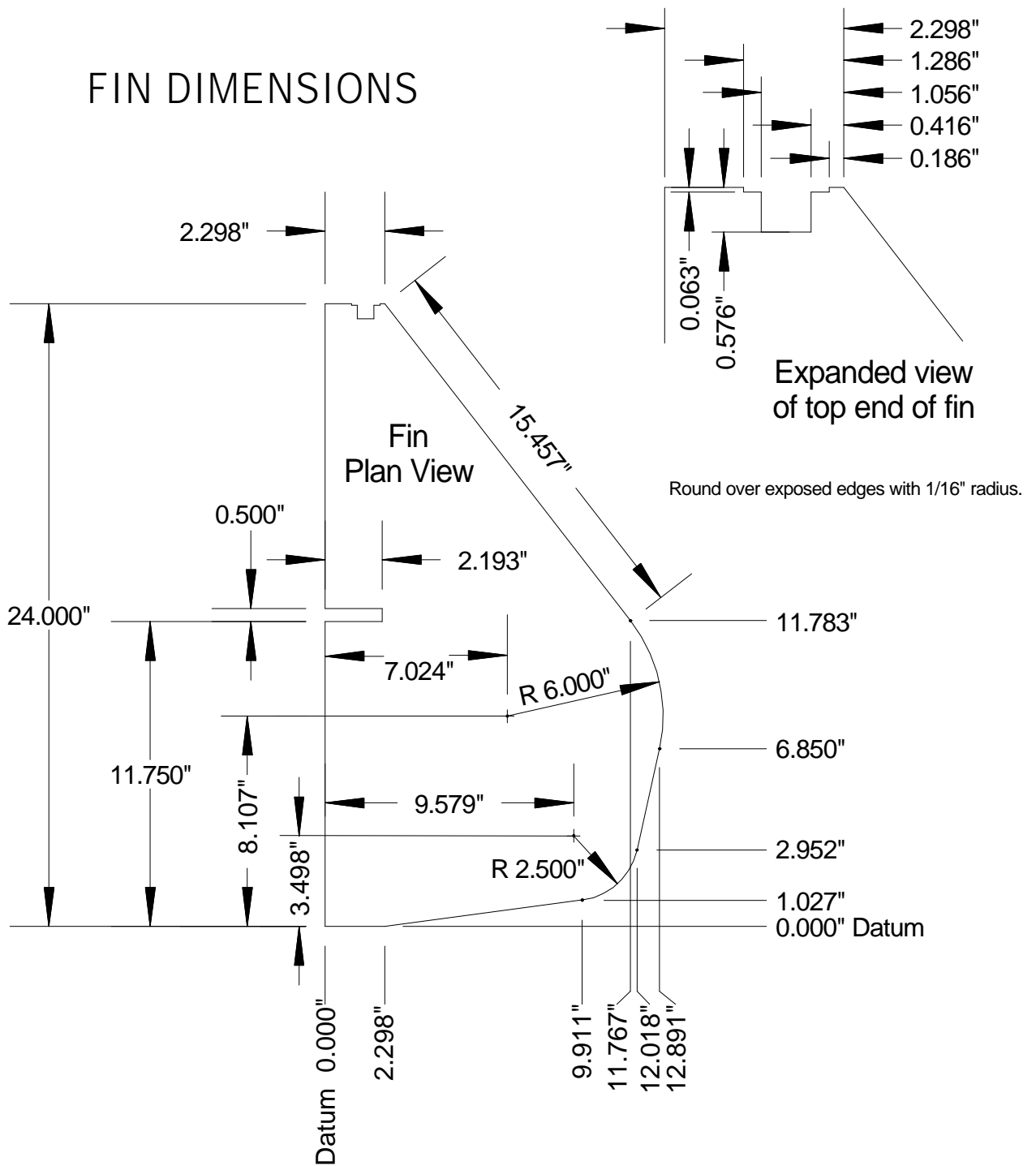


Print scale in Inches



Project: <b>StarFire</b>	All dimensions are in inches	Date: Nov. 23, 2003	
	CAD scale: 1" = 3"		
Drawing: BOOSTER BOTTOM VIEW	Rev: C		

# FIN DIMENSIONS



Material: 0.125" thick G10 or FR4 fiberglass sheet

Epoxy root edge of fin to central motor tube and reinforce joints with 8oz fiberglass strips.



Project: **StarFire**

All dimensions are in inches  
CAD scale: 1" = 6"

Print scale in Inches



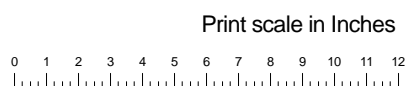
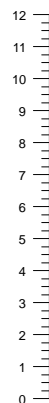
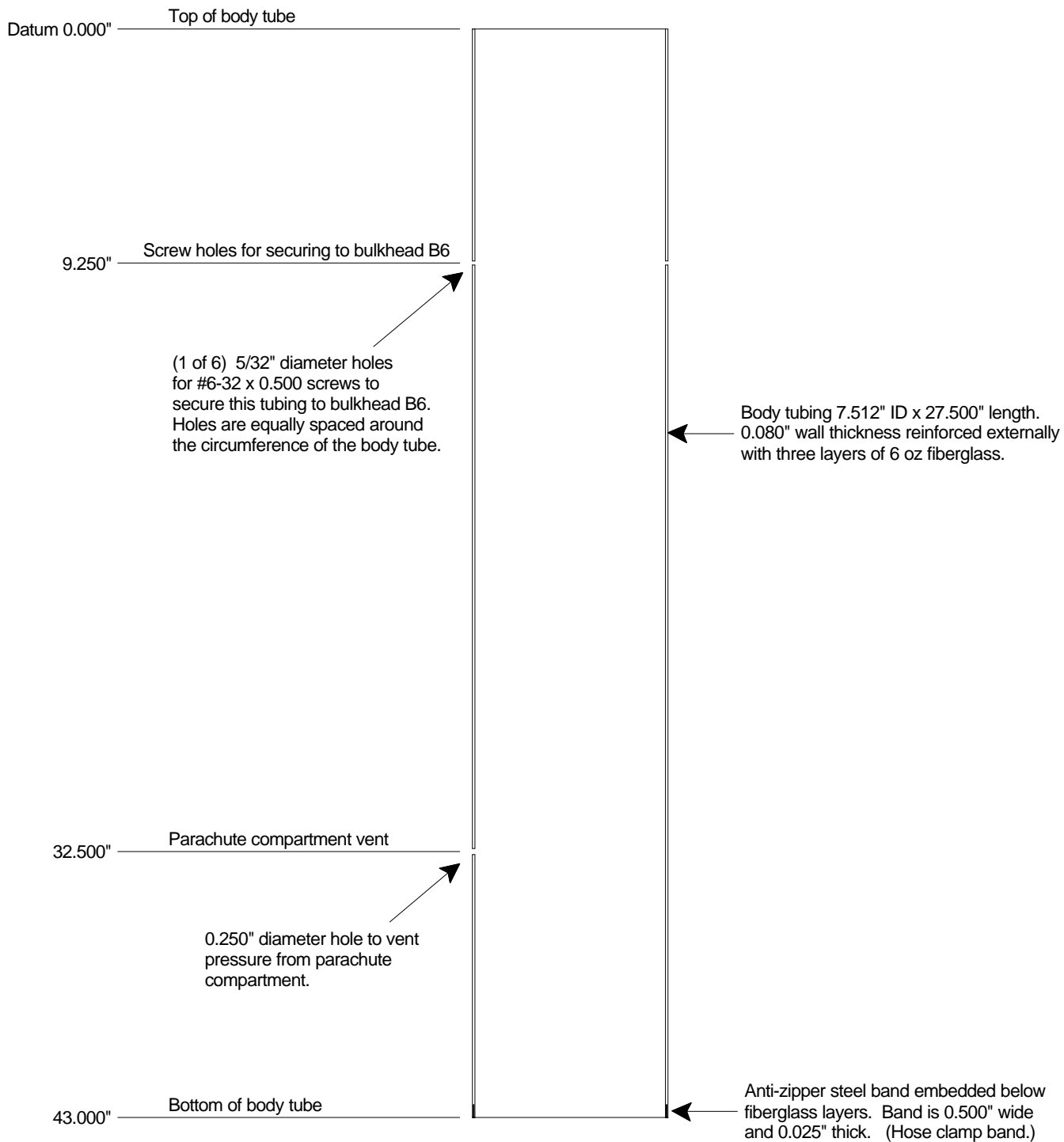
Drawing: FIN DIMENSIONS

Rev: C

Date: Nov. 23, 2003

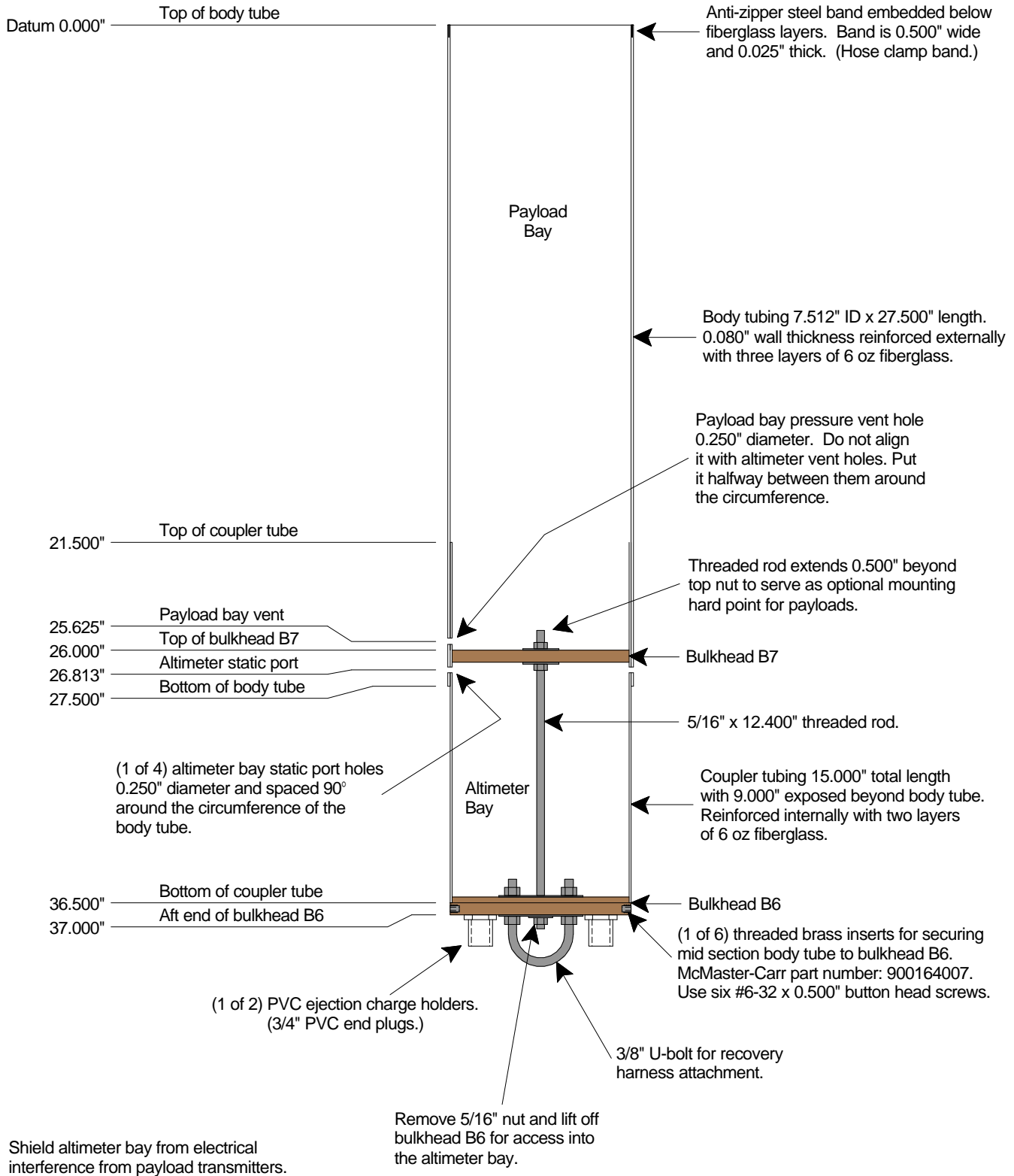
By: Vern Knowles

# AIRFRAME MID SECTION



Project: <b>StarFire</b>	All dimensions are in inches		Print scale in Inches	
	CAD scale: 1" = 6"			
Drawing: AIRFRAME MID SECTION	Rev: C	Date: Nov. 23, 2003	By: Vern Knowles	

# AIRFRAME FORWARD SECTION



Project: **StarFire**

All dimensions are in inches  
CAD scale: 1" = 6"

Print scale in Inches  
0 1 2 3 4 5 6 7 8 9 10 11 12 0

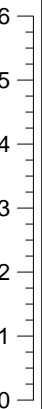
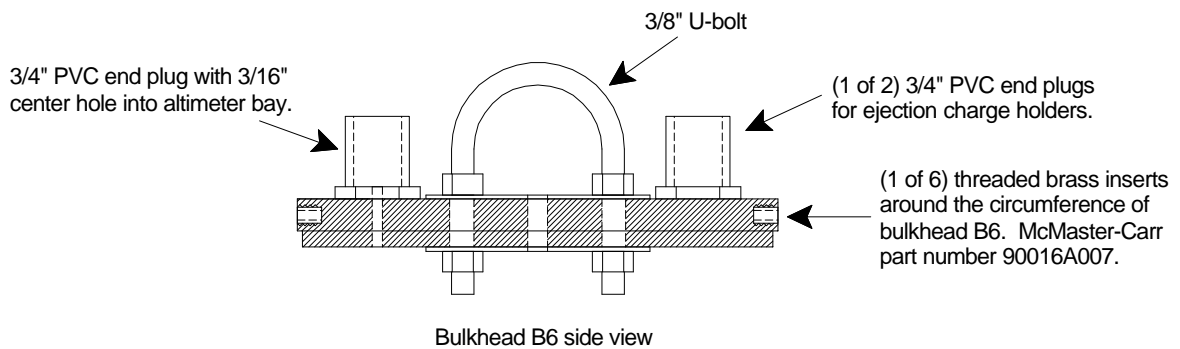
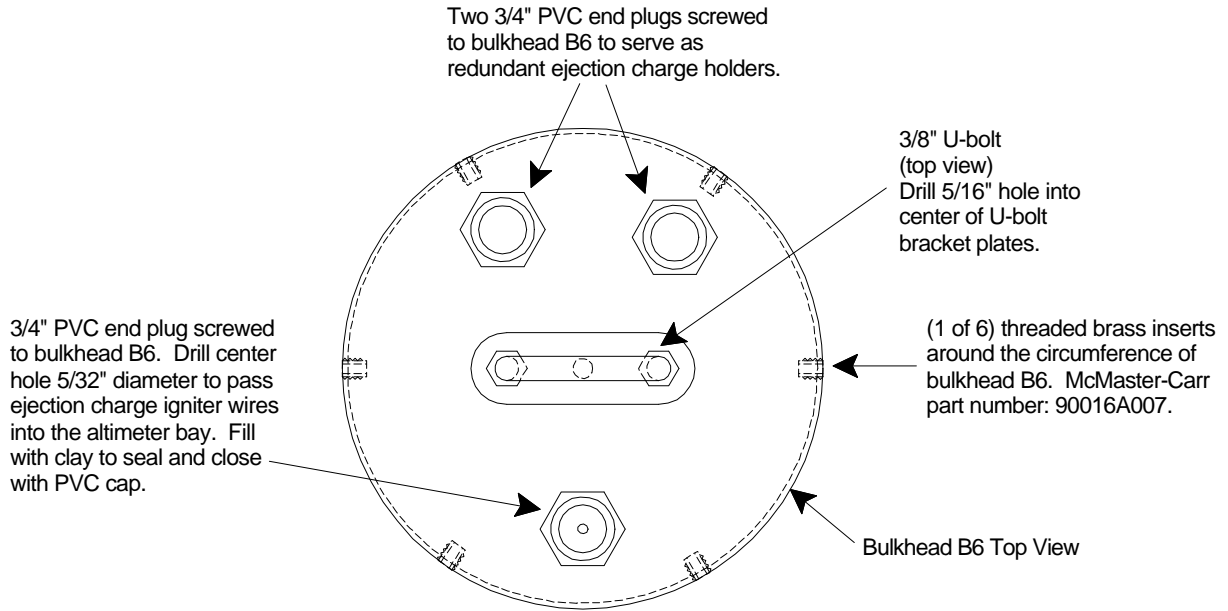
Drawing: AIRFRAME FORWARD SECTION

Rev: C

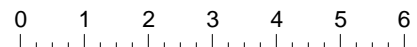
Date: Nov. 23, 2003

By: Vern Knowles

# EJECTION CHARGE HOLDERS



Print scale in Inches

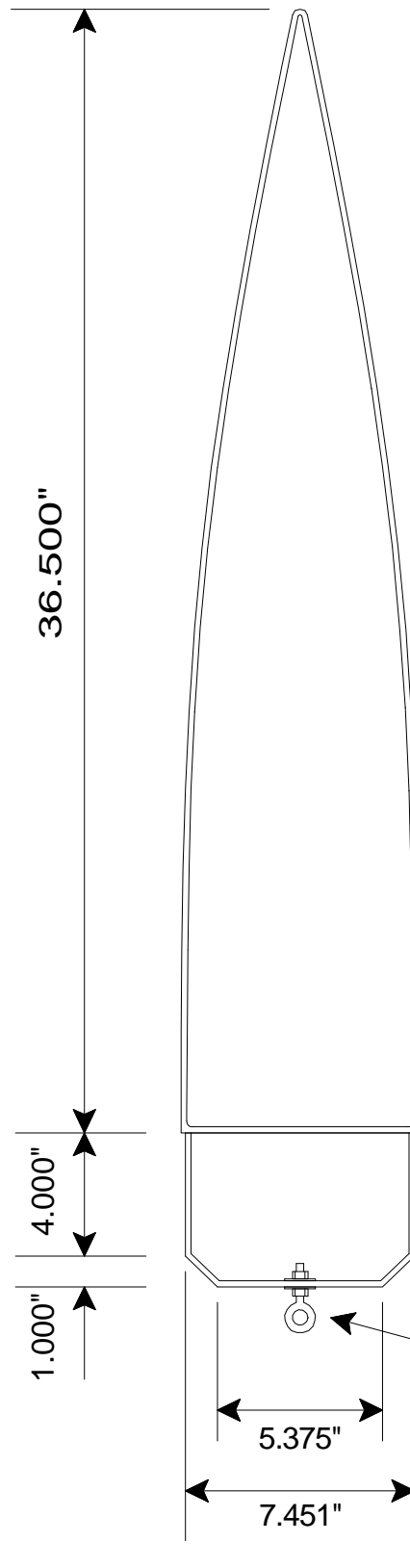


Project: <b>StarFire</b>	All dimensions are in inches
	CAD scale: 1" = 3"
Drawing: EJECTION CHARGE HOLDERS	Rev: C

Date: Nov. 23, 2003

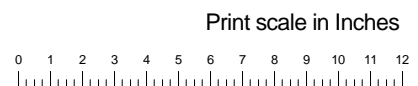
By: Vern Knowles

# NOSECONE



Material: Plastic  
Color: Bright Yellow

1/4" eyebolt  
with washers  
and nuts.



Project: **StarFire**

All dimensions are in inches

CAD scale: 1" = 6"

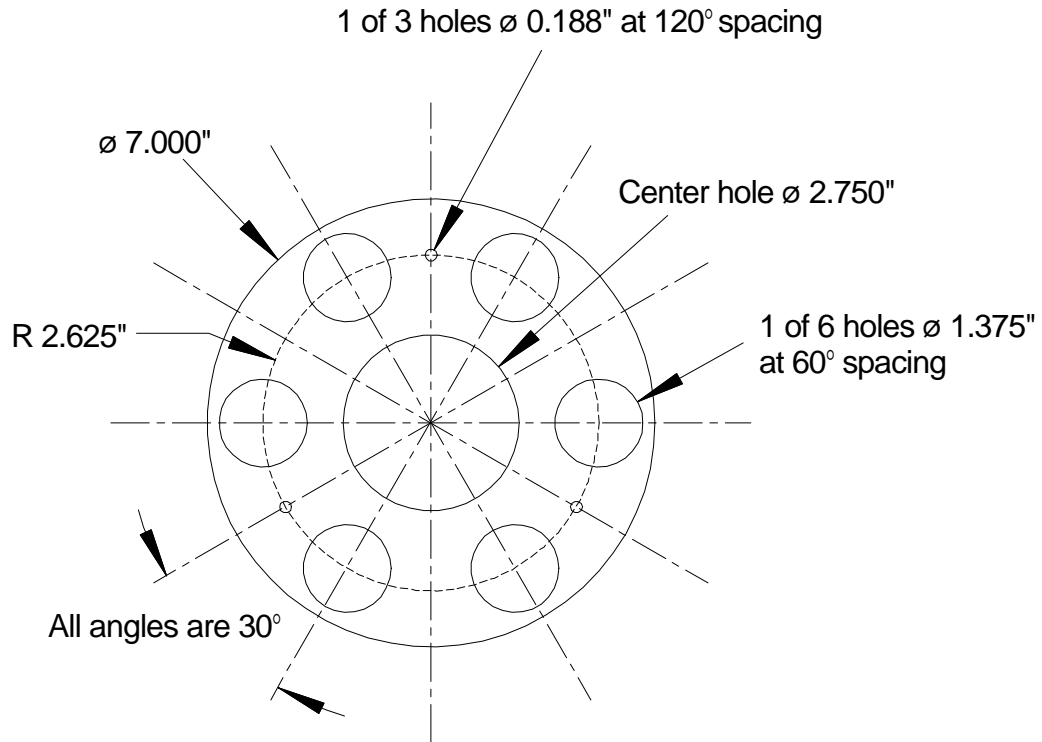
Drawing: NOSECONE

Rev: C

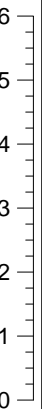
Date: Nov. 23, 2003

By: Vern Knowles

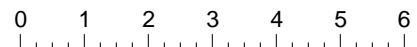
# MOTOR RETAINER PLATE



Material: 0.100" to 0.125" thick Aluminum



Print scale in Inches

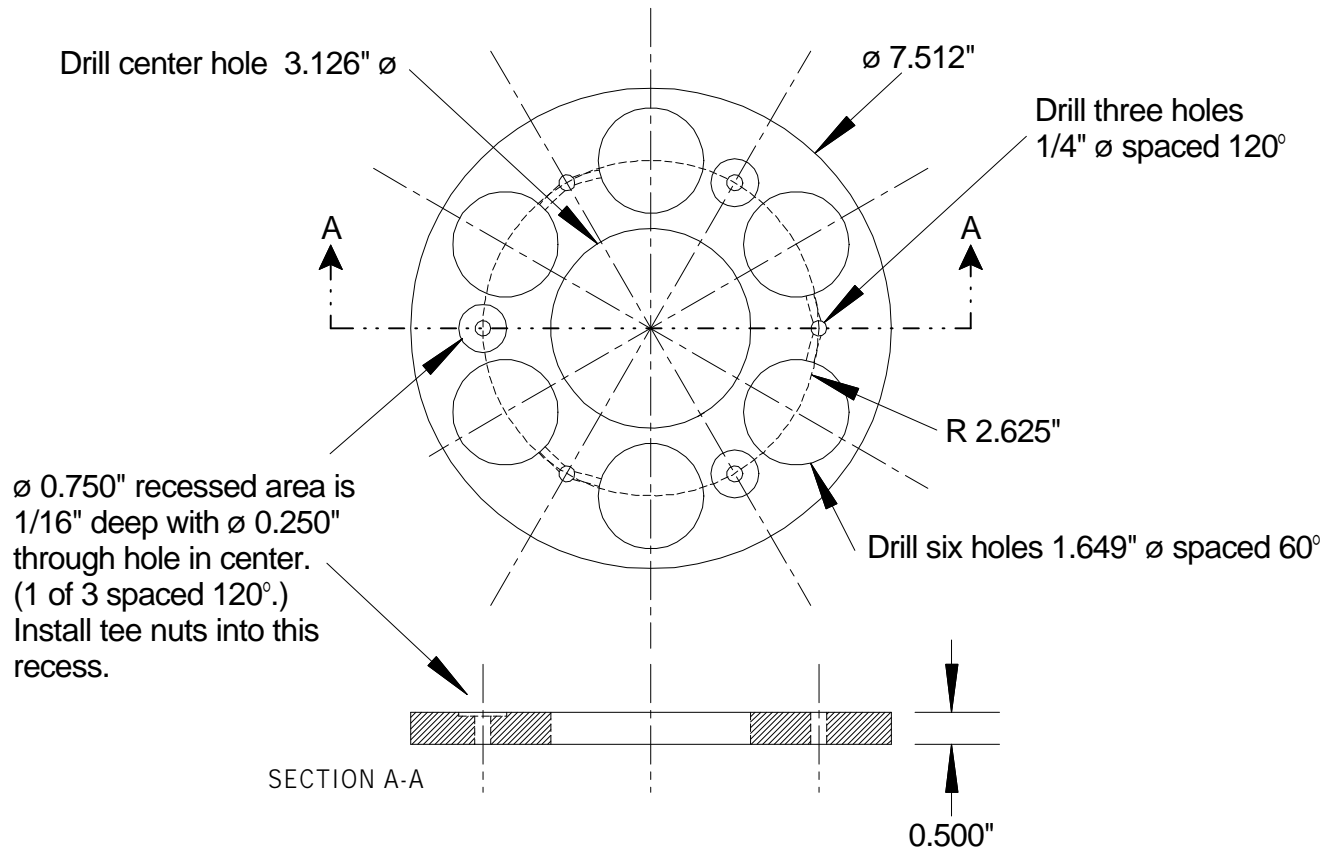


Project: <b>StarFire</b>	All dimensions are in inches
	CAD scale: 1" = 3"
Drawing: MOTOR RETAINER PLATE	Rev: C

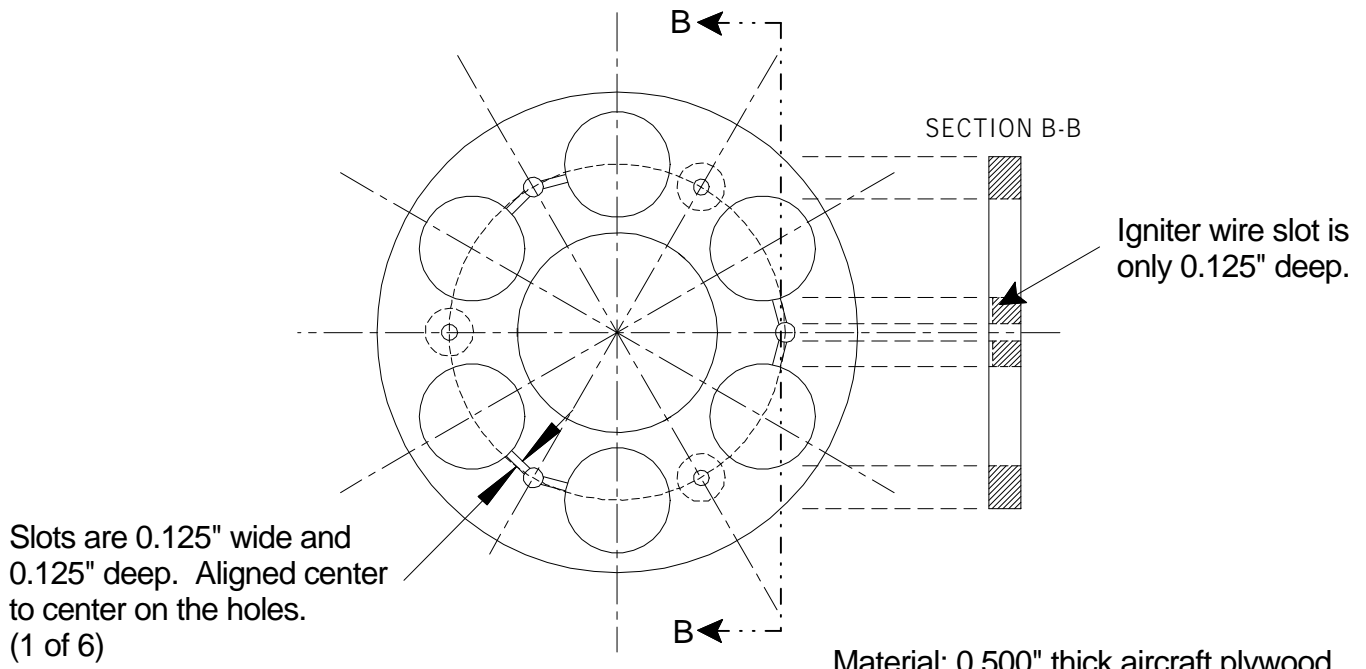
Date: Nov. 23, 2003

By: Vern Knowles

# BULKHEAD B1 PLATE P1 TOP VIEW



# BULKHEAD B1 PLATE P1 BOTTOM VIEW

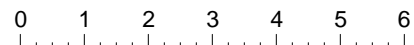


Project: **StarFire**

All dimensions are in inches

CAD scale: 1" = 3"

Print scale in Inches



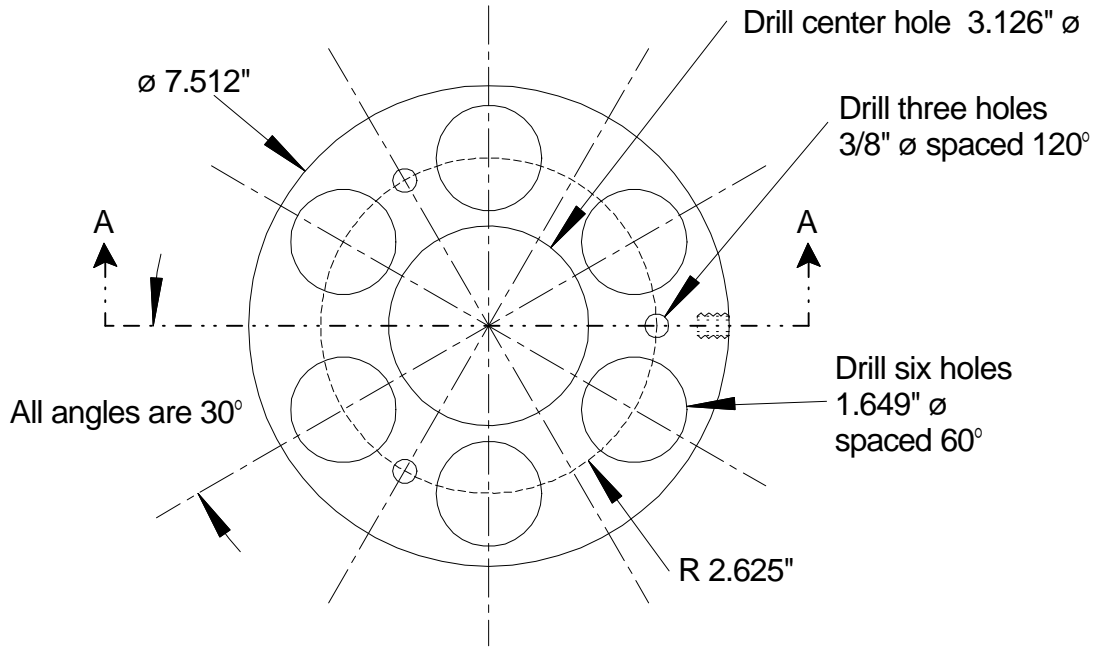
Drawing: BULKHEAD B1 PLATE P1

Rev: C

Date: Nov. 23, 2003

By: Vern Knowles

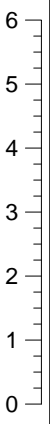
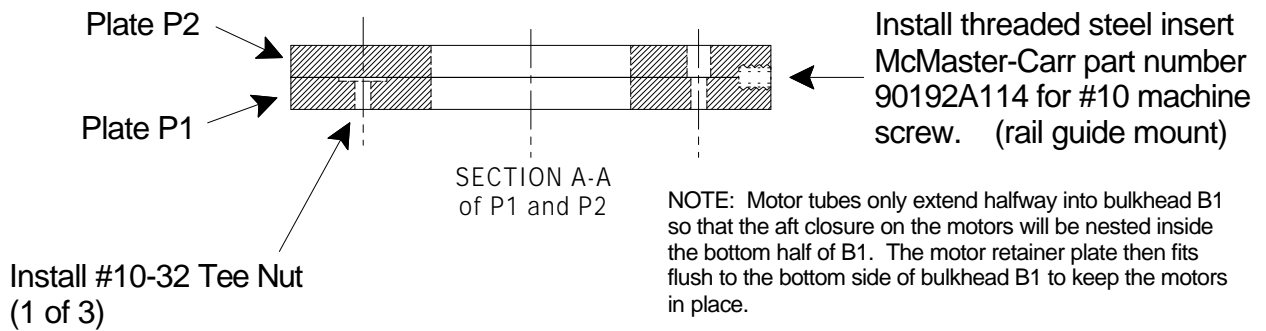
# BULKHEAD B1 PLATE P2



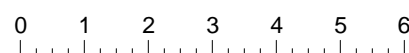
Material: 0.500" thick aircraft plywood

# BULKHEAD B1 ASSEMBLY

1. Install three tee nuts into plate P1.
2. Laminate plate P1 and plate P2.
3. Install rail guide mount.



Print scale in Inches



Project: **StarFire**

All dimensions are in inches  
CAD scale: 1" = 3"

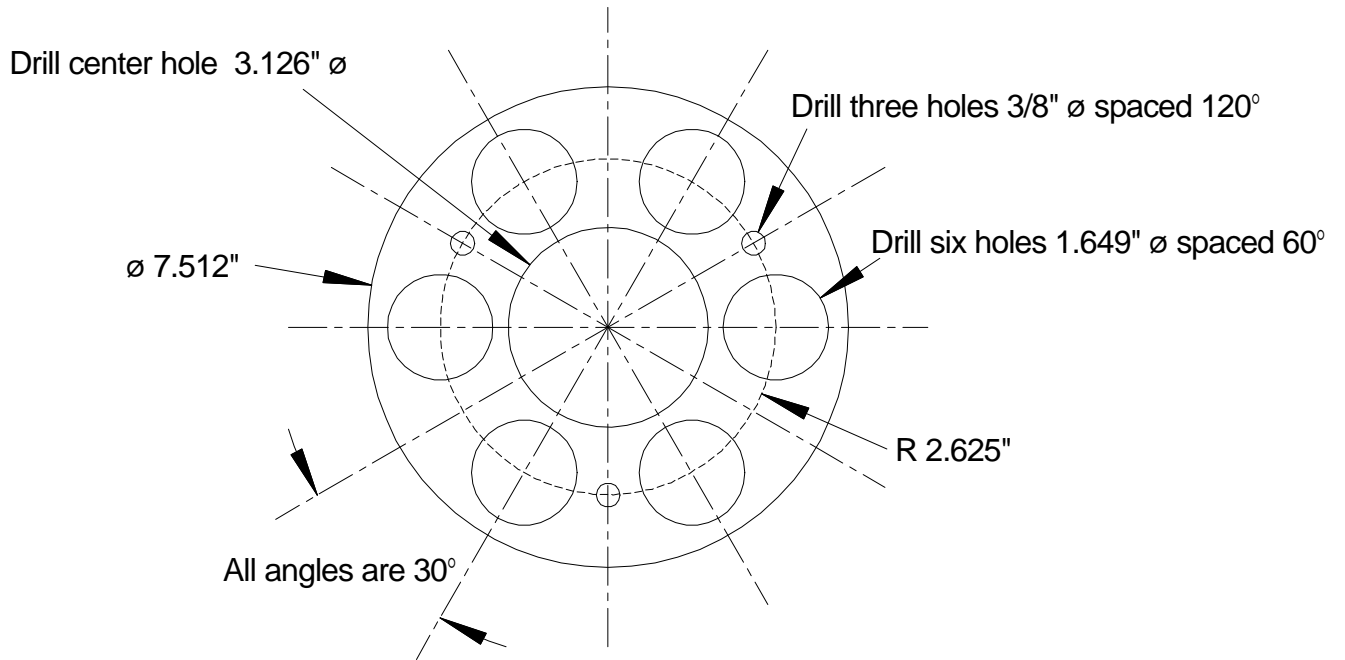
Drawing: BULKHEAD B1 PLATE P2

Rev: C

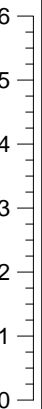
Date: Nov. 23, 2003

By: Vern Knowles

# BULKHEAD B2



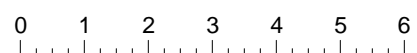
Material: 0.500" thick aircraft plywood



Project: **StarFire**

All dimensions are in inches  
CAD scale: 1" = 3"

Print scale in Inches



Drawing: BULKHEAD B2

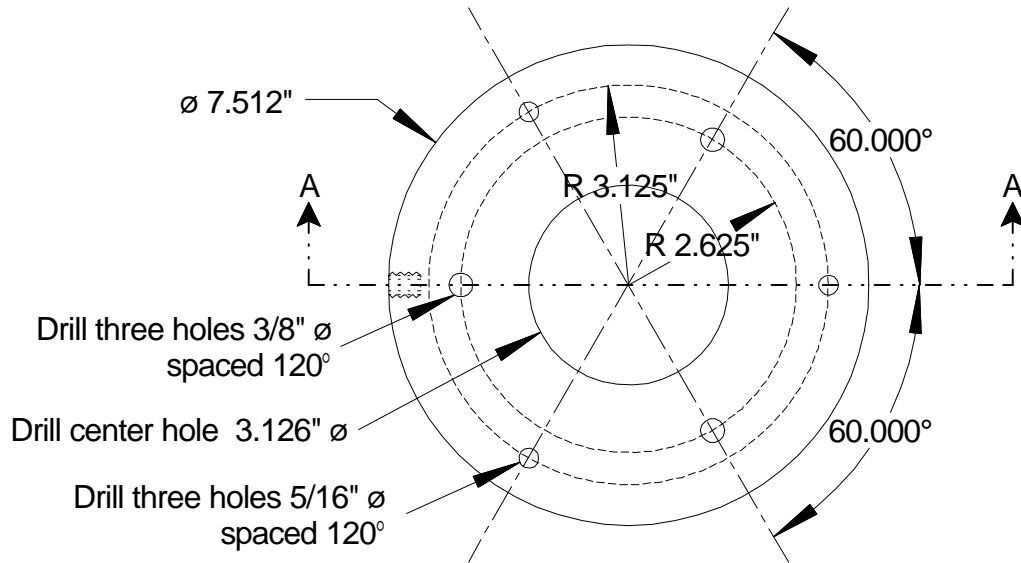
Rev: C

Date: Nov. 23, 2003

By: Vern Knowles

# BULKHEAD B3

Plates P1 and P2 are identical.



## SECTION A-A

Install threaded steel insert  
 McMaster-Carr part number  
 90192A114  
 for #10 machine screw.  
 (rail guide mount)



Bulkhead B3 Plate P2

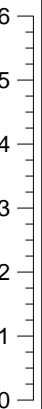
Bulkhead B3 plate P1

Laminate two pieces of  
 the 0.500" thick aircraft  
 plywood to create one  
 bulkhead 1.000" thick.

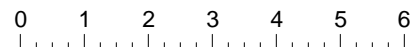
### NOTES:

Three holes at 3.125" radius are for 5/16" threaded rod.  
 Three holes at 2.625" radius are for 3/8" igniter wire tubes.

Material: 0.500" thick aircraft plywood for P1 and P2.



Print scale in Inches



Project: **StarFire**

All dimensions are in inches

CAD scale: 1" = 3"

Drawing: BULKHEAD B3

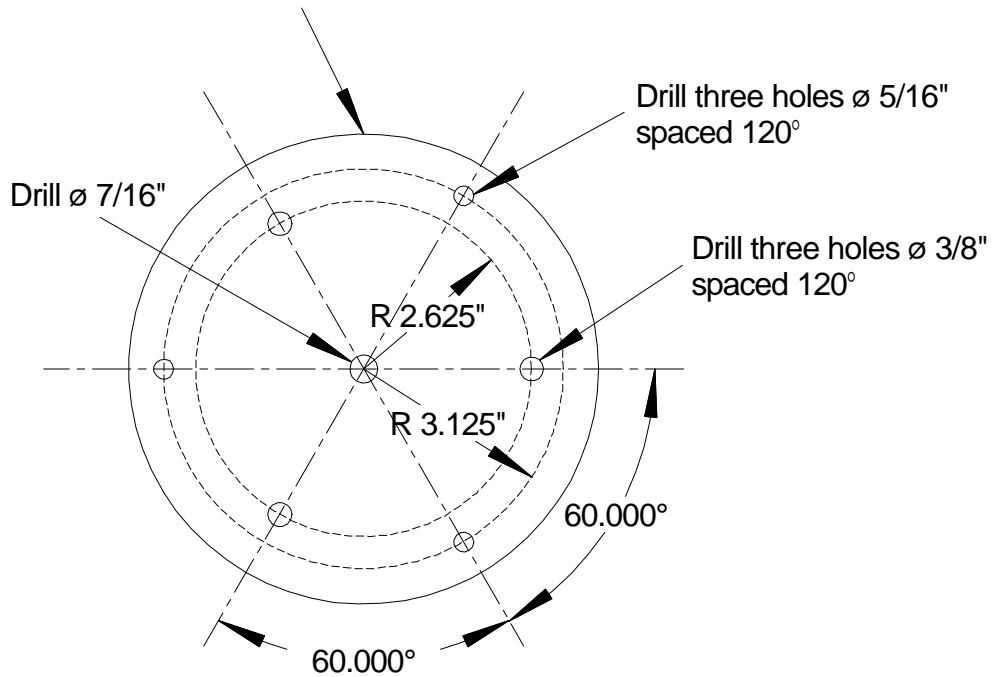
Rev: C

Date: Nov. 23, 2003

By: Vern Knowles

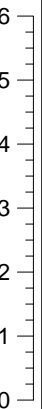
# BULKHEAD B4

Bulkhead  $\varnothing$  7.348" (must fit inside coupler tubing)

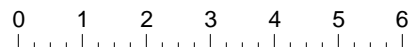


Three holes at 3.125" radius are for 5/16" threaded rod.  
 Three holes at 2.625" radius are for 3/8" igniter wire tubes.

Material: 0.500" thick aircraft plywood



Print scale in Inches

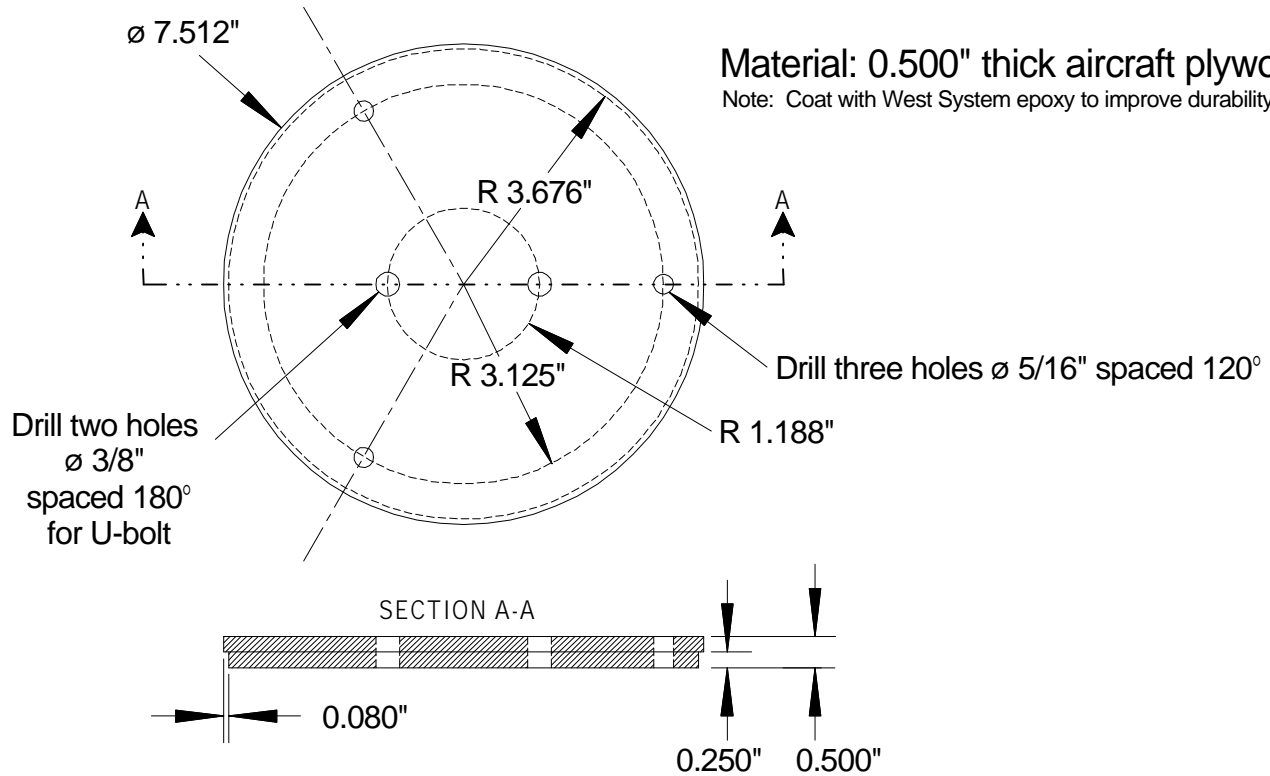


Project: <b>StarFire</b>	All dimensions are in inches
	CAD scale: 1" = 3"
Drawing: BULKHEAD B4	Rev: C

Date: Nov. 23, 2003

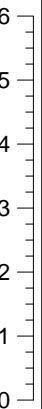
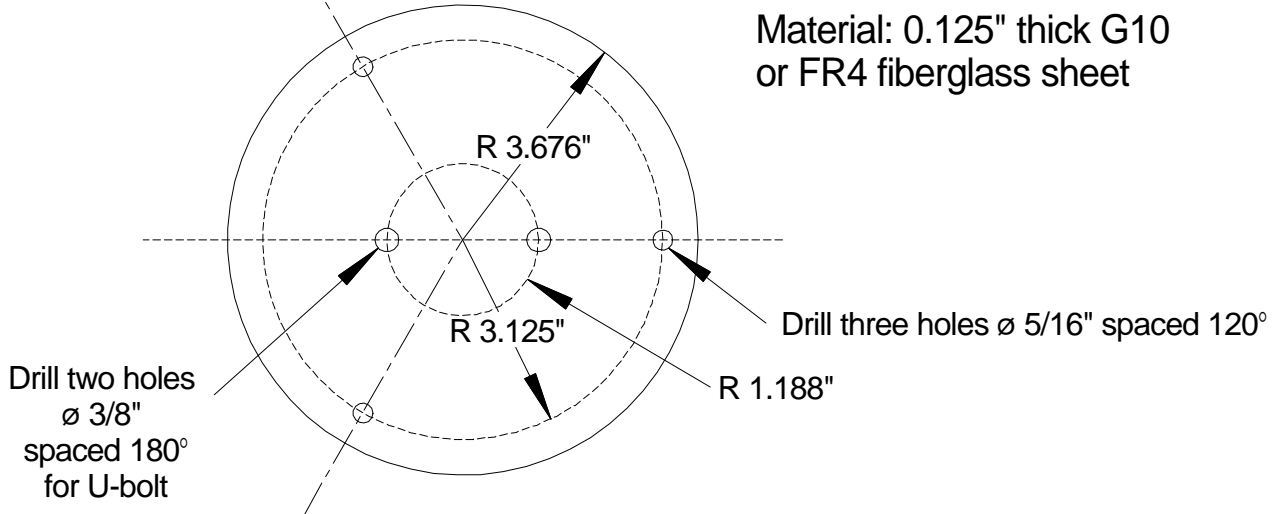
By: Vern Knowles

# BULKHEAD B5 PLATE P2 TOP VIEW

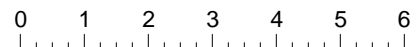


This bulkhead is the "cap" at the top of the booster.  
It must fit onto the top of the coupler at the forward end of the booster.  
The three holes 5/16" diameter are for threaded rods.  
The two holes 3/8" diameter are for the U-bolt.

# BULKHEAD B5 PLATE P1

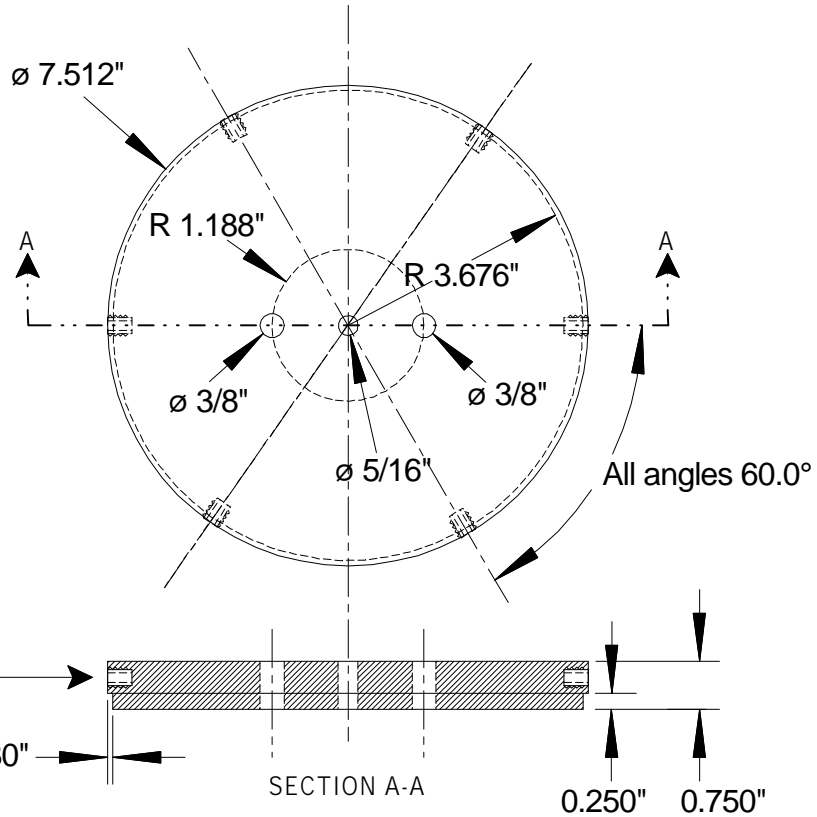


Print scale in Inches



Project: <b>StarFire</b>	All dimensions are in inches	Date: Nov. 23, 2003	
	CAD scale: 1" = 3"		
Drawing: BULKHEAD B5	Rev: C		

# BULKHEAD B6



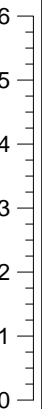
Install threaded brass insert  
McMaster-Carr part number  
90016A007 for #6 machine  
screw. (1 of 6)

This bulkhead is the "cap" for the altimeter bay.  
It must fit onto the bottom of the altimeter bay coupler.  
The 5/16" diameter center hole is for a threaded rod.  
The two holes 3/8" diameter are for the U-bolt.

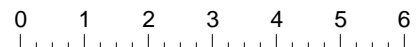
There are six threaded brass inserts around the edge  
for #6-32 machine screws that secure the mid section  
body tube.

**Material: 0.750" thick aircraft plywood**

Note: Coat with West System epoxy to improve durability.



Print scale in Inches



Project: **StarFire**

All dimensions are in inches  
CAD scale: 1" = 3"

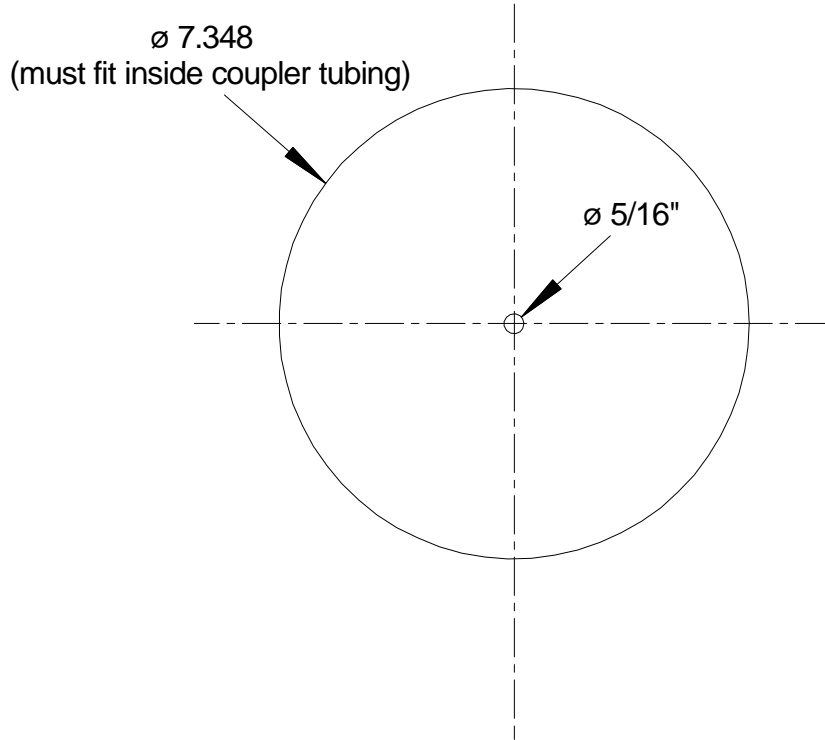
Drawing: BULKHEAD B6

Rev: C

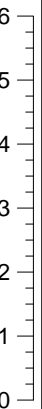
Date: Nov. 23, 2003

By: Vern Knowles

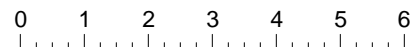
# BULKHEAD B7



Material: 0.500" thick aircraft plywood



Print scale in Inches



Project: **StarFire**

All dimensions are in inches  
CAD scale: 1" = 3"

Drawing: BULKHEAD B7

Rev: C

Date: Nov. 23, 2003

By: Vern Knowles

