

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
AA	Baseline release. Based on Rev N.		
AB	Based on Rev S.	8-9-04	
AC	based on Rev T.	10-24-04	

GENERAL NOTES: UNLESS OTHERWISE SPECIFIED

1. SWALES TO PROVIDE ALL MOUNTING FASTENERS.
2. THERMAL BLANKETS AND EXTERNAL COATINGS TBD.THERMAL BLANKETS AND EXTERNAL COATINGS TBD. MAGBOOM ASSY INCLUDES 0.125" THICK ULTEM SPACERS BETWEEN BRACKETS AND DECK.
3. DWG UNITS DUAL DIMENSIONED AS: INCHES [mm].
4. MAGBOOM ASSY ASSIGNED UCB PART NUMBER THM-MB-MEC-000.
5. GROUNDING DEFINITION TBD.
6. SEE INTERFACE CONTROL DOCUMENT THM-SYS-113 FOR ADDITIONAL INTERFACE REQUIREMENTS.
7. RED TAG/GREEN TAG ITEMS (ONE ENABLE PLUG CONNECTOR) PER UCB REQUIREMENTS THM-SYS-TBD.
8. SPACECRAFT BUS SIDE GENERAL MOUNTING FLATNESS TO BE .005".
9. THE ORIGIN OF THE INSTRUMENT COORDINATE SYSTEM (ICS) IS LOCATED ON THE BOTTOM SURFACE OF THE MAGBOOM ASSY AT THE GEOMETRIC CENTER OF THE PROBE'S TOP DECK.
10. SCM INSTRUMENT CG AND MOI IS CALCULATED ASSUMING UNIFORM DENSITY FOR SENSOR STRUCTURE AND MASS OF 600G (TBR).
11. THE MASS AND DISTRIBUTION OF HARNESS AND CONNECTORS IS ESTIMATED FROM ETU CABLES.
12. DESIGN OF PRE-AMP BOX IS BY CETP.

SCM INST AND MOUNT
THM-SCB-MEC-4XX

SCB DEPLOYMENT ASSISTANCE DEVICE (DAD) ASSY.
SCB DAD ASSY IS FASTENED TO S/C DECK.
(THM-SCB-MEC-200)

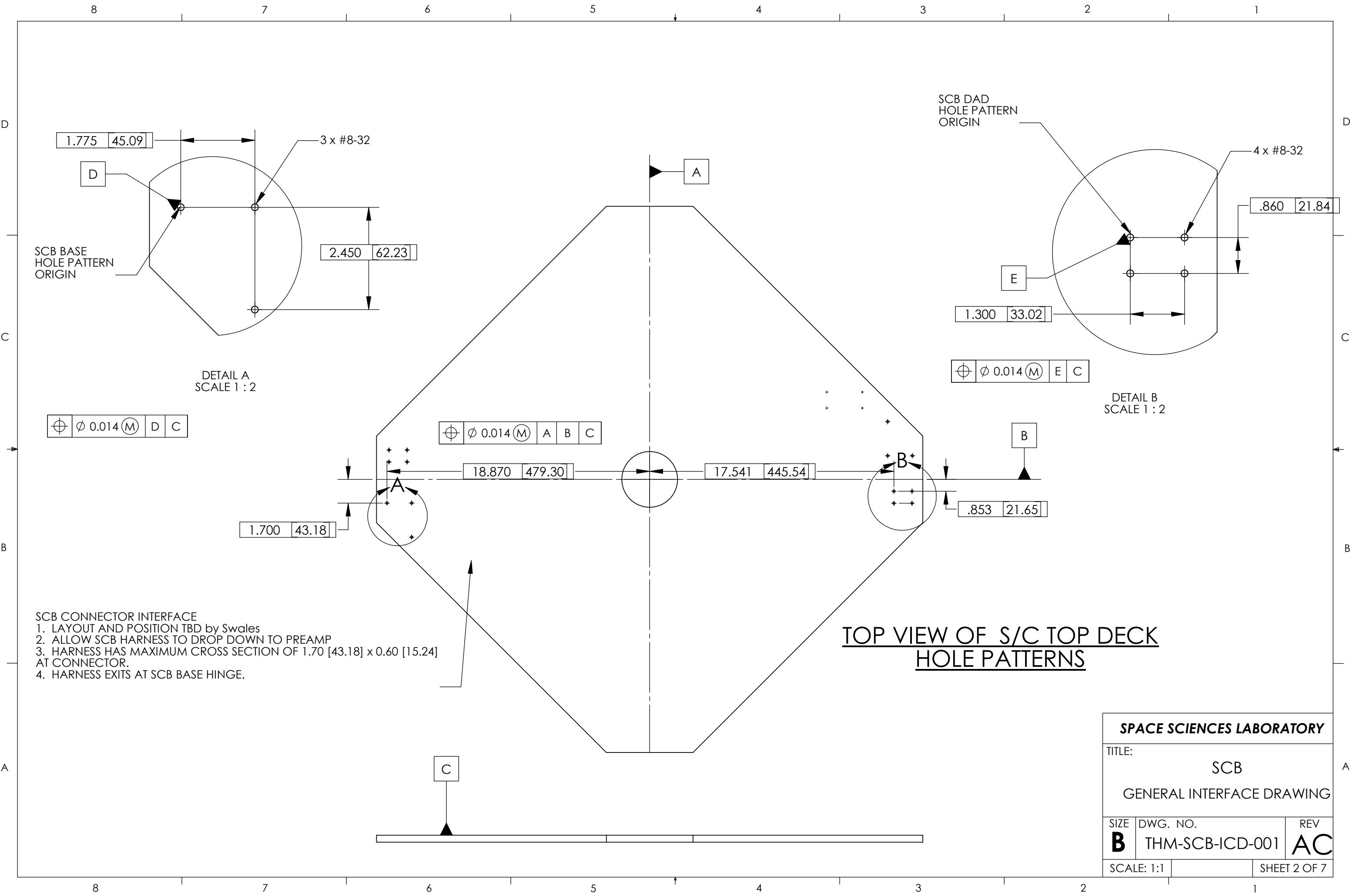
CARBON FIBER BOOM TUBE
THM-SCB-MEC-3XX

SCB IS HINGED AT SCB BASE
BRACKET. SCB BASE HINGE IS FASTENED
TO S/C DECK
(THM-SCB-MEC-100)

FRANGIBOLT HOLDS BOOM
IN STOWED POSITION BY CLAMPING
SADDLE RING TO SCB DAD.
(THM-SCB-MEC-304)

DRILL HOLE TOLERANCES	
DIA RANGE	DIA TOL
.040 / .129	+0.005 -0.001
.130 / .250	+0.006 -0.001
.251 / .485	+0.008 -0.001
.486 / .735	+0.010 -0.001
.736 / .985	+0.012 -0.001
.986 UP	±0.010

SPACE SCIENCES LABORATORY/ BERKELEY COMPOSITES LAB UNIVERSITY OF CALIFORNIA 2112 ETCHEVERRY HALL BERKELEY, CA 94720 PHONE/FAX: 510.643.5007 EMAIL: ttan@me.berkeley.edu PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF THE SPACE SCIENCES LABORATORY. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF THE SPACE SCIENCES LABORATORY IS PROHIBITED.	DIMENSIONS ARE IN INCHES				SPACE SCIENCES LABORATORY	
	TOLERANCES (UNLESS NOTED):		NAME		DATE	
	FRACTIONAL ±0.062		MODELED		TFT 04-19-04	
	ANGULAR: X.X±1° X ±1°		DRAWING		TFT 04-19-04	
	X. ±0.3		CHECKED			
	X.X ±0.1		CHARGE NO.		THEMIS	
	X.XX ±0.01		COMMENTS:		TITLE: SCB GENERAL INTERFACE DRAWING	
	X.XXX ±0.005					
	INTERPRET GEOMETRIC TOLERANCING PER: ANSI Y14.5M-1994		SIZE		DWG. NO.	
	MATERIAL		B		THM-SCB-ICD-001	
FINISH				REV		
DO NOT SCALE DRAWING				AC		
		SCALE: 1:1		WEIGHT: GMS		
				SHEET 1 OF 7		



SCB BASE
HOLE PATTERN
ORIGIN

DETAIL A
SCALE 1 : 2

SCB DAD
HOLE PATTERN
ORIGIN

DETAIL B
SCALE 1 : 2

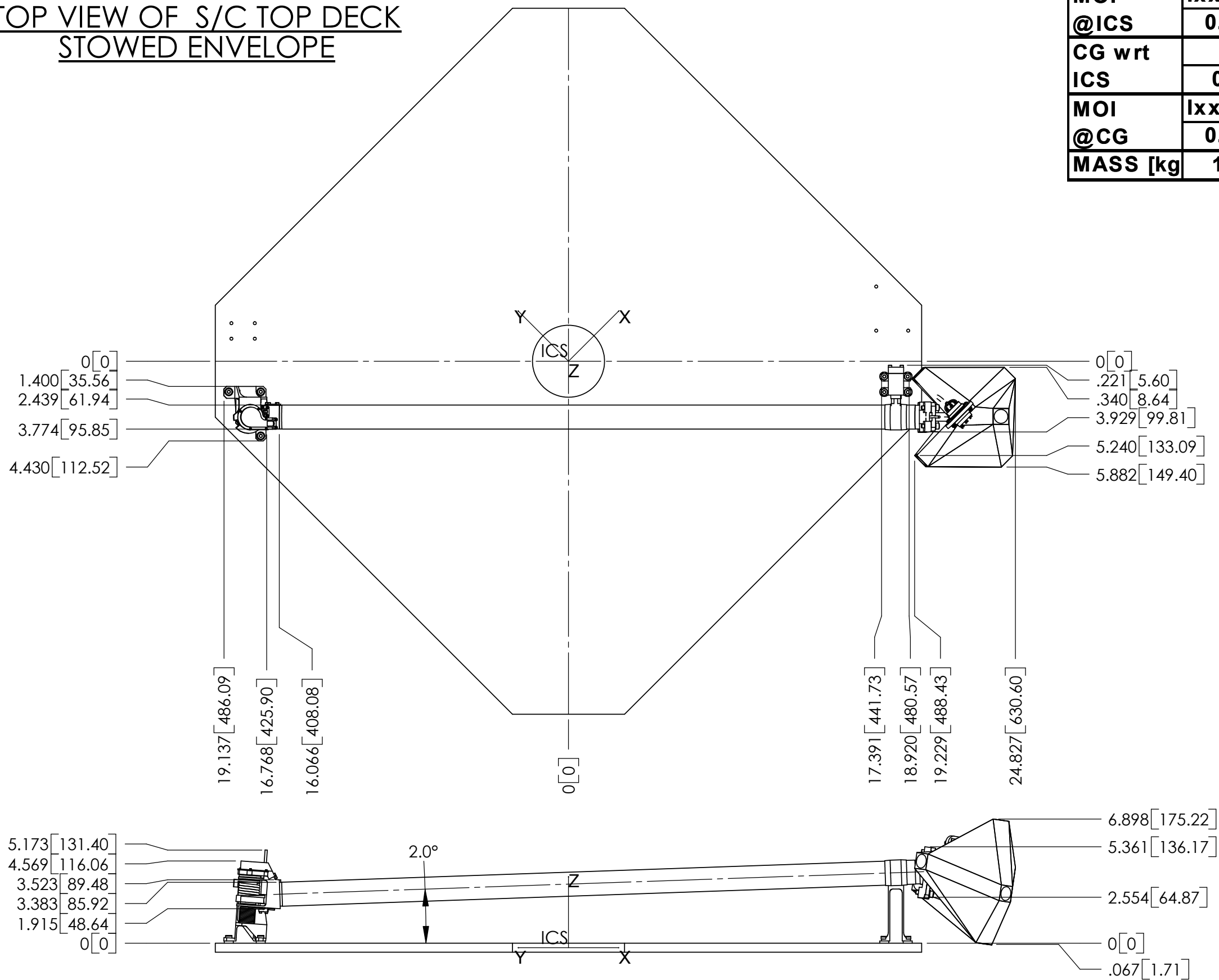
SCB CONNECTOR INTERFACE
1. LAYOUT AND POSITION TBD by Swales
2. ALLOW SCB HARNESS TO DROP DOWN TO PREAMP
3. HARNESS HAS MAXIMUM CROSS SECTION OF 1.70 [43.18] x 0.60 [15.24]
AT CONNECTOR.
4. HARNESS EXITS AT SCB BASE HINGE.

TOP VIEW OF S/C TOP DECK HOLE PATTERNS

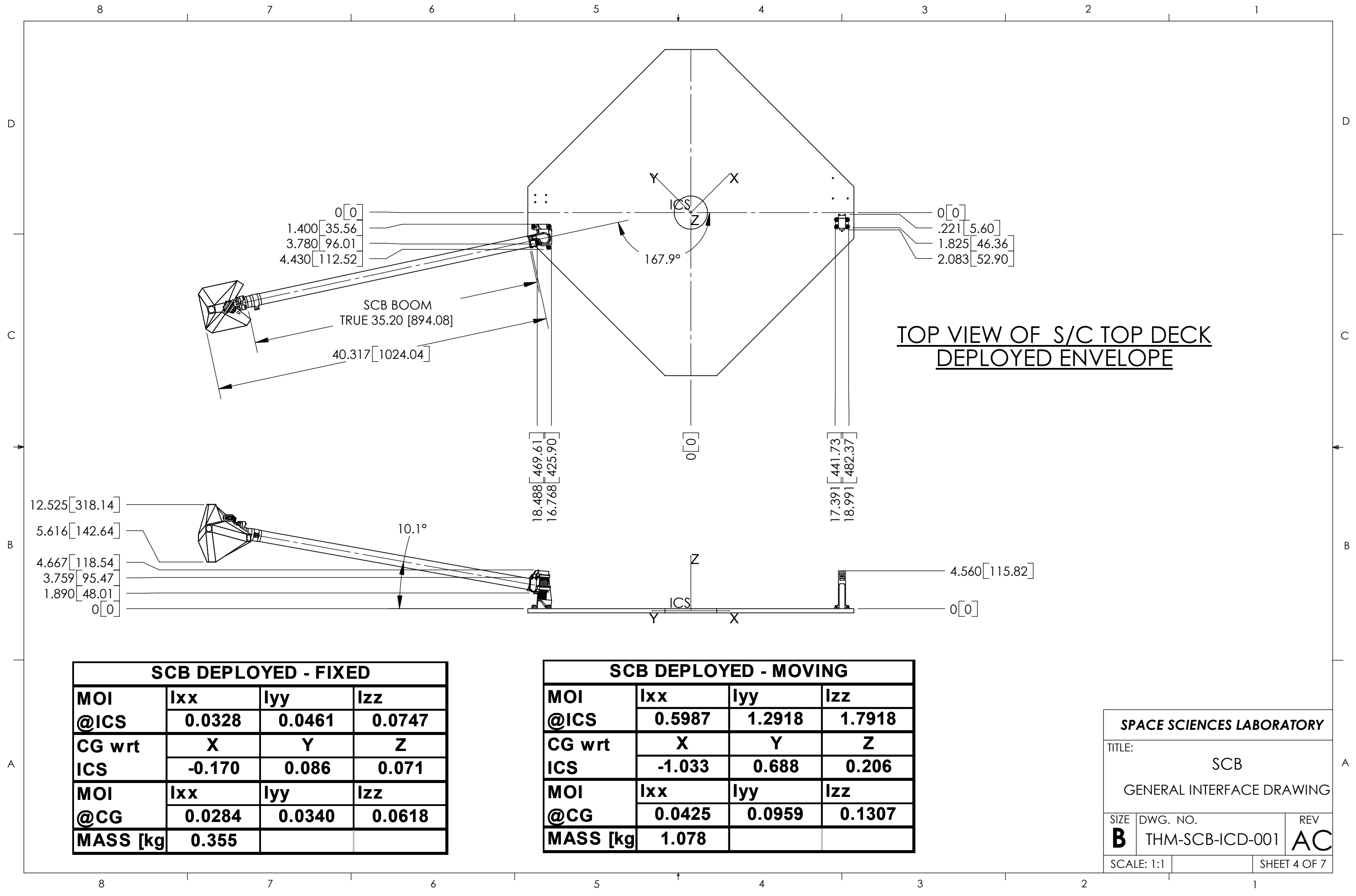
SPACE SCIENCES LABORATORY		
TITLE: SCB GENERAL INTERFACE DRAWING		
SIZE B	DWG. NO. THM-SCB-ICD-001	REV AC
SCALE: 1:1		SHEET 2 OF 7

TOP VIEW OF S/C TOP DECK
STOWED ENVELOPE

SCB STOWED			
MOI @ICS	lxx	lyy	lzz
	0.2060	0.1613	0.3418
CG wrt ICS	X	Y	Z
	0.099	-0.203	0.090
MOI @CG	lxx	lyy	lzz
	0.1354	0.1357	0.2689
MASS [kg]	1.433		



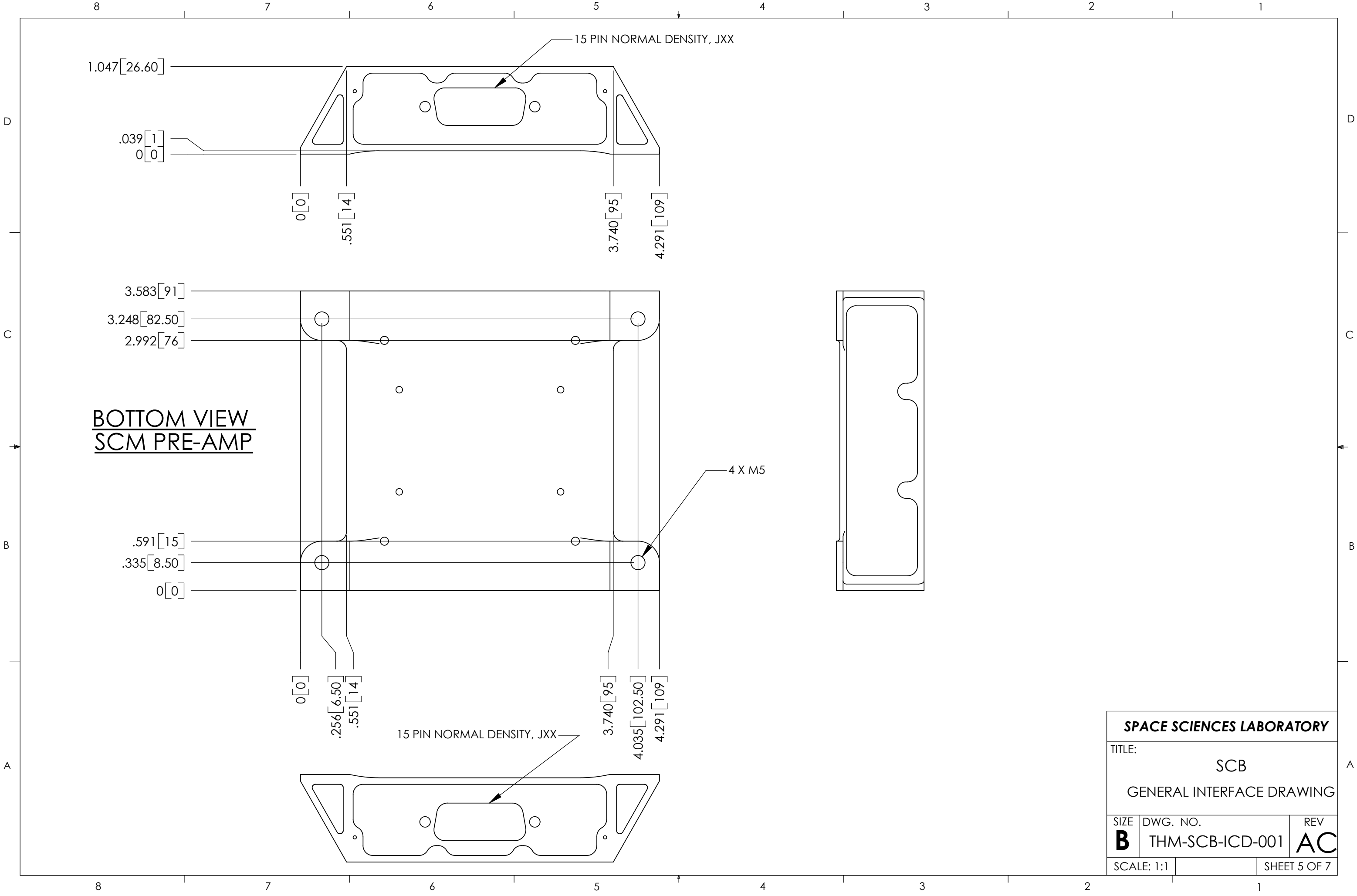
SPACE SCIENCES LABORATORY		
TITLE:		
SCB		
GENERAL INTERFACE DRAWING		
SIZE	DWG. NO.	REV
B	THM-SCB-ICD-001	AC
SCALE: 1:1		SHEET 3 OF 7

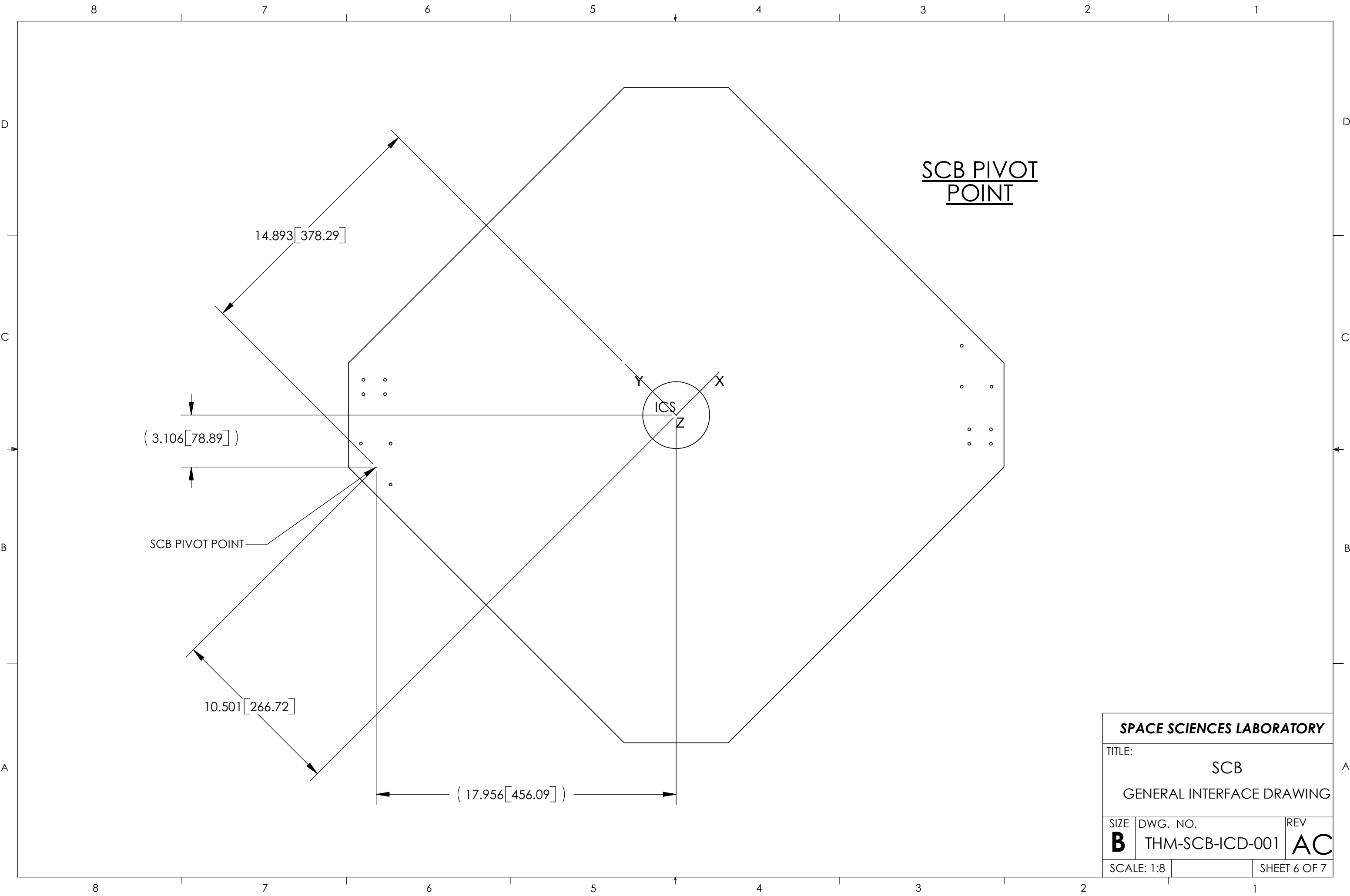


SCB DEPLOYED - FIXED			
MOI	lxx	lyy	lzz
@ICS	0.0328	0.0461	0.0747
CG wrt	X	Y	Z
ICS	-0.170	0.086	0.071
MOI	lxx	lyy	lzz
@CG	0.0284	0.0340	0.0618
MASS [kg]	0.355		

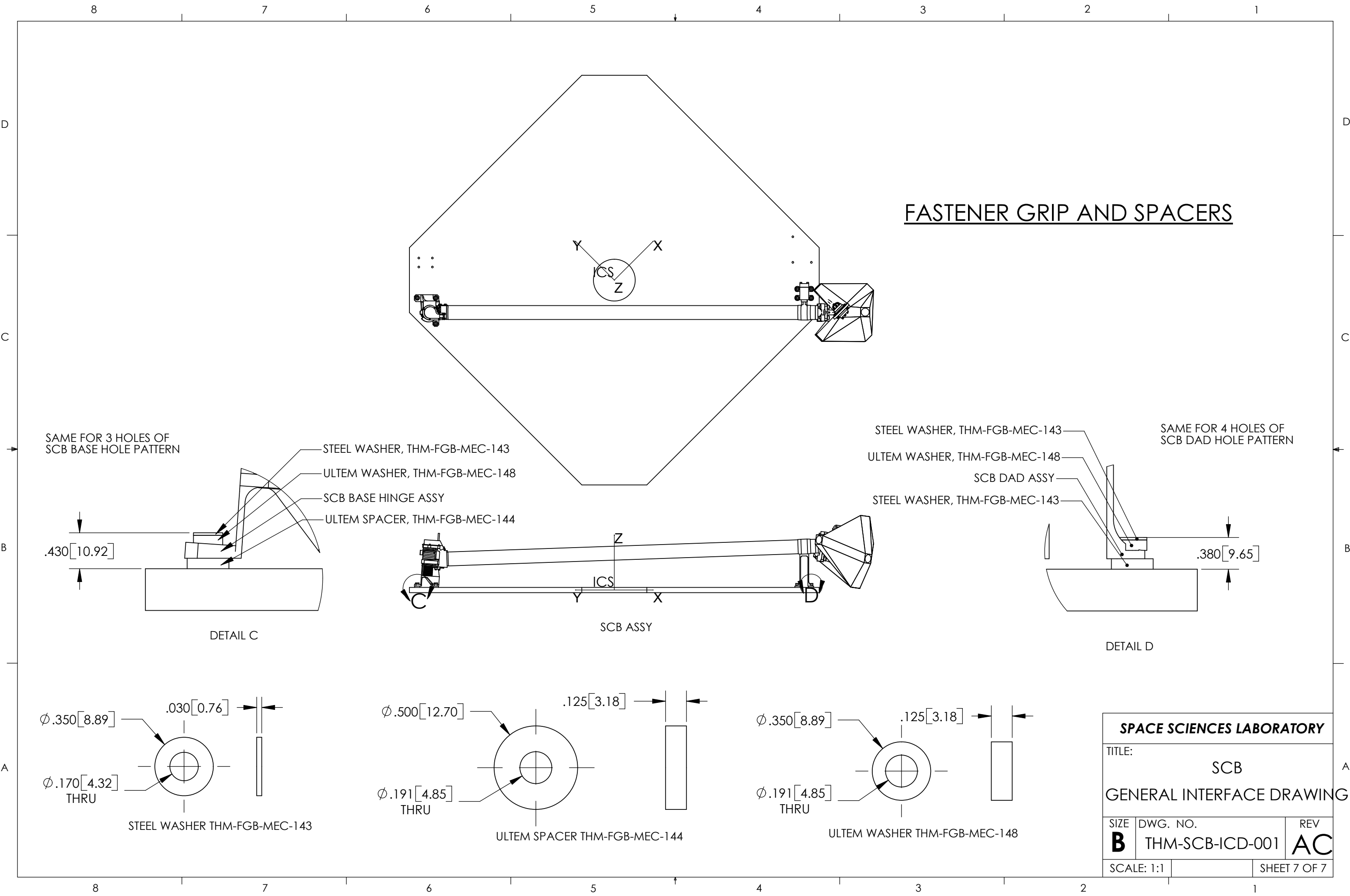
SCB DEPLOYED - MOVING			
MOI	lxx	lyy	lzz
@ICS	0.5987	1.2918	1.7918
CG wrt	X	Y	Z
ICS	-1.033	0.688	0.206
MOI	lxx	lyy	lzz
@CG	0.0425	0.0959	0.1307
MASS [kg]	1.078		

SPACE SCIENCES LABORATORY		
TITLE:		
SCB		
GENERAL INTERFACE DRAWING		
SIZE	DWG. NO.	REV
B	THM-SCB-ICD-001	AC
SCALE: 1:1		SHEET 4 OF 7





SPACE SCIENCES LABORATORY			
TITLE: SCB GENERAL INTERFACE DRAWING			
SIZE B	DWG. NO. THM-SCB-ICD-001	REV AC	
SCALE: 1:8		SHEET 6 OF 7	



SPACE SCIENCES LABORATORY		
TITLE: SCB		
GENERAL INTERFACE DRAWING		
SIZE	DWG. NO.	REV
B	THM-SCB-ICD-001	AC
SCALE: 1:1		SHEET 7 OF 7