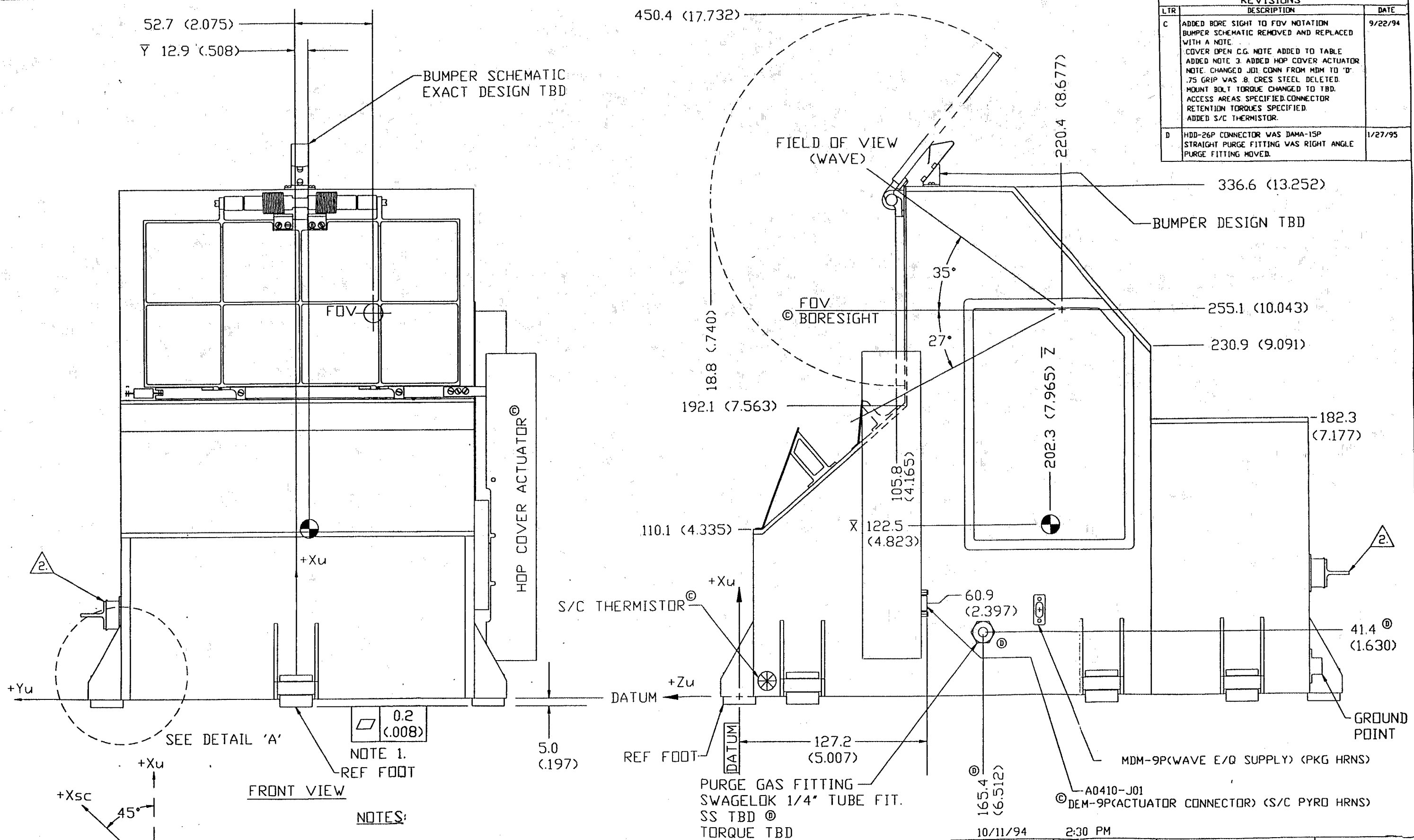


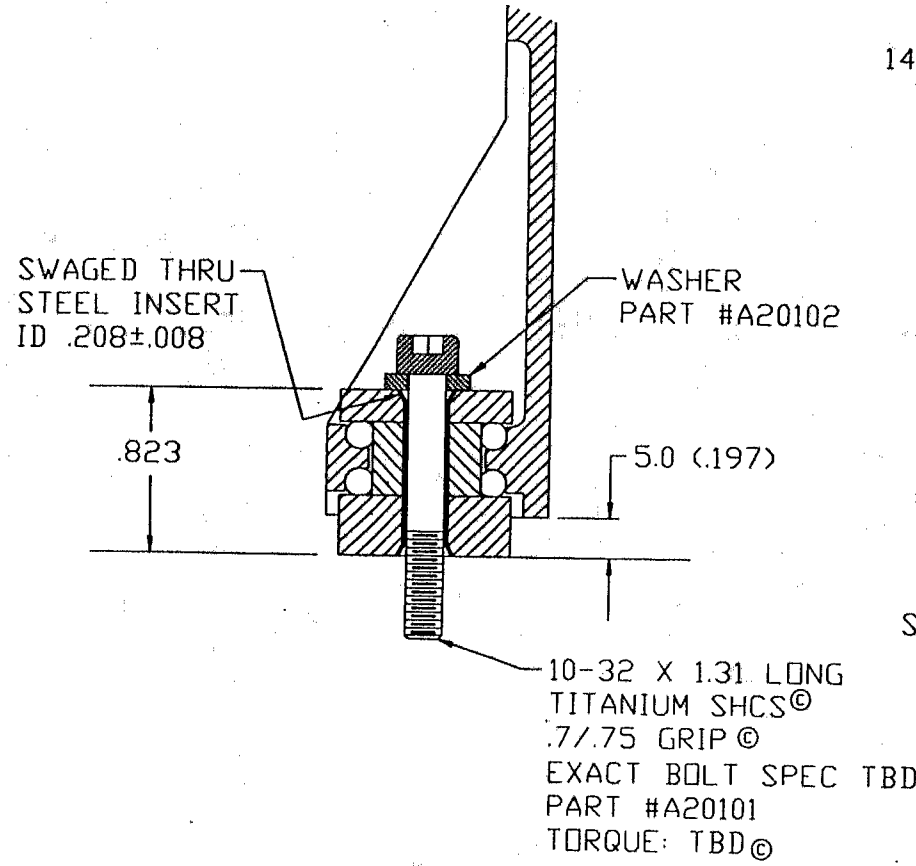
REVISIONS		
LTR	DESCRIPTION	DATE
C	ADDED BORE SIGHT TO FOV NOTATION BUMPER SCHEMATIC REMOVED AND REPLACED WITH A NOTE. COVER OPEN C.G. NOTE ADDED TO TABLE ADDED NOTE 3. ADDED HOP COVER ACTUATOR NOTE. CHANGED J01 CONN FROM MDM TO 'D'. .75 GRIP WAS .8. CRES STEEL DELETED. MOUNT BOLT TORQUE CHANGED TO TBD. ACCESS AREAS SPECIFIED. CONNECTOR RETENTION TORQUES SPECIFIED. ADDED S/C THERMISTOR.	9/22/94
D	HDD-26P CONNECTOR WAS DAMA-15P STRAIGHT PURGE FITTING WAS RIGHT ANGLE PURGE FITTING MOVED.	1/27/95



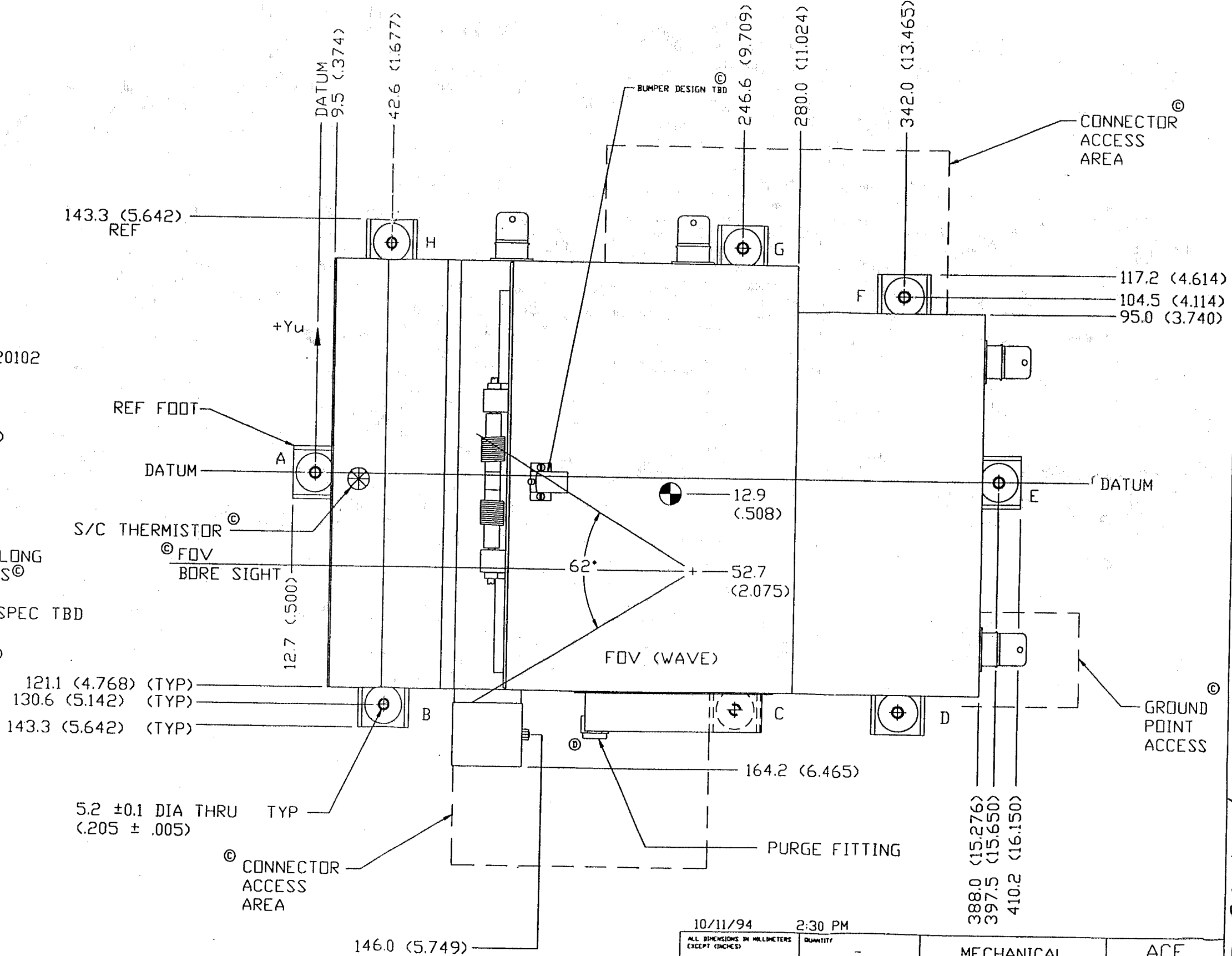
- NOTES:
1. MOUNTING FEET WILL CONFORM TO PLM SURFACE DUE TO COMPLIANCE OF O-RING ISOLATOR MOUNTS.
 2. RED TAG ITEM. MUST BE REMOVED BEFORE LAUNCH.
4 RED VENT PLUGS
1 RED HV SAFE PLUG (REPLACE WITH GREEN PROTECTIVE CONN. COVER)
 3. FRAGILE THERMAL SURFACES. FOR THERMAL CONTROL

ALL DIMENSIONS IN MILLIMETERS	DATE	10/11/94	TIME	2:30 PM
TOLERANCES (UNLESS NOTED)	QUANTITY	-	MECHANICAL INTERFACE DRAWING	
DECIMALS: .01	MATERIAL	-	ACE SWIMS	
FRACTIONS: 1/16, 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8	SPECIFICATION	-	REVISION	D
ANGLES: ±0°30'	FINISH	-	SCALE	1/2.5
DRAWN BY	WEIGHT	-	REV. SIZE	B
RS/DWB/RTC			SHEET	1 of 3
DATE			DRAWING NUMBER	A200001
			UNIVERSITY OF MARYLAND	
			DEPARTMENT OF PHYSICS	
			COLLEGE PARK, MARYLAND 20742	
			JOHN CAIN	PHONE: (301)405-6213

7345-9016 AZ



DETAIL 'A'
SCALE 1:1



TOP VIEW

10/11/94 2:30 PM		MECHANICAL INTERFACE DRAWING		ACE SWIMS	
ALL DIMENSIONS IN MILLIMETERS EXCEPT (INCHES)	QUANTITY	UNIVERSITY OF MARYLAND DEPARTMENT OF PHYSICS COLLEGE PARK, MARYLAND 20742		REVISION	NEXT ASSEMBLY
TOLERANCES (UNLESS NOTED)	MATERIAL			D	
DECIMALS .x ±.01	SPECIFICATION			SCALE	FIG SIZE
XX ±0.05	FINISH			1/2.5	B
ANGLES ±0°30'				SHEET	2 of 3
DRAWN BY RS/DWB/RTC					

7345-9016 A3

© BUMPER DESIGN TBD

UV REFLECTORS
USED ON SOHO
MAY BE MODIFIED
OR DELETED FOR
ACE SWIMS

A0410-J03
MDM-15P (HV SAFE PLUG)
RED TAG ITEM
REPLACE WITH GREEN
TAG COVER FOR FLIGHT
TORQUE
32/40 IN OZ Δ

RED TAG ITEM
VENT AREA
(4 PL) Δ

GROUND POINT
8X32 SCREW

ADVIS
ACE SWIMS
PER ASSEMBLY
OR NOT
PART OF MOUNTING
SPACE PROVIDED

17.5 (.690)

96.6 (3.804)

REAR VIEW

12.4 (.488)

DATUM

14.3 (.563)

A0410-J04
MDM-25P
(DATA)
S/C
HARNESS
TORQUE
32/40 IN OZ

304.8 (12.000)

A0410-J02
HDD-26P ©
(POWER)
S/C
HARNESS
TORQUE
48/64 IN OZ

208.9 (8.224)

REF FOOT

DATUM

RIGHT SIDE VIEW

	MASS (Incl. thermal items)		CENTER of MASS			MOMENTS of INERTIA			UNITS
	UNITS		\bar{X}	\bar{Y}	\bar{Z}	I_x	I_y	I_z	
ACE/SWIMS	grams	8250	122.5	12.9	202.3	.087	.105	.073	kg m ²
	lb	18.19	4.823	.508	7.965	.0642	.0775	.0538	lb ft sec ²
			4.873	.508	7.952 ©				
			(COVER CLOSED)						
			(COVER OPEN)						

10/11/94 2:30 PM

ALL DIMENSIONS IN MILLIMETERS EXCEPT (INCHES)	QUANTITY	-
TOLERANCES (UNLESS NOTED)	MATERIAL	-
DECIMALS: x ±0.1 xx ±0.05	SPECIFICATION	-
ANGLES: ±0°30'	FINISH	-
DRAWN BY RS/DWB/RTC	WEIGHT	-
DATE 15 MAR 94		

MECHANICAL INTERFACE DRAWING	
UNIVERSITY of MARYLAND DEPARTMENT of PHYSICS COLLEGE PARK, MARYLAND 20742	
JOHN CAIN DWB/CATC	PHONE: (301)405-6213 FAX: (301)214-0547

ACE SWIMS	
REVISION D	NEXT ASSEMBLY -
SCALE 1/2.5	SHEET B 3 of 3
DRAWING NUMBER A30001	

7345-9016 A4

- SWIMS PARTICULARS:**
- GROUNDING:**
 - SWIMS SECONDARIES ARE TIED TO CHASSIS.
 - SWIMS IS THERMALLY ISOLATED FROM PANEL.
 - TEMPERATURE OPERATIONS:**

ELECTRONICS & PS

DESIGN	SURVIVAL
IN SPEC. OPER.	23°C to +55°C
23°C to +30°C	23°C to +60°C
MCP VMAS5,HP	
DESIGN	SURVIVAL
IN SPEC. OPER.	20°C to +40°C
20°C to +40°C	25°C to +40°C

POWER PROFILE:

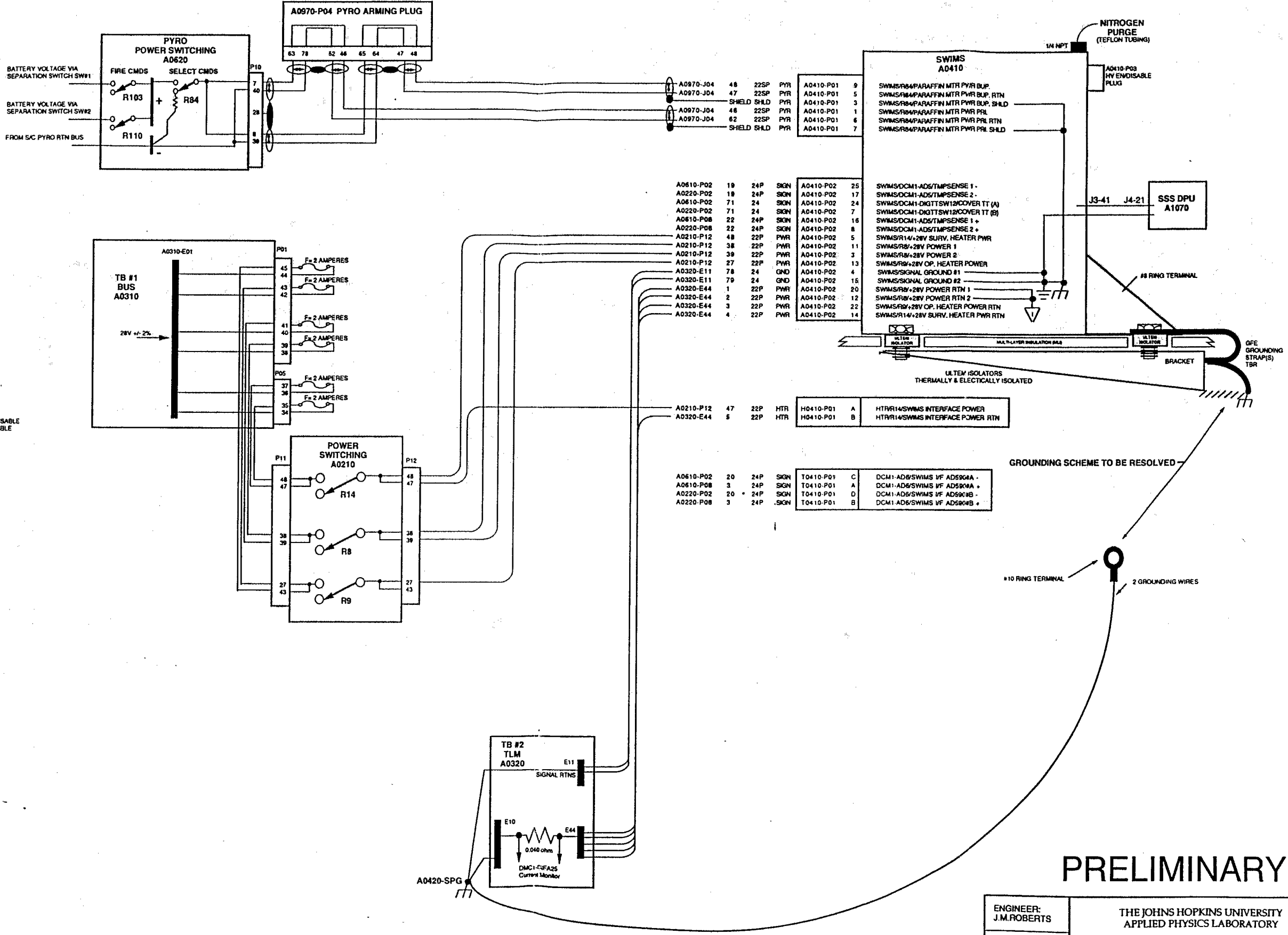
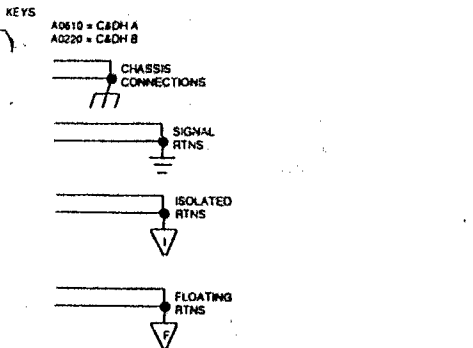
 - 6.34W NOMINAL POWER
 - 8.84W PERIODS OF HIGH SOLAR ACTIVITY
 - 9.34W PERIODS OF SUPPLEMENTAL HEATING TO OPEN DOOR
 - 10W (2.5W OP HEATER, 6.5W SURVIVAL HEATER)
 - HANDLING:**
 - OUTGAS IN VACUUM (10⁻⁵ TORR) FOR 3000 HOURS BEFORE OPERATING HIGH VOLTAGE.
 - REQUIRES HUMIDITY & TEMPERATURE CONTROLS TO PREVENT CONDENSATION.
 - ACCESS REQUIREMENTS:**
 - ASSESS REQUIRED FOR DISABLE PLUG
 - RADIATION SOURCES:**
 - NONE
 - CLEANING AGENT:**
 - ISOPROPYL ALCOHOL IS AN APPROVED CLEANING AGENT ON AND NEAR THE INSTRUMENT.
 - USE OF VOLATILE CHEMICALS NEARBY MUST BE RESTRICTED.
 - GREEN & RED TAGGED ITEMS:**
 - GREEN: A0410-P03/HV ENDSISABLE PLUG, INSTALL PRIOR TO LAUNCH
 - RED: A0410-P03/HV FULL DISABLE PLUG
 - RELEASE MECHANISM:**
 - USES PARAFFIN LINEAR MOTOR DEVICE TO RELEASE AN APERTURE COVER. OPERATION TIME APPROXIMATELY 5 MINUTES.
 - PURGE REQUIREMENTS:**
 - NITROGEN PURGE REQUIRED UNTIL LAUNCH.
 - USE NITROGEN SPECIFIED AS MAX. 3.0 PSI PRESSURE.
 - LEAKS IN LINE RESTRICTOR WILL REDUCE NITROGEN FLOW RATE TO 0.50 L/min/hr.
 - HIGH VOLTAGE EXTREME OF T807777V.**
 - THE SWIMS DATA IS COLLECTED AND OUTPUTTED BY THE SSS DPU**

- C & DH ALLOCATIONS:**
- INSTRUMENT DATA - 512 BITS/SEC. OF THE SSS DPU 1824 BIT/SEC**
 - TLM DATA:**

DCM1-S03	= SSS DPU SCIENCE DATA
DCM2-SEAS3MM_BUS_V	= 28V MAIN BUS VOLTAGE
DCM1-DFAZ29/S30PU_CONV_SEC_I	= SSS DPU POWER CURRENT
DCM1-AD5/SWIMS_INT_T	= INTERNAL TEMP
DCM1-AD6/SWIMS_IF_T	= IF TEMP
DCM1-DFAZ25/SWIMS_OP_HTR_I	= INPUT & HEATER CURRENTS
DCM1-DGTT5W12/SWIMS_COVER	= COVER TELLTALE
DCM1-S05/7/SWIMS_PWR	= CMD R8AB TELLTALE
DCM1-S05/8/SWIMS_OP_HTR	= CMD R14AB TELLTALE
DCM1-S05/13/SWIMS_IF_S_HTR	= CMD R14AB TELLTALE
DCM1-S05/71/SWIMS_PYRO	= CMD R8AB TELLTALE
DCM1-S05/13/MAIN_PYRO	= CMD R123AB TELLTALE
DCM1-S05/88/6K_PYRO	= CMD R110AB TELLTALE

- COMMANDS:**

CMD R8AB(SWIMS_PWR_ON/OFF)	= SWIMS TURN ON/OFF
CMD R8AB(SWIMS_OP_HTR_ENA/DIS)	= SWIMS INTERNAL/OP. HEATER ENA/DISABLE
CMD R14AB(SWIMS_IF_SHTREN/DIS)	= SWIMS IF & SURVIVAL HTR ENA/DISABLE
CMD R8AB(SWIMS_PYRO_ENA/DIS)	= SWIMS PYROTECHNICS ARM
CMD R103A(B/MAIN_PYRO_FIRE/SAFE)	= PYRO FIRE PRI
CMD R110A(BK_PYRO_FIRE/SAFE)	= PYRO FIRE RED.



PRELIMINARY

ENGINEER: J.M.ROBERTS	THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY	
TITLE:	ACE BLOCK DIAGRAM (SWIMS)	
SIZE:	CODE IDENT NO:	DOCUMENT NUMBER:
B	88898	7345 - 2218
FILE:		

7345-9016 A5