

800-TP-010-001

NSIDC Release B0 Installation Plan

Technical Paper - Not intended for formal review or Government approval.

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Prepared Under Contract NAS5-60000

RESPONSIBLE ENGINEER

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Abstract

This installation plan describes the activities and schedules associated with the installation of ECS Release B first procurement hardware and software. The plan is published to document the agreement between the NSIDC DAAC, and ECS, specifying to the NSIDC personnel and the ECS installation team the requirements, coordination, and preparation needed to ensure the equipment and software installation is accomplished on schedule and with the least possible disruption to ongoing DAAC site operations. The plan contains a description of the activities, schedule, planned LAN configuration, hardware configurations, and planned equipment layouts.

Keywords: Installation, Configuration, Equipment, Floor Plan, NSIDC LAN, Planning, Procedures.

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Abbreviations and Acronyms

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1. Introduction

1.1 Purpose

This plan describes the activities and schedules associated with the installation of ECS Release B first procurement hardware and software. The plan is published to document the agreement between the NSIDC DAAC and ECS, specifying to the NSIDC DAAC personnel and the ECS installation team the requirements, coordination, and preparation needed to ensure the equipment and software installation is accomplished on schedule and with the least possible disruption to ongoing DAAC site operations. The plan contains a description of the activities, installation schedule, planned LAN configuration, hardware configurations, and planned equipment layouts. This plan also reflects consideration of major impacts to NSIDC in later Release B procurements through Release D as to planning the placement of equipment in the NSIDC DAAC.

1.2 Scope

This plan applies the information obtained from a site surveys conducted in February 1996, September 1996 and in April 1997. The plan describes the activities for the installation of the Release BO, Test Bed and Sun Platform Replacement hardware. It does not address the total Release B requirements that were presented in the Release B NSIDC Facilities Plan for the ECS Project dated May 1994. That document provided the requirements for space, power, air conditioning and the necessary working environments for equipment and people for the entire Release B hardware that was known at that particular time. Separate Installation Plans will be written at later dates to cover the installation of equipment for later Release B procurements.

1.3 References

423-41-01	ECS Statement of Work, February 16, 1993
193-003-C04-001	ECS Government Furnished Property, September 1993
193-501-PA1-001	Performance Assurance Implementation Plan for the ECS Project
194-302-DV2-001	ECS Facilities Plan for the ECS Project
194-602-OP1-001	Property Management Plan for the ECS Project, July 1994
302-CD-005-001	Release B Facility Plan, May 1996
305-CD-033-002	Release B NSIDC DAAC Design Specification
402-CD-003-001	Release B System & Segment Integration & Test Plan
409-CD-002-001	ECS Overall Acceptance Test Plan
440-TP-007-001	Production Platform Families for the ECS Project, May 1995

604-CD-001-004	Operations Concept for the ECS Project
604-CD-002-003	ECS Operations Concept for the ECS Project: Part 2B-ECS Release B, March 1996
605-CD-001-001	Release B SDPS/CSMS Operations Scenarios
607-CD-001-002	ECS Maintenance and Operations Position Descriptions
608-CD-001-002	Operation Plan for Release B
800-WP-001-001	Facilities Plan for Ir1 and Release B first procurement for the ECS Project, March 1995

1.4 Organization

This paper is organized as follows:

Section 1 provides the purpose, scope, references, organization, and review /approval.

Section 2 provides the schedule and preparation required for the installation.

Section 3 describes the installation activities along with site unique information such as the DAAC Location, Equipment Configurations, Equipment Specifications, Installation Support Requirements, Floor Plans, and LAN Connectivity.

1.5 Review and Approval

This Technical Paper is an informal document approved at the Office Manager level. It serves the function of interface control and documents the agreement between ECS and the NSIDC DAAC. It requires formal DAAC review and approval. Questions regarding information contained within this paper should be addressed to Timothy E. Wells, ECS Facilities and Hardware Planner, (301) 883-4021, twells@eos.hitc.com

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Ronald Weaver /s/ 4/22/97

Ron Weaver, DAAC Manager's Approval Signature and Date.

Thomas W. Jaeger 4/11/97

Tom Jaeger, ECS ILS Manager's Approval Signature and Date.

2. Installation Schedule

2.1 Release B0 Installation Schedule

Release B0 installation activities will be accomplished at the NSIDC site according to the schedule shown in Table 2.1-1. Release B0 Installation Schedule. Similar schedules will be prepared for each of the other three Release B procurements and the Release C and D procurements.

Table 2.1-1. Release B0 Installation Schedule

DESCRIPTION	DUR	START	END
Conduct Site Survey	3d	09/26/96	09/27/96
Create Installation Plan	10d	03/14/97	03/31/97
Send To NSIDC for Review	1d	04/08/97	04/09/97
NSIDC Review	5d	04/10/97	04/16/97
Send To ECS (Upper Marlboro, MD)	1d	04/16/97	04/17/97
Finalize Installation Plan	3d	04/17/97	04/21/97
Deliver Installation Plan	4d	04/22/97	04/25/97
NSIDC To Prepare Site	100d	03/14/97	05/10/97
Installation of Release B LAN	6d	05/10/97	05/26/97
Install Release B0 NSIDC DAAC Equipment	30d	05/10/97	06/6/97
Configure COTS Software	30d	07/01/97**	07/30/97
Integration and Testing	31d	08/01/97**	08/31/97
Acceptance Testing	31d	09/01/97**	09/30/97

** Dates are tentative and subject to Release B replanning which is ongoing at the time of this publication.

2.2 Installation Hours

This installation will be performed during the DAAC's normal working hours. Although not expected, if installation activities must extend beyond normal work hours, the team leader will coordinate with the ECS DAAC SE liaison for after-hours access to the facility.

The team leader will keep the ECS DAAC SE liaison informed of work to be performed and report progress at the end of each day. ECS DAAC SE liaisons should keep the DAAC manager informed, as appropriate. If the team leader expects the installation to fall behind schedule, he will inform the ECS DAAC SE liaison and the ECS ILS Manager.

2.3 Host Facility Preparation

Host facility requirements for the Release B first procurement installation were addressed with the DAAC Managers during site surveys conducted in February 1996. Considering the surveys and prior detailed installation planning, host facilities are requested to provide the following in support of the Release B first procurement installation:

- Computer floor and office space for the Release B first procurement equipment and personnel;
- UPS, conditioned power, heating, and air conditioning;
- Storage for technical documentation, master copies of COTS SW, and consumables;
- Materials handling equipment;
- Physical security (reference Facilities Plan for Ir1 and Release B first procurement White Paper, Ssection 2.5.1, Page 2-5).

2.4 Host Facility Material Moving Equipment Support

The following material moving equipment will be required to assist with the installation of equipment:

- Tile pullers
- Pallet jack
- Hand cart
- Large waste dumpster to dispose of packing materials

3. Installation Activities

3.1 Installation Team Composition

The Release B First Procurement installation team will be composed of the following personnel:

- Team Leader -- Bob Byrnes
- Communications Engineer -- Gary Lampkin
- Installation Engineers -- Levi Tippin, Greg Bynum, Chris Carson
- Software Engineers -- Craig Johnson, Ron Parham, Inger Walker and Mike Lynch
- Silicon Graphics Installation Personnel (quantity and names to be determined)
- StorageTek Installation Personnel (quantity and names to be determined)

There are currently no requirements envisioned for members of the NSIDC DAAC staff to assist in the installation of hardware with the exception of the NSIDC DAAC SE liaison and the facility's network engineer. Their responsibilities are noted in other paragraphs in this document.

3.2 Installation Team Responsibilities

Following are ECS installation team member functions:

- Team Leader(TL) - Manages and coordinates installation activities and resources to ensure successful completion of the installation on schedule. The team leader will keep the DAAC management informed (through the ECS DAAC SE liaison) of the installation progress.
- Communications Engineer--Installs the LAN cables and provides connectivity of the Release B first procurement equipment. This includes labeling, installing, and testing the cables and coordinating connection to the LAN. The communication engineer works with the network administrator to ensure device names are in the domain name server and that all the IP addresses are active. At the completion of the installation he will verify connectivity to the EDF and coordinate activation of the DCE cells.
- Installation Engineers -- Responsible for the installation of computers, peripherals, system configuration, and unit and integration testing. They will install the devices in the locations specified in the floor plan developed by the ECS team and approved by the DAAC manager.
- Software Engineers -- Responsible for the installation of operating systems for the computers that are being installed.

- ECS SE DAAC Liaison -- Will coordinate all activities between the DAAC Manager and the Installation Team Leader.
- Vendor Engineers -- Silicon Graphics technicians will install the SGI equipment and software under supervision of the ECS installation team leader. Names of vendor installation personnel will be furnished to the ECS DAAC SE liaison prior to the installation date. ECS DAAC SE liaisons should coordinate with local security personnel for team access to the site and/or facility.
- Vendor Engineers – StorageTek technicians will install the StorageTek equipment and software under supervision of the ECS installation team leader. This installation will take place in May. Names of vendor installation personnel will be furnished to the ECS DAAC SE liaison prior to the installation date. ECS DAAC SE liaisons should coordinate with local security personnel for team access to the site and/or facility.

3.3 HW/SW Installation

The installation team will arrive at the DAAC facility at 8:30 AM on the scheduled installation date. Their initial activity will consist of an inbrief to and coordination of schedule with the ECS DAAC SE liaison.

3.3.1 LAN

Local network cables, both fiber optic and Ethernet, will be the first cables to be installed. ECS will install cables in the raised floor computer room. The installation of cables outside these areas will be the responsibility of the NSIDC DAAC. The facility's Campus Infrastructure network engineer should be available to brief the team on any specifics for the installation of cable within the NSIDC DAAC, i.e., location of communication closets, patch panels, cable troughs and any cabling restrictions within the NSIDC DAAC. It is estimated that a total of approximately three hours of time will be required of the NSIDC facility's network engineer. The installation of EBNet will be coordinated with the NSIDC DAAC through ESDIS and the EBNet contractor. Once EBNet is installed, it will enable the NSIDC DAAC to communicate with all of the other DAACs that are part of ECS project.

3.3.2 Installation of SGI Processors, and StorageTek Powderhorn

The SGI equipment and the EMASS Automated Media Library will be installed by factory trained technicians. The StorageTek Powderhorn Automated Cartridge System will be installed by StorageTek factory trained technicians. The vendors activity at the site will be coordinated and supervised by the ECS installation team leader.

3.3.3 Unit and Integration Testing

Equipment and operating system software will be installed, configured, and tested by the ECS installation team for proper operation and integration with the network and associated peripherals. This preliminary testing is to ensure that the hardware is networked properly and that the hardware is operable. Later testing by ECS Integration and Test personnel will be

conducted under the guidelines of 402-CD-003-001 Release B Systems and Segment Integration and Test Plan and 409-CD-002-001 ECS Overall Acceptance Test Plan.

3.3.4 Network Test to Upper Marlboro, MD. (EDF)

When the installation is finished, connectivity through the EBNet Router to the EDF in Upper Marlboro, MD will be verified by the ECS ILS installation team.

3.3.5 Equipment Identification

Each piece of hardware that is installed in the NSIDC DAAC will have a NASA\ECS Project bar-coded equipment sticker attached to it in a visually noticeable location. ECS accounts for all hardware with the assistance of NSIDC DAAC personnel. See 194-602-OP1-001 paragraph 3.5.4 for further details.

3.4 Equipment Location Address

The address where the equipment will be installed is :

National Snow and Ice Data Center (NSIDC)

1540 30th St, Res. Lab#2

University of Colorado

Boulder, CO 80309

3.5 Cleanup

The installation team will remove waste material from the installation site daily. All shipping containers and packing materials will be disposed of in the dumpster at the loading dock. The DAAC should provide means for its disposal.

3.6 Team Departure

The installation team will depart the site once unit and integration tests of the installed hardware has been finished and it has been verified that the equipment is operational, and properly configured. The ECS DAAC SE liaison will then be asked to sign for the installed equipment, operating system software and documentation.

3.7 NSIDC Equipment Configurations

Figure 3.7-1 identifies the Release B first procurement hardware to be installed at the NSIDC DAAC. Figure 3.7-2 identifies the Release B Testbed hardware to be installed at the NSIDC DAAC. The drawings summarize the hardware and software configuration for each subsystem.

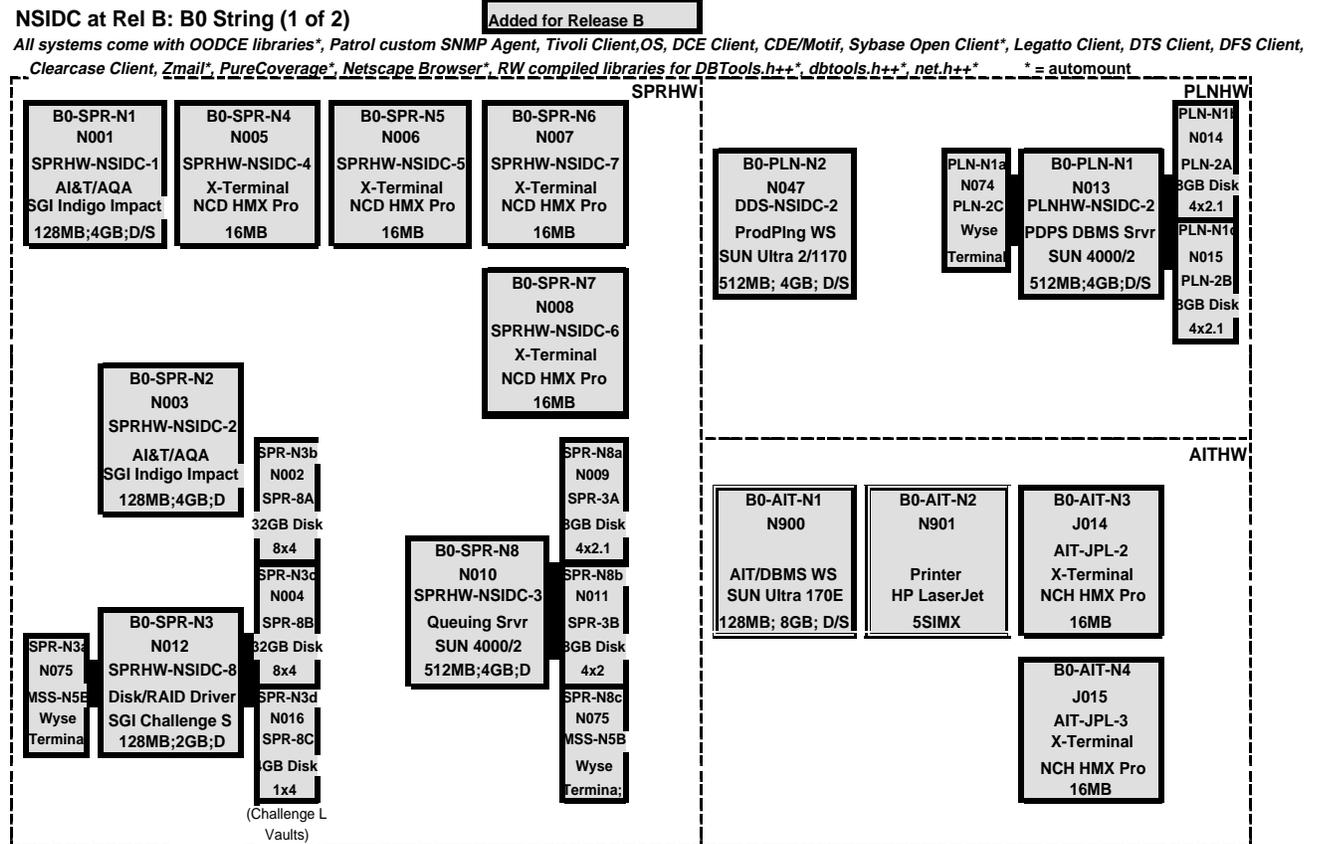


Figure 3.7-1. NSIDC Release B0 Configuration (1 of 3)

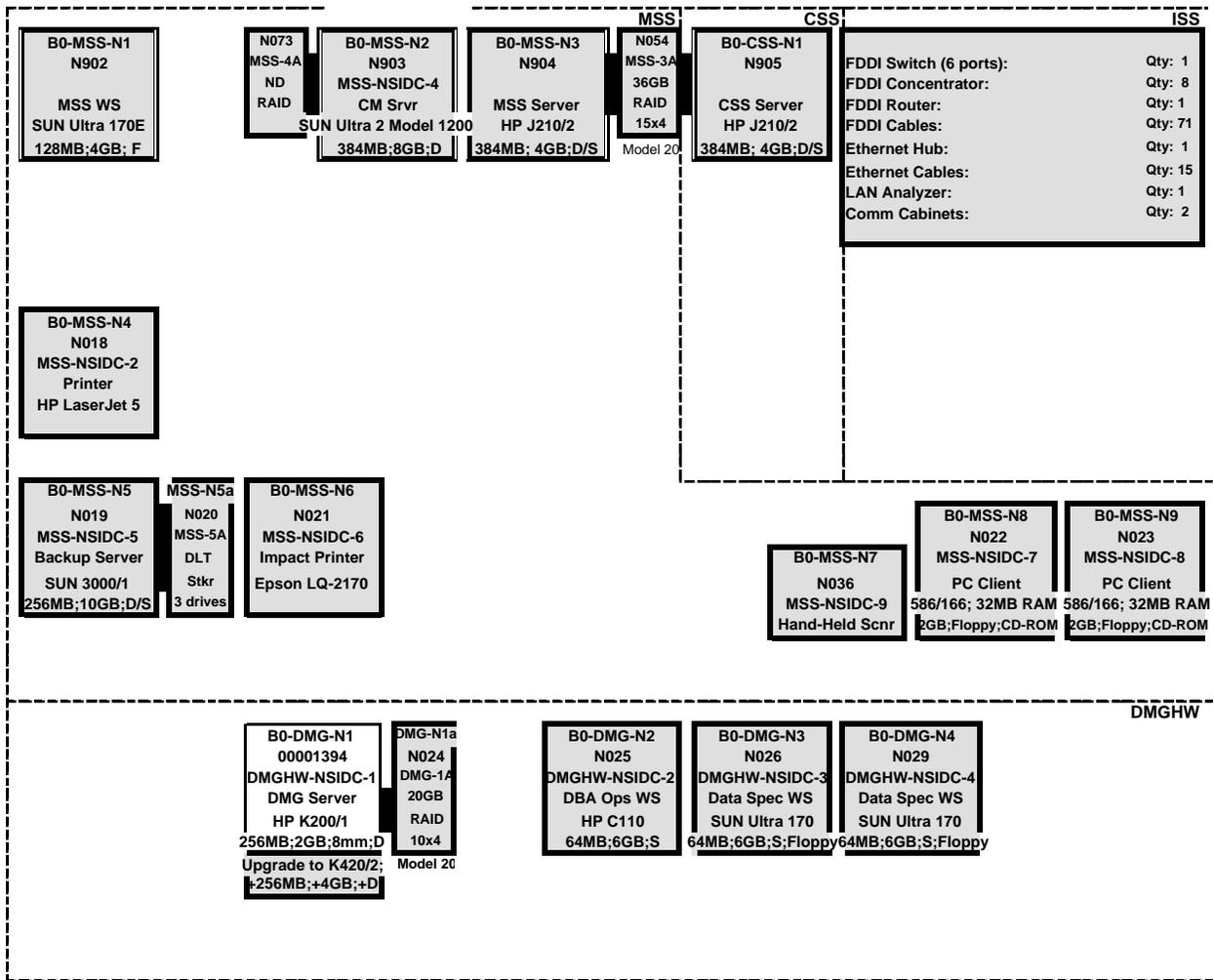
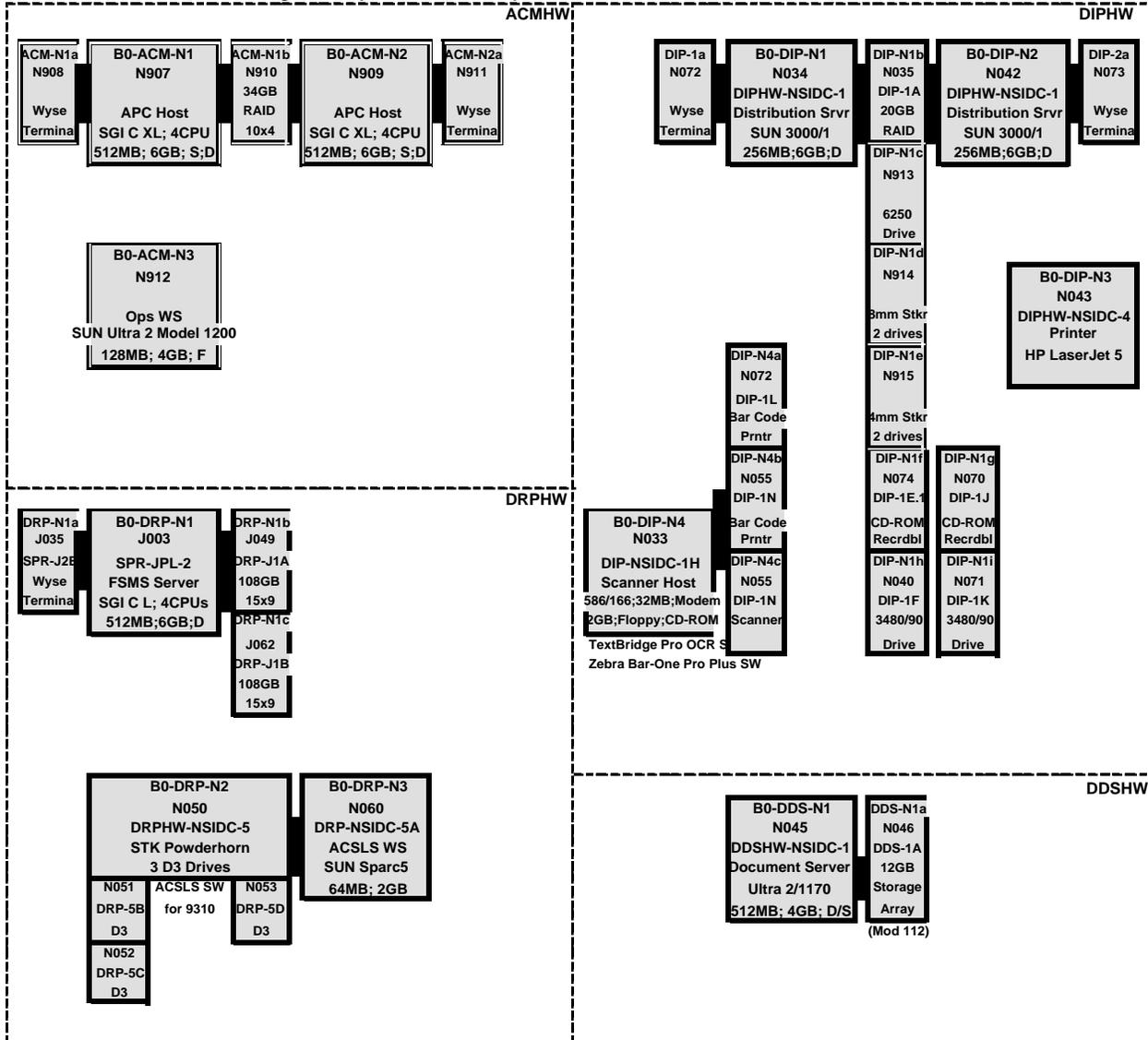


Figure 3.7-1. NSIDC Release B0 Configuration (2 of 3)

NSIDC at Rel B: B0 String (2 of 2)

Added for Release B

All systems come with OODCE libraries*, Patrol custom SNMP Agent, Tivoli Client, OS, DCE Client, CDE/Motif, Sybase Open Client*, Legatto Client, DTS Client, DFS Client, Clearcase Client, Zmail*, PureCoverage*, Netscape Browser*, RW compiled libraries for DBTools.h++*, dbtools.h++*, net.h++* * = automount



No INS (ICLHW) hardware at Release B; Ingest functions handled by ACMHW hardware.

No WKS (WKSHW) hardware at Release B; Working Storage functions handled by DRPHW hardware.

Figure 3.7-1. NSIDC Release B0 Configuration (3 of 3)

Pre-Release B Testbed at NSIDC

Rel B Need

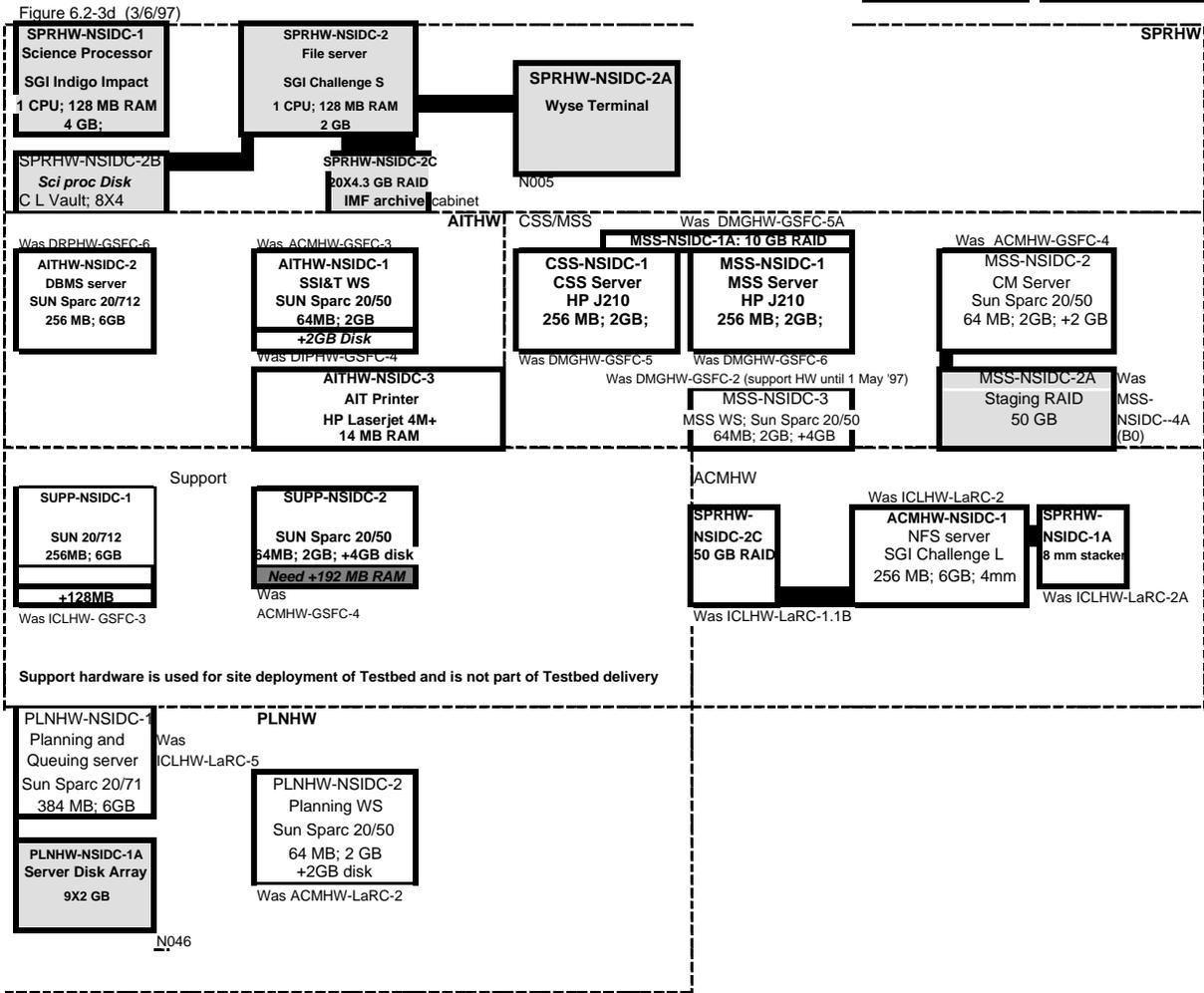


Figure 3.7-2. NSIDC Testbed Configuration

3.8 Installation Support Requirements

Table 3.8-1 identifies the support required from the host site to accomplish the NSIDC Release B first procurement installation.

Table 3.8-1. NSIDC Installation Support Requirements

Qty	Description	Code	Date Req'd
51	4" side cutouts in floor tiles	#	May 10, 1997
2	12" center cutouts in floor tiles	@	May 10, 1997
55	NEMA 5-20R Quad. Receptacles	1	May 10, 1997
9	NEMA L6-30R Receptacles	3	May 10, 1997
1	NEMA L6-20R	4	May 10, 1997
4	HUBBELL 320R6W Receptacles	5	May 10, 1997
13	Computer Table 60" x 30"	NA	May 10, 1997
3	Bookcase 3'W x 72"H 18"D (for technical documentation)	NA	May 10, 1997
5	3' wide x 2' deep x 6' high shelving or storage cabinets	NA	May 10, 1997
13	Chairs	NA	May 10, 1997

3.9 Electrical Requirements, BTU Requirements, Dimensions, Weight and Power Requirements for Release B First Procurement Equipment

Table 3.9.1. Electrical, BTU, Dimensions, Weight and Power Requirements

ID CODE	MODEL	ITEM DESCRIPTION	VENDOR	Type Receptacle	BTUs/H R	Depth (In)	Width (In)	Height (In)	Weight (lbs)	Mfgr KVA	AC Volts	Ck Brk Rating	Phases
5	Spectra 4000/20	4mm Tp Dr	ECCS	NEMA 5-20R	1877.2	26	17	7	56	0.55	120	20	1
6	X680A	6250 Tape Drive	Sun	NEMA 5-20R	10239	27	19	10	60	3	120	20	1
7	210TW/8505S	Tape Stackler (8mm)	EXABYTE	NEMA 5-20R	682.6	22	10	22	78.5	0.2	120	20	1
12	Powderhorn	STK Library Storage/Control Unit	STK	HUBBELL 320R6W	14,240	132	156	93	14354	3.3	208	20	1
15	Vault L	Vault L Raid	Sun	NEMA 5-20R	1365.2	21	8	26	63	0.4	120	20	1
17	Digital Laser Tape Stackler	Timberwolf 9710	STK	NEMA 5-20R	1638.2	31	58	72	1060	0.48	120	20	1
23	2914-04	FDDI Concentrator	Bay Networks	NEMA 5-20R	1638.2	16	17	4	18	0.48	120	20	1
24	7310-00	FIDDI Switch Router	Alantec	NEMA 5-20R	7372.1	17	17	13	70	2.16	120	20	1
27	MICROMAC-22E	Ethernet Switch/Hub	Cabletron	NEMA 5-20R	1638.2	14	17	3	7	0.48	120	20	1
28	LAN Analyzer	LAN Analyzer	Network General	NEMA 5-20R	3071.7	8	17	10	32	0.9	120	20	1
29	Laserjet Printer	Laser Printer 12ppm	HP	NEMA 5-20R	3754.3	16	17	12	37	1.1	208	20	1
31	LQ 2170	Impact Printer	Epson	NEMA 5-20R	204.78	25	16	10	29	0.1	120	20	1
32	4490XT	Line Printer	Genicom	NEMA 5-20R	4436.9	25	29	48	320	1.3	120	20	1
33	COMM RACK	Comm. Rack 24"W/30"D/72"H RAID w/1-40GB	BRANCH	NEMA 5-20R	0	30	24	72	100	0	120	20	1
35	HP 9000 MOD 10	(W/2.1DR)	HP	NEMA 5-20R	3071.7	35	24	44	156	0.9	120	20	1
43	SPARCSTOR 214	RAID Expansion Rack	Sun	NEMA L6-30R	17065	39	30	56	867	5	208	30	1
50	PC XL 1-8 CPUs	Science Processor w/1-8 CPUs	SGI	NEMA L6-30R	14574	48	33	63	400	4.27	208	30	1
57	SUN SPARC 20/712	SUN SPARC 20/712	Sun	NEMA 5-20R	3071.7	20	19	22	107.3	0.9	120	20	1
58	HP 9000 J Series	HP 9000 J Series	HP	NEMA 5-20R	3686	20	11	18	92	1.08	120	20	1
59	HP 9000 K Series	HP 9000 K Series	HP	NEMA 5-20R	3754.3	24.1	17.3	25.24	150	1.1	120	20	1
62	Challenge L	SGI Challenge L	SGI	NEMA 5-20R	7508.6	32	21	26	160	2.2	120	20	1
65	SUN SPARC 20/50	SUN SPARC 20/50	Sun	NEMA 5-20R	3071.7	20	19	22	107.3	0.9	120	20	1
70	ULTRA 140 OR 170	ULTRA 140 OR 170	Sun	NEMA 5-20R	3071.7	20	19	22	107.3	0.9	120	20	1
72	C-100	C-100	HP	NEMA 5-20R	3071.7	20.5	11	21.46	47	0.9	120	20	1
77	HMX20	X-Terminal	NCD	NEMA 5-20R	682.6	20	19	22	80.9	0.2	120	20	1
81	DISK29 SUN	4.2 and 8.4 GB MULTI-DISK	SUN	NEMA 5-20R	682.6	10	11	5.7	17	0.2	120	20	1
86	Wyse Model 150	Wyse Terminal	Wyse	NEMA 5-20R	238.91	12	13	13	25	0.07	120	20	1
111	SPARCSTOR MOD-112	RAID ARRAY w/324GB (9DR)	Sun	NEMA 5-20R	9215.1	21	20	9	106	2.7	120	20	1
114	SUN ULTRA 2	SUN ULTRA 2	Sun	NEMA 5-20R	1365.2	18	18	25	116	0.4	120	20	1
115	SUN 3000	SUN 3000	Sun	NEMA 5-20R	3071.7	26	17	24	160	0.9	120	20	1
116	SUN 4000	SUN 4000	Sun	NEMA 5-20R	3071.7	22	20	14	150	0.9	120	20	1
119	SUN SPARC 5	SUN SPARC 5	Sun	NEMA 5-20R	1365.2	17	17	24	107	0.4	120	20	1
121	MICRON MPC P166	PC 586/166	MICRON	NEMA 5-20R	1877.2	16	7	16	25	0.55	120	20	1
123	COMM RACK 32"	COMM RACK 32"	GREAT LAKES	NEMA 5-20R	1365.2	32	29	72	250	0.4	120	20	1
126	SGI RAID CABINET	SGI RAID CABINET	SGI	NEMA L6-30R	3413	30	23	71	900	1	208	30	1
129	Challenge S	Challenge S	SGI	NEMA 5-20R	3413	16	14	25	16	1	120	20	1
130	Indiqo Impact	Indiqo Impact	SGI	NEMA 5-20R	4436.9	19	19	24	40	1.3	120	20	1
131	Stripe S-500	Barcode Printer	Zebra	NEMA 5-20R	4095.6	17	9	13	18	1.2	120	20	1
132	HP ScanJet 4si	Scanner	HP	NEMA 5-20R	3754.3	16	12	14	34	1.1	120	20	1
133	D-3 Drive Cabinet	D-3 Drive Cabinet	Redwood	HUBBELL 320R6W	2866.9	22	16	64	300	0.84	208	30	1
134	HP K400 Cabinet	HP K400 Cabinet	HP	NEMA 5-20R	3071.7	30	24	72	120	0.9	120	20	1
135	LMU	LMU	STK	HUBBELL 320R6W	6314.1	24	29	37	215	1.85	208	30	1
136	MARS UNIT	MARS UNIT	STK	NEMA 5-20R	1638.2	13	16	9	23	0.48	120	20	1
138	L490	TapeXpress	Overland	NEMA 5-20R	2730.4	25	17	7	60	0.8	120	20	1
139	CDE100II	CD-ROM	Yamaha	NEMA 5-20R	1023.9	13	7	3	7	0.3	120	20	1

3.10 Equipment ID Location Table

Table 3.10-1 associates the equipment ID code with the naming convention of the hardware with the type of hardware.

Table 3.10-1. Equipment ID Location (1 of 5)

ID CODE	EQUIPMENT NAME	EQUIPMENT TYPE	LOCATION
50	ACM-1	SGI PC XL	COMPUTER ROOM
86	ACM-1A	WYSE TERMINAL	COMPUTER ROOM
126	ACM-1B	SGI RAID	COMPUTER ROOM
50	ACM-2	SGI PC XL	COMPUTER ROOM
86	ACM-2A	WYSE TERMINAL	COMPUTER ROOM
114	ACM-3	SUN ULTRA	COMPUTER ROOM
65	AIT-1	SUN SPARC 20/50	OFFICE
29	AIT-2	HP LASERJET	OFFICE
57	AIT-3	XTERM	OFFICE
65	AIT-4	XTERM	OFFICE
33	COMMUNICATION RACKS	COMMUNICATION RACKS	COMPUTER ROOM
58	CSS-1	HP J210	COMPUTER ROOM
114	DDS-1	SUN ULTRA	COMPUTER ROOM
111	DDS-1A	SUN MOD 112 RAID	COMPUTER ROOM
114	DDS-2	SUN ULTRA	COMPUTER ROOM
115	DIP-1	SUN 3000	COMPUTER ROOM
86	DIP-1A	WYSE TERMINAL	COMPUTER ROOM
111	DIP-1B	SUN MOD 112 RAID	COMPUTER ROOM
6	DIP-1C	6250 TAPE DRIVE	COMPUTER ROOM
7	DIP-1D	8MM STACKER	COMPUTER ROOM
5	DIP-1E	4MM STACKER	COMPUTER ROOM

Table 3.10-1. Equipment ID Location (2 of 5)

ID CODE	EQUIPMENT NAME	EQUIPMENT TYPE	LOCATION
14	DIP-1F	CD-ROM	COMPUTER ROOM
14	DIP-1G	CD-ROM	COMPUTER ROOM
139	DIP-1H	3490 TAPE DRIVE	COMPUTER ROOM
139	DIP-1I	3490 TAPE DRIVE	COMPUTER ROOM
115	DIP-2	SUN 3000	COMPUTER ROOM
86	DIP-2A	WYSE TERMINAL	COMPUTER ROOM
29	DIP-3	HP LASERJET	COMPUTER ROOM
121	DIP-4	MICRON PC 166	COMPUTER ROOM
131	DIP-4A	BAR CODE PRINTER	COMPUTER ROOM
131	DIP-4B	BAR CODE PRINTER	COMPUTER ROOM
131	DIP-4C	SCANNER	COMPUTER ROOM
59	DMG-1	HP K200	COMPUTER ROOM
35	DMG-1A	HP RAID	COMPUTER ROOM
72	DMG-2	HP C110	COMPUTER ROOM
70	DMG-3	SUN ULTRA 170	COMPUTER ROOM
70	DMG-4	SUN ULTRA 170	COMPUTER ROOM
62	DRP-1	SGI CHALLENGE L	COMPUTER ROOM
86	DRP-1A	WYSE TERMINAL	COMPUTER ROOM
126	DRP-1B,C	SGI RAID	COMPUTER ROOM
12	DRP-2	STK POWDERHORN	COMPUTER ROOM
119	DRP-3	SUN SPARC 5	COMPUTER ROOM
135	LMU	LMU	COMPUTER ROOM

Table 3.10-1. Equipment ID Location (3 of 5)

ID CODE	EQUIPMENT NAME	EQUIPMENT TYPE	LOCATION
136	MARS	MARS	COMPUTER ROOM
70	MSS-1	SUN ULTRA 170	COMPUTER ROOM
29	MSS-2	SUN ULTRA	COMPUTER ROOM
58	MSS-3	HP J210	COMPUTER ROOM
35	MSS-3A	HP RAID	COMPUTER ROOM
77	MSS-4	LASER PRINTER	COMPUTER ROOM
66	MSS-5	SUN SPARC 20/71	COMPUTER ROOM
17	MSS-5A	DLT STACKER	COMPUTER ROOM
32	MSS-6	IMPACT PRINTER	OFFICE
	MSS-7	HAND SCANNER	OFFICE
121	MSS-8	MICRON MPC 166	OFFICE
121	MSS-9	MICRON MPC 166	OFFICE
114	PLN-1	SUN ULTRA	COMPUTER ROOM
116	PLN-2	SUN 4000	COMPUTER ROOM
86	PLN-2A	WYSE TERMINAL	COMPUTER ROOM
81	PLN-2B	SUN 8GB DISK	COMPUTER ROOM
81	PLN-2C	SUN 8GB DISK	COMPUTER ROOM
130	SPR-1	INDIGO IMPACT	COMPUTER ROOM
130	SPR-2	INDIGO IMPACT	COMPUTER ROOM
129	SPR-3	CHALLENGE S	COMPUTER ROOM
86	SPR-3A	WYSE TERMINAL	COMPUTER ROOM
15	SPR-3B	VAULT RAID	COMPUTER ROOM
15	SPR-3C	VAULT RAID	COMPUTER ROOM

Table 3.10-1. Equipment ID Location (4 of 5)

ID CODE	EQUIPMENT NAME	EQUIPMENT TYPE	LOCATION
15	SPR-3D	VAULT RAID	COMPUTER ROOM
77	SPR-4	XTERM	OFFICE
77	SPR-5	XTERM	OFFICE
77	SPR-6	XTERM	OFFICE
77	SPR-7	XTERM	OFFICE
116	SPR-8	SUN 4000	COMPUTER ROOM
81	SPR-8A	SUN 8GB DISK	COMPUTER ROOM
81	SPR-8B	SUN 8GB DISK	COMPUTER ROOM
86	SPR-8C	WYSE TERMINAL	COMPUTER ROOM
130	TB-SPR-1	INDIGO IMPACT	COMPUTER ROOM
129	TB-SPR-2	CHALLENGE S	COMPUTER ROOM
86	TB-SPR-2A	WYSE TERMINAL	COMPUTER ROOM
15	TB-SPR-2B	VAULT RAID	COMPUTER ROOM
38	TB-SPR-2C	SGI RAID	COMPUTER ROOM
65	TB-AIT-1	SUN SPARC 20/50	OFFICE
57	TB-AIT-2	SUN SPARC 20/712	COMPUTER ROOM
29	TB-AIT-3	HP LASERJET	OFFICE
58	TB-CSS-1	HP J210	COMPUTER ROOM
58	TB-MSS-1	HP J210	COMPUTER ROOM
35	TB-MSS-1A	HP RAID	COMPUTER ROOM
65	TB-MSS-2	SUN SPARC 20/50	COMPUTER ROOM
43	TB-MSS-2A	SUN MOD 112 RAID	COMPUTER ROOM
65	TB-MSS-3	SUN SPARC 20/50	COMPUTER ROOM

Table 3.10-1. Equipment ID Location (5 of 5)

ID CODE	EQUIPMENT NAME	EQUIPMENT TYPE	LOCATION
57	TB-SUPP-1	SUN SPARC 20/712	COMPUTER ROOM
65	TB-SUPP-2	SUN SPARC 20/50	COMPUTER ROOM
62	TB-ACM-1	CHALLENGE L	COMPUTER ROOM
7	TB-ACM-1A	8MM STACKER	COMPUTER ROOM
66	TB-PLN-1	SUN SPARC 20/71	COMPUTER ROOM
81	TB-PLN-1A	SUN DISK ARRAY	COMPUTER ROOM
65	TB-PLN-2	SUN SPARC 20/50	COMPUTER ROOM
65	TB-M&O-SWM	SUN SPARC 20/50	OFFICE
115	SUN TO HP PLATFORM	SUN 3000	COMPUTER ROOM
86	SUN TO HP PLATFORM	WYSE TERMINAL	COMPUTER ROOM
115	SUN TO HP PLATFORM	SUN 3000	COMPUTER ROOM
86	SUN TO HP PLATFORM	WYSE TERMINAL	COMPUTER ROOM
115	SUN TO HP PLATFORM	SUN 3000	COMPUTER ROOM
86	SUN TO HP PLATFORM	WYSE TERMINAL	COMPUTER ROOM
115	SUN TO HP PLATFORM	SUN 3000	COMPUTER ROOM
86	SUN TO HP PLATFORM	WYSE TERMINAL	COMPUTER ROOM
115	SUN TO SGI PLATFORM	SUN 3000	COMPUTER ROOM
86	SUN TO SGI PLATFORM	WYSE TERMINAL	COMPUTER ROOM
115	SUN TO SGI PLATFORM	SUN 3000	COMPUTER ROOM
86	SUN TO SGI PLATFORM	WYSE TERMINAL	COMPUTER ROOM
57	SUN TO SGI PLATFORM	SUN SPARC 20/712	COMPUTER ROOM

3.11 Floor Plan for NSIDC

Figure 3.11-1 depicts the planned placement of Release B first procurement (B.0) equipment in the NSIDC facility and identifies the locations at which floor tile cutouts and power receptacles must be placed.

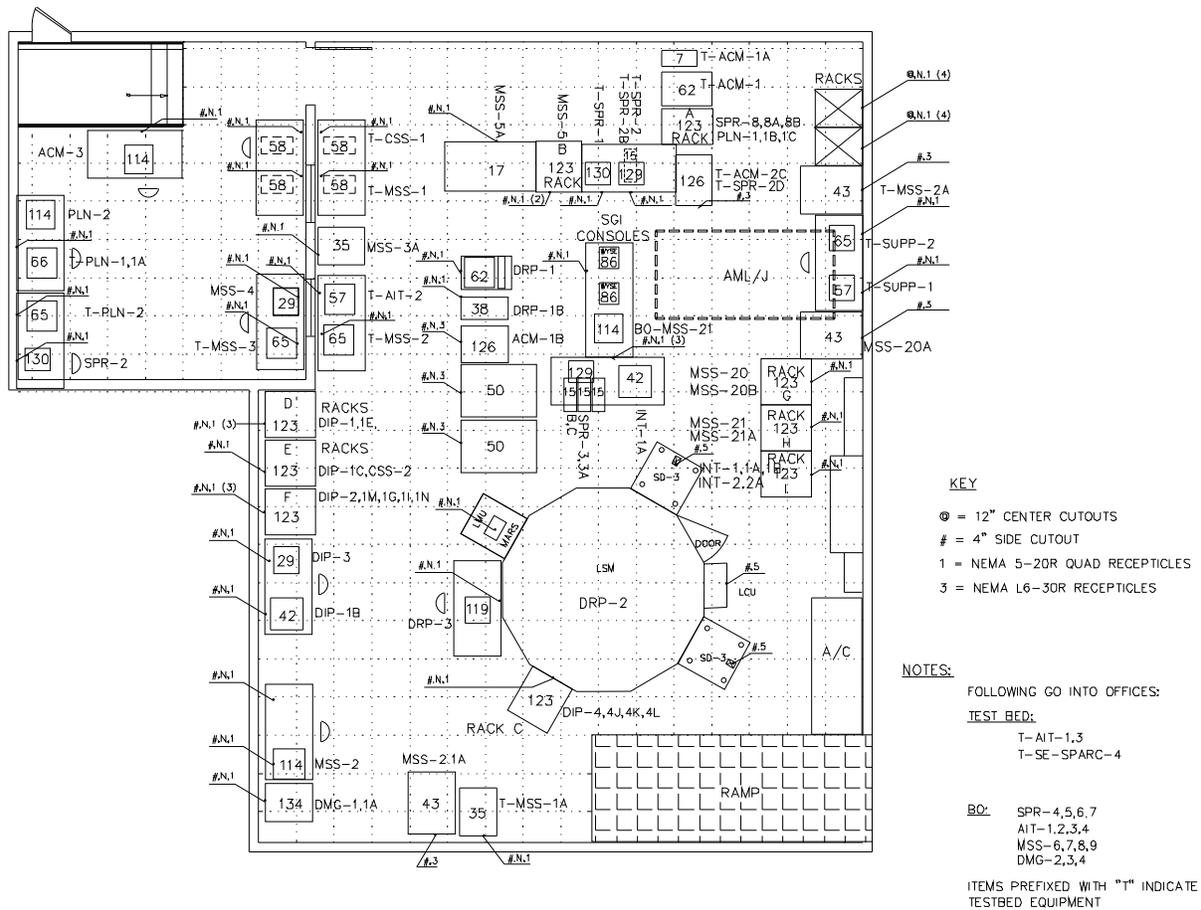


Figure 3.11-1. Floor Plan for NSIDC

KEY: #,n, 1 (2) = One 4" side cutout floor tile, one network connection (either FDDI or Ethernet), and two (2) NEMA 20 Amp Quad receptacles.

3.12 Power

The electrical power loads for ECS equipment at NSIDC are listed in Table 3.3-1, “NSIDC Equipment Power Requirements.” Power required is 208/120 volts. This power should be conditioned to protect the equipment from surges and spikes. Specific details (i.e. volts, phases, amps, receptacles) of the power requirements for each equipment item are furnished in Table 3.9-1.

Table 3.12-1 NSIDC Equipment Power Requirements (KVA)

	Through Release B first procurement
COMPUTER ROOM	92

3.13 Uninterruptible Power Supply (UPS) Systems

NSIDC plans to provide UPS systems to support ECS equipment. This will allow for controlled shutdown and the backup of critical data. UPS systems will accomplish the following:

- Condition power to negate surges, spikes, and other power fluctuations that may adversely affect computer hardware operation and data quality.
- Provide power during outages of short duration to allow time for controlled shutdown and switch over to auxiliary backup power, if available.
- Enable systems to remain operational during electrical storms or when commercial power is unstable

3.14 LAN Connectivity

Figure 3.14-1 identifies the planned Release B first procurement equipment connectivity with the NSIDC DAAC network.

NSIDC DAAC - Release B HW/Network

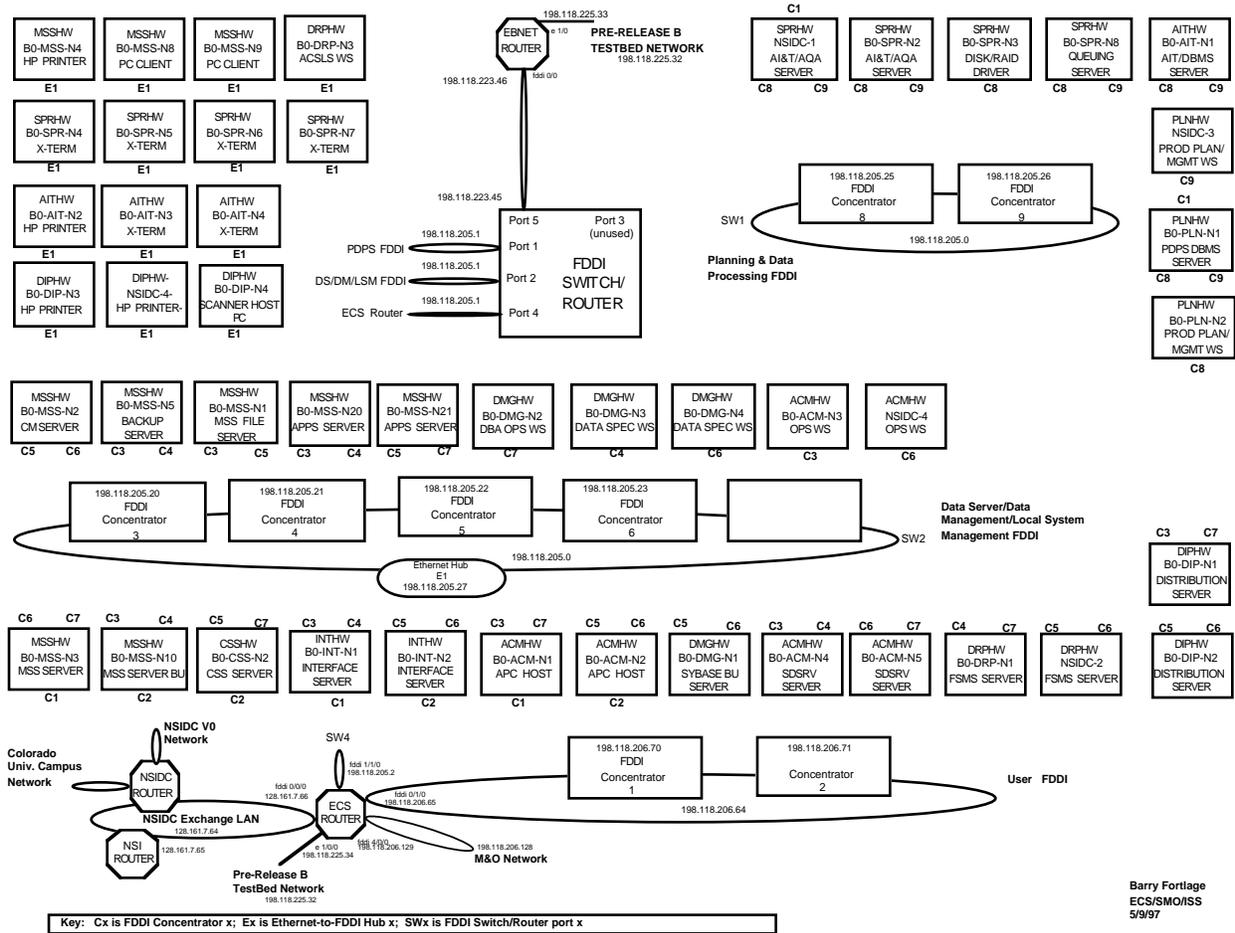


Figure 3.14-1 NSIDC Release B0 DAAC Network Configuration

Figure 3.14-2 identifies the planned Pre-Release B Testbed equipment connectivity with the NSIDC DAAC network.

NSIDC DAAC - Pre-Release B Testbed HW/Network

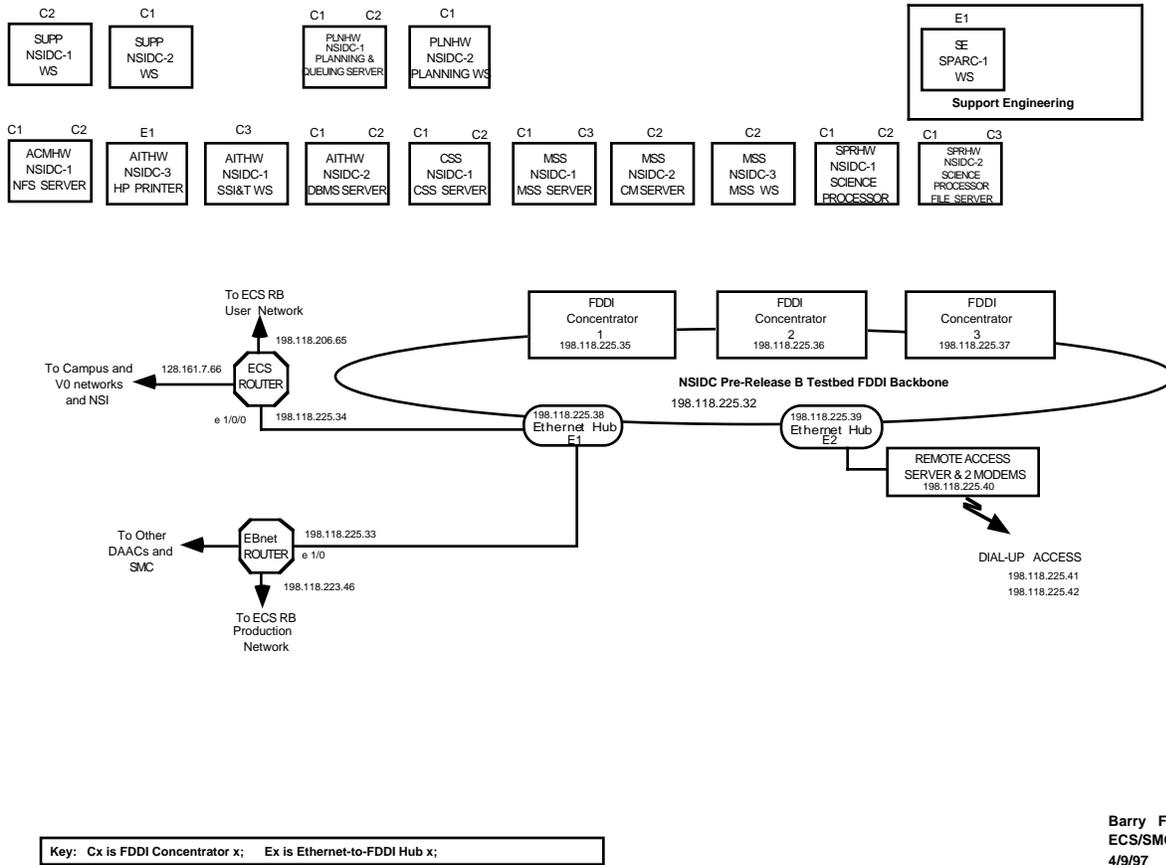


Figure 3.14-2. Planned Pre-Release B Testbed Network Configuration

3.15 Heating, Ventilation, and Air Conditioning

Considering the class of processors currently planned for Release B first procurement, chilled water lines will not be required to cool these systems. Conditioned air should be supplied under the floor with the raised computer room floor acting as the plenum. The conditioned air should be at positive pressure. Equipment and console cooling should be supplied directly from this plenum or from louvered vents built into the raised floor panels. Ambient room temperatures in the range of 72 ± 2 degrees Fahrenheit and relative humidity in the range of 50% ± 5% non condensing, are required to be maintained within the facility. Equipment cooling requirements for the facility are shown in Table 3.12-1. These requirements are based solely upon equipment and do not include the heating or cooling required for personnel, GFE, and physical space.

Table 3.15-1 NSIDC Cooling Requirements (KBTU/HR)

	Through Release B first procurement
COMPUTER ROOM	231

3.16 Temporary Space

A total of three additional 64 sq. ft. cubicles (not included in the Office Requirements table) will be required to support the ECS teams during equipment installation, integration, and testing. In addition, a small meeting room should be available to the team throughout their stay to provide both work space and open storage overnight). These cubes should have adequate power (at least one 20 amp duplex outlet and if possible a telephone.

It is anticipated that "Tiger Teams" may be formed if required during the Release B first procurement installation run into critical problems. Such teams may include local DAAC/ECS personnel, off-site vendor, and SEO and EDF personnel. A dedicated conference or meeting room during the initial high activity period and the three additional cubicles identified above should suffice to satisfy these needs.

3.17 Library

A room needs to be designated as a Library area to accommodate ECS technical documentation throughout the life of the ECS Project. Library space for ECS technical documentation should be approximately 315 linear feet of bookshelf space, which would occupy approximately 200 sq. ft. of floor space. This area should be able to accommodate an Administrative Assistant/Librarian for document control.

3.18 Media Consumable or Packing Material Storage Areas

It is the responsibility of the Government to furnish areas for Media or Packing Material Consumables (i.e. blank 8mm and 4mm tapes, CD ROM Disks, packing material for the media consumables). The ground floor area designated on the floor plans should have storage cabinets to hold a three to five day supply of these items. Based on information contained in 604-CD-002-003, page 5-55, and with the following assumptions, below are the numbers.

- ↑ 56 orders per day. Assumption 60% will be tape, 30% will be CD-ROM, 10% D-3 tapes.
This calculates to 34 tapes per day, 17 CD-ROM per day and 6 D-3 tapes per day.
- Assumption 70% of tapes will be 8mm and 30% will be 4mm
This calculates to 24 8mm tapes per day and 10 4mm tapes per day
- 5 day Supplies = 120 8mm tapes

50 4mm tapes

85 CD-ROM

30 D-3 tapes

A larger storage area within the DAAC should also be furnished to house larger quantities of these materials.

3.19 Equipment Rack Configurations

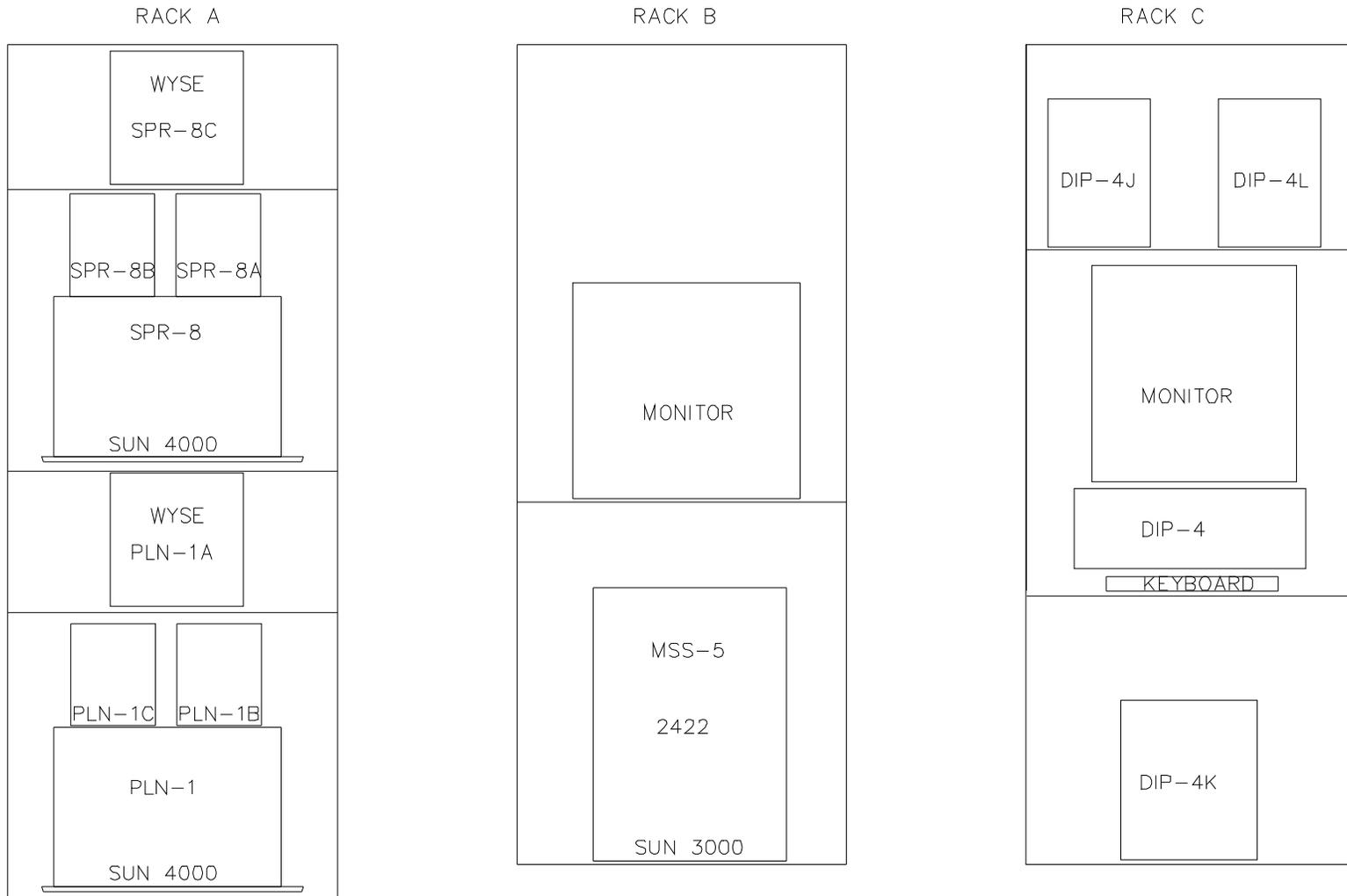


Figure 3.19-1 Equipment Rack Configurations (1 of 3)

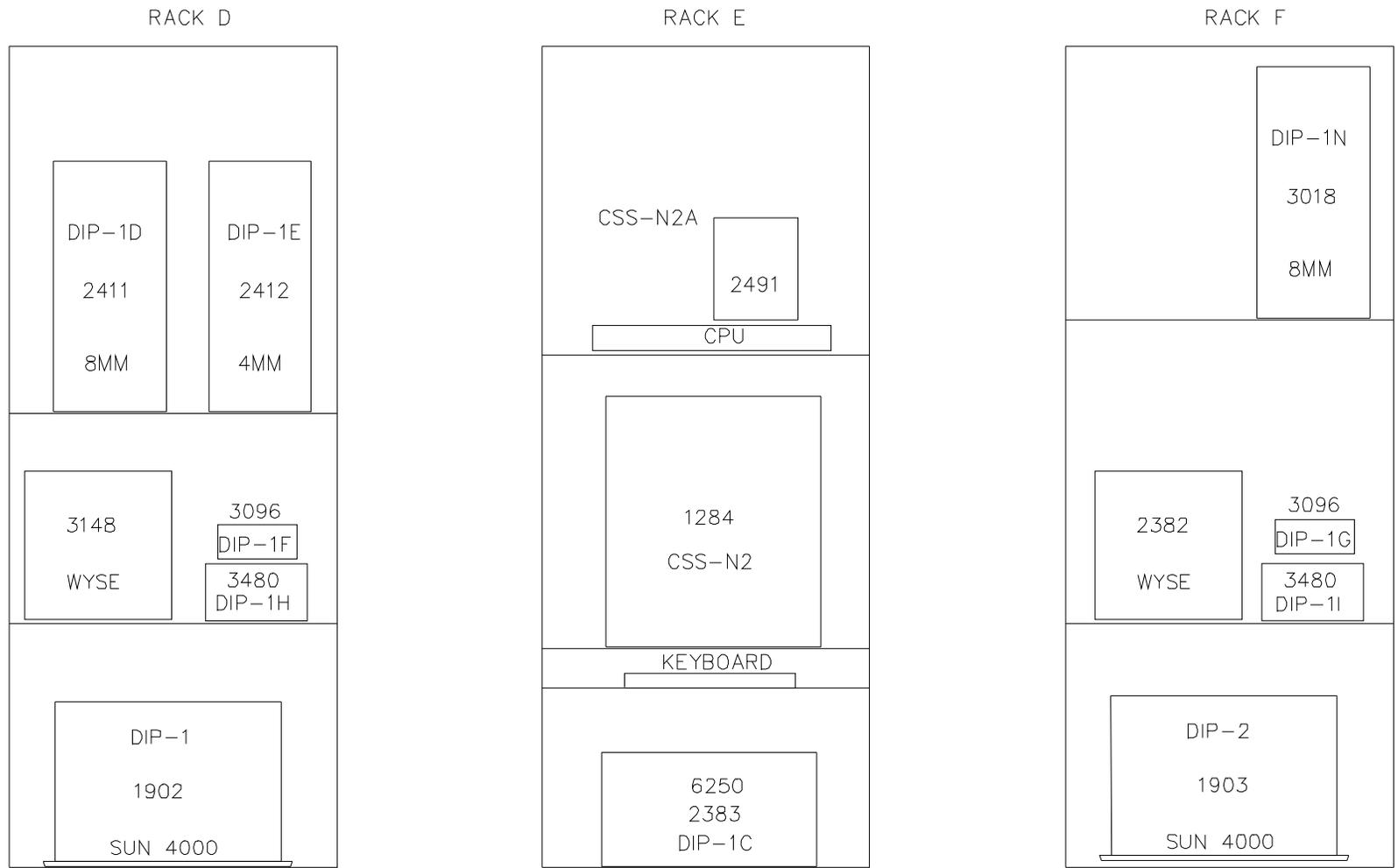


Figure 3.19-1 Equipment Rack Configurations (2 of 3)

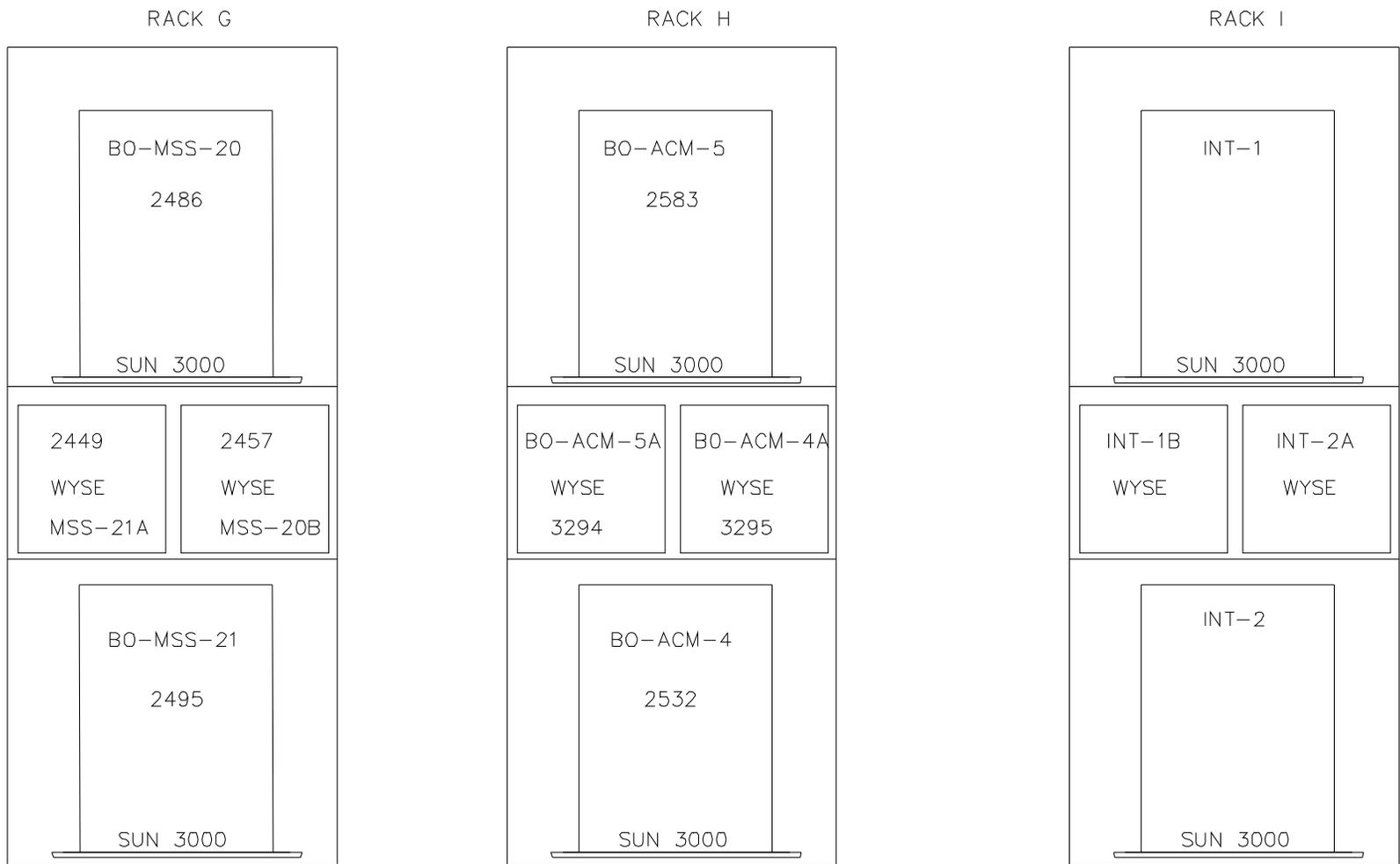


Figure 3.19-1 Equipment Rack Configurations (3 of 3)

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Abbreviations and Acronyms

ACM	Access Control and Management
ADC	Affiliated Data Center
ADS	Administration Services
AI&T	Algorithm Integration and Test
AQA	Algorithm Quality Assurance
ASF	Alaska SAR Facility
BODs	Beneficial Occupancy Dates
BOM	Bill Of Materials
BTU	British Thermal Unit
CO1	Change Order 1
COTS	Commercial Off The Shelf
CRUs	Computer Room Units
CACU	Cooling and Air-Conditioning Units
CoI	Co-Investigator
CPU	Central Processing Unit
CSMS	Communications and Systems Management Segment
CSS	Communications Subsystem
CY	Calendar Year
DAAC	Distributed Active Archive Center
DBMS	Data Base Management System
DCE	Distributed Computing Environment
DCN	Document Change Notice
DID	Data Item Description
DIP	Distribution Processing
DMG	Data Management Group

DNS	Domain Name Service
DRP	Data Repository
ECL	External Communications Links
ECS	EOSDIS Core System
EDC	EROS Data Center
EOC	EOS Operations Center (ECS)
EOS	Earth Observing System
EOSDIS	Earth Observing System Data and Information System
EP	Evaluation Package
ESN	EOSDIS Science Network (ECS)
FDDI	Fiber-optic Distributed Data Interface
FI	Facility Inspection
FIPS	Federal Information Processing Standards
FOS	Flight Operations Segment
GSFC	Goddard Space Flight Center
GUI	Graphical User Interface
HWCI	HardWare Configuration Item
I&T	Integration and Testing
IAW	In Accordance With
ICC	Instrument Control Center (ECS)
ICL	Ingest Client
ISS	Internetworking SubSystem
IST	Instrument Support Terminal
JPL	Jet Propulsion Laboratory
L&EI	LAN and Equipment Installation
LAN	Local Area Network
M&O	Maintenance and Operations
MHE	Material Handling Equipment

MSFC	Marshall Space Flight Center
MSS	Management SubSystem
NOAA	National Oceanic and Atmospheric Administration
NSI	NASA Science Internet
NSIDC	National Snow and Ice Data Center
ORNL	Oak Ridge National Laboratory
PLN	Planning
PSCN	Program Support Communication Network
QA	Quality Assurance
RDBMS	Relational Data Base Management System
RMA	Reliability, Maintainability, and Availability
RRR	Release Readiness Review
SCF	Science Computing Facility
SDPS	Science Data Processing Segment
SEO	Sustaining Engineering Organization
SGI	Silicon Graphics
SOW	Statement of Work
SP	Site Preparation
SPR	Science Processing
SSIT	Science Software Integration and Test
TBD	To Be Determined
TL	Team Leader
TM	Team Members
TRMM	Tropical Rainfall Measuring Mission
UPS	Uninterruptible Power Supply
WKS	Working Storage
WAN	Wide Area Network

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