8	/	6			
 8 A Contract of the provided at the provided		ITEM	TEM QTY DESC		DESCRIPTION

8		7		6		6	5		4		3
							LIST	OF MATERI	AL		
		<u>VATIONS</u>	ITEM	QTY		DESCRIPTION	MTL SPEC	MTL REQ			REMARKS
		re the full understanding of supportive needs at of system inclusion will continue through Final	NO	RQD		DESCRIPTION				VV I	
gn.											Reserved for Final Design
		al Design as hardware is selected, to include el and Science Mission.									
nal List of Material w	vill impact system bre	akouts overviewed on sheets 6-9. Current									
		as initial requirement population with otentially alter actual population of control									
ins.											
				IFG	END					Svstem l	אי אווי א Post Power Failure
									Vessel N	letwork Sys	
ICON		DESCRIPTION			ICON		DESCRIPTION			Network Sy	
	SERVER					CAMERA			Acousti	C System	em One-Line Diagram, 5E1-301-D001, for provision of require
					Ρ					er v Electrical Syst	en One-Line Diagram, SET-SOT-DOOT, for provision of require
					~ = »))				Acrony is		
	LAPTOP				~	SENSOR				Access Control	List Itification System
					-				- CBM	Condition Base	
					A D				ССТУ	Closed Circuit 1	
	MONITOR					SATELLITE DISH			CMMS	Computerized	Maintenance Management System
									CTD		emperature/Depth
					(((_)))				DAS DGPS	Data Acquisitio	n System Ibal Positioning System
	KVM / WORKST	ATION				ANTENNA			DMZ	Demilitarized Z	
TO					\bowtie				DPS	Dynamic Positi	
									ECDIS		t Display and Information System
	SERVER, NTP					UPS			GDMSS		e Distress and Safety System
	SERVER, MIT				4	013			GUV IBS	Ground-based Integrated Brid	
									ICCP		rent Cathodic Protection
					3,				ILM	Ice Load Monit	
	SWITCH					GENERIC A SE SU	-NGE MISSIONS		IMAC		nitoring, Alarm, and Control System
									LEO LRIT	Low Earth Orbi	entification and Tracking
(((₁))					52				MFD	Multifunctiona	
	ACCESS POINT					C FNE VC ASSET, VE	SSEL OPERATION		MOCNESS	Multiple Openi	ng Closing Net Sampling System
•••••									NTP	Network Time	
									PA PAR	Public Address	ally Active Radiation
6 M	VoIP PHONE					Connection to Vessel	Network (Temporary to this version	ing)	pCO2	-	e of Carbon Dioxide
									PIR	-	ed Radiometer
					I				PRR		tance Radiometer
	ROUTER					Connection to Science	Mission Notwork (Tomporary to th	vis vorsioning)	PSP		al Pyranometer
	NOULI						Mission Network (Temporary to the transformed set of the temperature of temperature	no versionning <i>i</i>	SSAS TV	Ship Security A Television	ier i System
									UAV	Uncrewed Aeri	al Vehicle
									UHF	Ultra-High Fred	
	FIREWALL								USBL		eline Acoustic Positioning System
									VHF	Very High Freq	
									VoIP VSAT	Voice over Inte	rture Terminal
TV	TELEVISION								WAP	Wireless Acces	
<u> </u>									ХВТ		thythermograph
LI					Į	L					

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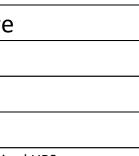
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		2	1							
	REVISIONS									
ZONE	REV	DESCRIPTION	DATE	APPROVED						
	P0	Initial release	7/22/2022	M. Minnig						
	P1	Additions to systems, better defined Network to include Acoustic System provided initial pass of traffic direction border firewalls	9/22/2022	M. Minnig						
	P2	Addition to systems, work boat nod attention to interfaces and placeme review of naming for systems	1/3/2023	M. Minnig						
	P3	Addition of systems, Control Station populated, revision of connectivity r		8/8/2023	M. Gahagan					

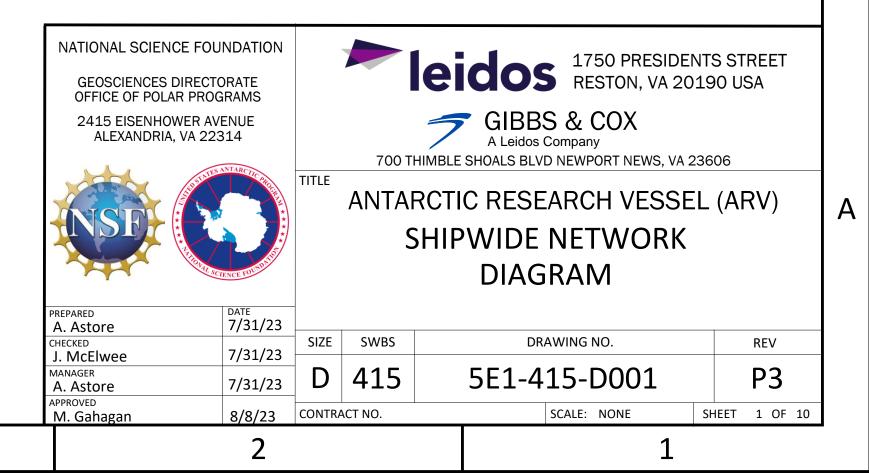
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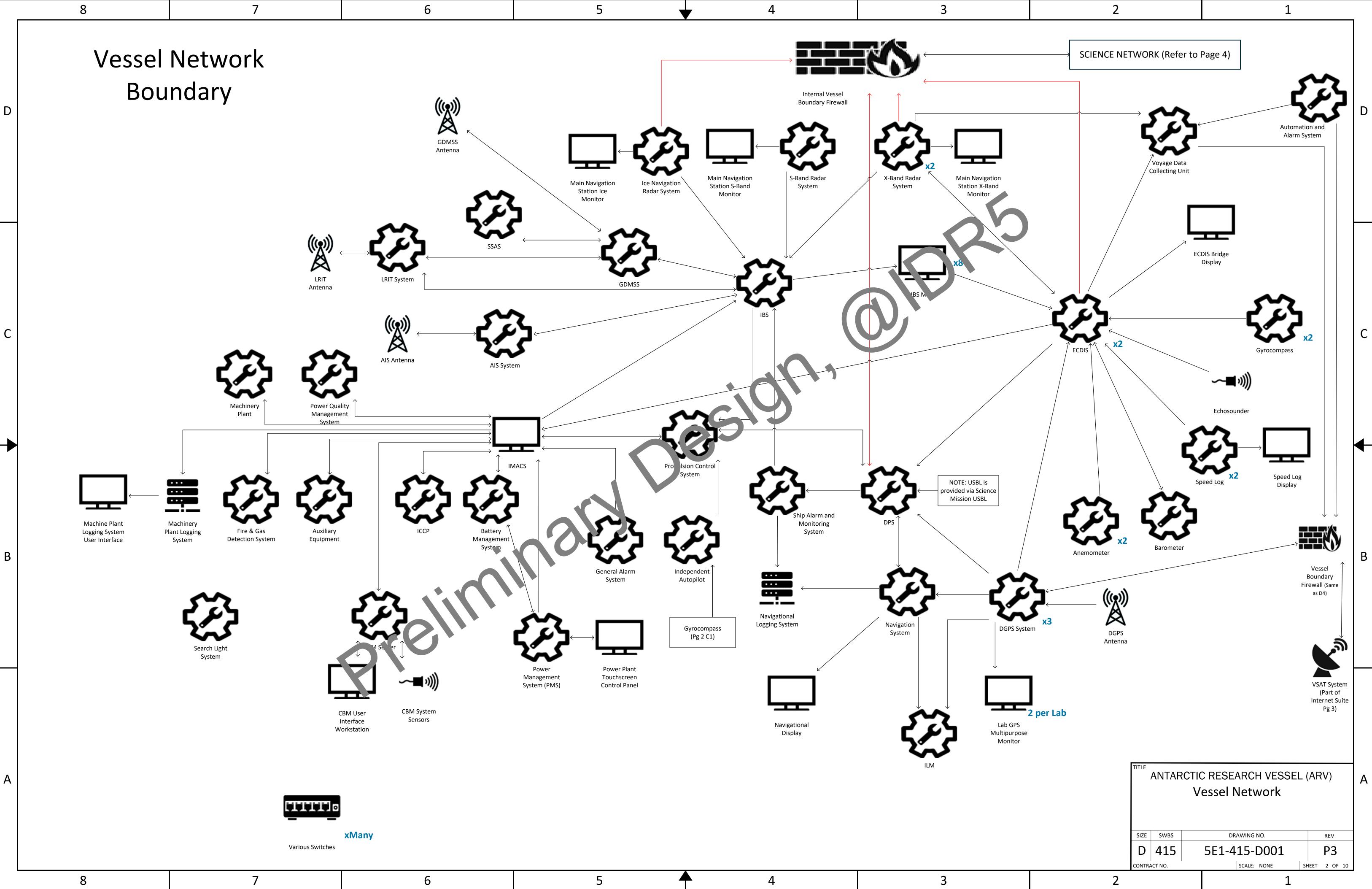
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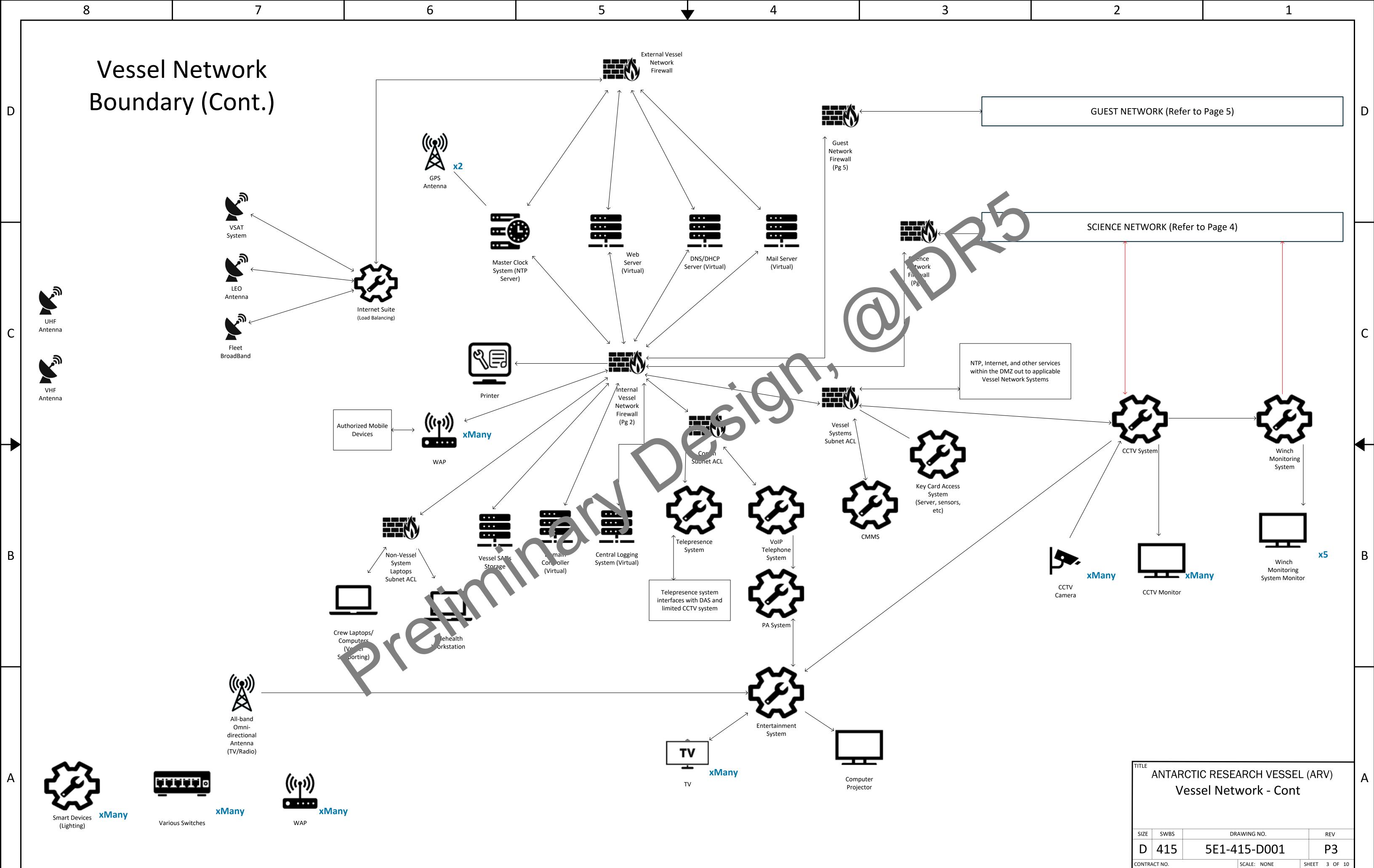


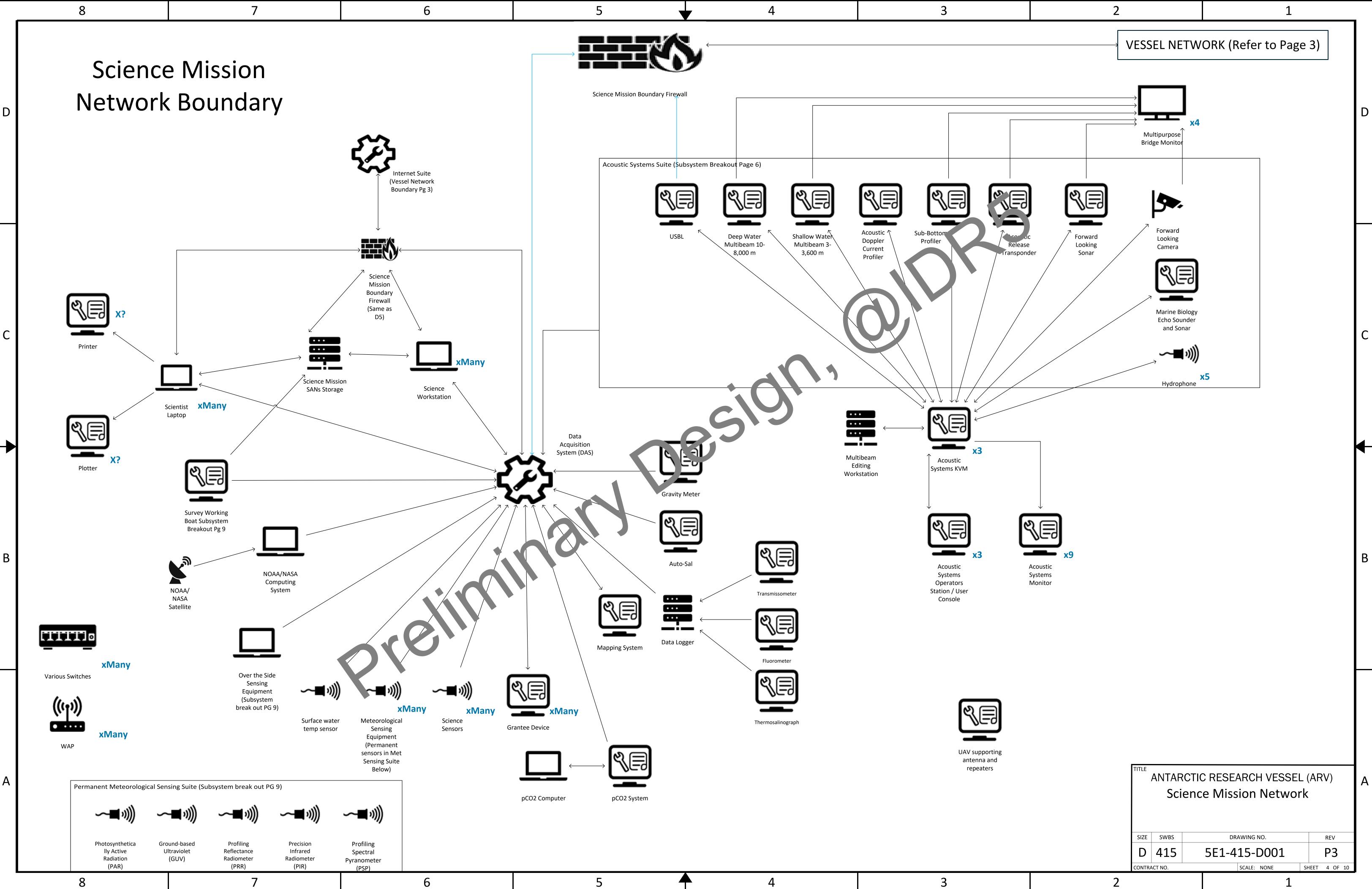
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		SHEET INDEX
SH	REV	TITLE
1	P3	Title, Sheet Index, Revisions, Legend, Acronyms
2	P3	Vessel Network Boundary
3	P3	Vessel Network Boundary (Cont.)
4	P3	Science Mission Network Boundary
5	P3	Guest Network Boundary
6	P3	Science Acoustic Systems
7	P3	Vessel Network Subsystems
8	P3	Control Station Breakout
9	P3	Science Mission Subsystems
10	P3	Physical LAN Drops

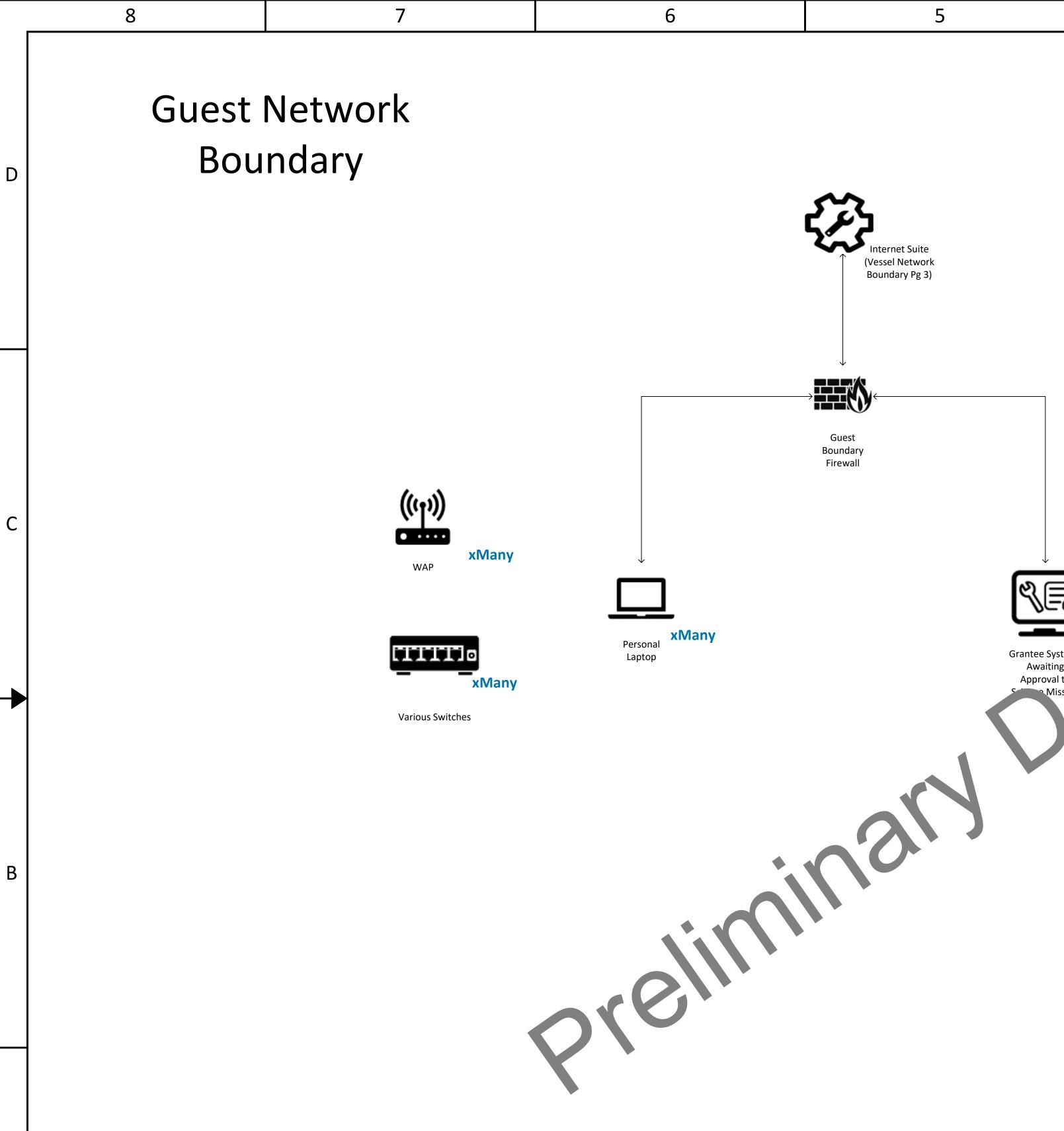








SIZE	SWBS	DRAWING NO.					REV			
D	415		5E1-415-D001				Ρ3			
CONTRACT NO.				SCALE: NO	NE	SH	EET	4 0	- 10	C
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3 5 4 ernet Suite (Vessel Network Boundary Pg 3) Guest Boundary Firewall), Grantee Systems Awaiting Approval t

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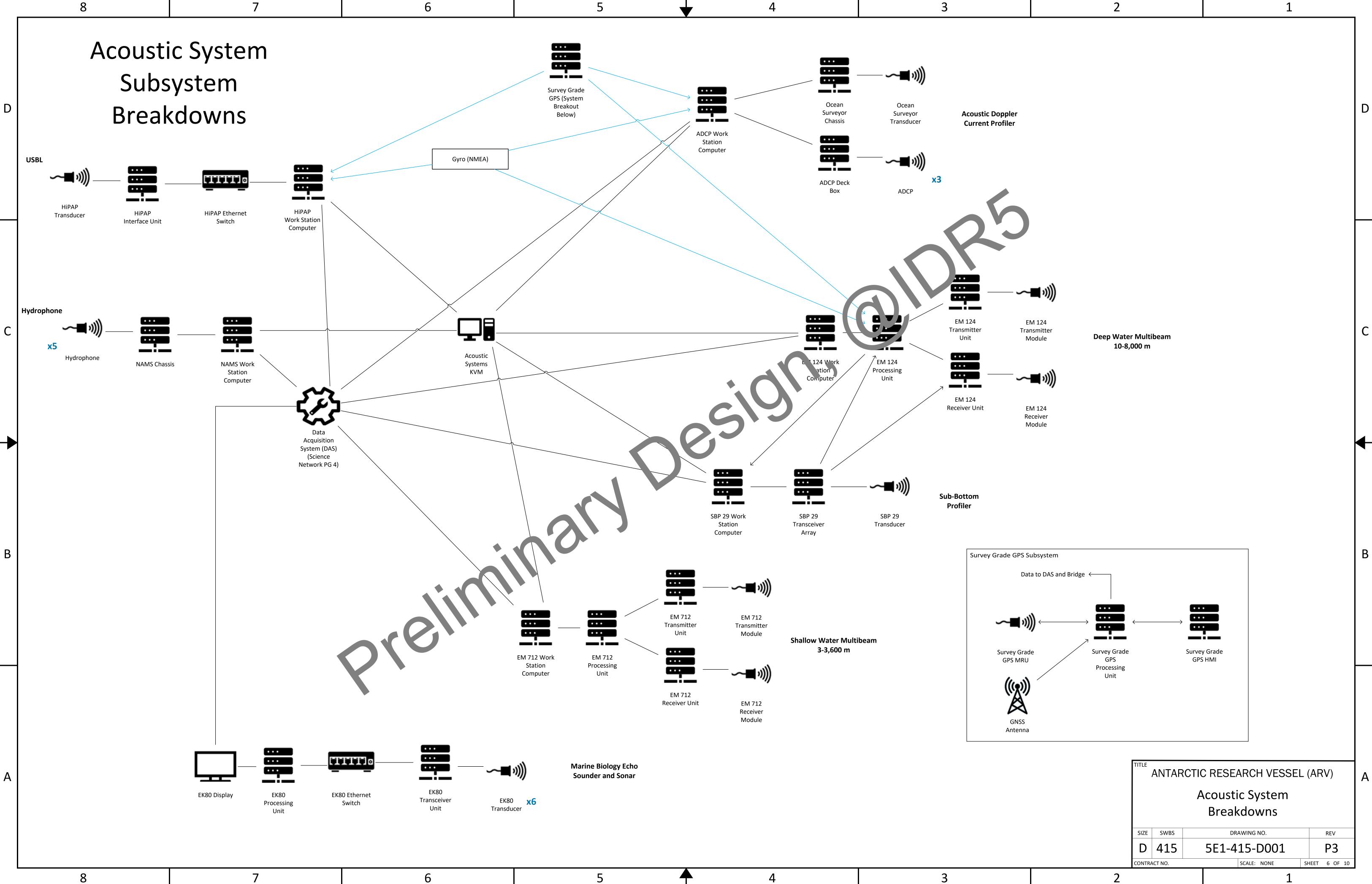
			В
TITLE	ANTAR	CTIC RESEARCH VESSEL (A	RV) A
		Guest Network	
SIZE	SWBS	DRAWING NO.	REV
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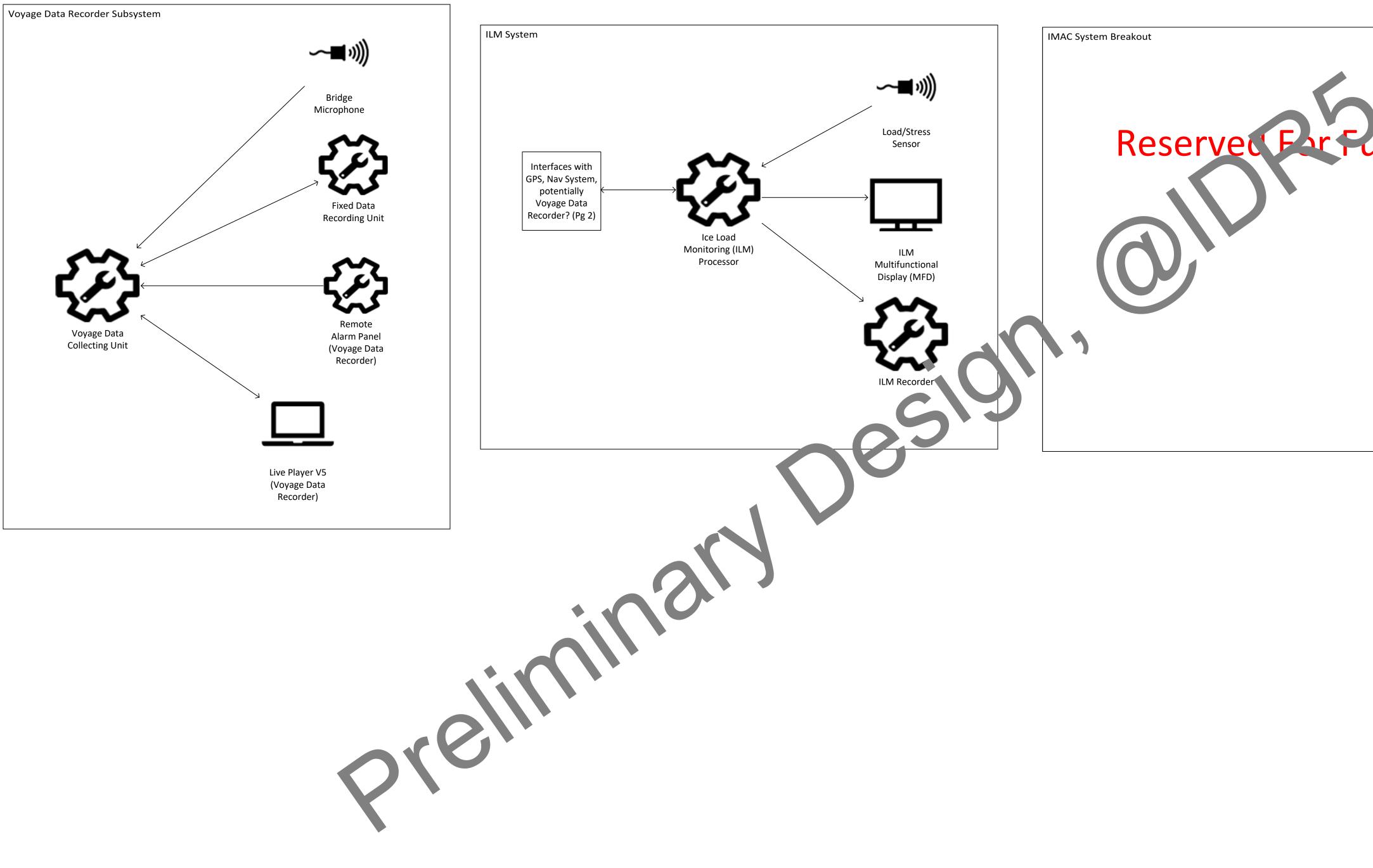
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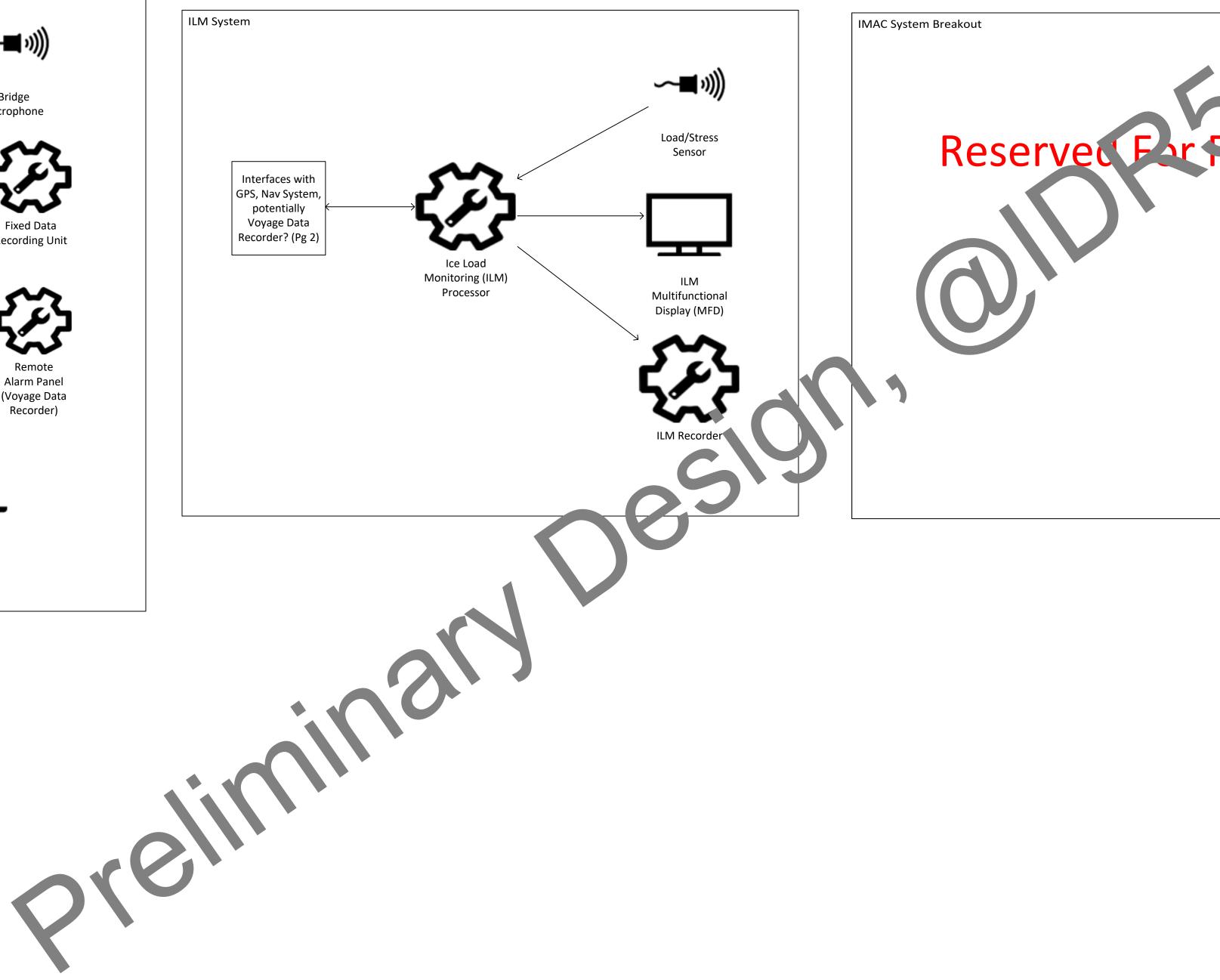
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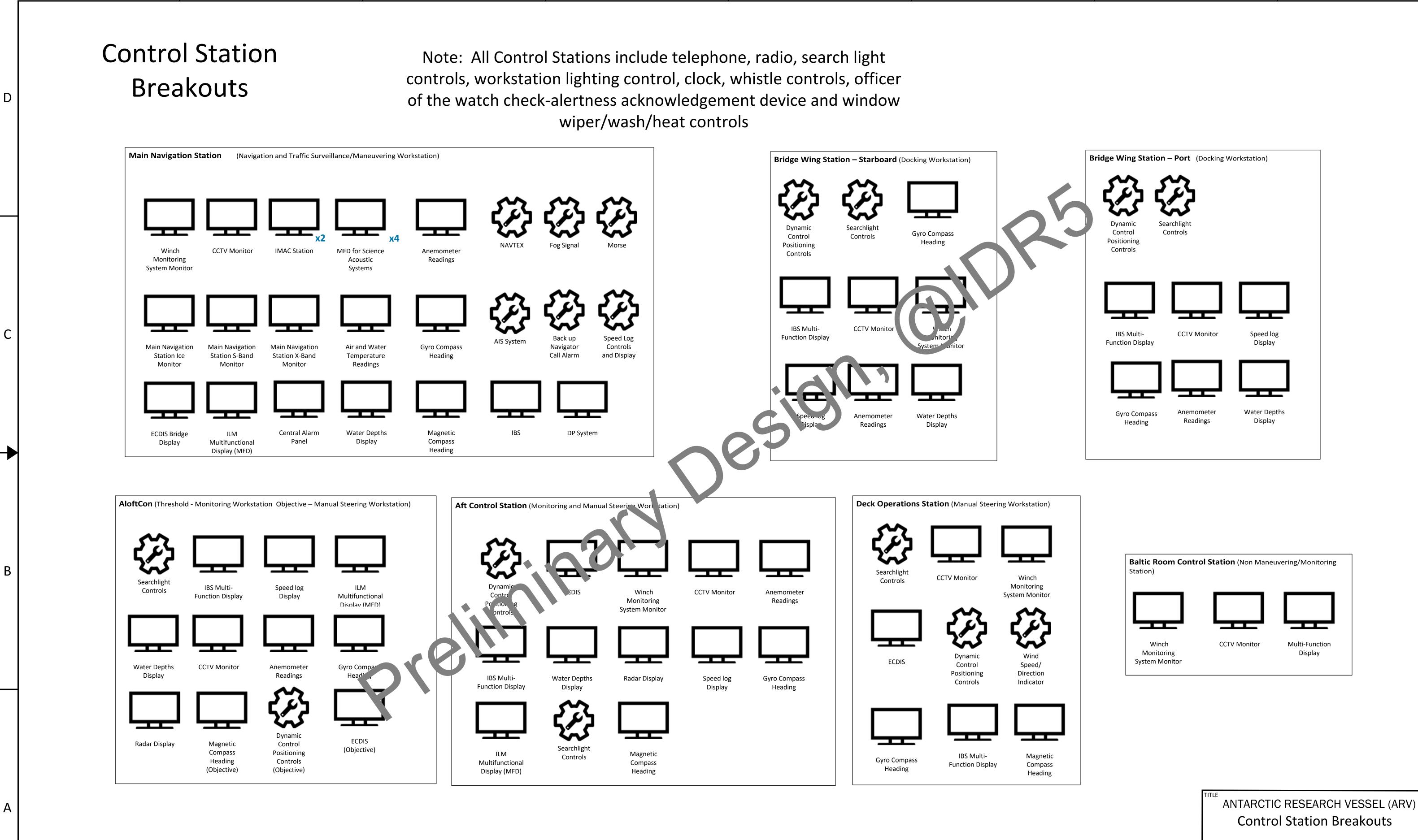
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Vessel Network Boundary Subsystems





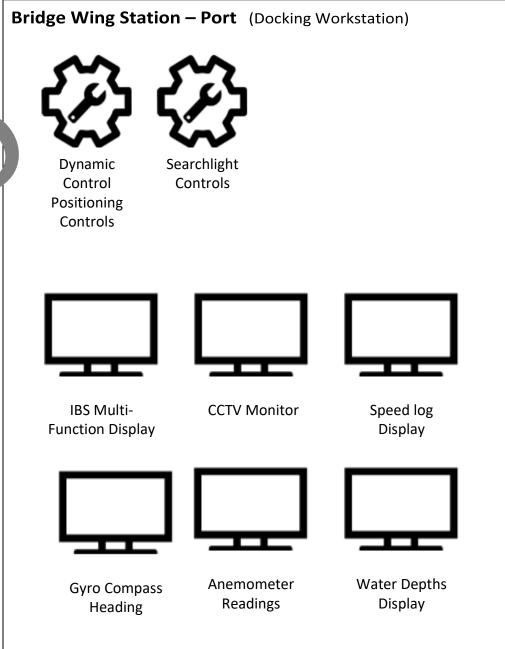
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3	ture Effo	rt				C
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	2	TITLE SIZE D CONTRA	swbs 415	C RESEARCH VESSEL essel Network Subsystems DRAWING NO. 5E1-415-D001	(ARV) REV P3 HEET 7 OF 10	A

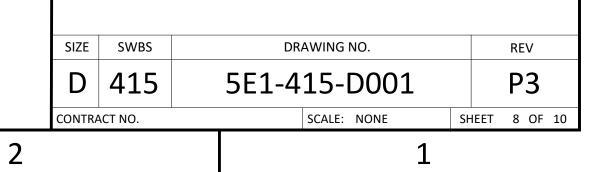


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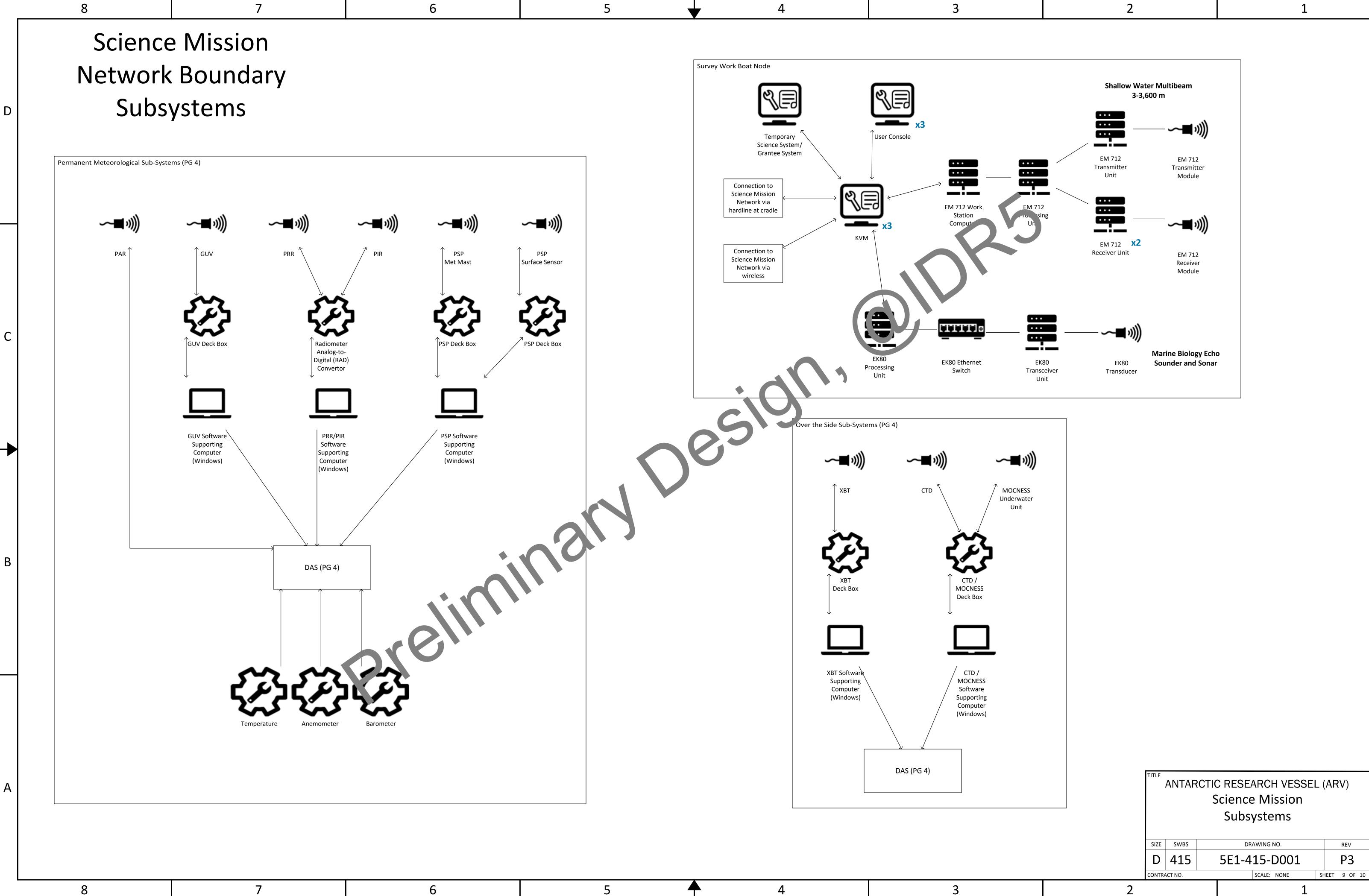


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Physical LAN Drops

Sheet Overview

D

1. # Drops column for each space/deck provides total number of physical LAN drops required for the space/deck.

2. # Available column or Open Network Drops provides the number of available LAN ports within the space/deck not specifically supporting dedicated services.

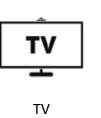
3. Dedicated LAN Drops Captured Within Individual Spaces Include (dependent on requirements) :











	09 Deck	Space	# Drops	# Available	02 Deck	Space	# Drops	# Available
		Main Mast Junction Box	6	6		Hospital	6	2
						Laundry	2	0
C	08 Deck	Space	# Drops	# Available		Stateroom (21)	105	42
	-	AloftCon	4	2		Lounge	10	6
		/ 10110011	-	L		Individual Work Space (2)	10	
	07 Deck	Space	# Drops	# Available	01 Deck	Space	# Drops	# . va'lable
		Science Obs / Met Lab	12	8		Boat Deck Science Boat		
						Umbilical	2	2
	06 Deck	Space	# Drops	# Available		Provision Stores	2	0
	UU DECK	Bridge	14	12		Galley		4
		Chart Room	4	2		Galley Office	5	2
		Aft Control Station	10	8		Mess	J	0
						Bosun & Ship Store	2	0
		0	" D			Conference Room	16	12
	05 Deck	Space	# Drops	# Available		Lounge	10	6
		Crew Library	3	0		Office	5	2
		Laundry	2	0		Gym	4	0
		Stateroom (10)	50	20		Braic Control Loom	7	2
		Dayroom (3)	15	6				
В						Space	# Drops	# Available
	04 Deck	Space	# Drops	# Available	h 'ah	•		
		Crew Lounge	10	6	De k	Carpenter Shop	4	2
		Laundry	2	0		Bosun Shop Lab Van Bay	5	Ζ
		Stateroom (9)	45	18		Changing Room	4	4
		Individual Work Space	5	2		Cold Lab Aft	4	2
		Forward Hangar	8	4		Cold Lab Forward	4	2
		Aviation Deck	2	2		Hydro Lab	26	22
		Foremast	2	2		Auto Sal Room	6	4
						Bio/Chem/Analytical Lab	26	22
	03 Deck	Space	# Drops	# Availabl		Electronics Lab	36	32
		Conference Room	16	12		Electronics Tech Shop	16	12
		Laundry	10	12		Science Stores	2	0
		Stateroom (22)	110	44		Marine Lab Tech Office	8	4
		Dayroom (2)	10	44		IT Office	12	8
		Individual Work Space (2)	10	4		Sciene Ops Center	36	32
		Science Library	7	4		Microscope Room	8	6
		Atmospheric Lab	8	<u></u>		Main Lab	22	18
Α			0	-		Baltic Room	6	2
						Wet Lab	30	26
						Aquarium Room	6	2
						Marine Tech Shop	8	4
						Staging Bay	8	4
						Deck Operations Station	7	2
						Aft Working Deck	7	7

8

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5 4 3 2	1
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Deck	09	08	07	06	05	04	03	02	01	Main	1st Plat	2nd Plat
Number of Drops	6	4	12	28	70	74	163	133	62	295	25	26
Open Network Drops	6	2	8	22	26	34	72	54	30	219	4	10

Note: Count does not include Control Station connection requirements. Control Station Breakouts overviewed Sheet 8.

2nd Pla

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3

1 st Plat	Space	# Drops	# Available
	Elec Room	2	0
	Engineering Stores	2	0
	Provision Stores (x2)	2	0
	Electronics Room	2	0
	Battery Room	2	0
	Transceiver Room	2	0
	Electrical Shop	4	2
	Electrical Stores	2	0
	ECR	5	2
	Thruster Room	2	0

D

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lat	Space	# Drops	# Available
	Science Hold	10	8
	Main Engine Room	2	0
	Auxiliary Machinery Space (x3)	6	0
	Engineering Stores	2	0
	Mechanical Shop	4	2
	MSD Room	2	0

ANTARCTIC RESEARCH VESSEL (ARV)						
Physical LAN Drops						
SIZE SWBS DRAWING NO. REV						
D	415		5E1-415-D001	P3		
CONTRACT NO.			SCALE: NONE	S⊦	SHEET 10 OF 10	
			1			