

UNIVERSITAT POLITÈCNICA DE CATALUNYA

**APROXIMACION AL METODO DE
EVALUACION DEL RIESGO DE
INCENDIO ESTRUCTURAL Y
GLOBAL DE LOS BUQUES**

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A N E X O I V / 1

TRATAMIENTO Y ANALISIS

DE LOS DATOS

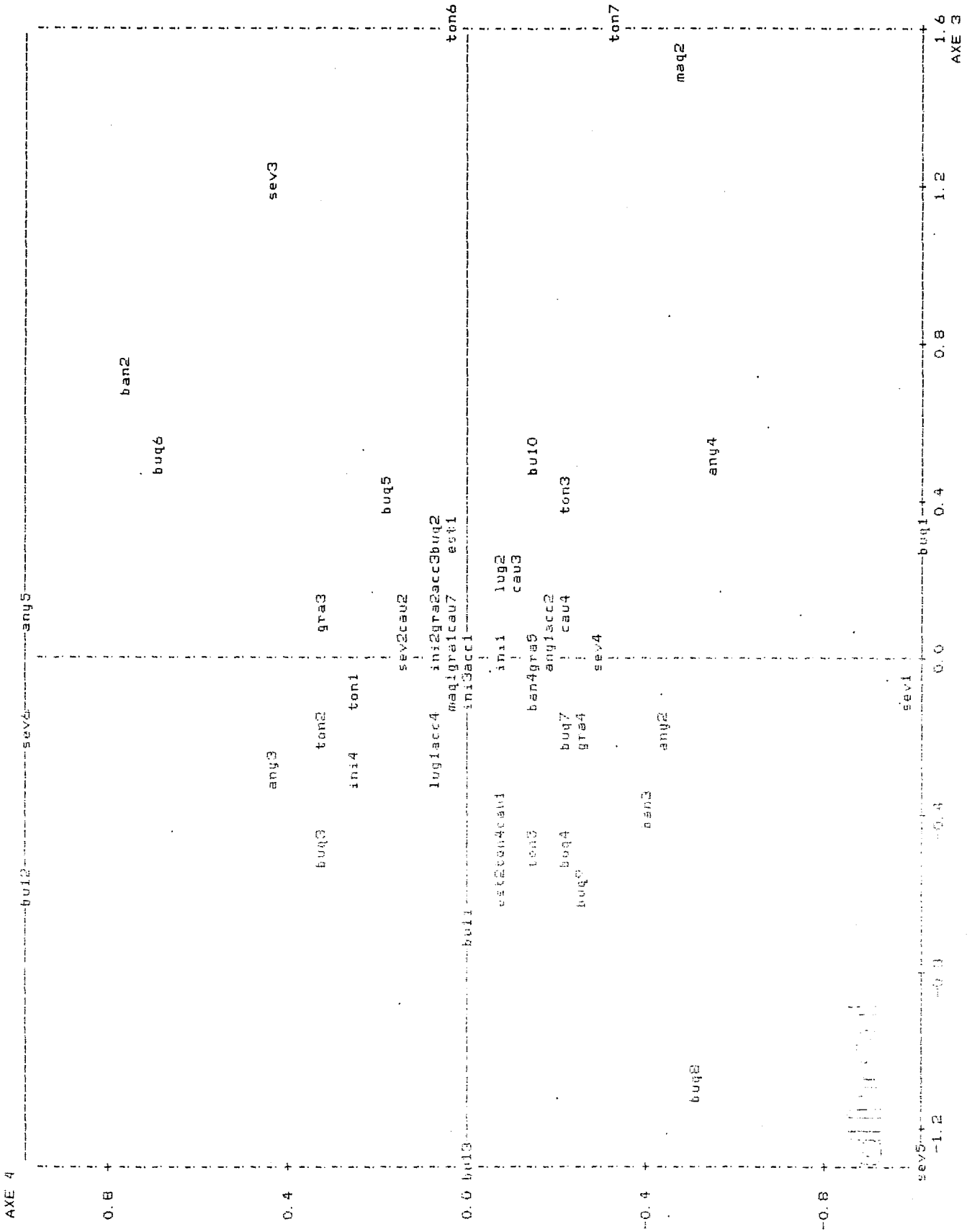
ESTADISTICOS

(CORRESPONDENCIA Y CLASIFICACION)

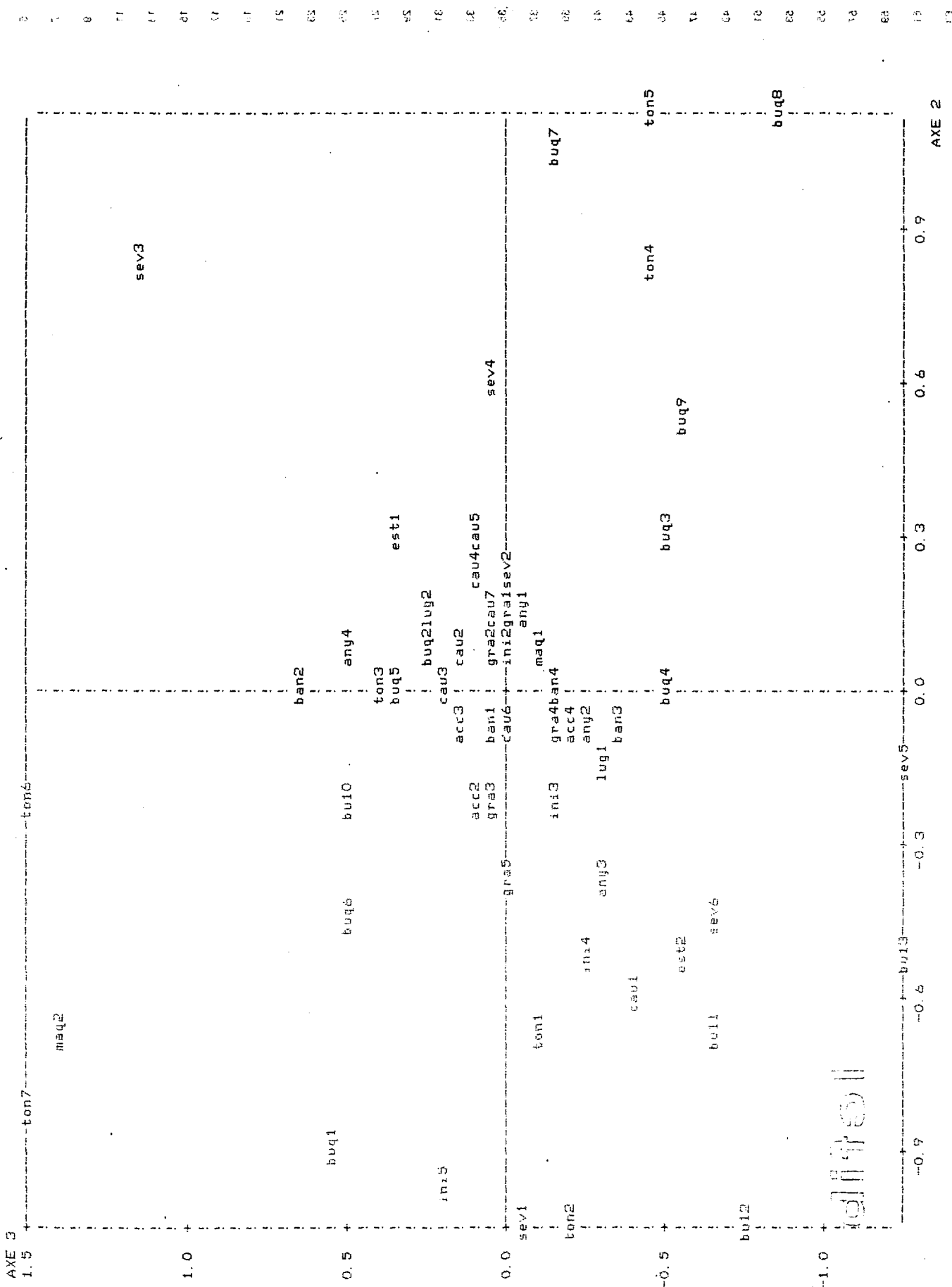
CLASSIFICATION ASCENDANTE HIERARCHIQUE : DESCRIPTION DES 50 NOEUDS D'INDICES LES PLUS ELEVES

NUM.	AINE	BENJ	EFF.	POIDS	INDICE	HISTOGRAMME DES INDICES DE NIVEAU
938	886	902	16	16.00	0.00272	**
939	877	881	16	14.00	0.00277	**
940	909	846	20	20.00	0.00289	**
941	722	770	8	8.00	0.00290	**
942	874	931	14	14.00	0.00295	**
943	929	844	16	18.00	0.00302	**
944	913	915	21	21.00	0.00327	**
945	941	893	11	11.00	0.00328	**
946	918	851	28	28.00	0.00329	**
947	888	928	24	24.00	0.00339	**
948	860	895	9	9.00	0.00352	**
949	882	901	23	23.00	0.00391	**
950	919	920	21	21.00	0.00399	**
951	927	934	13	13.00	0.00404	**
952	932	878	32	32.00	0.00413	**
953	923	879	16	16.00	0.00421	**
954	906	858	7	7.00	0.00430	**
955	925	972	7	7.00	0.00433	**
956	831	938	22	22.00	0.00450	**
957	940	890	30	30.00	0.00461	**
958	949	887	31	31.00	0.00461	**
959	864	946	40	40.00	0.00475	**
960	916	912	18	18.00	0.00479	**
961	917	947	37	37.00	0.00502	**
962	958	935	60	60.00	0.00550	**
963	956	926	38	38.00	0.00568	**
964	953	939	32	32.00	0.00753	**
965	922	930	23	23.00	0.00826	**
966	943	933	28	28.00	0.00845	**
967	951	955	20	20.00	0.00895	**
968	950	914	36	36.00	0.00923	**
969	925	921	45	45.00	0.00975	**
970	936	948	32	22.00	0.01162	**
971	944	942	35	35.00	0.01230	**
972	957	960	48	48.00	0.01266	**
973	959	963	78	78.00	0.01478	**
974	971	968	73	73.00	0.01538	**
975	972	861	85	85.00	0.01587	**
976	954	964	39	39.00	0.02054	**
977	975	965	108	108.00	0.02184	**
978	962	973	136	136.00	0.02280	**
979	978	969	183	183.00	0.03363	**
980	977	945	119	119.00	0.03926	**
981	937	967	30	30.00	0.03939	**
982	976	976	61	61.00	0.03854	**
983	974	966	101	101.00	0.05114	**
984	982	979	244	244.00	0.07400	**
985	983	984	345	345.00	0.08353	**
986	980	985	464	464.00	0.12590	**
987	981	986	494	474.00	0.16172	**

AXE 3 * AXE 4

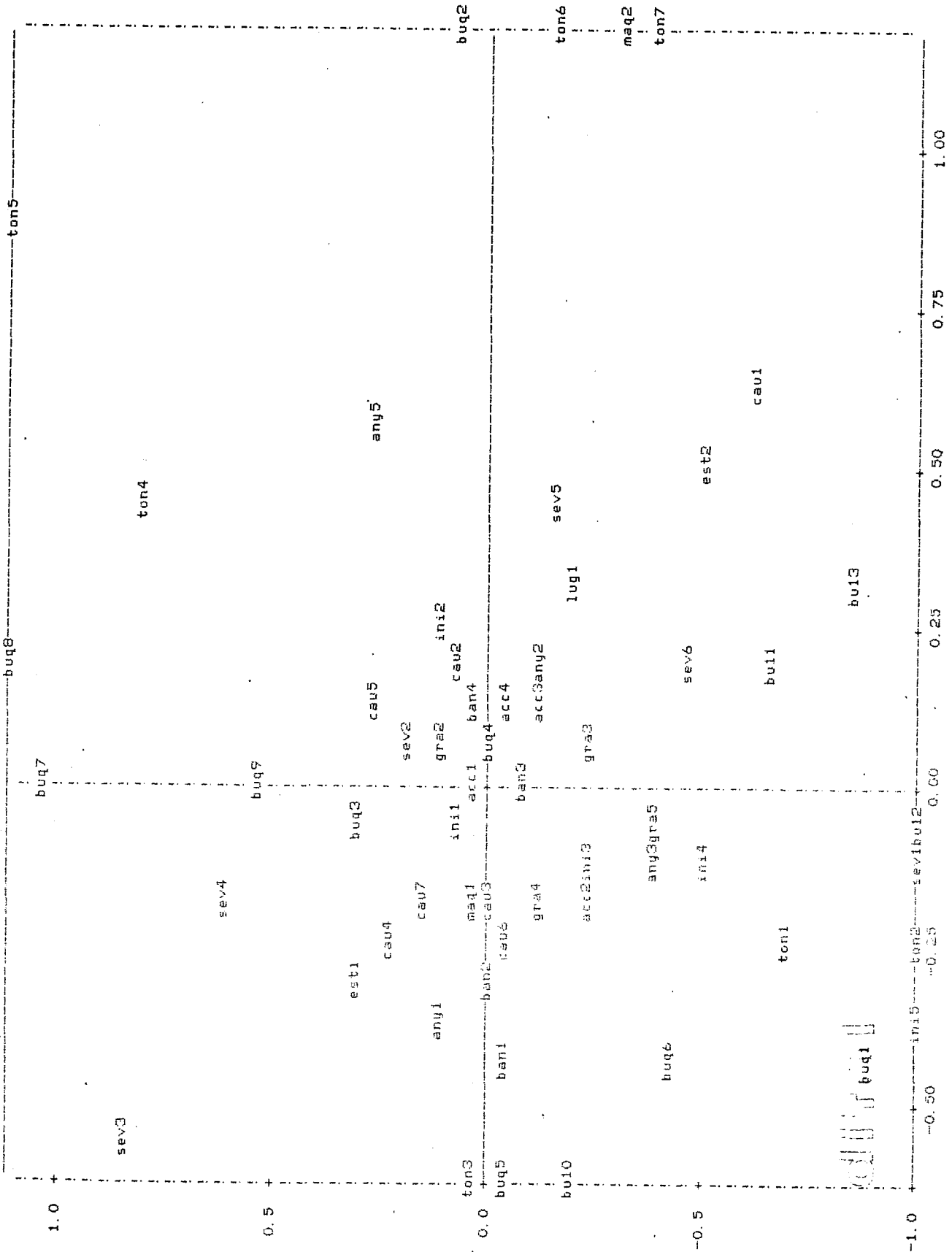


AXE 2 * AXE 3



AXE 1 * AXE 2

AXE 2



AXE 1

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HISTOGRAMME DES 27 PREMIERES VALEURS PROPRES

NUMERO	VALEUR PROPRE	POURCENT.	POURCENT. CUMULE
1	0.2493	7.59	7.59
2	0.1976	5.85	13.24
3	0.1814	5.38	18.62
4	0.1728	5.12	23.74
5	0.1621	4.80	28.54
6	0.1603	4.75	33.29
7	0.1485	4.40	37.69
8	0.1447	4.29	41.99
9	0.1397	4.14	46.13
10	0.1381	4.07	50.22
11	0.1342	3.98	54.19
12	0.1320	3.91	58.11
13	0.1274	3.72	61.80
14	0.1220	3.62	65.50
15	0.1195	3.54	69.04
16	0.1131	3.35	72.39
17	0.1121	3.32	75.71
18	0.1075	3.25	78.96
19	0.1045	3.10	82.05
20	0.0979	2.60	84.65
21	0.0917	2.72	87.37
22	0.0850	2.55	90.02
23	0.0826	2.45	92.47
24	0.0751	2.22	94.69
25	0.0662	1.92	96.61
26	0.0606	1.79	98.40
27	0.0456	1.35	100.00

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COORDONNEES, CONTRIBUTIONS ET COSINUS CARRÉS DES MODALITES ACTIVES SUR LES AXES 1 A 5

MODALITES	COORDONNEES					CONTRIBUTIONS					COSINUS CARRÉS								
	IDEN	LIBELLE	P. REL	DISTO	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1. any																			
any1	1985		3.06	3.08	-0.42	0.12	-0.04	-0.16	-0.05	2.2	0.2	0.0	0.5	0.1	0.06	0.00	0.00	0.01	0.00
any2	1986		2.73	3.57	0.17	-0.11	-0.24	-0.43	-0.69	0.3	0.2	0.9	2.9	8.0	0.01	0.00	0.02	0.05	0.13
any3	1987		2.13	4.88	-0.14	-0.40	-0.32	0.41	-0.53	0.2	1.7	1.2	2.1	3.6	0.00	0.03	0.02	0.04	0.06
any4	1988		2.40	4.20	-0.04	0.08	0.49	-0.54	0.59	0.0	0.1	3.2	4.1	5.1	0.00	0.00	0.06	0.07	0.08
any5	1989		2.18	4.74	0.57	0.27	0.12	0.96	0.80	2.8	0.8	0.2	11.7	8.6	0.07	0.02	0.00	0.20	0.13
CONTRIBUTION CUMULEE =										5.5	3.0	5.4	21.3	25.4					
2. buque																			
buq1	pasaje		1.01	11.35	-0.45	-0.87	0.50	-1.83	0.64	0.8	3.9	1.4	19.6	2.6	0.02	0.07	0.02	0.29	0.04
buq2	petrolero		2.86	3.37	1.18	0.08	0.26	0.10	-0.12	15.9	0.1	1.1	0.2	0.3	0.41	0.00	0.02	0.00	0.00
buq5	convencional		3.90	2.21	-0.56	-0.03	0.36	0.19	-0.39	6.8	0.0	2.7	0.8	3.7	0.20	0.00	0.06	0.02	0.07
buq6	ro-ro		0.78	14.94	-0.42	-0.43	0.48	0.66	0.11	0.5	0.7	1.0	2.0	0.1	0.01	0.01	0.02	0.03	0.00
buq7	contenedor		0.53	22.52	0.10	0.89	-0.22	-0.19	0.79	0.0	2.2	0.1	0.1	2.1	0.00	0.04	0.00	0.00	0.03
buq8	bulkcarrier		1.52	7.23	0.19	1.40	-1.08	-0.50	-0.25	0.2	15.0	9.7	2.2	0.6	0.00	0.27	0.16	0.03	0.01
bu10	frigorifico		0.61	19.58	-0.69	-0.19	0.45	-0.20	0.87	1.2	0.1	0.7	0.1	2.8	0.02	0.00	0.01	0.00	0.04
bu12	pesquero		0.91	12.72	-0.11	-1.27	-0.94	1.40	0.47	0.0	7.5	4.4	10.3	1.3	0.00	0.13	0.07	0.15	0.02
bu13	otros		0.38	31.93	0.41	-0.58	-1.80	-0.04	0.35	0.3	0.6	6.8	0.0	0.3	0.01	0.01	0.10	0.00	0.00
CONTRIBUTION CUMULEE =										25.8	30.1	27.9	35.3	13.6					
4. sevimar																			
sev1	sevimar 1		1.72	6.26	-0.23	-1.37	-0.09	-0.96	0.28	0.3	16.4	0.1	9.2	0.8	0.01	0.30	0.00	0.15	0.01
sev2	sevimar 2		9.03	0.38	0.07	0.19	0.02	0.13	-0.31	0.2	1.6	0.0	0.9	5.2	0.01	0.09	0.00	0.04	0.24
sev3	sevimar 3		0.38	31.93	-0.60	0.85	1.15	0.45	0.27	0.5	1.4	2.8	0.4	0.2	0.01	0.02	0.04	0.01	0.00
sev4	sevimar 4		0.84	13.97	-0.19	0.61	0.04	-0.30	1.89	0.1	1.6	0.0	0.4	18.4	0.00	0.03	0.00	0.01	0.26
sev5	sevimar 5		0.25	48.40	0.42	-0.16	-1.28	-1.00	0.09	0.2	0.0	2.3	1.5	0.0	0.00	0.00	0.03	0.02	0.00
sev6	sevimar 6		0.28	43.91	0.17	-0.45	-0.68	2.99	2.06	0.0	0.3	0.7	14.4	7.3	0.00	0.00	0.01	0.20	0.10
CONTRIBUTION CUMULEE =										1.4	21.3	5.9	26.7	31.9					
5. tonelaje																			
ton1	tonelaje 1		1.39	7.98	-0.21	-0.70	-0.12	0.24	0.60	0.2	3.4	0.1	0.4	3.1	0.01	0.06	0.00	0.01	0.05
ton2	tonelaje 2		2.53	3.94	-0.25	-1.02	-0.18	0.33	-0.30	0.6	13.4	0.5	1.6	1.4	0.02	0.27	0.01	0.03	0.00
ton3	tonelaje 3		3.87	2.23	-0.62	0.02	0.41	-0.21	-0.06	6.0	0.0	3.7	1.0	0.1	0.17	0.00	0.08	0.02	0.00
ton4	tonelaje 4		4.10	2.05	0.45	0.80	-0.44	-0.08	0.24	3.3	13.4	4.4	0.2	1.5	0.10	0.32	0.10	0.00	0.03
ton5	tonelaje 5		0.30	40.17	0.93	1.10	-0.45	-0.13	-2.62	1.1	1.9	0.3	0.0	12.8	0.02	0.03	0.00	0.00	0.17
ton6	tonelaje 6		0.30	40.17	3.95	-0.51	3.19	0.00	-0.10	19.0	0.4	17.0	0.0	0.0	0.39	0.01	0.25	0.00	0.00
CONTRIBUTION CUMULEE =										30.2	32.5	26.0	3.2	18.9					
6. maquina																			
maq1	maquina		11.74	0.06	-0.17	0.04	-0.09	0.03	0.00	1.4	0.1	0.6	0.1	0.0	0.47	0.03	0.13	0.01	0.00
maq2	vapor		0.76	15.47	2.68	-0.68	1.43	-0.46	-0.02	21.9	1.8	8.6	0.9	0.0	0.47	0.03	0.13	0.01	0.00
CONTRIBUTION CUMULEE =										23.4	1.9	9.1	1.0	0.0					
MODALITES																			
COORDONNEES										CONTRIBUTIONS					COSINUS CARRÉS				

IDEN - LIBELLE	P. HEL	DISTO	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
7. estado																		
est1 - cargado	7.74	0.61	-0.33	0.30	0.33	0.05	0.14	3.4	3.6	4.6	0.1	1.0	0.18	0.15	0.18	0.00	0.03	
est2 - lastre	4.76	1.63	0.54	-0.49	-0.54	-0.08	-0.24	5.6	5.8	7.5	0.2	1.6	0.18	0.15	0.18	0.00	0.03	
				CONTRIBUTION CUMULEE =				9.0	9.4	12.2	0.3	2.6						
8. lugar																		
lug1 - puerto	5.59	1.24	0.29	-0.18	-0.30	0.08	0.22	1.8	0.9	2.7	0.2	1.7	0.07	0.03	0.07	0.01	0.04	
lug2 - mar	6.91	0.81	-0.23	0.14	0.24	-0.07	-0.18	1.5	0.7	2.2	0.2	1.4	0.07	0.03	0.07	0.01	0.04	
				CONTRIBUTION CUMULEE =				3.3	1.6	4.9	0.4	3.1						
13. banderas																		
ban2 - flota media	2.63	3.75	-0.32	-0.01	0.67	0.76	-0.47	1.1	0.0	6.5	8.9	3.6	0.03	0.00	0.12	0.16	0.06	
ban3 - flota alta	1.75	6.16	-0.03	-0.12	-0.38	-0.41	0.20	0.0	0.1	1.4	1.7	0.4	0.00	0.00	0.02	0.03	0.01	
ban4 - flota muy alta	8.12	0.54	0.11	0.03	-0.13	-0.16	0.11	0.4	0.0	0.8	1.2	0.6	0.02	0.00	0.03	0.05	0.02	
				CONTRIBUTION CUMULEE =				1.5	0.2	8.7	11.8	4.6						

admiral

COORDONNEES ET VALEURS-TEST DES MODALITES SUR LES AXES 1 A 5

MODALITES		COORDONNEES					VALEURS-TEST							
IDEN	LIBELLE	EFF.	P. ABS	DISTO	1	2	3	4	5	1	2	3	4	5
1. any														
any1	1985	121	121.00	3.08	-0.42	0.12	-0.04	-0.16	-0.05	-5.4	1.6	-0.5	-2.1	-0.7
any2	1986	106	108.00	3.57	0.17	-0.11	-0.24	-0.43	-0.69	2.0	-1.3	-2.8	-5.1	-8.1
any3	1987	64	84.00	4.88	-0.14	-0.40	-0.32	0.41	-0.53	-1.4	-4.0	-3.2	4.2	-5.3
any4	1988	95	95.00	4.20	-0.04	0.08	0.49	-0.54	0.59	-0.5	0.8	5.3	-5.9	6.4
any5	1989	82	86.00	4.74	0.57	0.27	0.12	0.96	0.80	5.8	2.8	1.2	9.8	8.1
2. buque														
buq1	pasaje	38	38.00	12.00	-0.47	-0.87	0.57	-1.83	0.68	-3.0	-5.6	3.7	-11.8	4.3
buq2	petrolero	110	110.00	3.49	1.20	0.08	0.26	0.08	-0.13	14.3	1.0	3.1	0.9	-1.6
buq3	quiniquero	6	6.00	81.33	-0.05	0.33	-0.49	0.31	0.53	-0.1	0.8	-1.2	0.8	1.3
buq4	gasero	8	8.00	60.75	0.04	0.00	-0.50	-0.23	0.26	0.1	0.0	-1.4	-0.6	0.8
buq5	convencional	153	153.00	2.23	-0.66	-0.03	0.36	0.20	-0.40	-9.8	-0.4	5.4	2.9	-5.9
buq6	ro-ro	29	29.00	16.03	-0.44	-0.43	0.52	0.67	0.20	-2.5	-2.4	2.9	3.7	1.1
buq7	contenedor	18	18.00	26.44	-0.03	1.03	-0.16	-0.20	0.84	-0.1	4.4	-0.7	-0.9	3.6
buq8	bulcarriero	56	56.00	7.82	0.20	1.40	-1.09	-0.49	-0.22	1.6	11.1	-8.6	-3.9	-1.8
buq9	car-carriero	5	5.00	97.80	0.01	0.54	-0.24	-0.14	0.49	0.0	1.2	-1.3	-0.5	1.1
bu10	frigorifico	19	19.00	35.00	-0.69	-0.20	0.52	-0.14	0.81	-3.1	-0.9	2.3	-0.6	3.6
bu11	remolcador	9	9.00	53.89	0.17	-0.66	-0.93	1.46	0.18	0.5	-2.0	-2.0	0.0	0.6
bu12	pesquero	32	32.00	14.44	-0.10	-1.29	-0.68	1.46	0.42	-0.6	-7.5	-5.5	8.5	2.5
bu13	otros	11	11.00	43.91	0.35	-0.85	-1.95	0.01	0.27	1.2	-2.8	-6.5	0.0	0.9
4. sevimar														
sev1	sevimar 1	68	68.00	6.26	-0.23	-1.37	-0.09	-0.96	0.28	-2.0	-12.2	-0.8	-8.5	2.5
sev2	sevimar 2	357	357.00	0.38	0.07	0.19	0.02	0.13	-0.31	2.5	6.7	0.7	4.6	-10.9
sev3	sevimar 3	15	15.00	31.93	-0.60	0.85	1.15	0.45	0.27	-2.4	3.3	4.5	1.8	1.1
sev4	sevimar 4	33	33.00	13.97	-0.19	0.61	0.04	-0.30	1.89	-1.1	3.6	0.3	-1.8	11.2
sev5	sevimar 5	10	10.00	48.40	0.42	-0.16	-1.28	-1.00	0.09	1.4	-0.5	-4.1	-3.2	0.3
sev6	sevimar 6	11	11.00	43.91	0.17	-0.45	-0.68	2.99	2.06	0.6	-1.5	-2.3	10.0	6.9
5. tonelaje														
ton1	tonelaje 1	54	54.00	8.15	-0.25	-0.69	-0.12	0.24	0.58	-2.0	-5.4	-0.9	1.9	4.5
ton2	tonelaje 2	95	95.00	3.99	-0.28	-1.02	-0.19	0.34	-0.29	-3.1	-11.3	-2.1	3.8	-3.2
ton3	tonelaje 3	152	152.00	2.25	-0.63	0.02	0.40	-0.21	-0.06	-9.3	0.3	5.9	-3.1	-0.9
ton4	tonelaje 4	162	162.00	2.05	0.45	0.80	-0.44	-0.08	0.24	6.9	12.5	-6.9	-1.2	3.7
ton5	tonelaje 5	12	12.00	40.17	0.93	1.10	-0.45	-0.13	-2.62	3.3	3.9	-1.6	-0.4	-9.2
ton6	tonelaje 6	11	11.00	43.91	3.92	-0.48	3.21	0.07	0.00	13.1	-1.6	10.8	0.2	0.0
ton7	tonelaje 7	4	4.00	122.50	2.49	-0.81	1.50	-0.34	-0.27	5.0	-1.6	3.0	-0.7	-0.5

MODALITES	COORDONNEES					VALEURS-TEST									
	IDEN - LIBELLE	EFF.	P. ABS	DISTO	1	2	3	4	5	1	2	3	4	5	
6 . maquina															
maq1 - motor	464	454.00	0.06	0.06	-0.17	0.04	-0.09	0.03	0.00	0.00	-15.2	3.8	-8.1	2.6	0.1
maq2 - vapor	30	30.00	15.47	2.68	-0.68	1.43	-0.46	-0.02	15.2	-3.8	8.1	-2.6	-0.1		
7 . estado															
est1 - cargado	306	306.00	0.61	-0.33	0.30	0.33	0.05	0.14	-9.4	8.5	9.3	1.4	4.1		
est2 - lastre	188	188.00	1.63	0.54	-0.49	-0.54	-0.08	-0.24	9.4	-8.5	-9.3	-1.4	-4.1		
8 . lugar															
lug1 - puerto	221	221.00	1.24	0.29	-0.18	-0.30	0.08	0.22	5.7	-3.6	-5.9	1.6	4.4		
lug2 - mar	273	273.00	0.81	-0.23	0.14	0.24	-0.07	-0.18	-5.7	3.6	5.9	-1.6	-4.4		
9 . banderas															
ban1 - flota baja	8	8.00	50.75	-0.47	-0.05	0.05	0.05	0.17	-1.3	-0.2	0.1	0.1	0.1	0.5	
ban2 - flota media	101	101.00	3.89	-0.32	0.11	0.01	0.67	-0.48	-3.6	-0.2	7.6	8.5	-5.4		
ban3 - flota alta	55	55.00	6.48	-0.01	-0.08	-0.38	-0.39	0.21	-0.1	-0.7	-3.3	-3.4	1.9		
ban4 - flota muy alta	319	319.00	0.55	0.11	0.02	-0.14	-0.16	0.10	3.4	0.7	-4.1	-4.8	3.1		
9 . inicio															
ini1 - maquinas	274	274.00	0.80	-0.05	0.08	0.04	-0.06	-0.04	-1.3	1.9	1.0	-1.4	-1.0		
ini2 - espacios de carga	123	123.00	3.02	0.25	0.11	0.01	0.09	0.09	3.2	1.4	0.1	1.1	1.2		
ini3 - alojamientos	70	70.00	6.06	-0.15	-0.24	-0.13	-0.01	-0.05	-1.4	-2.1	-1.2	-0.1	-0.4		
ini4 - puente	18	18.00	26.44	-0.13	-0.49	-0.26	0.25	0.00	-0.6	-2.1	-1.1	1.1	0.0		
ini5 - cocina	9	9.00	53.89	-0.39	-1.01	0.19	0.08	0.32	-1.2	-3.1	0.6	0.2	1.0		
10 . causa															
cau1 - reparacion	83	83.00	4.95	0.62	-0.63	-0.41	-0.07	0.14	6.2	-6.3	-4.1	-0.7	1.4		
cau2 - averia	50	50.00	8.68	0.16	0.06	0.13	0.13	-0.13	1.2	0.5	1.0	0.0	-0.9		
cau3 - rotura	37	37.00	11.67	-0.21	0.02	0.22	-0.12	0.24	-1.4	0.1	1.4	-0.8	1.6		
cau4 - sobrecal	53	58.00	7.52	-0.25	0.22	0.10	-0.21	-0.13	-2.0	1.8	0.8	-1.7	-1.0		
cau5 - explosion	70	75.00	5.59	0.13	0.29	0.08	0.14	-0.18	1.3	2.7	0.7	0.2	-1.7		
cau6 - negligencia	60	80.00	5.18	-0.30	-0.05	0.02	0.14	0.06	-2.9	-0.5	0.2	1.4	0.6		
cau7 - desconocida	109	109.00	3.53	-0.21	0.17	0.05	0.02	0.01	-2.5	2.0	0.6	0.3	0.2		
11 . #fflon															
acc1 - sofoco	343	343.00	0.44	-0.01	0.05	0.00	0.00	-0.04	-0.2	1.8	0.0	0.2	-1.2		
acc2 - abandono	47	47.00	9.51	-0.21	-0.21	0.10	-0.20	0.06	-1.5	-1.5	0.7	-1.4	0.4		
acc3 - accidentados	50	50.00	8.88	0.14	-0.11	0.15	0.08	-0.24	1.0	-0.8	1.1	0.6	-1.8		
acc4 - asistencia exterior	54	54.00	8.15	0.10	-0.06	-0.23	0.07	0.41	0.8	-0.4	-1.8	0.5	3.2		

11 #fflon

MODALITES	COORDONNEES					VALEURS-TEST								
	IDEN - LIBELLE	EFF.	P. ABS	DISTO	1	2	3	4	5	1	2	3	4	5
12 . gravedad														
gra1 - leves	124	124.00	2.98	0.04	0.12	0.01	0.02	0.15	0.6	1.5	0.1	0.3	2.0	2.0
gra2 - medios	192	192.00	1.97	0.05	0.10	0.06	0.06	0.00	1.0	1.8	1.1	1.1	-0.1	-0.1
gra3 - importantes	48	48.00	9.29	0.08	-0.23	0.05	0.34	0.04	0.6	-1.6	0.4	2.5	0.3	0.3
gra4 - desguace	96	96.00	4.15	-0.19	-0.11	-0.17	-0.26	-0.21	-2.0	-1.2	-1.8	-2.9	-2.3	-2.3
gra5 - hundimiento	34	34.00	13.53	-0.06	-0.37	0.01	-0.16	0.01	-0.4	-2.2	0.0	-1.0	0.1	0.1

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DESCRIPTION DE LA COUPURE 'a' DE L'ARBRE EN 3 CLASSES

- CARACTERISATION DES CLASSES PAR LES MODALITES
 - CARACTERISATION DES CLASSES PAR LES CONTINUES

MODALITES CARACTERISTIQUES

IDEN ----- POURCENTAGES ----- POIDS V. TEST PROBA
 CLA/MOD MOD/CLA GLOBAL

CLASSE 1 / 3

IDEN	CLA/MOD	MOD/CLA	GLOBAL	POIDS	V. TEST	PROBA
convencional	buq5	98.69	43.77	69.84	345	
motor	maq1	74.14	99.71	30.97	153	10.64 0.000
tonelaje 2	ton2	97.98	28.12	93.93	464	7.84 0.000
tonelaje 3	ton3	90.79	40.00	20.04	99	7.77 0.000
tonelaje 1	ton1	98.15	15.36	30.77	152	7.12 0.000
pesquero	bu12	100.00	9.28	10.93	54	5.44 0.000
passaje	buq1	92.11	10.14	6.48	32	4.36 0.000
frigorifico	bu10	100.00	5.51	7.69	38	3.20 0.001
flota media	ban2	82.18	24.06	3.85	19	3.11 0.001
cargado	est1	74.84	66.38	20.45	101	3.00 0.001
ro-ro	buq6	93.10	7.83	61.94	306	2.97 0.001
mar	lug2	74.73	59.13	5.87	29	2.86 0.002
sevimar 6	sev6	100.00	3.19	55.26	273	2.53 0.006
abandono	acc2	80.85	11.01	2.23	11	2.09 0.018
1987	any3	77.38	18.84	9.51	47	1.60 0.055
negligencia	cau6	77.50	17.97	17.00	84	1.54 0.062
sevimar 1	sev1	77.94	15.36	16.19	80	1.52 0.065
desconocida	cau7	75.23	23.77	13.77	68	1.44 0.075
1985	any1	74.38	26.09	22.06	109	1.28 0.101
desguace	gra4	75.00	20.87	24.49	121	1.14 0.127
puente	ini4	83.33	4.35	19.43	96	1.11 0.134
cocina	ini5	88.89	2.32	3.64	18	1.01 0.156
flota baja	ban1	87.50	2.03	1.82	9	0.88 0.191
hundimiento	gra5	76.47	7.54	1.62	8	0.67 0.250
sobrecal	cau4	74.14	12.46	6.88	34	0.67 0.253
sevimar 3	sev3	80.00	3.48	11.74	58	0.60 0.275
alojamientos	ini3	72.86	14.78	3.04	15	0.56 0.289
remolcador	bu11	77.78	2.03	14.17	70	0.44 0.329
rotura	cau3	71.79	8.12	1.82	9	0.11 0.457
leves	gra1	69.35	24.93	7.89	39	0.08 0.470
car-carrier	buq7	60.00	0.87	25.10	124	-0.03 0.488
gasero	buq4	62.50	1.45	1.01	5	-0.06 0.476
accidentados	acc3	68.00	9.86	1.62	8	-0.12 0.453
dtros	bu13	63.64	2.03	10.12	50	-0.15 0.439
1986	any2	68.52	21.45	2.23	11	-0.16 0.435
sevimar 4	sev4	66.67	6.38	21.86	108	-0.23 0.410
asistencia exterior	acc4	66.67	10.43	6.68	33	-0.24 0.407
sofoco	acc1	69.10	68.70	10.93	54	-0.39 0.347
reparacion	cau1	66.27	15.94	69.43	343	-0.43 0.333
1988	any4	66.32	18.26	16.80	83	-0.65 0.257
				19.23	95	-0.71 0.238

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sevimar	sev5	50.00	1.45	2.02	10	-1.03	0.151	6
buque	buq7	55.56	2.90	3.64	18	-1.08	0.140	2
causa	cau2	62.00	8.99	10.12	50	-1.11	0.134	2
inicio	ini2	65.04	23.19	24.90	123	-1.22	0.111	7
gravidad	gra2	66.15	36.81	38.87	192	-1.32	0.093	7
sevimar	sev2	67.79	70.14	72.27	357	-1.50	0.066	-
any	any5	61.63	15.36	17.41	86	-1.68	0.047	-
causa	cau5	58.67	12.75	15.18	75	-2.12	0.017	2
tonelaje	ton7	0.00	0.00	0.81	4	-2.41	0.008	7
lugar	lug1	63.80	40.87	44.74	221	-2.53	0.006	7
banderas	ban4	65.52	60.58	64.57	319	-2.76	0.003	6
estado	est2	61.70	33.62	38.06	188	-2.97	0.001	6
tonelaje	ton6	0.00	0.00	2.23	11	-4.68	0.000	11
tonelaje	ton5	0.00	0.00	2.43	12	-4.93	0.000	11
petrolero	buq2	39.09	12.46	22.27	110	-7.59	0.000	21
buque	maq2	3.33	0.29	6.07	30	-7.84	0.000	21
maquina	buq8	3.57	0.58	11.34	56	-11.18	0.000	21
buque	ton4	35.19	16.52	32.79	162	-11.51	0.000	21
tonelaje								

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MODALITES CARACTERISTIQUES

CLASSE 2 / 3

IDEN	POURCENTAGES CLA/MOD MOD/CLA	GLOBAL	POIDS	V. TEST PROBA
	aa2a	24.09	119	
buque	buq8	96.43	45.38	11.34
tonelaje 4	ton4	58.02	78.99	32.79
tonelaje 5	ton5	91.67	9.24	2.43
buque	buq2	40.91	37.82	22.27
maquina	maq1	25.43	99.16	93.93
causa	cau5	36.00	22.69	15.18
banderas	ban4	26.96	72.27	64.57
sevimar	sev2	26.33	78.99	72.27
lugar	lug1	27.60	51.26	44.74
sevimar	sev5	50.00	4.20	2.02
buque	buq7	38.89	5.88	3.64
gravidad	gra2	27.08	43.70	38.87
estado	est2	27.13	42.86	38.06
inicio	ini2	27.64	28.57	24.90
accion	acc4	29.63	13.45	10.93
any	any5	27.91	20.17	17.41
any	any4	27.37	21.85	19.23
sevimar	sev4	30.30	8.40	6.68
buque	bu13	36.36	3.36	2.23
buque	buq4	37.50	2.52	1.62
causa	cau2	28.00	11.76	10.12
banderas	ban3	27.27	15.13	13.36
buque	buq9	40.00	1.68	1.01
car-carrier	ini1	24.62	57.14	55.47
maquinas	acc1	24.49	70.59	69.43
sofoco	buq3	33.33	1.68	1.21
quimiquero				
sevimar	sev3	20.00	2.52	3.04
gravidad	gra1	23.39	24.37	25.10
causa	cau4	22.41	10.92	11.74
any	any1	23.14	23.53	24.49
causa	cau7	22.94	21.01	22.06
banderas	ban1	12.50	0.84	1.62
inicio	ini3	21.43	12.61	14.17
tonelaje	gra4	21.88	17.65	19.43
buque	ton7	0.00	0.00	0.81
remolcador	bu11	11.11	0.84	1.82
gravidad	gra5	17.65	5.04	6.88
causa	cau6	20.00	13.45	16.19
negligencia	ini4	11.11	1.68	3.64
punte	est1	22.22	57.14	61.94
cargado	cau1	18.07	12.61	16.80
reparacion	any3	17.86	12.61	17.00
1987	ini5	0.00	0.00	1.82
cocina	acc2	14.89	5.88	9.51
abandono	lug2	21.25	48.74	55.26
mar	sev6	0.00	0.00	2.23
sevimar	ton6	0.00	0.00	2.23
tonelaje	bu10	0.00	0.00	3.85
banderas	ban2	13.86	11.76	20.45
flota media	maq2	3.33	0.84	6.07
vapor	sev1	10.29	5.88	13.77
sevimar				
leves				
sobreca1				
desconocida				
flota baja				
alojamientos				
desguase				
tonelaje 7				
remolcador				
hundimiento				
negligencia				
punte				
cargado				
reparacion				
1987				
cocina				
abandono				
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sevimar				
tonelaje				
buque				
banderas				
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port
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 pasaje
 tonelaje 1
 tonelaje 3
 tonelaje 2
 convencional

buq6	0.00	0.00	5.87				
bu12	0.00	0.00	6.48	32	3.70	0.000	
buq1	0.00	0.00	7.69	38	4.14	0.000	
ton1	1.85	0.84	10.93	54	-4.56	0.000	
ton3	8.55	10.92	30.77	152	-5.62	0.000	
ton2	0.00	0.00	20.04	99	-7.50	0.000	
buq5	0.65	0.84	30.97	153	-9.44	0.000	

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MODALITES CARACTERISTIQUES

IDEN ----- POURCENTAGES ----- POIDS V. TEST PROBA
 CLA/MOD MOD/CLA GLOBAL

CLASSE 3 / 3

IDEN	POURCENTAGES	POIDS	V. TEST	PROBA
CLA/MOD	MOD/CLA	GLOBAL		
aa3a	6.07	30		
maq2	93.33	93.33	99.99	0.000
ton6	100.00	36.67	7.72	0.000
buq2	20.00	73.33	6.01	0.000
ton7	100.00	13.33	4.24	0.000
est2	11.17	70.00	3.47	0.000
cau1	15.66	43.33	3.38	0.000
lug1	8.60	63.33	1.92	0.027
sev1	11.76	26.67	1.75	0.040
ban4	7.52	80.00	1.66	0.048
any5	10.47	30.00	1.57	0.058
cau2	10.00	16.67	0.93	0.176
espacios de carga	7.32	30.00	0.47	0.318
ini2	7.41	26.67	0.46	0.323
any2	7.26	30.00	0.49	0.328
gral	8.00	13.33	0.36	0.361
acc3	6.77	43.33	0.34	0.369
gra2	6.79	36.67	0.28	0.388
ton4	6.41	73.33	0.25	0.401
acc1	7.89	10.00	0.22	0.411
buq1	11.11	3.33	0.17	0.434
ini5	11.11	3.33	0.17	0.434
bu11	11.11	3.33	0.17	0.434
remolcador				
sev6	0.00	0.00	0.00	0.498
bu13	0.00	0.00	0.00	0.498
sev2	5.88	70.00	-0.10	0.459
acc2	4.26	6.67	-0.15	0.441
any3	4.76	13.33	-0.25	0.400
sev4	3.03	3.33	-0.29	0.387
sev3	0.00	0.00	-0.41	0.341
acc4	3.70	6.67	-0.44	0.331
ini1	5.47	50.00	-0.53	0.297
bu10	0.00	0.00	-0.55	0.291
cau4	3.45	6.67	-0.74	0.228
ban2	3.96	13.33	-0.82	0.207
ban3	3.03	6.67	-1.12	0.131
gra4	3.13	10.00	-1.15	0.126
bu12	0.00	0.00	-1.24	0.107
cau6	2.50	6.67	-1.76	0.039
ton2	2.02	6.67	-1.77	0.038
any1	2.48	10.00	-1.92	0.028
ton1	0.00	0.00	-1.98	0.024
lug2	4.03	36.67	-2.01	0.022
buq8	0.00	0.00	-3.47	0.000
bulcarrier	1.83	6.67	-3.59	0.000
desconocida	2.94	30.00	-3.61	0.000
cargado	0.66	3.33	-3.61	0.000
tonelaje 3	0.65	3.33	-3.61	0.000
tonelaje 2	0.43	6.67	-3.61	0.000
convencional				
buq5	0.43	6.67	-3.61	0.000
maq1	0.43	6.67	-3.61	0.000
motor				

ditel

DESCRIPTION DE LA COUPURE 'b' DE L'ARBRE EN 5 CLASSES

- CARACTERISATION DES CLASSES PAR LES MODALITES

- CARACTERISATION DES CLASSES PAR LES CONTINUES

MODALITES CARACTERISTIQUES

IDEN ----- POURCENTAGES ----- POIDS V. TEST PROBA
 CLA/MDD MOD/CLA GLOBAL

CLASSE 1 / 5

IDEN	CLA/MDD	MOD/CLA	GLOBAL	POIDS	V. TEST	PROBA
bb1b			37.04	183		
convencional	buq5	85.62	71.58	153	15.18	0.000
tonelaje 3	ton3	63.16	52.46	152	7.86	0.000
cargado	est1	48.69	81.42	306	6.93	0.000
banderas	ban2	61.39	33.88	101	5.48	0.000
any	any1	54.55	36.07	121	4.43	0.000
maquina	maq1	39.22	99.45	464	4.24	0.000
gravedad	gra4	54.17	28.42	96	3.70	0.000
lugar	lug2	43.22	64.48	273	3.08	0.001
sevimar	sev2	40.90	79.78	357	2.79	0.003
sevimar	sev3	66.67	5.46	15	2.10	0.018
causa	cau7	44.95	26.78	109	1.81	0.035
any	any2	44.44	26.23	108	1.68	0.046
causa	cau4	46.55	14.75	58	1.44	0.074
inicio	ini1	39.78	59.56	274	1.31	0.095
accion	acc1	39.07	73.22	343	1.30	0.096
any	any3	42.86	19.67	84	1.09	0.139
causa	cau3	46.15	9.84	39	1.05	0.146
banderas	ban3	40.91	14.75	66	0.57	0.285
inicio	ini3	40.00	15.30	70	0.43	0.335
banderas	ban1	50.00	2.19	8	0.42	0.337
causa	cau6	38.75	16.94	80	0.23	0.411
tonelaje 2	ton2	38.38	20.77	99	0.20	0.422
tonelaje 1	ton1	38.89	11.48	54	0.16	0.437
gravedad	gra2	36.46	38.25	192	-0.12	0.453
buque	buq9	20.00	0.55	5	-0.28	0.389
causa	cau2	34.00	9.29	50	-0.31	0.380
buque	buq4	25.00	1.09	8	-0.31	0.379
gravedad	gra5	32.35	6.01	34	-0.39	0.348
accion	acc2	31.91	8.20	47	-0.60	0.275
sevimar	sev1	32.35	12.02	68	-0.72	0.235
causa	cau5	32.00	13.11	75	-0.85	0.198
tonelaje 7	ton7	0.00	0.00	4	-1.01	0.156
accion	acc4	29.63	8.74	54	-1.05	0.147
buque	buq7	22.22	2.19	18	-1.08	0.140
buque	bu11	11.11	0.55	9	-1.31	0.096
gravedad	gra3	27.08	7.10	48	-1.36	0.087
sevimar	sev5	10.00	0.55	10	-1.51	0.065
buque	buq3	0.00	0.00	6	-1.55	0.061
buque	buq1	23.68	4.92	38	-1.63	0.052
exterior	exterior					

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gravedad
 inicio
 any
 sevimar
 buque
 tonelaje 6
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 sevimar
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 tonelaje 6
 tonelaje 5
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 1989
 bulkcarrier
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gral	29.84	20.22	25.10	124	-1.83	0.034
ini2	29.27	19.67	24.90	123	-1.97	0.024
any4	27.37	14.21	19.23	95	-2.08	0.019
sev6	0.00	0.00	2.23	11	-2.53	0.006
bu13	0.00	0.00	2.23	11	-2.53	0.006
ton6	0.00	0.00	2.23	11	-2.53	0.006
ton5	0.00	0.00	2.43	12	-2.69	0.004
sev4	12.12	2.19	6.68	33	-3.07	0.001
lug1	29.41	35.52	44.74	221	-3.08	0.001
cau1	20.48	9.29	16.80	83	-3.41	0.000
bu12	6.25	1.09	6.48	32	-3.91	0.000
maq2	3.33	0.55	6.07	30	-4.24	0.000
ban4	28.21	49.18	64.57	319	-5.36	0.000
buq2	12.73	7.65	22.27	110	-6.23	0.000
ton4	17.28	15.30	32.79	162	-6.47	0.000
any5	8.14	3.83	17.41	86	-6.53	0.000
buq8	1.79	0.55	11.34	56	-6.55	0.000
est2	18.09	18.58	38.06	188	-6.93	0.000

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MODALITES CARACTERISTIQUES

CLASSE 2 / 5

IDEN ----- POURCENTAGES ----- POIDS V. TEST PROBA
 CLA/MOD MOD/CLA GLOBAL

IDEN	POURCENTAGES	POIDS	V. TEST	PROBA
CLA/MOD	MOD/CLA	GLOBAL		
1989		12.35	61	9.68 0.000
any5	48.84	68.85	86	6.49 0.000
sev6	100.00	17.41	11	5.20 0.000
sev4	48.48	26.23	33	3.00 0.001
cau6	23.75	31.15	80	2.76 0.003
ton1	25.93	22.95	54	2.57 0.005
buq6	31.03	14.75	29	2.52 0.005
est1	15.36	77.05	306	2.31 0.010
bu12	28.13	14.75	32	2.12 0.017
pesquero		6.48	464	1.98 0.024
maq1	13.15	100.00	93.93	1.91 0.028
lug1	15.84	57.38	44.74	1.57 0.058
leves	grat	17.74	36.07	1.35 0.088
buq7	27.78	8.20	18	1.35 0.089
contenedor		3.64	6	0.98 0.162
espacios de carga	ini2	16.26	32.79	0.82 0.206
flota media	ban2	16.83	27.87	0.75 0.227
quimiquero	buq3	33.33	3.28	0.65 0.258
assistencia exterior	acc4	16.67	14.75	0.57 0.285
importantes	gra3	16.67	13.11	0.50 0.307
flota baja	ban1	25.00	3.28	0.37 0.357
flota alta	ban3	15.15	16.39	0.19 0.423
cocina	ini5	22.22	3.28	0.04 0.484
alojamientos	ini3	14.29	16.39	-0.05 0.480
frigorifico	bul0	15.79	4.92	-0.07 0.474
car-carrier	buq9	20.00	1.64	-0.11 0.458
				-0.13 0.447
				-0.24 0.403
				-0.26 0.396
				-0.26 0.396
				-0.27 0.395
				-0.57 0.283
				-0.63 0.264
				-0.65 0.257
				-0.70 0.242
				-0.74 0.231
				-0.76 0.223
				-0.84 0.202
				-1.15 0.125
				-1.37 0.086
				-1.74 0.041
				-1.95 0.026
				-1.98 0.024
				-2.12 0.017
				-2.30 0.011
				-2.52 0.006
				-2.67 0.004
				-2.76 0.003
				-3.40 0.000
				-3.66 0.000
medios	gra2	11.98	37.70	
tonelaje 3	ton3	11.84	29.51	
rotura	cau3	10.26	6.56	
tonelaje 4	ton4	11.73	31.15	
reparacion	cau1	10.84	14.75	
accidentados	acc3	10.00	8.20	
averia	cau2	10.00	8.20	
sofoco	acc1	11.95	67.21	
tonelaje 2	ton2	10.10	16.39	
pasaje	buq1	7.89	4.92	
sevimar 5	sev5	0.00	0.00	
explosion	cau5	9.33	11.48	
convencional	buq5	10.46	26.23	
tonelaje 6	ton6	0.00	0.00	
1988	any4	9.47	14.75	
tonelaje 5	ton5	0.00	0.00	
sobreca1	cau4	6.90	6.56	
petrolero	buq2	8.18	14.75	
maquinas	ini1	9.85	44.26	
flota muy alta	ban4	10.03	52.46	
mar	lug2	9.52	42.62	
vapor	maq2	0.00	0.00	
1987	any3	4.76	6.56	
lastre	est2	7.45	22.95	
bulkcarrier	buq8	1.79	1.64	
desguace	gra4	4.17	6.56	
sevimar 2	sev2	8.96	52.46	
1985	any1	3.31	6.56	

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IDEN	CLA/MOD	POURCENTAGES	POIDS	V. TEST	PROBA
	MOD/CLA	GLOBAL	GLOBAL		
tonelaje	bb3b	49.49	20.45	101	
estado	ton2	48.51	20.04	99	7.34 0.000
buque	est2	36.17	38.06	188	6.60 0.000
banderas	bu12	65.63	6.48	32	5.61 0.000
sevimar	buq1	60.53	7.69	38	5.51 0.000
causa	ban4	27.27	64.57	319	5.24 0.000
maquina	sev1	45.59	13.77	68	4.98 0.000
accion	cau1	34.94	16.80	83	3.29 0.001
buque	maq1	21.77	93.93	464	3.15 0.001
buque	acc2	36.17	16.83	47	2.49 0.006
any	bu10	47.37	3.85	19	2.48 0.007
tonelaje	bu13	54.55	5.94	11	2.25 0.012
any	any4	29.47	19.23	95	2.23 0.013
any	ton1	33.33	17.82	54	2.22 0.013
buque	any3	29.76	24.75	84	2.12 0.017
gravidad	bu11	55.56	4.95	9	2.04 0.020
sevimar	gra5	32.35	10.89	34	1.52 0.064
inicio	-sev5	40.00	3.96	10	1.14 0.127
gravidad	ini4	33.33	5.94	18	1.08 0.140
lugar	gra3	27.08	3.64	48	1.01 0.155
inicio	lug2	21.98	59.41	273	0.83 0.204
any	ini5	33.33	2.97	9	0.60 0.273
buque	any2	22.22	23.76	108	0.40 0.346
buque	buq3	33.33	1.98	6	0.37 0.356
gravidad	buq6	24.14	6.93	29	0.31 0.379
accion	gra1	21.77	26.73	124	0.31 0.379
	acc3	22.00	10.89	50	0.13 0.448
banderas	ban1	12.50	1.62	8	-0.03 0.489
inicio	ini1	20.07	54.46	274	-0.12 0.453
inicio	ini2	19.51	23.76	123	-0.15 0.439
causa	ini3	18.57	14.17	70	-0.24 0.406
tonelaje	cau2	18.00	8.91	50	-0.24 0.405
causa	ton7	0.00	0.81	4	-0.26 0.399
causa	cau7	18.35	19.80	109	-0.47 0.320
causa	buq2	18.18	19.80	110	-0.52 0.301
causa	cau5	17.33	12.87	75	-0.56 0.289
gravidad	cau3	15.38	5.94	39	-0.59 0.279
gravidad	lug1	18.55	40.59	221	-0.83 0.204
gravidad	gra2	16.67	15.84	96	-0.88 0.190
any	gra2	17.71	33.66	192	-1.09 0.138
banderas	any1	16.53	19.80	121	-1.10 0.135
banderas	cau6	15.00	11.88	80	-1.18 0.119
banderas	ban3	13.64	8.91	66	-1.33 0.091
banderas	buq7	5.56	0.99	18	-1.36 0.088
banderas	sev6	0.00	0.00	11	-1.42 0.078
banderas	ton6	0.00	0.00	11	-1.42 0.078
banderas	ton5	0.00	2.43	12	-1.54 0.062
banderas	ton3	15.79	30.77	152	-1.61 0.054
banderas	acc1	18.08	61.39	343	-1.83 0.034
banderas	sev3	0.00	0.00	15	-1.87 0.031
banderas	sev4	6.06	1.98	33	-2.05 0.020
banderas	sev2	17.93	63.37	357	-2.09 0.019

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maquina	maq2	0.00	6.07	30	-3.15	0.000
any	any5	4.65	17.41	86	-4.31	0.000
buque	buq8	0.00	11.34	56	-4.74	0.000
banderas	ban2	3.96	20.45	101	-5.03	0.000
tonelaje	ton4	6.17	32.79	162	-5.79	0.000
estado	est1	10.78	61.94	306	-6.60	0.000
buque	buq5	2.61	30.97	153	-7.30	0.000
vapor						
1989						
bulkcarrier						
flota media						
tonelaje 4						
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MODALITES CARACTERISTIQUES

IDEN ----- POURCENTAGES ----- POIDS V. TEST PROBA

CLA/MOD MOD/CLA GLOBAL

CLASSE 4 / 5

IDEN	CLA/MOD	MOD/CLA	GLOBAL	POIDS	V. TEST	PROBA
buque	bb4b	24.09	119			
bulcarrier	buq8	96.43	45.38	56	12.46	0.000
tonelaje 4	ton4	58.02	78.99	162	12.03	0.000
tonelaje 5	ton5	91.67	9.24	12	4.74	0.000
buque	buq2	40.91	37.82	110	4.39	0.000
maquina	maq1	25.43	99.16	464	2.85	0.002
causa	cau5	36.00	22.69	75	2.40	0.008
banderas	ban4	26.96	72.27	319	1.92	0.027
sevimar	sev2	26.33	78.99	357	1.79	0.037
lugar	lug1	27.60	51.26	221	1.54	0.062
sevimar 5	sev5	50.00	4.20	10	1.51	0.066
buque	buq7	38.89	5.88	18	1.20	0.115
gravidad	gra2	27.08	43.70	192	1.13	0.129
estado	est2	27.13	42.86	188	1.13	0.130
inicio	ini2	27.64	28.57	123	0.94	0.173
accion	acc4	29.63	13.45	54	0.85	0.198
any	any5	27.91	20.17	86	0.78	0.218
any	any4	27.37	21.85	95	0.71	0.240
sevimar 4	sev4	30.30	8.40	33	0.67	0.251
buque	bu13	36.36	3.36	11	0.64	0.260
buque	buq4	37.50	2.52	8	0.53	0.298
causa	cau2	28.00	11.76	50	0.53	0.300
banderas	ban3	27.27	15.13	66	0.51	0.305
buque	buq9	40.00	1.68	5	0.39	0.348
inicio	ini1	24.82	57.14	274	0.31	0.376
maquinas	maq3	24.49	70.59	343	0.19	0.424
sofoco	acc1	24.49	70.59	343	0.19	0.424
quimiquero	buq3	33.33	1.68	6	0.14	0.445
sevimar 3	sev3	20.00	2.52	15	-0.02	0.493
leves	gra1	23.39	24.37	124	-0.08	0.468
sobreca	cau4	22.41	10.92	58	-0.13	0.447
1985	any1	23.14	23.53	121	-0.15	0.441
desconocida	cau7	22.94	21.01	109	-0.18	0.429
flota baja	ban1	12.50	0.84	8	-0.28	0.388
alojamientos	ini3	21.43	12.61	70	-0.40	0.346
desguace	gra4	21.88	17.65	96	-0.42	0.337
tonelaje 7	ton7	0.00	0.00	4	-0.44	0.331
remolcador	bul1	11.11	0.84	9	-0.47	0.320
hundimiento	gra5	17.65	5.04	34	-0.69	0.247
negligencia	cau6	20.00	13.45	80	-0.79	0.216
puente	ini4	11.11	1.68	18	-1.04	0.150
cargado	est1	22.22	57.14	306	-1.13	0.130
reparacion	cau1	18.07	12.61	83	-1.28	0.101
1987	any3	17.86	12.61	84	-1.34	0.090
cocina	ini5	0.00	0.00	9	-1.39	0.082
abandono	acc2	14.89	9.51	47	-1.40	0.081
lugar	lug2	21.25	48.74	273	-1.54	0.062
sevimar 6	sev6	0.00	0.00	11	-1.68	0.047
tonelaje 6	ton6	0.00	0.00	11	-1.68	0.047
frigorifico	bul0	0.00	0.00	19	-2.59	0.005
buque	ban2	13.86	11.76	101	-2.66	0.004
banderas	maq2	3.33	0.84	30	-2.85	0.002
maquina	sev1	10.29	5.88	68	-2.89	0.002
sevimar 1	sev1	10.29	5.88	68	-2.89	0.002

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buque	buq6	0.00	0.00	5.87	29	-3.47	0.000
buque	bu12	0.00	0.00	6.48	32	-3.70	0.000
buque	buq1	0.00	0.00	7.69	38	-4.14	0.000
tonelaje	ton1	1.85	0.84	10.93	54	-4.56	0.000
tonelaje	ton3	8.55	10.92	30.77	152	-5.62	0.000
tonelaje	ton2	0.00	0.00	20.04	99	-7.50	0.000
buque	buq5	0.65	0.84	30.97	153	-9.44	0.000

ro-to pesquero pasaje tonelaje 1 tonelaje 3 tonelaje 2 convencional

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MODALITES CARACTERISTIQUES

CLASSE 5 / 5

IDEN	POURCENTAGES CLA/MOD MOD/CLA	GLOBAL	POIDS	V. TEST	PROBA
bb5b	6.07	30			
maquina	93.33	93.33	30	99.99	0.000
tonelaje 6	100.00	36.67	11	7.72	0.000
petrolero	20.00	73.33	110	6.01	0.000
tonelaje 7	100.00	13.33	4	4.24	0.000
estado	11.17	70.00	188	3.47	0.000
causa	15.66	43.33	83	3.38	0.000
lugar	8.60	63.33	221	1.92	0.027
sevimar 1	11.76	26.67	68	1.79	0.040
banderas	7.52	80.00	319	1.66	0.048
any	10.47	30.00	86	1.57	0.058
causa	10.00	16.67	50	0.93	0.176
inicio	7.32	30.00	123	0.47	0.318
any	7.41	26.67	108	0.46	0.323
gravidad	7.26	30.00	124	0.45	0.338
accion	8.00	13.33	50	0.36	0.361
tonelaje 4	6.77	43.33	192	0.34	0.369
accion	6.79	36.67	162	0.28	0.388
sofoco	6.41	73.33	343	0.25	0.401
buque	7.89	10.00	38	0.22	0.411
inicio	11.11	3.33	9	0.17	0.434
buque	11.11	3.33	9	0.17	0.434
remolcador					
sevimar 6	0.00	0.00	11	0.00	0.498
otros	0.00	0.00	11	0.00	0.498
sevimar 2	5.88	70.00	357	-0.10	0.459
abandono	4.26	6.67	47	-0.15	0.441
1987	4.76	13.33	84	-0.25	0.400
sevimar 4	3.03	3.33	33	-0.29	0.387
sevimar 3	0.00	0.00	15	-0.29	0.387
accion	3.70	6.67	54	-0.41	0.341
maquinas	5.47	50.00	274	-0.44	0.331
frigorifico	0.00	0.00	19	-0.53	0.297
sobreca	3.45	6.67	58	-0.55	0.291
banderas	3.96	13.33	101	-0.74	0.238
banderas	3.03	6.67	66	-0.82	0.207
gravidad	3.13	10.00	96	-1.12	0.131
buque	0.00	0.00	32	-1.15	0.126
causa	2.50	6.67	80	-1.24	0.107
tonelaje 2	2.02	6.67	99	-1.74	0.039
1985	2.48	10.00	121	-1.77	0.038
tonelaje 1	0.00	0.00	54	-1.92	0.028
lugar	4.03	36.67	273	-1.92	0.027
bulkcarrrier	0.00	0.00	56	-1.98	0.024
desconocida	1.83	6.67	109	-2.01	0.022
estado	2.94	30.00	306	-3.47	0.000
tonelaje 3	0.66	3.33	152	-3.59	0.000
buque	0.65	3.33	153	-3.61	0.000
maquina	0.43	6.67	464	-99.99	0.000

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DESCRIPTION DE LA COUPURE 'c' DE L'ARBRE EN 6 CLASSES

- CARACTERISATION DES CLASSES PAR LES MODALITES
 - CARACTERISATION DES CLASSES PAR LES CONTINUES

MODALITES CARACTERISTIQUES

CLASSE 1 / 6

IDEN	CLA/MOD	POURCENTAGES MOD/CLA	GLOBAL	POIDS	V. TEST	PROBA
buque	cc1c		37.04	183		
tonelaje	buq5	85.62	71.58	153	15.18	0.000
estado	ton3	63.16	52.46	152	7.86	0.000
banderas	est1	48.69	81.42	306	6.93	0.000
any	ban2	61.39	33.88	101	5.48	0.000
maquina	any1	54.55	36.07	121	4.43	0.000
gravidad	maq1	39.22	99.45	464	4.24	0.000
lugar	gra4	54.17	28.42	96	3.70	0.000
sevimar	lug2	43.22	64.48	273	3.08	0.001
sevimar	sev2	40.90	79.78	357	2.79	0.003
causa	sev3	66.67	5.46	15	2.10	0.018
any	cau7	44.95	26.78	109	1.81	0.035
causa	any2	44.44	26.23	108	1.68	0.046
inicio	cau4	46.55	14.75	58	1.44	0.074
accion	ini1	39.78	59.56	274	1.31	0.095
any	acc1	39.07	73.22	343	1.30	0.096
banderas	cau3	46.15	9.84	39	1.09	0.139
banderas	ban3	40.91	14.75	66	1.05	0.146
causa	ini3	40.00	15.30	70	0.57	0.285
banderas	ban1	50.00	2.19	8	0.43	0.335
causa	cau6	38.75	16.94	80	0.42	0.337
tonelaje	ton2	38.38	20.77	99	0.23	0.411
tonelaje	ton1	38.89	11.48	54	0.20	0.422
gravidad	gra2	36.46	38.25	192	0.16	0.437
buque	buq9	20.00	0.55	5	-0.12	0.453
causa	cau2	34.00	9.29	50	-0.28	0.389
buque	buq4	25.00	1.09	8	-0.31	0.379
gravidad	gra5	32.35	6.01	34	-0.39	0.348
accion	acc2	31.91	9.51	47	-0.60	0.275
sevimar	sev1	32.35	12.02	68	-0.72	0.235
causa	cau5	32.00	13.11	75	-0.85	0.198
tonelaje	ton7	0.00	0.00	4	-1.01	0.156
accion	acc4	29.63	8.74	54	-1.05	0.147
buque	buq7	22.22	3.19	18	-1.08	0.140
gravidad	bu11	11.11	0.55	9	-1.31	0.096
sevimar	gra3	27.08	7.10	48	-1.36	0.087
causa	sev5	10.00	0.55	10	-1.51	0.065
buque	buq3	0.00	0.00	6	-1.55	0.061
pasaje	buq1	23.68	4.92	38	-1.63	0.052
leves	gra1	29.84	20.22	124	-1.83	0.034
espacios de carga	ini2	29.27	19.67	123	-1.97	0.024

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1988	any4	27.37	14.21	19.23	95	-2.08	0.019
sevimar	sev6	0.00	0.00	2.23	11	-2.53	0.006
otros	bu13	0.00	0.00	2.23	11	-2.53	0.006
tonelaje 6	ton6	0.00	0.00	2.23	11	-2.53	0.006
tonelaje 5	ton5	0.00	0.00	2.43	12	-2.69	0.004
sevimar 4	sev4	12.12	2.19	6.68	33	-3.07	0.001
lugar	lug1	29.41	35.52	44.74	221	-3.08	0.001
causa	cau1	20.48	9.29	16.80	83	-3.41	0.000
reparacion	bu12	6.25	1.09	6.48	32	-3.91	0.000
buque	maq2	3.33	0.55	6.07	30	-4.24	0.000
maquina	ban4	28.21	49.18	64.57	319	-5.36	0.000
banderas	buq2	12.73	7.65	22.27	110	-6.23	0.000
buque	ton4	17.28	15.30	32.79	162	-6.47	0.000
tonelaje 4	any5	8.14	3.83	17.41	86	-6.53	0.000
any	buq8	1.79	0.55	11.34	56	-6.55	0.000
buque	est2	18.09	18.58	38.06	188	-6.93	0.000
estado							
lastre							
1989							
flota muy alta							
petrolero							
tonelaje 4							
1989							
any							
buque							
estado							
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MODALITES CARACTERISTIQUES

CLASSE 2 / 6

IDEN	CLA/MOD	POURCENTAGES	POIDS	V. TEST	PROBA
	MOD/CLA	GLOBAL			
1897	cc2c	12.35	61		
any5	48.84	68.85	17.41	9.68	0.000
sev6	100.00	18.03	2.23	6.49	0.000
sev4	48.48	26.23	6.68	5.20	0.000
cau6	23.75	31.15	16.19	3.00	0.001
ton1	25.93	22.95	10.93	2.76	0.003
buq6	31.03	14.75	5.87	2.57	0.005
esti	15.36	77.05	61.94	2.52	0.006
bu12	28.13	14.75	6.48	2.31	0.010
maq1	13.15	100.00	93.93	2.12	0.017
lug1	15.84	57.38	44.74	1.98	0.024
gra1	17.74	36.07	25.10	1.91	0.028
buq7	27.78	8.20	3.64	1.57	0.058
ini2	16.26	32.79	24.90	1.35	0.088
ban2	16.83	27.87	20.45	1.35	0.089
buq3	33.33	3.28	1.21	0.98	0.162
acc4	16.67	14.75	10.93	0.82	0.206
gra3	16.67	13.11	9.72	0.75	0.227
ban1	25.00	3.28	1.62	0.65	0.258
ban3	15.15	16.39	13.36	0.57	0.285
ini5	22.22	3.28	1.82	0.50	0.307
ini3	14.29	16.39	14.17	0.37	0.357
bu10	15.79	4.92	3.85	0.19	0.423
buq9	20.00	1.64	1.01	0.04	0.484
medios	gra2	11.98	37.70	-0.05	0.480
tonelaje 3	ton3	11.84	29.51	-0.07	0.474
rotura	cau3	10.26	6.56	-0.11	0.458
tonelaje 4	ton4	11.73	31.15	-0.13	0.447
reparacion	cau1	10.84	14.75	-0.24	0.403
accidentados	acc3	10.00	8.20	-0.26	0.396
averia	cau2	10.00	8.20	-0.27	0.395
sofoco	acc1	11.95	67.21	-0.57	0.284
tonelaje 2	ton2	10.10	16.39	-0.57	0.283
pasaje	buq1	7.89	4.92	-0.63	0.264
sevimar 5	sev5	0.00	0.00	-0.65	0.257
explosion	cau5	9.33	11.48	-0.70	0.242
convencional	buq5	10.46	26.23	-0.74	0.231
tonelaje 6	ton6	0.00	0.00	-0.76	0.223
1988	any4	9.47	14.75	-0.84	0.202
tonelaje 5	ton5	0.00	0.00	-1.15	0.125
sobreca1	cau4	6.90	6.56	-1.37	0.086
petrolero	buq2	8.18	14.75	-1.74	0.041
maquinas	ini1	9.85	44.26	-1.95	0.026
flota muy alta	ban4	10.03	52.46	-1.98	0.024
mar	lug2	9.52	42.62	-2.12	0.017
vapor	maq2	0.00	0.00	-2.30	0.011
1987	any3	4.76	6.56	-2.52	0.006
lastre	est2	7.45	22.95	-2.67	0.004
bulkcarrier	buq8	1.79	1.64	-2.76	0.003
desguace	gra4	4.17	6.56	-3.40	0.000
sevimar 2	sev2	8.96	52.46	-3.66	0.000
1985	any1	3.31	6.56		

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MODALITES CARACTERISTIQUES

IDEN ----- POURCENTAGES ----- POIDS V. TEST PROBA

CLA/MOD MOD/CLA GLOBAL

CLASSE 3 / 6

	cc3c	5.67	28	10.25	0.000
buque	buq1	60.53	82.14	10.25	0.000
sevimar	sev1	25.00	60.71	5.87	0.000
any	any4	14.74	50.00	3.62	0.000
banderas	acc2	14.89	25.00	2.28	0.011
causa	ban4	7.21	82.14	1.86	0.032
tonelaje	cau1	9.64	28.57	1.41	0.079
buque	ton2	9.09	32.14	1.37	0.085
causa	bu10	15.79	10.71	1.37	0.086
gravedad	cau4	10.34	21.43	1.30	0.096
maquina	gra5	11.76	14.29	1.19	0.117
tonelaje	maq1	6.03	100.00	0.98	0.164
inicio	ton1	9.26	17.86	0.92	0.180
lugar	ini3	8.57	21.43	0.87	0.191
buque	lug2	6.59	64.29	0.79	0.215
gravedad	buq9	20.00	3.57	0.66	0.254
gravedad	gra3	8.33	14.29	0.57	0.284
banderas	desquac	7.29	25.00	0.55	0.290
tonelaje	flota alta	7.58	17.86	0.48	0.314
inicio	ton3	6.58	35.71	0.39	0.347
gravedad	ini1	6.20	60.71	0.37	0.355
buque	gra1	6.45	28.57	0.24	0.404
inicio	bu11	11.11	3.57	0.22	0.411
any	any2	6.48	25.00	0.22	0.414
sevimar	sev5	10.00	3.57	0.14	0.445
estado	est1	5.88	64.29	0.05	0.481
causa	cau6	6.25	17.86	0.04	0.485
tonelaje	ton5	0.00	0.00	-0.02	0.492
estado	est2	5.32	35.71	-0.05	0.481
sevimar	sev3	0.00	0.00	-0.22	0.411
causa	cau7	4.59	17.86	-0.28	0.389
causa	ini4	0.00	0.00	-0.40	0.343
buque	buq7	0.00	0.00	-0.40	0.343
causa	cau3	2.56	3.57	-0.44	0.332
any	any3	3.57	10.71	-0.62	0.267
lugar	lug1	4.52	35.71	-0.79	0.215
accion	acc1	4.96	60.71	-0.83	0.204
causa	cau2	2.00	3.57	-0.84	0.201
accion	acc3	2.00	3.57	-0.84	0.201
buque	buq6	0.00	0.00	-0.94	0.175
causa	cau5	2.67	7.14	-0.95	0.172
maquina	maq2	0.00	0.00	-0.98	0.164
buque	bu12	0.00	0.00	-1.06	0.145
any	any1	3.31	14.29	-1.07	0.141
sevimar	sev4	0.00	6.68	-1.10	0.136
inicio	ini2	3.25	14.29	-1.12	0.131
buque	buq8	0.00	0.00	-1.86	0.031
tonelaje	ton4	2.47	14.29	-2.03	0.021
gravedad	gra2	2.60	17.86	-2.23	0.013
any	any5	0.00	0.00	-2.65	0.004
banderas	ban2	0.00	0.00	-3.00	0.001
tonelaje	ton5	0.00	0.00	2.43	0.492
estado	est2	5.32	35.71	38.06	0.481
sevimar	sev3	0.00	0.00	3.04	0.411
causa	cau7	4.59	17.86	22.06	0.389
causa	ini4	0.00	0.00	3.64	0.343
buque	buq7	0.00	0.00	3.64	0.343
causa	cau3	2.56	3.57	7.89	0.332
any	any3	3.57	10.71	17.00	0.267
lugar	lug1	4.52	35.71	44.74	0.215
accion	acc1	4.96	60.71	69.43	0.204
causa	cau2	2.00	3.57	10.12	0.201
accion	acc3	2.00	3.57	10.12	0.201
buque	buq6	0.00	0.00	5.87	0.175
causa	cau5	2.67	7.14	15.18	0.172
maquina	maq2	0.00	0.00	6.07	0.164
buque	bu12	0.00	0.00	6.48	0.145
any	any1	3.31	14.29	24.49	0.141
sevimar	sev4	0.00	6.68	6.68	0.136
inicio	ini2	3.25	14.29	24.90	0.131
buque	buq8	0.00	0.00	11.34	0.031
tonelaje	ton4	2.47	14.29	32.79	0.021
gravedad	gra2	2.60	17.86	38.87	0.013
any	any5	0.00	0.00	17.41	0.004
banderas	ban2	0.00	0.00	20.45	0.001

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IDEN ----- POURCENTAGES ----- POIDS V. TEST PROBA
 CLA/MOD MOD/CLA GLOBAL

IDEN	POURCENTAGES	POIDS	V. TEST	PROBA
CLA/MOD MOD/CLA	GLOBAL			
est2	30.85	14.78	188	7.72 0.000
ton2	40.40	38.06	99	7.17 0.000
buq2	65.63	20.04	32	6.72 0.000
ban4	20.06	64.57	319	4.63 0.000
any3	26.19	17.00	84	2.91 0.002
bu13	54.55	2.23	11	2.86 0.002
cau1	25.30	16.80	83	2.66 0.004
maq1	15.73	93.93	464	2.46 0.007
bul1	44.44	1.82	9	1.87 0.031
ini4	33.33	3.64	18	1.79 0.036
ton1	24.07	10.93	54	1.77 0.038
bu10	31.58	3.85	19	1.67 0.047
sev1	20.59	13.77	68	1.26 0.104
buq6	24.14	5.87	29	1.18 0.119
acc2	21.28	9.51	47	1.10 0.136
buq2	18.18	22.27	110	0.99 0.161
sev5	30.00	2.02	10	0.95 0.172
acc3	20.00	10.12	50	0.90 0.185
buq3	33.33	2.74	6	0.78 0.218
gra5	20.59	9.59	34	0.76 0.223
gra3	18.75	12.33	48	0.63 0.265
buq4	25.00	2.74	8	0.42 0.336
espacios de carga	16.26	24.90	123	0.40 0.344
lug2	15.38	55.26	273	0.29 0.385
ini5	22.22	2.74	9	0.27 0.393
sev2	15.13	73.97	357	0.20 0.422
any2	15.74	23.29	108	0.19 0.426
cau2	16.00	10.96	50	0.09 0.466
gra1	15.32	26.03	124	0.07 0.473
gra2	15.10	39.73	192	0.04 0.484
cau3	12.82	6.85	39	-0.08 0.470
buq9	0.00	0.00	5	-0.13 0.448
cau7	13.76	22.06	109	-0.17 0.434
lug1	14.03	44.74	221	-0.29 0.385
any1	13.22	24.49	121	-0.39 0.348
ini1	13.87	55.47	274	-0.51 0.305
buq7	5.56	3.64	18	-0.75 0.226
cau4	10.34	8.22	58	-0.80 0.211
sev6	0.00	0.00	11	-0.96 0.169
ton6	0.00	2.23	11	-0.96 0.169
ini3	10.00	9.59	70	-1.04 0.149
ton5	0.00	2.43	12	-1.07 0.143
sev4	6.06	2.74	33	-1.24 0.107
sev3	0.00	0.00	15	-1.36 0.087
acc1	13.12	61.64	343	-1.42 0.078
cau6	8.75	9.59	80	-1.53 0.063
gra4	9.38	12.33	96	-1.54 0.062
ban3	6.06	5.48	66	-2.09 0.018
ton3	9.21	19.18	152	-2.25 0.012
maq2	0.00	0.00	30	-2.46 0.007
buq1	0.00	0.00	38	-2.92 0.002
lastre				
tonelaje 2				
pesquero				
flota muy alta				
otros				
reparacion				
motor				
remolcador				
punte				
tonelaje 1				
frigorifico				
sevimar 1				
ro-ro				
abandono				
petrolero				
sevimar 5				
accidentados				
quimiquero				
hundimiento				
importantes				
gasero				
espacios de carga				
mar				
cocina				
sevimar 2				
1986				
averia				
levas				
medios				
rotura				
car-carrier				
desconocida				
puerto				
1985				
maquinas				
contenedor				
sobreca1				
sevimar 6				
tonelaje 6				
alojamientos				
tonelaje 5				
sevimar 4				
sevimar 3				
sofoco				
negligencia				
desguace				
flota alta				
tonelaje 3				
vapor				
pasaje				

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any	any5	4.65	5.48	17.41	86	-3.01	0.000
banderas	ban2	3.96	5.48	20.45	101	-3.63	0.000
buque	buq8	0.00	0.00	11.34	56	-3.82	0.000
tonelaje	ton4	3.70	8.22	32.79	162	-5.15	0.000
buque	buq5	2.61	5.48	30.97	153	-5.56	0.000
estado	est1	4.90	20.55	61.94	306	-7.72	0.000
Plots media							
bulkcarrier							
tonelaje 4							
convencional							
cargado							

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CLA/MOD MOD/CLA GLOBAL

CLASSE 5 / 6

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	cc5c	24.09	119
buque	buq8	96.43	45.38
tonelaje 4	ton4	58.02	78.99
tonelaje 5	ton5	91.67	9.24
petrolero	buq2	40.91	37.82
maquina	maq1	25.43	99.16
causa	cau5	36.00	22.69
banderas	ban4	26.96	72.27
sevimar	sev2	26.33	78.99
lugar	lug1	27.60	51.26
sevimar 5	sev5	50.00	4.20
buque	buq7	38.89	5.88
gravedad	gra2	27.08	43.70
estado	est2	27.13	42.86
inicio	ini2	27.64	28.57
accion	acc4	29.63	13.45
any	any5	27.91	20.17
any	any4	27.37	21.85
sevimar	sev4	30.30	8.40
buque	bu13	36.36	3.36
buque	buq4	37.50	1.62
causa	cau2	28.00	11.76
banderas	ban3	27.27	15.13
buque	buq9	40.00	1.68
inicio	ini1	24.82	57.14
accion	acc1	24.49	70.59
buque	buq3	33.33	1.68
sevimar 3	sev3	20.00	2.52
gravedad	gra1	23.39	24.37
causa	cau4	22.41	10.92
any	any1	23.14	23.53
causa	cau7	22.94	21.01
banderas	ban1	12.50	0.84
inicio	ini3	21.43	12.61
gravedad	gra4	21.88	17.65
tonelaje 7	ton7	0.00	0.00
buque	bu11	11.11	0.84
gravedad	gra5	17.65	5.04
causa	cau6	20.00	13.45
banderas	ban2	11.11	1.68
inicio	ini4	11.11	1.68
gravedad	gra6	22.22	57.14
causa	cau1	18.07	12.61
any	any3	17.86	12.61
causa	cau3	0.00	0.00
accion	acc2	14.89	5.88
lugar	lug2	21.25	48.74
sevimar 6	sev6	0.00	0.00
tonelaje 6	ton6	0.00	0.00
buque	bu10	0.00	0.00
banderas	ban2	13.86	11.76
maquina	maq2	3.33	0.84
sevimar 1	sev1	10.29	9.89
any	any	1.21	1.68
any	any	3.04	2.52
any	any	25.10	24.37
any	any	11.74	10.92
any	any	24.49	23.53
any	any	22.06	21.01
any	any	1.62	0.84
any	any	14.17	12.61
any	any	19.43	17.65
any	any	0.81	0.00
any	any	1.82	0.84
any	any	6.88	5.04
any	any	16.19	13.45
any	any	3.64	1.68
any	any	61.94	57.14
any	any	15.80	12.61
any	any	17.00	12.61
any	any	1.82	0.00
any	any	9.51	5.88
any	any	55.26	48.74
any	any	2.23	0.00
any	any	2.23	0.00
any	any	3.85	0.00
any	any	20.45	11.76
any	any	6.07	0.84
any	any	13.77	9.89
any	any	12.46	12.03
any	any	4.74	4.39
any	any	2.85	2.40
any	any	1.92	1.79
any	any	44.74	1.54
any	any	2.02	1.51
any	any	3.64	1.20
any	any	38.87	1.13
any	any	38.06	1.13
any	any	24.90	0.94
any	any	10.93	0.85
any	any	17.41	0.78
any	any	19.23	0.71
any	any	6.68	0.67
any	any	2.23	0.64
any	any	1.62	0.53
any	any	10.12	0.53
any	any	13.36	0.51
any	any	1.01	0.39
any	any	55.47	0.31
any	any	69.43	0.19
any	any	1.21	0.14
any	any	3.04	-0.02
any	any	25.10	-0.08
any	any	11.74	-0.13
any	any	24.49	-0.15
any	any	22.06	-0.18
any	any	1.62	-0.28
any	any	14.17	-0.40
any	any	19.43	-0.42
any	any	0.81	-0.44
any	any	1.82	-0.47
any	any	6.88	-0.69
any	any	16.19	-0.79
any	any	3.64	-1.04
any	any	61.94	-1.13
any	any	15.80	-1.28
any	any	17.00	-1.34
any	any	1.82	-1.39
any	any	9.51	-1.40
any	any	55.26	-1.54
any	any	2.23	-1.68
any	any	2.23	-1.68
any	any	3.85	-2.59
any	any	20.45	-2.66
any	any	6.07	-2.85
any	any	13.77	-2.89

MODALITATS CARACTERÍSTIQUES

IDEN	CLASSE	--- POURCENTAGES ---		POIDS	V. TEST	PROBA
		CLAY/MOD	MOD/CLA GLOBAL			
	cc6c		6.07	30		
maquina		93.33		30	99.99	0.000
tonelaje 6	maq2	100.00	6.07	11	7.72	0.000
buque	ton6	20.00	2.23	110	6.01	0.000
tonelaje 7	buq2	100.00	22.27	4	4.24	0.000
estado	ton7	11.17	0.81	188	3.47	0.000
causa	est2	15.66	38.00	83	3.38	0.000
sevimar	cau1	8.60	16.80	221	1.92	0.027
banderas	lug1	11.76	44.74	68	1.75	0.040
any	sevi1	7.52	64.57	319	1.66	0.048
causa	ban4	10.47	17.41	86	1.57	0.058
inicio	any5	16.67	10.12	50	0.93	0.176
any	cau2	10.00	24.90	123	0.47	0.318
gravedad	ini2	7.32	30.00	108	0.46	0.323
gravedad	any2	7.41	26.67	124	0.45	0.328
tonelaje 4	gra1	7.26	25.10	50	0.36	0.361
accion	acc3	8.00	13.33	192	0.34	0.369
accion	gra2	6.77	38.87	162	0.28	0.388
accion	ton4	6.79	32.79	343	0.25	0.401
accion	acc1	6.41	69.43	38	0.22	0.411
accion	buq1	7.89	7.69	9	0.17	0.434
accion	ini5	11.11	3.33	9	0.17	0.434
accion	bu11	11.11	3.33	9	0.17	0.434
accion	sev6	0.00	2.23	11	0.00	0.498
accion	bu13	0.00	2.23	11	0.00	0.498
accion	sev2	5.88	72.27	357	-0.10	0.451
accion	acc2	4.26	9.51	47	-0.15	0.441
accion	any3	4.76	17.00	84	-0.25	0.400
accion	sev4	3.03	6.68	33	-0.29	0.387
accion	sev3	0.00	3.04	15	-0.29	0.385
accion	acc4	3.70	10.93	54	-0.41	0.341
accion	ini1	5.47	55.47	274	-0.44	0.331
accion	bu10	0.00	3.85	19	-0.53	0.297
accion	cau4	3.45	11.74	58	-0.55	0.291
accion	ban2	3.96	20.45	101	-0.74	0.228
accion	ban3	3.03	13.36	66	-0.82	0.207
accion	gra3	3.13	17.43	96	-1.12	0.131
accion	bu12	0.00	6.48	32	-1.15	0.126
accion	cau6	2.50	16.19	80	-1.24	0.107
accion	ton2	2.02	20.04	99	-1.76	0.039
accion	any1	2.48	24.49	121	-1.77	0.038
accion	ton1	0.00	10.93	54	-1.92	0.028
accion	lug2	4.03	55.26	273	-1.92	0.027
accion	buq8	0.00	11.34	56	-1.98	0.024
accion	cau7	1.83	22.06	109	-2.01	0.022
accion	est1	2.94	61.94	306	-3.47	0.000
accion	ton3	0.66	30.77	152	-3.59	0.000
accion	buq5	0.65	30.97	153	-3.61	0.000
accion	maq1	0.43	93.93	464	-99.99	0.000
accion	motor	0.43	93.93	464	-99.99	0.000

HISTOGRAMME DES 37 PREMIERES VALEURS PROPRES

NUMERO	VALEUR PROPRE	POURCENT	POURCENT CUMULE
1	0.2142	6.04	6.04
2	0.1905	5.37	11.42
3	0.1552	4.38	15.79
4	0.1474	4.14	19.93
5	0.1361	3.84	23.77
6	0.1346	3.80	27.58
7	0.1278	3.60	31.17
8	0.1264	3.56	34.75
9	0.1182	3.33	38.08
10	0.1148	3.24	41.32
11	0.1095	3.09	44.41
12	0.1063	3.07	47.48
13	0.1019	2.93	50.41
14	0.1018	2.87	53.28
15	0.0985	2.8	56.08
16	0.0966	2.7	58.78
17	0.0930	2.63	61.41
18	0.0904	2.55	63.96
19	0.0877	2.47	66.43
20	0.0850	2.4	68.83
21	0.0830	2.34	71.17
22	0.0779	2.23	73.40
23	0.0765	2.16	75.56
24	0.0752	2.12	77.68
25	0.0744	2.10	79.74
26	0.0716	2.03	81.77
27	0.0694	1.96	83.73
28	0.0656	1.85	85.58
29	0.0646	1.82	87.40
30	0.0598	1.65	89.05
31	0.0562	1.58	90.64
32	0.0543	1.53	92.17
33	0.0497	1.40	93.57
34	0.0478	1.35	94.92
35	0.0461	1.30	96.22
36	0.0369	1.03	97.25
37	0.0375	1.04	98.29
38	0.0299	0.81	99.10
39	0.0277	0.74	100.00

Gravelis S

Icefib

COURBONNEES, CONTRIBUTIONS ET CUSINUS CARRES DES MODALITES ACTIVES SUR LES AXES 1 A 5

MODALITES	COORDONNEES					CONTRIBUTIONS					CUSINUS CARRES				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1 . any															
any1 - 1965	2.23	3.00	-0.34	-0.08	-0.30	0.05	0.16	1.2	0.1	1.3	0.0	0.4	0.04	0.00	0.03
any2 - 1966	1.99	3.57	0.12	0.12	0.31	0.12	0.34	0.1	0.1	1.2	0.2	1.7	0.00	0.00	0.03
any3 - 1967	1.95	4.66	-0.06	-0.35	0.14	0.19	0.26	0.0	1.0	0.2	0.4	0.8	0.00	0.03	0.01
any4 - 1968	1.75	4.20	-0.14	0.27	0.15	0.07	0.51	0.2	0.7	0.2	0.1	3.3	0.00	0.02	0.01
any5 - 1969	1.58	4.74	0.43	0.01	-0.26	-0.48	-0.35	1.4	0.0	0.7	2.5	1.4	0.04	0.00	0.01
						CONTRIBUTION CUMULEE = 2.9 1.9 3.6 3.1 7.7									
2 . buque															
buq1 - pasare	0.75	11.05	-0.53	-0.43	0.55	0.47	-1.08	0.4	0.7	1.5	1.1	5.5	0.01	0.02	0.03
buq2 - patrifloro	2.06	9.41	1.00	0.77	-0.18	0.07	-0.09	9.6	6.3	0.4	0.1	0.1	0.29	0.17	0.01
buq3 - convencional	2.83	2.71	-0.52	-0.36	-0.29	0.07	-0.09	3.6	1.9	1.5	0.1	0.2	0.12	0.06	0.04
buq4 - ro-ro	0.59	14.43	-0.46	-0.11	0.06	0.37	-0.55	0.6	0.0	0.0	0.5	1.3	0.01	0.00	0.01
buq5 - contenedor	0.17	23.70	-0.40	0.70	0.50	-0.85	-0.05	0.3	1.0	0.6	1.8	0.0	0.01	0.02	0.01
buq6 - bulkarrier	1.12	7.10	-0.14	0.23	0.15	-1.43	0.62	0.1	0.3	2.2	15.6	3.1	0.00	0.01	0.00
buq7 - frigorifico	0.40	21.45	-0.50	-0.22	-0.94	0.60	-0.32	0.2	0.1	2.3	1.0	0.3	0.00	0.00	0.04
buq8 - pesquera	0.66	12.72	0.30	-0.77	0.90	0.99	1.01	0.3	2.1	3.5	4.1	4.9	0.01	0.05	0.06
buq9 - otros	0.19	25.58	0.52	-0.28	0.54	0.45	1.21	0.4	0.1	0.6	0.4	3.2	0.01	0.00	0.01
						CONTRIBUTION CUMULEE = 15.3 12.6 10.6 24.7 19.7									
4 . sevimar															
sev1 - sevimar 1	1.05	6.26	0.04	-0.81	0.63	0.75	-0.60	0.0	4.4	3.2	4.8	3.3	0.00	0.11	0.06
sev2 - sevimar 2	0.57	0.38	0.00	0.11	-0.04	-0.13	0.11	0.0	0.4	0.1	0.8	0.6	0.00	0.03	0.00
sev3 - sevimar 3	0.10	31.93	-0.55	0.58	-0.42	0.06	-0.52	0.6	0.5	0.3	0.0	0.6	0.01	0.01	0.00
sev4 - sevimar 4	0.51	13.97	-0.02	0.20	-0.73	-0.43	-0.56	0.0	0.1	2.1	0.8	1.4	0.00	0.00	0.04
sev5 - sevimar 5	0.18	40.40	0.55	0.61	-0.89	0.98	1.67	0.3	0.4	0.9	1.2	3.8	0.01	0.01	0.02
sev6 - sevimar 6	0.20	43.91	0.24	-0.43	0.89	-0.10	0.88	0.1	0.2	1.0	0.0	1.2	0.00	0.00	0.02
						CONTRIBUTION CUMULEE = 0.9 5.9 7.6 10.9									
5 . tonelaje															
ton1 - tonelaje 1	1.01	7.98	-0.14	-0.10	0.09	0.67	0.14	0.1	0.0	1.0	3.1	0.2	0.00	0.00	0.02
ton2 - tonelaje 2	1.42	3.99	-0.07	-0.55	0.08	0.89	0.12	0.0	2.9	0.1	9.8	0.2	0.00	0.08	0.00
ton3 - tonelaje 3	0.82	2.23	-0.43	-0.21	-0.21	-0.15	-0.18	2.5	0.7	0.8	0.4	0.6	0.08	0.02	0.01
ton4 - tonelaje 4	2.00	2.03	0.23	0.32	0.01	-0.54	0.22	0.8	1.6	0.0	17.9	1.1	0.03	0.05	0.00
ton5 - tonelaje 5	0.23	40.17	0.50	1.61	0.00	0.29	0.89	0.4	3.0	0.0	0.1	1.3	0.01	0.06	0.00
ton6 - tonelaje 6	0.22	4.17	2.93	1.70	0.32	0.13	-3.35	8.9	3.4	0.1	0.0	18.2	0.21	0.07	0.00
						CONTRIBUTION CUMULEE = 12.6 11.5 2.0 31.4 21.6									
6 . maquina															
maq1 - motor	6.54	0.05	-0.13	-0.06	-0.04	0.00	0.13	0.7	0.1	0.0	1.0	1.0	0.28	0.05	0.03
maq2 - vapor	0.55	15.47	2.09	0.65	0.65	0.05	-1.98	11.2	2.1	1.5	0.0	15.9	0.28	0.05	0.03
						CONTRIBUTION CUMULEE = 12.0 2.3 1.6 0.0 16.9									

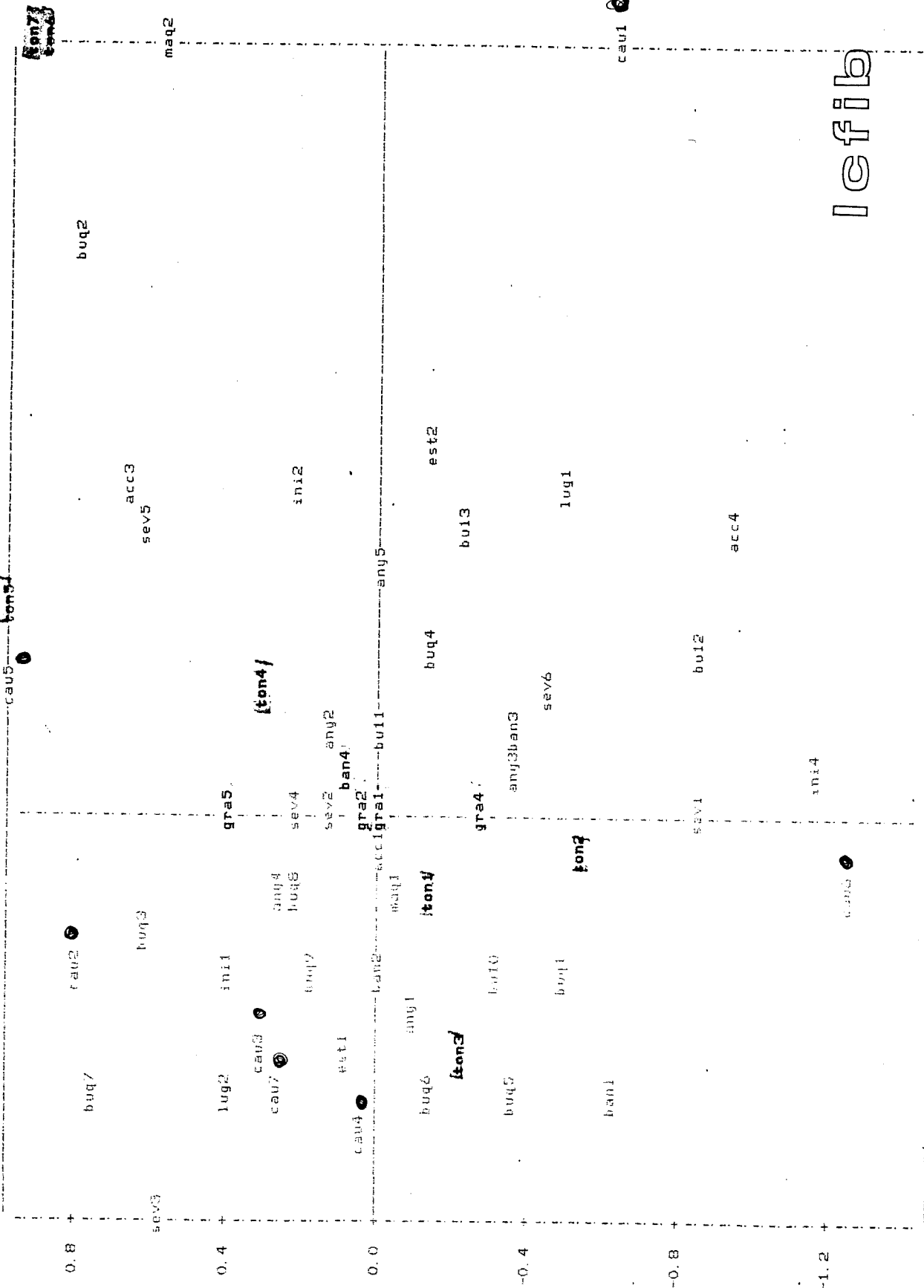
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AXE 1 * AXE 2

AXE 2

AXE 1

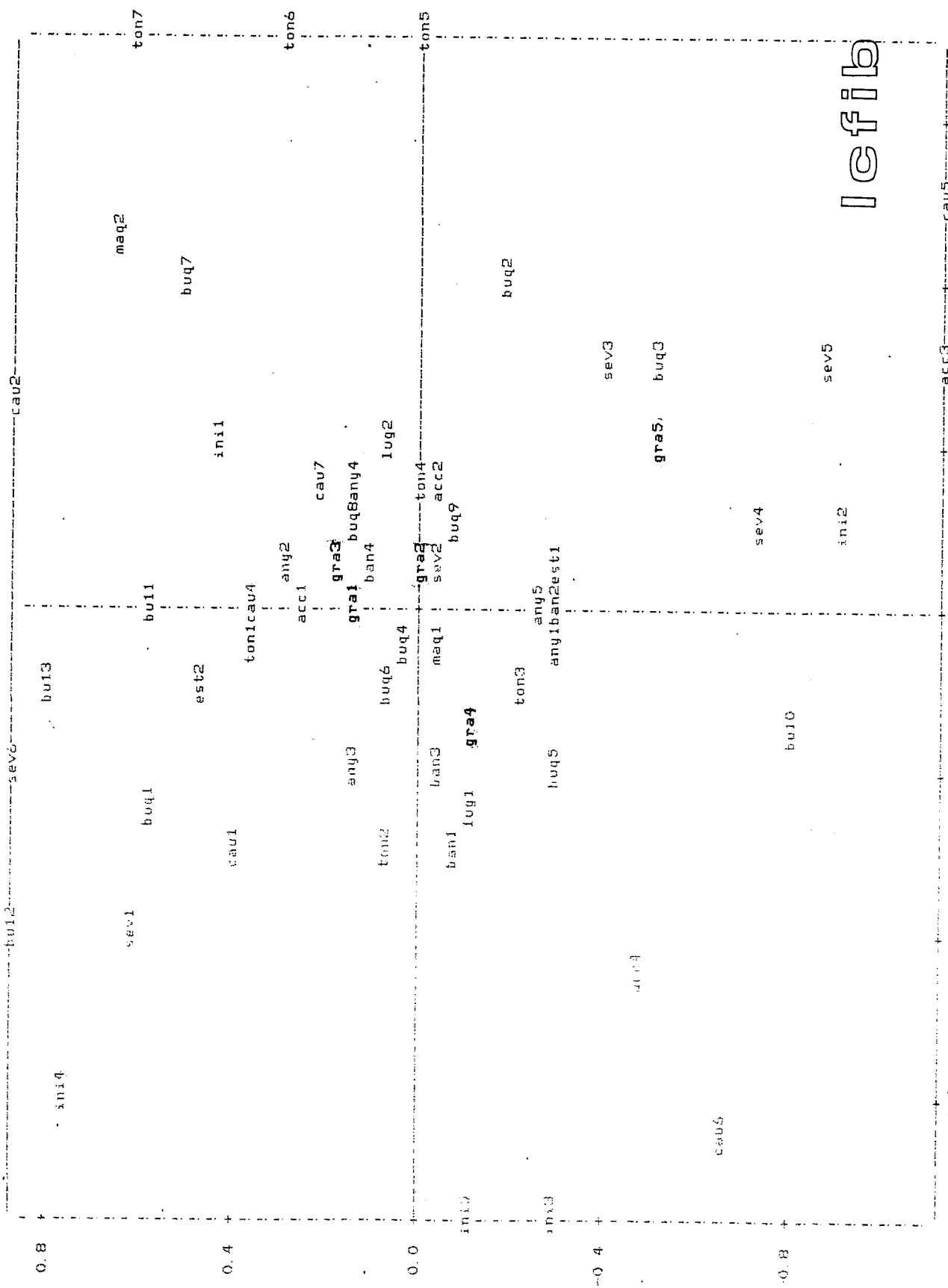


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AXE 2 * AXE 3

AXE 3



AXE 2

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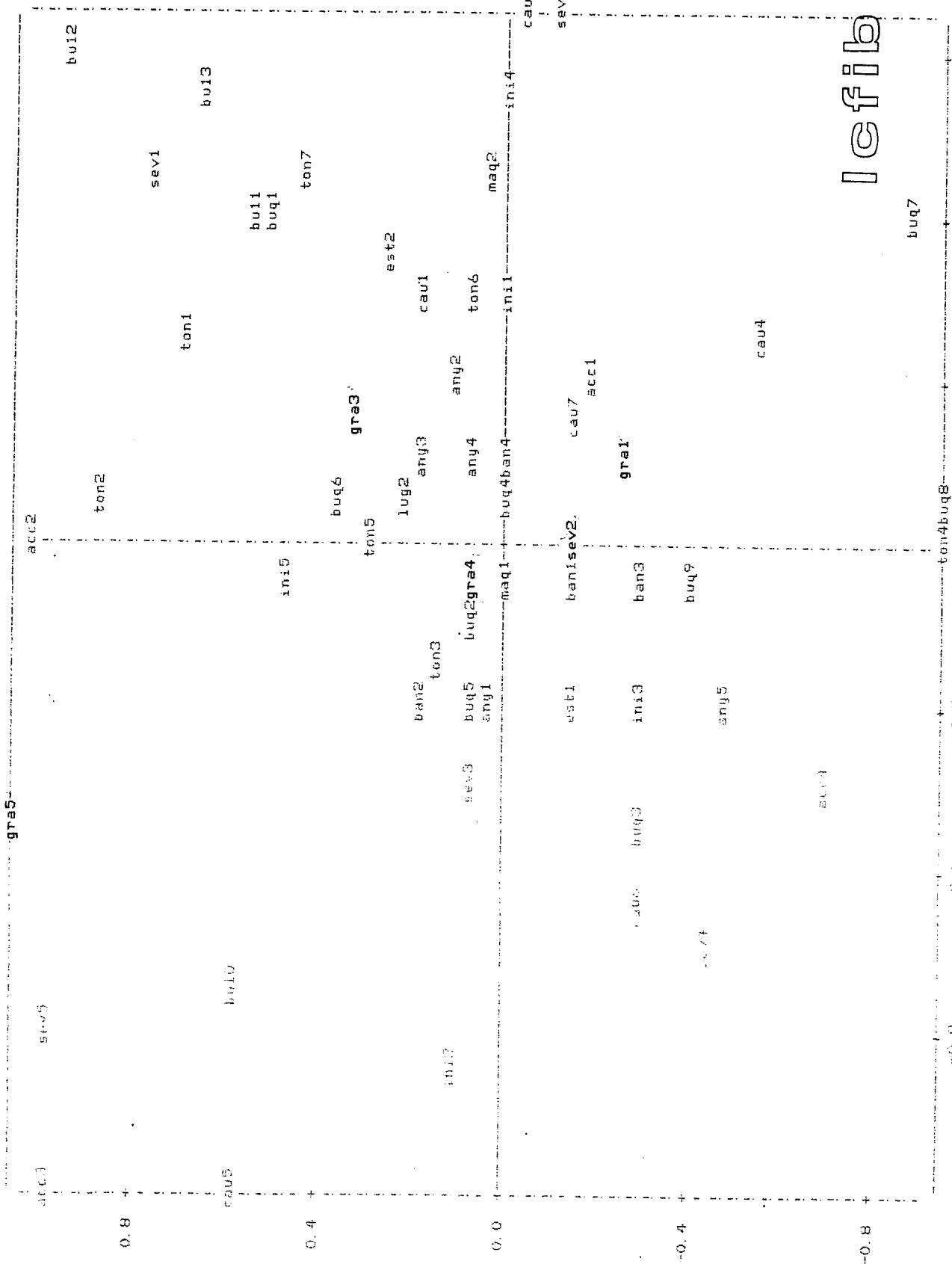
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AXE 2

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AXE 3 * AXE 4

AXE 1



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CLASSIFICATION GÉNÉRALE HIERARCHIQUE : DESCRIPTION DES 50 NOEUDS D'INDICES LES PLUS ELEVES

HISTOGRAMME DES INDICES DE NIVEAU

NUM.	AIRC	BERJ	EFF	FUTOIS	INDICE	R
938	845	858	14	15 60	0.60127	R
939	902	743	13	15 60	0.60129	R
940	905	743	13	13 06	0.60131	R
941	833	853	9	9 00	0.60132	R
942	662	879	10	10 00	0.60134	R
943	862	914	14	14 00	0.60136	R
944	831	870	9	9 00	0.60145	R
945	901	818	15	15 00	0.60149	R
946	677	880	11	11 00	0.60150	R
947	190	1394	23	13 03	0.60158	R
948	899	931	45	41 00	0.60170	R
949	800	810	20	23 00	0.60170	R
950	840	837	35	36 00	0.60171	R
951	937	834	35	39 00	0.60171	R
952	916	919	6	11 00	0.60181	R
953	846	964	21	21 00	0.60194	R
954	939	888	25	25 00	0.60201	R
955	947	1820	41	31 00	0.60228	R
956	920	973	21	21 00	0.60233	R
957	948	919	16	16 00	0.60247	R
958	837	978	19	19 00	0.60261	R
959	941	941	13	13 00	0.60271	R
960	948	959	13	13 00	0.60273	R
961	873	874	11	11 00	0.60280	R
962	936	930	11	13 00	0.60281	R
963	926	908	13	13 00	0.60287	R
964	927	900	15	15 00	0.60316	R
965	911	940	24	24 00	0.60320	R
966	939	941	30	30 00	0.60344	R
967	957	945	31	31 00	0.60357	R
968	951	944	48	48 00	0.60357	R
969	963	954	40	43 00	0.60377	R
970	970	949	46	46 00	0.60387	R
971	942	945	43	43 00	0.60396	R
972	939	969	42	42 00	0.60399	R
973	943	956	34	33 00	0.60403	R
974	929	940	21	21 00	0.60429	R
975	976	928	69	69 00	0.60439	R
976	970	958	69	69 00	0.60461	R
977	941	903	19	19 00	0.60474	R
978	971	943	102	102 00	0.60487	R
979	977	972	107	107 00	0.60490	R
980	984	971	109	109 00	0.60494	R
981	973	985	133	133 00	0.60505	R
982	966	979	101	101 00	0.60505	R
983	979	974	93	93 00	0.60519	R
984	976	944	109	109 00	0.60520	R
985	931	940	30	30 00	0.60540	R

Iefib

Système de classement hiérarchique des indices de niveau
Ceci est un document de travail et n'a pas vocation à être communiqué à l'extérieur de l'entreprise

DESCRIPTION DE LA COUPURE 'a' DE L'ARBRE EN 6 CLASSES

CARACTERISATION DES CLASSES PAR LES MODALITES
 -- CARACTERISATION DES CLASSES PAR LES CONTINUES

MODALITES CARACTERISTIQUES

IDEN	POURCENTAGES		POIDS		V. TEST PROBA
	CLA/MOD	MOD/CLA	GLOBAL	GLOBAL	
cau6	78.75	62.38	16.19	101	12.65 0.000
ini3	75.71	52.48	14.17	80	10.96 0.00032
buq5	55.95	54.46	30.97	153	5.44 0.000
acc4	48.15	25.74	10.93	54	4.75 0.00034
esti	26.80	81.19	61.94	305	4.51 0.000
lug1	28.96	63.37	44.74	221	4.11 0.00036
maq1	21.77	100.00	92.93	464	3.15 0.001
buq8	35.71	19.80	11.34	56	2.70 0.00438
gra4	30.21	28.71	19.43	96	2.43 0.008
ban3	31.82	20.79	13.36	66	2.22 0.01340
ini4	44.44	7.92	3.64	18	2.13 0.017
ini5	55.56	4.95	1.82	9	2.04 0.02042
any1	27.27	32.67	24.49	121	1.98 0.024
ban1	50.00	3.95	1.52	8	1.56 0.05944
any5	24.74	22.77	17.41	86	1.43 0.076
ton3	24.34	36.63	30.77	152	1.31 0.09648
ban2	24.75	24.75	20.45	101	1.06 0.144
ton2	23.23	22.77	20.04	99	0.64 0.26148
sev1	23.53	15.84	13.77	68	0.53 0.297
bu10	26.32	4.95	3.85	19	0.40 0.34450
sev2	21.01	74.26	72.27	357	0.37 0.357
gra1	21.77	26.73	25.10	124	0.31 0.37952

MODALITES CARACTERISTIQUES

IDEN	POURCENTAGES		POIDS		V. TEST PROBA
	CLA/MOD	MOD/CLA	GLOBAL	GLOBAL	
cau5	60.00	65.22	15.18	75	10.56 0.000
ini2	42.28	75.36	24.90	123	9.55 0.00062
buq2	38.18	60.87	23.27	110	7.47 0.000
acc3	42.00	10.43	10.12	50	5.09 0.00064
ton5	50.00	8.70	2.43	12	2.77 0.003
sev3	50.00	7.35	2.02	10	2.48 0.0076
ton4	19.75	46.38	32.79	162	2.41 0.008
gra5	29.41	14.47	6.88	34	2.26 0.0128
esti	16.34	72.46	61.94	302	1.83 0.034
lug1	16.74	53.62	44.74	221	1.47 0.0710
sev4	24.24	11.59	6.68	33	1.45 0.073
any5	18.60	23.19	17.41	86	1.19 0.11812
ton6	27.27	4.95	2.23	11	0.88 0.189
buq3	33.33	2.90	1.21	6	0.85 0.19914
ban4	14.73	68.12	64.57	314	0.52 0.301
buq4	25.00	2.90	1.62	8	0.50 0.31016
ban2	15.84	23.19	20.45	101	0.47 0.320
sev3	20.00	4.35	3.04	15	0.38 0.35018
any1	14.88	26.09	24.49	121	0.20 0.421

IDEN CLA/MOD MOD/CLA GLOBAL

POIDS V. TEST PROBA

CLASSE	3	4	5	26	28
27	aa3a			26.92	133
28	lug2	43.96	90.23	55.26	273
29	maquina	39.78	81.95	55.47	274
30	inicio	63.83	22.56	9.51	47
31	accion	42.76	48.87	30.77	152
32	tonelaje 3	40.52	46.62	30.97	153
33	buque	43.12	35.34	22.04	109
34	causa	56.41	16.54	7.89	59
35	causa 1	28.66	100.00	93.93	464
36	maquina	42.42	31.58	20.04	94
37	tonelaje 2	32.68	75.19	61.94	306
38	estado	50.00	12.78	6.88	34
39	gravidad	44.44	18.05	10.93	54
40	tonelaje 1	51.72	11.28	5.87	29
41	buque	46.88	11.28	6.48	32
42	buque	36.63	27.82	20.45	101
43	banderas	42.11	12.03	7.69	38
44	causa	36.00	20.30	15.18	75
45	causa	35.29	18.05	13.77	68
46	sevimar 1	32.23	29.32	24.49	121
47	any	42.11	6.02	3.85	19
48	buque	45.45	3.76	1.11	1
49	buque	34.00	12.78	10.12	50
50	accidentados	40.00	4.51	3.04	15
51	causa	44.44	3.01	1.82	9
52	sevimar 3	30.95	19.55	17.00	84
53	buque	31.25	11.28	9.72	48
54	any	29.47	21.05	19.93	109
55	gravidad	28.13	40.60	38.87	368
56	causa	29.31	12.78	11.74	38
57	medios				
58	subrecal				

IDEN CLA/MOD MOD/CLA GLOBAL

POIDS V. TEST PROBA

BASE DE DATOS DE INVESTIGACIONES

CLASSE	3	4	5	26	28
59	aa4a			20.04	99
60	maquina	34.31	94.95	55.47	274
61	tonelaje 4	41.98	20.69	32.79	162
62	averia	58.00	29.29	10.12	50
63	accion	26.54	91.72	69.43	242
64	buque	51.79	29.29	11.34	55
65	buque	66.57	12.12	3.64	18
66	war	26.37	72.73	55.26	273
67	lug2	39.65	23.23	11.74	98
68	causa	31.19	24.24	22.06	109
69	desconocida	28.33	35.35	25.10	124
70	motor	21.12	98.99	93.93	464
71	sevimar 2	22.41	80.81	72.27	307
72	any	26.32	25.25	19.23	95
73	any	25.45	28.28	22.27	110
74	any	25.00	27.27	21.86	102
75	banda	21.63	59.70	64.57	319
76	sevimar 6	36.36	4.04	2.23	11
77	tonelaje 5	33.33	4.04	2.43	12
78	cargado	21.24	65.65	61.94	306
79	estati	40.00	2.02	1.01	5
80	car-cantier	33.33	2.02	1.21	6
81	sevimar 3	26.67	4.04	3.04	15
82	flota alta	21.21	14.14	13.36	55
83	banderas	20.31	39.39	38.87	192
84	banderas	25.00	1.02	1.67	0

	7.09	35	40
aa5a			
reparacion	34.94	2.86	83
cau1	18.09	97.14	188
estado	15.84	100.00	221
lugar	25.00	48.57	68
sevimar 1	34.38	31.43	32
buque	38.89	20.00	18
maquina	15.15	42.86	99
tonelaje 2	17.14	34.29	70
tonelaje 1	15.48	37.14	84
inicio	21.05	22.86	38
any	33.33	8.57	9
accion	14.81	22.86	54
buque	17.27	8.57	11
sevimar	27.27	8.57	11
buque	14.58	20.00	48
gravaded	13.33	11.43	67
maquina	11.11	17.14	107
tonelaje 1	7.84	71.43	319
banderas	9.09	17.14	66
banderas	7.58	74.29	343
accion	10.34	8.57	29
buque	8.42	22.86	95
any	8.33	22.86	96
gravaded	7.89	34.29	152
tonelaje			

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banderas	12.50	2.86	8	0.13	0.447
buque	12.50	2.86	8	0.13	0.447

IDENTIFICATION CHARACTERISTICS

IDEN	CLAS/	MOD	POURCENTAGES	GLOBAL	POIDS	V. TEST	PROBA	8
aa6a								
reparacion	46.99	68.42	11.54	57	12			
estado	26.06	85.96	16.80	83	9.38	0.000	14	
maquina	70.00	36.84	38.06	188	7.81	0.000		
buque	30.91	59.65	6.07	30	7.79	0.000	16	
lugar	20.36	78.95	22.27	110	6.43	0.000		
tonelaje 6	72.73	14.04	44.74	221	5.46	0.000	18	
espacios de carga	21.95	47.37	2.23	11	4.57	0.000		
tonelaje 7	75.00	5.26	24.90	123	3.80	0.000	20	
tonelaje 4	16.05	45.61	0.61	4	2.55	0.005		
1989	18.60	28.07	32.79	162	2.01	0.022	22	
sevimar 2	13.17	82.46	17.41	86	1.99	0.023		
1986	16.67	31.58	72.27	357	1.71	0.044	24	
flota muy alta	13.17	73.68	21.86	108	1.68	0.047		
gasero	25.00	3.51	64.57	319	1.39	0.082	28	
medios	13.02	43.86	38.87	192	0.73	0.233		
assistencia exterior	14.81	14.04	10.93	94	0.60	0.273		
remolcador	22.22	3.51	1.82	9	0.59	0.279	30	
sofoco	12.24	73.68	69.43	343	0.58	0.282		
sevimar 5	20.00	3.51	2.02	10	0.46	0.324	32	
flota alta	13.64	15.79	13.36	66	0.40	0.345		
accion	14.00	12.28	10.12	50	0.38	0.351	34	
buque	18.18	3.51	2.23	11	0.34	0.369		
tonelaje 5	16.67	3.51	2.43	12	0.22	0.412	36	

A N E X O I V / 2

TRATAMIENTO Y ANALISIS

DE LOS DATOS

ESTADISTICOS

(CRUZAMIENTO DE LAS VARIABLES)

***** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem *****

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Crosstabulation: MAQUINA TIPO DE PROPULSOR
By LUGAR SITUACION DEL BUQUE

LUGAR→	Count Row Pct Col Pct Tot Pct	EN PUERT		EN LA MA R	Row Total	
		0	1			2
		1	2			
MAQUINA						
MOTOR	1	201 43.3 91.0 40.7	263 56.7 96.3 53.2		464 93.9	
VAPOR	2	20 66.7 9.0 4.0	10 33.3 3.7 2.0		30 6.1	
	Column Total	221 44.7	273 55.3		494 100.0	

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
5.30449	1	.0213	13.421	None
6.21297	1	.0127	(Before Yates Correction)	

Number of Missing Observations = 0

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This procedure was completed at 22:43:56

***** Given WORKSPACE allows for 8959 Cells with
2 Dimensions for CROSSTAB problem *****

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Crosstabulation: CAUSA CAUSA DEL INCENDIO
By ESTADO ESTADO DE CARGA

ESTADO→	CAUSA	Count	CARGADO		LASTRE		Row Total
		Row Pct	Col Pct	Tot Pct	1	2	
	1	11	13.3	3.6	72	38.3	83
	REPARACION	2.2	2.2	14.6	86.7	14.6	16.8
	2	31	62.0	10.1	19	10.1	50
	AVERIAS	6.3	6.3	3.8	38.0	3.8	10.1
	3	28	71.8	9.2	11	5.9	39
	ROTURA	5.7	5.7	2.2	28.2	2.2	7.9
	4	48	82.8	15.7	10	5.3	58
	SOBRECAL	9.7	9.7	2.0	17.2	2.0	11.7
	5	52	69.3	17.0	23	12.2	75
	EXPLOSION	10.5	10.5	4.7	30.7	4.7	15.2
	6	57	71.3	18.6	23	12.2	80
	NEGLIGENCIA	11.5	11.5	4.7	28.8	4.7	16.2
	7	79	72.5	25.8	30	16.0	109
	DESCONOCIDA	16.0	16.0	6.1	27.5	6.1	22.1
	Column Total	306	61.9	38.1	188	38.1	494

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
105.54485	6	.0000	14.842	None

Number of Missing Observations = 0

***** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem *****

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Crosstabulation: CAUSA CAUSA DEL INCENDIO
By ACCION RELACIONADO CON TRIPULACION

ACCION->	CAUSA	Count	CAUSA DEL INCENDIO				Row Total
		Row Pct	SOFOCO	ABANDONO	ACCIDENT ADOS	ASIST. EXTERIOR	
		Col Pct	1	2	3	4	
		Tot Pct					
1	REPARACION	55	2	11	15	83	
		66.3	2.4	13.3	18.1	16.8	
		16.0	4.3	22.0	27.8		
		11.1	.4	2.2	3.0		
2	AVERIAS	44	4	1	1	50	
		88.0	8.0	2.0	2.0	10.1	
		12.8	8.5	2.0	1.9		
		8.9	.8	.2	.2		
3	ROTURA	26	5	4	4	39	
		66.7	12.8	10.3	10.3	7.9	
		7.6	10.6	8.0	7.4		
		5.3	1.0	.8	.8		
4	SOBRECARGA	46	3	1	8	58	
		79.3	5.2	1.7	13.8	11.7	
		13.4	6.4	2.0	14.8		
		9.3	.6	.2	1.6		
5	EXPLOSION	36	14	22	3	75	
		48.0	18.7	29.3	4.0	15.2	
		10.5	29.8	44.0	5.6		
		7.3	2.8	4.5	.6		
6	NEGLIGENCIA	55	7	4	14	80	
		68.8	8.8	5.0	17.5	16.2	
		16.0	14.9	8.0	25.9		
		11.1	1.4	.8	2.8		
7	DESCONOCIDA	81	12	7	9	109	
		74.3	11.0	6.4	8.3	22.1	
		23.6	25.5	14.0	16.7		
		16.4	2.4	1.4	1.8		
Column Total		343	47	50	54	494	
		69.4	9.5	10.1	10.9	100.0	

Chi-Square D.F. Significance Min E.F. Cells with E.F. < 5

75.97089 18 .0000 3.711 4 OF 28 (14.3%)

Number of Missing Observations = 0

***** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem *****

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Crosstabulation: ACCION RELACIONADO CON TRIPULACION
By GRAVEDAD GRAVEDAD DE LOS DANOS

GRAVEDAD→	Count Row Pct Col Pct Tot Pct	LEVES	MEDIOS	IMPORTAN TES	DESGUACE	HUNDIMIE NTO	Row Total
		1	2	3	4	5	
ACCION							
SOFOCO	1	100 29.2 80.6 20.2	146 42.6 76.0 29.6	32 9.3 66.7 6.5	62 18.1 64.6 12.6	3 .9 8.8 .6	343 69.4
ABANDONO	2		3 6.4 1.6 .6	10 21.3 20.8 2.0	13 27.7 13.5 2.6	21 44.7 61.8 4.3	47 9.5
ACCIDENTADOS	3	8 16.0 6.5 1.6	17 34.0 8.9 3.4	2 4.0 4.2 .4	14 28.0 14.6 2.8	9 18.0 26.5 1.8	50 10.1
ASIST. EXTERIOR	4	16 29.6 12.9 3.2	26 48.1 13.5 5.3	4 7.4 8.3 .8	7 13.0 7.3 1.4	1 1.9 2.9 .2	54 10.9
Column Total		124 25.1	192 38.9	48 9.7	96 19.4	34 6.9	494 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
171.62829	12	.0000	3.235	5 OF 20 (25.0%)

Number of Missing Observations = 0

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This procedure was completed at 22:51:23

***** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem *****

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Crosstabulation: INICIO LUGAR DE INICIO
By ACCION RELACIONADO CON TRIPULACION

ACCION→	Count Row Pct Col Pct Tot Pct	SOFOCO	ABANDONO	ACCIDENT ADOS	ASIST. E XTERIOR	Row Total
		1	2	3	4	
INICIO						
MAQUINAS	1	201	30	19	24	274
		73.4	10.9	6.9	8.8	55.5
		58.6	63.8	38.0	44.4	
		40.7	6.1	3.8	4.9	
ESPACIOS CARGA	2	75	9	25	14	123
		61.0	7.3	20.3	11.4	24.9
		21.9	19.1	50.0	25.9	
		15.2	1.8	5.1	2.8	
ALOJAMIENTOS	3	43	7	6	14	70
		61.4	10.0	8.6	20.0	14.2
		12.5	14.9	12.0	25.9	
		8.7	1.4	1.2	2.8	
PUENTE	4	17			1	18
		94.4			5.6	3.6
		5.0			1.9	
		3.4			.2	
COCINAS	5	7	1		1	9
		77.8	11.1		11.1	1.8
		2.0	2.1		1.9	
		1.4	.2		.2	
Column Total		343 69.4	47 9.5	50 10.1	54 10.9	494 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
32.45348	12	.0012	.856	6 OF 20 (30.0%)

Number of Missing Observations = 0

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This procedure was completed at 22:49:24

***** Given WORKSPACE allows for 8770 Cells with
2 Dimensions for CROSSTAB problem *****

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Crosstabulation: TONELAJE TRG
By ACCION RELACIONADO CON TRIPULACION

ACCION->	Count Row Pct Col Pct Tot Pct	SOFOCO	ABANDONO	ACCIDENT ADOS	ASIST. E XTERIOR	Row Total
		1	2	3	4	
TONELAJE TRG 500-1000	1	36	8	5	5	54
		66.7	14.8	9.3	9.3	10.9
		10.5	17.0	10.0	9.3	
		7.3	1.6	1.0	1.0	
TRG 1001-3000	2	61	15	12	11	99
		61.6	15.2	12.1	11.1	20.0
		17.8	31.9	24.0	20.4	
		12.3	3.0	2.4	2.2	
TRG 3001-10000	3	106	15	15	16	152
		69.7	9.9	9.9	10.5	30.8
		30.9	31.9	30.0	29.6	
		21.5	3.0	3.0	3.2	
TRG 10001-60000	4	122	8	11	21	162
		75.3	4.9	6.8	13.0	32.8
		35.6	17.0	22.0	38.9	
		24.7	1.6	2.2	4.3	
TRG 60001-100000	5	8		4		12
		66.7		33.3		2.4
		2.3		8.0		
		1.6		.8		
TRG 100001-140000	6	8	1	1	1	11
		72.7	9.1	9.1	9.1	2.2
		2.3	2.1	2.0	1.9	
		1.6	.2	.2	.2	
TRG > 140001	7	2		2		4
		50.0		50.0		.8
		.6		4.0		
		.4		.4		
Column Total		343 69.4	47 9.5	50 10.1	54 10.9	494 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
29.45714	18	.0431	.381	10 OF 28 (35.7%)

Number of Missing Observations = 0

***** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem *****

Crosstabulation: BUQUE TIPO DE BUQUE
By ESTADO ESTADO DE CARGA

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ESTADO→	Count Row Pct Col Pct Tot Pct	CARGADO	LASTRE	Row Total
		1	2	
BUQUE				
PASAJE	1	26 68.4 8.5 5.3	12 31.6 6.4 2.4	38 7.7
PETROLERO	2	49 44.5 16.0 9.9	61 55.5 32.4 12.3	110 22.3
QUIMIQUERO	3	5 83.3 1.6 1.0	1 16.7 .5 .2	6 1.2
GASERO	4	4 50.0 1.3 .8	4 50.0 2.1 .8	8 1.6
CONVENCIONAL	5	124 81.0 40.5 25.1	29 19.0 15.4 5.9	153 31.0
RO-RO	6	20 69.0 6.5 4.0	9 31.0 4.8 1.8	29 5.9
CONTENEDOR	7	13 72.2 4.2 2.6	5 27.8 2.7 1.0	18 3.6
BULKARRIER	8	32 57.1 10.5 6.5	24 42.9 12.8 4.9	56 11.3
	Column (Continued) Total	306 61.9	188 38.1	494 100.0

ESTADO→	Count Row Pct Col Pct Tot Pct	CARGADO	LASTRE	Row Total
		1	2	
BUQUE				
	9	5		5
CAR-CARRIER		100.0		1.0
		1.6		
		1.0		
	10	14	5	19
FRIGORIFICO		73.7	26.3	3.8
		4.6	2.7	
		2.8	1.0	
	11	1	8	9
REMOLCADOR		11.1	88.9	1.8
		.3	4.3	
		.2	1.6	
	12	11	21	32
PESQUERO		34.4	65.6	6.5
		3.6	11.2	
		2.2	4.3	
	13	2	9	11
OTROS		18.2	81.8	2.2
		.7	4.8	
		.4	1.8	
Column Total		306 61.9	188 38.1	494 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
75.39409	12	.0000	1.903	8 OF 26 (30.8%)

Number of Missing Observations = 0

This procedure was completed at 22:59:04

***** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem *****

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Crosstabulation: BUQUE TIPO DE BUQUE
By SEVIMAR SEVIMAR APLICABLE

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SEVIMAR→	BUQUE	Count Row Pct Col Pct Tot Pct	SEVIMAR<	SEVIMAR	SEVIMAR	SEVIMAR	SEVIMAR	SEVIMAR>	Row Total
			65	65-80	80-81	81-84	84-86	86	
			1	2	3	4	5	6	
	PASAJE	1	17 44.7 25.0 3.4	17 44.7 4.8 3.4	1 2.6 6.7 .2	3 7.9 9.1 .6			38 7.7
	PETROLERO	2	7 6.4 10.3 1.4	85 77.3 23.8 17.2	4 3.6 26.7 .8	7 6.4 21.2 1.4	5 4.5 50.0 1.0	2 1.8 18.2 .4	110 22.3
	QUIMIQUERO	3		3 50.0 .8 .6	1 16.7 6.7 .2	2 33.3 6.1 .4			6 1.2
	GASERO	4		7 87.5 2.0 1.4		1 12.5 3.0 .2			8 1.6
	CONVENCIONAL	5	25 16.3 36.8 5.1	117 76.5 32.8 23.7	4 2.6 26.7 .8	4 2.6 12.1 .8	1 .7 10.0 .2	2 1.3 18.2 .4	153 31.0
	RO-RO	6	5 17.2 7.4 1.0	16 55.2 4.5 3.2	2 6.9 13.3 .4	4 13.8 12.1 .8	1 3.4 10.0 .2	1 3.4 9.1 .2	29 5.9
	CONTENEDOR	7		12 66.7 3.4 2.4	1 5.6 6.7 .2	4 22.2 12.1 .8		1 5.6 9.1 .2	18 3.6
	BULKCARRIER	8	5 8.9 7.4 1.0	47 83.9 13.2 9.5		4 7.1 12.1 .8			56 11.3
	Column (Continued) Total		68 13.8	357 72.3	15 3.0	33 6.7	10 2.0	11 2.2	494 100.0

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SEVIMAR→	BUQUE	Count						Row Total	
		Row Pct	SEVIMAR< 65	SEVIMAR 65-80	SEVIMAR 80-81	SEVIMAR 81-84	SEVIMAR 84-86		SEVIMAR> 86
		Col Pct	1	2	3	4	5		6
Tot Pct									
	CAR-CARRIER	9		3			1	1	5
				60.0			20.0	20.0	1.0
				.8			10.0	9.1	
				.6			.2	.2	
	FRIGORIFICO	10	4	12	2	1			19
			21.1	63.2	10.5	5.3			3.8
			5.9	3.4	13.3	3.0			
			.8	2.4	.4	.2			
	REMOLCADOR	11	1	6		1	1		9
			11.1	66.7		11.1	11.1		1.8
			1.5	1.7		3.0	10.0		
			.2	1.2		.2	.2		
	PESQUERO	12	3	25		1		3	32
			9.4	78.1		3.1		9.4	6.5
			4.4	7.0		3.0		27.3	
			.6	5.1		.2		.6	
	OTROS	13	1	7		1	1	1	11
			9.1	63.6		9.1	9.1	9.1	2.2
			1.5	2.0		3.0	10.0	9.1	
			.2	1.4		.2	.2	.2	
Column			68	357	15	33	10	11	494
Total			13.8	72.3	3.0	6.7	2.0	2.2	100.0

Chi-Square D.F. Significance Min E.F. Cells with E.F.< 5

 125.94436 60 .0000 .101 61 OF 78 (78.2%)

Number of Missing Observations = 0

***** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem *****

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Crosstabulation: BUQUE TIPO DE BUQUE
By TONELAJE TRG

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		Count							
TONELAJE→	Row Pct	TRG 500-	TRG 1001	TRG 3001	TRG 1000	TRG 6000	TRG 1000	TRG > 14	Row Total
	Col Pct	1000	-3000	-10000	1-60000	1-100000	01-14000	0001	
	Tot Pct	1	2	3	4	5	6	7	
BUQUE									
PASAJE	1	6 15.8 11.1 1.2	6 15.8 6.1 1.2	19 50.0 12.5 3.8	7 18.4 4.3 1.4				38 7.7
PETROLERO	2	10 9.1 18.5 2.0	14 12.7 14.1 2.8	13 11.8 8.6 2.6	51 46.4 31.5 10.3	7 6.4 58.3 1.4	11 10.0 100.0 2.2	4 3.6 100.0 .8	110 22.3
QUIMIQUERO	3		2 33.3 2.0 .4	1 16.7 .7 .2	2 33.3 1.2 .4	1 16.7 8.3 .2			6 1.2
GASERO	4	1 12.5 1.9 .2	2 25.0 2.0 .4	2 25.0 1.3 .4	3 37.5 1.9 .6				8 1.6
CONVENCIONAL	5	19 12.4 35.2 3.8	34 22.2 34.3 6.9	67 43.8 44.1 13.6	33 21.6 20.4 6.7				153 31.0
RO-RO	6	4 13.8 7.4 .8	10 34.5 10.1 2.0	11 37.9 7.2 2.2	4 13.8 2.5 .8				29 5.9
CONTENEDOR	7		2 11.1 2.0 .4	5 27.8 3.3 1.0	11 61.1 6.8 2.2				18 3.6
BULKCARRIER	8			11 19.6 7.2 2.2	41 73.2 25.3 8.3	4 7.1 33.3 .8			56 11.3
	Column Total	54 10.9	99 20.0	152 30.8	162 32.8	12 2.4	11 2.2	4 .8	494 100.0

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TONELAJE→	BUQUE	Count	TRG 500-	TRG 1001	TRG 3001	TRG 1000	TRG 6000	TRG 1000	TRG > 14	Row Total
		Row Pct	1000	-3000	-10000	1-60000	1-100000	01-14000	0001	
		Col Pct	1	2	3	4	5	6	7	
Tot Pct										
9	CAR-CARRIER			2	3					5
				40.0	60.0					1.0
				1.3	1.9					
				.4	.6					
10	FRIGORIFICO	1	6	10	2					19
		5.3	31.6	52.6	10.5					3.8
		1.9	6.1	6.6	1.2					
		.2	1.2	2.0	.4					
11	REMOLCADOR	3	5		1					9
		33.3	55.6		11.1					1.8
		5.6	5.1		.6					
		.6	1.0		.2					
12	PESQUERO	8	13	10	1					32
		25.0	40.6	31.3	3.1					6.5
		14.8	13.1	6.6	.6					
		1.6	2.6	2.0	.2					
13	OTROS	2	5	1	3					11
		18.2	45.5	9.1	27.3					2.2
		3.7	5.1	.7	1.9					
		.4	1.0	.2	.6					
Column Total		54	99	152	162	12	11	4		494
		10.9	20.0	30.8	32.8	2.4	2.2	.8		100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
237.42549	72	.0000	.040	66 OF 91 (72.5%)

Number of Missing Observations = 0

***** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem *****

Crosstabulation: BUQUE TIPO DE BUQUE
By GRAVEDAD GRAVEDAD DE LOS DANOS

GRAVEDAD→	BUQUE	Count	LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE	Row Total
		Row Pct	Col Pct	TES	NTO	Row Pct	Col Pct	
		Tot Pct	1	2	3	4	5	
1	PASAJE	38	11	13	2	6	6	38
		7.7	28.9	34.2	5.3	15.8	15.8	7.7
			8.9	6.8	4.2	6.3	17.6	
			2.2	2.6	.4	1.2	1.2	
2	PETROLERO	110	25	45	11	16	13	110
		22.3	22.7	40.9	10.0	14.5	11.8	22.3
			20.2	23.4	22.9	16.7	38.2	
			5.1	9.1	2.2	3.2	2.6	
3	QUIMIQUERO	6	3	2	1			6
		1.2	50.0	33.3	16.7			1.2
			2.4	1.0	2.1			
			.6	.4	.2			
4	GASERO	8	1	5	1	1		8
		1.6	12.5	62.5	12.5	12.5		1.6
			.8	2.6	2.1	1.0		
			.2	1.0	.2	.2		
5	CONVENCIONAL	153	36	56	12	42	7	153
		31.0	23.5	36.6	7.8	27.5	4.6	31.0
			29.0	29.2	25.0	43.8	20.6	
			7.3	11.3	2.4	8.5	1.4	
6	RO-RO	29	5	15	6	2	1	29
		5.9	17.2	51.7	20.7	6.9	3.4	5.9
			4.0	7.8	12.5	2.1	2.9	
			1.0	3.0	1.2	.4	.2	
7	CONTENEDOR	18	9	2	1	6		18
		3.6	50.0	11.1	5.6	33.3		3.6
			7.3	1.0	2.1	6.3		
			1.8	.4	.2	1.2		
8	BULKCARRIER	56	14	26	2	13	1	56
		11.3	25.0	46.4	3.6	23.2	1.8	11.3
			11.3	13.5	4.2	13.5	2.9	
			2.8	5.3	.4	2.6	.2	
Column		124	192	48	96	34	494	
(Continued) Total		25.1	38.9	9.7	19.4	6.9	100.0	

GRAVEDAD→	BUQUE	Count	LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE	Row Total
		Row Pct	Col Pct	Tot Pct	TES		NTO	
			1	2	3	4	5	
9	CAR-CARRIER	2	1	1	1			5
		40.0	20.0	20.0	20.0			1.0
		1.6	.5	2.1	1.0			
		.4	.2	.2	.2			
10	FRIGORIFICO	5	7	1	5	1		19
		26.3	36.8	5.3	26.3	5.3		3.8
		4.0	3.6	2.1	5.2	2.9		
		1.0	1.4	.2	1.0	.2		
11	REMOLCADOR	1	4	2	2			9
		11.1	44.4	22.2	22.2			1.8
		.8	2.1	4.2	2.1			
		.2	.8	.4	.4			
12	PESQUERO	9	11	6	1	5		32
		28.1	34.4	18.8	3.1	15.6		6.5
		7.3	5.7	12.5	1.0	14.7		
		1.8	2.2	1.2	.2	1.0		
13	OTROS	3	5	2	1			11
		27.3	45.5	18.2	9.1			2.2
		2.4	2.6	4.2	1.0			
		.6	1.0	.4	.2			
Column Total		124	192	48	96	34	494	
		25.1	38.9	9.7	19.4	6.9	100.0	

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
68.60952	48	.0270	.344	40 OF 65 (61.5%)

Number of Missing Observations = 0

**** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem ****

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Crosstabulation: BUQUE TIPO DE BUQUE
By INICIO LUGAR DE INICIO

Page 1 of 2

INICIO→	BUQUE	Count	MAQUINAS	ESPACIOS	ALOJAMIE	PUENTE	COCINAS	Row Total
		Row Pct	Col Pct	CARGA	NTOS			
		Tot Pct	1	2	3	4	5	
	PASAJE	1	21 55.3 7.7 4.3	5 13.2 4.1 1.0	8 21.1 11.4 1.6	1 2.6 5.6 .2	3 7.9 33.3 .6	38 7.7
	PETROLERO	2	58 52.7 21.2 11.7	44 40.0 35.8 8.9	5 4.5 7.1 1.0	3 2.7 16.7 .6		110 22.3
	QUIMIQUERO	3	4 66.7 1.5 .8	2 33.3 1.6 .4				6 1.2
	GASERO	4	3 37.5 1.1 .6	5 62.5 4.1 1.0				8 1.6
	CONVENCIONAL	5	79 51.6 28.8 16.0	34 22.2 27.6 6.9	30 19.6 42.9 6.1	8 5.2 44.4 1.6	2 1.3 22.2 .4	153 31.0
	RO-RO	6	18 62.1 6.6 3.6	5 17.2 4.1 1.0	5 17.2 7.1 1.0	1 3.4 5.6 .2		29 5.9
	CONTENEDOR	7	14 77.8 5.1 2.8	3 16.7 2.4 .6	1 5.6 1.4 .2			18 3.6
	BULKARRIER	8	32 57.1 11.7 6.5	11 19.6 8.9 2.2	12 21.4 17.1 2.4	1 1.8 5.6 .2		56 11.3
		Column Total	274 55.5	123 24.9	70 14.2	18 3.6	9 1.8	494 100.0

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INICIO→	Count Row Pct Col Pct Tot Pct	MAQUINAS	ESPACIOS	ALOJAMIE	PUENTE	COCINAS	Row Total
		1	2	3	4	5	
BUQUE							
9 CAR-CARRIER	3 60.0 1.1 .6	2 40.0 1.6 .4					5 1.0
10 FRIGORIFICO	12 63.2 4.4 2.4	4 21.1 3.3 .8	2 10.5 2.9 .4		1 5.3 11.1 .2		19 3.8
11 REMOLCADOR	7 77.8 2.6 1.4	1 11.1 .8 .2	1 11.1 1.4 .2				9 1.8
12 PESQUERO	15 46.9 5.5 3.0	5 15.6 4.1 1.0	5 15.6 7.1 1.0	4 12.5 22.2 .8	3 9.4 33.3 .6		32 6.5
13 OTROS	8 72.7 2.9 1.6	2 18.2 1.6 .4	1 9.1 1.4 .2				11 2.2
Column Total	274 55.5	123 24.9	70 14.2	18 3.6	9 1.8	494 100.0	

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
80.18024	48	.0025	.091	45 OF 65 (69.2%)

Number of Missing Observations = 0

**** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem ****

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Crosstabulation: CAUSA CAUSA DEL INCENDIO
By INICIO LUGAR DE INICIO

CAUSA	INICIO→	Count Row Pct Col Pct Tot Pct	MAQUINAS	ESPACIOS	ALOJAMIE	PUENTE	COCINAS	Row Total
			1	2	3	4	5	
REPARACION	1	29	31	17	5	1	83	
		34.9	37.3	20.5	6.0	1.2	16.8	
		10.6	25.2	24.3	27.8	11.1		
		5.9	6.3	3.4	1.0	.2		
AVERIAS	2	49	1				50	
		98.0	2.0				10.1	
		17.9	.8					
		9.9	.2					
ROTURA	3	34	5				39	
		87.2	12.8				7.9	
		12.4	4.1					
		6.9	1.0					
SOBRECAL	4	41	6	5	6		58	
		70.7	10.3	8.6	10.3		11.7	
		15.0	4.9	7.1	33.3			
		8.3	1.2	1.0	1.2			
EXPLOSION	5	34	41				75	
		45.3	54.7				15.2	
		12.4	33.3					
		6.9	8.3					
NEGLIGENCIA	6	7	20	43	2	8	80	
		8.8	25.0	53.8	2.5	10.0	16.2	
		2.6	16.3	61.4	11.1	88.9		
		1.4	4.0	8.7	.4	1.6		
DESCONOCIDA	7	80	19	5	5		109	
		73.4	17.4	4.6	4.6		22.1	
		29.2	15.4	7.1	27.8			
		16.2	3.8	1.0	1.0			
Column Total		274	123	70	18	9	494	
		55.5	24.9	14.2	3.6	1.8	100.0	

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
296.22226	24	.0000	.711	14 OF 35 (40.0%)

Number of Missing Observations = 0

***** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem *****

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Crosstabulation: CAUSA CAUSA DEL INCENDIO
By GRAVEDAD GRAVEDAD DE LOS DANOS

GRAVEDAD→	CAUSA	Count	LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE	Row Total
		Row Pct	Col Pct	TOT	TES		NTO	
		Tot Pct	1	2	3	4	5	
1	REPARACION	22	25	11	21	4	83	
		26.5	30.1	13.3	25.3	4.8	16.8	
		17.7	13.0	22.9	21.9	11.8		
		4.5	5.1	2.2	4.3	.8		
2	AVERIAS	14	21	9	6		50	
		28.0	42.0	18.0	12.0		10.1	
		11.3	10.9	18.8	6.3			
		2.8	4.3	1.8	1.2			
3	ROTURA	3	23	7	4	2	39	
		7.7	59.0	17.9	10.3	5.1	7.9	
		2.4	12.0	14.6	4.2	5.9		
		.6	4.7	1.4	.8	.4		
4	SOBRECAL	23	21	4	8	2	58	
		39.7	36.2	6.9	13.8	3.4	11.7	
		18.5	10.9	8.3	8.3	5.9		
		4.7	4.3	.8	1.6	.4		
5	EXPLOSION	10	27	4	15	19	75	
		13.3	36.0	5.3	20.0	25.3	15.2	
		8.1	14.1	8.3	15.6	55.9		
		2.0	5.5	.8	3.0	3.8		
6	NEGLIGENCIA	21	32	5	19	3	80	
		26.3	40.0	6.3	23.8	3.8	16.2	
		16.9	16.7	10.4	19.8	8.8		
		4.3	6.5	1.0	3.8	.6		
7	DESCONOCIDA	31	43	8	23	4	109	
		28.4	39.4	7.3	21.1	3.7	22.1	
		25.0	22.4	16.7	24.0	11.8		
		6.3	8.7	1.6	4.7	.8		
Column Total		124	192	48	96	34	494	
		25.1	38.9	9.7	19.4	6.9	100.0	

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
82.97962	24	.0000	2.684	5 OF 35 (14.3%)

Number of Missing Observations = 0

**** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem ****

Crosstabulation: SEVIMAR SEVIMAR APLICABLE
By GRAVEDAD GRAVEDAD DE LOS DANOS

GRAVEDAD→	Count Row Pct Col Pct Tot Pct	LEVES	MEDIOS	IMPORTAN TES	DESGUACE	HUNDIMIE NTO	Row Total
		1	2	3	4	5	
SEVIMAR							
1	14	18	6	24	6	68	
SEVIMAR<65	20.6	26.5	8.8	35.3	8.8	13.8	
	11.3	9.4	12.5	25.0	17.6		
	2.8	3.6	1.2	4.9	1.2		
2	90	142	31	68	26	357	
SEVIMAR 65-80	25.2	39.8	8.7	19.0	7.3	72.3	
	72.6	74.0	64.6	70.8	76.5		
	18.2	28.7	6.3	13.8	5.3		
3	3	9	3			15	
SEVIMAR 80-81	20.0	60.0	20.0			3.0	
	2.4	4.7	6.3				
	.6	1.8	.6				
4	11	14	4	2	2	33	
SEVIMAR 81-84	33.3	42.4	12.1	6.1	6.1	6.7	
	8.9	7.3	8.3	2.1	5.9		
	2.2	2.8	.8	.4	.4		
5	1	6	2	1		10	
SEVIMAR 84-86	10.0	60.0	20.0	10.0		2.0	
	.8	3.1	4.2	1.0			
	.2	1.2	.4	.2			
6	5	3	2	1		11	
SEVIMAR>86	45.5	27.3	18.2	9.1		2.2	
	4.0	1.6	4.2	1.0			
	1.0	.6	.4	.2			
Column Total	124	192	48	96	34	494	
	25.1	38.9	9.7	19.4	6.9	100.0	

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
33.43586	20	.0302	.688	17 OF 30 (56.7%)

Number of Missing Observations = 0

***** Given WORKSPACE allows for 8770 Cells with
2 Dimensions for CROSSTAB problem *****

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Crosstabulation: CAUSA CAUSA DEL INCENDIO
By BUQUE TIPO DE BUQUE

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CAUSA	BUQUE→	Count Row Pct Col Pct Tot Pct	PASAJE	PETROLER	QUIMIQUE	GASERO	CONVENCIONAL	Row Total
			1	2	3	4	5	
REPARACION	1		9	28		1	18	83
			10.8	33.7		1.2	21.7	16.8
			23.7	25.5		12.5	11.8	
			1.8	5.7		.2	3.6	
AVERIAS	2		3	10		1	11	50
			6.0	20.0		2.0	22.0	10.1
			7.9	9.1		12.5	7.2	
			.6	2.0		.2	2.2	
ROTURA	3		2	7		2	13	39
			5.1	17.9		5.1	33.3	7.9
			5.3	6.4		25.0	8.5	
			.4	1.4		.4	2.6	
SOBRECAL	4		7	8		1	20	58
			12.1	13.8		1.7	34.5	11.7
			18.4	7.3		12.5	13.1	
			1.4	1.6		.2	4.0	
EXPLOSION	5		2	31	2	1	19	75
			2.7	41.3	2.7	1.3	25.3	15.2
			5.3	28.2	33.3	12.5	12.4	
			.4	6.3	.4	.2	3.8	
NEGLIGENCIA	6		8	7		2	33	80
			10.0	8.8		2.5	41.3	16.2
			21.1	6.4		25.0	21.6	
			1.6	1.4		.4	6.7	
DESCONOCIDA	7		7	19	4		39	109
			6.4	17.4	3.7		35.8	22.1
			18.4	17.3	66.7		25.5	
			1.4	3.8	.8		7.9	
(Continued) Total		Column	38	110	6	8	153	494
		Total	7.7	22.3	1.2	1.6	31.0	100.0

Crosstabulation: CAUSA CAUSA DEL INCENDIO
By BUQUE TIPO DE BUQUE

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BUQUE→	CAUSA	Count		RO-RO 6	CONTENED OR 7	BULKARR IER 8	CAR-CARR IER 9	FRIGORIF ICO 10	Row Total
		Row Pct	Col Pct						
		Tot Pct							
	REPARACION	1	2	1	3		4	83	
			2.4	1.2	3.6		4.8	16.8	
			6.9	5.6	5.4		21.1		
			.4	.2	.6		.8		
	AVERIAS	2	4	5	8		1	50	
			8.0	10.0	16.0		2.0	10.1	
			13.8	27.8	14.3		5.3		
			.8	1.0	1.6		.2		
	ROTURA	3	3		5		2	39	
			7.7		12.8		5.1	7.9	
			10.3		8.9		10.5		
			.6		1.0		.4		
	SOBRECARGA	4	3	3	8	2	1	58	
			5.2	5.2	13.8	3.4	1.7	11.7	
			10.3	16.7	14.3	40.0	5.3		
			.6	.6	1.6	.4	.2		
	EXPLOSION	5	3	2	8	1	3	75	
			4.0	2.7	10.7	1.3	4.0	15.2	
			10.3	11.1	14.3	20.0	15.8		
			.6	.4	1.6	.2	.6		
	NEGLIGENCIA	6	5	2	11	1	4	80	
			6.3	2.5	13.8	1.3	5.0	16.2	
			17.2	11.1	19.6	20.0	21.1		
			1.0	.4	2.2	.2	.8		
	DESCONOCIDA	7	9	5	13	1	4	109	
			8.3	4.6	11.9	.9	3.7	22.1	
			31.0	27.8	23.2	20.0	21.1		
			1.8	1.0	2.6	.2	.8		
	Column Total		29	18	56	5	19	494	
	(Continued)		5.9	3.6	11.3	1.0	3.8	100.0	

Crosstabulation: CAUSA CAUSA DEL INCENDIO
 By BUQUE TIPO DE BUQUE

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CAUSA	BUQUE→	Count	REMOLCADOR	PESQUERO	OTROS	Row Total
		Row Pct	Col Pct	11	12	
		Tot Pct				
REPARACION	1	1	2	11	4	83
		2.4	13.3	4.8		16.8
		22.2	34.4	36.4		
		.4	2.2	.8		
AVERIAS	2	2	5	2	50	
		10.0	4.0	10.1		
		15.6	18.2			
		1.0	.4			
ROTURA	3	3	1	3	1	39
		2.6	7.7	2.6	7.9	
		11.1	9.4	9.1		
		.2	.6	.2		
SOBRECAL	4	4	2	3	58	
		3.4	5.2	11.7		
		22.2	9.4			
		.4	.6			
EXPLOSION	5	5	1	2	75	
		1.3	2.7	15.2		
		11.1	18.2			
		.2	.4			
NEGLIGENCIA	6	6	1	5	1	80
		1.3	6.3	1.3	16.2	
		11.1	15.6	9.1		
		.2	1.0	.2		
DESCONOCIDA	7	7	2	5	1	109
		1.8	4.6	.9	22.1	
		22.2	15.6	9.1		
		.4	1.0	.2		
Column Total			9	32	11	494
			1.8	6.5	2.2	100.0

Chi-Square D.F. Significance Min E.F. Cells with E.F. < 5

104.57710 72 .0073 .395 63 OF 91 (69.2%)

Number of Missing Observations = 0

**** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem ****

Crosstabulation: TONELAJE TRG
By GRAVEDAD GRAVEDAD DE LOS DANOS

GRAVEDAD→	TONELAJE	Count	LEVES	MEDIOS	IMPOR- TES	DESQUACE	HUNDIMIE NTO	Row Total
		Row Pct	Col Pct	Tot Pct	1	2	3	
1	TRG 500-1000	19	12	7	8	8	54	
		35.2	22.2	13.0	14.8	14.8	10.9	
		15.3	6.3	14.6	8.3	23.5		
		3.8	2.4	1.4	1.6	1.6		
2	TRG 1001-3000	17	38	15	20	9	99	
		17.2	38.4	15.2	20.2	9.1	20.0	
		13.7	19.8	31.3	20.8	26.5		
		3.4	7.7	3.0	4.0	1.8		
3	TRG 3001-10000	33	60	11	39	9	152	
		21.7	39.5	7.2	25.7	5.9	30.8	
		26.6	31.3	22.9	40.6	26.5		
		6.7	12.1	2.2	7.9	1.8		
4	TRG 10001-60000	45	72	11	27	7	162	
		27.8	44.4	6.8	16.7	4.3	32.8	
		36.3	37.5	22.9	28.1	20.6		
		9.1	14.6	2.2	5.5	1.4		
5	TRG 60001-100000	7	2	2	1		12	
		58.3	16.7	16.7	8.3		2.4	
		5.6	1.0	4.2	1.0			
		1.4	.4	.4	.2			
6	TRG 100001-14000	3	6	2			11	
		27.3	54.5	18.2			2.2	
		2.4	3.1	4.2				
		.6	1.2	.4				
7	TRG > 140001		2		1	1	4	
			50.0		25.0	25.0	.8	
			1.0		1.0	2.9		
			.4		.2	.2		
Column Total		124	192	48	96	34	494	
		25.1	38.9	9.7	19.4	6.9	100.0	

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
45.55421	24	.0050	.275	16 OF 35 (45.7%)

Number of Missing Observations = 0

***** Given WORKSPACE allows for 6924 Cells with
3 Dimensions for CROSSTAB problem *****

Crosstabulation: CAUSA CAUSA DEL INCENDIO
By GRAVEDAD GRAVEDAD DE LOS DANOS
Controlling for BUQUE TIPO DE BUQUE
= 1 PASAJE

CAUSA	Count Row Pct Col Pct Tot Pct	LEVES	MEDIOS	IMPORTAN TES	DESQUACE	HUNDIMIE NTO	Row Total
		1	2	3	4	5	
REPARACION	1	1	1	1	5	1	9
		11.1	11.1	11.1	55.6	11.1	23.7
		9.1	7.7	50.0	83.3	16.7	
		2.6	2.6	2.6	13.2	2.6	
AVERIAS	2		3				3
			100.0				7.9
			23.1				7.9
ROTURA	3		2				2
			100.0				5.3
			15.4				5.3
SOBRECAL	4	5				2	7
		71.4				28.6	18.4
		45.5				33.3	
		13.2				5.3	
EXPLOSION	5					2	2
						100.0	5.3
						33.3	
						5.3	
NEGLIGENCIA	6	4	2		1	1	8
		50.0	25.0		12.5	12.5	21.1
		36.4	15.4		16.7	16.7	
		10.5	5.3		2.6	2.6	
DESCONOCIDA	7	1	5	1			7
		14.3	71.4	14.3			18.4
		9.1	38.5	50.0			
		2.6	13.2	2.6			
Column Total		11	13	2	6	6	38
		28.9	34.2	5.3	15.8	15.8	100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
49.95611	24	.0014	.105	35 OF 35 (100.0%)

Crosstabulation: CAUSA CAUSA DEL INCENDIO
 By GRAVEDAD GRAVEDAD DE LOS DANOS
 Controlling for BUQUE TIPO DE BUQUE
 = 2 PETROLERO

GRAVEDAD→	CAUSA	Count		LEVES	MEDIOS	IMPORTAN TES	DESGUACE	HUNDIMIE NTO	Row Total
		Row Pct	Col Pct						
		Tot Pct	Tot Pct						
				1	2	3	4	5	
1	REPARACION	8	9	2	6	3	28		
		28.6	32.1	7.1	21.4	10.7	25.5		
		32.0	20.0	18.2	37.5	23.1			
		7.3	8.2	1.8	5.5	2.7			
2	AVERIAS	3	5	2			10		
		30.0	50.0	20.0			9.1		
		12.0	11.1	18.2					
		2.7	4.5	1.8					
3	ROTURA		5	1	1		7		
			71.4	14.3	14.3		6.4		
			11.1	9.1	6.3				
			4.5	.9	.9				
4	SOBRECAL	3	4		1		8		
		37.5	50.0		12.5		7.3		
		12.0	8.9		6.3				
		2.7	3.6		.9				
5	EXPLOSION	4	10	3	4	10	31		
		12.9	32.3	9.7	12.9	32.3	28.2		
		16.0	22.2	27.3	25.0	76.9			
		3.6	9.1	2.7	3.6	9.1			
6	NEGLIGENCIA	2	2	1	2		7		
		28.6	28.6	14.3	28.6		6.4		
		8.0	4.4	9.1	12.5				
		1.8	1.8	.9	1.8				
7	DESCONOCIDA	5	10	2	2		19		
		26.3	52.6	10.5	10.5		17.3		
		20.0	22.2	18.2	12.5				
		4.5	9.1	1.8	1.8				
Column Total		25	45	11	16	13	110		
		22.7	40.9	10.0	14.5	11.8	100.0		

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
31.40548	24	.1424	.700	30 OF 35 (85.7%)

Crosstabulation: CAUSA CAUSA DEL INCENDIO
 By GRAVEDAD GRAVEDAD DE LOS DANOS
 Controlling for BUQUE TIPO DE BUQUE
 = 3 QUIMIQUERO

		Count			
GRAVEDAD→	Row Pct	LEVES	MEDIOS	IMPORTAN	Row Total
	Col Pct			TES	
	Tot Pct	1	2	3	
CAUSA					
EXPLOSION	5	1 50.0 33.3 16.7		1 50.0 100.0 16.7	2 33.3
DESCONOCIDA	7	2 50.0 66.7 33.3	2 50.0 100.0 33.3		4 66.7
Column Total		3 50.0	2 33.3	1 16.7	6 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
3.00000	2	.2231	.333	6 OF 6 (100.0%)

Crosstabulation: CAUSA CAUSA DEL INCENDIO
 By GRAVEDAD GRAVEDAD DE LOS DANOS
 Controlling for BUQUE TIPO DE BUQUE

= 4 GASERO

CAUSA	GRAVEDAD→	Count Row Pct Col Pct Tot Pct	LEVES	MEDIOS	IMPORTAN TES	DESGUACE	Row Total
			1	2	3	4	
REPARACION	1			1 100.0 20.0 12.5			1 12.5
	2			1 100.0 20.0 12.5			1 12.5
ROTURA	3				1 50.0 100.0 12.5	1 50.0 100.0 12.5	2 25.0
	4			1 100.0 20.0 12.5			1 12.5
EXPLOSION	5			1 100.0 20.0 12.5			1 12.5
	6		1 50.0 100.0 12.5	1 50.0 20.0 12.5			2 25.0
Column Total			1 12.5	5 62.5	1 12.5	1 12.5	8 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
11.20000	15	.7383	.125	24 OF 24 (100.0%)

Crosstabulation: CAUSA CAUSA DEL INCENDIO
 By GRAVEDAD GRAVEDAD DE LOS DANOS
 Controlling for BUQUE TIPO DE BUQUE
 = 5 CONVENCIONAL

GRAVEDAD→	CAUSA	Count	LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE	Row Total
		Row Pct	Col Pct	TOT	TES	NTO	NTO	
		Tot Pct	1	2	3	4	5	
1	REPARACION	18	4	3	3	8		11.8
			22.2	16.7	16.7	44.4		
			11.1	5.4	25.0	19.0		
			2.6	2.0	2.0	5.2		
2	AVERIAS	11	4	3	3	1		7.2
			36.4	27.3	27.3	9.1		
			11.1	5.4	25.0	2.4		
			2.6	2.0	2.0	.7		
3	ROTURA	13	2	8	2	1		8.5
			15.4	61.5	15.4	7.7		
			5.6	14.3	16.7	2.4		
			1.3	5.2	1.3	.7		
4	SOBRECAL	20	5	8	2	5		13.1
			25.0	40.0	10.0	25.0		
			13.9	14.3	16.7	11.9		
			3.3	5.2	1.3	3.3		
5	EXPLOSION	19	3	6		6	4	12.4
			15.8	31.6		31.6	21.1	
			8.3	10.7		14.3	57.1	
			2.0	3.9		3.9	2.6	
6	NEGLIGENCIA	33	8	14	1	9	1	21.6
			24.2	42.4	3.0	27.3	3.0	
			22.2	25.0	8.3	21.4	14.3	
			5.2	9.2	.7	5.9	.7	
7	DESCONOCIDA	39	10	14	1	12	2	25.5
			25.6	35.9	2.6	30.8	5.1	
			27.8	25.0	8.3	28.6	28.6	
			6.5	9.2	.7	7.8	1.3	
	Column Total	153	36	56	12	42	7	153
		100.0	23.5	36.6	7.8	27.5	4.6	100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
38.37740	24	.0317	.503	24 OF 35 (68.6%)

Crosstabulation: CAUSA CAUSA DEL INCENDIO
 By GRAVEDAD GRAVEDAD DE LOS DANOS
 Controlling for BUQUE TIPO DE BUQUE

= 6 RO-RO

GRAVEDAD→	CAUSA	Count						Row Total
		Row Pct	LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE	
Col Pct			1	2	TES	4	5	
Tot Pct					3			
1	REPARACION			2				2
				100.0				6.9
				13.3				
				6.9				
2	AVERIAS		1	2	1			4
			25.0	50.0	25.0			13.8
			20.0	13.3	16.7			
			3.4	6.9	3.4			
3	ROTURA			1	2			3
				33.3	66.7			10.3
				6.7	33.3			
				3.4	6.9			
4	SOBRECAL		1	1	1			3
			33.3	33.3	33.3			10.3
			20.0	6.7	16.7			
			3.4	3.4	3.4			
5	EXPLOSION			2			1	3
				66.7			33.3	10.3
				13.3			100.0	
				6.9			3.4	
6	NEGLIGENCIA		1	2	2			5
			20.0	40.0	40.0			17.2
			20.0	13.3	33.3			
			3.4	6.9	6.9			
7	DESCONOCIDA		2	5		2		9
			22.2	55.6		22.2		31.0
			40.0	33.3		100.0		
			6.9	17.2		6.9		
Column Total			5	15	6	2	1	29
			17.2	51.7	20.7	6.9	3.4	100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
23.94648	24	.4647	.069	35 OF 35 (100.0%)

Crosstabulation: CAUSA CAUSA DEL INCENDIO
 By GRAVEDAD GRAVEDAD DE LOS DANOS
 Controlling for BUQUE TIPO DE BUQUE
 = 7 CONTENEDOR

GRAVEDAD→	CAUSA	Count	LEVES	MEDIOS	IMPORTAN	DESQUACE	Row Total
		Row Pct	Col Pct	TES	TES	TES	
		Tot Pct	1	2	3	4	
1	REPARACION	1 100.0 11.1 5.6					1 5.6
2	AVERIAS	1 20.0 11.1 5.6	1 20.0 11.1 5.6			3 60.0 50.0 16.7	5 27.8
4	SOBRECARGA	2 66.7 22.2 11.1	1 33.3 50.0 5.6				3 16.7
5	EXPLOSION	1 50.0 11.1 5.6				1 50.0 16.7 5.6	2 11.1
6	NEGLIGENCIA	1 50.0 11.1 5.6				1 50.0 16.7 5.6	2 11.1
7	DESCONOCIDA	3 60.0 33.3 16.7			1 20.0 100.0 5.6	1 20.0 16.7 5.6	5 27.8
Column Total		9 50.0	2 11.1	1 5.6	6 33.3	18 100.0	

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
10.06667	15	.8155	.056	24 OF 24 (100.0%)

Crosstabulation: CAUSA CAUSA DEL INCENDIO
 By GRAVEDAD GRAVEDAD DE LOS DANOS
 Controlling for BUQUE TIPO DE BUQUE

= 8 BULKARRIER

GRAVEDAD→	CAUSA	Count						Row Total
		Row Pct	LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE	
		Col Pct	1	2	TES	4	NTO	5
		Tot Pct			3			
1	REPARACION		1 33.3 7.1 1.8	1 33.3 3.8 1.8		1 33.3 7.7 1.8		3 5.4
2	AVERIAS		3 37.5 21.4 5.4	3 37.5 11.5 5.4	1 12.5 50.0 1.8	1 12.5 7.7 1.8		8 14.3
3	ROTURA		1 20.0 7.1 1.8	3 60.0 11.5 5.4		1 20.0 7.7 1.8		5 8.9
4	SOBRECARGA		3 37.5 21.4 5.4	3 37.5 11.5 5.4		2 25.0 15.4 3.6		8 14.3
5	EXPLOSION		1 12.5 7.1 1.8	5 62.5 19.2 8.9		1 12.5 7.7 1.8	1 12.5 100.0 1.8	8 14.3
6	NEGLIGENCIA		2 18.2 14.3 3.6	4 36.4 15.4 7.1		5 45.5 38.5 8.9		11 19.6
7	DESCONOCIDA		3 23.1 21.4 5.4	7 53.8 26.9 12.5	1 7.7 50.0 1.8	2 15.4 15.4 3.6		13 23.2
		Column Total	14 25.0	26 46.4	2 3.6	13 23.2	1 1.8	56 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
16.57782	24	.8661	.054	33 OF 35 (94.3%)

Crosstabulation: CAUSA CAUSA DEL INCENDIO
 By GRAVEDAD GRAVEDAD DE LOS DANOS
 Controlling for BUQUE TIPO DE BUQUE
 = 9 CAR-CARRIER

GRAVEDAD→	CAUSA	Count	LEVES	MEDIOS	IMPORTAN	DESGUACE	Row Total
		Row Pct	Col Pct	Tot Pct	TES		
			1	2	3	4	
4	SOBRECAL	1	1				2
		50.0	50.0				40.0
		50.0	100.0				
		20.0	20.0				
5	EXPLOSION					1	1
						100.0	20.0
						100.0	
					20.0		
6	NEGLIGENCIA				1		1
					100.0		20.0
					100.0		
					20.0		
7	DESCONOCIDA	1					1
		100.0					20.0
		50.0					
		20.0					
Column Total		2	1	1	1	5	
Total		40.0	20.0	20.0	20.0	100.0	

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
11.25000	9	.2590	.200	16 OF 16 (100.0%)

Crosstabulation: CAUSA CAUSA DEL INCENDIO
 By GRAVEDAD GRAVEDAD DE LOS DANOS
 Controlling for BUQUE TIPO DE BUQUE
 = 10 FRIGORIFICO

GRAVEDAD→	CAUSA	Count	LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE	Row Total
		Row Pct	Col Pct	Tot Pct	TES		NTO	
			1	2	3	4	5	
1	REPARACION	1	2 50.0 40.0 10.5	2 50.0 28.6 10.5				4 21.1
2	AVERIAS	2				1 100.0 20.0 5.3		1 5.3
3	ROTURA	3		1 50.0 14.3 5.3	1 50.0 100.0 5.3			2 10.5
4	SOBRECAL	4	1 100.0 20.0 5.3					1 5.3
5	EXPLOSION	5		2 66.7 28.6 10.5			1 33.3 100.0 5.3	3 15.8
6	NEGLIGENCIA	6	1 25.0 20.0 5.3	2 50.0 28.6 10.5		1 25.0 20.0 5.3		4 21.1
7	DESCONOCIDA	7	1 25.0 20.0 5.3			3 75.0 60.0 15.8		4 21.1
	Column Total		5 26.3	7 36.8	1 5.3	5 26.3	1 5.3	19 100.0

Chi-Square D.F. Significance Min E.F. Cells with E.F.< 5

30.03809 24 .1835 .053 35 OF 35 (100.0%)

Crosstabulation: CAUSA CAUSA DEL INCENDIO
 By GRAVEDAD GRAVEDAD DE LOS DANOS
 Controlling for BUQUE TIPO DE BUQUE
 = 11 REMOLCADOR

CAUSA	Count Row Pct Col Pct Tot Pct	LEVES	MEDIOS	IMPORTAN TES	DESGUACE	Row Total
		1	2	3	4	
REPARACION	1		1 50.0 25.0 11.1	1 50.0 50.0 11.1		2 22.2
ROTURA	3		1 100.0 25.0 11.1			1 11.1
SOBRECAL	4	1 50.0 100.0 11.1	1 50.0 25.0 11.1			2 22.2
EXPLOSION	5				1 100.0 50.0 11.1	1 11.1
NEGLIGENCIA	6		1 100.0 25.0 11.1			1 11.1
DESCONOCIDA	7			1 50.0 50.0 11.1	1 50.0 50.0 11.1	2 22.2
Column Total		1 11.1	4 44.4	2 22.2	2 22.2	9 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
13.50000	15	.5637	.111	24 OF 24 (100.0%)

Crosstabulation: CAUSA CAUSA DEL INCENDIO
 By GRAVEDAD GRAVEDAD DE LOS DANOS
 Controlling for BUQUE TIPO DE BUQUE
 = 12 PESQUERO

GRAVEDAD→	CAUSA	Count	LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE	Row Total
		Row Pct	Col Pct	TES	NTO	NTO		
		Tot Pct	1	2	3	4	5	
1	REPARACION	11	3	3	4	1		11
		34.4	27.3	27.3	36.4	9.1		34.4
			33.3	27.3	66.7	100.0		
			9.4	9.4	12.5	3.1		
2	AVERIAS	5	2	3				5
		15.6	40.0	60.0				15.6
			22.2	27.3				
			6.3	9.4				
3	ROTURA	3		1			2	3
		9.4		33.3			66.7	9.4
				9.1			40.0	
				3.1			6.3	
4	SOBRECAL	3	1	1	1			3
		9.4	33.3	33.3	33.3			9.4
			11.1	9.1	16.7			
			3.1	3.1	3.1			
6	NEGLIGENCIA	5	1	3			1	5
		15.6	20.0	60.0			20.0	15.6
			11.1	27.3			20.0	
			3.1	9.4			3.1	
7	DESCONOCIDA	5	2		1		2	5
		15.6	40.0		20.0		40.0	15.6
			22.2		16.7		40.0	
			6.3		3.1		6.3	
Column Total		32	9	11	6	1	5	32
		100.0	28.1	34.4	18.8	3.1	15.6	100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
21.73101	20	.3553	.094	30 OF 30 (100.0%)

Crosstabulation: CAUSA CAUSA DEL INCENDIO
 By GRAVEDAD GRAVEDAD DE LOS DANOS
 Controlling for BUQUE TIPO DE BUQUE
 = 13 OTROS

CAUSA	Row Pct Col Pct Tot Pct	Count	LEVES	MEDIOS	IMPORTAN TES	DESGUACE	Row Total
		1	2	3	4		
REPARACION	1	2	2				4
		50.0	50.0				36.4
		66.7	40.0				
		18.2	18.2				
AVERIAS	2			2			2
				100.0			18.2
				100.0			
				18.2			
ROTURA	3		1				1
			100.0				9.1
			20.0				
			9.1				
EXPLOSION	5		1			1	2
			50.0			50.0	18.2
			20.0			100.0	
			9.1			9.1	
NEGLIGENCIA	6		1				1
			100.0				9.1
			20.0				
			9.1				
DESCONOCIDA	7	1					1
		100.0					9.1
		33.3					
		9.1					
Column Total		3	5	2	1	11	100.0
		27.3	45.5	18.2	9.1		

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
-----	-----	-----	-----	-----
20.53333	15	.1524	.091	24 OF 24 (100.0%)

Number of Missing Observations = 0

This procedure was completed at 18:01:02

***** Given WORKSPACE allows for 8959 Cells with
2 Dimensions for CROSSTAB problem *****

Crosstabulation: INICIO LUGAR DE INICIO
By GRAVEDAD GRAVEDAD DE LOS DANOS

GRAVEDAD→	Count Row Pct Col Pct Tot Pct	LEVES	MEDIOS	IMPORTAN TES	DESGUACE	HUNDIMIE NTO	Row Total
		1	2	3	4	5	
INICIO							
MAQUINAS	1	68 24.8 54.8 13.8	116 42.3 60.4 23.5	26 9.5 54.2 5.3	45 16.4 46.9 9.1	19 6.9 55.9 3.8	274 55.5
ESPACIOS CARGA	2	32 26.0 25.8 6.5	42 34.1 21.9 8.5	16 13.0 33.3 3.2	21 17.1 21.9 4.3	12 9.8 35.3 2.4	123 24.9
ALOJAMIENTOS	3	15 21.4 12.1 3.0	22 31.4 11.5 4.5	5 7.1 10.4 1.0	26 37.1 27.1 5.3	2 2.9 5.9 .4	70 14.2
PUENTE	4	6 33.3 4.8 1.2	8 44.4 4.2 1.6	1 5.6 2.1 .2	3 16.7 3.1 .6		18 3.6
COCINAS	5	3 33.3 2.4 .6	4 44.4 2.1 .8		1 11.1 1.0 .2	1 11.1 2.9 .2	9 1.8
	Column Total	124 25.1	192 38.9	48 9.7	96 19.4	34 6.9	494 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
24.89575	16	.0717	.619	10 OF 25 (40.0%)

Number of Missing Observations = 0

This procedure was completed at 16:46:39

***** Given WORKSPACE allows for 6924 Cells with
3 Dimensions for CROSSTAB problem *****

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SPSS/PC+

2/15/91

Crosstabulation: GRAVEDAD GRAVEDAD DE LOS DANOS
By INICIO LUGAR DE INICIO
Controlling for BUQUE TIPO DE BUQUE
= 1 PASAJE

INICIO→	GRAVEDAD	Count Row Pct Col Pct Tot Pct	MAQUINAS	ESPACIOS	ALOJAMIE	PUENTE	COCINAS	Row Total
			1	CARGA 2	NTOS 3	4	5	
	LEVES	1	6 54.5 28.6 15.8	2 18.2 40.0 5.3	1 9.1 12.5 2.6		2 18.2 66.7 5.3	11 28.9
	MEDIOS	2	9 69.2 42.9 23.7	1 7.7 20.0 2.6	1 7.7 12.5 2.6	1 7.7 100.0 2.6	1 7.7 33.3 2.6	13 34.2
	IMPORTANTES	3		2 100.0 40.0 5.3				2 5.3
	DESGUACE	4	2 33.3 9.5 5.3		4 66.7 50.0 10.5			6 15.8
	HUNDIMIENTO	5	4 66.7 19.0 10.5		2 33.3 25.0 5.3			6 15.8
		Column Total	21 55.3	5 13.2	8 21.1	1 2.6	3 7.9	38 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
28.91083	16	.0245	.053	23 OF 25 (92.0%)

Crosstabulation: GRAVEDAD GRAVEDAD DE LOS DANOS
 By INICIO LUGAR DE INICIO
 Controlling for BUQUE TIPO DE BUQUE
 = 2 PETROLERO

INICIO→	GRAVEDAD	Count	MAQUINAS	ESPACIOS	ALOJAMIE	PUENTE	Row Total
		Row Pct	1	CARGA	NTOS	2	
		Col Pct					
		Tot Pct					
LEVES	1		12	8	3	2	25
			48.0	32.0	12.0	8.0	22.7
			20.7	18.2	60.0	66.7	
			10.9	7.3	2.7	1.8	
MEDIOS	2		31	13		1	45
			68.9	28.9		2.2	40.9
			53.4	29.5		33.3	
			28.2	11.8		.9	
IMPORTANTES	3		5	6			11
			45.5	54.5			10.0
			8.6	13.6			
			4.5	5.5			
DESGUACE	4		8	6	2		16
			50.0	37.5	12.5		14.5
			13.8	13.6	40.0		
			7.3	5.5	1.8		
HUNDIMIENTO	5		2	11			13
			15.4	84.6			11.8
			3.4	25.0			
			1.8	10.0			
		Column	58	44	5	3	110
		Total	52.7	40.0	4.5	2.7	100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
26.87258	12	.0081	.300	11 OF 20 (55.0%)

Crosstabulation: GRAVEDAD GRAVEDAD DE LOS DANOS
 By INICIO LUGAR DE INICIO
 Controlling for BUQUE TIPO DE BUQUE
 = 3 QUIMIQUERO

INICIO→	GRAVEDAD	Count	MAQUINAS	ESPACIOS	Row Total
		Row Pct	1	2	
		Col Pct	CARGA		
		Tot Pct			
LEVES	1		2	1	3
			66.7	33.3	50.0
			50.0	50.0	
			33.3	16.7	
MEDIOS	2		1	1	2
			50.0	50.0	33.3
			25.0	50.0	
			16.7	16.7	
IMPORTANTES	3		1		1
			100.0		16.7
			25.0		
			16.7		
Column Total			4	2	6
Total			66.7	33.3	100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
.75000	2	.6873	.333	6 OF 6 (100.0%)

Crosstabulation: GRAVEDAD GRAVEDAD DE LOS DANOS
 By INICIO LUGAR DE INICIO
 Controlling for BUQUE TIPO DE BUQUE
 = 4 GASERO

INICIO→	GRAVEDAD	Count Row Pct Col Pct Tot Pct	MAQUINAS	ESPACIOS	Row Total
			1	2	
LEVES	1	1 100.0 33.3 12.5			1 12.5
	2		2 40.0 66.7 25.0	3 60.0 60.0 37.5	5 62.5
	3			1 100.0 20.0 12.5	1 12.5
DESGUACE	4			1 100.0 20.0 12.5	1 12.5
	Column Total		3 37.5	5 62.5	8 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
2.88000	3	.4105	.375	8 OF 8 (100.0%)

Crosstabulation: GRAVEDAD GRAVEDAD DE LOS DANOS
 By INICIO LUGAR DE INICIO
 Controlling for BUQUE TIPO DE BUQUE
 = 5 CONVENCIONAL

INICIO→	GRAVEDAD	Count	MAQUINAS	ESPACIOS	ALOJAMIE	PUENTE	COCINAS	Row Total
		Row Pct	Col Pct	Tot Pct	1	2	3	
	LEVES	1	17	11	4	4		36
			47.2	30.6	11.1	11.1		23.5
			21.5	32.4	13.3	50.0		
			11.1	7.2	2.6	2.6		
	MEDIOS	2	32	9	12	2	1	56
			57.1	16.1	21.4	3.6	1.8	36.6
			40.5	26.5	40.0	25.0	50.0	
			20.9	5.9	7.8	1.3	.7	
	IMPORTANTES	3	6	4	2			12
			50.0	33.3	16.7			7.8
			7.6	11.8	6.7			
			3.9	2.6	1.3			
	DESGUACE	4	18	9	12	2	1	42
			42.9	21.4	28.6	4.8	2.4	27.5
			22.8	26.5	40.0	25.0	50.0	
			11.8	5.9	7.8	1.3	.7	
	HUNDIMIENTO	5	6	1				7
			85.7	14.3				4.6
			7.6	2.9				
			3.9	.7				
		Column Total	79	34	30	8	2	153
			51.6	22.2	19.6	5.2	1.3	100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
15.06927	16	.5196	.092	15 OF 25 (60.0%)

Crosstabulation: GRAVEDAD GRAVEDAD DE LOS DANOS
 By INICIO LUGAR DE INICIO
 Controlling for BUQUE TIPO DE BUQUE
 = 6 RO-RO

INICIO→	GRAVEDAD	Count	MAQUINAS	ESPACIOS	ALOJAMIE	PUENTE	Row Total
		Row Pct	Col Pct	CARGA	NTOS		
		Tot Pct	1	2	3	4	
LEVES	1	4			1		5
		80.0			20.0		17.2
		22.2			20.0		
		13.8			3.4		
MEDIOS	2	7	5	2	1	15	
		46.7	33.3	13.3	6.7	51.7	
		38.9	100.0	40.0	100.0		
		24.1	17.2	6.9	3.4		
IMPORTANTES	3	4		2		6	
		66.7		33.3		20.7	
		22.2		40.0			
DESQUACE	4	2				2	
		100.0				6.9	
		11.1					
HUNDIMIENTO	5	1				1	
		100.0				3.4	
		5.6					
		3.4					
Column Total		18	5	5	1	29	
		62.1	17.2	17.2	3.4	100.0	

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
8.72148	12	.7265	.034	19 OF 20 (95.0%)

Crosstabulation: GRAVEDAD GRAVEDAD DE LOS DANOS

By INICIO LUGAR DE INICIO

Controlling for BUQUE TIPO DE BUQUE

= 7 CONTENEDOR

INICIO→	GRAVEDAD	Count	MAQUINAS	ESPACIOS	ALOJAMIE	Row Total
		Row Pct	Col Pct	CARGA	NTOS	
		Tot Pct	1	2	3	
LEVES	1	6	3			9
		66.7	33.3			50.0
		42.9	100.0			
		33.3	16.7			
MEDIOS	2	2				2
		100.0				11.1
		14.3				
IMPORTANTES	3	1				1
		100.0				5.6
		7.1				
DESGUACE	4	5		1		6
		83.3		16.7		33.3
		35.7		100.0		
		27.8		5.6		
Column Total		14	3	1		18
		77.8	16.7	5.6		100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
5.35714	6	.4989	.056	11 OF 12 (91.7%)

Crosstabulation: GRAVEDAD GRAVEDAD DE LOS DANOS
 By INICIO LUGAR DE INICIO
 Controlling for BUQUE TIPO DE BUQUE
 = 8 BULKCARRIER

INICIO→	GRAVEDAD	Count	MAQUINAS	ESPACIOS	ALOJAMIE	PUENTE	Row Total
		Row Pct	1	CARGA	NTOS	4	
		Col Pct					
		Tot Pct					
1	LEVES	8	4	2			14
		57.1	28.6	14.3			25.0
		25.0	36.4	16.7			
		14.3	7.1	3.6			
2	MEDIOS	16	6	4			26
		61.5	23.1	15.4			46.4
		50.0	54.5	33.3			
		28.6	10.7	7.1			
3	IMPORTANTES	2					2
		100.0					3.6
		6.3					
		3.6					
4	DESGUACE	5	1	6	1		13
		38.5	7.7	46.2	7.7		23.2
		15.6	9.1	50.0	100.0		
		8.9	1.8	10.7	1.8		
5	HUNDIMIENTO	1					1
		100.0					1.8
		3.1					
		1.8					
Column Total		32	11	12	1	56	100.0
		57.1	19.6	21.4	1.8		

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
12.54079	12	.4033	.018	15 OF 20 (75.0%)

Crosstabulation: GRAVEDAD GRAVEDAD DE LOS DANOS
 By INICIO LUGAR DE INICIO
 Controlling for BUQUE TIPO DE BUQUE
 = 9 CAR-CARRIER

INICIO→	GRAVEDAD	Count	MAQUINAS	ESPACIOS	Row Total
		Row Pct	1	2	
		Col Pct	CARGA		
		Tot Pct	1	2	
	1	2	2		2
LEVES		100.0	66.7		40.0
			40.0		
	2	1	1		1
MEDIOS		100.0	33.3		20.0
			20.0		
	3		1	1	1
IMPORTANTES			100.0	50.0	20.0
			20.0		
	4		1	1	1
DESGUACE			100.0	50.0	20.0
			20.0		
		Column Total	3	2	5
			60.0	40.0	100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
5.00000	3	.1718	.400	8 OF 8 (100.0%)

Crosstabulation: GRAVEDAD GRAVEDAD DE LOS DANOS
 By INICIO LUGAR DE INICIO
 Controlling for BUQUE TIPO DE BUQUE
 = 10 FRIGORIFICO

INICIO→	GRAVEDAD	Count	MAQUINAS	ESPACIOS	ALOJAMIE	COCINAS	Row Total
		Row Pct	Col Pct	CARGA	NTOS		
		Tot Pct	1	2	3	5	
	1	2	2			1	5
LEVES		40.0	40.0			20.0	26.3
		16.7	50.0			100.0	
		10.5	10.5			5.3	
	2	5	1	1			7
MEDIOS		71.4	14.3	14.3			36.8
		41.7	25.0	50.0			
		26.3	5.3	5.3			
	3	1					1
IMPORTANTES		100.0					5.3
		8.3					
		5.3					
	4	3	1	1			5
DESGUACE		60.0	20.0	20.0			26.3
		25.0	25.0	50.0			
		15.8	5.3	5.3			
	5	1					1
HUNDIMIENTO		100.0					5.3
		8.3					
		5.3					
Column Total		12	4	2	1	19	100.0
		63.2	21.1	10.5	5.3		

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
6.42381	12	.8932	.053	20 OF 20 (100.0%)

Crosstabulation: GRAVEDAD GRAVEDAD DE LOS DANOS

By INICIO LUGAR DE INICIO

Controlling for BUQUE TIPO DE BUQUE

= 11 REMOLCADOR

INICIO→	GRAVEDAD	Count	MAQUINAS	ESPACIOS	ALOJAMIE	Row Total
		Row Pct	1	CARGA	NTOS	
		Col Pct	2			
		Tot Pct			3	
LEVES	1	1				1
		100.0				11.1
		14.3				
		11.1				
MEDIOS	2	3			1	4
		75.0			25.0	44.4
		42.9			100.0	
		33.3			11.1	
IMPORTANTES	3	1	1			2
		50.0	50.0			22.2
		14.3	100.0			
		11.1	11.1			
DESGUACE	4	2				2
		100.0				22.2
		28.6				
		22.2				
Column Total		7	1	1		9
		Total	77.8	11.1	11.1	100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
5.14286	6	.5256	.111	12 OF 12 (100.0%)

Crosstabulation: GRAVEDAD GRAVEDAD DE LOS DANOS
 By INICIO LUGAR DE INICIO
 Controlling for BUQUE TIPO DE BUQUE
 = 12 PESQUERO

INICIO→	GRAVEDAD	Count	MAQUINAS	ESPACIOS	ALOJAMIE	PUENTE	COCINAS	Row Total
		Row Pct	Col Pct	Tot Pct	1	2	3	
	LEVES	1	5 55.6 33.3 15.6	1 11.1 20.0 3.1	3 33.3 60.0 9.4			9 28.1
	MEDIOS	2	3 27.3 20.0 9.4	2 18.2 40.0 6.3	1 9.1 20.0 3.1	3 27.3 75.0 9.4	2 18.2 66.7 6.3	11 34.4
	IMPORTANTES	3	3 50.0 20.0 9.4	1 16.7 20.0 3.1	1 16.7 20.0 3.1	1 16.7 25.0 3.1		6 18.8
	DESGUACE	4		1 100.0 20.0 3.1				1 3.1
	HUNDIMIENTO	5	4 80.0 26.7 12.5				1 20.0 33.3 3.1	5 15.6
		Column Total	15 46.9	5 15.6	5 15.6	4 12.5	3 9.4	32 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
18.14249	16	.3156	.094	24 OF 25 (96.0%)

**** Given WORKSPACE allows for 8960 Cells with
2 Dimensions for CROSSTAB problem ****

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Crosstabulation: LUGAR SITUACION DEL BUQUE
By INICIO LUGAR DE INICIO

INICIO→	LUGAR	Count	MAQUINAS	ESPACIOS	ALOJAMIE	PUENTE	COCINAS	Row Total
		Row Pct	Col Pct	CARGA	NTOS			
		Tot Pct	1	2	3	4	5	
	1		90	70	40	15	6	221
	EN PUERTO		40.7	31.7	18.1	6.8	2.7	44.7
			32.8	56.9	57.1	83.3	66.7	
			18.2	14.2	8.1	3.0	1.2	
	2		184	53	30	3	3	273
	EN LA MAR		67.4	19.4	11.0	1.1	1.1	55.3
			67.2	43.1	42.9	16.7	33.3	
			37.2	10.7	6.1	.6	.6	
	Column		274	123	70	18	9	494
	Total		55.5	24.9	14.2	3.6	1.8	100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
39.99582	4	.0000	4.026	2 OF 10 (20.0%)

Number of Missing Observations = 0

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This procedure was completed at 22:52:24

***** Given WORKSPACE allows for 6924 Cells with
3 Dimensions for CROSSTAB problem *****

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SPSS/PC+

2/18/91

Crosstabulation: INICIO LUGAR DE INICIO
By GRAVEDAD GRAVEDAD DE LOS DANOS
Controlling for LUGAR SITUACION DEL BUQUE
= 1 EN PUERTO

GRAVEDAD→	Count Row Pct Col Pct Tot Pct	LEVES	MEDIOS	IMPORTAN TES	DESGUACE	HUNDIMIE NTO	Row Total
		1	2	3	4	5	
INICIO							
MAQUINAS	1	19 21.1 34.5 8.6	42 46.7 50.0 19.0	8 8.9 38.1 3.6	16 17.8 32.0 7.2	5 5.6 45.5 2.3	90 40.7
ESPACIOS CARGA	2	19 27.1 34.5 8.6	23 32.9 27.4 10.4	8 11.4 38.1 3.6	15 21.4 30.0 6.8	5 7.1 45.5 2.3	70 31.7
ALOJAMIENTOS	3	10 25.0 18.2 4.5	10 25.0 11.9 4.5	4 10.0 19.0 1.8	15 37.5 30.0 6.8	1 2.5 9.1 .5	40 18.1
PUENTE	4	5 33.3 9.1 2.3	6 40.0 7.1 2.7	1 6.7 4.8 .5	3 20.0 6.0 1.4		15 6.8
COCINAS	5	2 33.3 3.6 .9	3 50.0 3.6 1.4		1 16.7 2.0 .5		6 2.7
Column Total		55 24.9	84 38.0	21 9.5	50 22.6	11 5.0	221 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
13.85380	16	.6096	.299	13 OF 25 (52.0%)

Crosstabulation: INICIO LUGAR DE INICIO
 By GRAVEDAD GRAVEDAD DE LOS DANOS
 Controlling for LUGAR SITUACION DEL BUQUE
 = 2 EN LA MAR

GRAVEDAD→	Count Row Pct Col Pct Tot Pct	LEVES	MEDIOS	IMPORTAN TES	DESGUACE	HUNDIMIE NTO	Row Total
		1	2	3	4	5	
INICIO	1 MAQUINAS	49	74	18	29	14	184
		26.6	40.2	9.8	15.8	7.6	67.4
		71.0	68.5	66.7	63.0	60.9	
		17.9	27.1	6.6	10.6	5.1	
	2 ESPACIOS CARGA	13	19	8	6	7	53
		24.5	35.8	15.1	11.3	13.2	19.4
		18.8	17.6	29.6	13.0	30.4	
		4.8	7.0	2.9	2.2	2.6	
	3 ALOJAMIENTOS	5	12	1	11	1	30
		16.7	40.0	3.3	36.7	3.3	11.0
		7.2	11.1	3.7	23.9	4.3	
		1.8	4.4	.4	4.0	.4	
4 PUENTE	1	2				3	
	33.3	66.7				1.1	
	1.4	1.9					
	.4	.7					
5 COCINAS	1	1			1	3	
	33.3	33.3			33.3	1.1	
	1.4	.9			4.3		
	.4	.4			.4		
Column	69	108	27	46	23	273	
Total	25.3	39.6	9.9	16.8	8.4	100.0	

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
19.38841	16	.2491	.253	13 OF 25 (52.0%)

Number of Missing Observations = 0

This procedure was completed at 17:21:27

Crosstabulation: GRAVEDAD GRAVEDAD DE LOS DANOS
 By INICIO LUGAR DE INICIO
 Controlling for BUQUE TIPO DE BUQUE
 = 13 OTROS

INICIO→	Count Row Pct Col Pct Tot Pct	MAQUINAS	ESPACIOS	ALOJAMIE	Row Total
		1	2	3	
GRAVEDAD					
LEVES	1	2 66.7 25.0 18.2		1 33.3 100.0 9.1	3 27.3
MEDIOS	2	4 80.0 50.0 36.4	1 20.0 50.0 9.1		5 45.5
IMPORTANTES	3	2 100.0 25.0 18.2			2 18.2
DESGUACE	4		1 100.0 50.0 9.1		1 9.1
	Column Total	8 72.7	2 18.2	1 9.1	11 100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
8.25000	6	.2204	.091	12 OF 12 (100.0%)

Number of Missing Observations = 0

This procedure was completed at 17:57:06

***** Given WORKSPACE allows for 8959 Cells with
2 Dimensions for CROSSTAB problem *****

Crosstabulation: SEVIMAR SEVIMAR APLICABLE
By ANO ANO DEL SUCESO

ANO→	Count	Row Pct	Col Pct	Tot Pct	1985	1986	1987	1988	1989	Row Total
					1	2	3	4	5	
SEVIMAR	1	20	16	12	11	9	68			
SEVIMAR<65		29.4	23.5	17.6	16.2	13.2	13.8			
		16.5	14.8	14.3	11.6	10.5				
		4.0	3.2	2.4	2.2	1.8				
SEVIMAR	2	88	83	60	66	60	357			
SEVIMAR 65-80		24.6	23.2	16.8	18.5	16.8	72.3			
		72.7	76.9	71.4	69.5	69.8				
		17.8	16.8	12.1	13.4	12.1				
SEVIMAR	3	3	3	3	3	3	15			
SEVIMAR 80-81		20.0	20.0	20.0	20.0	20.0	3.0			
		2.5	2.8	3.6	3.2	3.5				
		.6	.6	.6	.6	.6				
SEVIMAR	4	7	3	5	11	7	33			
SEVIMAR 81-84		21.2	9.1	15.2	33.3	21.2	6.7			
		5.8	2.8	6.0	11.6	8.1				
		1.4	.6	1.0	2.2	1.4				
SEVIMAR	5	3	2	2	2	1	10			
SEVIMAR 84-86		30.0	20.0	20.0	20.0	10.0	2.0			
		2.5	1.9	2.4	2.1	1.2				
		.6	.4	.4	.4	.2				
SEVIMAR	6		1	2	2	6	11			
SEVIMAR>86			9.1	18.2	18.2	54.5	2.2			
			.9	2.4	2.1	7.0				
			.2	.4	.4	1.2				
Column Total		121	108	84	95	86	494			
		24.5	21.9	17.0	19.2	17.4	100.0			

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
-----	-----	-----	-----	-----
21.69255	20	.3574	1.700	15 OF 30 (50.0%)

Number of Missing Observations = 0

This procedure was completed at 20:39:09

GRAVEDAD→	BANDERA	Count	LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE	Row Total
		Row Pct			TES		NTO	
		Col Pct	1	2	3	4	5	
		Tot Pct						
	ALG			2 100.0 1.0 .4				2 .4
	ARG		2 66.7 1.6 .4	1 33.3 .5 .2				3 .6
	AST				1 100.0 2.1 .2			1 .2
	BAH		4 36.4 3.2 .8	6 54.5 3.1 1.2			1 9.1 2.9 .2	11 2.2
	BER			2 66.7 1.0 .4	1 33.3 2.1 .2			3 .6
	BLG		2 50.0 1.6 .4	2 50.0 1.0 .4				4 .8
	BNG		1 33.3 .8 .2	2 66.7 1.0 .4				3 .6
	BRZ		1 16.7 .8 .2	4 66.7 2.1 .8		1 16.7 1.0 .2		6 1.2
	BUL			1 100.0 .5 .2				1 .2
		Column	124	192	48	96	34	494
(Continued)	Total		25.1	38.9	9.7	19.4	6.9	100.0

Crosstabulation: BANDERA NACIONALIDAD
 By GRAVEDAD GRAVEDAD DE LOS DANOS

GRAVEDAD→	BANDERA	Count					Row Total
		LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE	
		1	2	TES	4	5	
		Row Pct					
		Col Pct					
		Tot Pct					
CAN		1	8				9
		11.1	88.9				1.8
		.8	4.2				
		.2	1.6				
CAY		2	1	1			4
		50.0	25.0	25.0			.8
		1.6	.5	2.1			
		.4	.2	.2			
CHR			1				1
			100.0				.2
			.5				
			.2				
CHT		3	1				4
		75.0	25.0				.8
		2.4	.5				
		.6	.2				
COL		1					1
		100.0					.2
		.8					
		.2					
CUB		1	2	2	1		6
		16.7	33.3	33.3	16.7		1.2
		.8	1.0	4.2	1.0		
		.2	.4	.4	.2		
CYP		3	13	4	14	3	37
		8.1	35.1	10.8	37.8	8.1	7.5
		2.4	6.8	8.3	14.6	8.8	
		.6	2.6	.8	2.8	.6	
DEN		2	4	2			8
		25.0	50.0	25.0			1.6
		1.6	2.1	4.2			
		.4	.8	.4			
ECU						1	1
						100.0	.2
						2.9	
						.2	
	Column	124	192	48	96	34	494
(Continued)	Total	25.1	38.9	9.7	19.4	6.9	100.0

Crosstabulation: BANDERA NACIONALIDAD
 By GRAVEDAD GRAVEDAD DE LOS DANOS

GRAVEDAD→	BANDERA	Count	LEVES	MEDIOS	IMPORTAN	DESQUACE	HUNDIMIE	Row Total
		Row Pct	1	2	TES	4	NTO	
		Col Pct	1	2	3	4	5	
	EGY			2 100.0 1.0 .4				2 .4
	FIN		1 25.0 .8 .2	3 75.0 1.6 .6				4 .8
	FRA		1 50.0 .8 .2		1 50.0 2.1 .2			2 .4
	GBI		4 44.4 3.2 .8	4 44.4 2.1 .8		1 11.1 1.0 .2		9 1.8
	GDR					1 100.0 1.0 .2		1 .2
	GFR		4 57.1 3.2 .8	2 28.6 1.0 .4	1 14.3 2.1 .2			7 1.4
	GIB		1 100.0 .8 .2					1 .2
	GRC		13 28.9 10.5 2.6	16 35.6 8.3 3.2	2 4.4 4.2 .4	11 24.4 11.5 2.2	3 6.7 8.8 .6	45 9.1
	HKG		1 50.0 .8 .2	1 50.0 .5 .2				2 .4
		Column Total	124 25.1	192 38.9	48 9.7	96 19.4	34 6.9	494 100.0

(Continued)

Crosstabulation: BANDERA NACIONALIDAD
 By GRAVEDAD GRAVEDAD DE LOS DANOS

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GRAVEDAD→	BANDERA	Count	Count					Row Total
		Row Pct	LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE	
		Col Pct	1	2	TES	4	NTO	
Tot Pct								
	HON	1				1		2
		50.0				50.0		.4
		.8				1.0		
		.2				.2		
	IDA	1	1			1		3
		33.3	33.3			33.3		.6
		.8	.5			1.0		
		.2	.2			.2		
	IND	4	5			4		13
		30.8	38.5			30.8		2.6
		3.2	2.6			4.2		
		.8	1.0			.8		
	IRN			1				1
				100.0				.2
				2.1				
				.2				
	IRP	2	1					3
		66.7	33.3					.6
		1.6	.5					
		.4	.2					
	IRQ		3					3
			100.0					.6
			1.6					
			.6					
	ISR					2		2
						100.0		.4
						2.1		
						.4		
	ITL	3	5	1		2	1	12
		25.0	41.7	8.3		16.7	8.3	2.4
		2.4	2.6	2.1		2.1	2.9	
		.6	1.0	.2		.4	.2	
	IVC					1		1
						100.0		.2
						1.0		
						.2		
	Column Total	124	192	48		98	34	494
	(Continued) Total	25.1	38.9	9.7		19.4	6.9	100.0

Crosstabulation: BANDERA NACIONALIDAD
By GRAVEDAD GRAVEDAD DE LOS DANOS

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GRAVEDAD→	BANDERA	Count					Row Total	
		LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE		
		1	2	TES	4	5		
		Row Pct						
		Col Pct						
		Tot Pct						
JPN			7	1	1	2	11	
			63.6	9.1	9.1	18.2	2.2	
			3.6	2.1	1.0	5.9		
			1.4	.2	.2	.4		
KEN					1		1	
					100.0		.2	
					1.0			
					.2			
KRS			2	2	1	3	9	
			22.2	22.2	11.1	33.3	1.8	
			1.6	1.0	2.1	3.1		
			.4	.4	.2	.6		
LBY			1	2	1	1	5	
			20.0	40.0	20.0	20.0	1.0	
			.8	1.0	2.1	1.0		
			.2	.4	.2	.2		
LEB				1			1	
				100.0			.2	
				.5				
				.2				
LIB			8	14	2	7	32	
			25.0	43.8	6.3	21.9	6.5	
			6.5	7.3	4.2	7.3		
			1.6	2.8	.4	1.4		
MAL					1	1	2	
					50.0	50.0	.4	
					2.1	1.0		
					.2	.2		
MEX			1			2	4	
			25.0			50.0	.8	
			.8			5.9		
			.2			.4		
MOR				1	1		2	
				50.0	50.0		.4	
				.5	2.1			
				.2	.2			
		Column	124	192	48	96	34	494
(Continued)	Total		25.1	38.9	9.7	19.4	6.9	100.0

Crosstabulation: BANDERA NACIONALIDAD
By GRAVEDAD GRAVEDAD DE LOS DANOS

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GRAVEDAD→	BANDERA	Count	LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE	Row Total
		Row Pct	1	2	3	4	5	
		Col Pct	1	2	3	4	5	
		Tot Pct	1	2	3	4	5	
	MTA		3 60.0 2.4 .6	1 20.0 .5 .2		1 20.0 1.0 .2		5 1.0
	MTS			1 100.0 .5 .2				1 .2
	NIG		1 33.3 .8 .2		1 33.3 2.1 .2		1 33.3 2.9 .2	3 .6
	NOR		2 15.4 1.6 .4	8 61.5 4.2 1.6		3 23.1 3.1 .6		13 2.6
	NTH		1 25.0 .8 .2	2 50.0 1.0 .4			1 25.0 2.9 .2	4 .8
	NZL			1 100.0 .5 .2				1 .2
	PAN		19 29.7 15.3 3.8	15 23.4 7.8 3.0	5 7.8 10.4 1.0	17 26.6 17.7 3.4	8 12.5 23.5 1.6	64 13.0
	PAR			1 100.0 .5 .2				1 .2
	PER			2 50.0 1.0 .4		1 25.0 1.0 .2	1 25.0 2.9 .2	4 .8
		Column	124	192	48	96	34	494
	(Continued)	Total	25.1	38.9	9.7	19.4	6.9	100.0

Crosstabulation: BANDERA NACIONALIDAD
 By GRAVEDAD GRAVEDAD DE LOS DANOS

Page 7 of 9

GRAVEDAD->	BANDERA	Count					Row Total	
		Row Pct	LEVES	MEDIOS	IMPORTAN	DESGUACE		HUNDIMIE
		Col Pct	1	2	TES	4		5
		Tot Pct						
	PHI			1 20.0 .5 .2	2 40.0 4.2 .4		2 40.0 5.9 .4	5 1.0
	POL	2 100.0 1.6 .4						2 .4
	RUM		3 100.0 1.6 .6					3 .6
	SAU	1 20.0 .8 .2	3 60.0 1.6 .6		1 20.0 1.0 .2			5 1.0
	SHA			1 50.0 2.1 .2	1 50.0 1.0 .2			2 .4
	SNG	2 40.0 1.6 .4	1 20.0 .5 .2	1 20.0 2.1 .2	1 20.0 1.0 .2			5 1.0
	SPN	4 26.7 3.2 .8	6 40.0 3.1 1.2	3 20.0 6.3 .6	1 6.7 1.0 .2	1 6.7 2.9 .2		15 3.0
	SVC	1 25.0 .8 .2	2 50.0 1.0 .4		1 25.0 1.0 .2			4 .8
	SWD	1 33.3 .8 .2		1 33.3 2.1 .2		1 33.3 2.9 .2		3 .6
	Column Total	124	192	48	96	34	494	
(Continued)	Total	25.1	38.9	9.7	19.4	6.9	100.0	

Crosstabulation: BANDERA NACIONALIDAD
By GRAVEDAD GRAVEDAD DE LOS DANOS

----- Page 8 of 9

GRAVEDAD→	BANDERA	Count						Row Total
		Row Pct	LEVES	MEDIOS	IMPORTAN TES	DESGUACE	HUNDIMIE NTO	
		Col Pct	1	2	3	4	5	
		Tot Pct						
	THA			1 33.3 .5 .2		2 66.7 2.1 .4		3 .6
	TRK		2 20.0 1.6 .4	3 30.0 1.6 .6	1 10.0 2.1 .2	4 40.0 4.2 .8		10 2.0
	TUN			1 50.0 .5 .2		1 50.0 1.0 .2		2 .4
	UAE			2 40.0 1.0 .4		1 20.0 1.0 .2	2 40.0 5.9 .4	5 1.0
	URS		1 50.0 .8 .2			1 50.0 1.0 .2		2 .4
	USA		7 31.8 5.6 1.4	9 40.9 4.7 1.8	3 13.6 6.3 .6	1 4.5 1.0 .2	2 9.1 5.9 .4	22 4.5
	USR		3 30.0 2.4 .6	4 40.0 2.1 .8	1 10.0 2.1 .2	2 20.0 2.1 .4		10 2.0
	VEN		1 12.5 .8 .2	2 25.0 1.0 .4	4 50.0 8.3 .8	1 12.5 1.0 .2		8 1.6
	VNM		1 50.0 .8 .2	1 50.0 .5 .2				2 .4
		Column	124	192	48	96	34	494
(Continued)	Total		25.1	38.9	9.7	19.4	6.9	100.0

Crosstabulation: BANDERA NACIONALIDAD
 By GRAVEDAD GRAVEDAD DE LOS DANOS

- - - - Page 9 of 9

		Count					
GRAVEDAD→	Row Pct	LEVES	MEDIOS	IMPORTAN	DESGUACE	HUNDIMIE	Row Total
	Col Pct			TES		NTO	
	Tot Pct	1	2	3	4	5	
BANDERA							
	YUG	1	2	1	1		5
		20.0	40.0	20.0	20.0		1.0
		.8	1.0	2.1	1.0		
		.2	.4	.2	.2		
	Column	124	192	48	96	34	494
	Total	25.1	38.9	9.7	19.4	6.9	100.0

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
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318.95409	288	.1014	.069	347 OF 365 (95.1%)

Number of Missing Observations = 0

This procedure was completed at 18:13:58