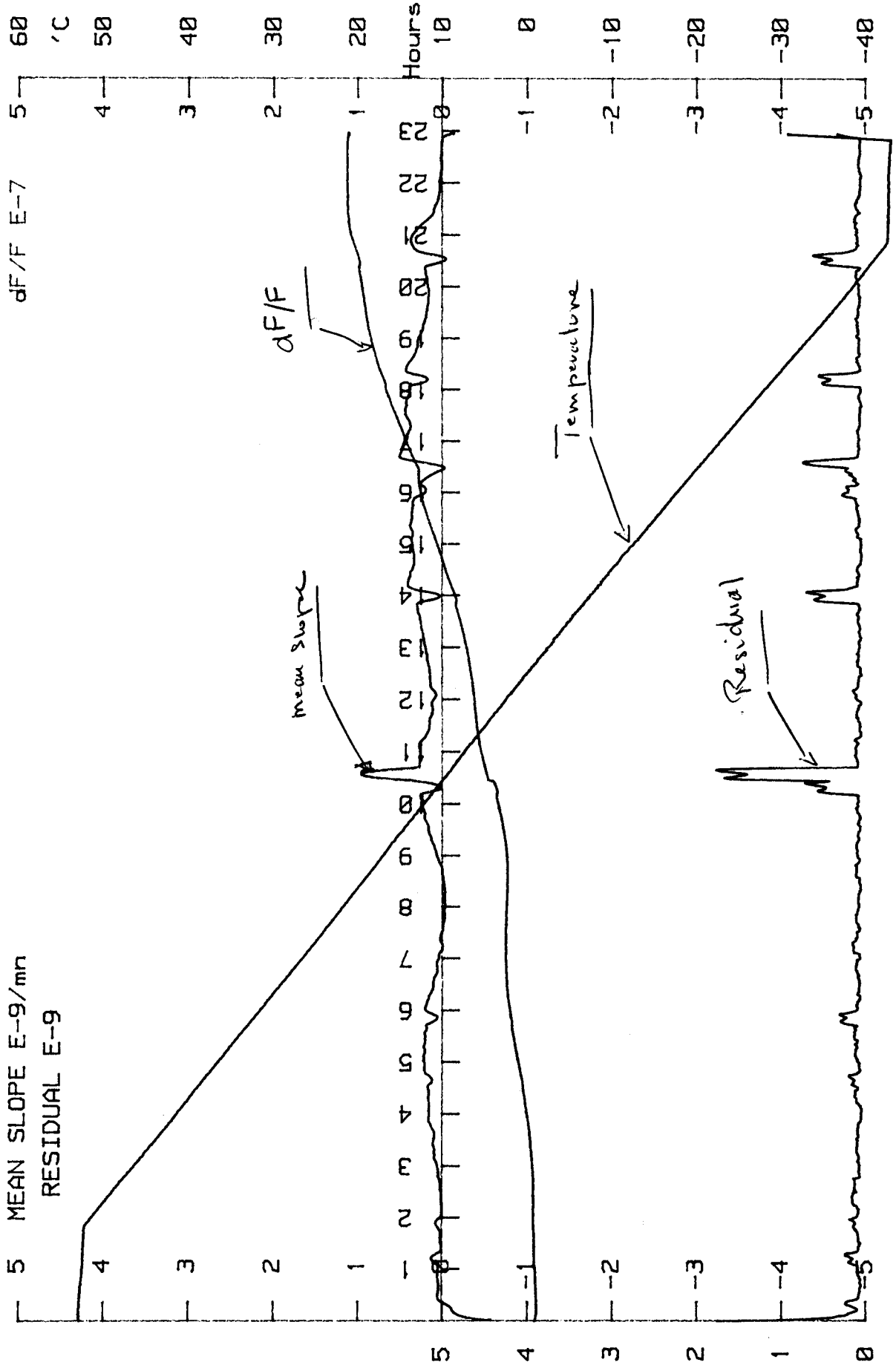


MEDIUM TERM STABILITY

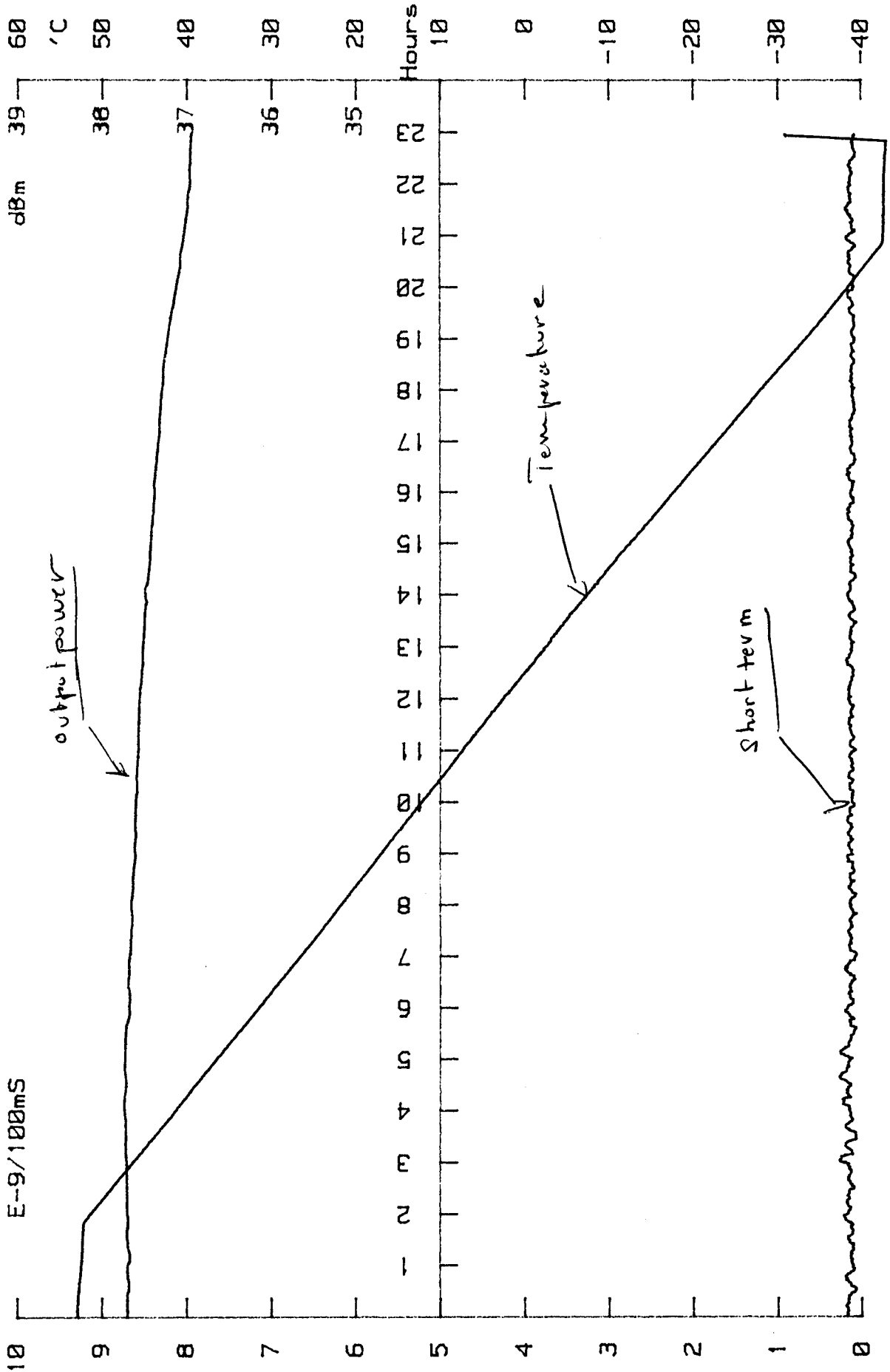
BEACON 5 MANUFACTURER ACR MODEL RLB35 SERIAL Nr 07 DATE 26 Apr 2001 TIME 0 09:31:04

MEAN SLOPE E-9/mn
RESIDUAL E-9



OUTPUT POWER and SHORT TERM STABILITY

BEACON MANUFACTURER MODEL SERIAL Nr DATE TIME 0
ACR E-9/100mS RLB35 07 26 Apr 2001 09:31:04



SATELLITE QUALITATIVE TEST RESULTS ON
RLB35 ACR Electronics, Inc.
N° 7

TOULOUSE MCC LOCATIONS

RECHERCHE du 02/05/2001 08:50:18

Code balise : 2DDC5D8002

Nom balise : ?1?5

Pays : 366 USA

Classe utilisateur : TEST--

Periode de consultation : 22/04/2001 08 a 02/05/2001 08

Position de reference : et

Toutes les luts

Tous les satellites

Date activation balise : // :

Recherche dans base principale

Resultats edites suivant chronologie du TCA

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*****
*   TCA   TPC   * SL PTS * LAT1 LONG1 PB MAJ BIAIS ERR * LAT2 LONG2*CTA FB WF SDV CF SRCE MCCN
*****
* 27/04 11H12 11H18 * S08 6 * 43.563 1.472 99 1 -399 0.67 * 54.910 60.433 * 20.3 4 0 0.2 4/0 2271 36920
* 27/04 11H12 13H00 * S08 6 * 43.561 1.474 99 1 -399 0.47 * 54.906 60.437 * 20.3 -4 0 0.2 4/0 2271 37137
* 27/04 11H12 03H02 * S08 6 * 43.559 1.472 99 1 -398 0.62 * 54.907 60.435 * 20.3 -4 0 0.2 4/0 2272 38412
* 27/04 11H21 11H29 * S04 17 * 43.559 1.479 99 1 -396 0.11 * 47.125 -16.334 * 6.8 4 0 0.2 4/0 2272 36955
* 27/04 11H21 19H34 * S04 17 * 43.558 1.479 99 1 -396 0.20 * 47.126 -16.337 * 6.8 -4 0 0.1 4/0 2272 37952
* 27/04 11H21 21H16 * S04 17 * 43.558 1.480 99 1 -396 0.22 * 47.126 -16.336 * 6.8 -4 0 0.1 4/0 2271 38107
* 27/04 11H35 13H20 * C09 1 * ..... ..... .. ... 0 ..... * ..... ..... * ..... -4 9. .... ... 2272 37231
* 27/04 11H43 11H52 * C08 13 * 43.561 1.481 99 1 -397 0.20 * 46.600 -37.729 * 13.2 4 0 0.2 4/0 2271 37090
* 27/04 12H51 13H00 * S08 14 * 43.559 1.473 98 1 -397 0.49 * 45.582 11.768 * 4.0 4 0 0.2 4/0 2271 37138
* 27/04 12H51 14H40 * S08 15 * 43.559 1.473 98 1 -397 0.52 * 45.589 11.751 * 4.0 -4 0 0.2 4/0 2271 37398
* 27/04 12H51 03H02 * S08 15 * 43.558 1.473 98 1 -397 0.52 * 45.588 11.756 * 4.0 -4 0 0.2 4/0 2272 38413
* 27/04 13H00 19H34 * S04 9 * 43.560 1.477 97 2 -396 0.22 * 56.121 -65.192 * 22.6 -4 0 0.8 4/0 2272 37953
* 27/04 13H00 21H16 * S04 9 * 43.561 1.478 97 2 -396 0.14 * 56.122 -65.191 * 22.6 -4 0 0.8 4/0 2271 38108
* 27/04 13H12 13H20 * C09 9 * 43.560 1.483 97 1 -396 0.32 * 46.649 18.350 * 6.3 4 0 0.5 4/0 2272 37207
* 27/04 13H43 13H52 * C06 5 * 43.556 1.478 99 1 -396 0.39 * 46.822 44.657 * 14.6 4 0 0.3 4/0 2271 37336
* 27/04 13H43 15H38 * C06 5 * 43.554 1.478 99 1 -396 0.63 * 46.819 44.664 * 14.6 -4 0 0.3 4/0 2272 37479
* 27/04 14H32 14H40 * S08 14 * 43.557 1.481 99 1 -397 0.31 * 35.937 -35.691 * 14.2 4 0 0.1 4/0 2271 37399
* 27/04 14H32 01H21 * S08 14 * 43.561 1.485 99 1 -397 0.45 * 35.942 -35.690 * 14.2 -4 0 0.1 4/0 2271 38326
* 27/04 14H32 03H02 * S08 14 * 43.561 1.480 99 1 -397 0.16 * 35.942 -35.691 * 14.2 -4 0 0.1 4/0 2272 38414
* 27/04 14H49 14H57 * C09 12 * 43.558 1.488 99 1 -396 0.70 * 37.985 -28.073 * 11.2 4 0 0.2 4/0 2272 37422
* 27/04 15H29 15H38 * C06 11 * 43.559 1.478 99 1 -395 0.16 * 42.732 -8.900 * 4.1 4 0 0.1 4/0 2272 37480
* 27/04 15H29 17H20 * C06 11 * 43.558 1.480 99 1 -395 0.19 * 42.729 -8.912 * 4.1 -4 0 0.2 4/0 2271 37691
* 27/04 15H29 05H11 * C06 11 * 43.553 1.475 99 1 -395 0.81 * 42.725 -8.908 * 4.1 -4 0 0.1 4/0 2272 38636
* 27/04 15H52 16H01 * S03 14 * 43.560 1.485 90 3 -397 0.47 * 44.166 4.587 * 1.3 4 0 0.4 4/0 2271 37553
* 27/04 16H20 16H25 * S07 4 * 43.556 1.481 96 1 -392 0.40 * 56.167 70.662 * 23.3 4 0 0.8 4/0 2272 37600
* 27/04 16H20 18H07 * S07 4 * 43.558 1.486 96 1 -391 0.58 * 56.164 70.663 * 23.3 -4 0 0.8 4/0 2271 37739
* 27/04 16H38 16H47 * S06 18 * 43.559 1.476 97 1 -393 0.30 * 40.865 -11.453 * 4.8 4 0 0.3 4/0 2271 37659
* 27/04 17H13 17H20 * C06 4 * 43.551 1.477 64 3 -392 1.01 * 39.268 -58.340 * 23.0 4 0 4.7 4/0 2271 37692
* 27/04 17H13 05H11 * C06 4 * 43.548 1.475 64 3 -392 1.29 * 39.262 -58.338 * 23.0 -4 0 4.7 4/0 2272 38637
* 27/04 17H58 18H07 * S07 10 * 43.559 1.483 99 1 -388 0.30 * 47.497 21.884 * 7.7 4 0 0.1 4/0 2271 37740
* 27/04 17H58 06H20 * S07 10 * 43.558 1.478 99 1 -389 0.19 * 47.497 21.882 * 7.7 -4 0 0.1 4/0 2272 38777
* 27/04 19H28 19H34 * S04 6 * 43.562 1.476 92 3 -388 0.41 * 55.210 61.946 * 20.8 4 0 2.0 4/0 2272 37954
* 27/04 19H28 21H16 * S04 6 * 43.562 1.479 92 3 -388 0.34 * 55.210 61.940 * 20.8 -4 0 2.0 4/0 2271 38109
* 27/04 19H38 19H46 * S07 14 * 43.556 1.485 99 1 -387 0.58 * 38.238 -25.421 * 10.1 4 0 0.2 4/0 2271 37991
* 27/04 19H38 06H20 * S07 14 * 43.560 1.483 99 1 -387 0.30 * 38.241 -25.426 * 10.1 -4 0 0.2 4/0 2272 38778
* 27/04 20H54 21H04 * C08 8 * 43.558 1.483 99 1 -386 0.34 * 45.007 20.386 * 6.5 4 0 0.2 4/0 2272 38035
* 27/04 20H54 08H52 * C08 8 * 43.556 1.478 99 1 -386 0.37 * 45.006 20.379 * 6.5 -4 0 0.2 4/0 2271 39104
* 27/04 21H07 21H16 * S04 14 * 43.560 1.486 97 1 -386 0.56 * 45.951 13.424 * 4.6 4 0 0.3 4/0 2271 38110
* 27/04 21H07 22H56 * S04 16 * 43.560 1.482 98 1 -386 0.22 * 45.965 13.397 * 4.6 -4 0 0.3 4/0 2271 38188
* 27/04 22H40 22H49 * C08 15 * 43.559 1.480 99 1 -385 0.06 * 41.153 -31.126 * 12.5 4 0 0.1 4/0 2272 38177
* 27/04 22H40 08H52 * C08 16 * 43.560 1.473 99 1 -385 0.53 * 41.144 -31.099 * 12.5 -4 0 0.1 4/0 2271 39105
* 27/04 22H48 22H56 * S04 15 * 43.555 1.485 99 1 -386 0.70 * 36.274 -33.946 * 13.5 4 0 0.2 4/0 2271 38189
* 27/04 22H48 09H35 * S04 15 * 43.561 1.486 99 1 -386 0.53 * 36.277 -33.949 * 13.5 -4 0 0.2 4/0 2271 39167
* 28/04 01H12 01H21 * S08 13 * 43.558 1.481 99 1 -384 0.26 * 36.878 34.470 * 12.5 4 0 0.3 4/0 2271 38331
* 28/04 01H12 03H02 * S08 13 * 43.557 1.481 99 1 -384 0.29 * 36.879 34.470 * 12.5 -4 0 0.3 4/0 2272 38415
* 28/04 01H12 14H30 * S08 13 * 43.557 1.479 99 1 -384 0.31 * 36.878 34.470 * 12.5 -4 0 0.3 4/0 2271 39611
* 28/04 01H32 05H11 * C06 1 * ..... ..... .. ... 0 ..... * ..... ..... * ..... -4 9. .... ... 2272 38716
* 28/04 02H46 02H54 * C09 6 * 43.556 1.492 91 2 -383 1.10 * 43.134 3.781 * 0.8 4 0 0.4 4/0 2271 38383
* 28/04 02H46 04H29 * C09 7 * 43.557 1.489 93 2 -383 0.86 * 43.136 3.794 * 0.8 -4 0 0.3 4/0 2272 38599
* 28/04 02H53 03H02 * S08 18 * 43.560 1.477 99 1 -383 0.17 * 46.433 -13.011 * 5.6 4 0 0.2 4/0 2272 38416
* 28/04 02H53 11H08 * S08 18 * 43.559 1.479 99 1 -383 0.07 * 46.435 -13.021 * 5.6 -4 0 0.2 4/0 2272 39328
* 28/04 02H53 14H30 * S08 18 * 43.560 1.478 99 1 -383 0.14 * 46.433 -13.010 * 5.6 -4 0 0.2 4/0 2271 39612

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* 28/04 03H16 05H11	* C06 9	* 43.559	1.485	99	1	-385.046	* 42.111	20.213	* 7.3	-4	0 0.2	4/0	2272	38638
* 28/04 04H06 04H14	* S03 11	* 43.556	1.483	98	1	-386.044	* 37.902	30.361	* 10.9	4	0 0.3	4/0	2271	38577
* 28/04 04H23 04H29	* C09 10	* 43.559	1.482	98	1	-383.021	* 51.551	-42.795	* 15.8	4	0 0.5	4/0	2272	38600
* 28/04 04H23 13H59	* C09 10	* 43.561	1.476	98	1	-383.029	* 51.554	-42.801	* 15.8	-4	0 0.5	4/0	2272	39532
* 28/04 04H33 11H08	* S08 11	* 43.559	1.482	97	1	-383.023	* 55.565	-61.771	* 21.6	-4	0 0.6	4/0	2272	39334
* 28/04 04H33 14H30	* S08 11	* 43.563	1.481	97	1	-383.043	* 55.568	-61.770	* 21.6	-4	0 0.6	4/0	2271	39613
* 28/04 04H59 05H07	* S06 14	* 43.557	1.485	96	1	-384.054	* 41.244	12.780	* 4.1	4	0 0.4	4/0	2271	38629
* 28/04 05H02 05H11	* C06 10	* 43.563	1.476	99	1	-383.045	* 46.319	-32.294	* 11.5	4	0 0.2	4/0	2272	38639
* 28/04 05H45 05H54	* S03 15	* 43.561	1.475	96	2	-387.036	* 47.102	-16.791	* 6.9	4	0 0.6	4/0	2271	38733
* 28/04 06H12 06H20	* S07 8	* 43.564	1.477	98	1	-389.050	* 34.477	46.476	* 17.3	4	0 0.5	4/0	2272	38779
* 28/04 06H12 08H02	* S07 8	* 43.564	1.476	98	1	-388.058	* 34.479	46.474	* 17.3	-4	0 0.5	4/0	2271	38972
* 28/04 06H39 06H47	* S06 14	* 43.557	1.487	90	1	-391.067	* 50.829	-35.097	* 13.2	4	0 0.5	4/0	2271	38889
* 28/04 07H53 08H02	* S07 14	* 43.562	1.466	50	2	-397.114	* 44.015	-0.914	* 0.9	4	0 0.2	4/0	2271	38973
* 28/04 07H53 09H39	* S07 17	* 43.562	1.462	50	2	-398.147	* 44.012	-0.897	* 0.9	-4	0 0.2	4/0	2272	39213
* 28/04 07H53 17H44	* S07 17	* 43.560	1.472	50	2	-397.063	* 44.015	-0.912	* 0.9	-4	0 0.2	4/0	2271	39921
* 28/04 09H27 09H35	* S04 7	* 43.564	1.478	95	2	-396.047	* 36.151	36.735	* 13.6	4	0 0.8	4/0	2271	39168
* 28/04 09H27 19H21	* S04 7	* 43.561	1.474	95	2	-396.046	* 36.149	36.731	* 13.6	-4	0 0.8	4/0	2272	40131
* 28/04 09H32 09H39	* S07 13	* 43.560	1.481	98	1	-397.016	* 52.937	-48.180	* 17.6	4	0 0.4	4/0	2272	39214
* 28/04 09H32 17H44	* S07 13	* 43.563	1.479	98	1	-396.037	* 52.936	-48.181	* 17.6	-4	0 0.4	4/0	2271	39922
* 28/04 10H28 10H38	* C08 12	* 43.559	1.467	98	1	-397.104	* 43.917	-2.832	* 1.3	4	0 0.1	4/0	2271	39253
* 28/04 11H01 11H08	* S08 7	* 43.563	1.477	95	2	-398.039	* 55.520	65.530	* 21.8	4	0 1.3	4/0	2272	39335
* 28/04 11H01 14H30	* S08 7	* 43.560	1.478	95	2	-398.013	* 55.518	65.530	* 21.8	-4	0 1.3	4/0	2271	39614
* 28/04 11H08 11H16	* S04 13	* 43.559	1.480	98	1	-397.010	* 45.890	-10.158	* 4.5	4	0 0.2	4/0	2271	39370
* 28/04 11H08 12H53	* S04 15	* 43.558	1.480	98	1	-397.013	* 45.872	-10.140	* 4.5	-4	0 0.2	4/0	2271	39476
* 28/04 11H08 19H21	* S04 15	* 43.558	1.480	98	1	-397.014	* 45.873	-10.146	* 4.5	-4	0 0.2	4/0	2272	40132
* 28/04 12H15 12H23	* C08 4	* 43.557	1.476	83	2	-396.037	* 48.099	-58.098	* 19.5	4	0 3.0	4/0	2271	39411
* 28/04 12H25 16H06	* C06 2	* .....	.....	..	...	0	.....	.....	* ....	-4 9.	.....	...	2272	39860
* 28/04 12H41 12H50	* S08 13	* 43.560	1.484	98	1	-397.034	* 46.605	16.697	* 5.8	4	0 0.3	4/0	2272	39455
* 28/04 12H41 14H30	* S08 13	* 43.557	1.473	98	1	-397.056	* 46.605	16.691	* 5.8	-4	0 0.2	4/0	2271	39615
* 28/04 12H47 12H53	* S04 10	* 43.564	1.486	97	2	-394.074	* 55.220	-58.627	* 20.7	4	0 0.8	4/0	2271	39477
* 28/04 12H47 19H21	* S04 10	* 43.564	1.483	97	2	-395.061	* 55.218	-58.633	* 20.7	-4	0 0.8	4/0	2272	40133
* 28/04 12H47 21H03	* S04 10	* 43.565	1.483	97	2	-394.065	* 55.218	-58.632	* 20.7	-4	0 0.8	4/0	2271	40233
* 28/04 13H48 13H54	* S03 3	* 43.623	1.471	50	42	-422.712	* 55.055	65.059	* 21.6	4	1 0.0	1/0	2271	39514
* 28/04 13H51 13H59	* C09 8	* 43.556	1.466	89	3	-397.115	* 43.204	-0.448	* 0.6	4	0 0.4	4/0	2272	39533
* 28/04 14H12 16H06	* C06 7	* 43.557	1.476	98	2	-396.038	* 45.440	26.009	* 8.5	-4	0 0.6	4/0	2272	39838
* 28/04 14H22 14H30	* S08 17	* 43.580	1.484	99	1	-398.226	* 36.984	-30.889	* 12.3	4	0 0.2	4/0	2271	39616
* 28/04 14H22 01H10	* S08 17	* 43.559	1.485	99	1	-398.042	* 36.966	-30.879	* 12.3	-4	0 0.2	4/0	2271	40465
* 28/04 15H27 15H35	* S03 14	* 43.560	1.479	96	2	-399.009	* 46.503	16.510	* 5.7	4	0 0.6	4/0	2271	39776
* 28/04 15H57 16H06	* C06 6	* 43.556	1.482	99	1	-397.049	* 41.485	-25.814	* 10.5	4	0 0.2	4/0	2272	39839
* 28/04 15H59 17H44	* S07 1	* .....	.....	..	...	0	.....	.....	* ....	-4 9.	.....	...	2271	39993
* 28/04 16H26 16H35	* S06 17	* 43.559	1.479	50	1	-397.004	* 42.183	-5.309	* 2.6	4	0 0.4	4/0	2271	39888
* 28/04 17H36 17H44	* S07 13	* 43.561	1.483	99	1	-399.033	* 49.615	32.699	* 11.5	4	0 0.3	4/0	2271	39923
* 28/04 17H36 19H24	* S07 13	* 43.559	1.480	99	1	-400.005	* 49.619	32.690	* 11.5	-4	0 0.3	4/0	2271	40191
* 28/04 18H08 18H14	* S06 11	* 43.559	1.474	96	1	-400.040	* 32.033	-52.714	* 21.0	4	0 0.7	4/0	2271	40033
* 28/04 19H15 19H24	* S07 16	* 43.559	1.480	97	1	-395.005	* 40.399	-14.656	* 6.0	4	0 0.4	4/0	2271	40192
* 28/04 19H15 05H55	* S07 17	* 43.560	1.480	97	1	-395.009	* 40.384	-14.667	* 6.0	-4	0 0.4	4/0	2271	40812
* 28/04 19H15 19H21	* S04 5	* 43.563	1.470	94	2	-397.089	* 56.447	68.813	* 22.7	4	0 1.4	4/0	2272	40134
* 28/04 19H15 21H03	* S04 5	* 43.565	1.474	94	2	-397.071	* 56.446	68.808	* 22.7	-4	0 1.4	4/0	2271	40234
* 28/04 19H41 23H18	* C08 2	* .....	.....	..	...	0	.....	.....	* ....	-4 9.	.....	...	2271	40430
* 28/04 20H54 21H03	* S04 15	* 43.559	1.482	99	1	-391.017	* 47.204	19.647	* 6.9	4	0 0.2	4/0	2271	40235
* 28/04 20H54 22H43	* S04 16	* 43.559	1.480	99	1	-391.004	* 47.217	19.630	* 6.9	-4	0 0.2	4/0	2271	40335
* 28/04 20H57 05H55	* S07 8	* 43.554	1.472	94	2	-389.086	* 30.960	-61.618	* 24.3	-4	0 1.1	4/0	2271	40813
* 28/04 21H25 21H35	* C08 13	* 43.557	1.472	52	41	-390.063	* 43.507	0.914	* 0.3	4	0 0.6	4/0	2272	40316
* 28/04 21H25 23H18	* C08 15	* 43.555	1.440	50	39	-390.322	* 43.498	0.805	* 0.2	-4	0 0.5	4/0	2271	40404
* 28/04 22H35 22H43	* S04 16	* 43.557	1.483	99	1	-390.034	* 37.575	-27.728	* 11.0	4	0 0.3	4/0	2271	40336
* 28/04 23H10 23H18	* C08 9	* 43.561	1.479	99	1	-389.013	* 40.088	-48.674	* 19.4	4	0 0.2	4/0	2271	40405
* 29/04 01H02 01H10	* S08 13	* 43.561	1.477	99	1	-387.023	* 35.758	39.199	* 14.4	4	0 0.2	4/0	2271	40466
* 29/04 01H48 01H55	* C09 3	* 43.571	1.476	50	18	-385.128	* 37.976	30.877	* 11.3	4	1 0.0	1/0	2271	40550
* 29/04 02H00 02H07	* C06 3	* 43.553	1.498	50	13	-384.171	* 40.023	53.722	* 20.0	4	1 0.0	1/0	2272	40606
* 29/04 02H00 03H54	* C06 3	* 43.551	1.503	50	13	-384.210	* 40.022	53.722	* 20.0	-4	1 0.0	1/0	2272	40684
* 29/04 02H43 02H52	* S08 15	* 43.560	1.475	99	1	-388.036	* 45.468	-8.146	* 3.8	4	0 0.0	4/0	2271	40630
* 29/04 02H43 04H29	* S08 17	* 43.560	1.475	99	1	-389.036	* 45.455	-8.130	* 3.8	-4	0 0.1	4/0	2271	40712
* 29/04 03H25 03H33	* C09 12	* 43.558	1.477	99	1	-388.024	* 46.576	-14.936	* 6.2	4	0 0.1	4/0	2271	40662
* 29/04 03H44 03H54	* C06 9	* 43.557	1.503	95	2	-389.194	* 43.389	3.499	* 0.9	4	0 0.1	4/0	2272	40685
* 29/04 04H22 04H29	* S08 12	* 43.561	1.480	99	1	-387.015	* 54.674	-56.530	* 20.1	4	0 0.2	4/0	2271	40713
* 29/04 05H01 05H06	* C09 2	* .....	.....	..	...	0	.....	.....	* ....	4 9.	.....	...	2271	40744
* 29/04 05H01 14H39	* C09 2	* .....	.....	..	...	0	.....	.....	* ....	-4 9.	.....	...	2272	41491
* 29/04 05H47 05H55	* S07 1	* .....	.....	..	...	0	.....	.....	* ....	4 9.	.....	...	2271	40828
* 29/04 07H30 07H39	* S07 12	* 43.559	1.484	98	1	-395.041	* 41.854	10.213	* 3.2	4	0 0.1	4/0	2271	40890
* 29/04 07H30 09H18	* S07 15	* 43.557	1.488	98	1	-396.073	* 41.861	10.254	* 3.2	-4	0 0.2	4/0	2272	40936
* 29/04 07H30 17H21	* S07 9	* 43.557	1.487	97	2	-395.067	* 41.867	10.517	* 3.2	-4	0 0.2	4/0	2271	41667
* 29/04 07H30 17H21	* S07 14	* 43.558	1.483	98	1	-396.034	* 41.869	10.245	* 3.2	-4	0 0.1	4/0	2271	41665

* 29/04 07H30 17H21	* S07 15	* 43.558	1.483	98	1	-395 0.36	* 41.861	10.255	* 3.2	-4	0 0.1	4/0	2271	41663
* 29/04 07H30 17H21	* S07 7	* 43.560	1.478	83	1	-395 0.11	* 41.886	9.937	* 3.2	-4	0 0.2	4/0	2271	41670
* 29/04 09H10 09H18	* S07 14	* 43.560	1.480	99	1	-400 0.08	* 50.912	-37.121	* 14.0	4	0 0.3	4/0	2272	40937
* 29/04 09H10 17H21	* S07 14	* 43.561	1.478	99	1	-399 0.16	* 50.909	-37.126	* 14.0	-4	0 0.3	4/0	2271	41666
* 29/04 09H10 17H21	* S07 14	* 43.561	1.478	99	1	-399 0.16	* 50.909	-37.126	* 14.0	-4	0 0.3	4/0	2271	41664
* 29/04 09H10 17H21	* S07 14	* 43.561	1.478	99	1	-399 0.16	* 50.909	-37.126	* 14.0	-4	0 0.3	4/0	2271	41668
* 29/04 09H13 09H21	* S04 6	* 43.563	1.478	87	3	-399 0.42	* 34.882	42.704	* 16.0	4	1 1.3	4/0	2271	40999
* 29/04 09H13 11H03	* S04 6	* 43.562	1.479	87	3	-399 0.23	* 34.877	42.702	* 16.0	-4	1 1.3	4/0	2271	41056
* 29/04 09H13 12H41	* S04 6	* 43.561	1.484	87	3	-399 0.41	* 34.877	42.706	* 16.0	-4	1 1.3	4/0	2272	41286
* 29/04 09H13 12H41	* S04 5	* 43.559	1.490	87	2	-401 0.86	* 34.875	42.749	* 16.0	-4	1 1.3	4/0	2272	41289
* 29/04 09H17 23H46	* C08 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	-4	9.	...	2271	42131
* 29/04 09H17 23H46	* C08 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	-4	9.	...	2271	42130
* 29/04 10H51 12H39	* S08 3	* 43.572	1.489	50	22	-401 1.58	* 56.112	70.947	* 23.3	-4	1 0.0	1/0	2271	41295
* 29/04 10H51 04H20	* S08 3	* 43.569	1.487	50	22	-401 1.16	* 56.113	70.937	* 23.3	-4	1 0.0	1/0	2272	42448
* 29/04 10H51 04H20	* S08 3	* 43.569	1.487	50	22	-401 1.16	* 56.113	70.937	* 23.3	-4	1 0.0	1/0	2272	42457
* 29/04 10H54 11H03	* S04 15	* 43.562	1.471	96	1	-397 0.73	* 44.651	-3.913	* 2.2	4	0 0.2	4/0	2271	41057
* 29/04 10H54 12H41	* S04 17	* 43.562	1.471	50	1	-397 0.72	* 44.711	-4.359	* 2.2	-4	0 0.2	4/0	2272	41287
* 29/04 10H54 12H41	* S04 17	* 43.562	1.471	50	1	-397 0.72	* 44.711	-4.359	* 2.2	-4	0 0.2	4/0	2272	41290
* 29/04 10H54 20H49	* S04 11	* 43.560	1.477	93	1	-397 0.22	* 44.640	-4.027	* 2.2	-4	0 0.2	4/0	2271	41894
* 29/04 10H54 20H49	* S04 9	* 43.563	1.478	50	3	-397 0.43	* 44.717	-4.375	* 2.2	-4	0 0.3	4/0	2271	41897
* 29/04 10H54 20H49	* S04 14	* 43.560	1.478	95	1	-397 0.12	* 44.658	-3.933	* 2.2	-4	0 0.2	4/0	2271	41901
* 29/04 10H59 11H09	* C08 8	* 43.560	1.475	99	1	-399 0.34	* 45.412	-22.171	* 8.1	4	0 0.3	4/0	2272	41094
* 29/04 10H59 23H46	* C08 11	* 43.558	1.468	99	1	-399 0.93	* 45.356	-22.091	* 8.1	-4	0 0.2	4/0	2271	42116
* 29/04 10H59 23H46	* C08 8	* 43.558	1.470	94	1	-399 0.76	* 45.295	-21.667	* 8.1	-4	0 0.4	4/0	2271	42120
* 29/04 10H59 23H46	* C08 3	* 43.556	1.445	50	33	-400 2.81	* 45.589	-21.621	* 8.1	-4	1 0.0	1/0	2271	42124
* 29/04 12H30 12H39	* S08 13	* 43.560	1.481	99	1	-402 0.17	* 47.556	21.652	* 7.6	4	0 0.2	4/0	2271	41296
* 29/04 12H30 14H20	* S08 13	* 43.559	1.478	99	1	-402 0.12	* 47.556	21.641	* 7.6	-4	0 0.2	4/0	2271	41414
* 29/04 12H30 04H20	* S08 13	* 43.558	1.477	99	1	-401 0.20	* 47.555	21.640	* 7.6	-4	0 0.2	4/0	2272	42449
* 29/04 12H30 04H20	* S08 10	* 43.558	1.477	98	1	-401 0.22	* 47.637	21.832	* 7.6	-4	0 0.3	4/0	2272	42454
* 29/04 12H30 04H20	* S08 3	* 43.557	1.431	50	23	-398 3.91	* 47.466	22.039	* 7.6	-4	1 0.0	1/0	2272	42458
* 29/04 12H34 12H41	* S04 7	* 43.563	1.482	88	3	-399 0.44	* 54.207	-52.558	* 18.7	4	1 1.8	4/0	2272	41288
* 29/04 12H34 12H41	* S04 8	* 43.562	1.487	93	2	-398 0.68	* 54.176	-52.401	* 18.7	4	0 1.3	4/0	2272	41291
* 29/04 12H34 19H07	* S04 13	* 43.560	1.480	98	1	-399 0.11	* 53.912	-51.843	* 18.7	-4	0 0.4	4/0	2272	41793
* 29/04 12H34 20H49	* S04 13	* 43.561	1.478	98	1	-399 0.17	* 53.912	-51.843	* 18.7	-4	0 0.4	4/0	2271	41895
* 29/04 12H34 20H49	* S04 13	* 43.561	1.478	98	1	-399 0.17	* 53.912	-51.843	* 18.7	-4	0 0.4	4/0	2271	41898
* 29/04 12H39 20H49	* S04 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	-4	9.	...	2271	41909
* 29/04 12H47 23H46	* C08 4	* 43.580	1.503	88	2	-412 2.96	* 48.929	-79.097	* 25.4	-4	0 2.3	4/0	2271	42117
* 29/04 12H47 23H46	* C08 4	* 43.580	1.503	88	2	-412 2.96	* 48.929	-79.097	* 25.4	-4	0 2.3	4/0	2271	42121
* 29/04 14H11 14H20	* S08 15	* 43.557	1.491	99	1	-400 0.98	* 38.008	-25.926	* 10.3	4	0 0.2	4/0	2271	41415
* 29/04 14H11 00H59	* S08 15	* 43.560	1.485	99	1	-400 0.42	* 38.010	-25.931	* 10.3	-4	0 0.2	4/0	2271	42247
* 29/04 14H11 04H20	* S08 3	* 43.540	1.549	50	70	-406 6.03	* 36.162	-27.061	* 10.4	-4	1 0.0	1/0	2272	42444
* 29/04 14H11 04H20	* S08 12	* 43.560	1.477	99	1	-400 0.16	* 38.136	-25.875	* 10.3	-4	0 0.2	4/0	2272	42450
* 29/04 14H11 04H20	* S08 15	* 43.559	1.478	99	1	-400 0.11	* 38.009	-25.934	* 10.3	-4	0 0.2	4/0	2272	42455
* 29/04 14H31 14H39	* C09 10	* 43.559	1.479	99	1	-398 0.05	* 39.647	-19.330	* 7.8	4	0 0.3	4/0	2272	41484
* 29/04 14H31 00H53	* C09 10	* 43.559	1.480	99	1	-398 0.10	* 39.649	-19.331	* 7.8	-4	0 0.3	4/0	2272	42178
* 29/04 15H02 15H10	* S03 13	* 43.561	1.479	97	1	-399 0.14	* 48.897	28.669	* 10.1	4	0 0.5	4/0	2271	41523
* 29/04 16H14 16H23	* S06 9	* 43.555	1.450	51	15	-398 2.41	* 43.292	0.141	* 0.4	4	0 1.3	4/0	2271	41572
* 29/04 17H12 17H21	* S07 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	-4	9.	...	2271	41680
* 29/04 17H13 17H21	* S07 7	* 43.560	1.479	96	2	-395 0.03	* 51.771	43.801	* 15.2	4	0 0.9	4/0	2271	41669
* 29/04 17H13 19H01	* S07 7	* 43.559	1.476	96	2	-395 0.26	* 51.773	43.801	* 15.2	-4	0 0.8	4/0	2271	41749
* 29/04 17H55 18H03	* S06 8	* 43.562	1.481	93	2	-396 0.26	* 33.198	-46.641	* 18.8	4	0 1.0	4/0	2271	41703
* 29/04 18H53 19H01	* S07 14	* 43.557	1.477	88	3	-393 0.34	* 42.531	-3.848	* 1.9	4	0 0.7	4/0	2271	41750
* 29/04 18H53 05H30	* S07 17	* 43.561	1.484	50	3	-392 0.39	* 42.611	-3.485	* 1.9	-4	0 0.6	4/0	2271	42557
* 29/04 19H02 19H07	* S04 5	* 43.564	1.476	82	3	-393 0.61	* 57.180	75.331	* 24.5	4	0 4.2	4/0	2272	41794
* 29/04 19H02 20H49	* S04 5	* 43.568	1.479	82	3	-393 0.91	* 57.178	75.323	* 24.4	-4	0 4.2	4/0	2271	41899
* 29/04 19H02 20H49	* S04 5	* 43.568	1.479	82	3	-393 0.91	* 57.178	75.323	* 24.4	-4	0 4.2	4/0	2271	41896
* 29/04 19H02 20H49	* S04 5	* 43.568	1.479	82	3	-393 0.91	* 57.178	75.323	* 24.4	-4	0 4.2	4/0	2271	41902
* 29/04 19H02 09H07	* S04 5	* 43.566	1.478	82	3	-393 0.70	* 57.179	75.321	* 24.4	-4	0 4.2	4/0	2272	42866
* 29/04 19H02 09H07	* S04 5	* 43.566	1.478	82	3	-393 0.70	* 57.179	75.321	* 24.4	-4	0 4.2	4/0	2272	42870
* 29/04 19H02 09H07	* S04 5	* 43.566	1.478	82	3	-393 0.70	* 57.179	75.321	* 24.4	-4	0 4.2	4/0	2272	42874
* 29/04 20H10 23H46	* C08 3	* 43.559	1.491	50	4	-391 0.96	* 46.066	35.406	* 11.7	-4	0 0.0	1/0	2271	42118
* 29/04 20H10 23H46	* C08 3	* 43.559	1.491	50	4	-391 0.96	* 46.066	35.406	* 11.7	-4	0 0.0	1/0	2271	42122
* 29/04 20H11 23H46	* C08 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	-4	9.	...	2271	42132
* 29/04 20H33 05H30	* S07 11	* 43.563	1.482	98	1	-392 0.48	* 33.090	-51.075	* 20.1	-4	0 0.3	4/0	2271	42558
* 29/04 20H41 20H49	* S04 3	* 43.553	1.463	50	10	-387 1.51	* 48.325	26.422	* 9.2	4	1 0.0	1/0	2271	41900
* 29/04 20H41 20H49	* S04 9	* 43.558	1.484	97	1	-390 0.42	* 48.417	26.033	* 9.1	4	0 0.6	4/0	2271	41903
* 29/04 20H41 22H30	* S04 13	* 43.558	1.481	98	1	-390 0.18	* 48.510	25.994	* 9.1	-4	0 0.3	4/0	2271	41984
* 29/04 20H41 09H07	* S04 11	* 43.558	1.478	95	1	-390 0.18	* 48.578	26.217	* 9.1	-4	0 0.5	4/0	2272	42863
* 29/04 20H41 09H07	* S04 12	* 43.557	1.478	98	1	-390 0.26	* 48.491	25.989	* 9.1	-4	0 0.3	4/0	2272	42871
* 29/04 20H41 09H07	* S04 3	* 43.559	1.484	50	4	-391 0.36	* 48.140	25.321	* 9.1	-4	0 0.0	1/0	2272	42867
* 29/04 20H41 09H07	* S04 13	* 43.558	1.477	98	1	-390 0.23	* 48.509	25.989	* 9.1	-4	0 0.3	4/0	2272	42875
* 29/04 21H56 22H06	* C08 11	* 43.559	1.477	99	1	-391 0.20	* 42.112	-17.073	* 7.1	4	0 0.2	4/0	2272	41946

* 29/04 21H56 23H46	* C08 12	* 43.558	1.480	98	1	-391 0.14	* 42.099	-17.006	* 7.1	-4	0 0.3	4/0	2271	42119
* 29/04 21H56 23H46	* C08 13	* 43.558	1.480	98	1	-391 0.14	* 42.097	-17.013	* 7.1	-4	0 0.2	4/0	2271	42123
* 29/04 21H56 23H46	* C08 13	* 43.558	1.480	98	1	-391 0.14	* 42.097	-17.013	* 7.1	-4	0 0.2	4/0	2271	42125
* 29/04 22H21 22H30	* S04 16	* 43.555	1.490	97	1	-392 0.95	* 38.843	-21.496	* 8.6	4	0 0.5	4/0	2271	41985
* 29/04 22H21 09H07	* S04 16	* 43.560	1.483	97	1	-392 0.27	* 38.846	-21.501	* 8.6	-4	0 0.5	4/0	2272	42864
* 29/04 22H21 09H07	* S04 7	* 43.556	1.493	40	5	-392 1.15	* 38.999	-20.800	* 8.6	-4	1 1.4	4/0	2272	42872
* 29/04 22H21 09H07	* S04 16	* 43.560	1.483	97	1	-392 0.27	* 38.846	-21.501	* 8.6	-4	0 0.5	4/0	2272	42868
* 29/04 22H21 09H07	* S04 9	* 43.561	1.470	72	2	-395 0.76	* 39.083	-21.221	* 8.6	-4	0 1.2	4/0	2272	42876
* 29/04 22H21 10H50	* S04 16	* 43.561	1.484	97	1	-392 0.40	* 38.847	-21.499	* 8.6	-4	0 0.5	4/0	2271	43009
* 29/04 22H21 10H50	* S04 16	* 43.561	1.484	97	1	-392 0.40	* 38.847	-21.499	* 8.6	-4	0 0.5	4/0	2271	43012
* 30/04 00H51 00H59	* S08 7	* 43.562	1.475	98	1	-391 0.44	* 34.763	44.007	* 16.4	4	0 0.4	4/0	2271	42248
* 30/04 00H51 02H41	* S08 7	* 43.559	1.477	98	1	-390 0.23	* 34.757	44.006	* 16.4	-4	0 0.4	4/0	2271	42296
* 30/04 00H51 04H20	* S08 7	* 43.561	1.480	98	1	-390 0.21	* 34.757	44.008	* 16.4	-4	0 0.4	4/0	2272	42445
* 30/04 00H51 04H20	* S08 4	* 43.567	1.484	94	1	-388 0.90	* 35.059	44.112	* 16.3	-4	0 1.0	4/0	2272	42451
* 30/04 00H51 04H20	* S08 3	* 43.563	1.474	50	19	-389 0.57	* 34.829	43.469	* 16.4	-4	1 0.0	1/0	2272	42456
* 30/04 02H32 02H41	* S08 17	* 43.561	1.473	50	1	-388 0.56	* 44.557	-3.721	* 1.9	4	0 0.1	4/0	2271	42297
* 30/04 02H32 04H20	* S08 17	* 43.560	1.472	50	1	-388 0.58	* 44.555	-3.711	* 1.9	-4	0 0.1	4/0	2272	42446
* 30/04 02H32 04H20	* S08 17	* 43.560	1.472	50	1	-388 0.58	* 44.555	-3.711	* 1.9	-4	0 0.1	4/0	2272	42452
* 30/04 02H32 04H20	* S08 12	* 43.560	1.472	97	1	-388 0.60	* 44.494	-3.332	* 1.9	-4	0 0.1	4/0	2272	42459
* 30/04 02H32 12H28	* S08 17	* 43.559	1.476	50	1	-388 0.24	* 44.556	-3.720	* 1.9	-4	0 0.1	4/0	2271	43128
* 30/04 02H32 12H28	* S08 14	* 43.559	1.476	98	1	-388 0.27	* 44.491	-3.275	* 1.9	-4	0 0.1	4/0	2271	43119
* 30/04 02H32 12H28	* S08 8	* 43.561	1.470	79	2	-388 0.75	* 44.571	-3.594	* 1.9	-4	1 0.2	4/0	2271	43123
* 30/04 02H32 12H28	* S08 12	* 43.559	1.478	98	1	-388 0.13	* 44.452	-3.072	* 1.9	-4	0 0.1	4/0	2271	43121
* 30/04 02H32 12H28	* S08 17	* 43.559	1.476	50	1	-388 0.24	* 44.556	-3.720	* 1.9	-4	0 0.1	4/0	2271	43126
* 30/04 04H04 13H41	* C09 11	* 43.560	1.481	99	1	-387 0.12	* 50.002	-33.840	* 12.8	-4	0 0.2	4/0	2272	43257
* 30/04 04H04 15H18	* C09 11	* 43.559	1.480	99	1	-387 0.08	* 50.002	-33.841	* 12.8	-4	0 0.2	4/0	2271	43451
* 30/04 04H10 04H20	* S08 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	4 9.	.....	...	2272	42466
* 30/04 04H12 04H20	* S08 3	* 43.403	1.733	50	99	-349 26.93	* 53.951	-53.067	* 18.8	4	1 0.0	1/0	2272	42447
* 30/04 04H12 04H20	* S08 9	* 43.559	1.486	93	2	-386 0.53	* 53.974	-51.892	* 18.6	4	0 1.2	4/0	2272	42453
* 30/04 04H12 04H20	* S08 12	* 43.560	1.480	97	1	-387 0.07	* 53.836	-51.460	* 18.6	4	0 0.6	4/0	2272	42460
* 30/04 04H12 10H46	* S08 14	* 43.557	1.478	98	1	-388 0.27	* 53.729	-51.285	* 18.6	-4	0 0.4	4/0	2272	42941
* 30/04 04H12 12H28	* S08 14	* 43.560	1.477	98	1	-387 0.21	* 53.730	-51.286	* 18.6	-4	0 0.4	4/0	2271	43124
* 30/04 04H12 12H28	* S08 14	* 43.560	1.477	98	1	-387 0.21	* 53.730	-51.286	* 18.6	-4	0 0.4	4/0	2271	43120
* 30/04 04H12 12H28	* S08 14	* 43.560	1.477	98	1	-387 0.21	* 53.730	-51.286	* 18.6	-4	0 0.4	4/0	2271	43122
* 30/04 04H12 12H28	* S08 12	* 43.560	1.478	97	1	-387 0.11	* 53.836	-51.461	* 18.6	-4	0 0.6	4/0	2271	43129
* 30/04 04H13 04H23	* C06 8	* 43.560	1.477	97	1	-388 0.18	* 44.814	-14.093	* 5.4	4	0 0.5	4/0	2271	42474
* 30/04 04H13 06H07	* C06 8	* 43.560	1.477	97	1	-388 0.16	* 44.815	-14.092	* 5.4	-4	0 0.5	4/0	2271	42667
* 30/04 04H15 04H20	* S08 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	4 9.	.....	...	2272	42467
* 30/04 04H17 12H28	* S08 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	-4 9.	.....	...	2271	43159
* 30/04 04H55 05H03	* S03 17	* 43.559	1.480	90	2	-388 0.05	* 42.449	7.144	* 2.0	4	0 0.6	4/0	2271	42484
* 30/04 06H34 06H41	* S03 14	* 43.562	1.480	98	1	-388 0.31	* 51.570	-40.138	* 15.0	4	0 0.5	4/0	2271	42698
* 30/04 07H07 07H16	* S07 16	* 43.558	1.484	99	1	-388 0.39	* 39.734	21.017	* 7.3	4	0 0.2	4/0	2271	42708
* 30/04 07H07 08H55	* S07 16	* 43.555	1.482	99	1	-388 0.54	* 39.731	21.012	* 7.3	-4	0 0.2	4/0	2271	42783
* 30/04 07H07 20H18	* S07 5	* 43.557	1.475	79	2	-388 0.42	* 39.831	20.437	* 7.3	-4	1 0.6	4/0	2272	43860
* 30/04 07H07 20H18	* S07 11	* 43.558	1.480	95	1	-389 0.21	* 39.868	20.840	* 7.3	-4	0 0.2	4/0	2272	43858
* 30/04 07H07 20H18	* S07 3	* 44.869	-0.175	50	99	-500 196.6	* 40.681	24.231	* 8.6	-4 1 1	24.6	1/0	2272	43863
* 30/04 07H07 20H18	* S07 13	* 43.558	1.482	99	1	-388 0.22	* 39.706	20.955	* 7.3	-4	0 0.1	4/0	2272	43867
* 30/04 08H47 08H55	* S07 8	* 43.557	1.482	89	2	-388 0.35	* 48.741	-26.689	* 10.3	4	0 0.5	4/0	2271	42785
* 30/04 08H47 08H55	* S07 14	* 43.560	1.480	99	1	-387 0.05	* 48.922	-26.294	* 10.3	4	0 0.1	4/0	2271	42784
* 30/04 08H47 16H58	* S07 16	* 43.556	1.473	99	1	-387 0.61	* 48.869	-26.241	* 10.3	-4	0 0.2	4/0	2271	43666
* 30/04 08H47 20H18	* S07 16	* 43.559	1.478	99	1	-388 0.12	* 48.873	-26.240	* 10.3	-4	0 0.2	4/0	2272	43859
* 30/04 08H47 20H18	* S07 16	* 43.559	1.478	99	1	-388 0.12	* 48.873	-26.240	* 10.3	-4	0 0.2	4/0	2272	43864
* 30/04 09H00 09H07	* S04 6	* 43.562	1.482	93	2	-387 0.28	* 33.524	49.027	* 18.5	4	0 1.1	4/0	2272	42873
* 30/04 09H00 09H07	* S04 6	* 43.562	1.482	93	2	-387 0.28	* 33.524	49.027	* 18.5	4	0 1.1	4/0	2272	42869
* 30/04 09H00 09H07	* S04 3	* 43.558	1.508	50	34	-391 2.30	* 32.379	53.216	* 18.5	4	1 0.0	1/0	2272	42865
* 30/04 09H00 09H07	* S04 3	* 43.534	1.495	50	31	-400 3.10	* 33.630	49.282	* 18.5	4	1 0.0	1/0	2272	42877
* 30/04 09H00 10H50	* S04 6	* 43.560	1.483	93	2	-386 0.28	* 33.519	49.023	* 18.5	-4	0 1.1	4/0	2271	43010
* 30/04 09H00 12H29	* S04 6	* 43.557	1.487	93	2	-386 0.69	* 33.517	49.026	* 18.5	-4	0 1.1	4/0	2272	43155
* 30/04 09H45 09H54	* C08 14	* 43.558	1.489	99	1	-389 0.77	* 42.724	11.852	* 4.0	4	0 0.1	4/0	2271	42899
* 30/04 09H45 11H40	* C08 14	* 43.560	1.488	99	1	-389 0.66	* 42.726	11.851	* 4.0	-4	0 0.1	4/0	2271	43045
* 30/04 10H23 20H18	* S07 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	-4 9.	.....	...	2272	43874
* 30/04 10H25 16H58	* S07 5	* 43.579	1.528	81	4	-374 4.51	* 57.678	-76.145	* 25.4	-4	0 5.7	4/0	2271	43667
* 30/04 10H25 20H18	* S07 3	* 43.537	1.436	50	60	-403 4.30	* 57.465	-75.906	* 25.4	-4	0 0.0	1/0	2272	43854
* 30/04 10H25 20H18	* S07 5	* 43.578	1.530	81	4	-374 4.59	* 57.680	-76.147	* 25.4	-4	0 5.7	4/0	2272	43865
* 30/04 10H41 10H46	* S08 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	4 9.	.....	...	2272	42946
* 30/04 10H41 12H28	* S08 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	-4 9.	.....	...	2271	43137
* 30/04 10H41 12H28	* S08 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	-4 9.	.....	...	2271	43136
* 30/04 10H41 12H28	* S08 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	-4 9.	.....	...	2271	43158
* 30/04 10H41 12H28	* S08 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	-4 9.	.....	...	2271	43160
* 30/04 10H41 10H50	* S04 8	* 43.556	1.492	56	8	-387 1.10	* 43.423	2.140	* 0.1	4	0 0.4	4/0	2271	43011
* 30/04 10H41 10H50	* S04 9	* 43.551	1.515	76	5	-388 3.06	* 43.412	2.201	* 0.1	4	0 0.3	4/0	2271	43013
* 30/04 10H41 12H29	* S04 14	* 43.617	1.173	50	21	-389 25.50	* 43.410	2.216	* 0.4	-4	0 0.7	4/0	2272	43156

* 30/04 10H41 20H36	* S04 13	* 43.554	1.498	80	5	-388 1.61	* 43.404	2.249	* 0.1	-4	0 0.2	4/0	2271	43939
* 30/04 10H41 20H36	* S04 11	* 43.552	1.507	74	7	-388 2.39	* 43.418	2.185	* 0.1	-4	0 0.3	4/0	2271	43942
* 30/04 10H41 20H36	* S04 8	* 43.685	0.675	50	26	-390 66.28	* 43.288	2.681	* 0.8	-4	0 1.1	3/0	2271	43945
* 30/04 11H31 11H40	* C08 12	* 43.557	1.482	99	1	-391 0.29	* 46.914	-41.966	* 14.6	4	0 0.2	4/0	2271	43046
* 30/04 11H31 12H11	* C08 4	* 43.562	1.441	65	6	-384 3.13	* 46.718	-40.987	* 14.6	-4	1 6.3	3/0	2271	44967
* 30/04 11H31 12H11	* C08 10	* 43.555	1.477	98	1	-391 0.56	* 46.819	-41.822	* 14.6	-4	0 0.3	4/0	2271	44961
* 30/04 11H31 12H11	* C08 6	* 43.555	1.477	98	1	-391 0.48	* 47.182	-41.736	* 14.6	-4	0 0.3	4/0	2271	44971
* 30/04 12H17 12H28	* S08 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	4 9.	....	...	2271	43138
* 30/04 12H20 12H28	* S08 6	* 43.560	1.483	98	1	-390 0.30	* 48.394	26.826	* 9.4	4	0 0.2	4/0	2271	43125
* 30/04 12H20 12H28	* S08 9	* 43.559	1.482	99	1	-389 0.21	* 48.472	26.645	* 9.4	4	0 0.2	4/0	2271	43127
* 30/04 12H20 12H28	* S08 4	* 41.393	-1.393	1	99	-726 337.2	* 48.616	27.359	* 12.2	4 1 2	55.0	1/0	2271	43130
* 30/04 12H20 14H10	* S08 13	* 43.558	1.478	99	1	-390 0.20	* 48.563	26.581	* 9.4	-4	0 0.2	4/0	2271	43296
* 30/04 12H21 12H29	* S04 10	* 43.559	1.486	97	1	-387 0.55	* 52.920	-45.683	* 16.7	4	0 0.6	4/0	2272	43157
* 30/04 12H21 20H36	* S04 13	* 43.561	1.479	98	1	-388 0.15	* 52.769	-45.387	* 16.7	-4	0 0.4	4/0	2271	43940
* 30/04 12H21 20H36	* S04 13	* 43.561	1.479	98	1	-388 0.15	* 52.769	-45.387	* 16.7	-4	0 0.4	4/0	2271	43943
* 30/04 12H21 20H36	* S04 13	* 43.561	1.479	98	1	-388 0.15	* 52.769	-45.387	* 16.7	-4	0 0.4	4/0	2271	43946
* 30/04 13H23 13H32	* C06 4	* 43.556	1.461	79	4	-386 1.56	* 46.680	43.635	* 14.5	4	1 3.4	4/0	2271	43204
* 30/04 13H23 15H19	* C06 3	* 43.554	1.446	50	8	-383 2.76	* 46.688	43.689	* 14.5	-4	1 0.0	1/0	2272	43543
* 30/04 13H33 13H41	* C09 9	* 43.560	1.485	97	1	-389 0.44	* 44.809	8.302	* 2.7	4	0 0.3	4/0	2272	43258
* 30/04 13H33 15H18	* C09 9	* 43.560	1.481	97	1	-389 0.15	* 44.811	8.302	* 2.7	-4	0 0.3	4/0	2271	43452
* 30/04 13H33 14H20	* C09 9	* 43.559	1.479	97	1	-389 0.08	* 44.811	8.306	* 2.7	-4	0 0.3	4/0	2272	45228
* 30/04 14H01 14H10	* S08 16	* 43.555	1.492	99	1	-389 1.09	* 38.988	-20.994	* 8.4	4	0 0.1	4/0	2271	43297
* 30/04 14H01 15H46	* S08 16	* 43.560	1.487	99	1	-388 0.57	* 38.991	-20.996	* 8.4	-4	0 0.1	4/0	2271	43581
* 30/04 14H37 14H44	* S03 11	* 43.562	1.480	98	1	-389 0.30	* 51.170	40.851	* 14.2	4	0 0.4	4/0	2271	43346
* 30/04 15H09 15H19	* C06 4	* 40.462	9.482	44	99	15 745.8	* 40.076	-14.364	* 10.2	4	1 8.7	1/0	2272	43544
* 30/04 15H09 17H00	* C06 8	* 43.554	1.481	99	1	-386 0.62	* 42.773	-9.196	* 4.2	-4	0 0.2	4/0	2272	43684
* 30/04 15H09 04H51	* C06 8	* 43.560	1.480	99	1	-386 0.09	* 42.779	-9.195	* 4.2	-4	0 0.2	4/0	2271	44358
* 30/04 15H11 15H18	* C09 8	* 43.560	1.480	99	1	-388 0.08	* 36.095	-38.007	* 15.0	4	0 0.3	4/0	2271	43453
* 30/04 15H11 01H36	* C09 8	* 43.560	1.480	99	1	-388 0.11	* 36.097	-38.008	* 15.0	-4	0 0.3	4/0	2271	44190
* 30/04 15H11 14H20	* C09 8	* 43.560	1.476	99	1	-388 0.24	* 36.097	-38.011	* 15.0	-4	0 0.3	4/0	2272	45229
* 30/04 16H16 16H24	* S03 15	* 43.556	1.474	95	1	-387 0.54	* 41.981	-6.545	* 2.9	4	0 0.4	4/0	2271	43613
* 30/04 16H51 16H58	* S07 7	* 43.559	1.482	97	2	-386 0.25	* 53.612	54.851	* 18.7	4	0 0.8	4/0	2271	43668
* 30/04 16H51 18H38	* S07 7	* 43.558	1.482	97	2	-386 0.32	* 53.610	54.851	* 18.7	-4	0 0.8	4/0	2271	43742
* 30/04 16H51 20H18	* S07 7	* 43.556	1.479	97	2	-386 0.41	* 53.610	54.847	* 18.7	-4	0 0.8	4/0	2272	43855
* 30/04 16H51 20H18	* S07 5	* 43.555	1.478	96	1	-386 0.55	* 53.392	54.914	* 18.7	-4	0 1.1	4/0	2272	43866
* 30/04 16H53 17H00	* C06 4	* 43.532	1.470	70	7	-396 3.14	* 39.389	-58.730	* 23.2	4	0 11.4	3/0	2272	43685
* 30/04 16H53 01H18	* C06 4	* 43.530	1.469	70	7	-396 3.38	* 39.379	-58.729	* 23.2	-4	0 11.4	3/0	2272	44131
* 30/04 16H53 04H51	* C06 4	* 43.532	1.471	70	7	-396 3.20	* 39.381	-58.726	* 23.2	-4	0 11.4	3/0	2271	44359
* 30/04 16H55 20H18	* S07 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	-4 9.	....	...	2272	43875
* 30/04 17H43 17H51	* S06 13	* 43.560	1.479	97	1	-387 0.06	* 34.442	-41.468	* 16.5	4	0 0.5	4/0	2271	43716
* 30/04 18H30 18H38	* S07 13	* 43.559	1.480	93	2	-386 0.11	* 44.595	6.887	* 2.2	4	0 0.4	4/0	2271	43743
* 30/04 18H30 20H18	* S07 17	* 43.560	1.478	95	2	-386 0.10	* 44.601	6.830	* 2.2	-4	0 0.3	4/0	2272	43856
* 30/04 18H30 20H18	* S07 17	* 43.560	1.478	95	2	-386 0.10	* 44.601	6.830	* 2.2	-4	0 0.3	4/0	2272	43861
* 30/04 18H30 20H18	* S07 5	* 40.427	-1.851	21	99	-500 444.3	* 44.196	9.544	* 5.5	-4 1 2	55.0	1/0	2272	43868
* 30/04 18H30 06H53	* S07 16	* 43.560	1.478	95	2	-386 0.08	* 44.600	6.844	* 2.2	-4	0 0.3	4/0	2271	44479
* 30/04 18H30 06H53	* S07 9	* 43.563	1.492	96	2	-387 1.12	* 44.572	6.773	* 2.2	-4	0 0.4	4/0	2271	44476
* 30/04 18H30 06H53	* S07 12	* 43.555	1.466	94	3	-386 1.21	* 44.600	6.562	* 2.2	-4	0 0.3	4/0	2271	44473
* 30/04 18H30 06H53	* S07 17	* 43.560	1.479	95	2	-386 0.08	* 44.601	6.835	* 2.2	-4	0 0.3	4/0	2271	44491
* 30/04 18H30 06H53	* S07 14	* 43.560	1.480	96	1	-385 0.08	* 44.619	6.886	* 2.2	-4	0 0.2	4/0	2271	44471
* 30/04 18H49 20H36	* S04 4	* 43.572	1.448	71	8	-394 2.91	* 58.491	82.333	* 26.2	-4	0 13.1	3/0	2271	43941
* 30/04 18H49 20H36	* S04 4	* 43.572	1.448	71	8	-394 2.91	* 58.491	82.333	* 26.2	-4	0 13.1	3/0	2271	43944
* 30/04 18H49 20H36	* S04 4	* 43.572	1.448	71	8	-394 2.91	* 58.491	82.333	* 26.2	-4	0 13.1	3/0	2271	43947
* 30/04 18H54 19H02	* C08 4	* 43.539	1.493	51	4	-390 2.50	* 48.912	72.619	* 22.8	4	1 4.9	4/0	2272	43769
* 30/04 18H54 12H11	* C08 4	* 43.542	1.492	51	4	-390 2.16	* 48.914	72.623	* 22.8	-4	1 4.9	4/0	2271	44962
* 30/04 18H54 12H11	* C08 4	* 43.542	1.492	51	4	-390 2.16	* 48.914	72.623	* 22.8	-4	1 4.9	4/0	2271	44968
* 30/04 20H10 20H18	* S07 3	* 43.330	0.267	50	99	-524 101.2	* 35.621	-40.180	* 15.1	4 1 1	96.5	1/0	2272	43857
* 30/04 20H10 20H18	* S07 6	* 43.563	1.454	99	4	-391 2.08	* 32.920	-44.006	* 16.0	4	1 1.6	4/0	2272	43862
* 30/04 20H10 20H18	* S07 12	* 43.561	1.477	98	1	-387 0.21	* 35.375	-40.406	* 16.0	4	0 0.3	4/0	2272	43869
* 30/04 20H10 06H53	* S07 4	* 43.556	1.558	26	7	-396 6.32	* 35.304	-39.472	* 16.0	-4	1 5.0	3/0	2271	44480
* 30/04 20H10 06H53	* S07 15	* 43.562	1.484	99	1	-386 0.49	* 35.197	-40.434	* 16.0	-4	0 0.2	4/0	2271	44474
* 30/04 20H10 06H53	* S07 15	* 43.562	1.484	99	1	-386 0.49	* 35.197	-40.434	* 16.0	-4	0 0.2	4/0	2271	44472
* 30/04 20H10 06H53	* S07 15	* 43.562	1.484	99	1	-386 0.49	* 35.197	-40.434	* 16.0	-4	0 0.2	4/0	2271	44477
* 30/04 20H10 06H53	* S07 11	* 43.561	1.481	97	1	-386 0.23	* 35.447	-40.366	* 16.0	-4	0 0.4	4/0	2271	44492
* 30/04 20H25 20H36	* S04 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	4 9.	....	...	2271	43950
* 30/04 20H28 20H36	* S04 5	* 43.562	1.485	50	2	-386 0.52	* 49.494	32.725	* 11.4	4	1 2.3	4/0	2271	43948
* 30/04 20H28 22H17	* S04 14	* 43.560	1.479	99	1	-386 0.09	* 49.736	32.229	* 11.4	-4	0 0.2	4/0	2271	43995
* 30/04 20H42 12H11	* C08 14	* 43.554	1.486	98	1	-385 0.78	* 44.725	16.278	* 5.1	-4	0 0.2	4/0	2271	44963
* 30/04 20H42 12H11	* C08 14	* 43.554	1.486	98	1	-385 0.78	* 44.725	16.278	* 5.1	-4	0 0.2	4/0	2271	44969
* 30/04 22H08 22H17	* S04 15	* 43.557	1.491	98	1	-387 0.99	* 40.155	-15.182	* 6.2	4	0 0.3	4/0	2271	43996
* 30/04 22H08 23H55	* S04 16	* 43.561	1.485	98	1	-387 0.47	* 40.143	-15.186	* 6.2	-4	0 0.3	4/0	2271	44029
* 30/04 22H27 22H36	* C08 9	* 43.559	1.477	98	1	-386 0.22	* 40.582	-35.117	* 14.0	4	0 0.1	4/0	2272	44008
* 30/04 22H27 12H11	* C08 3	* 43.661	2.703	50	99	-500 99.27	* 40.537	-35.140	* 14.9	-4 1 1	96.9	1/0	2271	44964

* 30/04 22H27 12H11	*C08 9	* 43.556	1.479	98	1	-386.042	* 40.580	-35.114	* 14.0	-4	0 0.2	4/0	2271	44958
* 30/04 22H27 12H11	*C08 7	* 43.554	1.481	99	1	-387.065	* 40.903	-34.966	* 14.0	-4	0 0.2	4/0	2271	44970
* 30/04 23H50 23H55	*S04 3	* 43.649	1.452	50	61	-420.10.17	* 30.699	-62.288	* 24.6	4	0 0.0	1/0	2271	44030
* 30/04 23H50 08H53	*S04 3	* 43.650	1.448	50	61	-419.10.35	* 30.699	-62.290	* 24.6	-4	0 0.0	1/0	2272	44626
* 30/04 23H50 10H37	*S04 3	* 43.651	1.453	50	61	-420.10.43	* 30.699	-62.285	* 24.6	-4	0 0.0	1/0	2271	44818
* 01/05 00H40 00H48	*S08 7	* 43.563	1.474	92	2	-385.056	* 33.746	48.623	* 18.3	4	0 1.1	4/0	2271	44086
* 01/05 00H40 02H31	*S08 7	* 43.559	1.477	92	2	-385.020	* 33.739	48.621	* 18.3	-4	0 1.1	4/0	2271	44215
* 01/05 00H40 10H35	*S08 7	* 43.560	1.481	92	2	-386.011	* 33.738	48.623	* 18.3	-4	0 1.1	4/0	2272	44761
* 01/05 02H16 10H35	*S08 2	* .....	.....	..	...	0 .....	* .....	.....	* .....	-4 9.	.....	...	2272	44767
* 01/05 02H22 02H31	*S08 15	* 43.547	1.539	50	13	-386.502	* 43.622	1.155	* 0.1	4	0 0.2	4/0	2271	44216
* 01/05 02H22 04H09	*S08 17	* 43.550	1.525	50	8	-386.383	* 43.603	1.184	* 0.1	-4	0 0.1	4/0	2271	44269
* 01/05 02H22 04H09	*S08 10	* 43.552	1.512	51	20	-386.276	* 43.611	1.211	* 0.1	-4	0 0.2	4/0	2271	44271
* 01/05 02H22 10H35	*S08 15	* 43.546	1.540	56	13	-387.509	* 43.630	1.115	* 0.1	-4	0 0.1	4/0	2272	44759
* 01/05 03H07 03H15	*C09 7	* 43.559	1.478	98	1	-386.012	* 44.972	-6.204	* 3.0	4	0 0.2	4/0	2271	44252
* 01/05 03H07 12H42	*C09 9	* 43.559	1.477	98	1	-386.019	* 44.958	-6.183	* 3.0	-4	0 0.2	4/0	2271	45085
* 01/05 04H02 04H09	*S08 13	* 43.561	1.480	99	1	-387.012	* 52.827	-46.249	* 17.0	4	0 0.1	4/0	2271	44270
* 01/05 04H02 04H09	*S08 13	* 43.561	1.480	99	1	-387.012	* 52.827	-46.249	* 17.0	4	0 0.1	4/0	2271	44272
* 01/05 04H02 10H35	*S08 13	* 43.560	1.479	99	1	-387.006	* 52.825	-46.248	* 17.0	-4	0 0.2	4/0	2272	44760
* 01/05 04H02 10H35	*S08 9	* 43.559	1.479	99	1	-388.010	* 52.771	-46.230	* 17.0	-4	0 0.2	4/0	2272	44762
* 01/05 04H02 13H59	*S08 12	* 43.561	1.480	99	1	-386.020	* 52.877	-46.328	* 17.0	-4	0 0.2	4/0	2271	45172
* 01/05 04H02 13H59	*S08 4	* 43.562	1.480	91	2	-386.032	* 53.243	-46.079	* 17.0	-4	0 0.9	4/0	2271	45168
* 01/05 04H02 13H59	*S08 13	* 43.561	1.479	99	1	-387.019	* 52.827	-46.249	* 17.0	-4	0 0.2	4/0	2271	45161
* 01/05 04H02 13H59	*S08 10	* 43.561	1.479	99	1	-387.019	* 52.657	-46.363	* 17.0	-4	0 0.2	4/0	2271	45164
* 01/05 04H02 13H59	*S08 13	* 43.561	1.479	99	1	-387.019	* 52.827	-46.249	* 17.0	-4	0 0.2	4/0	2271	45175
* 01/05 04H43 12H42	*C09 5	* 43.564	1.481	94	1	-385.053	* 53.294	-53.349	* 19.1	-4	0 1.3	4/0	2271	45086
* 01/05 06H03 06H12	*S06 16	* 43.561	1.475	97	1	-389.034	* 47.415	-17.323	* 7.1	4	0 0.4	4/0	2271	44396
* 01/05 06H45 06H53	*S07 3	* 43.545	1.334	50	36	-380.11.85	* 37.623	31.093	* 11.5	4	1 0.0	1/0	2271	44475
* 01/05 06H45 06H53	*S07 6	* 43.561	1.480	84	2	-398.017	* 37.564	31.228	* 11.4	4	1 1.4	4/0	2271	44478
* 01/05 06H45 06H53	*S07 10	* 43.560	1.483	98	1	-399.029	* 37.537	31.604	* 11.4	4	0 0.4	4/0	2271	44490
* 01/05 06H45 08H33	*S07 13	* 43.558	1.484	98	1	-400.041	* 37.592	31.739	* 11.4	-4	0 0.4	4/0	2271	44561
* 01/05 06H45 10H09	*S07 11	* 43.557	1.482	97	1	-401.039	* 37.728	31.663	* 11.4	-4	0 0.4	4/0	2272	44695
* 01/05 06H45 10H09	*S07 13	* 43.558	1.484	98	1	-400.042	* 37.592	31.739	* 11.4	-4	0 0.4	4/0	2272	44692
* 01/05 06H45 10H09	*S07 8	* 43.555	1.486	96	2	-401.076	* 37.676	32.013	* 11.4	-4	0 0.5	4/0	2272	44698
* 01/05 06H45 10H09	*S07 7	* 43.560	1.481	93	2	-399.016	* 37.539	31.323	* 11.4	-4	0 0.9	4/0	2272	44701
* 01/05 06H49 06H53	*S07 2	* .....	.....	..	...	0 .....	* .....	.....	* .....	4 9.	.....	...	2271	44494
* 01/05 07H42 07H48	*S06 8	* 43.565	1.482	96	2	-404.063	* 56.747	-66.286	* 22.8	4	0 1.0	4/0	2271	44528
* 01/05 08H25 08H33	*S07 14	* 43.560	1.477	99	1	-406.017	* 46.834	-15.512	* 6.5	4	0 0.1	4/0	2271	44562
* 01/05 08H25 10H09	*S07 14	* 43.560	1.478	99	1	-406.016	* 46.834	-15.512	* 6.5	-4	0 0.1	4/0	2272	44693
* 01/05 08H25 10H09	*S07 14	* 43.560	1.478	99	1	-406.016	* 46.834	-15.512	* 6.5	-4	0 0.1	4/0	2272	44696
* 01/05 08H25 10H09	*S07 14	* 43.560	1.478	99	1	-406.016	* 46.834	-15.512	* 6.5	-4	0 0.1	4/0	2272	44699
* 01/05 08H25 16H34	*S07 14	* 43.560	1.476	99	1	-406.026	* 46.834	-15.516	* 6.5	-4	0 0.1	4/0	2271	45319
* 01/05 08H31 12H11	*C08 2	* .....	.....	..	...	0 .....	* .....	.....	* .....	-4 9.	.....	...	2271	44981
* 01/05 08H31 12H11	*C08 2	* .....	.....	..	...	0 .....	* .....	.....	* .....	-4 9.	.....	...	2271	44979
* 01/05 08H44 08H53	*S04 2	* .....	.....	..	...	0 .....	* .....	.....	* .....	4 9.	.....	...	2272	44631
* 01/05 08H44 10H37	*S04 2	* .....	.....	..	...	0 .....	* .....	.....	* .....	-4 9.	.....	...	2271	44826
* 01/05 10H03 10H09	*S07 5	* 43.563	1.504	86	2	-401.200	* 55.939	-64.863	* 22.3	4	1 2.0	4/0	2272	44697
* 01/05 10H03 10H09	*S07 3	* 43.586	1.434	50	78	-414.469	* 55.964	-65.106	* 22.2	4	1 0.0	1/0	2272	44694
* 01/05 10H03 10H09	*S07 8	* 43.564	1.498	98	1	-403.155	* 55.806	-64.359	* 22.3	4	0 0.5	4/0	2272	44700
* 01/05 10H03 16H34	*S07 9	* 43.565	1.481	95	2	-405.064	* 55.737	-64.224	* 22.3	-4	0 1.3	4/0	2271	45320
* 01/05 10H16 12H11	*C08 15	* 43.562	1.477	99	1	-408.034	* 44.220	-6.809	* 2.8	-4	0 0.1	4/0	2271	44959
* 01/05 10H16 12H11	*C08 14	* 43.562	1.477	99	1	-408.034	* 44.228	-6.826	* 2.8	-4	0 0.1	4/0	2271	44965
* 01/05 10H28 10H37	*S04 12	* 43.557	1.488	97	1	-407.072	* 42.119	8.549	* 2.5	4	0 0.2	4/0	2271	44819
* 01/05 10H28 20H23	*S04 9	* 43.560	1.476	96	2	-407.029	* 42.158	9.077	* 2.5	-4	0 0.1	4/0	2271	45568
* 01/05 10H28 20H23	*S04 13	* 43.558	1.482	97	1	-407.023	* 42.146	8.559	* 2.5	-4	0 0.2	4/0	2271	45566
* 01/05 10H28 20H23	*S04 8	* 43.556	1.487	92	1	-408.066	* 42.137	8.379	* 2.5	-4	0 0.2	4/0	2271	45571
* 01/05 10H28 20H23	*S04 15	* 43.558	1.481	98	1	-407.021	* 42.126	8.586	* 2.5	-4	0 0.2	4/0	2271	45574
* 01/05 10H30 10H35	*S08 2	* .....	.....	..	...	0 .....	* .....	.....	* .....	4 9.	.....	...	2272	44766
* 01/05 10H31 10H35	*S08 3	* 43.561	1.475	50	18	-409.038	* 57.941	81.527	* 26.0	4	0 0.0	1/0	2272	44763
* 01/05 10H31 12H18	*S08 3	* 43.563	1.481	50	18	-409.038	* 57.937	81.532	* 26.0	-4	0 0.0	1/0	2272	45006
* 01/05 10H31 13H59	*S08 3	* 43.559	1.479	50	18	-408.012	* 57.937	81.519	* 26.0	-4	0 0.0	1/0	2271	45165
* 01/05 10H31 13H59	*S08 3	* 43.559	1.479	50	18	-408.012	* 57.937	81.519	* 26.0	-4	0 0.0	1/0	2271	45162
* 01/05 10H31 13H59	*S08 3	* 43.559	1.479	50	18	-408.012	* 57.937	81.519	* 26.0	-4	0 0.0	1/0	2271	45169
* 01/05 10H31 13H59	*S08 3	* 43.559	1.479	50	18	-408.012	* 57.937	81.519	* 26.0	-4	0 0.0	1/0	2271	45176
* 01/05 12H03 12H11	*C08 4	* 44.465	0.309	2	99	-693.137.6	* 48.728	-62.277	* 19.6	4 1 2	55.0	1/0	2271	44960
* 01/05 12H03 12H11	*C08 11	* 43.560	1.475	98	1	-405.035	* 48.293	-62.664	* 20.8	4	0 0.4	4/0	2271	44966
* 01/05 12H03 12H11	*C08 11	* 43.563	1.477	97	2	-406.042	* 48.007	-62.468	* 20.8	4	0 0.7	4/0	2271	44972
* 01/05 12H03 19H35	*C08 13	* 43.554	1.467	98	1	-406.118	* 48.109	-62.681	* 20.8	-4	0 0.5	4/0	2271	45469
* 01/05 12H08 20H23	*S04 15	* 43.560	1.479	98	1	-405.005	* 51.514	-38.885	* 14.6	-4	0 0.5	4/0	2271	45569
* 01/05 12H08 20H23	*S04 15	* 43.560	1.479	98	1	-405.005	* 51.514	-38.885	* 14.6	-4	0 0.5	4/0	2271	45567
* 01/05 12H08 20H23	*S04 10	* 43.554	1.481	95	1	-407.058	* 51.303	-39.244	* 14.6	-4	0 0.6	4/0	2271	45572
* 01/05 12H08 20H23	*S04 5	* 43.541	1.523	88	1	-398.405	* 51.764	-40.021	* 14.7	-4	1 0.4	4/0	2271	45575
* 01/05 12H10 12H18	*S08 13	* 43.562	1.483	99	1	-408.042	* 49.535	31.580	* 11.1	4	0 0.2	4/0	2272	45007

*01/05 12H10 13H59	*S08 13	* 43.558	1.472	99	1	-407 0.58	* 49.534	31.567	* 11.1	-4	0 0.2	4/0	2271	45170
*01/05 12H10 13H59	*S08 13	* 43.558	1.472	99	1	-407 0.58	* 49.534	31.567	* 11.1	-4	0 0.2	4/0	2271	45166
*01/05 12H10 13H59	*S08 13	* 43.558	1.472	99	1	-407 0.58	* 49.534	31.567	* 11.1	-4	0 0.2	4/0	2271	45163
*01/05 12H10 13H59	*S08 6	* 43.542	1.444	78	2	-411 3.42	* 49.617	32.360	* 11.1	-4	1 0.6	4/0	2271	45173
*01/05 12H10 13H59	*S08 7	* 43.560	1.478	97	1	-407 0.13	* 49.337	31.768	* 11.1	-4	0 0.4	4/0	2271	45177
*01/05 12H35 12H42	*C09 3	* 43.563	1.477	50	3	-409 0.48	* 49.702	36.170	* 12.6	4	0 0.0	1/0	2271	45087
*01/05 13H50 13H59	*S08 10	* 43.559	1.477	98	1	-409 0.23	* 40.125	-16.000	* 6.5	4	0 0.2	4/0	2271	45171
*01/05 13H50 13H59	*S08 4	* 43.551	1.456	26	6	-411 2.07	* 40.207	-16.041	* 6.5	4	1 2.3	3/0	2271	45167
*01/05 13H50 13H59	*S08 12	* 43.559	1.478	98	1	-409 0.15	* 40.070	-16.067	* 6.5	4	0 0.2	4/0	2271	45174
*01/05 13H50 13H59	*S08 7	* 43.559	1.488	77	2	-408 0.72	* 40.121	-15.558	* 6.5	4	1 0.4	4/0	2271	45178
*01/05 13H50 00H37	*S08 16	* 43.560	1.485	99	1	-408 0.42	* 40.000	-16.093	* 6.5	-4	0 0.2	4/0	2271	45739
*01/05 14H12 14H20	*C09 6	* 43.558	1.479	99	1	-408 0.19	* 41.253	-10.645	* 4.4	4	0 0.1	4/0	2272	45230
*01/05 15H32 00H37	*S08 3	* 43.560	1.479	50	33	-408 0.04	* 30.470	-63.307	* 25.0	-4	0 0.0	1/0	2271	45740
*01/05 15H50 15H59	*S06 15	* 43.561	1.486	97	1	-409 0.55	* 45.578	11.311	* 3.8	4	0 0.3	4/0	2271	45256
*01/05 16H29 16H34	*S07 6	* 43.546	1.482	95	2	-403 1.53	* 55.318	66.141	* 22.0	4	0 1.1	4/0	2271	45325
*01/05 16H29 18H16	*S07 6	* 43.547	1.484	95	2	-403 1.50	* 55.317	66.146	* 22.0	-4	0 1.1	4/0	2271	45404
*01/05 17H31 17H39	*S06 12	* 43.560	1.480	98	1	-403 0.06	* 35.631	-35.794	* 14.3	4	0 0.4	4/0	2271	45357
*01/05 18H07 18H16	*S07 11	* 43.559	1.481	98	1	-399 0.13	* 46.687	17.635	* 6.1	4	0 0.2	4/0	2271	45405
*01/05 18H07 19H56	*S07 13	* 43.558	1.482	99	1	-400 0.22	* 46.709	17.624	* 6.1	-4	0 0.2	4/0	2272	45502
*01/05 18H07 06H29	*S07 8	* 43.555	1.475	87	2	-400 0.62	* 46.768	18.030	* 6.1	-4	1 0.3	4/0	2271	46095
*01/05 18H07 06H29	*S07 7	* 43.559	1.480	99	1	-400 0.09	* 46.658	17.446	* 6.1	-4	0 0.2	4/0	2271	46098
*01/05 18H07 06H29	*S07 13	* 43.558	1.481	99	1	-400 0.18	* 46.709	17.624	* 6.1	-4	0 0.2	4/0	2271	46093
*01/05 18H07 06H29	*S07 11	* 43.558	1.481	98	1	-400 0.20	* 46.687	17.634	* 6.1	-4	0 0.2	4/0	2271	46101
*01/05 19H26 19H35	*C08 6	* 43.560	1.478	93	2	-396 0.10	* 47.476	51.674	* 16.8	4	0 1.1	4/0	2271	45470
*01/05 19H26 21H23	*C08 6	* 43.560	1.478	93	2	-396 0.10	* 47.476	51.674	* 16.8	-4	0 1.1	4/0	2271	45607
*01/05 19H47 19H56	*S07 15	* 43.559	1.492	97	1	-398 1.01	* 37.343	-29.701	* 11.8	4	0 0.6	4/0	2272	45503
*01/05 19H47 06H29	*S07 15	* 43.562	1.488	97	1	-398 0.79	* 37.346	-29.704	* 11.8	-4	0 0.6	4/0	2271	46094
*01/05 19H47 06H29	*S07 15	* 43.562	1.488	97	1	-398 0.79	* 37.346	-29.704	* 11.8	-4	0 0.6	4/0	2271	46096
*01/05 19H47 06H29	*S07 15	* 43.562	1.488	97	1	-398 0.79	* 37.346	-29.704	* 11.8	-4	0 0.6	4/0	2271	46099
*01/05 20H12 20H23	*S04 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	4 9.	....	...	2271	45580
*01/05 20H15 20H23	*S04 6	* 43.558	1.482	85	2	-395 0.28	* 50.691	38.946	* 13.5	4	0 1.7	4/0	2271	45570
*01/05 20H15 20H23	*S04 12	* 43.559	1.483	99	1	-395 0.28	* 50.952	38.628	* 13.5	4	0 0.3	4/0	2271	45573
*01/05 20H15 22H04	*S04 13	* 43.559	1.482	99	1	-396 0.26	* 50.987	38.621	* 13.5	-4	0 0.3	4/0	2271	45640
*01/05 21H13 21H23	*C08 15	* 43.563	1.479	79	5	-393 0.37	* 43.219	-2.691	* 1.7	4	0 0.9	4/0	2271	45608
*01/05 21H13 23H05	*C08 15	* 43.560	1.479	79	5	-393 0.06	* 43.216	-2.691	* 1.7	-4	0 0.9	4/0	2271	45660
*01/05 21H55 22H04	*S04 15	* 43.560	1.491	86	3	-396 0.92	* 41.476	-8.914	* 3.8	4	0 1.4	4/0	2271	45641
*01/05 21H55 23H43	*S04 19	* 43.561	1.487	90	3	-396 0.61	* 41.438	-8.954	* 3.8	-4	0 1.0	4/0	2271	45679
*01/05 22H58 23H05	*C08 9	* 43.555	1.481	97	1	-396 0.51	* 39.652	-52.476	* 20.8	4	0 0.4	4/0	2271	45661
*01/05 23H37 23H43	*S04 8	* 43.557	1.485	94	2	-394 0.56	* 31.575	-55.995	* 22.2	4	0 1.2	4/0	2271	45680
*01/05 23H37 08H39	*S04 8	* 43.555	1.481	94	2	-394 0.56	* 31.576	-56.004	* 22.2	-4	0 1.2	4/0	2272	46229
*02/05 00H26 04H00	*S08 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	-4 9.	....	...	2272	45939
*02/05 00H30 00H37	*S08 5	* 43.562	1.470	80	3	-392 0.84	* 32.718	53.284	* 20.2	4	1 2.8	4/0	2271	45741
*02/05 00H30 02H21	*S08 5	* 43.560	1.475	80	3	-392 0.35	* 32.713	53.285	* 20.2	-4	1 2.8	4/0	2271	45788
*02/05 00H30 04H00	*S08 5	* 43.563	1.477	80	3	-393 0.41	* 32.714	53.287	* 20.2	-4	1 2.8	4/0	2272	45931
*02/05 00H30 04H00	*S08 3	* 43.560	1.480	50	27	-394 0.05	* 32.730	53.415	* 20.2	-4	1 0.0	1/0	2272	45934
*02/05 02H09 02H16	*C09 4	* 43.559	1.496	60	1	-391 1.31	* 39.995	21.205	* 7.4	4	1 0.3	4/0	2272	45776
*02/05 02H11 02H21	*S08 15	* 43.558	1.485	99	1	-393 0.51	* 42.540	6.558	* 1.8	4	0 0.1	4/0	2271	45789
*02/05 02H11 04H00	*S08 17	* 43.557	1.488	99	1	-394 0.79	* 42.540	6.580	* 1.8	-4	0 0.1	4/0	2272	45932
*02/05 02H11 04H00	*S08 17	* 43.557	1.488	99	1	-394 0.79	* 42.540	6.580	* 1.8	-4	0 0.1	4/0	2272	45935
*02/05 03H25 05H19	*C06 11	* 43.557	1.509	92	3	-394 2.41	* 43.426	3.046	* 0.8	-4	0 0.2	4/0	2271	45987
*02/05 03H52 04H00	*S08 4	* 43.549	1.502	96	1	-399 2.19	* 51.547	-41.791	* 15.4	4	1 0.1	4/0	2272	45937
*02/05 03H52 04H00	*S08 8	* 43.560	1.483	98	1	-394 0.32	* 52.100	-41.758	* 15.4	4	0 0.3	4/0	2272	45933
*02/05 03H52 04H00	*S08 10	* 43.560	1.482	99	1	-394 0.20	* 52.039	-41.458	* 15.4	4	0 0.2	4/0	2272	45936
*02/05 04H10 04H18	*S06 10	* 43.560	1.479	98	1	-395 0.05	* 36.426	35.521	* 13.0	4	0 0.4	4/0	2271	45949
*02/05 05H11 05H19	*C06 7	* 43.559	1.478	99	1	-396 0.08	* 47.674	-51.554	* 17.6	4	0 0.3	4/0	2271	45988
*02/05 05H44 05H52	*S03 13	* 43.562	1.471	97	2	-397 0.72	* 46.927	-15.893	* 6.6	4	0 0.6	4/0	2271	46001
*02/05 06H18 06H29	*S07 2	* .....	.....	..	...	0 .....	* .....	.....	* ....	4 9.	....	...	2271	46103
*02/05 06H22 06H29	*S07 7	* 43.561	1.480	96	2	-400 0.19	* 35.321	42.015	* 15.6	4	0 0.7	4/0	2271	46097

Zones géographiques BORDE/MARSA numero de dossier xxx

Nombre total de lignes (localisées + détectées) : 439 + 36 = 475

Nombre de localisées : 439

Nombre de balises-passage : 178

Nombre de localisations uniques : 164

Date première loc : 27/04/2001 11:12

Date dernière loc : 02/05/2001 08:32

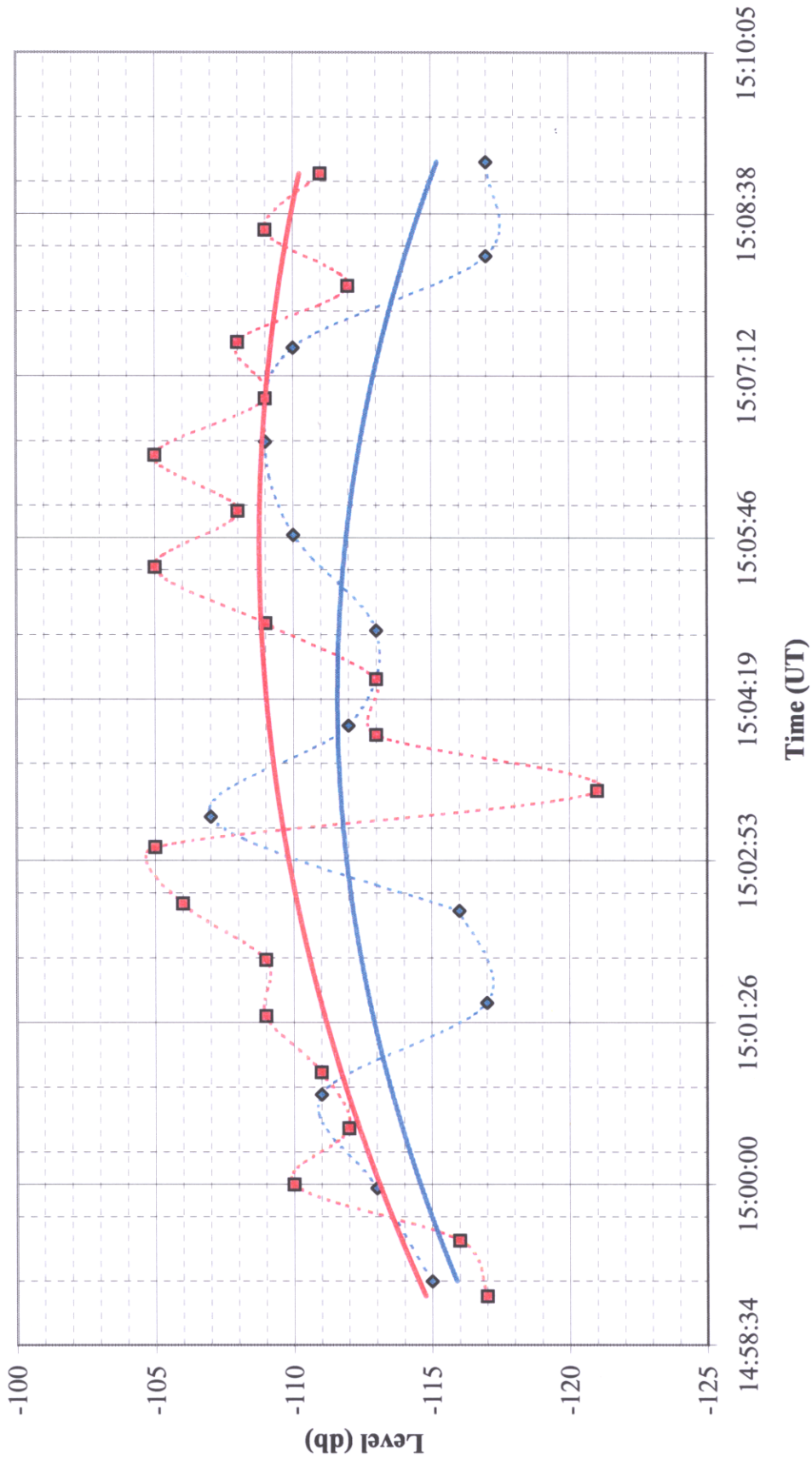
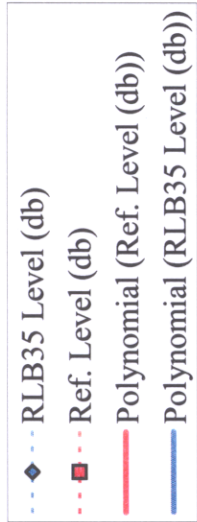
Durée de l'émission : 117H 20mn

Reference pour calcul des erreurs : lat=+43.560 long= +1.479

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29/04/2001	14:59:08	96ee2ec0017fdff8000037 83e0f000	-115	S3
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29/04/2001	15:00:48	96ee2ec0017fdff8000037 83e0f000	-111	S3
29/04/2001	15:01:37	96ee2ec0017fdff8000037 83e0f000	-117	S3
29/04/2001	15:02:26	96ee2ec0017fdff8000037 83e0f000	-116	S3
29/04/2001	15:02:26	96ee2ec0017fdff8000037 83e0f000	-116	S3
29/04/2001	15:03:16	96ee2ec0017fdff8000037 83e0f000	-107	S3
29/04/2001	15:04:05	96ee2ec0017fdff8000037 83e0f000	-112	S3
29/04/2001	15:04:56	96ee2ec0017fdff8000037 83e0f000	-113	S3
29/04/2001	15:05:47	96ee2ec0017fdff8000037 83e0f000	-110	S3
29/04/2001	15:06:37	96ee2ec0017fdff8000037 83e0f000	-109	S3
29/04/2001	15:07:27	96ee2ec0017fdff8000037 83e0f000	-110	S3
29/04/2001	15:08:16	96ee2ec0017fdff8000037 83e0f000	-117	S3
29/04/2001	15:09:06	96ee2ec0017fdff8000037 83e0f000	-117	S3

Date	U. T.	ORBITO REF MESSAGE (without FFFE2F)	Ref. Level (db)	Sarsat Sat
29/04/2001	14:59:00	ce300000000000dbd0e48 31934590	-117	S3
29/04/2001	14:59:30	ce300000000000dbd0e40 11914593	-116	S3
29/04/2001	15:00:00	ce300000000000dbd0e40 11915000	-110	S3
29/04/2001	15:00:30	ce300000000000dbd0e40 11915003	-112	S3
29/04/2001	15:01:00	ce300000000000dbd0e40 11915010	-111	S3
29/04/2001	15:01:30	ce300000000000dbd0e40 11915013	-109	S3
29/04/2001	15:02:00	ce300000000000dbd0e40 11915020	-109	S3
29/04/2001	15:02:30	ce300000000000dbd0e40 11915023	-106	S3
29/04/2001	15:03:00	ce300000000000dbd0e40 11915030	-105	S3
29/04/2001	15:03:30	ce300000000000dbd0e40 11915033	-121	S3
29/04/2001	15:04:00	ce300000000000dbd0e40 11915040	-113	S3
29/04/2001	15:04:30	ce300000000000dbd0e40 11915043	-113	S3
29/04/2001	15:05:00	ce300000000000dbd0e40 11915050	-109	S3
29/04/2001	15:05:30	ce300000000000dbd0e40 11915053	-105	S3
29/04/2001	15:06:00	ce300000000000dbd0e40 11915060	-108	S3
29/04/2001	15:06:30	ce300000000000dbd0e40 11915063	-105	S3
29/04/2001	15:07:00	ce300000000000dbd0e40 11915070	-109	S3
29/04/2001	15:07:30	ce300000000000dbd0e40 11915073	-108	S3
29/04/2001	15:08:00	ce300000000000dbd0e40 11915080	-112	S3
29/04/2001	15:08:30	ce300000000000dbd0e40 11915083	-109	S3
29/04/2001	15:09:00	ce300000000000dbd0e40 11915090	-111	S3

Level comparative - 16 June 2000 Satellite S4



ANTENNA TEST RESULTS ON
RLB35 ACR Electronics, Inc.
N° 7

1 - ADMINISTRATION

1. WORK ORDER : Reference ITS : M3223_C-S
1. TEST TEAM : J. COMMENGES
1. SCHEDULE : 16 May 2001

2 - PURPOSE

The radiation tests of the dedicated radio beacon are performed in INTESPACE EMC Laboratory in compliance with the test methods described in the COSPAS-SARSAT 406 MHz distress beacon type approval standard : C/S T 007- Issue 3 Revision 5 October 1998 .

3 - RADIO BEACON IDENTIFICATIONS

- Manufacturer : ACR Electronics, Inc.
- Model N° : RLB35
- Serial N° : 7
- Antenna : ACR Antenna A3-06-1791-1 quarter wave

4 - TEST SITE DESCRIPTION

Tests are performed in an anechoic chamber (size 16 m x 10 m x 11 m)
Walls, ceiling and doors are lined with EMERSON CUMING foams VHP 36 and VHP 26 type.
The EPIRB is placed as shown on figure N° 1 and N° 2.

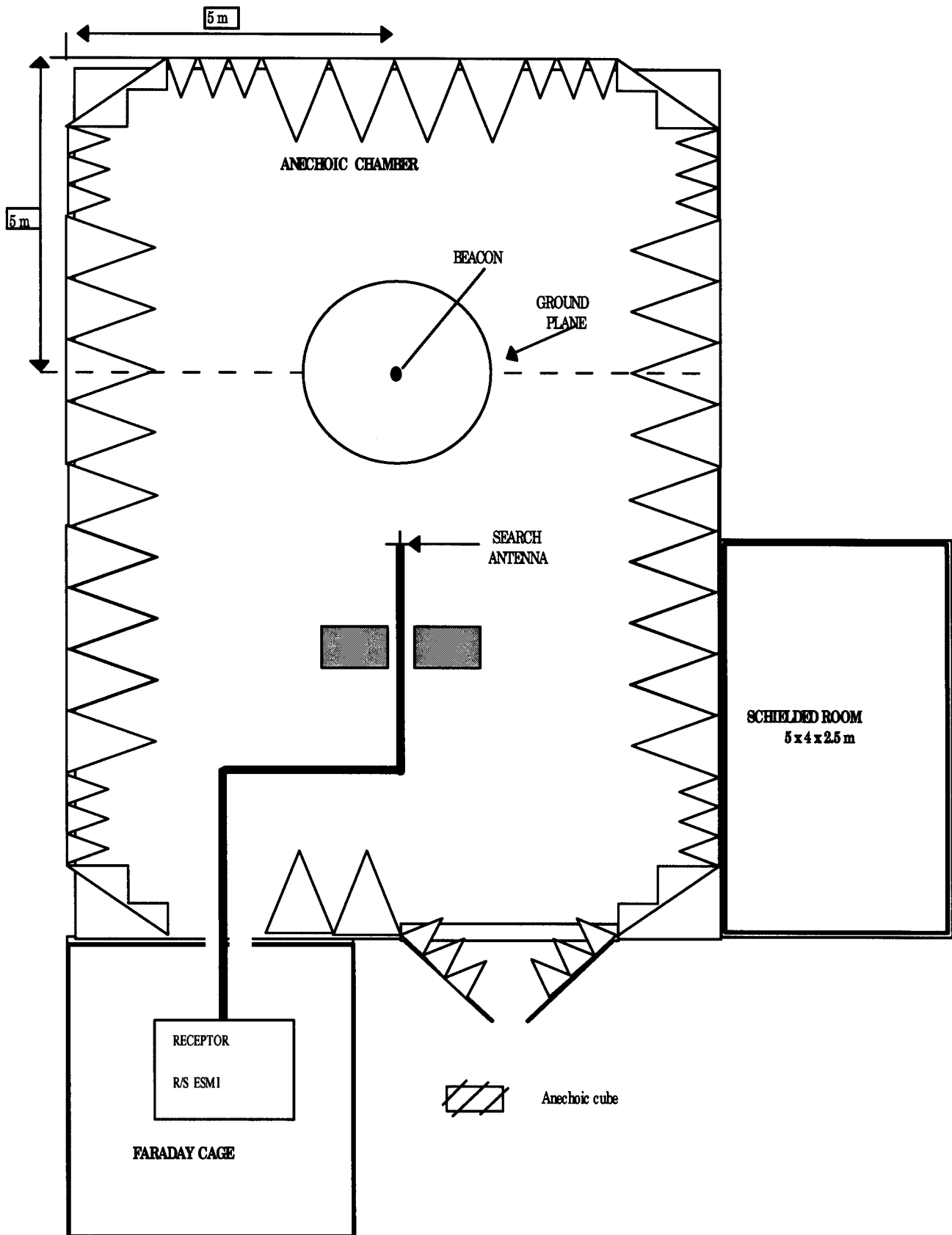


FIGURE 1

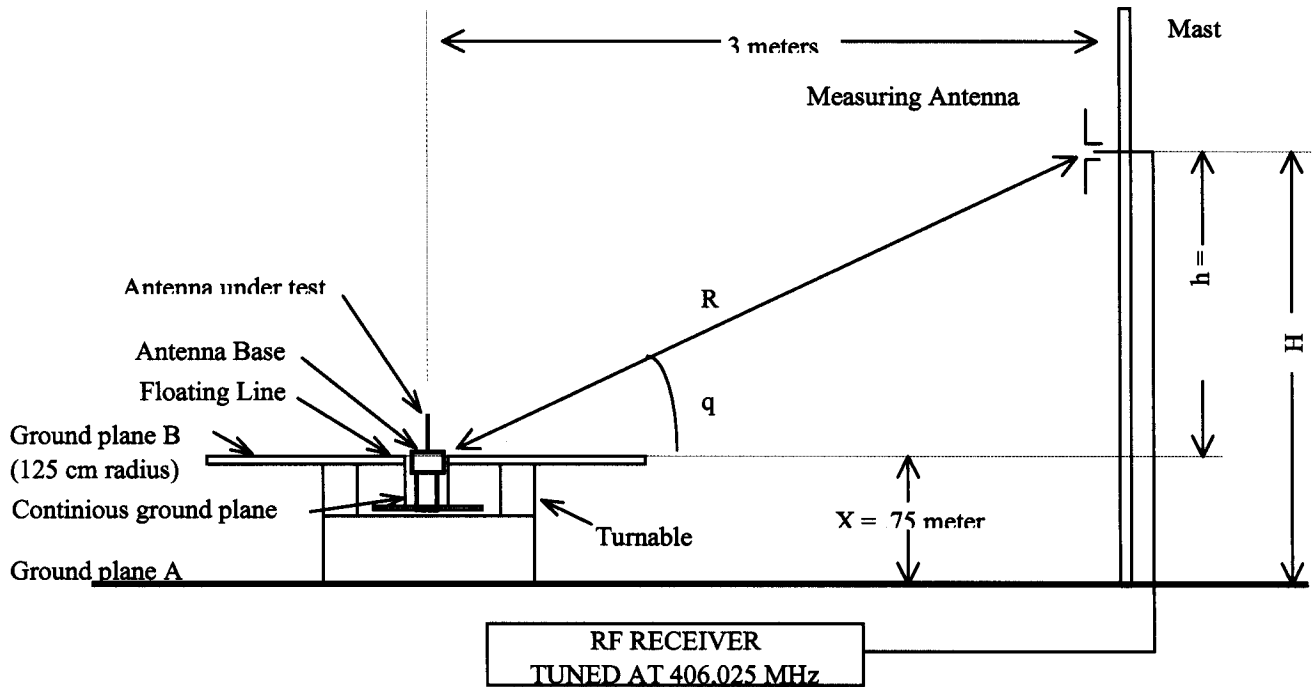


FIGURE B2c : Equipement Test Set Up For BEACON Antenna Test
(For BEACON designed for normal operation in water, ex: EPIRB)

5 - TEST METHOD

The test method describes here after, according to "C/S T 007 - Issue 3 -Revision 5 - October 1998" test sequences is executed for 406 MHz frequency .

Following measurements are performed :

- 1/ Electrical ground plane of 1.25 m of radius is placed at flotation level of the beacon.
- 2/ EPIRB transmitting antenna polarization is determined prior to test.
- 3/ Determination of E field strength in term of dB μ V/m at 3 m far from the EPIRB for all direction (0° to 360° by step of 30°) and for search antenna elevation (10° to 50°). Search antenna is left in vertical position for the linear polarization vertical and for all elevations . Lenght of search antenna is adjusted to proper $1/2 \lambda$ conditions .
- 4/ An ERP (Equivalent Radiated Power) from the PLB is calculated
- 5/ ERP is corrected with EOL (end of life factor)
- 6/ Actual ERP are compared to specified ERP to be in the range 1.6 W to 20 W (+ 32 dBm to + 43 dBm).

6 - TESTS EQUIPMENTS

6.1. SEARCH ANTENNA

- 406 MHz test : EMCO Ref 3121 C- DB4 Dipole antenna
Serial number : S/N 763

6.2. SPECTRUM ANALYSER

- R/S ESMI

6.3. CABLES

- 20 m cable SUCOFLEX type 100 - cable loss at 406 MHz is : 3,4 dB

7 - TESTS OPERATIONS

7.1. EMISSION FIELD STRENGTH FROM EPIRB

The electrical field intensity is measured with the following antenna :

- EMCO 3121 C - DB4 - SN- 763

EPIRB electric field strength is obtained from measurement of the output voltage (dB μ V RMS) at antenna port (typical set up are shown figure N° 3 for 406 MHz) and computed with following parameters :

- Antenna factor of search antenna AF in dB (manufacturer calibration) showing table N° 1.
- Directivity factor of the antenna Dm in dB (Theoretical directivity shown paragraph B-5-4 of C/S T007) as :

$$Dm = 20 \log [\cos (90 \times \sin q) / \cos q]$$

- Cable loss L = 3,4 dB at 406 MHz
- DF : distance factor in dB - To calculate field at a constant distance (3 m) from EPIRB due to the elevation of the search antenna.
- Power correction factor : end of life correction factor EOL is calculated from the difference between RF power measured during test and end of life power after 48 hours operation. This factor is applied to correct ERP as shown on final test result table
- The measurements are performed on the carrier signal, just before to apply the modulation.
- The effective field strength at 3 m from EPIRB is computed from :

$$EdB\mu V/m = UdB\mu V + AF + Dm + L + DF$$

7.2. POWER CORRECTION FACTORS

EOL factor

TEST FREQUENCY	RF Power measured at Ambient Temp. Test	RF Power measured at the end of Operating Lifetime Test	Loss Factor ERP _{LOSS}
406 MHz	37,5 dBm	36,0 dBm	1,5 dB

8 - RADIATED POWER CALCULATIONS

8.1. EFFECTIVE RADIATED POWER OF EPIRB

ERP of EPIRB is directly calculated from equation :

$$ERP = E^2 \times D^2 / 30$$

$$ERP = W$$

$$E = V/m$$

$$D = m$$

Results shown in table N° C1 are given in dBm where :

$$ERP \text{ dBm} = 10 \log (ERP \text{ W}) + 30$$

and apparent antenna gain :

$$GidB = ERPdBm - RF \text{ PowerdBm}$$

9 - SUCCESS CRITERIA

90% of EPIRB measurements must be equal or greater than 1,6 W ERP (32 dBm) .
and less than 20 W ERP (43 dBm)

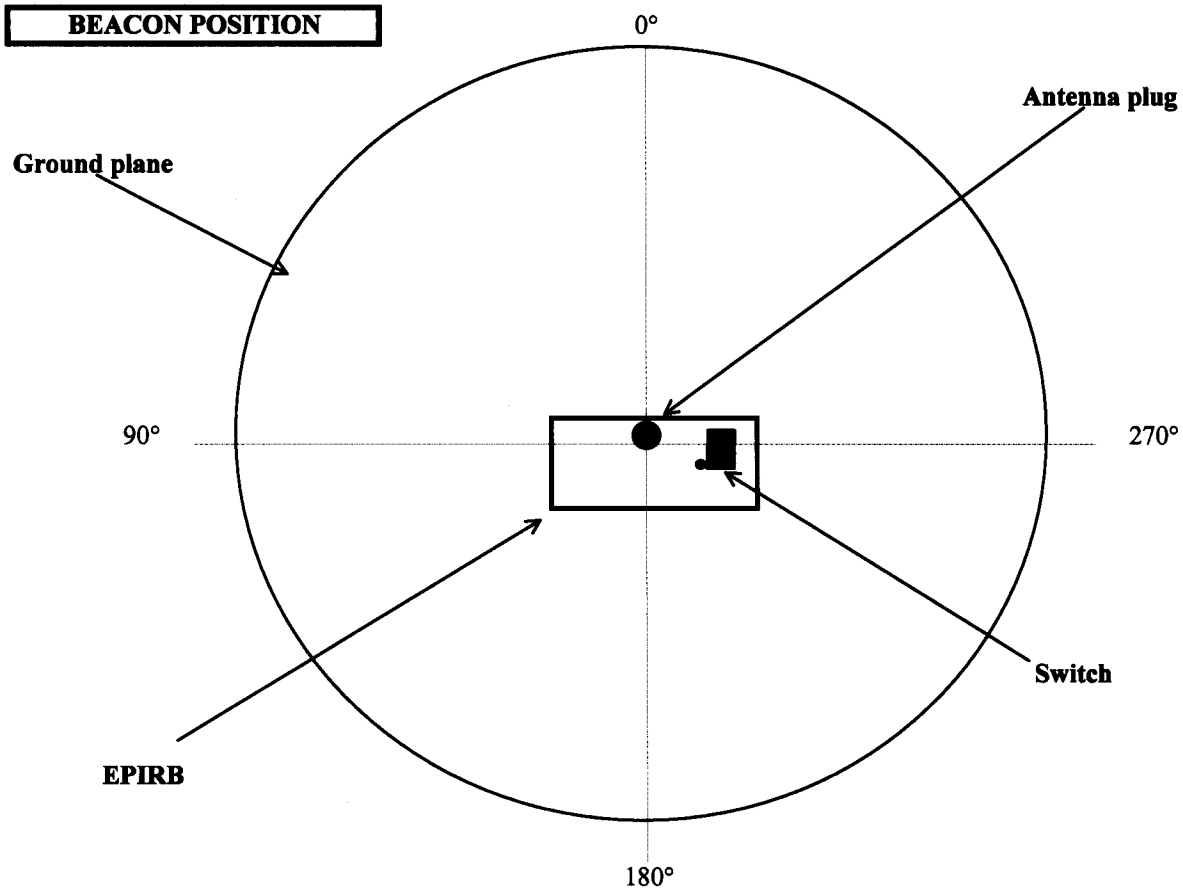
10 - EPIRB ANTENNA POLARIZATION

EPIRB antenna polarization is checked according to C/S T007 procedure paragraph B9 EPIRB antenna polarization is declared vertical when measurement obtained with vertical polarization search antenna are 10 dB greater or more than measurement obtained with

Antenna model	Angle Azi / Elev	Vertical measurement dBμV	Horizontal measurement dBμV	Δ	Antenna Polarization
	0°/10°	111,4	85	26,4 dB	Vertical

11 - EPIRB MECHANICAL SET UP

EPIRB 0° axis is identified with 0° azimuth direction of turn table .
Antenna is the center of rotation of azimuth angle.



NOT TO SCALE

12 - RESULTS

Test frequency	Polarization	Reference ERP (W)	Measurement ERP
406 MHz	Vertical	$1.6 < \text{ERP Ref} < 20$	According table C1

CONCLUSIONS

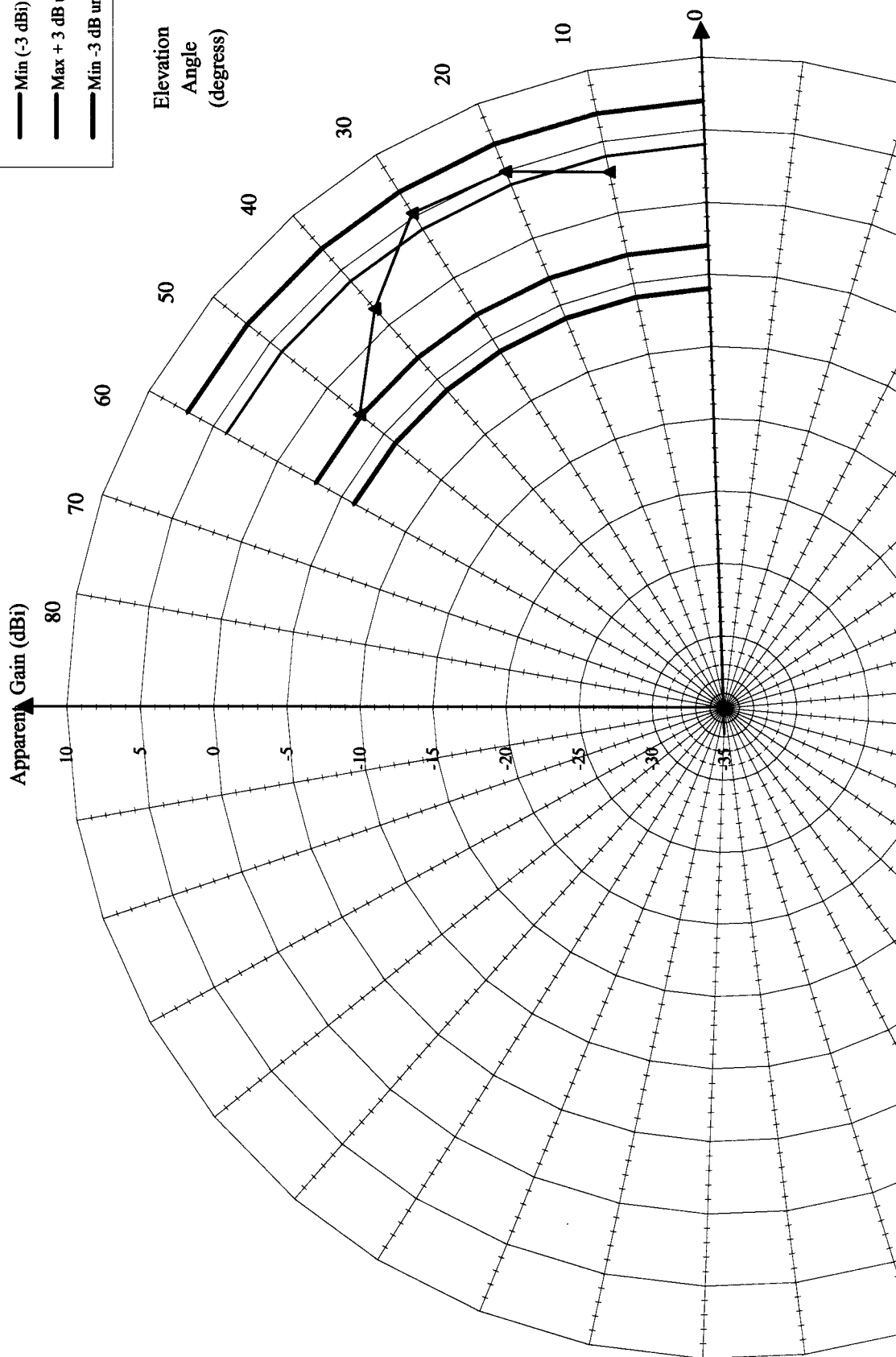
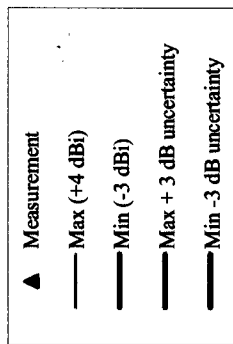
The ERP Beacon is always greater than the ERP reference.

Table C1 : EFFECTIVE RADIATED POWER (dBm) / ANTENNA GAIN (dBi)

Azimuth Angle (Degrees)	Elevation Angle (Degrees)				
	10	20	30	40	50
	dBm / dBi	dBm / dBi	dBm / dBi	dBm / dBi	dBm / dBi
0	40,40 ' 3,10	42,29 ' 4,99	42,48 ' 5,18	38,55 ' 1,25	34,26 ' -3,04
30	40,30 ' 3,00	42,39 ' 5,09	42,48 ' 5,18	38,55 ' 1,25	34,16 ' -3,14
60	40,20 ' 2,90	42,49 ' 5,19	42,48 ' 5,18	38,35 ' 1,05	34,06 ' -3,24
90	40,10 ' 2,80	42,49 ' 5,19	42,58 ' 5,28	38,45 ' 1,15	34,06 ' -3,24
120	40,00 ' 2,70	42,49 ' 5,19	42,78 ' 5,48	38,85 ' 1,55	34,26 ' -3,04
150	40,20 ' 2,90	42,39 ' 5,09	42,78 ' 5,48	39,05 ' 1,75	34,36 ' -2,94
180	40,30 ' 3,00	42,29 ' 4,99	42,78 ' 5,48	39,15 ' 1,85	34,66 ' -2,64
210	40,20 ' 2,90	42,09 ' 4,79	42,68 ' 5,38	39,15 ' 1,85	34,86 ' -2,44
240	40,00 ' 2,70	42,19 ' 4,89	42,68 ' 5,38	39,05 ' 1,75	34,86 ' -2,44
270	40,20 ' 2,90	41,99 ' 4,69	42,58 ' 5,28	38,85 ' 1,55	34,56 ' -2,74
300	40,00 ' 2,70	42,09 ' 4,79	42,68 ' 5,38	38,85 ' 1,55	34,66 ' -2,64
330	40,10 ' 2,80	42,39 ' 5,09	42,58 ' 5,28	38,75 ' 1,45	34,56 ' -2,74
Average	40,18 ' 2,88	42,30 ' 5,00	42,62 ' 5,32	38,78 ' 1,48	34,44 ' -2,86
Overall Gain Variation	0,40 dB	0,50 dB	0,30 dB	0,80 dB	0,80 dB

$$ERP_{\max \text{ EOL}} = \text{MAX} [ERP_{\max}, (ERP_{\max} - ERP_{\text{LOSS}})] = \text{MAX} (\underline{42,78} , \underline{1,50}) = \underline{41,28 \text{ dBm}}$$

$$ERP_{\min \text{ EOL}} = \text{MIN} [ERP_{\min}, (ERP_{\min} - ERP_{\text{LOSS}})] = \text{MIN} (\underline{34,06} , \underline{1,50}) = \underline{32,56 \text{ dBm}}$$



**BEACON CODING SOFTWARE AND
NAVIGATION SYSTEM TEST ON
RLB35 ACR Electronics, Inc.
N° 7**

Reference position ITS Lab :

Date : 08-juin-01

Default position : Correct

Time of first GPS location : 00:02:31

Time	Latitude	Longitude	Def.	Delta	BCH1 read./calcul.	BCH2 read./calcul.
09:31:37	127,75° 0' 60" E	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
09:32:28	127,75° 0' 60" E	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
09:33:18	127,75° 0' 60" E	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
09:34:09	43° 33' 32" N	1° 28' 40" E		0,00 km	087645/087645	3E8/3E8

Updating GPS location

Date : 21-juin-01

Reference position :

N° 1	Lanta:	43° 33' 36" N 01° 39' 48" E
N° 2	Lauzerville :	43° 33' 14" N 01° 34' 14" E
N°3	CNES-Poincaré	43° 33' 26" N 01° 28' 57" E

Results :

No updating message before 20 min. : Correct

Time of first update GPS location : 00:21:46

Time of second update GPS location : 00:22:30

No updating with encoded position : No available

Ref. Pos	Time	Latitude	Longitude	Def.	Delta	BCH1 read./calcul.	BCH2 read./calcul.
N° 1	7:13:12	43° 33' 36" N	1° 39' 40" E		0,24 km	030732 / 030732	190 / 190
		FFFE2F96EE2EC0012C0040C1CCB769945190					
N° 2	07:34:58	43° 33' 26" N	1° 34' 12" E		0,37 km	030732 / 030732	853 / 853
		FFFE2F96EE2EC0012C0040C1CCB76AD9C853					
N° 3	07:57:28	43° 33' 28" N	1° 28' 52" E		0,16 km	087645 / 087645	625 / 625
		FFFE2F96EE2EC0012C00221D91776A3CD625					

Tests of default position**Beacon without navigation input.**

Date : 08-juin-01

Always default value after 30 min. : Correct

Time	Latitude	Longitude	Def.	Delta	BCH1 lu/calculé	BCH2 lu/calculé
10:37:52	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:38:43	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:39:33	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:40:24	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:41:13	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:42:05	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:42:56	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:43:46	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:44:38	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:45:29	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:46:18	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:47:09	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:47:59	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:48:50	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:49:41	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:50:31	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:51:23	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:52:14	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:53:04	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:53:54	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:54:43	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:55:33	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:56:23	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:57:13	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:58:04	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:58:54	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
10:59:43	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
11:00:33	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
11:01:22	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
11:02:13	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
11:03:03	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
11:03:52	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
11:04:43	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
11:05:33	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
11:06:22	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
11:07:13	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
11:08:01	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C

Default Pos Message : FFFE2F96EE2EC0017FDFFC0A6D3783E0F66C

Navigation input after 30 min beacon whithout navigation system

Date : 08-juin-01

Default position at first emission : Correct

Updating message after 30 min. : 00:01:44

Time	Latitude	Longitude	Def.	Delta	BCH1 read./calcul.	BCH2 read./calcul.
11:10:40	127,75° 0' 60" E	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
11:11:29	127,75° 0' 60" E	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C
11:12:24	43° 33' 32" N	1° 28' 44" E		0,00 km	087645 / 087645	6D1/6D1

Last position GPS retained without navigation signal

Date : 12-juin-01

Valid position retained after 4 hours. : 04:00:05

Time	Latitude	Longitude	Def.	Delta	BCH1 read./calcul.	BCH2 read./calcul.
15:07:09	43° 33' 36" N	1° 28' 44" E		0,00 km	087645/087645	BFB/BFB
15:08:00	43° 33' 36" N	1° 28' 44" E		0,00 km	087645/087645	BFB/BFB
15:08:51	43° 33' 36" N	1° 28' 44" E		0,00 km	087645/087645	BFB/BFB
OK ↓	OK ↓	OK ↓		OK ↓	OK ↓	OK ↓
19:05:34	43° 33' 36" N	1° 28' 44" E		0,00 km	087645/087645	BFB/BFB
19:06:23	43° 33' 36" N	1° 28' 44" E		0,00 km	087645/087645	BFB/BFB
19:07:14	43° 33' 36" N	1° 28' 44" E		0,00 km	087645/087645	BFB/BFB

Default value position with beacon restart without navigation input : Correct

Time	Latitude	Longitude	Def.	Delta	BCH1 read./calcul.	BCH2 read./calcul.
19:15:08	127,75° 0' 60" N	255,75° 0' 60" E	*		1029B4/1029B4	66C/66C

ANNEX A
MANUFACTURER DOCUMENTATION ON
RLB35 ACR Electronics, Inc.

APPLICATION FOR A COSPAS – SARSAT 406 MHz BEACON TYPE APPROVAL CERTIFICATE

Beacon Manufacturer: ACR Electronics, Inc.Beacon Model: RLB-35Name and Location of Beacon Test Facility: Intespace / CNES ToulouseBeacon Type: Aviation: ☐ Land: ☐ Maritime: ☒Specified Operating Temperature Range: -40°C to +55°CSpecified Operating Lifetime: 24 hr. ☐ 48 hr. ☒ Other ☐ Specify: _____**Beacon Battery Type(s):**Chemistry: LiSO₂Manufacturer & model No: SAFT LO26SXSize & number of cells: 3 Cells, D size

Extra Features in Beacon:	No	Yes	Details
a) Auxiliary Radio-Locating Device:	☐	☒	Frequency: <u>121.5 MHz</u> Power: <u>17 dBm</u> Tx. Duty Cycle: <u>37.0% Cont.</u>
b) Transmits Encoded Position Data:	☐	☒	Nav. Device (Internal or External) <u>Internal</u> Type (GPS, GLONASS, etc.) <u>GPS</u> Manufacturer <u>Axiom Navigation</u> Model <u>Swift A1</u>
c) Transmits Long Message (144 bits):	☐	☒	
d) Automatic Activation:	☐	☒	
e) Built-in Strobe Light:	☐	☒	Intensity: <u>>= 0.75 cd</u> Flash rate: <u>21</u>
f) Self-test mode	☐	☒	
g) Other:	☐	☐	Specify: _____

I hereby confirm that the 406 MHz beacon described above has been successfully tested in accordance with the Cospas-Sarsat Type Approval Standard (C/S T.007) and complies with the Cospas-Sarsat Specification (C/S T.001) as demonstrated in the attached report.

Dated: _____

Signed: _____

(for test facility)

406 MHz Beacon Model(s): RLB-35

		Answer (✓)	
		Yes	No
1. Does beacon have a self-test mode:			
If yes:		☒	☐
• does self-test have a separate switch position:		☒	☐
• does self-test switch automatically return to normal position when released? if not, how long until the first "distress" message is emitted:		☒	☐
• does self-test transmit a 406 MHz signal?		☒	☐
if yes:			
- unmodulated signal only		☐	☒
- normal data, but with inverted frame synchronization pattern		☒	☐
- 1 burst only		☒	☐
• does self-test transmit a 121.5 MHz signal?		☐	☒
if yes:			
- for less than 1 second		☐	☐
- continually while self-test switch is activated		☐	☐
- other (please specify): _____		☐	☐
• does self-test transmit any other frequency (e.g. 243 MHz)?		☐	☒
2. Result of self-test is indicated by:			
• pass/fail display indicator light		☒	☐
• strobe light flash		☒	☐
• other (please specify): _____		☐	☐
3. Can the self-test be performed without removing the beacon from its mounting bracket?			
		☒	☐
4. What parameters are internally tested by the self-test?			
• battery voltage		☒	☐
• RF power		☒	☐
• approximate RF frequency		☒	☐
• phase locked loop		☒	☐
• other (please specify): _____ EEPROM and GPS		☒	☐
5. Do the above characteristics apply to this beacon model:			
• for all countries where beacon is sold?		☒	☐
if no, please specify: _____			
• for all production serial numbers?		☒	☐
if no, please specify: _____			
6. Comments:			

Description of GPS Navigation System

The RLB-35 is fitted with an internal Global Positioning System receiver that will determine the navigational coordinates, latitude and longitude, of its position on the globe to be transmitted to the emergency system. When the RLB-35 is turned on the GPS is immediately turned on and it attempts to acquire good navigation data for a period of 16 minutes. If the GPS receiver obtains good data anytime in this period or the 16 minutes elapses, the GPS receiver is turned off for 20 minutes and 45 seconds. This is to prevent an update from happening in less than 20 minutes. GPS data can be acquired anytime the GPS is on, but only good quality factor data is recognized and saved. Except for the time interval before the very first 406 MHz transmitted message, the beacon only looks at the NEMA stream from the GPS to pick up good data in a 1.5/2.0 -second window after each 406 MHz burst. Once the beacon acquires good quality GPS data in this manner it puts the GPS data into the next transmitted 406 MHz digital message. After the GPS is turned off for 20 minutes and 45 seconds, the GPS is turned on for ten minutes to attempt to acquire good navigation data. If the GPS acquires good data or the 10-minute period elapses, the GPS is turned off for another 20 minutes and 45 seconds. The third time the beacon looks for GPS data the GPS is turned on for 5 minutes. The following GPS off period is then increased by about 9 minutes to 29 minutes. From then on each GPS on time is 5 minutes and each following off period is increased by about 9 more minutes until the GPS has been on for a total of 24 periods.

Initially the red LED, Light Emitting Diode, flashes every 1.2 seconds to indicate the RLB-35 is turned on and operating. As soon as the GPS receiver acquires good navigational data the red LED stops blinking and the green LED flashes once per second to indicate that the internal GPS receiver has acquired good navigational data. Once good navigation data is acquired, the data is put into the digital message of the next 406 MHz transmitted burst. The first two GPS off periods are about 20 minutes and 45 seconds. Each GPS off period after the first two GPS off periods is increased by another 9 minutes. If for any reason a time period of 4 hours passes without the GPS receiver being able to update the last good set of navigational data, the message transmitted by the RLB-35 will revert back to default data. At this point the green LED will stop blinking and the red LED will flash 1.2 times per second. If at any time after this, good navigational data is obtained, this data will be transmitted, the red LED will stop blinking and the green LED will flash 1.2 times per second.

2.8.7 GPS

2.8.7.1 All serial communications, including programming data and GPS data, shall be 4800 (verify) BPS, eight data bits, no parity, and one stop bit.

2.8.7.2 Encoded Position Data, [1] C/S T.001, paragraph 4.5.5.

2.8.7.3 Internal Navigation Device Performance, [1] C/S T.001, paragraph 4.5.5.3.

2.8.7.4 Navigation System, [2] C/S T.007, paragraph A3.8.

2.8.7.5 The beacon shall be capable of updating GPS data while in operational mode.

2.8.7.6 The beacon shall be capable of supervising the GPS power during GPS turn on and off.

2.8.7.7 When the beacon is activated, the GPS engine is turned on by setting the GPS_OFF control high. It shall attempt to acquire valid position data for up to fifteen (15) minutes, +/- 10%. When valid position data is acquired or after fifteen minutes has elapsed, the GPS_OFF control shall be turned low. The second attempt to acquire data shall last for a period of ten (10) minutes, +/- 10%. The third and all further consecutive attempts shall last for a period of five (5) minutes, +/- 10%.

2.8.7.8 During the acquisition period, the GPS will be shut down via the GPS_OFF control and turned back on after a length of time that will be incremented following each successful or failed attempt. The first two wait periods shall be within twenty (20) minutes, + 10%, - 0%. The following wait periods shall be twenty (20) minutes + Δ , + 10%, - 0%, where $\Delta = n \times 9$ minutes and $n = 1$ to N . The value of N shall be 21 in order to generate a total of 24 attempts to acquire GPS data prior to battery expiration.

2.8.7.9 If successful in acquiring position data, the digital message shall be updated in the following 406 MHz transmission.

2.8.7.10 The beacon shall validate the GPS position data upon receiving it by examining the quality factor.

2.8.7.11 The downloaded GPS data shall be saved for four (4) hours +/- 5 min. After four hours has elapsed, the message shall contain the default location.

2.8.8 IR Programming Interface

2.8.8.1 The IR input/output shall be used to transmit and receive data over the infrared link.

SIZE A	CODE IDENT NO 18560	DRAWING NO Y1-10-0002	REV T7
			SHEET 11 OF 13

03/29/01

RANDOMIZATION OF BURST REPETITION PERIOD FOR RLB-35

Once the RLB-35 is activated, the time between 406 MHz bursts is varied in a pseudo random manner between 47.875 to 52.25 seconds. The microprocessor control selects from eight different pseudo random burst repetition off period sequences. The discrete off periods are different by 625 milliseconds. For the first 39 bursts, the pseudo random burst repetition off period sequence is the same. This allows the production system tester to test multiple EPIRBs. After the 39th burst, the data message checksum is used to randomly select one of the eight different pseudo random burst repetition off period sequences, thus randomizing the burst repetition off period between any two or more EPIRBs.

E:\Winword\Rib-35\Type approval\BURST REPETITION PERIOD rib35.doc

CONTINUOUS OPERATION PROTECTION for RLB-35

The protection against continuous transmission of the 406 MHz signal is provided through redundant controlling hardware and software. The 406 MHz RF power module is controlled by two switches under microprocessor control. The transmitted output would cease if either switch turns off. The frequency synthesizer is also controlled by the microprocessor in an independent manner. The entire synthesizer/modulator circuitry is turned on and off for each transmission. Therefore, the transmitter output would cease when the synthesizer is turned off.

The microprocessor used in this design has a built in function that periodically resets the microprocessor unless it is cleared during operation. This provides protection should the software ever get to an unknown state or stop completely. When the microprocessor is reset, the control for the RF power module is turned off. A voltage supervisor IC is also used with the control microprocessor to prevent the hardware from ever getting the control microprocessor to an unprogrammed or unknown state.

Therefore, continuous transmissions of the 406 MHz signal can only occur under the extremely unlikely condition of multiple failures within the system.

RLB-35 ESTIMATE				02/01/2001	
CALCULATIONS FOR BATTERY DRAIN PRIOR TO					
COSPAS/SARSAT LIFE TEST					
Hours in 5 years =	365x24x5 =		43800	Hours	
<u>SINGLE QUALITY-FACTOR-GPS-SELF-TEST:</u>					
One QUALITY gps self-test over 5 years =			1 tests		
Background current =			0.04 Amps	(footnote 1)	
Duration =	10 minutes =		600 Seconds		
GPS current =			0.15 Amps		
Duration =	10 minutes =		600 Seconds		
Total Q gps self-test charge battery drain in 5 years =			114 Coulombs		
Total seconds in 5 years = 5x365x24x60x60 =			157680000	Seconds	
Average self-test battery drain over 5 years =			7.22983E-07	Amps	
Single GPS Qual Factor Self-Test AMP-HOURS =			0.031666667	AMP-HOURS	
<u>ROUTINE SELF-TEST:</u>					
Twelve self tests per year for 5 years =			60 tests		
Background current =			0.14 Amps		
Duration =			5 Seconds		
Burst current =			2 Amps		
Duration =			0.44 Seconds		
Total self-test charge battery drain in 5 years =			94.8 Coulombs		
Total seconds in 5 years = 5x365x24x60x60 =			157680000	Seconds	
Average self-test battery drain over 5 years =			6.01218E-07	Amps	
Routine Self-Test AMP-HOURS =			0.026333333	AMP-HOURS	
Footnote 1: 250 mA for 20 sec., 25 mA for 10 minutes & 5 mA background current					
<u>BATTERY LEAKAGE CURRENT =</u>			0.6 microAmps		
Battery Leakage AMP-HOURS =			0.02628	AMP-HOURS	
Total Self-Test AMP-HOURS =			0.08428	AMP-HOURS	
COSPAS/SARSAT TEST FACTOR =			1.65		
Total AMP-HOUR burn off battery for -40 C life test =			0.139062	AMP-HOURS	
R =	221.34 ohms	battery voltage =	8.5 volts	I =	0.0384025 Amps
			time =	3.62117448	hours
Total time burn, 221.34 ohm =	3 hours		37 minutes	16.228128	seconds
			37.2704688	minutes	

RLB-35 ESTIMATE				04/10/2001
CALCULATIONS FOR BATTERY DRAIN PRIOR TO				
RTCM LIFE TEST				
Hours in 5 years =	365x24x5 =	43800	Hours	
<u>SINGLE QUALITY-FACTOR-GPS-SELF-TEST:</u>				
One QUALITY gps self-test over 5 years =		1 tests		
Background current =		0.04 Amps	(footnote 1)	
Duration =	10 minutes =	600 Seconds		
GPS current =		0.15 Amps		
Duration =	10 minutes =	600 Seconds		
Total Q gps self-test charge battery drain in 5 years =		114 Coulombs		
Total seconds in 5 years = 5x365x24x60x60 =		157680000	Seconds	
Average self-test battery drain over 5 years =		7.22983E-07	Amps	
Single GPS Qual Factor Self-Test AMP-HOURS =		0.031666667	AMP-HOURS	
<u>ROUTINE SELF-TEST:</u>				
Twelve self tests per year for 5 years =		60 tests		
Background current =		0.14 Amps		
Duration =		5 Seconds		
Burst current =		2 Amps		
Duration =		0.44 Seconds		
Total self-test charge battery drain in 5 years =		94.8 Coulombs		
Total seconds in 5 years = 5x365x24x60x60 =		157680000	Seconds	time =
Average self-test battery drain over 5 years =		6.01218E-07	Amps	
Routine Self-Test AMP-HOURS =		0.026333333	AMP-HOURS	
footnote 1: 250 mA for 20 sec., 25 mA for 10 minutes & 5 mA background current				
<u>BATTERY LEAKAGE CURRENT =</u>				
Battery Leakage AMP-HOURS =		0.02628	AMP-HOURS	
Total Self-Test AMP-HOURS =		0.08428	AMP-HOURS	
RTCM TEST FACTOR =		1		
Total AMP-HOUR burn off battery for -40 C life test =		0.08428	AMP-HOURS	
R = 221.34 ohms	battery voltage =	8.5 volts	I = 0.0384025 Amps	
		time = 2.1946512	hours	
Total time burn, 221.34 ohm =	2 hours	11 minutes	40.74432 seconds	
		11.679072	minutes	

LONG-TERM DRIFT ON UUT 2/2

SOREP minus 406 m° 007

UUT : 2/2
Name : SOREP
Type : micro
Number : 07
Date : November / December, 1994

15.1. DEFINITION

The beacon was tested for 30 days at the laboratory ambient temperature. An external 7-V power supply was used. The different frequency measurements are plotted on the two diagrams below.

Experience shows that oscillator frequency drift depends on several factors, of which the most significant can be expressed by a law of the following form :

$$A \log(B.t + 1) + C$$

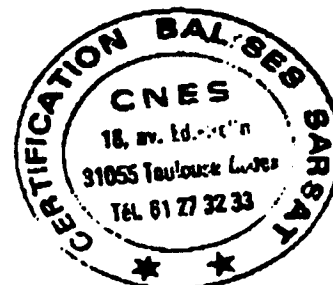
The curve providing the best fit to the points is plotted. Since its equation is not linear with respect to coefficient B, the least-squares method is not appropriate.

Refer to the appended note entitled "Aging specification measurement and analysis" by Raymond L. Filler recommending a computerized series of iterations to determine the coefficients of the curve.

Once the coefficients are defined, the curve can be extrapolated to a five-year period and a check made to ensure that the results meet the specification.

15.2. RESULTS

Frequency	Specifications	Measurements
F0	406025 MHz $\pm$ 2 kHz	40602663 kHz
F(30) - F0	$\pm$ 0.3 kHz	- 65 Hz
F(1825) - F0	$\pm$ 5 kHz	$\approx$ - 200 Hz



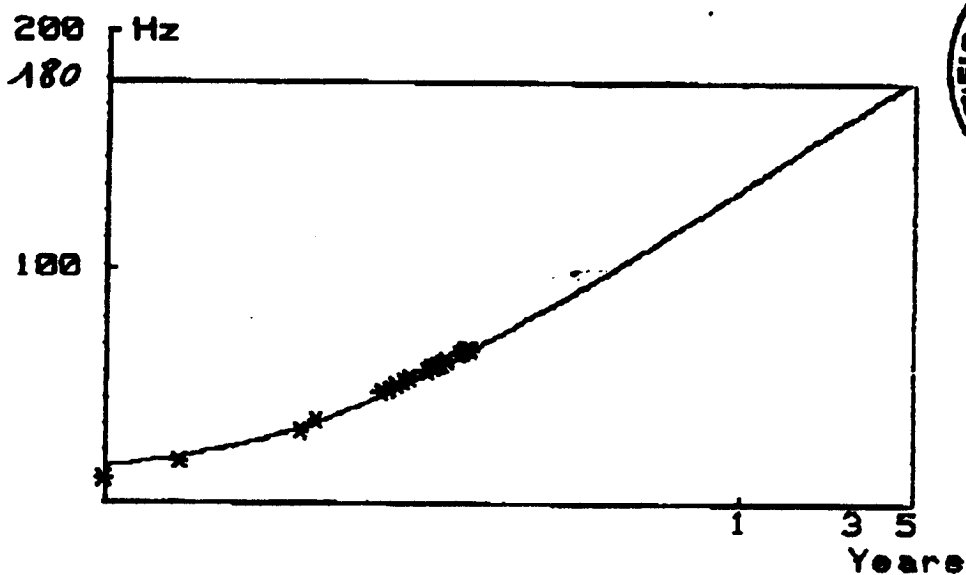
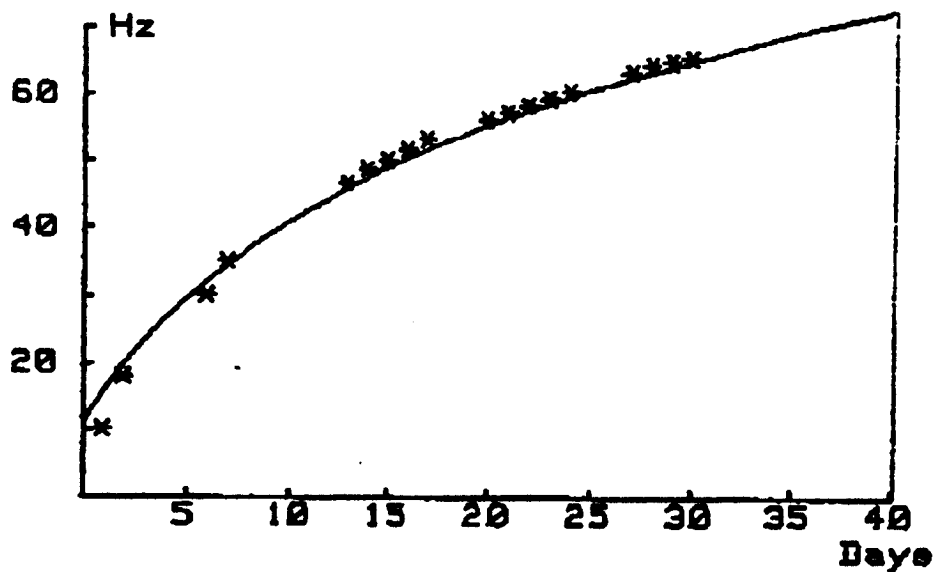
DATA OF MEASUREMENTS

F0 = 408 026083 Hz

Days	Frequency difference
1 day after	F0 - 10 Hz
2 days after	F0 - 18 Hz
6 days after	F0 - 30 Hz
7 days after	F0 - 35 Hz
13 days after	F0 - 46.5 Hz
14 days after	F0 - 48.5 Hz
15 days after	F0 - 50 Hz
16 days after	F0 - 51.5 Hz
17 days after	F0 - 53 Hz
20 days after	F0 - 56 Hz
21 days after	F0 - 57 Hz
22 days after	F0 - 58 Hz
23 days after	F0 - 59 Hz
24 days after	F0 - 60 Hz
27 days after	F0 - 63 Hz
28 days after	F0 - 64 Hz
29 days after	F0 - 64.5 Hz
30 days after	F0 - 65 Hz



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V. ALLAN

VARIANCE D'ALLAN SUR 30 ECHANTILLONS MOYENNEE 10 FOIS

06-jan-96

Constructeur : SOREP
Type OUS : EWOS 0501
N° OUS : 763
Fréquence : 10150625 Hz

τ	Minimum	Moyenne	Maximum
1 ms	3.10E-10	3.80E-10	4.50E-10
10 ms	4.50E-11	5.30E-11	6.20E-11
100 ms	6.60E-12	7.80E-12	8.90E-12
1 s	6.70E-12	8.00E-12	9.30E-12
10 s	1.10E-11	1.50E-11	3.00E-11

