

MAREES TERRESTRES

BULLETIN D'INFORMATIONS

N° 58

1 septembre 1970

Association Internationale de Géodésie

Commission Permanente des Marées Terrestres

**Editeur Prof. Paul MELCHIOR
Observatoire Royal de Belgique
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Bruxelles 18**

STATION UCCLE COMPOSANTE VERTICALE BELGIQUE
 50.47N 4.21E H 101 P 4
 OBSERVATOIRE ROYAL DE BELGIQUE P. MELCHIOR
 GRAV ASK 145 ASK 160 ASK 191 GALVANOMETRE MULTIFLEX

ASK 145				B 62	8 10	62 10 7	B 64	3 18	64 5 9
ASK 145				B 62	11 15	62 12 25	B 66	6 11	66 10 25
ASK 145 60	2 25	60	8 27	B 63	1 14	63 2 11	B 66	12 8	67 4 3
ASK 145 60	9 12	61	3 1	B 63	3 17	63 7 15			
ASK 145 61	4 17	61	6 8	B 63	8 2	64 2 4			
ASK 145 68	12 13	69	1 12						

ASK160	60 04 03	61 02 20
ASK160	61 03 19	62 05 06
ASK160	62 10 19	63 03 08

ASK 191 65	6 4	65 8 1	66 9 1	66 9 1	67 4 2	67 4 14
ASK 191 65	8 23	65 9 28	66 9 8	66 9 16	67 4 19	67 6 30
ASK 191 66	4 2	66 5 20	67 1 15	67 2 18	67 7 5	67 8 28
ASK 191 66	5 24	66 5 24	67 2 21	67 2 25	67 9 6	67 9 24
ASK 191 66	6 19	66 8 18	67 3 1	67 3 17	67 9 29	67 11 14
ASK 191 66	8 27	66 8 29	67 3 21	67 3 29	67 11 22	67 12 2

NOMBRE TOTAL DE JOURS 2338

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	1.15621	-1.257
12 - 21	O1	1.16205	-0.529
22 - 29	M1	1.16038	-2.089
30 - 32	P1	1.21023	-0.331
33 - 34	S1	4.71634	-26.268
35 - 40	K1	1.14687	-0.466
41 - 45	J1	1.27134	0.431
46 - 52	001	1.14459	8.055

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.02653	1.315
12 - 21	O1	0.00520	0.256
22 - 29	M1	0.05360	2.647
30 - 32	P1	0.01031	0.488
33 - 34	S1	0.61309	7.517
35 - 40	K1	0.00356	0.178
41 - 45	J1	0.06445	2.904
46 - 52	001	0.10985	5.503

ERREUR Q.M. D 22.25233

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	1.26589	0.767
6 - 9	N2	1.15323	-0.627
10 - 14	M2	1.18027	1.296
15 - 19	L2	1.15368	-6.677
20 - 21	S2	1.20269	-1.125
22 - 27	K2	1.14252	-0.345

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.06432	2.911
6 - 9	N2	0.01305	0.649
10 - 14	M2	0.00245	0.119
15 - 19	L2	0.06420	3.189
20 - 21	S2	0.00519	0.253
22 - 27	K2	0.02077	1.042

ERREUR Q.M. SD 11.16562

ONDES TERDIURNES		FACT.AMPL.	PHASES
80 - 93	M3	1.016469	-6.053
80 - 93	M3	0.134923	0.748

ERREUR Q.M. TD 4.930574

STATION LUXEMBOURG COMPOSANTE VERTICALE GRAND DUCHE DE LUXEMBOURG

49.37N 6.08E H 249 P 20
 MINISTERE DES AFFAIRES CULTURELLES J.FLICK
 GRAVIMETRE ASKANIA 160

ASK 160 63 4 15	63 8 5	67 1 11	67 2 18	68 2 29	68 3 12
ASK 160 63 8 11	63 8 15	67 2 27	67 4 2	68 3 15	68 3 21
ASK 160 63 8 21	63 8 25	67 4 13	67 5 19	68 3 27	68 5 22
ASK 160 63 9 2	63 11 3	67 5 30	67 6 15	68 5 28	68 8 28
ASK 160 64 1 23	64 2 14	67 6 20	67 6 24	68 9 6	68 10 6
ASK 160 64 3 14	64 8 1	67 6 28	67 6 30	68 10 12	69 2 7
ASK 160 64 8 7	64 11 15	67 7 14	67 10 8	69 2 20	69 2 26
ASK 160 64 11 29	65 8 28	67 10 24	67 12 11	69 3 22	69 5 5
ASK 160 65 9 5	65 12 22	67 12 19	68 1 14	69 5 10	69 5 24
ASK 160 66 7 8	66 12 3	68 1 20	68 2 11	69 8 3	69 8 17
ASK 160 66 12 8	67 1 7	68 2 18	68 2 26		

NOMBRE TOTAL DE JOURS 1778

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	1.17487	-1.010
12 - 21	O1	1.16168	-0.138
22 - 29	M1	1.17361	-1.309
30 - 32	P1	1.10850	-2.910
33 - 34	S1	23.70420	168.210
35 - 40	K1	1.12544	-0.971
41 - 45	J1	1.17317	-2.522
46 - 52	001	1.11286	2.573

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.03237	1.579
12 - 21	O1	0.00630	0.311
22 - 29	M1	0.07430	3.628
30 - 32	P1	0.01484	0.768
33 - 34	S1	0.87188	2.135
35 - 40	K1	0.00458	0.234
41 - 45	J1	0.07693	3.755
46 - 52	001	0.10935	5.625

ERREUR Q.M. D 27.65444

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	1.27051	1.667
6 - 9	N2	1.21149	-0.109
10 - 14	M2	1.19821	1.081
15 - 19	L2	1.30780	-2.566
20 - 21	S2	1.07180	8.646
22 - 27	K2	1.15540	0.496

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.10253	4.622
6 - 9	N2	0.02092	0.990
10 - 14	M2	0.00405	0.194
15 - 19	L2	0.11590	5.076
20 - 21	S2	0.00833	0.454
22 - 27	K2	0.02637	1.307

ERREUR Q.M. SD 16.35552

ONDES TERDIURNES		FACT.AMPL.	PHASES
80 - 93		1.05798	-1.661

ERREURS Q.M.		FACT.AMPL.	PHASES
80 - 93		0.19780	10.701

ERREUR Q.M. TD 9.52744

STATION KARLSRUHE

COMPOSANTE VERTICALE

ALLEMAGNE

49.01N

8.25E

H 114

P 2

GEODAETSCHE INSTITUT UNIVERSITAT KARLSRUHE

H. MAELZER

GRAVIMETRE ASKANIA 138

ASK 138 64 11 16 64 12 20

NOMBRE TOTAL DE JOURS 36

ONDES DIURNES FACT. AMPL. PHASES

1 - 11	Q1	1.52790	-18.451
12 - 21	Q1	1.12478	1.934
22 - 29	M1	2.02118	-1.116
30 - 40	P1S1K1	1.03871	-1.638
41 - 45	J1	1.89484	31.716
46 - 52	001	1.37311	38.050

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 11	Q1	0.13399	5.017
12 - 21	Q1	0.03121	1.588
22 - 29	M1	0.75472	21.334
30 - 40	P1S1K1	0.01746	0.980
41 - 45	J1	0.32228	9.751
46 - 52	001	0.71373	29.777

ERREUR Q.M. D 17.76037

ONDES SEMIDIURNES FACT. AMPL. PHASES

1 - 5	2N2	0.93079	-3.451
6 - 9	N2	1.32071	-8.726
10 - 14	M2	1.21113	1.013
15 - 19	L2	1.57374	-135.342
20 - 27	S2K2	1.21087	2.197

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 5	2N2	0.26252	16.114
6 - 9	N2	0.06250	2.721
10 - 14	M2	0.01449	0.686
15 - 19	L2	0.57809	21.048
20 - 27	S2K2	0.03167	1.523

ERREUR Q.M. SD 8.26609

STATION HANNOVER COMPOSANTE VERTICALE ALLEMAGNE

50.23N 9.43E
INSTITUT FUR THEORETISCHE GEODAESIE HANNOVER W.TORGE
GRAVIMETRE ASKANIA 130

ASK 130 64 12 25 65 4 8

NOMBRE TOTAL DE JOURS 106

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	1.44020	-5.253
12 - 21	O1	1.19426	2.477
22 - 29	M1	1.51391	-127.569
30 - 40	P1S1K1	1.07622	-5.626
41 - 45	J1	1.62486	-38.452
46 - 52	001	2.21945	-40.193

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.20390	8.112
12 - 21	O1	0.04078	1.957
22 - 29	M1	1.12701	42.652
30 - 40	P1S1K1	0.02817	1.516
41 - 45	J1	0.45564	16.059
46 - 52	001	0.93650	24.168

ERREUR Q.M. D 40.93128

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	0.45360	-0.313
6 - 9	N2	1.11262	1.167
10 - 14	M2	1.17874	1.491
15 - 19	L2	2.12438	40.174
20 - 27	S2K2	1.26299	-0.231

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.39011	49.124
6 - 9	N2	0.07873	4.056
10 - 14	M2	0.01654	0.805
15 - 19	L2	0.73470	19.813
20 - 27	S2K2	0.03156	1.461

ERREUR Q.M. SD 14.59568

STATION KIESFLBACH COMPOSANTE VERTICALE ALLEMAGNE

50.51N 10.07E
INSTITUT FÜR GEOPHYSIK FREIBERG W. BUCHHEIM
GRAVIMETRE ASKANIA 127

ASK 127 63 10 16 63 11 23

NOMBRE TOTAL DE JOURS 40

ONDES DIURNES		FACT. AMPL.	PHASES
1 - 11	Q1	0.905328	13.091
12 - 21	O1	1.280029	-1.829
22 - 29	M1	1.612218	63.367
30 - 40	P1S1K1	0.932199	-5.180
41 - 45	J1	1.208508	-27.797
46 - 52	OO1	0.320431	53.409

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 11	Q1	0.320872	20.287
12 - 21	O1	0.073101	3.279
22 - 29	M1	0.718639	25.528
30 - 40	P1S1K1	0.050766	3.147
41 - 45	J1	0.723011	34.257
46 - 52	OO1	1.362510	243.671

ERREUR Q.M. D 40.108037

ONDES SEMIDIURNES		FACT. AMPL.	PHASES
1 - 5	2N2	0.874994	7.590
6 - 9	N2	1.054512	1.708
10 - 14	M2	1.192251	-4.919
15 - 19	L2	6.352906	40.528
20 - 27	S2K2	1.537726	4.215

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 5	2N2	0.449781	29.531
6 - 9	N2	0.105291	5.699
10 - 14	M2	0.024562	1.184
15 - 19	L2	1.165856	10.520
20 - 27	S2K2	0.044272	1.673

ERREUR Q.M. SD 13.827932

STATION BAD SALZUNGEN COMPOSANTE VERTICALE ALLEMAGNE

50.48N 10.14E
INSTITUT FUR GEOPHYSIK FREIBERG W.BUCHHEIM
GRAVIMETRE ASKANIA 127

ASK 127 63 8 9 63 9 28

NOMBRE TOTAL DE JOURS 52

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	1.412752	-13.557
12 - 21	Q1	1.029834	0.264
22 - 29	M1	1.055037	40.323
30 - 40	P1S1K1	1.075265	0.672
41 - 45	J1	0.604842	-29.940
46 - 52	OO1	1.901229	-39.915

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.216758	8.794
12 - 21	Q1	0.037785	2.104
22 - 29	M1	0.415342	22.543
30 - 40	P1S1K1	0.030070	1.601
41 - 45	J1	0.474441	45.041
46 - 52	OO1	0.796939	24.019

ERREUR Q.M. D 24.152277

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	0.547915	-119.152
6 - 9	N2	0.937305	-3.176
10 - 14	M2	1.130969	-0.039
15 - 19	L2	0.365824	-153.629
20 - 27	S2K2	1.147285	-2.793

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.803278	84.307
6 - 9	N2	0.104844	6.387
10 - 14	M2	0.018744	0.949
15 - 19	L2	1.274820	198.918
20 - 27	S2K2	0.035633	1.810

ERREUR Q.M. SD 12.590249

STATION POTSDAM COMPOSANTE VERTICALE ALLEMAGNE

52.23N 13.04E H 48 P 25
 GEODAETISCHES INSTITUT POTSDAM J.BYL
 GRAVIMETRE ASKANIA 162

ASK 162 63 1 19 63 2 18

NOMBRE TOTAL DE JOURS 32

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	1.02331	-4.954
12 - 21	Q1	1.11867	-1.644
22 - 29	M1	1.12198	-20.120
30 - 40	P1S1K1	1.05525	0.441
41 - 45	J1	1.14335	-7.851
46 - 52	OO1	2.36755	19.461

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.18329	10.266
12 - 21	Q1	0.03026	1.552
22 - 29	M1	0.31405	16.002
30 - 40	P1S1K1	0.01780	0.981
41 - 45	J1	0.41269	20.662
46 - 52	OO1	0.86896	21.049

ERREUR Q.M. D 14.27923

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	3.07927	-8.630
6 - 9	N2	1.18525	2.378
10 - 14	M2	1.20862	-0.567
15 - 19	L2	1.52710	-5.705
20 - 27	S2K2	1.08406	3.417

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.96117	18.096
6 - 9	N2	0.09219	4.446
10 - 14	M2	0.01509	0.717
15 - 19	L2	0.68027	25.547
20 - 27	S2K2	0.03186	1.716

ERREUR Q.M. SD 7.36271

STATION FREIBERG COMPOSANTE VERTICALE ALLEMAGNE

50.55N 13.14E
INSTITUT FÜR GEOPHYSIK FREIBERG W.BUCHHEIM
GRAVIMETER ASKANIA 127

ASK 127 63 3 10 63 4 7
ASK 127 63 7 1 63 7 31

NOMBRE TOTAL DE JOURS 62

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	0.576681	3.668
12 - 21	Q1	1.249460	-2.476
22 - 29	M1	1.185864	55.922
30 - 40	P1S1K1	1.245503	3.473
41 - 45	J1	3.088223	-16.706
46 - 52	OO1	1.292344	-123.811

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.547782	54.398
12 - 21	Q1	0.105786	4.856
22 - 29	M1	1.053290	50.878
30 - 40	P1S1K1	0.070577	3.281
41 - 45	J1	1.239735	23.034
46 - 52	OO1	2.426867	107.634

ERREUR Q.M. D 72.694890

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	3.213794	38.944
6 - 9	N2	1.023852	6.293
10 - 14	M2	1.126607	0.395
15 - 19	L2	2.776223	-169.166
20 - 27	S2K2	1.181177	-5.669

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.775860	13.824
6 - 9	N2	0.143466	8.020
10 - 14	M2	0.027933	1.422
15 - 19	L2	1.435274	29.603
20 - 27	S2K2	0.057632	2.851

ERREUR Q.M. SD 20.440698

STATION BERLIN

COMPOSANTE VERTICALE

ALLEMAGNE

52.30N 13.24E
OBSERVATOIRE ROYAL DE BELGIQUE
GRAVIMETRE ASKANIA 191
GRAVIMETRE ASKANIA 145

P. MELCHIOR

ASK 191 65 3 10 65 4 11
ASK 145 65 11 24 66 2 2

NOMBRE TOTAL DE JOURS 106

ONDES DIURNES		FACT. AMPL.	PHASES
1 - 11	Q1	1.14261	-1.820
12 - 21	Q1	1.14781	0.839
22 - 29	M1	0.90486	16.023
30 - 40	P1S1K1	1.10577	-2.538
41 - 45	J1	1.26345	-0.197
46 - 52	Q01	1.00070	11.818

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 11	Q1	0.08640	4.334
12 - 21	Q1	0.01643	0.821
22 - 29	M1	0.29433	18.642
30 - 40	P1S1K1	0.01048	0.551
41 - 45	J1	0.19657	8.900
46 - 52	Q01	0.34202	19.608

ERREUR Q.M. D 17.18846

ONDES SEMIDIURNES		FACT. AMPL.	PHASES
1 - 5	2N2	1.04494	-27.832
6 - 9	N2	1.11244	1.204
10 - 14	M2	1.06919	0.494
15 - 19	L2	1.00549	58.253
20 - 27	S2K2	1.11996	-2.670

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 5	2N2	0.21414	11.770
6 - 9	N2	0.04069	2.095
10 - 14	M2	0.00803	0.431
15 - 19	L2	0.42696	24.354
20 - 27	S2K2	0.01647	0.858

ERREUR Q.M. SD 7.61924

STATION BERGGIESHUBEL COMPOSANTE VERTICALE ALLEMAGNE

50.52N 13.57E H 295
INSTITUT FUR GEOPHYSIK FREIBERG W.BUCHHEIM
GRAVIMETRE ASKANIA 127

ASK 127 64 2 29 64 4 27

NOMBRE TOTAL DE JOURS 60

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	1.341333	8.177
12 - 21	Q1	1.238470	-2.038
22 - 29	M1	1.362658	12.924
30 - 40	P1S1K1	1.164514	-3.143
41 - 45	J1	1.722218	12.493
46 - 52	QO1	0.891402	44.205

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.219153	9.364
12 - 21	Q1	0.040137	1.859
22 - 29	M1	0.582809	24.539
30 - 40	P1S1K1	0.036817	1.791
41 - 45	J1	0.485887	16.154
46 - 52	QO1	0.759803	48.838

ERREUR Q.M. D 28.642945

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	1.157475	-7.485
6 - 9	N2	1.555965	5.794
10 - 14	M2	1.272669	-3.559
15 - 19	L2	1.663771	108.606
20 - 27	S2K2	1.247500	-0.367

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	1.043164	51.843
6 - 9	N2	0.158585	5.852
10 - 14	M2	0.029855	1.345
15 - 19	L2	2.291122	78.739
20 - 27	S2K2	0.050453	2.360

ERREUR Q.M. SD 21.287584

STATION TIHANY

COMPOSANTE VERTICALE

HONGRIE

46.54N

14.53E

H 145

INSTITUT GEOPHYSIQUE R.EOTVOS

S.OSZLACZKY

P.VARGA

GRAVIMETRE ASKANIA 190

ASK 190 67 6 3 67 12 2

ASK 190 68 2 23 68 7 16

ASK 190 68 7 20 69 6 25

NOMBRE TOTAL DE JOURS 672

ONDES DIURNES

FACT.AMPL.

PHASES

1 - 11	Q1	1.03148	8.908
12 - 21	O1	1.20755	-1.696
22 - 29	M1	0.98442	9.513
30 - 32	P1	1.29434	-5.401
33 - 34	S1	12.18154	-159.454
35 - 40	K1	1.13154	-3.658
41 - 45	J1	1.13935	-10.823
46 - 52	OO1	1.42230	7.603

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 11	Q1	0.12311	6.837
12 - 21	O1	0.02329	1.105
22 - 29	M1	0.26061	15.168
30 - 32	P1	0.05984	2.653
33 - 34	S1	3.51372	16.615
35 - 40	K1	0.01760	0.892
41 - 45	J1	0.30587	15.382
46 - 52	OO1	0.36640	14.758

ERREUR Q.M. D

67.98494

ONDES SEMIDIURNES

FACT.AMPL.

PHASES

1 - 5	2N2	1.08577	-5.138
6 - 9	N2	1.15106	-2.736
10 - 14	M2	1.15299	-4.334
15 - 19	L2	1.44348	-13.205
20 - 21	S2	1.19612	-8.882
22 - 27	K2	1.22178	-9.104

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 5	2N2	0.17175	9.062
6 - 9	N2	0.03641	1.813
10 - 14	M2	0.00644	0.320
15 - 19	L2	0.12537	4.975
20 - 21	S2	0.01312	0.638
22 - 27	K2	0.03687	1.730

ERREUR Q.M. SD

17.44660

STATION HELSINKI 2

COMPOSANTE VERTICALE

FINLANDE

60.10N 24.56E
GEODEETTINEN LAITOS
GRAVIMETRE ASKANIA 187

H 12 P 2
T. HONKASALO

ASK 187 67 6 10	67 7 8	68 1 9	68 5 22
ASK 187 67 7 13	67 9 7	68 5 26	68 10 29
ASK 187 67 11 2	67 11 20	68 11 1	69 6 9
ASK 187 67 11 25	68 1 4	69 10 14	69 11 9

NOMBRE TOTAL DE JOURS
ONDES DIURNES

694
FACT. AMPL.

PHASES

1 - 11	Q1	1.16176	0.090
12 - 21	O1	1.14555	-0.786
22 - 29	M1	1.08203	0.973
30 - 32	P1	1.16009	-3.136
33 - 34	S1	13.99907	3.024
35 - 40	K1	1.12408	-1.517
41 - 45	J1	1.15032	5.602
46 - 52	OO1	1.13039	-9.710

ERREURS Q.M.

FACT. AMPL.

PHASES

1 - 11	Q1	0.04550	2.244
12 - 21	O1	0.00826	0.413
22 - 29	M1	0.09159	4.850
30 - 32	P1	0.02082	1.028
33 - 34	S1	1.22544	5.027
35 - 40	K1	0.00618	0.315
41 - 45	J1	0.11639	5.795
46 - 52	OO1	0.13236	6.708

ERREUR Q.M. D

21.30166

ONDES SEMIDIURNES

FACT. AMPL.

PHASES

1 - 5	2N2	1.23083	-1.303
6 - 9	N2	1.19518	-3.286
10 - 14	M2	1.16582	-0.846
15 - 19	L2	1.28105	-7.108
20 - 21	S2	1.14526	-3.495
22 - 27	K2	1.10987	-1.151

ERREURS Q.M.

FACT. AMPL.

PHASES

1 - 5	2N2	0.16944	7.885
6 - 9	N2	0.03438	1.649
10 - 14	M2	0.00574	0.283
15 - 19	L2	0.10615	4.748
20 - 21	S2	0.01163	0.586
22 - 27	K2	0.03268	1.687

ERREUR Q.M. SD

8.39416

STATION RAMAKO 1 COMPOSANTE VERTICALE MALI

12.39N 8.01W H 330
INSTITUT DE PHYSIQUE TERRESTRE MOSCOU Y.S.DOBROCHOTOV A.K.IVANOV.
ETALONNAGES INDIVIDUELS
GRAVIMETRE ASKANIA 124

ASK 124 64 12 23 65 3 27

NOMBRE TOTAL DE JOURS 96

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	1.29766	23.508
12 - 21	Q1	1.36116	-3.423
22 - 29	M1	2.18106	-46.280
30 - 40	P1S1K1	1.62884	32.966
41 - 45	J1	0.59521	-70.912
46 - 52	001	0.29948	-176.099

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.69563	30.694
12 - 21	Q1	0.13278	5.590
22 - 29	M1	1.50596	39.560
30 - 40	P1S1K1	0.08908	3.155
41 - 45	J1	1.80154	173.326
46 - 52	001	3.23591	618.376

ERREUR Q.M. D 55.78338

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	0.98380	-7.972
6 - 9	N2	1.10701	-2.650
10 - 14	M2	1.17962	-3.902
15 - 19	L2	1.89300	-13.485
20 - 27	S2K2	1.18643	-6.487

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.12970	7.566
6 - 9	N2	0.02777	1.439
10 - 14	M2	0.00565	0.274
15 - 19	L2	0.16081	4.866
20 - 27	S2K2	0.01114	0.539

ERREUR Q.M. SD 11.94577

Remarque : Une grande onde thermique diurne a fortement perturbé le groupe $P_1 S_1 K_1$.

STATION BAMAKO 2

COMPOSANTE VERTICALE

MALI

12.39N

8.01W

H 330

INSTITUT DE PHYSIQUE TERRESTRE MOSCOU

Y.S.DOBROCHOTOV

A.K.IVANOV

GRAVIMETRE ASKANIA 135

ASK 135 65 1 3 65 1 31

ASK 135 65 2 19 65 3 27

NOMBRE TOTAL DE JOURS 68

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	0.89949	79.139
12 - 21	O1	1.29292	-10.794
22 - 29	M1	6.06788	-51.862
30 - 40	P1S1K1	3.26574	33.966
41 - 45	J1	*****	-77.712
46 - 52	OO1	4.45420	-81.175

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	2.07542	147.21
12 - 21	O1	0.39117	13.39
22 - 29	M1	4.45821	6.94
30 - 40	P1S1K1	0.27131	1.47
41 - 45	J1	5.42746	1.94
46 - 52	OO1	9.19074	26.57

ERREUR Q.M. D 136.08415

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	1.01292	20.340
6 - 9	N2	1.16667	1.982
10 - 14	M2	1.22687	-1.298
15 - 19	L2	1.22817	0.775
20 - 27	S2K2	1.18702	-5.883

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.23497	13.16
6 - 9	N2	0.04850	2.05
10 - 14	M2	0.00968	0.37
15 - 19	L2	0.28435	10.78
20 - 27	S2K2	0.01840	0.75

ERREUR Q.M. SD 17.08783

Remarque : Une grande onde thermique diurne a fortement perturbé le groupe P₁ S₁ K₁.

STATION CARACAS

COMPOSANTE VERTICALE

VENEZUELA

10.30N

65.55E

H 1035

P 3

INSTITUTO SISMOLOGICO CAGIGAL

G.FIEDLER

GRAVIMETRE ASK 99

ASK 99 59 10 2 61 1 6

ASK 99 61 1 9 61 7 26

ASK 99 61 7 29 62 2 28

ASK 99 62 3 3 63 7 18

NOMBRE TOTAL DE JOUPS 1384

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	1.193087	-5.811
12 - 21	Q1	1.271382	2.768
22 - 29	M1	2.196884	-24.689
30 - 32	P1	1.920510	6.831
33 - 34	S1	97.288055	67.930
35 - 40	K1	1.054279	-5.480
41 - 45	J1	1.175126	39.380
46 - 52	001	2.402230	48.210

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.282075	13.543
12 - 21	Q1	0.056836	2.561
22 - 29	M1	0.640706	16.710
30 - 32	P1	0.101510	3.029
33 - 34	S1	6.109285	3.608
35 - 40	K1	0.037292	2.028
41 - 45	J1	0.641479	31.277
46 - 52	001	1.592815	37.991

ERREUR Q.M. D 61.649079

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	0.952067	-4.711
6 - 9	N2	1.151601	-0.868
10 - 14	M2	1.199444	-0.977
15 - 19	L2	1.127956	-2.046
20 - 21	S2	1.213512	-2.898
22 - 27	K2	1.237511	-0.360

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.163182	9.822
6 - 9	N2	0.032197	1.601
10 - 14	M2	0.006083	0.291
15 - 19	L2	0.194132	9.861
20 - 21	S2	0.013086	0.624
22 - 27	K2	0.061083	2.828

ERREUR Q.M. SD 51.861603

ONDES TERDIURNES		FACT.AMPL.	PHASES
80 - 93		0.974128	-6.266

ERREURS Q.M.		FACT.AMPL.	PHASES
80 - 93		0.095399	5.613

ERREUR Q.M. TD 15.459275

STATION SCLAIGNEAUX 1 COMPOSANTE EW

BELGIQUE

50.30N

5.01E

H 170

P 85

OBSERVATOIRE ROYAL DE BELGIQUE

P.MELCHIOR

PENDULE HORIZONTAL VM 1

PENDULE HORIZONTAL VM 31

VM 1	60	3	31	60	5	10	60	10	4	61	11	28						
VM 1	60	5	19	60	6	14	61	12	8	62	2	6						
VM 1	60	6	30	60	9	20												
VM 31	64	4	3	66	9	6	67	5	14	67	5	30	68	4	19	68	5	15
VM 31	66	9	24	66	9	26	67	6	2	67	7	22	68	6	1	68	9	9
VM 31	66	10	7	66	10	11	67	8	4	67	8	14	68	10	30	69	2	27
VM 31	66	10	21	67	1	9	67	8	27	67	10	4	69	3	6	69	5	3
VM 31	67	1	21	67	3	20	67	10	13	68	1	23	69	5	14	69	6	15
VM 31	67	4	7	67	4	15	68	3	1	68	3	9	69	7	4	69	7	16
VM 31	67	4	23	67	5	9	68	3	15	68	4	12						

NOMBRE TOTAL DE JOURS 2332

ONDES DIURNES

FACT.AMPL.

PHASES

1 - 11	O1	0.649066	17.317
12 - 21	O1	0.683959	10.901
22 - 29	M1	0.702841	-8.771
30 - 32	P1	0.697318	13.593
33 - 34	S1	5.824356	120.829
35 - 40	K1	0.753462	7.440
41 - 45	J1	0.711904	0.999
46 - 52	OO1	0.753148	14.979

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 11	O1	0.044178	3.899
12 - 21	O1	0.008525	0.714
22 - 29	M1	0.103633	8.449
30 - 32	P1	0.018959	1.560
33 - 34	S1	1.118628	11.093
35 - 40	K1	0.006107	0.465
41 - 45	J1	0.105916	8.528
46 - 52	OO1	0.159087	12.107

ERREUR Q.M.

D

66.798880

ONDES SEMIDIURNES

FACT.AMPL.

PHASES

1 - 5	2N2	1.136825	-7.591
6 - 9	N2	0.873332	9.914
10 - 14	M2	0.898396	9.305
15 - 19	L2	0.905885	13.363
20 - 21	S2	0.841993	3.500
22 - 27	K2	0.859991	7.237

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 5	2N2	0.097453	4.914
6 - 9	N2	0.019710	1.293
10 - 14	M2	0.003732	0.238
15 - 19	L2	0.103027	6.513
20 - 21	S2	0.007906	0.527
22 - 27	K2	0.026269	1.750

ERREUR Q.M.

SD

55.298161

CORRECTIONS APPLIQUEES

AZIMUT NUL

PARALLAXE - OH158

STATION SCLAIGNEAUX 3 COMPOSANTE EW

BELGIQUE

50.30N

5.01E

H 170

P 85

OBSERVATOIRE ROYAL DE BELGIQUE

P.MELCHIOR

PENDULE HORIZONTALE VM 55

VM	55	63	9	20	64	1	20	66	3	25	66	5	20	68	1	25	68	1	31
VM	55	64	1	25	64	4	28	66	5	27	66	9	12	68	2	4	68	3	11
VM	55	64	6	7	64	7	1	66	9	30	66	10	10	68	3	15	68	3	29
VM	55	64	8	12	64	8	30	66	10	21	67	2	4	68	4	5	68	4	13
VM	55	64	11	2	64	11	22	67	2	8	67	2	16	68	4	19	68	4	29
VM	55	65	1	15	65	2	18	67	2	23	67	8	20	68	5	5	68	5	15
VM	55	65	3	1	65	3	27	67	8	26	67	12	4	68	6	1	68	10	25
VM	55	65	5	7	65	6	20	67	12	8	68	1	13	68	11	2	69	1	5

NOMBRE TOTAL DE JOURS 1326

ONDES DIURNES

FACT.AMPL.

PHASES

1 - 11	Q1	0.82371	13.788
12 - 21	Q1	0.69150	7.733
22 - 29	M1	0.53734	41.882
30 - 32	P1	0.75609	12.822
33 - 34	S1	7.42089	52.707
35 - 40	K1	0.77941	9.705
41 - 45	J1	0.74377	10.271
46 - 52	QO1	0.46699	19.132

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 11	Q1	0.05827	4.054
12 - 21	Q1	0.01124	0.932
22 - 29	M1	0.12465	13.294
30 - 32	P1	0.02658	2.016
33 - 34	S1	1.57254	12.181
35 - 40	K1	0.00819	0.603
41 - 45	J1	0.13936	10.738
46 - 52	QO1	0.18742	22.999

ERREUR Q.M.

D

70.60214

ONDES SEMIDIURNES

FACT.AMPL.

PHASES

1 - 5	2N2	1.03310	12.514
6 - 9	N2	0.78968	18.033
10 - 14	M2	0.81109	11.595
15 - 19	L2	1.10225	49.611
20 - 21	S2	0.78436	3.087
22 - 27	K2	0.78505	1.870

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 5	2N2	0.12945	7.178
6 - 9	N2	0.02628	1.908
10 - 14	M2	0.00500	0.353
15 - 19	L2	0.15209	7.907
20 - 21	S2	0.01039	0.744
22 - 27	K2	0.03164	2.310

ERREUR Q.M.

SD

55.03268

ONDES TERDIURNES

FACT.AMPL.

PHASES

80 - 93	M3	0.74246	-8.078
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ERREURS Q.M.

FACT.AMPL.

PHASES

80 - 93	M3	0.09166	9.527
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ERREUR Q.M.

TD

11.70617

CORRECTIONS APPLIQUEES

AZIMUT NUL PARALLAXE OH117

STATION DOORBES 1 COMPOSANTE EW BELGIQUE

50.06N 4.36E H 233 P 46
INSTITUT ROYAL METEOROLOGIQUE DE BELGIQUE
PENDULE HORIZONTAL VM 8

VM	8	63	1	29	63	4	13	67	6	28	67	7	28	67	10	30	67	12	3
VM	8	63	4	20	64	1	21	67	8	3	67	8	27	68	4	1	68	4	19
VM	8	64	3	2	65	1	14	67	9	6	67	9	22	68	6	13	69	10	30
VM	8	65	1	23	67	6	24	67	9	26	67	10	26						

NOMBRE TOTAL DE JOURS 2230

ONDES DIURNES FACT.AMPL. PHASES

1 - 48	Q1	0.63601	1.024
49 - 70	O1	0.66457	-0.144
71 - 90	M1	0.81156	-6.722
93 - 98	P1	0.72616	-4.580
99 - 100	S1	5.68980	0.862
101 - 106	K1	0.75766	-2.566
114 - 131	J1	0.83273	-7.764
132 - 157	001	0.61182	2.616

ERREURS Q.M.	FACT.AMPL.	PHASES
1 - 48	Q1	0.02386
49 - 70	O1	0.00464
71 - 90	M1	0.05630
93 - 98	P1	0.01088
99 - 100	S1	0.64846
101 - 106	K1	0.00338
114 - 131	J1	0.05707
132 - 157	001	0.08033

ERREUR Q.M. D 37.00572

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	1.03559	2.052
6 - 9	N2	0.86990	8.943
10 - 14	M2	0.85623	6.777
15 - 19	L2	0.78279	19.426
20 - 21	S2	0.80508	1.653
22 - 27	K2	0.82453	0.609

ERREURS Q.M.	FACT.AMPL.	PHASES
1 - 5	2N2	0.03370
6 - 9	N2	0.00688
10 - 14	M2	0.00133
15 - 19	L2	0.04054
20 - 21	S2	0.00279
22 - 27	K2	0.00872

ERREUR Q.M. SD 19.25533

ONDES TERDIURNES FACT.AMPL. PHASES

80 - 93	M3	0.84900	7.704
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ERREURS Q.M.	FACT.AMPL.	PHASES
80 - 93	M3	0.03522
ERREUR Q.M.	TD	5.85570

CORRECTIONS APPLIQUEES

AZIMUT -7.880 PARALLAXE 0H222

STATION DOORBES 2 COMPOSANTE EW BELGIQUE
50.06N 4.36E H 233 P 46
INSTITUT ROYAL METEOROLOGIQUE DE BELGIQUE
PENDULE HORIZONTAL VM 28

VM 28	62	12	6	63	1	31	65	2	14	66	5	8	67	12	7	68	1	12
VM 28	63	4	18	63	8	10	66	5	20	66	6	29	68	1	16	68	4	27
VM 28	63	8	16	63	9	23	66	7	3	67	8	27	68	5	2	69	10	31
VM 28	63	9	27	63	11	8	67	9	6	67	10	26						
VM 28	64	1	8	64	3	22	67	10	30	67	12	3						

NOMBRE TOTAL DE JOURS 2032

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 48	Q1	0.57347	5.641
49 - 70	O1	0.66840	8.297
71 - 90	M1	0.70292	9.431
93 - 98	P1	0.72658	2.933
99 - 100	S1	2.97436	-67.586
101 - 106	K1	0.75727	2.950
114 - 131	J1	0.79246	-0.032
132 - 157	001	0.51505	3.735

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 48	Q1	0.02409	2.430
49 - 70	O1	0.00461	0.399
71 - 90	M1	0.05443	4.479
93 - 98	P1	0.01094	0.871
99 - 100	S1	0.64391	12.628
101 - 106	K1	0.00336	0.257
114 - 131	J1	0.05848	4.268
132 - 157	001	0.07667	8.613

ERREUR Q.M. D 35.69343

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	1.01363	-1.589
6 - 9	N2	0.84064	6.077
10 - 14	M2	0.81885	5.066
15 - 19	L2	0.76567	15.061
20 - 21	S2	0.83336	-0.243
22 - 27	K2	0.81793	-0.664

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.05150	2.922
6 - 9	N2	0.01030	0.705
10 - 14	M2	0.00192	0.135
15 - 19	L2	0.05578	4.191
20 - 21	S2	0.00401	0.272
22 - 27	K2	0.01217	0.857

ERREUR Q.M. SD 26.54943

ONDES TERDIURNES		FACT.AMPL.	PHASES
80 - 93	M3	0.76595	9.292

ERREURS Q.M.		FACT.AMPL.	PHASES
80 - 93	M3	0.03513	2.628
ERREUR Q.M.	TD	5.78608	

CORRECTIONS APPLIQUEES

AZIMUT -8.0.0. PARALLAXE - OH204

STATION WARMIFONTAINE 1 COMPOSANTE EW BELGIQUE

49.50N 5.23E H 390 P 148
OBSERVATOIRE ROYAL DE BELGIQUE P. MELCHIOR

PENDULE HORIZONTAL VM 11

VM 11	61	2	10	61	3	12	66	1	30	66	2	3	68	1	11	68	1	11
VM 11	61	3	24	61	5	1	66	2	19	66	3	1	68	1	17	68	2	12
VM 11	61	6	7	61	7	7	66	3	9	66	3	21	68	2	20	68	3	9
VM 11	61	9	17	61	10	13	66	3	26	66	4	25	68	3	12	68	5	3
VM 11	61	10	31	62	1	5	66	6	2	66	8	19	68	5	8	68	5	10
VM 11	62	3	25	62	7	1	66	8	28	67	1	15	68	5	18	68	7	5
VM 11	64	7	10	64	8	13	67	1	22	67	2	19	68	7	10	68	7	10
VM 11	64	8	18	64	10	19	67	3	8	67	3	14	68	7	17	68	7	25
VM 11	64	12	2	65	1	11	67	3	20	67	8	5	68	7	31	68	9	15
VM 11	65	2	13	65	6	23	67	8	15	67	9	10	68	9	19	68	9	21
VM 11	65	7	3	65	7	31	67	9	20	67	9	30	68	9	26	68	9	28
VM 11	65	8	21	65	10	20	67	10	7	67	10	29	68	10	2	68	10	22
VM 11	65	12	1	65	12	23	67	11	5	67	11	7	68	11	1	68	11	29
VM 11	66	1	1	66	1	3	67	11	11	67	11	11	68	12	7	68	12	17
VM 11	66	1	8	66	1	20	67	11	16	68	1	7	69	1	8	69	2	25

NOMBRE TOTAL DE JOURS 1636

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	0.73356	-15.334
12 - 21	O1	0.74560	-9.760
22 - 29	M1	0.84418	-10.174
30 - 32	P1	0.82110	-10.145
33 - 34	S1	3.94841	25.145
35 - 40	K1	0.82391	-8.941
41 - 45	J1	0.75143	-12.605
46 - 52	001	0.50371	2.155

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.03718	2.909
12 - 21	O1	0.00707	0.545
22 - 29	M1	0.08008	5.445
30 - 32	P1	0.01628	1.138
33 - 34	S1	0.96655	13.915
35 - 40	K1	0.00510	0.356
41 - 45	J1	0.08859	6.771
46 - 52	001	0.12327	14.045

ERREUR Q.M. D 46.58009

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	0.98862	-13.273
6 - 9	N2	0.78878	-4.991
10 - 14	M2	0.77300	-8.106
15 - 19	L2	0.75242	4.417
20 - 21	S2	0.73211	-13.129
22 - 27	K2	0.71942	-15.594

ERREURS	Q.M.	FACT.AMPL.	PHASES
1 - 5	2N2	0.04874	2.829
6 - 9	N2	0.00962	0.700
10 - 14	M2	0.00178	0.133
15 - 19	L2	0.05468	4.172
20 - 21	S2	0.00377	0.291
22 - 27	K2	0.01202	0.958

ERREUR Q.M. SD 22.09587

ONDES TERDIURNES FACT.AMPL. PHASES

80 - 93	M3	0.80014	8.424
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ERREURS Q.M.	FACT.AMPL.	PHASES
80 - 93	M3	0.05497
		3.940

ERREUR Q.M. TD 8.66805

CORRECTIONS APPLIQUEES

AZIMUT 3.386 PARALLAXE 0H000

STATION WARMIFONTAINE 2 COMPOSANTE EW BELGIQUE

49.50N 5.23E H 390 P 148 308PH 23
OBSERVATOIRE ROYAL DE BELGIQUE P. MELCHIOR
PENDULE HORIZONTALE VM 22

VM	22	64	12	16	65	4	5	67	4	13	67	5	7	67	11	8	67	11	8
VM	22	65	4	10	65	5	12	67	5	13	67	8	5	67	11	12	67	11	12
VM	22	65	5	26	65	6	23	67	8	11	67	8	11	67	11	16	67	11	20
VM	22	65	8	28	65	10	19	67	8	13	67	8	13	67	11	23	67	11	27
VM	22	65	12	1	65	12	19	67	8	20	67	8	20	67	12	1	67	12	1
VM	22	65	12	26	66	3	10	67	8	24	67	8	24	67	12	10	67	12	10
VM	22	66	3	12	66	4	27	67	8	27	67	8	27	67	12	23	68	1	2
VM	22	66	6	8	66	9	18	67	9	20	67	9	20	68	1	6	68	1	6
VM	22	66	9	24	67	1	4	67	9	25	67	9	29	68	1	10	68	1	10
VM	22	67	1	7	67	3	4	67	10	19	67	10	21	68	1	17	68	1	17
VM	22	67	3	28	67	3	30	67	10	27	67	10	29						

NOMBRE TOTAL DE JOURS 820

ONDES DIURNES FACT. AMPL. PHASES

1 - 11	Q1	0.74022	-9.393
12 - 21	Q1	0.73960	-0.545
22 - 29	M1	0.86092	11.868
30 - 32	P1	0.83368	-1.536
33 - 34	S1	4.66806	-67.984
35 - 40	K1	0.84035	-3.553
41 - 45	J1	0.74510	5.774
46 - 52	OO1	0.77889	11.521

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 11	Q1	0.05962	4.616
12 - 21	Q1	0.01166	0.904
22 - 29	M1	0.12904	8.590
30 - 32	P1	0.02764	1.902
33 - 34	S1	1.64045	20.346
35 - 40	K1	0.00854	0.583
41 - 45	J1	0.14161	10.895
46 - 52	OO1	0.19786	14.548

ERREUR Q.M. D 56.91104

ONDES SEMIDIURNES FACT. AMPL. PHASES

1 - 5	2N2	1.10888	-7.194
6 - 9	N2	0.82008	-1.995
10 - 14	M2	0.83619	-4.965
15 - 19	L2	0.74259	-29.430
20 - 21	S2	0.76671	-9.426
22 - 27	K2	0.78388	-8.557

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 5	2N2	0.12947	6.682
6 - 9	N2	0.02645	1.848
10 - 14	M2	0.00514	0.353
15 - 19	L2	0.19285	14.887
20 - 21	S2	0.01068	0.783
22 - 27	K2	0.03279	2.395

ERREUR Q.M. SD 45.11141

STATION KANNE COMPOSANTE EW BELGIQUE

50.48N 5.40E H 50 P 45
INSTITUT DE GEODESIE LIEGE L.BRAGARD
PENDULE HORIZONTAL VM 72

VM 72	66	1	12	66	2	15	67	1	7	67	2	14	68	6	2	68	7	15
VM 72	66	3	17	66	5	30	67	2	18	67	5	9	68	7	21	68	11	12
VM 72	66	6	8	66	8	29	67	5	21	67	11	27	68	11	26	68	12	30
VM 72	66	11	2	66	11	22	67	11	30	67	12	10	69	1	5	69	2	4
VM 72	66	11	26	66	11	28	67	12	16	68	1	15	69	2	15	69	2	25
VM 72	66	12	3	66	12	13	68	1	18	68	2	19	69	3	2	69	3	12
VM 72	66	12	19	66	12	23	68	2	24	68	4	2	69	3	15	69	8	10
VM 72	66	12	28	66	12	28	68	4	7	68	5	7	69	8	30	69	10	29

NOMBRE TOTAL DE JOURS 1166

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	0.598075	-5.351
12 - 21	O1	0.712654	-13.416
22 - 29	M1	0.630590	-35.184
30 - 32	P1	0.665603	-3.337
33 - 34	S1	7.595246	-165.567
35 - 40	K1	0.740565	-7.989
41 - 45	J1	0.791436	-14.483
46 - 52	OO1	0.444279	8.529

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.070851	6.788
12 - 21	O1	0.013455	1.082
22 - 29	M1	0.148264	13.471
30 - 32	P1	0.033498	2.883
33 - 34	S1	1.984405	14.783
35 - 40	K1	0.009982	0.772
41 - 45	J1	0.172384	12.482
46 - 52	OO1	0.212819	27.440

ERREUR Q.M. D 82.882551

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	0.743658	-20.811
6 - 9	N2	0.848541	4.185
10 - 14	M2	0.904329	1.563
15 - 19	L2	0.889423	5.655
20 - 21	S2	0.923892	1.195
22 - 27	K2	0.892360	-4.547

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.116720	8.996
6 - 9	N2	0.024017	1.621
10 - 14	M2	0.004396	0.278
15 - 19	L2	0.109463	7.056
20 - 21	S2	0.009072	0.551
22 - 27	K2	0.025711	1.650

ERREUR Q.M. SD 44.564158

STATION KANNE 4 COMPOSANTE EW BELGIQUE

50.48N 5.40E H 50 P 45
INSTITUT DE GEODESIE LIEGE L.BRAGARD
PENDULE HORIZONTAL IAGUL 5

IAG 5 68 7 28 68 8 29
IAG 5 69 3 2 69 4 5
IAG 5 69 4 12 69 8 10

NOMBRE TOTAL DE JOURS 228

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	0.542629	-13.545
12 - 21	O1	0.706834	-12.702
22 - 29	M1	0.814828	-33.840
30 - 34	P1	0.857007	-13.187
35 - 40	S1K1	0.743302	-6.318
41 - 45	J1	0.764241	-58.834
46 - 52	OO1	0.629417	-24.582

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.076801	8.109
12 - 21	O1	0.014157	1.148
22 - 29	M1	0.207581	14.595
30 - 34	P1	0.037670	2.519
35 - 40	S1K1	0.010672	0.822
41 - 45	J1	0.190999	14.330
46 - 52	OO1	0.234505	21.328

ERREUR Q.M. D 39.388801

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	0.938351	-32.709
6 - 9	N2	0.859808	5.402
10 - 14	M2	0.883596	-0.835
15 - 19	L2	1.074241	11.287
20 - 21	S2	0.835741	0.548
22 - 27	K2	0.853189	-11.914

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.224637	13.720
6 - 9	N2	0.045599	3.041
10 - 14	M2	0.007880	0.512
15 - 19	L2	0.152400	8.130
20 - 21	S2	0.016681	1.121
22 - 27	K2	0.044962	3.027

ERREUR Q.M. SD 35.117320

STATION KANNE 6 COMPOSANTE EW BELGIQUE

50.48N 5.40E H 50 P 45
INSTITUT DE GEODESIE LIEGE L.BRAGARD
PENDULE HORIZONTAL IAGUL 6

IAG 6 68 9 7 68 10 21
IAG 6 68 11 16 69 1 1
IAG 6 69 1 5 69 1 15
IAG 6 69 2 15 69 2 25
IAG 6 69 3 1 69 4 4
IAG 6 69 4 13 69 7 10
IAG 6 69 7 17 69 10 3

NOMBRE TOTAL DE JOURS 324

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	0.695788	-22.093
12 - 21	O1	0.649263	-20.133
22 - 29	M1	0.728603	-12.393
30 - 32	P1	0.660741	-18.290
33 - 34	S1	2.836220	-163.828
35 - 40	K1	0.712871	-14.339
41 - 45	J1	0.425571	-17.506
46 - 52	OO1	0.990082	-35.411

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.067834	5.581
12 - 21	O1	0.013091	1.154
22 - 29	M1	0.179541	14.120
30 - 32	P1	0.033990	2.942
33 - 34	S1	2.009056	40.098
35 - 40	K1	0.009972	0.800
41 - 45	J1	0.170269	22.941
46 - 52	OO1	0.211735	12.251

ERREUR Q.M. D 43.362429

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	0.793712	-14.971
6 - 9	N2	0.786909	6.452
10 - 14	M2	0.780519	1.665
15 - 19	L2	0.864424	3.320
20 - 21	S2	0.547336	-13.218
22 - 27	K2	0.595051	-11.114

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.103248	7.463
6 - 9	N2	0.022302	1.623
10 - 14	M2	0.003986	0.293
15 - 19	L2	0.076557	5.080
20 - 21	S2	0.008259	0.849
22 - 27	K2	0.022531	2.164

ERREUR Q.M. SD 21.154443

STATION WALFERDANGE 1 COMPOSANTE EW GRAND DUCHE DE LUXEMBOURG

49.40N 6.10E H 295 P 100
MINISTERE DES AFFAIRES CULTURELLES J.FLICK

PENDULE HORIZONTAL VM 42

PENDULE HORIZONTAL VM 10

ETALONNAGE AUTOMATIQUE CRAPAUDINE 66

SENSIBILITE AJUSTEE PAR CALCUL DE REGRESSION

VM 42 68 6 16	68 6 20	VM 42 68 9 24	68 11 7
VM 42 68 6 26	68 6 28	VM 42 68 11 12	68 11 30
VM 42 68 7 25	68 8 22	VM 42 68 12 6	69 3 12
VM 42 68 9 16	68 9 16	VM 10 69 6 2	69 12 9
VM 42 68 9 20	68 9 20		

NOMBRE TOTAL DE JOURS 400

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	0.63436	-6.078
12 - 21	O1	0.66240	1.803
22 - 29	M1	0.76447	-7.521
30 - 32	P1	0.78100	2.493
33 - 34	S1	2.99235	-79.273
35 - 40	K1	0.72810	-1.320
41 - 45	J1	0.57202	-12.506
46 - 52	001	0.92503	-11.941

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.04451	4.060
12 - 21	O1	0.00845	0.739
22 - 29	M1	0.11544	8.737
30 - 32	P1	0.02367	1.761
33 - 34	S1	1.49342	29.247
35 - 40	K1	0.00702	0.560
41 - 45	J1	0.11026	11.167
46 - 52	001	0.13960	8.732

ERREUR Q.M. D 30.63055

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	0.96003	-4.175
6 - 9	N2	0.92789	-1.878
10 - 14	M2	0.86189	-4.641
15 - 19	L2	0.90677	-2.869
20 - 21	S2	0.74507	-8.281
22 - 27	K2	0.75795	-8.479

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.06993	4.193
6 - 9	N2	0.01479	0.917
10 - 14	M2	0.00264	0.176
15 - 19	L2	0.05135	3.259
20 - 21	S2	0.00540	0.409
22 - 27	K2	0.01480	1.125

ERREUR Q.M. SD 15.99096

CORRECTIONS APPLIQUEES

AZIMUT 8.2436 PARALLAXE 0.000

STATION WALFERDANGE 2 COMPOSANTE EW GRAND DUCHE DE LUXEMBOURG

49.40N 6.10E H 295 P 100

MINISTERE DES AFFAIRES CULTURELLES J.FLICK

PENDULE HORIZONTAL VM 12

ETALONNAGE AUTOMATIQUE CRAPAUDINE 68

SENSIBILITE AJUSTEE PAR CALCUL DE REGRESSION

VM 12 68 7 12	68 7 12	VM 12 68 11 11	68 11 11
VM 12 68 8 5	68 8 7	VM 12 68 11 19	68 11 29
VM 12 68 8 25	68 8 29	VM 12 68 12 12	68 12 14
VM 12 68 9 15	68 9 15	VM 12 68 12 19	69 3 7
VM 12 68 9 24	68 11 7	VM 12 69 3 10	69 3 12

NOMBRE TOTAL DE JOURS 162

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	0.58502	7.196
12 - 21	O1	0.64591	-0.460
22 - 29	M1	0.53521	-12.170
30 - 34	P1	0.72047	-5.242
35 - 40	S1K1	0.77576	-2.306
41 - 45	J1	0.46586	173.028
46 - 52	OO1	1.04250	-12.546

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.13962	13.725
12 - 21	O1	0.02712	2.418
22 - 29	M1	0.37723	40.561
30 - 34	P1	0.06648	5.306
35 - 40	S1K1	0.02035	1.510
41 - 45	J1	0.35324	43.727
46 - 52	OO1	0.43244	23.909

ERREUR Q.M. D 61.51286

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	0.81913	-7.794
6 - 9	N2	0.91718	-2.713
10 - 14	M2	0.90507	-6.928
15 - 19	L2	0.82140	-2.771
20 - 21	S2	0.68377	-14.358
22 - 27	K2	0.74272	-8.626

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.16317	11.503
6 - 9	N2	0.03560	2.222
10 - 14	M2	0.00637	0.403
15 - 19	L2	0.12254	8.564
20 - 21	S2	0.01269	1.047
22 - 27	K2	0.03524	2.727

ERREUR Q.M. SD 24.16024

CORRECTIONS APPLIQUEES

AZIMUT -5.6117 PARALLAXE 0.000

STATION ERPEL COMPOSANTE EW ALLEMAGNE

50.35N 7.15E H 70 P 50
INSTITUT FÜR THEORETISCHE GEODÄSIE BONN M.BONATZ
PENDULE HORIZONTAL VM 75

VM 75 66 4 1 66 6 8
VM 75 67 4 9 67 7 16
VM 75 67 7 20 67 11 5
VM 75 68 8 4 69 2 26

NOMBRE TOTAL DE JOURS 488

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	0.61438	16.935
12 - 21	O1	0.63469	30.271
22 - 29	M1	0.44375	38.350
30 - 32	P1	0.53892	23.173
33 - 34	S1	10.30194	76.133
35 - 40	K1	0.66413	19.770
41 - 45	J1	0.72133	42.577
46 - 52	OO1	0.85931	54.182

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.08290	7.730
12 - 21	O1	0.01577	1.424
22 - 29	M1	0.17093	22.077
30 - 32	P1	0.04047	4.301
33 - 34	S1	2.36566	13.322
35 - 40	K1	0.01194	1.030
41 - 45	J1	0.20352	16.172
46 - 52	OO1	0.24321	16.221

ERREUR Q.M. D 62.71968

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	1.00693	-7.826
6 - 9	N2	1.00234	5.902
10 - 14	M2	0.95089	4.459
15 - 19	L2	0.87460	13.395
20 - 21	S2	0.86127	3.784
22 - 27	K2	0.86529	1.613

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.11083	6.297
6 - 9	N2	0.02247	1.286
10 - 14	M2	0.00406	0.245
15 - 19	L2	0.10055	6.587
20 - 21	S2	0.00849	0.554
22 - 27	K2	0.02387	1.583

ERREUR Q.M. SD 26.81047

CORRECTIONS APPLIQUEES

AUX PHASES D -0.397
AUX AMPLITUDES D X 1.00036

AZIMUT -1.5833

SD -1.223
SD X 1.00015

STATION BAD GRUND COMPOSANTE EW ALLEMAGNE
COMPOSANTE A 5.0 DE EW

51.48N 10.15E H 347 P 380
INSTITUT FUR THEORETISCHE GEODAESIE HANNOVER W. TORGE
PENDULE HORIZONTAL VM 64

VM 64	65	7	11	65	9	15	69	3	8	69	3	16
VM 64	68	12	8	68	12	18	69	3	20	69	3	20
VM 64	69	1	18	69	1	20	69	4	3	69	4	15
VM 64	69	.1	24	69	1	26	69	4	19	69	4	21
VM 64	69	2	22	69	3	4						

NOMBRE TOTAL DE JOURS 130

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	0.36856	-33.571
12 - 21	O1	0.66793	-1.093
22 - 29	M1	1.58630	-89.407
30 - 32	P1	0.88054	1.501
33 - 34	S1	16.74385	-75.605
35 - 40	K1	0.80142	1.201
41 - 45	J1	1.77907	-3.913
46 - 52	OO1	1.30495	29.402

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.22089	34.413
12 - 21	O1	0.04360	3.765
22 - 29	M1	0.65223	23.665
30 - 32	P1	0.12383	8.057
33 - 34	S1	6.58229	22.829
35 - 40	K1	0.03688	2.636
41 - 45	J1	0.52887	17.087
46 - 52	OO1	0.77132	33.997

ERREUR Q.M. D 87.95775

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	1.11374	40.948
6 - 9	N2	0.61058	-12.217
10 - 14	M2	0.69983	-10.240
15 - 19	L2	0.76368	42.809
20 - 21	S2	0.61434	-9.790
22 - 27	K2	0.68720	-1.163

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.29477	15.187
6 - 9	N2	0.06396	6.028
10 - 14	M2	0.01263	1.037
15 - 19	L2	0.30705	23.070
20 - 21	S2	0.02893	2.662
22 - 27	K2	0.08605	7.170

ERREUR Q.M. SD 42.12871
CORRECTIONS APORTEES
AZIMUT -5.00

STATION POTSDAM COMPOSANTE EW R.D.ALLEMAGNE

52.23N 13.04E H 48 P 25
 GEODAETISCHES INSTITUT POTSDAM J.BYL
 PENDULE HORIZONTAL TOMASCHEK-ELLENBERGER 1

TE 1	67	12	2	67	12	10	68	4	5	68	4	17
TE 1	67	12	17	67	12	29	68	4	21	68	4	29
TE 1	68	1	6	68	1	24	68	5	3	68	5	15
TE 1	68	1	28	68	2	17	68	5	24	68	5	30
TE 1	68	2	21	68	2	27	68	6	2	68	6	2
TE 1	68	3	3	68	3	13	68	6	7	68	6	29
TE 1	68	3	16	68	3	16	68	7	2	68	7	14
TE 1	68	3	22	68	3	28						

NOMBRE TOTAL DE JOURS 182

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	0.968720	-0.535
12 - 21	O1	0.717343	6.734
22 - 29	M1	1.285420	-46.886
30 - 40	P1S1K1	0.876891	5.021
41 - 45	J1	2.048933	64.913
46 - 52	001	2.703681	53.937

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.529785	32.338
12 - 21	O1	0.101769	11.334
22 - 29	M1	1.127629	39.101
30 - 40	P1S1K1	0.069419	5.102
41 - 45	J1	1.319697	18.034
46 - 52	001	1.631166	12.780

ERREUR Q.M. D 256.249304

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	0.920565	26.203
6 - 9	N2	0.806930	-5.282
10 - 14	M2	0.772599	-8.503
15 - 19	L2	0.329185	-14.580
20 - 27	S2K2	1.055982	-12.654

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.522672	35.283
6 - 9	N2	0.109600	9.676
10 - 14	M2	0.019821	1.896
15 - 19	L2	0.435231	228.703
20 - 27	S2K2	0.040771	2.063

ERREUR Q.M. SD 75.997775

STATION POTSDAM COMPOSANTE EW R.D.ALLEMAGNE

52.23N 13.04E H 48 P 25
 GEODÄTISCHES INSTITUT POTSDAM J.BYL
 PENDULE HORIZONTAL TOMASCHEK-ELLENBERGER 3

TE	3	68	1	21	68	1	31	68	4	25	68	4	29
TE	3	68	2	3	68	2	17	68	5	2	68	5	30
TE	3	68	2	21	68	3	12	68	6	3	68	6	29
TE	3	68	3	16	68	3	30	68	7	3	68	7	13
TE	3	68	4	3	68	4	21						

NOMBRE TOTAL DE JOURS 162

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	0.869726	-44.120
12 - 21	Q1	0.786693	-8.775
22 - 29	M1	0.858714	1.959
30 - 40	P1S1K1	0.748178	-13.378
41 - 45	J1	0.801034	14.662
46 - 52	OO1	0.903292	75.837

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.469736	35.578
12 - 21	Q1	0.092465	8.557
22 - 29	M1	1.005349	78.130
30 - 40	P1S1K1	0.066842	6.776
41 - 45	J1	1.174520	104.779
46 - 52	OO1	1.422505	99.888

ERREUR Q.M. D 218.954184

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	1.022043	10.625
6 - 9	N2	0.755409	0.995
10 - 14	M2	0.787503	-9.330
15 - 19	L2	0.388864	5.115
20 - 27	S2K2	0.955622	2.139

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.466346	25.420
6 - 9	N2	0.101415	10.207
10 - 14	M2	0.018729	1.724
15 - 19	L2	0.402228	152.341
20 - 27	S2K2	0.035960	2.217

ERREUR Q.M. SD 67.661915

STATION GRAZ COMPOSANTE EW AUTRICHE

47.06N	15.45E	H 360	P 85		
UNIVERSITAT GRAZ	AUTRICHE		K. RINNER		
PENDULE HORIZONTAL VM 44					
VM 44 63 3 30	63 4 1	69 7 26	69 7 30	69 11 27	69 11 29
VM 44 63 5 29	63 6 28	69 8 2	69 8 6	69 12 10	69 12 14
VM 44 64 3 14	64 3 14	69 8 9	69 8 9	69 12 17	69 12 19
VM 44 64 7 4	64 8 13	69 8 13	69 8 13	70 1 15	70 1 19
VM 44 64 11 6	64 12 6	69 8 24	69 8 26	70 1 22	70 1 26
VM 44 65 1 31	65 5 1	69 8 31	69 9 4	70 2 4	70 2 4
VM 44 65 9 9	65 9 13	69 9 7	69 9 11	70 2 7	70 2 7
VM 44 66 4 2	66 5 4	69 9 13	69 9 17	70 2 10	70 2 14
VM 44 66 9 24	66 9 28	69 9 20	69 9 24	70 2 17	70 2 23
VM 44 66 10 7	66 10 11	69 9 27	69 10 5	70 2 26	70 3 2
VM 44 66 10 28	66 11 25	69 10 7	69 10 11	70 3 20	70 3 22
VM 44 69 6 28	69 6 28	69 10 14	69 10 18	70 4 15	70 4 19
VM 44 69 7 2	69 7 2	69 10 21	69 10 25	70 4 22	70 4 26
VM 44 69 7 5	69 7 9	69 10 28	69 11 1	70 5 1	70 5 3
VM 44 69 7 12	69 7 16	69 11 4	69 11 18		
VM 44 69 7 23	69 7 23	69 11 24	69 11 24		
NOMBRE TOTAL DE JOURS	468				

ONDES DIURNES		FACT. AMPL.	PHASES
1 - 11	Q1	0.634796	26.420
12 - 21	O1	0.645712	19.390
22 - 29	M1	0.929704	14.364
30 - 32	P1	0.822170	18.093
33 - 34	S1	16.195023	-175.960
35 - 40	K1	0.736936	15.861
41 - 45	J1	0.600326	-2.533
46 - 52	OO1	0.714919	-11.168

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 11	Q1	0.108158	9.759
12 - 21	O1	0.020362	1.807
22 - 29	M1	0.268030	16.518
30 - 32	P1	0.049079	3.410
33 - 34	S1	2.836957	9.951
35 - 40	K1	0.015068	1.169
41 - 45	J1	0.256849	24.500
46 - 52	OO1	0.348732	27.933

ERREUR Q.M. D 71.303728

ONDES SEMIDIURNES		FACT. AMPL.	PHASES
1 - 5	2N2	0.609127	69.537
6 - 9	N2	0.705228	1.258
10 - 14	M2	0.673185	-0.326
15 - 19	L2	0.512803	-8.175
20 - 21	S2	0.822606	0.619
22 - 27	K2	0.788568	-4.494

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 5	2N2	0.241253	22.614
6 - 9	N2	0.047224	3.846
10 - 14	M2	0.008835	0.753
15 - 19	L2	0.257290	28.761
20 - 21	S2	0.018852	1.292
22 - 27	K2	0.057956	4.220

ERREUR Q.M. SD 61.972470

STATION ROBURENT

COMPOSANTE EW

ITALIE

44.18N

7.53E

H 814

P 21

ISTITUTO DI GEODESIA

UNIVERSITA DI GENOVA

M. BOSSOLASCO

PENDULE HORIZONTAL VM 62

VM	62	64	9	17	64	10	23	65	3	28	65	4	17	66	1	19	67	2	7
VM	62	64	10	28	64	11	29	65	4	21	65	4	21	67	2	25	67	5	30
VM	62	64	12	8	65	2	6	65	4	27	65	5	19	67	6	3	67	11	28
VM	62	65	2	14	65	2	16	65	5	25	65	6	18	67	12	11	67	12	29
VM	62	65	2	20	65	2	22	65	6	23	65	7	3	68	4	19	69	2	27
VM	62	65	2	26	65	3	4	65	7	8	65	10	28						
VM	62	65	3	8	65	3	22	65	11	3	66	1	14						

NOMBRE TOTAL DE JOURS 1442

ONDES DIURNES

FACT. AMPL.

PHASES

1 - 11	Q1	0.635783	-6.512
12 - 21	Q1	0.670106	0.272
22 - 29	M1	0.779347	6.562
30 - 32	P1	1.849083	12.293
33 - 34	S1	28.449158	-19.239
35 - 40	K1	0.970569	-15.783
41 - 45	J1	0.891328	-9.421
46 - 52	001	0.636119	1.329

ERREURS Q.M.

FACT. AMPL.

PHASES

1 - 11	Q1	0.114411	10.313
12 - 21	Q1	0.022401	1.915
22 - 29	M1	0.258181	18.981
30 - 32	P1	0.053882	1.671
33 - 34	S1	3.212602	6.404
35 - 40	K1	0.016472	0.973
41 - 45	J1	0.273449	17.576
46 - 52	001	0.375353	33.804

ERREUR Q.M. D 134.320264

ONDES SEMIDIURNES

FACT. AMPL.

PHASES

1 - 5	2N2	0.714361	2.239
6 - 9	N2	0.853005	-2.054
10 - 14	M2	0.820976	-8.167
15 - 19	L2	0.888336	-28.396
20 - 21	S2	0.776600	-7.625
22 - 27	K2	0.791194	-28.629

ERREURS Q.M.

FACT. AMPL.

PHASES

1 - 5	2N2	0.110392	8.852
6 - 9	N2	0.022914	1.539
10 - 14	M2	0.004423	0.309
15 - 19	L2	0.131583	8.486
20 - 21	S2	0.009179	0.664
22 - 27	K2	0.027470	1.989

ERREUR Q.M. SD 56.957171

ONDES TERDIURNES

FACT. AMPL.

PHASES

80 - 93		0.787861	-5.058
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ERREURS Q.M.

FACT. AMPL.

PHASES

80 - 93		0.101428	7.374
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ERREUR Q.M. TD 18.962810

STATION COSTOZZA VICENZA COMPOSANTE A 19. DE EW ITALIE

45.28N				11.36E				H 100				P 80							
UNIVERSITA DI PADOVA				ISTITUTO DI GEODESIA				A. NORINELLI											
PENDULE HORIZONTAL VM 16																			
VM	16	62	7 2	62	9 14	64	11 26	64	12 16	66	8 25	66	9 6						
VM	16	62	9 17	63	1 9	64	12 21	65	2 1	67	1 2	67	3 11						
VM	16	63	1 20	63	2 27	65	2 14	65	2 18	67	3 15	67	3 17						
VM	16	63	9 20	64	1 28	65	2 21	65	2 23	67	3 20	67	4 15						
VM	16	64	2 2	64	3 27	65	2 26	65	2 28	67	4 19	67	5 19						
VM	16	64	4 3	64	4 5	65	3 3	65	3 9	67	5 24	67	5 24						
VM	16	64	4 9	64	5 17	65	3 13	65	3 27	67	5 28	67	7 7						
VM	16	64	5 21	64	6 30	65	4 3	65	4 7	67	7 12	67	7 12						
VM	16	64	7 5	64	9 1	65	4 11	65	6 10	67	7 29	67	8 22						
VM	16	64	9 19	64	9 25	66	3 2	66	3 14	68	5 2	68	5 14						
VM	16	64	10 2	64	10 8	66	3 17	66	3 19	68	5 19	68	7 26						
VM	16	64	10 17	64	10 23	66	4 6	66	5 4	68	7 31	68	8 8						
VM	16	64	10 28	64	10 30	66	5 17	66	5 17	68	8 11	68	11 11						
VM	16	64	11 2	64	11 4	66	7 7	66	7 7	68	11 16	68	12 18						
VM	16	64	11 9	64	11 11	66	7 21	66	7 25	68	12 26	69	2 26						
VM	16	64	11 19	64	11 21	66	7 28	66	8 21	69	3 1	69	5 30						

NOMBRE TOTAL DE JOURS 1460

ONDES DIURNES	FACT.AMPL.	PHASES
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
22	22	22
23	23	23
24	24	24
25	25	25
26	26	26
27	27	27
28	28	28
29	29	29
30	30	30
31	31	31
32	32	32
33	33	33
34	34	34
35	35	35
36	36	36
37	37	37
38	38	38
39	39	39
40	40	40
41	41	41
42	42	42
43	43	43
44	44	44
45	45	45
46	46	46
47	47	47
48	48	48
49	49	49
50	50	50
51	51	51
52	52	52
53	53	53
54	54	54
55	55	55
56	56	56
57	57	57
58	58	58
59	59	59
60	60	60
61	61	61
62	62	62
63	63	63
64	64	64
65	65	65
66	66	66
67	67	67
68	68	68
69	69	69
70	70	70
71	71	71
72	72	72
73	73	73
74	74	74
75	75	75
76	76	76
77	77	77
78	78	78
79	79	79
80	80	80
81	81	81
82	82	82
83	83	83
84	84	84
85	85	85
86	86	86
87	87	87
88	88	88
89	89	89
90	90	90
91	91	91
92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

1 - 11	Q1	0.62356	30.285
12 - 21	O1	0.67635	28.031
22 - 29	M1	0.47829	23.656
30 - 32	P1	0.58316	26.677
33 - 34	S1	3.09349	25.298
35 - 40	K1	0.61137	21.845
41 - 45	J1	0.41569	36.586
46 - 52	001	0.60354	35.192

ERREURS Q.M.	FACT.AMPL.	PHASES
1 - 11 Q1	0.04601	4.472
12 - 21 O1	0.00892	0.799
22 - 29 M1	0.10707	13.566
30 - 32 P1	0.02028	2.108
33 - 34 S1	1.21126	23.562
35 - 40 K1	0.00642	0.637
41 - 45 J1	0.10944	15.953
46 - 52 001	0.16085	16.148

ERREUR Q.M. D 52.29304

ONDES SEMIDIURNES	FACT. AMPL.	PHASES
1	0.1	100
2	0.2	100
3	0.3	100
4	0.4	100
5	0.5	100
6	0.6	100
7	0.7	100
8	0.8	100
9	0.9	100
10	1.0	100
11	1.1	100
12	1.2	100
13	1.3	100
14	1.4	100
15	1.5	100
16	1.6	100
17	1.7	100
18	1.8	100
19	1.9	100
20	2.0	100
21	2.1	100
22	2.2	100
23	2.3	100
24	2.4	100
25	2.5	100
26	2.6	100
27	2.7	100
28	2.8	100
29	2.9	100
30	3.0	100
31	3.1	100
32	3.2	100
33	3.3	100
34	3.4	100
35	3.5	100
36	3.6	100
37	3.7	100
38	3.8	100
39	3.9	100
40	4.0	100
41	4.1	100
42	4.2	100
43	4.3	100
44	4.4	100
45	4.5	100
46	4.6	100
47	4.7	100
48	4.8	100
49	4.9	100
50	5.0	100
51	5.1	100
52	5.2	100
53	5.3	100
54	5.4	100
55	5.5	100
56	5.6	100
57	5.7	100
58	5.8	100
59	5.9	100
60	6.0	100
61	6.1	100
62	6.2	100
63	6.3	100
64	6.4	100
65	6.5	100
66	6.6	100
67	6.7	100
68	6.8	100
69	6.9	100
70	7.0	100
71	7.1	100
72	7.2	100
73	7.3	100
74	7.4	100
75	7.5	100
76	7.6	100
77	7.7	100
78	7.8	100
79	7.9	100
80	8.0	100
81	8.1	100
82	8.2	100
83	8.3	100
84	8.4	100
85	8.5	100
86	8.6	100
87	8.7	100
88	8.8	100
89	8.9	100
90	9.0	100
91	9.1	100
92	9.2	100
93	9.3	100
94	9.4	100
95	9.5	100
96	9.6	100
97	9.7	100
98	9.8	100
99	9.9	100
100	10.0	100

1 - 5	2N2	0.76109	-0.003
6 - 9	N2	0.83473	-3.655
10 - 14	M2	0.80434	-5.159
15 - 19	L2	0.73149	-2.368
20 - 21	S2	0.67564	-0.858
22 - 27	K2	0.75182	-3.953

ERREURS	G.M.	FACT.AMPL.	PHASES
1 - 5	2N2	0.04830	3.743
6 - 9	N2	0.00982	0.692
10 - 14	M2	0.00188	0.138
15 - 19	L2	0.05708	4.594
20 - 21	S2	0.00395	0.339
22 - 27	K2	0.01282	1.005

ERREUR Q.M. SD 24.29042

ONDES TERDIURNES	FACT. AMPL.	PHASES
1	0.1	180
2	0.1	180
3	0.1	180
4	0.1	180
5	0.1	180
6	0.1	180
7	0.1	180
8	0.1	180
9	0.1	180
10	0.1	180
11	0.1	180
12	0.1	180
13	0.1	180
14	0.1	180
15	0.1	180
16	0.1	180
17	0.1	180
18	0.1	180
19	0.1	180
20	0.1	180
21	0.1	180
22	0.1	180
23	0.1	180
24	0.1	180
25	0.1	180
26	0.1	180
27	0.1	180
28	0.1	180
29	0.1	180
30	0.1	180
31	0.1	180
32	0.1	180
33	0.1	180
34	0.1	180
35	0.1	180
36	0.1	180
37	0.1	180
38	0.1	180
39	0.1	180
40	0.1	180
41	0.1	180
42	0.1	180
43	0.1	180
44	0.1	180
45	0.1	180
46	0.1	180
47	0.1	180
48	0.1	180
49	0.1	180
50	0.1	180
51	0.1	180
52	0.1	180
53	0.1	180
54	0.1	180
55	0.1	180
56	0.1	180
57	0.1	180
58	0.1	180
59	0.1	180
60	0.1	180
61	0.1	180
62	0.1	180
63	0.1	180
64	0.1	180
65	0.1	180
66	0.1	180
67	0.1	180
68	0.1	180
69	0.1	180
70	0.1	180
71	0.1	180
72	0.1	180
73	0.1	180
74	0.1	180
75	0.1	180
76	0.1	180
77	0.1	180
78	0.1	180
79	0.1	180
80	0.1	180
81	0.1	180
82	0.1	180
83	0.1	180
84	0.1	180
85	0.1	180
86	0.1	180
87	0.1	180
88	0.1	180
89	0.1	180
90	0.1	180
91	0.1	180
92	0.1	180
93	0.1	180
94	0.1	180
95	0.1	180
96	0.1	180
97	0.1	180
98	0.1	180
99	0.1	180
100	0.1	180

80 - 93	0.76830	8.227
ERREURS Q.M.	FACT.AMPL.	PHASES
80 - 93	0.05925	4.425

ERREUR Q.M. TD 10.22956

STATION CASTELLANA 1 BARI COMPOSANTE EW ITALIE
 40.52N 17.11E H 266 P 70
 UNIVERSITA DI DARI ISTITUTO DI GEODESIA F MONGELLI
 PENDULE HORIZONTAL VM 2

VM	2	68	1	3	68	1	7	68	10	3	68	11	14	69	6	7	69	6	9
VM	2	68	1	10	68	1	12	68	11	19	68	12	7	69	6	20	69	6	20
VM	2	68	1	15	68	2	10	68	12	11	69	1	26	69	6	28	69	6	28
VM	2	68	2	14	68	3	3	69	2	2	69	2	8	69	7	1	69	7	11
VM	2	68	3	6	68	3	16	69	2	12	69	2	18	69	7	21	69	7	21
VM	2	68	3	30	68	4	3	69	2	22	69	2	22	69	7	27	69	7	29
VM	2	68	4	9	68	4	15	69	3	2	69	4	3	69	8	4	69	8	8
VM	2	68	4	24	68	4	24	69	4	13	69	4	23	69	8	17	69	8	27
VM	2	68	6	16	68	7	2	69	4	30	69	5	4	69	8	31	69	10	30
VM	2	68	7	7	68	7	19	69	5	11	69	5	21						
VM	2	68	7	23	68	9	7	69	5	25	69	6	2						

NOMBRE TOTAL DE JOURS 476

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	0.549155	0.516
12 - 21	O1	0.627033	-5.964
22 - 29	M1	0.859007	-17.923
30 - 32	P1	0.579728	-6.525
33 - 34	S1	7.174867	110.151
35 - 40	K1	0.607872	-6.436
41 - 45	J1	0.302329	5.137
46 - 52	OO1	0.429200	-26.703

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.062578	6.516
12 - 21	O1	0.011581	1.059
22 - 29	M1	0.162064	10.811
30 - 32	P1	0.029505	2.915
33 - 34	S1	1.719735	13.813
35 - 40	K1	0.008723	0.821
41 - 45	J1	0.153760	29.179
46 - 52	OO1	0.185371	24.756

ERREUR Q.M. D 38.998105

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	0.600914	-3.132
6 - 9	N2	0.603063	-7.415
10 - 14	M2	0.624920	-4.421
15 - 19	L2	0.604653	-4.028
20 - 21	S2	0.610440	1.805
22 - 27	K2	0.566958	-2.063

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.088373	8.440
6 - 9	N2	0.017594	1.671
10 - 14	M2	0.003052	0.280
15 - 19	L2	0.065091	6.158
20 - 21	S2	0.006270	0.580
22 - 27	K2	0.017316	1.751

ERREUR Q.M. SD 23.499089

STATION CASTELLANA 2 BARI COMPOSANTE EW ITALIE

40.52N 17.11E H 266 P 70
UNIVERSITA DI BARI ISTITUTO DI GEODESIA F MONGELLI

PENDULE HORIZONTAL VM 37

VM	37	64	4	5	64	7	20	68	4	30	68	5	2	69	1	19	69	1	21
VM	37	66	12	7	66	12	9	68	5	5	68	5	13	69	1	25	69	1	25
VM	37	66	12	14	67	3	18	68	5	21	68	5	21	69	1	29	69	2	20
VM	37	67	4	18	67	5	30	68	5	25	68	5	27	69	2	24	69	4	11
VM	37	67	6	2	67	6	24	68	5	31	68	5	31	69	4	26	69	4	26
VM	37	67	9	10	67	9	26	68	6	3	68	6	5	69	4	30	69	5	2
VM	37	67	10	2	67	10	20	68	6	9	68	7	13	69	5	11	69	5	11
VM	37	67	10	24	67	12	29	68	7	15	68	7	15	69	5	26	69	5	28
VM	37	68	1	2	68	1	6	68	7	19	68	7	19	69	6	2	69	6	14
VM	37	68	1	11	68	1	11	68	7	23	68	7	23	69	6	19	69	6	25
VM	37	68	1	17	68	1	21	68	7	30	68	9	6	69	7	6	69	7	22
VM	37	68	1	24	68	2	11	68	10	4	68	10	10	69	7	25	69	8	12
VM	37	68	2	14	68	3	17	68	10	13	68	11	14	69	8	18	69	10	5
VM	37	68	3	21	68	3	25	68	11	19	68	11	23	69	10	12	69	10	12
VM	37	68	4	2	68	4	24	68	11	27	69	1	12	69	10	19	69	10	29

NOMBRE TOTAL DE JOURS 898

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	0.551657	-9.764
12 - 21	O1	0.710811	-5.646
22 - 29	M1	0.656673	-27.819
30 - 32	P1	0.680558	-4.086
33 - 34	S1	11.491019	102.730
35 - 40	K1	0.700088	-11.730
41 - 45	J1	0.820405	21.038
46 - 52	OO1	0.947198	5.699

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.088251	9.156
12 - 21	O1	0.017187	1.386
22 - 29	M1	0.200721	17.514
30 - 32	P1	0.042407	3.573
33 - 34	S1	2.501952	12.560
35 - 40	K1	0.012758	1.045
41 - 45	J1	0.213719	14.932
46 - 52	OO1	0.275526	16.670

ERREUR Q.M. D 78.048331

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	0.586455	13.778
6 - 9	N2	0.679159	2.206
10 - 14	M2	0.631789	-1.327
15 - 19	L2	0.696528	26.274
20 - 21	S2	0.628463	5.375
22 - 27	K2	0.615344	6.297

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.172011	16.803
6 - 9	N2	0.036623	3.092
10 - 14	M2	0.006909	0.626
15 - 19	L2	0.167284	13.765
20 - 21	S2	0.014203	1.274
22 - 27	K2	0.040702	3.788

ERREUR Q.M. SD 73.697004

STATION DANNEMORA COMPOSANTE EW SUEDE

60.12N 17.52E H 30 P 350
 GEODETIC INSTITUTE UPPSALA E.TENGSTROM
 PENDULE HORIZONTAL VM 38

VM 38	64	5	7	64	9	20	65	12	19	65	12	19	67	1	12	67	1	30
VM 38	64	11	7	64	11	17	65	12	25	66	5	12	67	2	3	67	6	9
VM 38	64	11	25	65	2	1	66	5	25	66	5	29	67	6	13	67	10	9
VM 38	65	2	27	65	5	30	66	6	15	66	6	21	67	10	13	69	2	26
VM 38	65	6	4	65	8	1	66	6	29	66	9	5	69	3	1	69	3	7
VM 38	65	8	9	65	11	25	66	9	9	66	11	18	69	3	12	69	8	7
VM 38	65	11	29	65	12	9	66	11	22	67	1	5	69	8	15	69	12	29

NOMBRE TOTAL DE JOURS 1918

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	0.703902	6.793
12 - 21	O1	0.708669	0.795
22 - 29	M1	0.853143	-2.984
30 - 32	P1	0.676349	-8.703
33 - 34	S1	4.466674	7.246
35 - 40	K1	0.732525	-3.888
41 - 45	J1	0.629415	-14.769
46 - 52	OO1	0.489498	-10.585

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.038711	3.151
12 - 21	O1	0.007499	0.606
22 - 29	M1	0.088296	5.930
30 - 32	P1	0.018123	1.536
33 - 34	S1	1.073257	13.672
35 - 40	K1	0.005507	0.431
41 - 45	J1	0.093157	8.480
46 - 52	OO1	0.125639	14.709

ERREUR Q.M. D 64.817275

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	0.573324	8.323
6 - 9	N2	0.638233	2.906
10 - 14	M2	0.643960	4.162
15 - 19	L2	0.789644	-2.372
20 - 21	S2	0.659501	5.882
22 - 27	K2	0.661851	3.516

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.039499	3.946
6 - 9	N2	0.008209	0.737
10 - 14	M2	0.001563	0.139
15 - 19	L2	0.041386	3.002
20 - 21	S2	0.003237	0.277
22 - 27	K2	0.009594	0.830

ERREUR Q.M. SD 16.101812

STATION LOHJA

COMPOSANTE EW

FINLANDE

60.13N

24. 2E

H 105

P 145

GEODEETTINEN LAITOS

HELSINKI

T.HONKASALO

PENDULE HORIZONTAL VM 89

ETALONNAGE AUTOMATIQUE

VM 89 68 4 5 68 11 3

VM 89 68 11 21 69 7 1

VM 89 69 7 18 69 8 9

VM 89 69 8 16 69 8 24

NOMBRE TOTAL DE JOURS 472

ONDES DIURNES

FACT.AMPL.

PHASES

1 - 11	Q1	0.726289	3.693
12 - 21	O1	0.694441	2.653
22 - 29	M1	0.727843	2.752
30 - 32	P1	0.611650	6.653
33 - 34	S1	9.315353	-149.856
35 - 40	K1	0.729269	1.209
41 - 45	J1	0.468960	-9.636
46 - 52	QO1	0.702786	-41.282

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 11	Q1	0.076982	6.074
12 - 21	O1	0.014862	1.226
22 - 29	M1	0.188605	14.847
30 - 32	P1	0.039089	3.663
33 - 34	S1	2.333605	14.333
35 - 40	K1	0.011435	0.898
41 - 45	J1	0.194326	23.721
46 - 52	QO1	0.242177	19.745

ERREUR Q.M.

D

66.630139

ONDES SEMIDIURNES

FACT.AMPL.

PHASES

1 - 5	2N2	0.647917	-13.422
6 - 9	N2	0.619266	0.305
10 - 14	M2	0.640680	-0.113
15 - 19	L2	0.639607	4.597
20 - 21	S2	0.650725	1.009
22 - 27	K2	0.625275	-1.293

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 5	2N2	0.096282	8.507
6 - 9	N2	0.020965	1.939
10 - 14	M2	0.003775	0.338
15 - 19	L2	0.070924	6.348
20 - 21	S2	0.007761	0.677
22 - 27	K2	0.021290	1.951

ERREUR Q.M.

SD

19.018420

STATION SCLAIGNEAUX 1 COMPOSANTE NS

BELGIQUE

50.30N 5.01E H 170
OBSERVATOIRE ROYAL DE BELGIQUE
PEND. HOR. VM9, VM30, VM42, VM13, VM50

P 85
P. MELCHIOR

VM	4	59	11	26	60	1	3	VM	13	64	5	1	64	7	16
VM	4	60	1	14	60	3	6	VM	13	64	7	24	64	9	26
VM	4	60	4	23	60	7	10	VM	50	65	9	3	65	11	16
VM	9	60	7	22	61	2	9	VM	13	68	5	18	68	8	24
VM	9	61	2	28	61	6	30	VM	13	68	10	26	68	12	11
VM	9	61	7	4	62	3	23	VM	13	68	12	15	68	12	27
VM	30	62	4	27	62	8	23	VM	13	69	1	22	69	2	17
VM	30	62	8	31	62	10	12	VM	13	69	2	23	69	2	25
VM	42	62	12	8	63	3	4	VM	13	69	3	6	69	3	10
VM	13	63	4	27	63	7	18	VM	13	69	3	14	69	4	29

NOMBRE TOTAL DE JOURS 1570

ONDES DIURNES		FACT. AMPL.	PHASES
1 - 11	Q1	2.57407	7.059
12 - 21	O1	2.68304	-6.753
22 - 29	M1	1.80380	-6.032
30 - 32	P1	2.31709	-7.022
33 - 34	S1	14.04205	-99.368
35 - 40	K1	2.08247	-6.386
41 - 45	J1	2.59072	-16.235
46 - 52	OO1	3.06707	-6.927

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 11	Q1	0.23546	4.860
12 - 21	O1	0.04674	0.926
22 - 29	M1	0.55709	16.412
30 - 32	P1	0.09373	2.146
33 - 34	S1	5.58350	20.998
35 - 40	K1	0.03236	0.825
41 - 45	J1	0.52730	10.814
46 - 52	OO1	1.06452	18.461

ERREUR Q.M. D 65.78691

ONDES SEMIDIURNES		FACT. AMPL.	PHASES
1 - 5	2N2	1.58022	-3.447
6 - 9	N2	1.04322	-15.414
10 - 14	M2	0.97510	-10.159
15 - 19	L2	0.86678	10.653
20 - 21	S2	1.13413	-5.951
22 - 27	K2	1.15032	-10.227

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 5	2N2	0.11509	4.158
6 - 9	N2	0.02254	1.234
10 - 14	M2	0.00419	0.245
15 - 19	L2	0.11887	7.832
20 - 21	S2	0.00893	0.459
22 - 27	K2	0.03549	1.760

ERREUR Q.M. SD 40.19125

ONDES TERDIURNES		FACT. AMPL.	PHASES
80 - 93	M3	0.861138	18.823
80 - 93	M3	0.113964	8.805
ERREUR Q.M.	TD	11.441772	

CORRECTIONS APPLIQUEES

AZIMUT -5.907 PARALLAXE -0H100

STATION DOURBES 1 COMPOSANTE NS BELGIQUE

50.06N 4.36E H 233 P 46

INSTITUT ROYAL METEOROLOGIQUE DE BELGIQUE

PENDULE HORIZONTAL VM 7

VM	7	63	4	18	63	12	22	66	3	18	66	12	11	67	9	7	67	10	27
VM	7	63	12	26	64	1	11	66	12	15	67	1	28	67	10	30	67	12	3
VM	7	64	1	15	65	10	2	67	2	2	67	8	7	67	12	7	68	1	12
VM	7	65	11	11	66	1	22	67	8	11	67	8	27	68	1	16	69	10	29

NOMBRE TOTAL DE JOURS 2272

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	0.96684	33.379
12 - 21	Q1	0.82809	6.163
22 - 29	M1	0.55100	12.763
30 - 32	P1	0.40216	10.324
33 - 34	S1	15.98911	90.573
35 - 40	K1	0.53599	-0.945
41 - 45	J1	0.49910	-8.986
46 - 52	Q01	0.56807	-21.365

ERREURS Q.M.	FACT.AMPL.	PHASES
1 - 11	Q1	0.07508 3.858
12 - 21	Q1	0.01455 0.873
22 - 29	M1	0.14341 12.929
30 - 32	P1	0.03436 4.245
33 - 34	S1	2.03761 6.285
35 - 40	K1	0.01061 0.984
41 - 45	J1	0.17408 17.325
46 - 52	Q01	0.25175 22.010

ERREUR Q.M. D 26.82504

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	0.99713	-2.103
6 - 9	N2	0.53336	-18.632
10 - 14	M2	0.44194	-9.015
15 - 19	L2	0.33894	49.859
20 - 21	S2	0.53740	2.115
22 - 27	K2	0.53420	-1.176

ERREURS Q.M.	FACT.AMPL.	PHASES
1 - 5	2N2	0.02368 1.352
6 - 9	N2	0.00483 0.515
10 - 14	M2	0.00092 0.119
15 - 19	L2	0.02798 4.700
20 - 21	S2	0.00189 0.205
22 - 27	K2	0.00598 0.638

ERREUR Q.M. SD 10.42086

ONDES TERDIURNES FACT.AMPL. PHASES

80 - 93	M3	0.83272	5.743
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ERREURS Q.M.	FACT.AMPL.	PHASES
80 - 93	M3	0.02697 1.856

ERREUR Q.M. TD 3.58538

CORRECTIONS APPLIQUEES

AZIMUT - 7.83611 PARALLAXE OH066

2821

STATION DOURBES 2

COMPOSANTE NS

BELGIQUE

50.06N

4.36E

H 233

P 46

INSTITUT ROYAL METEOROLOGIQUE DE BELGIQUE

PENDULE HORIZONTAL VM 29

VM	29	63	5	2	63	7	1	64	8	10	65	2	4	67	8	11	67	8	27
VM	29	63	8	22	63	10	11	65	4	14	65	6	29	67	9	6	67	12	3
VM	29	63	10	18	64	1	22	65	7	10	66	7	1	67	12	7	68	1	12
VM	29	64	2	1	64	3	26	66	7	13	67	7	24	68	1	16	68	5	13
VM	29	64	4	3	64	7	30	67	8	3	67	8	7	68	5	19	69	10	31

NOMBRE TOTAL DE JOURS 2186

ONDES DIURNES

FACT.AMPL.

PHASES

1 - 11	Q1	1.03277	26.608
12 - 21	Q1	0.94945	7.386
22 - 29	M1	0.88151	9.457
30 - 32	Q1	0.52304	14.358
33 - 34	S1	3.27240	-80.695
35 - 40	K1	0.70607	5.699
41 - 45	J1	0.78040	-6.315
46 - 52	QQ1	1.13691	-14.564

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 11	Q1	0.11726	5.519
12 - 21	Q1	0.02292	1.173
22 - 29	M1	0.22567	12.444
30 - 32	Q1	0.05423	5.040
33 - 34	S1	3.20175	47.645
35 - 40	K1	0.01672	1.151
41 - 45	J1	0.27056	16.850
46 - 52	QQ1	0.39126	16.724

ERREUR Q.M.

D

41.65503

ONDES SEMIDIURNES

FACT.AMPL.

PHASES

1 - 5	2N2	1.03880	-2.593
6 - 9	N2	0.49925	-19.322
10 - 14	M2	0.44731	-7.534
15 - 19	L2	0.37230	50.845
20 - 21	S2	0.53496	-5.249
22 - 27	K2	0.55617	-3.562

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 5	2N2	0.03774	2.067
6 - 9	N2	0.00776	0.885
10 - 14	M2	0.00149	0.189
15 - 19	L2	0.04442	6.783
20 - 21	S2	0.00305	0.330
22 - 27	K2	0.00950	0.972

ERREUR Q.M.

SD

16.31528

ONDES TERDIURNES

FACT.AMPL.

PHASES

80 - 93	M3	0.79109	-1.509
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ERREURS Q.M.

FACT.AMPL.

PHASES

80 - 93	M3	0.04398	3.188
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ERREUR Q.M.

TD

5.67455

CORRECTIONS APPLIQUEES

AZIMUT -8.51361 PARALLAXE OH416

STATION WARMIFONTAINE 1 COMPOSANTE NS BELGIQUE

OBSERVATOIRE ROYAL DE BELGIQUE

P.MELCHIOR

PENDULE HORIZONTALE VM 43

VM 43	65	2	14	65	5	19	67	11	11	67	11	11	69	3	24	69	3	30
VM 43	65	8	7	65	11	7	67	11	15	68	1	6	69	4	4	69	4	6
VM 43	65	12	13	66	2	15	68	1	10	68	1	10	69	4	13	69	4	13
VM 43	66	2	26	66	6	22	68	1	17	68	5	14	69	4	24	69	4	24
VM 43	66	6	26	66	9	22	68	5	18	68	10	3	69	4	28	69	4	28
VM 43	66	9	29	67	7	18	68	10	11	68	10	23	69	5	2	69	5	4
VM 43	67	7	28	67	8	5	68	10	30	68	12	17	69	5	9	69	5	9
VM 43	67	8	15	67	9	10	68	12	21	69	1	6	69	5	14	69	7	1
VM 43	67	9	20	67	9	20	69	1	8	69	2	25	69	7	5	69	7	15
VM 43	67	9	23	67	10	29	69	3	9	69	3	11	69	7	19	69	7	19
VM 43	67	11	4	67	11	4	69	3	15	69	3	15	69	7	23	69	8	10
VM 43	67	11	8	67	11	8	69	3	18	69	3	20	69	8	14	69	10	15

NOMBRE TOTAL DE JOURS 1472

ONDES DIURNES

FACT.AMPL.

PHASES

1 - 11	Q1	0.72183	17.621
12 - 21	O1	0.93884	26.912
22 - 29	M1	0.87483	25.866
30 - 32	P1	0.81569	24.081
33 - 34	S1	40.01563	-11.905
35 - 40	K1	0.88462	12.311
41 - 45	J1	1.02593	34.986
46 - 52	OO1	1.36634	50.055

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 11	Q1	0.19664	11.570
12 - 21	O1	0.03958	1.790
22 - 29	M1	0.39991	19.410
30 - 32	P1	0.09655	5.032
33 - 34	S1	5.69662	6.014
35 - 40	K1	0.02906	1.396
41 - 45	J1	0.43487	17.997
46 - 52	OO1	0.63557	19.748

ERREUR Q.M.

D

57.43432

ONDES SEMIDIURNES

FACT.AMPL.

PHASES

1 - 5	2N2	0.88616	-0.597
6 - 9	N2	0.76837	-7.872
10 - 14	M2	0.69619	-7.412
15 - 19	L2	0.57051	-6.874
20 - 21	S2	0.61852	-0.583
22 - 27	K2	0.62932	-3.808

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 5	2N2	0.08017	5.101
6 - 9	N2	0.01640	1.205
10 - 14	M2	0.00307	0.250
15 - 19	L2	0.08752	8.663
20 - 21	S2	0.00625	0.581
22 - 27	K2	0.01850	1.661

ERREUR Q.M.

SD

27.46136

ONDES TERDIURNES

FACT.AMPL.

PHASES

80 - 93	M3	0.76878	-2.599
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ERREURS Q.M.

FACT.AMPL.

PHASES

80 - 93	M3	0.12311	9.182
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ERREUR Q.M.

TD

13.65441

CORRECTIONS APPLIQUEES

AZIMUT 11.774 PARALLAXE

STATION WALFERDANGE 1 COMPOSANTE NS

GRAND DUCHE DE LUXEMBOURG

49.40N 6.10E H 295 P 100
 MINISTERE DES AFFAIRES CULTURELLES J.FLICK
 PENDULE HORIZONTAL VM 10
 PENDULE HORIZONTAL VM 65
 ETALONNAGE AUTOMATIQUE CRAPAUDINE 67
 SENSIBILITE AJUSTEE PAR CALCUL DE REGRESSION

VM 10 68 6 9	68 7 1	VM 10 68 10 15	68 11 6
VM 10 68 7 11	68 7 13	VM 10 68 11 12	68 11 30
VM 10 68 7 20	68 7 22	VM 10 68 12 5	69 3 11
VM 10 68 7 31	68 7 31	VM 65 69 3 24	69 5 9
VM 10 68 8 8	68 8 8	VM 65 69 6 1	69 10 15
VM 10 68 8 27	68 8 29	VM 65 69 10 20	69 11 29
VM 10 68 9 15	68 9 15	VM 65 69 12 16	69 12 16
VM 10 68 9 24	68 10 6		
NOMBRE TOTAL DE JOURS 428			

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	0.76416	0.317
12 - 21	Q1	0.86560	4.013
22 - 29	M1	1.41278	24.492
30 - 32	P1	0.83573	-8.136
33 - 34	S1	19.99634	102.947
35 - 40	K1	0.75804	-6.516
41 - 45	J1	0.77664	15.830
46 - 52	001	1.50106	12.720

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.19709	13.081
12 - 21	Q1	0.04232	2.480
22 - 29	M1	1.09356	39.258
30 - 32	P1	0.10770	6.529
33 - 34	S1	6.42349	16.263
35 - 40	K1	0.03183	2.128
41 - 45	J1	0.40755	26.615
46 - 52	001	0.68412	23.111

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	0.92772	-1.459
6 - 9	N2	0.66230	-3.384
10 - 14	M2	0.62352	-1.146
15 - 19	L2	0.56596	21.229
20 - 21	S2	0.62840	2.419
22 - 27	K2	0.61806	1.765

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.08874	5.455
6 - 9	N2	0.01874	1.614
10 - 14	M2	0.00341	0.312
15 - 19	L2	0.07249	7.309
20 - 21	S2	0.00687	0.636
22 - 27	K2	0.01910	1.764

ERREUR Q.M. SD 16.26858

CORRECTIONS APPLIQUEES
 AZIMUT -6.5256 PARALLAXE 0.000

STATION WALFERDANGE 2 COMPOSANTE NS

GRAND DUCHE DE LUXEMBOURG

49.40N 6.10E H 295 P 100
 MINISTERE DES AFFAIRES CULTURELLES J.FLICK
 PENDULE HORIZONTAL VM 56
 PENDULE HORIZONTAL VM 23
 ETALONNAGE AUTOMATIQUE CRAPAUDINE 65
 SENSIBILITE AJUSTEE PAR CALCUL DE REGRESSION

VM 56	68	5	4	68	5	12	VM 56	68	11	11	68	11	11
VM 56	68	5	30	68	6	13	VM 56	68	11	15	68	11	29
VM 56	68	6	19	68	7	1	VM 56	68	12	5	69	3	13
VM 56	68	7	25	68	8	30	VM 56	69	3	18	69	3	18
VM 56	68	9	15	68	9	15	VM 56	69	3	22	69	5	15
VM 56	68	9	20	68	9	20	VM 56	69	6	1	69	10	12
VM 56	68	9	24	68	11	7	VM 23	69	10	20	69	12	7

NOMBRE TOTAL DE JOURS 490

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	O1	0.89722	-11.324
12 - 21	O1	0.96879	-2.949
22 - 29	M1	1.66441	82.759
30 - 32	P1	0.97267	-6.079
33 - 34	S1	57.46987	-121.269
35 - 40	K1	0.80895	-11.218
41 - 45	J1	0.66390	6.819
46 - 52	001	0.94046	-37.907

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	O1	0.26065	15.165
12 - 21	O1	0.05562	2.995
22 - 29	M1	1.37071	42.957
30 - 32	P1	0.14159	7.588
33 - 34	S1	8.48499	7.595
35 - 40	K1	0.04176	2.692
41 - 45	J1	0.53910	42.356
46 - 52	001	0.89696	49.774

ERREUR Q.M. D 45.55161

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	0.81912	4.573
6 - 9	N2	0.72104	-10.497
10 - 14	M2	0.65873	-7.283
15 - 19	L2	0.78885	-3.186
20 - 21	S2	0.63924	1.357
22 - 27	K2	0.67090	-5.445

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.10573	7.368
6 - 9	N2	0.02213	1.752
10 - 14	M2	0.00402	0.349
15 - 19	L2	0.08595	6.227
20 - 21	S2	0.00808	0.736
22 - 27	K2	0.02258	1.921

ERREUR Q.M. SD 20.49735

CORRECTIONS APPLIQUEES

AZIMUT -5.6117 PARALLAXE 0.000

STATION ERPEL COMPOSANTE NS ALLEMAGNE
 50.35N 7.15E H 70 P 50
 INSTITUT FUR THEORETISCHE GEODAESIE BONN M.BONATZ
 PENDULE HORIZONTAL VM 78

VM 78 66 12 11 67 1 24
 VM 78 67 3 2 67 9 8
 VM 78 68 1 4 68 2 19
 VM 78 68 2 22 68 4 4
 VM 78 68 4 7 68 5 13
 VM 78 68 5 22 68 8 16
 VM 78 68 8 26 68 10 31
 VM 78 68 11 4 69 2 26

NOMBRE TOTAL DE JOURS 640

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	1.67905	6.456
12 - 21	O1	1.74469	4.398
22 - 29	M1	1.01545	70.814
30 - 32	P1	1.39287	15.898
33 - 34	S1	30.03743	86.980
35 - 40	K1	1.48137	4.064
41 - 45	J1	1.62177	-14.882
46 - 52	OO1	0.28662	26.394

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.29488	10.050
12 - 21	O1	0.05969	1.958
22 - 29	M1	0.73491	41.413
30 - 32	P1	0.15084	6.188
33 - 34	S1	8.94123	16.806
35 - 40	K1	0.04492	1.732
41 - 45	J1	0.64000	22.578
46 - 52	OO1	0.93857	187.397

ERREUR Q.M. D 67.25694

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	1.00235	-14.072
6 - 9	N2	0.87098	-13.272
10 - 14	M2	0.83505	-13.149
15 - 19	L2	0.85616	-8.718
20 - 21	S2	0.75495	-10.662
22 - 27	K2	0.77658	-10.933

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.11149	6.364
6 - 9	N2	0.02263	1.489
10 - 14	M2	0.00412	0.283
15 - 19	L2	0.10690	7.160
20 - 21	S2	0.00837	0.648
22 - 27	K2	0.02397	1.769

ERREUR Q.M. SD 24.01635

CORRECTIONS APPLIQUEES

AUX PHASES: D -3.585
 AUX AMPLITUDES D X 0.99817

AZIMUT -0.9000
 SD -1.165
 SD X 0.99992

STATION BAD GRUND COMPOSANTE NS ALLEMAGNE
COMPOSANTE A 6.0 DE NS

51.48N 10.15E H 347 P 380
INSTITUT FUR THEORETISCHE GEODAESIE HANNOVER W.TORGE
PENDULE HORIZONTAL VM 63

VM 63	69	1	23	69	1	29	69	3	17	69	3	17
VM 63	69	2	1	69	2	1	69	3	20	69	3	30
VM 63	69	2	22	69	2	26	69	4	3	69	4	5
VM 63	69	3	8	69	3	10						

NOMBRE TOTAL DE JOURS 38

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	1.79730	-18.698
12 - 21	O1	1.13837	-21.743
22 - 29	M1	8.81925	66.426
30 - 40	P1S1K1	0.84706	-23.888
41 - 45	J1	5.94362	36.384
46 - 52	OO1	6.73417	6.726

ERREURS Q.M.	FACT.AMPL.	PHASES
1 - 11	Q1	0.74529
12 - 21	O1	0.16918
22 - 29	M1	10.32197
30 - 40	P1S1K1	0.14298
41 - 45	J1	2.06691
46 - 52	OO1	2.22353

ERREUR Q.M. D 34.11766

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	1.09602	1.278
6 - 9	N2	0.68829	2.667
10 - 14	M2	0.51850	-17.247
15 - 19	L2	0.17740	-41.907
20 - 27	S2K2	0.48659	-9.214

ERREURS Q.M.	FACT.AMPL.	PHASES
1 - 5	2N2	0.47206
6 - 9	N2	0.07400
10 - 14	M2	0.01029
15 - 19	L2	0.24598
20 - 27	S2K2	0.01654

ERREUR Q.M. SD 11.67825

CORRECTIONS APPORTEES
AZIMUT -6.00

STATION POTSDAM

COMPOSANTE NS

R.D.ALLEMAGNE

52.23N

13.04E

H 48

P 25

GEODÄFTISCHES INSTITUT POTSDAM

J.BYL

PENDULE HORIZONTJAL TOMASCHEK-ELLENBERGER 2

TE	2	68	2	2	68	2	18	68	3	22	68	3	30
TE	2	68	2	23	68	2	27	68	4	2	68	4	28
TE	2	68	3	2	68	3	12	68	5	2	68	5	6
TE	2	68	3	16	68	3	16	68	6	8	68	7	14

NOMBRE TOTAL DE JOURS 120

ONDES DIURNES

FACT.AMPL.

PHASES

1 - 11	Q1	0.710306	-82.756
12 - 21	Q1	0.219635	-14.703
22 - 29	M1	5.213313	21.550
30 - 40	P1S1K1	2.006159	-23.447
41 - 45	J1	0.851210	64.549
46 - 52	001	4.329795	33.444

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 11	Q1	1.387541	157.112
12 - 21	Q1	0.283268	336.999
22 - 29	M1	3.781594	7.972
30 - 40	P1S1K1	0.206435	2.958
41 - 45	J1	3.126088	246.647
46 - 52	001	4.383817	13.375

ERREUR Q.M. D 181.995339

ONDES SEMIDIURNES

FACT.AMPL.

PHASES

1 - 5	2N2	0.444352	-35.622
6 - 9	N2	0.830212	-6.188
10 - 14	M2	0.557029	2.428
15 - 19	L2	1.246543	-68.991
20 - 27	S2K2	0.709169	-0.091

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 5	2N2	0.648462	188.809
6 - 9	N2	0.137523	11.445
10 - 14	M2	0.025357	4.674
15 - 19	L2	0.601876	22.146
20 - 27	S2K2	0.046956	5.445

ERREUR Q.M. SD 62.662682

STATION GRAZ

COMPOSANTE NS

AUTRICHE

47.06N 15.45E

H 360

P 85

UNIVERSITAT GRAZ AUTRICHE

K. RINNER

PENDULE HORIZONTAL VM 45

VM 45 63 3 28	63 4 1	69 8 16	69 8 20	70 1 8	70 1 12
VM 45 63 4 21	63 5 21	69 8 26	69 8 30	70 1 15	70 1 19
VM 45 64 3 14	64 3 14	69 9 3	69 9 3	70 1 24	70 1 26
VM 45 64 7 4	64 8 11	69 9 7	69 9 11	70 2 4	70 2 6
VM 45 64 11 6	64 12 4	69 9 14	69 9 16	70 2 12	70 2 14
VM 45 65 1 31	65 5 3	69 9 20	69 9 24	70 2 19	70 2 23
VM 45 65 9 9	65 9 11	69 9 27	69 9 27	70 2 25	70 3 1
VM 45 65 9 24	65 9 28	69 10 1	69 10 5	70 3 4	70 3 4
VM 45 65 10 9	65 10 11	69 10 14	69 10 18	70 3 7	70 3 9
VM 45 69 6 28	69 6 28	69 10 21	69 10 25	70 3 20	70 3 20
VM 45 69 7 2	69 7 2	69 10 29	69 11 2	70 3 26	70 3 26
VM 45 69 7 5	69 7 9	69 11 4	69 11 8	70 4 17	70 4 17
VM 45 69 7 12	69 7 16	69 11 11	69 11 15	70 4 20	70 4 20
VM 45 69 7 23	69 7 23	69 11 25	69 11 25	70 4 22	70 4 26
VM 45 69 7 26	69 7 26	69 11 29	69 11 29	70 4 29	70 5 3
VM 45 69 8 2	69 8 6	69 12 3	69 12 7		
VM 45 69 8 9	69 8 9	69 12 10	69 12 14		

NOMBRE TOTAL DE JOURS 392

ONDES DIURNES

FACT. AMPL.

PHASES

1 - 11	Q1	2.693453	-19.859
12 - 21	Q1	2.868145	-6.915
22 - 29	M1	1.125987	-135.453
30 - 32	P1	2.488233	-4.943
33 - 34	S1	137.793610	178.214
35 - 40	K1	2.462327	-7.530
41 - 45	J1	4.278342	35.371
46 - 52	001	4.723157	53.340

ERREURS Q.M.

FACT. AMPL.

PHASES

1 - 11	Q1	1.003805	21.329
12 - 21	Q1	0.202355	4.043
22 - 29	M1	1.000456	50.908
30 - 32	P1	0.479111	11.075
33 - 34	S1	27.987198	11.738
35 - 40	K1	0.149313	3.485
41 - 45	J1	1.937815	25.962
46 - 52	001	3.509318	42.535

ERREUR Q.M.

D

60.605968

ONDES SEMIDIURNES

FACT. AMPL.

PHASES

1 - 5	2N2	0.952500	-28.233
6 - 9	N2	0.756266	2.317
10 - 14	M2	0.792661	1.043
15 - 19	L2	0.669850	-9.162
20 - 21	S2	0.868168	5.166
22 - 27	K2	0.786335	-0.711

ERREURS Q.M.

FACT. AMPL.

PHASES

1 - 5	2N2	0.162527	9.777
6 - 9	N2	0.033426	2.528
10 - 14	M2	0.006368	0.460
15 - 19	L2	0.178831	15.305
20 - 21	S2	0.013242	0.889
22 - 27	K2	0.041891	3.043

ERREUR Q.M.

SD

29.772205

STATION ROBURENT

COMPOSANTE NS

ITALIE

44.18N	7.53E	H 814	P 21		
ISTITUTO DI GEODESIA		UNIVERSITA DI GENOVA		M. BOSSOLASCO	
PENDULE HORIZONTAL VM 61					
VM 61	64 9 18	64 10 22	65 2 27	65 3 23	67 2 17
VM 61	64 10 31	64 11 30	65 4 2	65 5 18	68 1 2
VM 61	64 12 8	64 12 26	65 5 26	66 1 13	68 1 17
VM 61	64 12 31	65 1 22	66 1 18	66 5 14	68 3 20
VM 61	65 1 28	65 2 7	66 5 21	66 8 13	
VM 61	65 2 11	65 2 19	66 8 18	67 2 12	
NOMBRE TOTAL DE JOURS 1532					

ONDES DIURNES

FACT. AMPL.

PHASES

1 - 11	Q1	3.101816	70.959
12 - 21	O1	6.292474	27.888
22 - 29	M1	1.349120	75.820
30 - 32	P1	23.201019	-57.425
33 - 34	S1	561.112061	35.326
35 - 40	K1	11.153532	19.640
41 - 45	J1	3.250463	-39.901
46 - 52	OO1	6.318644	76.889

ERREURS Q.M.

FACT. AMPL.

PHASES

1 - 11	Q1	1.982379	36.607
12 - 21	O1	0.484185	4.409
22 - 29	M1	0.895086	38.014
30 - 32	P1	1.160562	2.867
33 - 34	S1	68.744751	7.050
35 - 40	K1	0.354766	1.822
41 - 45	J1	2.375255	41.866
46 - 52	OO1	8.047962	72.973

ERREUR Q.M. D

119.074852

ONDES SEMIDIURNES

FACT. AMPL.

PHASES

1 - 5	2N2	0.324652	-16.266
6 - 9	N2	0.464032	17.997
10 - 14	M2	0.517592	14.700
15 - 19	L2	0.372347	34.491
20 - 21	S2	0.630739	1.159
22 - 27	K2	0.389344	50.311

ERREURS Q.M.

FACT. AMPL.

PHASES

1 - 5	2N2	0.148063	26.131
6 - 9	N2	0.030589	3.777
10 - 14	M2	0.005851	0.647
15 - 19	L2	0.180531	27.783
20 - 21	S2	0.011853	1.099
22 - 27	K2	0.036121	5.315

ERREUR Q.M. SD

54.259004

ONDES TERDIURNES

FACT. AMPL.

PHASES

80 - 93		0.607114	-3.731
ERREURS Q.M.		FACT. AMPL.	PHASES
80 - 93		0.132217	12.480
ERREUR Q.M. TD		17.845486	

La latitude de cette station étant très voisine de 45° les ondes diurnes sont sans grande signification en composante NS.

STATION COSTOZZA VICENZA COMPOSANTE A 19. DE NS ITALIE

UNIVERSITA DI PADOVA				ISTITUTO DI GEODESIA				A. NORINELLI			
PENDULE HORIZONTAL				VM 17							
VM	17	62	8 15	62	9 14	66	8 10	66	8 14	67	4 2
VM	17	62	9 18	62	12 29	66	8 18	66	9 3	67	7 29
VM	17	63	2 2	63	2 22	66	9 8	66	9 8	67	8 18
VM	17	63	9 20	64	1 30	66	9 12	66	9 12	68	5 2
VM	17	64	2 2	64	2 4	67	1 2	67	1 10	68	7 31
VM	17	64	9 14	66	6 29	67	1 17	67	2 16	68	8 11
VM	17	66	7 6	66	7 16	67	2 19	67	3 1	68	8 25
VM	17	66	7 20	66	7 24	67	3 5	67	3 15	69	2 25
VM	17	66	7 28	66	7 30	67	3 18	67	3 28	69	5 30

NOMBRE TOTAL DE JOURS 1614

ONDES DIURNES		FACT. AMPL.	PHASES
1 - 11	Q1	0.08607	-5.040
12 - 21	O1	0.33184	-35.430
22 - 29	M1	0.03555	-112.971
30 - 32	P1	0.26918	-55.730
33 - 34	S1	8.31010	-174.611
35 - 40	K1	0.36746	-89.260
41 - 45	J1	0.10181	-15.038
46 - 52	OO1	0.12570	29.235

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 11	Q1	1.09787	51.145
12 - 21	O1	0.39174	4.737
22 - 29	M1	0.36445	41.127
30 - 32	P1	0.93727	13.975
33 - 34	S1	55.85974	26.674
35 - 40	K1	0.29450	3.217
41 - 45	J1	1.01889	40.135
46 - 52	OO1	7.27644	232.324

ERREUR Q.M. D 46.65598

ONDES SEMIDIURNES		FACT. AMPL.	PHASES
1 - 5	2N2	0.80831	6.852
6 - 9	N2	0.84588	18.355
10 - 14	M2	0.89103	16.269
15 - 19	L2	1.02099	14.351
20 - 21	S2	0.89230	17.483
22 - 27	K2	0.85419	14.422

ERREURS Q.M.		FACT. AMPL.	PHASES
1 - 5	2N2	0.09837	6.639
6 - 9	N2	0.02022	1.305
10 - 14	M2	0.00389	0.238
15 - 19	L2	0.11983	6.404
20 - 21	S2	0.00808	0.495
22 - 27	K2	0.02602	1.662

ERREUR Q.M. SD 37.44133

ONDES TERDIURNES		FACT. AMPL.	PHASES
80 - 93		0.80502	14.151

ERREURS Q.M.		FACT. AMPL.	PHASES
80 - 93		0.06555	4.667

ERREUR Q.M. TD 8.35468

La latitude de cette station étant très voisine de 45° les ondes diurnes sont sans grande signification en composante NS.

STATION CASTELLANA 1 BARI COMPOSANTE NS ITALIE

40.52N 17.11E H 266 P 70

UNIVERSITA DI BARI ISTITUTO DI GEODESIA F MONGELLI

PENDULE HORIZONTAL VM 3

VM	3	67	1	12	67	1	14	68	1	3	68	1	7	68	12	21	69	1	12
VM	3	67	1	20	67	1	22	68	1	10	68	1	12	69	1	16	69	2	5
VM	3	67	1	25	67	1	25	68	1	16	68	2	11	69	2	12	69	2	26
VM	3	67	1	29	67	1	29	68	2	14	68	3	3	69	3	2	69	3	10
VM	3	67	2	2	67	2	4	68	3	14	68	3	22	69	3	14	69	3	22
VM	3	67	2	8	67	2	10	68	3	28	68	4	13	69	3	26	69	4	15
VM	3	67	2	15	67	2	19	68	4	18	68	5	2	69	4	30	69	4	30
VM	3	67	2	22	67	2	26	68	5	8	68	5	12	69	5	4	69	5	4
VM	3	67	4	19	67	4	23	68	5	21	68	5	27	69	5	11	69	5	13
VM	3	67	4	26	67	7	17	68	5	31	68	6	8	69	5	16	69	5	22
VM	3	67	7	20	67	7	22	68	6	12	68	6	14	69	5	25	69	6	8
VM	3	67	7	28	67	7	28	68	6	20	68	7	8	69	6	28	69	6	28
VM	3	67	8	2	67	8	20	68	7	16	68	7	20	69	7	1	69	7	11
VM	3	67	8	30	67	9	3	68	7	23	68	8	20	69	7	21	69	7	21
VM	3	67	9	12	67	9	16	68	8	29	68	9	8	69	7	27	69	8	24
VM	3	67	11	2	67	11	2	68	10	4	68	10	16	69	8	31	69	9	28
VM	3	67	11	8	67	11	16	68	10	23	68	11	14	69	10	3	69	10	29
VM	3	67	11	22	67	11	22	68	11	19	68	12	3						
VM	3	67	11	27	67	12	31	68	12	8	68	12	18						

NOMBRE TOTAL DE JOURS 714

ONDES DIURNES FACT.AMPL. PHASES

1 - 11	Q1	0.643813	-28.887
12 - 21	O1	1.067087	-10.226
22 - 29	M1	0.874540	-31.979
30 - 32	P1	1.257904	-30.838
33 - 34	S1	84.307541	62.189
35 - 40	K1	1.196431	-30.378
41 - 45	J1	1.224601	15.325
46 - 52	001	1.912119	-84.787

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.244897	21.810
12 - 21	O1	0.040129	2.155
22 - 29	M1	0.246538	16.152
30 - 32	P1	0.102288	4.655
33 - 34	S1	6.019072	4.073
35 - 40	K1	0.030342	1.452
41 - 45	J1	0.744210	34.844
46 - 52	001	0.643860	19.287
ERREUR Q.M.	D	37.696312	

ONDES SEMIDIURNES FACT.AMPL. PHASES

1 - 5	2N2	0.731973	-6.247
6 - 9	N2	0.708410	3.440
10 - 14	M2	0.769194	4.481
15 - 19	L2	0.878144	4.072
20 - 21	S2	0.828217	9.332
22 - 27	K2	0.827024	11.335

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.085998	6.723
6 - 9	N2	0.017402	1.404
10 - 14	M2	0.003205	-0.239
15 - 19	L2	0.086473	5.642
20 - 21	S2	0.006474	0.455
22 - 27	K2	0.018294	1.266
ERREUR Q.M.	SD	19.810628	

STATION CASTELLANA 2 BARI COMPOSANTE NS ITALIE
 40.52N 17.11E H 266 P 70
 UNIVERSITA DI BARI ISTITUTO DI GEODESIA F MONGELLI
 PENDULE HORIZONTAL VM 36

VM 36	63	11	30	64	3	25	67	12	29	67	12	29	68	8	13	68	8	15
VM 36	64	4	21	64	6	28	68	1	2	68	1	6	68	8	20	68	8	20
VM 36	64	7	4	64	7	30	68	1	10	68	1	12	68	9	3	68	9	3
VM 36	66	12	7	66	12	17	68	1	15	68	3	9	68	11	2	68	11	14
VM 36	66	12	21	67	3	9	68	3	15	68	3	25	68	11	19	69	1	12
VM 36	67	3	13	67	3	17	68	4	2	68	4	2	69	1	18	69	1	22
VM 36	67	4	18	67	5	22	68	4	9	68	4	11	69	1	25	69	4	17
VM 36	67	5	25	67	5	27	68	4	16	68	5	28	69	4	28	69	5	4
VM 36	67	6	2	67	7	2	68	6	2	68	6	16	69	5	11	69	5	11
VM 36	67	7	12	67	7	16	68	6	26	68	7	12	69	5	25	69	6	22
VM 36	67	7	25	67	7	29	68	7	28	68	7	30	69	6	26	69	6	30
VM 36	67	10	2	67	12	23	68	8	6	68	8	6						

NOMBRE TOTAL DE JOURS 866

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	2.252005	-13.276
12 - 21	O1	2.058399	-19.831
22 - 29	M1	1.554599	-179.131
30 - 32	P1	2.178561	-6.826
33 - 34	S1	100.485428	147.786
35 - 40	K1	1.889143	-27.393
41 - 45	J1	2.840668	154.031
46 - 52	OO1	6.072585	-46.066

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	1.116724	28.411
12 - 21	O1	0.208448	5.800
22 - 29	M1	1.352624	49.856
30 - 32	P1	0.554186	14.487
33 - 34	S1	33.949387	19.422
35 - 40	K1	0.170870	5.166
41 - 45	J1	2.661353	53.689
46 - 52	OO1	3.549566	33.492

ERREUR Q.M. D 206.578159

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	0.600796	5.357
6 - 9	N2	0.541491	31.583
10 - 14	M2	0.657202	23.415
15 - 19	L2	1.064625	27.147
20 - 21	S2	0.718456	27.426
22 - 27	K2	0.624522	30.144

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.370186	35.271
6 - 9	N2	0.077445	8.194
10 - 14	M2	0.014807	1.290
15 - 19	L2	0.424551	22.881
20 - 21	S2	0.030556	2.460
22 - 27	K2	0.092600	8.494

ERREUR Q.M. SD 102.155439

STATION CASTELLANA 2 BARI COMPOSANTE NS ITALIE
 40.52N 17.11E H 266 P 70
 UNIVERSITA DI BARI ISTITUTO DI GEODESIA F MONGELLI
 PENDULE HORIZONTAL VM 36

VM 36 69 6 26 69 6 30
 VM 36 69 7 6 69 8 31
 VM 36 69 9 4 69 10 30

NOMBRE TOTAL DE JOURS 122

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	1.047979	45.659
12 - 21	O1	1.808131	-11.952
22 - 29	M1	0.253686	-178.883
30 - 40	P1S1K1	1.757191	-36.469
41 - 45	J1	1.670423	172.831
46 - 52	001	8.107310	-43.733

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	1.002656	54.820
12 - 21	O1	0.159016	5.041
22 - 29	M1	0.977520	221.096
30 - 40	P1S1K1	0.126291	4.121
41 - 45	J1	3.470462	118.975
46 - 52	001	2.490186	17.598

ERREUR Q.M. D 62.387031

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	0.334505	-40.783
6 - 9	N2	0.538239	17.632
10 - 14	M2	0.608000	23.293
15 - 19	L2	0.955366	42.250
20 - 27	S2K2	0.692677	25.560

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.287017	49.185
6 - 9	N2	0.058532	6.236
10 - 14	M2	0.010790	1.017
15 - 19	L2	0.261240	15.664
20 - 27	S2K2	0.019142	1.598

ERREUR Q.M. SD 27.525325

STATION DANNEMORA COMPOSANTE NS SUEDE
 60.12N 17.52E H 30 P 350
 GEODETIC INSTITUTE UPPSALA E.TENGSTROM
 PENDULE HORIZONTAL VM 40

VM 40 63 12 14 64 2 20
 VM 40 64 5 7 64 5 17
 VM 40 65 5 6 69 3 7
 VM 40 69 3 11 69 12 30

NOMBRE TOTAL DE JOURS 1782

ONDES DIURNES		FACT.AMPL.	PHASES
1 - 11	Q1	0.766727	5.267
12 - 21	O1	0.833114	6.770
22 - 29	M1	0.938141	3.614
30 - 32	P1	0.974160	-2.187
33 - 34	S1	2.568387	-71.884
35 - 40	K1	0.892678	1.656
41 - 45	J1	1.065927	-23.686
46 - 52	OO1	1.025277	-17.070

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 11	Q1	0.073670	5.505
12 - 21	O1	0.014250	0.980
22 - 29	M1	0.176875	10.802
30 - 32	P1	0.034585	2.032
33 - 34	S1	2.043693	45.329
35 - 40	K1	0.010514	0.674
41 - 45	J1	0.175912	9.458
46 - 52	OO1	0.239951	13.404

ERREUR Q.M. D 68.908498

ONDES SEMIDIURNES		FACT.AMPL.	PHASES
1 - 5	2N2	0.717185	-18.102
6 - 9	N2	0.638578	-13.828
10 - 14	M2	0.600634	-7.824
15 - 19	L2	0.747433	-9.135
20 - 21	S2	0.651472	1.187
22 - 27	K2	0.649622	1.141

ERREURS Q.M.		FACT.AMPL.	PHASES
1 - 5	2N2	0.075246	6.013
6 - 9	N2	0.015531	1.393
10 - 14	M2	0.002939	0.280
15 - 19	L2	0.078361	6.008
20 - 21	S2	0.006007	0.537
22 - 27	K2	0.018091	1.595

ERREUR Q.M. SD 25.319252

STATION LOHJA

COMPOSANTE NORD SUD

FINLANDE

60.13N 24. 2E H 105 P 145

GEODEETTINEN LAITOS HELSINKI T.HONKASALO

PENDULE HORIZONTAL VM 90

ETALONNAGE AUTOMATIQUE

VM 90	67	12	30	68	2	14	69	1	14	69	6	29
VM 90	68	2	17	68	4	3	69	7	18	69	8	7
VM 90	68	4	5	68	9	22	69	8	16	69	8	28
VM 90	68	9	26	68	10	16	69	10	7	69	11	4
VM 90	68	12	2	69	1	9						

NOMBRE TOTAL DE JOURS 564

ONDES DIURNES

FACT.AMPL.

PHASES

1 - 11	Q1	0.577553	20.528
12 - 21	O1	0.532293	1.780
22 - 29	M1	0.465346	-31.326
30 - 32	P1	0.507784	-9.623
33 - 34	S1	13.156271	-53.940
35 - 40	K1	0.650050	-1.340
41 - 45	J1	0.377442	-5.484
46 - 52	OO1	0.382240	3.373

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 11	Q1	0.111903	11.095
12 - 21	O1	0.021126	2.274
22 - 29	M1	0.306954	37.793
30 - 32	P1	0.055074	6.207
33 - 34	S1	3.280118	14.273
35 - 40	K1	0.016154	1.426
41 - 45	J1	0.268749	40.813
46 - 52	OO1	0.339637	50.920

ERREUR Q.M.

D

59.998244

ONDES SEMIDIURNES

FACT.AMPL.

PHASES

1 - 5	2N2	0.258258	-1.356
6 - 9	N2	0.478392	9.202
10 - 14	M2	0.476812	10.109
15 - 19	L2	0.717599	7.527
20 - 21	S2	0.531681	14.808
22 - 27	K2	0.561682	11.346

ERREURS Q.M.

FACT.AMPL.

PHASES

1 - 5	2N2	0.130957	29.029
6 - 9	N2	0.026584	3.182
10 - 14	M2	0.004654	0.559
15 - 19	L2	0.096659	7.721
20 - 21	S2	0.009482	1.030
22 - 27	K2	0.026469	2.698

ERREUR Q.M.

SD

22.298349