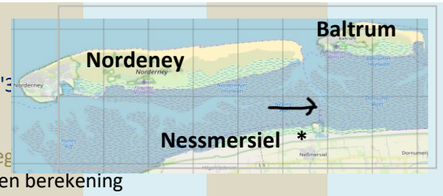
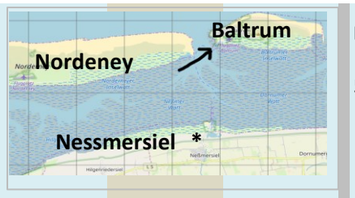
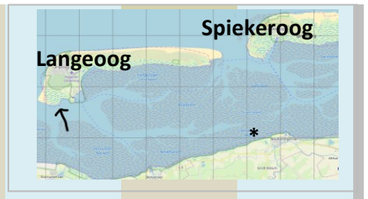
			Neßmersiel										Baltrum, Westende										Langeoog									
			53°41'20"N 7°21'3										53°43'22"N 7°21'52"E										53°43'24"N 7°30'06"E									
		HW	0:22 later 50																													
Referentievlak :LAT		lw	23:59 halverweg																													
			eigen berekening																													
datum	dag		HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm
1-1	maa		2:32	281	8:29	58	15:10	257	20:44	74			02:10	331	08:59	108	14:48	307	21:00	124			02:32	341	09:00	98	15:10	317	21:01	114		
2-1	din		3:04	283	9:03	56	15:47	252	21:21	72			02:42	333	09:33	106	15:25	302	21:34	122			03:04	343	09:34	96	15:47	312	21:35	112		
3-1	woe		3:40	280	9:42	52	16:28	245	22:03	69			03:18	330	10:11	102	16:06	295	22:14	119			03:40	340	10:12	92	16:28	305	22:15	109		
4-1	don		4:23	270	10:27	51	17:15	236	22:52	68			04:01	320	10:54	101	16:53	286	23:02	118			04:23	330	10:55	91	17:15	296	23:03	108		
5-1	vry		5:14	255	11:19	53	18:08	229	23:48	69			04:52	305	11:43	103	17:46	279	23:58	119			05:14	315	11:44	93	18:08	289	23:59	109		
6-1	zat		6:13	241	12:18	58	19:07	228	21:22	71			05:51	291	12:39	108	18:45	278	01:02	121			06:13	301	12:40	98	19:07	288	01:03	111		
7-1	zon	01:08 VM			3:28	71	7:19	234	13:22	60	19:25	235			01:02	121	06:57	284	13:41	110	19:47	285			01:03	111	07:19	294	13:42	100	20:09	295
8-1	maa				4:02	67	8:26	237	14:26	57	20:26	249			02:13	117	08:04	287	14:44	107	20:48	299			02:14	107	08:26	297	14:45	97	21:10	309
9-1	din				4:33	57	9:29	245	15:26	47	21:23	264			03:23	107	09:07	295	15:45	97	21:45	314			03:24	97	09:29	305	15:46	87	22:07	324
10-1	woe				5:04	42	10:30	255	16:23	36	22:16	277			04:26	92	10:08	305	16:45	86	22:38	327			04:27	82	10:30	315	16:46	76	23:00	337
11-1	don				5:33	26	11:29	262	17:17	26	23:06	284			05:26	76	11:07	312	17:44	76	23:28	334			05:27	66	11:29	322	17:45	66	23:50	344
12-1	vry				6:01	11	12:24	262	18:08	17	23:54	286			06:23	61	12:02	312	18:38	67					06:24	51	12:24	322	18:39	57		
13-1	zat		0:37	286	6:34	-2	13:15	259	18:56	10			00:15	336	07:15	48	12:53	309	19:27	60			00:37	346	07:16	38	13:15	319	19:28	50		
14-1	zon		1:23	288	7:21	-11	14:04	254	19:44	5			01:01	338	08:04	39	13:42	304	20:12	55			01:23	348	08:05	29	14:04	314	20:13	45		
15-1	maa	03:10 LK	2:09	291	8:07	-15	14:50	250	20:29	1			01:47	341	08:49	35	14:28	300	20:55	51			02:09	351	08:50	25	14:50	310	20:56	41		
16-1	din		2:54	294	8:53	-13	15:36	247	21:16	1			02:32	344	09:33	37	15:14	297	21:38	51			02:54	354	09:34	27	15:36	307	21:39	41		
17-1	woe		3:41	295	9:39	-6	16:22	244	22:03	4			03:19	345	10:17	44	16:00	294	22:22	54			03:41	355	10:18	34	16:22	304	22:23	44		
18-1	don		4:30	289	10:28	5	17:10	238	22:54	13			04:08	339	11:02	55	16:48	288	23:08	63			04:30	349	11:03	45	17:10	298	23:09	53		
19-1	vry		5:23	274	11:20	18	18:01	227	20:49	23			05:01	324	11:52	68	17:39	277	00:04	73			05:23	334	11:53	58	18:01	287	00:05	63		
20-1	zat				2:59	23	6:21	254	12:18	29	18:15	217			00:04	73	05:59	304	12:49	79	18:37	267			00:05	63	06:21	314	12:50	69	18:59	277
21-1	zon	21:53 NM			3:33	29	7:28	233	13:27	35	19:27	211			01:14	79	07:06	283	13:55	85	19:49	261			01:15	69	07:28	293	13:56	75	20:11	271
22-1	maa				4:14	28	8:50	222	14:47	34	20:44	218			02:29	78	08:28	272	15:08	84	21:06	268			02:30	68	08:50	282	15:09	74	21:28	278
23-1	din				4:52	18	10:06	226	15:55	26	21:45	234			03:54	68	09:44	276	16:28	76	22:07	284			03:55	58	10:06	286	16:29	66	22:29	294
24-1	woe				5:21	6	11:05	239	16:50	19	22:35	252			05:03	56	10:43	289	17:24	69	22:57	302			05:04	46	11:05	299	17:25	59	23:19	312
25-1	don				5:45	3	11:53	251	17:36	20	23:19	265			05:53	53	11:31	301	18:09	70	23:41	315			05:54	43	11:53	311	18:10	60		
26-1	vry				6:06	11	12:35	259	18:15	29					06:36	61	12:13	309	18:47	79			00:03	325	06:37	51	12:35	319	18:48	69		
27-1	zat		0:40	272	6:33	24	13:10	261	18:48	39			00:18	322	07:13	74	12:48	311	19:20	89			00:40	332	07:14	64	13:10	321	19:21	79		
28-1	zon	16:19 EK	1:12	276	7:04	34	13:40	262	19:18	45			00:50	326	07:44	84	13:18	312	19:48	95			01:12	336	07:45	74	13:40	322	19:49	85		
29-1	maa		1:41	279	7:34	35	14:11	262	19:48	43			01:19	329	08:12	85	13:49	312	20:14	93			01:41	339	08:13	75	14:11	322	20:15	83		
30-1	din		2:11	281	8:05	29	14:43	260	20:19	37			01:49	331	08:40	79	14:21	310	20:43	87			02:11	341	08:41	69	14:43	320	20:44	77		
31-1	woe		2:41	279	8:37	22	15:17	254	20:53	32			02:19	329	09:08	72	14:55	304	21:13	82			02:41	339	09:09	62	15:17	314	21:14	72		
1-2	don		3:14	272	9:10	20	15:50	246	21:27	32			02:52	322	09:38	70	15:28	296	21:45	82			03:14	332	09:39	60	15:50	306	21:46	72		
2-2	vry		3:50	261	9:45	27	16:25	237	22:05	39			03:28	311	10:09	77	16:03	287	22:20	89			03:50	321	10:10	67	16:25	297	22:21	79		
3-2	zat		4:31	248	10:25	40	17:04	232	22:49	50			04:09	298	10:44	90	16:42	282	23:03	100			04:31	308	10:45	80	17:04	292	23:04	90		
4-2	zon		5:20	238	11:15	55	17:54	230	20:45	62			04:58	288	11:31	105	17:32	280	00:02	112			05:20	298	11:32	95	17:54	290	00:03	102		
5-2	maa	19:28 VM			2:58	62	6:19	232	12:16	66	18:13	234			00:02	112	05:57	282	12:36	116	18:35	284			00:03	102	06:19	292	12:37	106	18:57	294
6-2	din				3:33	66	7:28	232	13:28	65	19:28	243			01:16	116	07:06	282	13:50	115	19:50	293			01:17	106	07:28	292	13:51	105	20:12	303
7-2	woe				4:12	58	8:46	238	14:46	53	20:46	257			02:37	108	08:24	288	15:07	103	21:08	307			02:38	98	08:46	298	15:08	93	21:30	317
8-2	don				4:53	37	10:09	247	16:02	35	21:55	270			03:58	87	09:47	297	16:23	85	22:17	320			03:59	77	10:09	307	16:24	75	22:39	330
9-2	vry				5:28	14	11:19	254	17:05	16	22:51	278			05:12	64	10:57	304	17:32	66	23:13	328			05:13	54	11:19	314	17:33	56	23:35	338







Referentievlak :LAT lw 23:59 halverweg

eigen berekening

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10-2	zat				5:56	-8	12:15	257	17:57	1					06:13	42	11:53	307	18:28	51					06:14	32	12:15	317	18:29	41		
11-2	zon		0:25	283	6:22	-24	13:04	257	18:45	-10			00:03	333	07:04	26	12:42	307	19:16	40			00:25	343	07:05	16	13:04	317	19:17	30		
12-2	maa		1:12	289	7:08	-32	13:49	256	19:30	-19			00:50	339	07:50	18	13:27	306	20:00	31			01:12	349	07:51	8	13:49	316	20:01	21		
13-2	din	17:01 LK	1:56	295	7:52	-33	14:32	256	20:13	-24			01:34	345	08:33	17	14:10	306	20:41	26			01:56	355	08:34	7	14:32	316	20:42	16		
14-2	woe		2:39	300	8:34	-28	15:14	255	20:56	-25			02:17	350	09:13	22	14:52	305	21:20	25			02:39	360	09:14	12	15:14	315	21:21	15		
15-2	don		3:23	296	9:17	-18	15:55	249	21:38	-20			03:01	346	09:51	32	15:33	299	21:58	30			03:23	356	09:52	22	15:55	309	21:59	20		
16-2	vry		4:07	280	9:59	-3	16:36	237	22:22	-9			03:45	330	10:27	47	16:14	287	22:37	41			04:07	340	10:28	37	16:36	297	22:38	31		
17-2	zat		4:54	255	10:44	14	17:19	221	23:11	7			04:32	305	11:04	64	16:57	271	23:22	57			04:54	315	11:05	54	17:19	281	23:23	47		
18-2	zon		5:48	227	11:38	32	18:12	206	20:54	22			05:26	277	11:52	82	17:50	256	00:32	72			05:48	287	11:53	72	18:12	266	00:33	62		
19-2	maa				3:17	22	6:56	206	12:50	46	18:44	200			00:32	72	06:34	256	13:12	96	19:06	250			00:33	62	06:56	266	13:13	86	19:28	260
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21-2	woe				4:46	23	9:54	221	15:40	35	21:27	240			03:39	73	09:32	271	16:13	85	21:49	290			03:40	63	09:54	281	16:14	75	22:11	300
22-2	don				5:15	11	10:52	244	16:35	24	22:19	263			04:48	61	10:30	294	17:07	74	22:41	313			04:49	51	10:52	304	17:08	64	23:03	323
23-2	vry				5:38	8	11:38	259	17:19	21	23:01	276			05:36	58	11:16	309	17:51	71	23:23	326			05:37	48	11:38	319	17:52	61	23:45	336
24-2	zat				5:57	14	12:16	263	17:56	25	23:36	277			06:17	64	11:54	313	18:28	75	23:58	327			06:18	54	12:16	323	18:29	65		
25-2	zon				6:12	20	12:46	260	18:24	27					06:51	70	12:24	310	18:59	77			00:20	337	06:52	60	12:46	320	19:00	67		
26-2	maa		0:48	275	6:38	19	13:13	259	18:52	23			00:26	325	07:20	69	12:51	309	19:26	73			00:48	335	07:21	59	13:13	319	19:27	63		
27-2	din	09:06 EK	1:16	274	7:07	11	13:43	261	19:22	13			00:54	324	07:47	61	13:21	311	19:53	63			01:16	334	07:48	51	13:43	321	19:54	53		
28-2	woe		1:46	273	7:38	0	14:15	261	19:54	5			01:24	323	08:14	50	13:53	311	20:22	55			01:46	333	08:15	40	14:15	321	20:23	45		
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1-3	vry		2:50	264	8:41	6	15:17	251	20:57	13			2:28	314	09:07	56	14:55	301	21:19	63			2:50	324	09:08	46	15:17	311	21:20	53		
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4-3	maa		4:43	240	10:33	54	17:07	244	23:02	54			04:21	290	10:39	104	16:45	294	23:17	104			04:43	300	10:40	94	17:07	304	23:18	94		
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6-3	woe	13:40 VM			3:16	59	6:55	231	12:50	65	18:45	246			00:38	109	06:33	281	13:12	115	19:07	296			00:39	99	06:55	291	13:13	105	19:29	306
7-3	don				3:59	47	8:20	233	14:18	50	20:16	255			02:08	97	07:58	283	14:40	100	20:38	305			02:09	87	08:20	293	14:41	90	21:00	315
8-3	vry				4:46	23	9:55	243	15:44	28	21:34	269			03:39	73	09:33	293	16:06	78	21:56	319			03:40	63	09:55	303	16:07	68	22:18	329
9-3	zat				5:21	-3	11:04	254	16:48	7	22:33	280			04:56	47	10:42	304	17:16	57	22:55	330			04:57	37	11:04	314	17:17	47	23:17	340
10-3	zon				5:47	-23	11:57	258	17:39	-9	23:22	287			05:55	27	11:35	308	18:10	41	23:44	337			05:56	17	11:57	318	18:11	31		
11-3	maa				6:10	-33	12:43	259	18:24	-21					06:44	17	12:21	309	18:57	29			00:06	347	06:45	7	12:43	319	18:58	19		
12-3	din		0:51	294	6:46	-37	13:26	260	19:07	-30			00:29	344	07:28	13	13:04	310	19:39	20			00:51	354	07:29	3	13:26	320	19:40	10		
13-3	woe		1:34	298	7:28	-36	14:06	262	19:49	-37			01:12	348	08:09	14	13:44	312	20:18	13			01:34	358	08:10	4	14:06	322	20:19	3		
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16-3	zat		3:41	262	9:28	-5	15:59	239	21:49	-17			03:19	312	09:46	45	15:37	289	22:03	33			03:41	322	09:47	35	15:59	299	22:04	23		
17-3	zon		4:25	235	10:08	15	16:36	224	22:33	4			04:03	285	10:16	65	16:14	274	22:43	54			04:25	295	10:17	55	16:36	284	22:44	44		
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19-3	din		6:23	196	12:12	62	18:45	207	21:11	42			06:01	246	12:08	112	18:23	257	01:32	92			06:23	256	12:09	102	18:45	267	01:33	82		
20-3	woe	18:23 NM			3:48	42	7:58	199	13:53	67	19:48	224			01:32	92	07:36	249	14:15	117	20:10	274			01:33	82	07:58	259	14:16	107	20:32	284
21-3	don				4:35	38	9:32	224	15:16	52	21:01	254			03:11	88	09:10	274	15:44	102	21:23	304			03:12	78	09:32	284	15:45	92	21:45	314
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23-3	zat				5:25	16	11:13	260	16:53	26	22:34	279			05:10	66	10:51	310	17:24	76	22:56	329			05:11	56	11:13	320	17:25	66	23:18	339
24-3	zon				5:43	13	11:48	259	17:27	20	23:07	273			05:49	63	11:26	309	18:01	70	23:29	323			05:50	53	11:48	319	18:02	60	23:51	333

Referentievlak :LAT lw 23:59 halverweg

eigen berekening

datum	dag		HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm
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26-3	din				6:11	2	12:44	255	18:24	3					06:51	52	12:22	305	19:00	53			00:20	326	06:52	42	12:44	315	19:01	43		
27-3	woe		0:50	263	6:40	-8	13:15	260	18:56	-7			00:28	313	07:19	42	12:53	310	19:30	43			00:50	323	07:20	32	13:15	320	19:31	33		
28-3	don	04:32 EK	1:22	264	7:13	-13	13:49	264	19:30	-10			01:00	314	07:47	37	13:27	314	20:00	40			01:22	324	07:48	27	13:49	324	20:01	30		
29-3	vry		1:57	264	7:47	-7	14:22	263	20:03	-1			01:35	314	08:16	43	14:00	313	20:30	49			01:57	324	08:17	33	14:22	323	20:31	39		
30-3	zat		2:30	259	8:17	11	14:49	260	21:02	15			02:08	309	08:41	61	14:27	310	20:57	65			02:30	319	08:42	51	14:49	320	20:58	55		
31-3	zon		4:01	251	9:46	30	16:15	258	22:03	30			03:39	301	10:03	80	15:53	308	22:23	80			04:01	311	10:04	70	16:15	318	22:24	70		
1-4	maa		4:36	244	10:21	40	16:50	257	22:44	40			04:14	294	10:30	90	16:28	307	23:00	90			04:36	304	10:31	80	16:50	317	23:01	80		
2-4	din		5:23	236	11:11	50	17:43	255	20:40	40			05:01	286	11:13	100	17:21	305	00:01	90			05:23	296	11:14	90	17:43	315	00:02	80		
3-4	woe				3:02	40	6:27	229	12:17	62	18:07	252			00:01	90	06:05	279	12:27	112	18:29	302			00:02	80	06:27	289	12:28	102	18:51	312
4-4	don				3:40	40	7:43	226	13:34	58	19:26	253			01:26	90	07:21	276	13:55	108	19:48	303			01:27	80	07:43	286	13:56	98	20:10	313
5-4	vry	06:34 VM			4:24	20	9:11	232	15:03	41	20:56	263			02:57	70	08:49	282	15:23	91	21:18	313			02:58	60	09:11	292	15:24	81	21:40	323
6-4	zat				5:08	0	10:38	245	16:24	21	22:11	277			04:21	50	10:16	295	16:45	71	22:33	327			04:22	40	10:38	305	16:46	61	22:55	337
7-4	zon				5:40	-20	11:42	256	17:25	3	23:08	286			05:33	30	11:20	306	17:53	53	23:30	336			05:34	20	11:42	316	17:54	43	23:52	346
8-4	maa				6:06	-30	12:34	260	18:15	-10					06:31	20	12:12	310	18:47	40					06:32	10	12:34	320	18:48	30		
9-4	din		0:42	291	6:38	-30	13:18	261	19:00	-21			00:20	341	07:20	20	12:56	311	19:34	29			00:42	351	07:21	10	13:18	321	19:35	19		
10-4	woe		1:28	292	7:21	-40	13:59	262	19:42	-32			01:06	342	08:03	10	13:37	312	20:16	18			01:28	352	08:04	0	13:59	322	20:17	8		
11-4	don		2:11	291	8:03	-40	14:39	265	20:24	-41			01:49	341	08:42	10	14:17	315	20:55	9			02:11	351	08:43	0	14:39	325	20:56	0		
12-4	vry	11:11 LK	2:55	284	8:44	-30	15:17	264	21:05	-42			02:33	334	09:17	20	14:55	314	21:31	8			02:55	344	09:18	10	15:17	324	21:32	0		
13-4	zat		3:38	268	9:24	-20	15:54	257	21:44	-32			03:16	318	09:46	30	15:32	307	22:04	18			03:38	328	09:47	20	15:54	317	22:05	8		
14-4	zon		4:20	247	10:02	0	16:29	247	22:23	-12			03:58	297	10:12	50	16:07	297	22:37	38			04:20	307	10:13	40	16:29	307	22:38	28		
15-4	maa		5:03	226	10:42	20	17:05	238	23:05	14			04:41	276	10:43	70	16:43	288	23:16	64			05:03	286	10:44	60	17:05	298	23:17	54		
16-4	din		5:51	212	11:29	40	17:51	232	20:44	40			05:29	262	11:24	90	17:29	282	00:14	90			05:51	272	11:25	80	17:51	292	00:15	80		
17-4	woe				3:15	40	6:52	207	12:37	72	18:23	232			00:14	90	06:30	257	12:25	122	18:45	282			00:15	80	06:52	267	12:26	112	19:07	292
18-4	don				3:54	50	8:10	213	14:04	80	19:58	245			01:57	100	07:48	263	14:26	130	20:20	295			01:58	90	08:10	273	14:27	120	20:42	305
19-4	vry	06:14 NM			4:40	40	9:42	230	15:29	65	21:16	265			03:22	90	09:20	280	15:54	115	21:38	315			03:23	80	09:42	290	15:55	105	22:00	325
20-4	zat				5:12	30	10:47	247	16:29	44	22:11	276			04:34	80	10:25	297	16:58	94	22:33	326			04:35	70	10:47	307	16:59	84	22:55	336
21-4	zon				5:35	10	11:32	254	17:13	26	22:54	273			05:28	60	11:10	304	17:46	76	23:16	323			05:29	50	11:32	314	17:47	66	23:38	333
22-4	maa				5:53	0	12:08	253	17:49	13	23:30	264			06:09	50	11:46	303	18:25	63	23:52	314			06:10	40	12:08	313	18:26	53		
23-4	din				6:08	0	12:39	252	18:20	3					06:43	50	12:17	302	18:58	53			00:14	324	06:44	40	12:39	312	18:59	43		
24-4	woe		0:47	257	6:37	-10	13:12	257	18:54	-7			00:25	307	07:15	40	12:50	307	19:30	43			00:47	317	07:16	30	13:12	317	19:31	33		
25-4	don		1:22	258	7:12	-20	13:47	266	19:30	-12			01:00	308	07:47	30	13:25	316	20:03	38			01:22	318	07:48	20	13:47	326	20:04	28		
26-4	vry	23:20 EK	1:59	262	7:49	-10	14:23	272	20:07	-8			01:37	312	08:19	40	14:01	322	20:38	42			01:59	322	08:20	30	14:23	332	20:39	32		
27-4	zat		2:36	263	8:24	0	14:57	273	20:42	5			02:14	313	08:51	50	14:35	323	21:11	55			02:36	323	08:52	40	14:57	333	21:12	45		
28-4	zon		3:13	258	8:58	10	15:27	271	21:15	19			02:51	308	09:20	60	15:05	321	21:43	69			03:13	318	09:21	50	15:27	331	21:44	59		
29-4	maa		3:49	249	9:32	30	15:59	268	21:51	29			03:27	299	09:48	80	15:37	318	22:17	79			03:49	309	09:49	70	15:59	328	22:18	69		
30-4	din		4:29	239	10:12	40	16:40	267	22:38	32			04:07	289	10:22	90	16:18	317	23:02	82			04:29	299	10:23	80	16:40	327	23:03	72		
1-5	woe		5:21	231	11:05	40	17:34	265	20:35	20			04:59	281	11:14	90	17:12	315	00:06	70			05:21	291	11:15	80	17:34	325	00:07	60		
2-5	don				3:01	20	6:24	227	12:10	47	17:56	264			00:06	70	06:02	277	12:25	97	18:18	314			00:07	60	06:24	287	12:26	87	18:40	324
3-5	vry				3:37	20	7:37	229	13:24	40	19:11	267			01:21	70	07:15	279	13:41	90	19:33	317			01:22	60	07:37	289	13:42	80	19:55	327
4-5	zat	19:34 VM			4:16	0	8:55	237	14:43	30	20:31	275			02:41	50	08:33	287	15:01	80	20:53	325			02:42	40	08:55	297	15:02	70	21:15	335
5-5	zon				4:54	-10	10:11	246	15:56	18	21:42	282			03:55	40	09:49	296	16:16	68	22:04	332			03:56	30	10:11	306	16:17	58	22:26	342
6-5	maa				5:26	-20	11:15	253	16:58	7	22:42	284			05:03	30	10:53	303	17:24	57	23:04	334			05:04	20	11:15	313	17:25	47	23:26	344
7-5	din				5:52	-20	12:07	256	17:50	-5	23:33	283			06:03	30	11:45	306	18:21	45	23:55	333			06:04	20	12:07	316	18:22	35		

Referentievlak :LAT lw 23:59 halverweg

eigen berekening

datum	dag		HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm
8-5	woe				6:15	-20	12:52	257	18:36	-18					06:53	30	12:30	307	19:10	32			00:17	343	06:54	20	12:52	317	19:11	22		
9-5	don		1:06	279	6:58	-30	13:34	260	19:20	-32			00:44	329	07:37	20	13:12	310	19:54	18			01:06	339	07:38	10	13:34	320	19:55	8		
10-5	vry		1:52	275	7:41	-30	14:14	264	20:03	-39			01:30	325	08:16	20	13:52	314	20:35	11			01:52	335	08:17	10	14:14	324	20:36	1		
11-5	zat	16:28	2:37	268	8:23	-20	14:53	266	20:44	-34			02:15	318	08:51	30	14:31	316	21:13	16			02:37	328	08:52	20	14:53	326	21:14	6		
12-5	zon		3:21	257	9:04	-10	15:31	263	21:25	-17			02:59	307	09:21	40	15:09	313	21:46	33			03:21	317	09:22	30	15:31	323	21:47	23		
13-5	maa		4:04	244	9:43	10	16:07	258	22:03	8			03:42	294	09:50	60	15:45	308	22:19	58			04:04	304	09:51	50	16:07	318	22:20	48		
14-5	din		4:45	233	10:22	30	16:43	256	22:43	32			04:23	283	10:22	80	16:21	306	22:58	82			04:45	293	10:23	70	16:43	316	22:59	72		
15-5	woe		5:29	227	11:06	50	17:27	257	23:32	50			05:07	277	11:02	100	17:05	307	23:55	100			05:29	287	11:03	90	17:27	317	23:56	90		
16-5	don		6:23	227	12:05	70	18:32	259	21:04	50			06:01	277	11:58	120	18:10	309	01:15	100			06:23	287	11:59	110	18:32	319	01:16	90		
17-5	vry				3:32	50	7:27	231	13:17	77	19:07	263			01:15	100	07:05	281	13:23	127	19:29	313			01:16	90	07:27	291	13:24	117	19:51	323
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19-5	zon				4:39	30	9:40	242	15:28	45	21:17	266			03:34	80	09:18	292	16:00	95	21:39	316			03:35	70	09:40	302	16:01	85	22:01	326
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21-5	din				5:28	0	11:19	249	17:04	14	22:49	252			05:18	50	10:57	299	17:40	64	23:11	302			05:19	40	11:19	309	17:41	54	23:33	312
22-5	woe				5:48	0	11:59	255	17:43	5	23:28	252			05:58	50	11:37	305	18:19	55	23:50	302			05:59	40	11:59	315	18:20	45		
23-5	don				6:08	-10	12:38	264	18:23	-1					06:35	40	12:16	314	18:57	49			00:12	312	06:36	30	12:38	324	18:58	39		
24-5	vry		0:53	257	6:43	-10	13:18	275	19:04	-2			00:31	307	07:13	40	12:56	325	19:37	48			00:53	317	07:14	30	13:18	335	19:38	38		
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26-5	zon	17:22 EK	2:18	264	8:04	10	14:35	283	20:25	8			01:56	314	08:30	60	14:13	333	20:58	58			02:18	324	08:31	50	14:35	343	20:59	48		
27-5	maa		3:01	258	8:44	20	15:11	280	21:04	14			02:39	308	09:07	70	14:49	330	21:37	64			03:01	318	09:08	60	15:11	340	21:38	54		
28-5	din		3:43	248	9:24	20	15:50	279	21:46	14			03:21	298	09:43	70	15:28	329	22:19	64			03:43	308	09:44	60	15:50	339	22:20	54		
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2-6	zon				4:03	0	8:28	238	14:14	24	20:01	277			02:16	50	08:06	288	14:32	74	20:23	327			02:17	40	08:28	298	14:33	64	20:45	337
3-6	maa	05:42 VM			4:38	0	9:39	240	15:24	21	21:10	273			03:24	50	09:17	290	15:44	71	21:32	323			03:25	40	09:39	300	15:45	61	21:54	333
4-6	din				5:11	0	10:45	242	16:30	13	22:15	268			04:29	50	10:23	292	16:53	63	22:37	318			04:30	40	10:45	302	16:54	53	22:59	328
5-6	woe				5:39	-10	11:40	245	17:26	0	23:13	263			05:32	40	11:18	295	17:56	50	23:35	313			05:33	30	11:40	305	17:57	40	23:57	323
6-6	don				6:02	-10	12:27	250	18:16	-15					06:27	40	12:05	300	18:51	35					06:28	30	12:27	310	18:52	25		
7-6	vry		0:50	260	6:39	-10	13:12	256	19:03	-25			00:28	310	07:14	40	12:50	306	19:39	25			00:50	320	07:15	30	13:12	316	19:40	15		
8-6	zat		1:39	259	7:24	-10	13:54	263	19:47	-25			01:17	309	07:57	40	13:32	313	20:23	25			01:39	319	07:58	30	13:54	323	20:24	15		
9-6	zon	21:31 LK	2:25	257	8:08	-10	14:35	267	20:29	-12			02:03	307	08:36	40	14:13	317	21:03	38			02:25	317	08:37	30	14:35	327	21:04	28		
10-6	maa		3:08	254	8:49	10	15:14	268	21:08	10			02:46	304	09:10	60	14:52	318	21:39	60			03:08	314	09:11	50	15:14	328	21:40	50		
11-6	din		3:48	249	9:26	30	15:49	269	21:45	31			03:26	299	09:39	80	15:27	319	22:12	81			03:48	309	09:40	70	15:49	329	22:13	71		
12-6	woe		4:26	245	10:03	50	16:24	272	22:22	44			04:04	295	10:09	100	16:02	322	22:48	94			04:26	305	10:10	90	16:24	332	22:49	84		
13-6	don		5:06	244	10:43	60	17:04	275	23:05	48			04:44	294	10:47	110	16:42	325	23:34	98			05:06	304	10:48	100	17:04	335	23:35	88		
14-6	vry		5:52	243	11:31	60	17:55	273	20:46	40			05:30	293	11:34	110	17:33	323	00:30	90			05:52	303	11:35	100	17:55	333	00:31	80		
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16-6	zon				3:42	30	7:46	237	13:34	58	19:22	256			01:31	80	07:24	287	13:41	108	19:44	306			01:32	70	07:46	297	13:42	98	20:06	316
17-6	maa	06:37 NM			4:11	30	8:45	236	14:33	50	20:22	247			02:34	80	08:23	286	14:53	100	20:44	297			02:35	70	08:45	296	14:54	90	21:06	307
18-6	din				4:39	20	9:41	237	15:29	41	21:17	241			03:32	70	09:19	287	15:57	91	21:39	291			03:33	60	09:41	297	15:58	81	22:01	301
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20-6	don				5:29	20	11:21	257	17:08	25	22:55	250			05:10	70	10:59	307	17:40	75	23:17	300			05:11	60	11:21	317	17:41	65	23:39	310

Referentievlak :LAT lw 23:59 halverweg

eigen berekening

datum	dag		HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm
21-6	vry				5:53	20	12:08	271	17:55	18					05:56	70	11:46	321	18:28	68					05:57	60	12:08	331	18:29	58		
22-6	zat		0:28	259	6:18	10	12:53	282	18:43	12			00:06	309	06:44	60	12:31	332	19:17	62			00:28	319	06:45	50	12:53	342	19:18	52		
23-6	zon		1:18	264	7:06	10	13:38	287	19:29	8			00:56	314	07:32	60	13:16	337	20:05	58			01:18	324	07:33	50	13:38	347	20:06	48		
24-6	maa		2:06	263	7:51	10	14:20	288	20:14	4			01:44	313	08:17	60	13:58	338	20:51	54			02:06	323	08:18	50	14:20	348	20:52	44		
25-6	din	09:50 EK	2:54	256	8:35	10	15:01	286	20:57	-1			02:32	306	09:00	60	14:39	336	21:36	49			02:54	316	09:01	50	15:01	346	21:37	39		
26-6	woe		3:39	248	9:19	10	15:43	287	21:41	-5			03:17	298	09:42	60	15:21	337	22:20	45			03:39	308	09:43	50	15:43	347	22:21	35		
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28-6	vry		5:13	242	10:53	0	17:17	292	23:18	-7			04:51	292	11:10	50	16:55	342	23:54	43			05:13	302	11:11	40	17:17	352	23:55	33		
29-6	zat		6:04	242	11:46	0	18:12	289	20:54	-10			05:42	292	12:00	50	17:50	339	00:48	40			06:04	302	12:01	40	18:12	349	00:49	30		
30-6	zon				3:18	-10	6:59	240	12:43	16	18:28	280			00:48	40	06:37	290	12:57	66	18:50	330			00:49	30	06:59	300	12:58	56	19:12	340
1-7	maa				3:48	0	7:59	235	13:46	23	19:34	267			01:49	50	07:37	285	14:04	73	19:56	317			01:50	40	07:59	295	14:05	63	20:18	327
2-7	din	13:39 VM			4:22	10	9:06	230	14:55	24	20:45	253			02:53	60	08:44	280	15:16	74	21:07	303			02:54	50	09:06	290	15:17	64	21:29	313
3-7	woe				4:57	10	10:16	230	16:07	17	21:58	246			03:58	60	09:54	280	16:28	67	22:20	296			03:59	50	10:16	290	16:29	57	22:42	306
4-7	don				5:27	10	11:17	238	17:09	3	23:02	246			05:05	60	10:55	288	17:41	53	23:24	296			05:06	50	11:17	298	17:42	43	23:46	306
5-7	vry				5:53	0	12:09	249	18:02	-9					06:09	50	11:47	299	18:40	41					06:10	40	12:09	309	18:41	31		
6-7	zat		0:40	252	6:26	0	12:56	261	18:50	-12			00:18	302	07:01	50	12:34	311	19:30	38			00:40	312	07:02	40	12:56	321	19:31	28		
7-7	zon		1:29	257	7:12	0	13:40	270	19:34	-3			01:07	307	07:46	50	13:18	320	20:14	47			01:29	317	07:47	40	13:40	330	20:15	37		
8-7	maa		2:13	261	7:55	10	14:21	276	20:14	14			01:51	311	08:27	60	13:59	326	20:54	64			02:13	321	08:28	50	14:21	336	20:55	54		
9-7	din	03:48 LK	2:52	261	8:32	30	14:57	279	20:50	31			02:30	311	09:01	80	14:35	329	21:28	81			02:52	321	09:02	70	14:57	339	21:29	71		
10-7	woe		3:28	259	9:06	40	15:29	282	21:22	41			03:06	309	09:29	90	15:07	332	21:58	91			03:28	319	09:30	80	15:29	342	21:59	81		
11-7	don		4:01	258	9:39	50	16:01	285	21:56	40			03:39	308	09:56	100	15:39	335	22:28	90			04:01	318	09:57	90	16:01	345	22:29	80		
12-7	vry		4:37	257	10:14	50	16:36	284	22:34	35			04:15	307	10:28	100	16:14	334	23:04	85			04:37	317	10:29	90	16:36	344	23:05	75		
13-7	zat		5:18	252	10:55	40	17:17	276	23:17	33			04:56	302	11:07	90	16:55	326	23:45	83			05:18	312	11:08	80	17:17	336	23:46	73		
14-7	zon		6:03	244	11:42	40	18:05	261	20:51	30			05:41	294	11:52	90	17:43	311	00:32	80			06:03	304	11:53	80	18:05	321	00:33	70		
15-7	maa				3:16	30	6:54	235	12:35	54	18:17	245			00:32	80	06:32	285	12:44	104	18:39	295			00:33	70	06:54	295	12:45	94	19:01	305
16-7	din	20:32 NM			3:43	40	7:49	230	13:34	62	19:19	234			01:23	90	07:27	280	13:43	112	19:41	284			01:24	80	07:49	290	13:44	102	20:03	294
17-7	woe				4:12	50	8:47	234	14:34	65	20:21	233			02:21	100	08:25	284	14:51	115	20:43	283			02:22	90	08:47	294	14:52	105	21:05	293
18-7	don				4:42	50	9:47	246	15:34	60	21:21	241			03:21	100	09:25	296	16:00	110	21:43	291			03:22	90	09:47	306	16:01	100	22:05	301
19-7	vry				5:12	50	10:46	263	16:34	48	22:23	253			04:21	100	10:24	313	17:04	98	22:45	303			04:22	90	10:46	323	17:05	88	23:07	313
20-7	zat				5:40	40	11:43	279	17:34	34	23:26	262			05:22	90	11:21	329	18:06	84	23:48	312			05:23	80	11:43	339	18:07	74		
21-7	zon				6:06	30	12:35	290	18:28	18					06:24	80	12:13	340	19:04	68			00:10	322	06:25	70	12:35	350	19:05	58		
22-7	maa		1:06	266	6:52	20	13:23	293	19:18	3			00:44	316	07:19	70	13:01	343	19:57	53			01:06	326	07:20	60	13:23	353	19:58	43		
23-7	din		1:58	263	7:41	10	14:08	294	20:04	-8			01:36	313	08:09	60	13:46	344	20:44	42			01:58	323	08:10	50	14:08	354	20:45	32		
24-7	woe		2:45	259	8:26	0	14:51	296	20:47	-15			02:23	309	08:53	50	14:29	346	21:29	35			02:45	319	08:54	40	14:51	356	21:30	25		
25-7	don	00:07 EK	3:29	256	9:09	-10	15:34	300	21:31	-17			03:07	306	09:35	40	15:12	350	22:11	33			03:29	316	09:36	30	15:34	360	22:12	23		
26-7	vry		4:13	255	9:53	-10	16:18	305	22:15	-15			03:51	305	10:16	40	15:56	355	22:52	35			04:13	315	10:17	30	16:18	365	22:53	25		
27-7	zat		4:57	255	10:38	-10	17:04	303	23:01	-7			04:35	305	10:57	40	16:42	353	23:35	43			04:57	315	10:58	30	17:04	363	23:36	33		
28-7	zon		5:43	252	11:26	0	17:54	291	20:45	0			05:21	302	11:41	50	17:32	341	00:21	50			05:43	312	11:42	40	17:54	351	00:22	40		
29-7	maa				3:05	0	6:33	243	12:19	14	18:05	271			00:21	50	06:11	293	12:31	64	18:27	321			00:22	40	06:33	303	12:32	54	18:49	331
30-7	din				3:33	20	7:28	231	13:18	26	19:09	249			01:15	70	07:06	281	13:35	76	19:31	299			01:16	60	07:28	291	13:36	66	19:53	309
31-7	woe	20:32 VM			4:06	30	8:34	223	14:30	30	20:27	233			02:21	80	08:12	273	14:54	80	20:49	283			02:22	70	08:34	283	14:55	70	21:11	293
1-8	don				4:45	30	9:53	227	15:51	24	21:49	234			03:34	80	09:31	277	16:14	74	22:11	284			03:35	70	09:53	287	16:15	64	22:33	294
2-8	vry				5:19	20	11:01	244	16:57	11	22:53	248			04:52	70	10:39	294	17:34	61	23:15	298			04:53	60	11:01	304	17:35	51	23:37	308
3-8	zat				5:46	10	11:55	264	17:50	2					05:59	60	11:33	314	18:31	52					06:00	50	11:55	324	18:32	42		

Referentievlak :LAT lw 23:59 halverweg

eigen berekening

datum	dag		HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm
4-8	zon		0:31	263	6:15	10	12:43	281	18:37	5			00:09	313	06:50	60	12:21	331	19:19	55			00:31	323	06:51	50	12:43	341	19:20	45		
5-8	maa		1:16	272	6:59	20	13:26	290	19:18	17			00:54	322	07:33	70	13:04	340	20:00	67			01:16	332	07:34	60	13:26	350	20:01	57		
6-8	din		1:56	273	7:37	30	14:02	292	19:53	31			01:34	323	08:11	80	13:40	342	20:35	81			01:56	333	08:12	70	14:02	352	20:36	71		
7-8	woe	12:28 LK	2:30	271	8:09	40	14:32	292	20:23	37			02:08	321	08:41	90	14:10	342	21:05	87			02:30	331	08:42	80	14:32	352	21:06	77		
8-8	don		2:59	269	8:38	40	15:01	292	20:53	34			02:37	319	09:07	90	14:39	342	21:32	84			02:59	329	09:08	80	15:01	352	21:33	74		
9-8	vry		3:30	269	9:08	40	15:31	292	21:25	26			03:08	319	09:33	90	15:09	342	21:59	76			03:30	329	09:34	80	15:31	352	22:00	66		
10-8	zat		4:05	267	9:43	30	16:05	286	22:00	23			03:43	317	10:03	80	15:43	336	22:30	73			04:05	327	10:04	70	16:05	346	22:31	63		
11-8	zon		4:41	261	10:19	30	16:41	275	22:37	32			04:19	311	10:36	80	16:19	325	23:02	82			04:41	321	10:37	70	16:41	335	23:03	72		
12-8	maa		5:18	252	10:57	40	17:21	261	23:16	49			04:56	302	11:12	90	16:59	311	23:35	99			05:18	312	11:13	80	17:21	321	23:36	89		
13-8	din		5:56	244	11:39	60	18:06	248	20:51	60			05:34	294	11:52	110	17:44	298	00:16	110			05:56	304	11:53	100	18:06	308	00:17	100		
14-8	woe				3:09	60	6:41	241	12:29	77	18:17	241			00:16	110	06:19	291	12:45	127	18:39	291			00:17	100	06:41	301	12:46	117	19:01	301
15-8	don	11:38 NM			3:38	80	7:38	245	13:29	86	19:21	241			01:13	130	07:16	295	13:53	136	19:43	291			01:14	120	07:38	305	13:54	126	20:05	301
16-8	vry				4:12	80	8:47	256	14:40	81	20:33	249			02:22	130	08:25	306	15:10	131	20:55	299			02:23	120	08:47	316	15:11	121	21:17	309
17-8	zat				4:51	70	10:05	272	15:59	62	21:54	259			03:35	120	09:43	322	16:31	112	22:16	309			03:36	110	10:05	332	16:32	102	22:38	319
18-8	zon				5:28	50	11:18	289	17:14	37	23:10	268			04:52	100	10:56	339	17:48	87	23:32	318			04:53	90	11:18	349	17:49	77	23:54	328
19-8	maa				5:57	30	12:16	299	18:11	14					06:06	80	11:54	349	18:50	64					06:07	70	12:16	359	18:51	54		
20-8	din		0:52	271	6:37	10	13:06	303	19:01	-4			00:30	321	07:05	60	12:44	353	19:41	46			00:52	331	07:06	50	13:06	363	19:42	36		
21-8	woe		1:42	270	7:24	0	13:51	305	19:46	-14			01:20	320	07:53	50	13:29	355	20:27	36			01:42	330	07:54	40	13:51	365	20:28	26		
22-8	don		2:27	268	8:08	-10	14:34	310	20:29	-18			02:05	318	08:37	40	14:12	360	21:10	32			02:27	328	08:38	30	14:34	370	21:11	22		
23-8	vry	11:57 EK	3:09	268	8:50	-10	15:16	316	21:11	-17			02:47	318	09:18	40	14:54	366	21:50	33			03:09	328	09:19	30	15:16	376	21:51	23		
24-8	zat		3:51	270	9:33	-20	15:59	316	21:53	-10			03:29	320	09:57	30	15:37	366	22:29	40			03:51	330	09:58	20	15:59	376	22:30	30		
25-8	zon		4:32	269	10:15	-10	16:43	304	22:36	4			04:10	319	10:36	40	16:21	354	23:06	54			04:32	329	10:37	30	16:43	364	23:07	44		
26-8	maa		5:14	260	11:00	0	17:30	281	23:22	22			04:52	310	11:15	50	17:08	331	23:44	72			05:14	320	11:16	40	17:30	341	23:45	62		
27-8	din		5:59	245	11:49	10	18:23	253	21:00	40			05:37	295	11:59	60	18:01	303	00:28	90			05:59	305	12:00	50	18:23	313	00:29	80		
28-8	woe				3:14	40	6:51	230	12:48	38	18:45	229			00:28	90	06:29	280	13:02	88	19:07	279			00:29	80	06:51	290	13:03	78	19:29	289
29-8	don				3:50	50	8:03	223	14:07	46	20:12	221			01:44	100	07:41	273	14:36	96	20:34	271			01:45	90	08:03	283	14:37	86	20:56	281
30-8	vry	03:35 VM			4:35	60	9:33	234	15:36	41	21:39	237			03:15	110	09:11	284	16:05	91	22:01	287			03:16	100	09:33	294	16:06	81	22:23	297
31-8	zat				5:11	40	10:45	262	16:43	27	22:41	262			04:41	90	10:23	312	17:23	77	23:03	312			04:42	80	10:45	322	17:24	67	23:25	322
1-9	zon				5:39	30	11:40	290	17:36	19	23:32	280			05:43	80	11:18	340	18:16	69	23:54	330			05:44	70	11:40	350	18:17	59		
2-9	maa				6:02	30	12:26	305	18:20	22					06:32	80	12:04	355	19:00	72			00:16	340	06:33	70	12:26	365	19:01	62		
3-9	din		0:59	285	6:40	30	13:05	306	18:56	31			00:37	335	07:13	80	12:43	356	19:38	81			00:59	345	07:14	70	13:05	366	19:39	71		
4-9	woe		1:33	279	7:12	40	13:36	300	19:25	37			01:11	329	07:47	90	13:14	350	20:09	87			01:33	339	07:48	80	13:36	360	20:10	77		
5-9	don		2:00	273	7:39	40	14:03	294	19:52	34			01:38	323	08:15	90	13:41	344	20:36	84			02:00	333	08:16	80	14:03	354	20:37	74		
6-9	vry	00:21 LK	2:27	273	8:06	30	14:30	292	20:22	25			02:05	323	08:40	80	14:08	342	21:02	75			02:27	333	08:41	70	14:30	352	21:03	65		
7-9	zat		2:59	275	8:38	20	15:02	290	20:55	20			02:37	325	09:07	70	14:40	340	21:29	70			02:59	335	09:08	60	15:02	350	21:30	60		
8-9	zon		3:33	275	9:12	20	15:36	284	21:28	28			03:11	325	09:37	70	15:14	334	21:57	78			03:33	335	09:38	60	15:36	344	21:58	68		
9-9	maa		4:06	270	9:46	30	16:10	274	22:00	47			03:44	320	10:07	80	15:48	324	22:21	97			04:06	330	10:08	70	16:10	334	22:22	87		
10-9	din		4:35	263	10:17	50	16:44	263	22:32	69			04:13	313	10:34	100	16:22	313	22:43	119			04:35	323	10:35	90	16:44	323	22:44	109		
11-9	woe		5:05	260	10:53	70	17:25	255	23:14	87			04:43	310	11:04	120	17:03	305	23:17	137			05:05	320	11:05	110	17:25	315	23:18	127		
12-9	don		5:48	261	11:42	90	18:21	250	20:59	90			05:26	311	11:53	140	17:59	300	00:18	140			05:48	321	11:54	130	18:21	310	00:19	130		
13-9	vry				3:13	90	6:49	263	12:46	97	18:44	249			00:18	140	06:27	313	13:12	147	19:06	299			00:19	130	06:49	323	13:13	137	19:28	309
14-9	zat	03:40 NM			3:49	90	8:01	270	14:01	86	20:02	254			01:41	140	07:39	320	14:38	136	20:24	304			01:42	130	08:01	330	14:39	126	20:46	314
15-9	zon				4:33	80	9:29	282	15:32	60	21:36	264			03:04	130	09:07	332	16:08	110	21:58	314			03:05	120	09:29	342	16:09	100	22:20	324
16-9	maa				5:15	60	10:53	298	16:52	31	22:52	275			04:30	110	10:31	348	17:27	81	23:14	325			04:31	100	10:53	358	17:28	71	23:36	335

Referentievlak :LAT lw 23:59 halverweg

eigen berekening

datum	dag		HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm
17-9	din				5:45	30	11:53	309	17:50	8					05:46	80	11:31	359	18:28	58					05:47	70	11:53	369	18:29	48		
18-9	woe		0:32	280	6:15	20	12:42	314	18:38	-4			00:10	330	06:43	70	12:20	364	19:19	46			00:32	340	06:44	60	12:42	374	19:20	36		
19-9	don		1:19	279	7:01	10	13:27	317	19:21	-8			00:57	329	07:31	60	13:05	367	20:04	42			01:19	339	07:32	50	13:27	377	20:05	32		
20-9	vry		2:01	278	7:43	0	14:10	320	20:03	-9			01:39	328	08:14	50	13:48	370	20:45	41			02:01	338	08:15	40	14:10	380	20:46	31		
21-9	zat	21:32 EK	2:42	280	8:25	-10	14:53	321	20:45	-6			02:20	330	08:55	40	14:31	371	21:23	44			02:42	340	08:56	30	14:53	381	21:24	34		
22-9	zon		3:22	281	9:07	-10	15:36	312	21:26	3			03:00	331	09:33	40	15:14	362	21:59	53			03:22	341	09:34	30	15:36	372	22:00	43		
23-9	maa		4:02	277	9:49	-10	16:20	292	22:08	18			03:40	327	10:10	40	15:58	342	22:31	68			04:02	337	10:11	30	16:20	352	22:32	58		
24-9	din		4:42	266	10:32	10	17:06	263	22:52	39			04:20	316	10:47	60	16:44	313	23:02	89			04:42	326	10:48	50	17:06	323	23:03	79		
25-9	woe		5:24	250	11:19	30	17:58	236	23:43	63			05:02	300	11:27	80	17:36	286	23:39	113			05:24	310	11:28	70	17:58	296	23:40	103		
26-9	don		6:14	237	12:17	50	19:05	220	21:21	80			05:52	287	12:29	100	18:43	270	00:46	130			06:14	297	12:30	90	19:05	280	00:47	120		
27-9	vry				3:34	80	7:30	234	13:39	68	19:49	223			00:46	130	07:08	284	14:16	118	20:11	273			00:47	120	07:30	294	14:17	108	20:33	283
28-9	zat	11:57 VM			4:22	80	9:07	251	15:13	63	21:19	246			02:52	130	08:45	301	15:44	113	21:41	296			02:53	120	09:07	311	15:45	103	22:03	306
29-9	zon				4:59	70	10:20	282	16:20	48	22:20	273			04:15	120	09:58	332	16:58	98	22:42	323			04:16	110	10:20	342	16:59	88	23:04	333
30-9	maa				5:26	50	11:15	307	17:12	37	23:09	288			05:17	100	10:53	357	17:50	87	23:31	338			05:18	90	11:15	367	17:51	77	23:53	348
1-10	din				5:49	40	12:01	314	17:54	33					06:06	90	11:39	364	18:33	83					06:07	80	12:01	374	18:34	73		
2-10	woe		0:33	287	6:13	40	12:38	306	18:28	35			00:11	337	06:46	90	12:16	356	19:08	85			00:33	347	06:47	80	12:38	366	19:09	75		
3-10	don		1:03	278	6:43	40	13:07	292	18:55	34			00:41	328	07:19	90	12:45	342	19:38	84			01:03	338	07:20	80	13:07	352	19:39	74		
4-10	vry		1:28	273	7:08	30	13:33	285	19:22	27			01:06	323	07:47	80	13:11	335	20:04	77			01:28	333	07:48	70	13:33	345	20:05	67		
5-10	zat	15:48 LK	1:56	276	7:37	20	14:03	285	19:53	22			01:34	326	08:14	70	13:41	335	20:31	72			01:56	336	08:15	60	14:03	345	20:32	62		
6-10	zon		2:29	282	8:11	20	14:38	285	20:28	27			02:07	332	08:43	70	14:16	335	21:00	77			02:29	342	08:44	60	14:38	345	21:01	67		
7-10	maa		3:04	284	8:46	30	15:13	280	21:01	45			02:42	334	09:14	80	14:51	330	21:27	95			03:04	344	09:15	70	15:13	340	21:28	85		
8-10	din		3:35	281	9:18	50	15:45	271	21:30	68			03:13	331	09:43	100	15:23	321	21:48	118			03:35	341	09:44	90	15:45	331	21:49	108		
9-10	woe		4:00	276	9:46	70	16:17	262	22:00	87			03:38	326	10:07	120	15:55	312	22:08	137			04:00	336	10:08	110	16:17	322	22:09	127		
10-10	don		4:29	275	10:22	80	16:59	254	22:45	98			04:07	325	10:36	130	16:37	304	22:43	148			04:29	335	10:37	120	16:59	314	22:44	138		
11-10	vry		5:17	276	11:16	90	18:00	248	23:48	104			04:55	326	11:31	140	17:38	298	23:52	154			05:17	336	11:32	130	18:00	308	23:53	144		
12-10	zat		6:22	276	12:24	90	19:11	248	21:24	90			06:00	326	12:56	140	18:49	298	01:20	140			06:22	336	12:57	130	19:11	308	01:21	130		
13-10	zon	19:55 NM			3:37	90	7:36	280	13:43	72	19:50	255			01:20	140	07:14	330	14:22	122	20:12	305			01:21	130	07:36	340	14:23	112	20:34	315
14-10	maa				4:21	80	9:04	290	15:11	44	21:19	268			02:43	130	08:42	340	15:47	94	21:41	318			02:44	120	09:04	350	15:48	84	22:03	328
15-10	din				5:01	50	10:25	304	16:26	21	22:28	280			04:07	100	10:03	354	17:00	71	22:50	330			04:08	90	10:25	364	17:01	61	23:12	340
16-10	woe				5:31	30	11:25	313	17:23	7	23:22	285			05:19	80	11:03	363	18:00	57	23:44	335			05:20	70	11:25	373	18:01	47		
17-10	don				5:57	20	12:16	317	18:11	3					06:17	70	11:54	367	18:51	53			00:06	345	06:18	60	12:16	377	18:52	43		
18-10	vry		0:52	284	6:34	10	13:01	317	18:55	2			00:30	334	07:06	60	12:39	367	19:36	52			00:52	344	07:07	50	13:01	377	19:37	42		
19-10	zat		1:34	284	7:18	0	13:46	316	19:37	1			01:12	334	07:50	50	13:24	366	20:17	51			01:34	344	07:51	40	13:46	376	20:18	41		
20-10	zon		2:14	287	8:00	-10	14:30	310	20:19	3			01:52	337	08:31	40	14:08	360	20:55	53			02:14	347	08:32	30	14:30	370	20:56	43		
21-10	maa	05:29 EK	2:54	288	8:43	-10	15:16	296	21:03	12			02:32	338	09:11	40	14:54	346	21:30	62			02:54	348	09:12	30	15:16	356	21:31	52		
22-10	din		3:35	283	9:26	-10	16:01	275	21:45	30			03:13	333	09:48	40	15:39	325	21:59	80			03:35	343	09:49	30	16:01	335	22:00	70		
23-10	woe		4:14	272	10:08	10	16:47	251	22:28	53			03:52	322	10:24	60	16:25	301	22:28	103			04:14	332	10:25	50	16:47	311	22:29	93		
24-10	don		4:54	261	10:53	40	17:37	233	23:16	78			04:32	311	11:03	90	17:15	283	23:05	128			04:54	321	11:04	80	17:37	293	23:06	118		
25-10	vry		5:41	253	11:48	70	18:39	226	21:08	100			05:19	303	12:03	120	18:17	276	00:02	150			05:41	313	12:04	110	18:39	286	00:03	140		
26-10	zat				3:16	100	6:54	255	13:01	83	19:09	234			00:02	150	06:32	305	13:44	133	19:31	284			00:03	140	06:54	315	13:45	123	19:53	294
27-10	zon	22:24 VM			3:30	100	7:22	270	13:27	76	19:33	252			02:09	150	07:00	320	13:59	126	19:55	302			02:10	140	07:22	330	14:00	116	20:17	312
28-10	maa				4:07	90	8:37	291	14:39	60	20:41	271			02:27	140	08:15	341	15:09	110	21:03	321			02:28	130	08:37	351	15:10	100	21:25	331
29-10	din				4:36	70	9:35	304	15:33	43	21:31	280			03:34	120	09:13	354	16:08	93	21:53	330			03:35	110	09:35	364	16:09	83	22:15	340
30-10	woe				5:00	52	10:23	301	16:16	34	22:10	278			04:28	102	10:01	351	16:52	84	22:32	328			04:29	92	10:23	361	16:53	74	22:54	338

Referentievlak :LAT lw 23:59 halverweg

eigen berekening

datum	dag		HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm
31-10	don				5:19	41	11:01	289	16:50	30	22:40	273			05:10	91	10:39	339	17:28	80	23:02	323			05:11	81	11:01	349	17:29	70	23:24	333
1-11	vry				5:35	35	11:33	277	17:21	28	23:09	274			05:44	85	11:11	327	17:59	78	23:31	324			05:45	75	11:33	337	18:00	68	23:53	334
2-11	zat				5:51	29	12:04	274	17:52	25					06:14	79	11:42	324	18:29	75					06:15	69	12:04	334	18:30	65		
3-11	zon		0:25	282	6:09	25	12:38	278	18:27	27			00:03	332	06:45	75	12:16	328	19:00	77			00:25	342	06:46	65	12:38	338	19:01	67		
4-11	maa	09:17 LK	1:01	291	6:46	28	13:16	281	19:04	38			00:39	341	07:19	78	12:54	331	19:32	88			01:01	351	07:20	68	13:16	341	19:33	78		
5-11	din		1:37	294	7:23	41	13:53	277	19:38	58			01:15	344	07:54	91	13:31	327	20:01	108			01:37	354	07:55	81	13:53	337	20:02	98		
6-11	woe		2:09	290	7:57	59	14:29	267	20:10	76			01:47	340	08:26	109	14:07	317	20:27	126			02:09	350	08:27	99	14:29	327	20:28	116		
7-11	don		2:36	286	8:29	73	15:06	256	20:46	87			02:14	336	08:57	123	14:44	306	20:54	137			02:36	346	08:58	113	15:06	316	20:55	127		
8-11	vry		3:12	285	9:10	77	15:53	248	21:35	89			02:50	335	09:36	127	15:31	298	21:38	139			03:12	345	09:37	117	15:53	308	21:39	129		
9-11	zat		4:03	285	10:05	73	16:52	244	22:36	87			03:41	335	10:35	123	16:30	294	22:49	137			04:03	345	10:36	113	16:52	304	22:50	127		
10-11	zon		5:06	285	11:11	62	18:00	247	20:48	78			04:44	335	11:46	112	17:38	297	00:03	128			05:06	345	11:47	102	18:00	307	00:04	118		
11-11	maa				2:56	78	6:15	287	12:23	46	18:32	255			00:03	128	05:53	337	13:00	96	18:54	305			00:04	118	06:15	347	13:01	86	19:16	315
12-11	din	10:27 NM			3:35	66	7:33	292	13:41	30	19:50	264			01:18	116	07:11	342	14:17	80	20:12	314			01:19	106	07:33	352	14:18	70	20:34	324
13-11	woe				4:14	54	8:50	298	14:54	20	20:58	272			02:36	104	08:28	348	15:26	70	21:20	322			02:37	94	08:50	358	15:27	60	21:42	332
14-11	don				4:46	42	9:54	302	15:53	15	21:53	275			03:47	92	09:32	352	16:28	65	22:15	325			03:48	82	09:54	362	16:29	55	22:37	335
15-11	vry				5:13	31	10:49	301	16:44	13	22:40	277			04:48	81	10:27	351	17:22	63	23:02	327			04:49	71	10:49	361	17:23	53	23:24	337
16-11	zat				5:38	17	11:39	298	17:31	10	23:23	280			05:41	67	11:17	348	18:09	60	23:45	330			05:42	57	11:39	358	18:10	50		
17-11	zon				6:02	2	12:27	294	18:15	7					06:28	52	12:05	344	18:52	57			00:07	340	06:29	42	12:27	354	18:53	47		
18-11	maa	11:50 EK	0:49	284	6:39	-8	13:14	288	19:00	9			00:27	334	07:13	42	12:52	338	19:32	59			00:49	344	07:14	32	13:14	348	19:33	49		
19-11	din		1:31	286	7:24	-8	14:01	277	19:44	21			01:09	336	07:56	42	13:39	327	20:08	71			01:31	346	07:57	32	14:01	337	20:09	61		
20-11	woe		2:13	283	8:08	7	14:47	262	20:27	42			01:51	333	08:36	57	14:25	312	20:38	92			02:13	343	08:37	47	14:47	322	20:39	82		
21-11	don		2:53	276	8:50	32	15:31	248	21:08	65			02:31	326	09:13	82	15:09	298	21:06	115			02:53	336	09:14	72	15:31	308	21:07	105		
22-11	vry		3:31	271	9:31	57	16:16	239	21:52	85			03:09	321	09:50	107	15:54	289	21:42	135			03:31	331	09:51	97	16:16	299	21:43	125		
23-11	zat		4:14	270	10:18	76	17:07	238	22:48	98			03:52	320	10:45	126	16:45	288	22:34	148			04:14	330	10:46	116	17:07	298	22:35	138		
24-11	zon		5:14	272	11:19	81	18:08	242	20:52	102			04:52	322	11:59	131	17:46	292	00:03	152			05:14	332	12:00	121	18:08	302	00:04	142		
25-11	maa				3:04	102	6:30	277	12:29	72	18:29	250			00:03	152	06:08	327	13:07	122	18:51	300			00:04	142	06:30	337	13:08	112	19:13	310
26-11	din	10:16 VM			3:39	89	7:40	281	13:37	56	19:34	257			01:28	139	07:18	331	14:10	106	19:56	307			01:29	129	07:40	341	14:11	96	20:18	317
27-11	woe				4:09	71	8:41	279	14:36	43	20:32	260			02:37	121	08:19	329	15:08	93	20:54	310			02:38	111	08:41	339	15:09	83	21:16	320
28-11	don				4:36	54	9:34	270	15:26	35	21:18	261			03:36	104	09:12	320	15:59	85	21:40	311			03:37	94	09:34	330	16:00	75	22:02	321
29-11	vry				4:58	42	10:19	261	16:08	33	21:57	264			04:25	92	09:57	311	16:41	83	22:19	314			04:26	82	10:19	321	16:42	73	22:41	324
30-11	zat				5:17	35	10:57	257	16:45	33	22:34	273			05:05	85	10:35	307	17:18	83	22:56	323			05:06	75	10:57	317	17:19	73	23:18	333
1-12	zon				5:36	31	11:35	262	17:24	33	23:13	285			05:41	81	11:13	312	17:54	83	23:35	335			05:42	71	11:35	322	17:55	73	23:57	345
2-12	maa				5:57	30	12:16	270	18:04	36					06:19	80	11:54	320	18:32	86					06:20	70	12:16	330	18:33	76		
3-12	din		0:37	294	6:26	33	12:59	274	18:44	44			00:15	344	06:59	83	12:37	324	19:10	94			00:37	354	07:00	73	12:59	334	19:11	84		
4-12	woe	06:49 LK	1:15	296	7:06	40	13:41	269	19:23	55			00:53	346	07:40	90	13:19	319	19:47	105			01:15	356	07:41	80	13:41	329	19:48	95		
5-12	don		1:51	293	7:44	48	14:21	259	20:00	63			01:29	343	08:19	98	13:59	309	20:21	113			01:51	353	08:20	88	14:21	319	20:22	103		
6-12	vry		2:24	289	8:21	50	15:03	248	20:41	64			02:02	339	08:58	100	14:41	298	20:58	114			02:24	349	08:59	90	15:03	308	20:59	104		
7-12	zat		3:04	288	9:04	45	15:49	243	21:28	59			02:42	338	09:41	95	15:27	293	21:44	109			03:04	348	09:42	85	15:49	303	21:45	99		
8-12	zon		3:53	289	9:55	37	16:42	242	22:23	54			03:31	339	10:31	87	16:20	292	22:40	104			03:53	349	10:32	77	16:42	302	22:41	94		
9-12	maa		4:49	289	10:53	30	17:41	244	23:23	51			04:27	339	11:29	80	17:19	294	23:41	101			04:49	349	11:30	70	17:41	304	23:42	91		
10-12	din		5:51	287	11:57	28	18:47	246	21:12	51			05:29	337	12:32	78	18:25	296	00:47	101			05:51	347	12:33	68	18:47	306	00:48	91		
11-12	woe				3:18	51	6:59	283	13:06	28	19:14	247			00:47	101	06:37	333	13:43	78	19:36	297			00:48	91	06:59	343	13:44	68	19:58	307
12-12	don	00:32 NM			3:55	50	8:13	277	14:19	28	20:25	249			02:02	100	07:51	327	14:52	78	20:47	299			02:03	90	08:13	337	14:53	68	21:09	309
13-12	vry				4:31	43	9:25	272	15:25	25	21:25	252			03:15	93	09:03	322	15:55	75	21:47	302			03:16	83	09:25	332	15:56	65	22:09	312

Referentievlak :LAT lw 23:59 halverweg

eigen berekening

datum	dag		HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm	HW	cm	lw	cm	HW	cm	lw	cm	HW	cm
14-12	zat				5:03	30	10:29	269	16:22	20	22:16	258			04:22	80	10:07	319	16:55	70	22:38	308			04:23	70	10:29	329	16:56	60	23:00	318
15-12	zon				5:31	13	11:24	268	17:13	14	23:03	266			05:22	63	11:02	318	17:48	64	23:25	316			05:23	53	11:24	328	17:49	54	23:47	326
16-12	maa				5:57	-2	12:16	268	18:01	11					06:16	48	11:54	318	18:36	61					06:17	38	12:16	328	18:37	51		
17-12	din		0:32	273	6:26	-8	13:05	267	18:48	16			00:10	323	07:05	42	12:43	317	19:21	66			00:32	333	07:06	32	13:05	327	19:22	56		
18-12	woe	09:39 EK	1:16	278	7:11	0	13:51	263	19:32	30			00:54	328	07:50	50	13:29	313	20:01	80			01:16	338	07:51	40	13:51	323	20:02	70		
19-12	don		1:58	278	7:54	19	14:34	256	20:13	51			01:36	328	08:32	69	14:12	306	20:35	101			01:58	338	08:33	59	14:34	316	20:36	91		
20-12	vry		2:37	276	8:33	42	15:13	249	20:50	68			02:15	326	09:08	92	14:51	299	21:00	118			02:37	336	09:09	82	15:13	309	21:01	108		
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22-12	zon		3:47	277	9:47	64	16:32	244	22:10	78			03:25	327	10:19	114	16:10	294	22:12	128			03:47	337	10:20	104	16:32	304	22:13	118		
23-12	maa		4:33	276	10:36	61	17:23	243	23:06	76			04:11	326	11:08	111	17:01	293	23:08	126			04:33	336	11:09	101	17:23	303	23:09	116		
24-12	din		5:34	268	11:35	56	18:21	240	20:59	72			05:12	318	12:07	106	17:59	290	00:16	122			05:34	328	12:08	96	18:21	300	00:17	112		
25-12	woe				3:09	72	6:41	256	12:38	52	18:35	236			00:16	122	06:19	306	13:10	102	18:57	286			00:17	112	06:41	316	13:11	92	19:19	296
26-12	don				3:41	67	7:44	244	13:39	50	19:34	235			01:30	117	07:22	294	14:10	100	19:56	285			01:31	107	07:44	304	14:11	90	20:18	295
27-12	vry	01:33 VM			4:10	60	8:42	235	14:35	51	20:29	240			02:38	110	08:20	285	15:06	101	20:51	290			02:39	100	08:42	295	15:07	91	21:13	300
28-12	zat				4:36	54	9:35	234	15:27	51	21:19	252			03:36	104	09:13	284	15:55	101	21:41	302			03:37	94	09:35	294	15:56	91	22:03	312
29-12	zon				5:01	48	10:25	241	16:15	48	22:06	268			04:26	98	10:03	291	16:41	98	22:28	318			04:27	88	10:25	301	16:42	88	22:50	328
30-12	maa				5:25	41	11:13	252	17:02	43	22:52	282			05:13	91	10:51	302	17:28	93	23:14	332			05:14	81	11:13	312	17:29	83	23:36	342
31-12	din				5:50	35	12:02	262	17:49	38	23:36	290			06:01	85	11:40	312	18:15	88	23:58	340			06:02	75	12:02	322	18:16	78		