Occultation prediction for Nederland midden
E. Longitude 5 0 0.0, Latitude 52 0 0.0, Alt. 0m; Telescope dia 35cm; dMag 0.0

y	m	day d	Time h	m	s	P	Star No	Sp D	Mag v	Mag r	V	% Illi	Elon Sun Alt	Moon Alt	Moon Az	CA o	PA o	VA o	AA o	Libration L	Libration B	A m/o	B m/o	RV "/s	Cct durn o	sec	R.A. (J2000) h	m	s	Dec o	m	s	Mdist Mm	SV m/s
21	May	1	3	34	54.7	r	2673	SA3	6.3			78-	124	-6	11	181	31S	210	210	215	+5.6	+3.9	+1.6	+0.8	.207	-118.2		18	28	6.2	-26	45	26	366.6	778.4
	2673 is triple: AB 6.4 9.3 0.36" 184.8, dT = -1.6sec : AC 6.3 8.7 54" 134.8, dT = -65sec																																
	2673 is a close double. Observations are highly desired																																
21	May	1	3	38	28.5	r	2669	CA7	6.4			78-	124	-5	12	182	67S	246	245	250	+5.6	+3.9	+1.5	+0.2	.393	-153.8		18	27	43.7	-26	38	6	366.6	778.5
	2669 is double: AB 6.59 8.48 0.76" 231.6, dT = -1.9sec																																
	2669 is a close double. Observations are highly desired																																
21	May	4	3	39	23.0	r	3141	K3	5.8	5.0		46-	86	-4	9	143	59S	220	244	239	+7.3	+7.2	+1.2	+1.7	.352	-146.4		21	27	14.8	-21	11	46	383.9	785.9
	R3141 = 35 Capricorni																																
21	May	7	8	44	32.6	d	3536	cM3	4.4	3.5v		17-	49	41	32	181	-83S	69	68	92	+5.2	+7.2	+1.5	+0.5	.372	-13.3	.02	0	1	57.6	-	6	0	51	395.9	733.7
	R3536 = 30 Piscium (YY)																																
	3536 is double: ** 5.2 5.2 0.050" 140.0, dT = +0.04sec																																
	3536 has been reported as non-instantaneous (OCc1092). Observations are highly desired																																
	3536 = YY Psc, 4.31 to 4.41, V, Type SR																																
21	May	7	10	0	34.3	R	3536	cM3	4.4	3.5v		17-	49	50	30	203	70S	222	208	245	+5.0	+7.1	+0.9	+0.6	.381	-166.4	.02	0	1	57.6	-	6	0	51	396.3	753.2
	R3536 = 30 Piscium (YY)																																
	3536 is double: ** 5.2 5.2 0.050" 140.0, dT = -0.02sec																																
	3536 has been reported as non-instantaneous (OCc1092). Observations are highly desired																																
	3536 = YY Psc, 4.31 to 4.41, V, Type SR																																
21	May	14	14	40	53.4	D	839	B2	5.4	5.4s		7+	30	41	60	206	57S	119	102	120	-4.0	-1.2	+1.7	-2.0	.287	-37.0		5	35	27.1	24	2	23	398.5	694.6
	R839 = 121 Tauri																																
	839 = NSV 16369, 5.38, range 0.06, V																																
21	May	14	20	6	4.7	d	77502	c*5	8.3	V		8+	33	-6	17	288	51N	48	8	48	-4.7	-1.2	+0.4	-0.6	.372	42.4		5	45	13.7	24	25	12	401.7	982.5
	77502 is double: AB 8.92 9.20 0.20" 292.0, dT = -0.24sec																																
	77502 is a close double. Observations are highly desired																																
	77502 = TU Tau, 7.7 to 8.8, V, Type SRB, Period 200.2 days, Phase 90%																																
21	May	14	20	17	59.0	d	77524	cA3	8.0			8+	33	-7	16	290	80S	97	57	97	-4.7	-1.2	-0.2	-1.6	.508	-6.3		5	45	56.6	24	13	30	401.8	996.7
	77524 is double: AB 8.46 9.13 0.10" 207.3, dT = -0.07sec																																
	77524 is a close double. Observations are highly desired																																
21	May	14	21	44	29.0	D	77597	K0	7.6	7.0		8+	33		4	305	81S	97	63	96	-4.7	-1.2	-0.5	-1.3	.558	-6.4		5	49	20.4	24	13	22	403.0	1097.3
21	May	14	21	52	16	m	77581	A0	8.4	8.3		8+	33		3	307	2N	0	327	360	-4.7	-1.2	+9.9	+9.9	.000	90.0		5	48	35.1	24	32	37	403.0	1106.6
21	May	15	20	28	58.3	d	78590	K8	8.4	7.5		14+	44	-8	22	283	77N	79	38	74	-5.9	-2.5	+0.2	-1.3	.477	17.2		6	39	25.7	25	4	19	398.7	964.9
21	May	15	20	51	26.1	D	78606	K2	8.7	8.1		14+	44	-11	19	287	48N	50	10	45	-5.9	-2.5	+0.4	-0.7	.356	46.0		6	40	1.5	25	9	49	399.0	992.4
21	May	15	22	39	19.3	D	1030	WA3	3.1	2.3s		15+	45		4	306	22N	25	351	19	-5.9	-2.5	+0.5	+0.4	.189	70.8	.04	6	43	55.9	25	7	52	400.3	1116.7
	R1030 = Mebsuta = epsilon Geminorum																																
	1030 is double: AB 3.1 9.6 110" 94.1, dT = +205sec																																
	1030 = NSV 3183, 2.97 to 3.09, V																																
21	May	16	14	50	35.0	D	1117	cG8	5.0	4.6		20+	53	40	62	162	67N	73	85	63	-6.0	-3.8	+1.6	+1.1	.341	21.7		7	23	28.5	25	3	2	393.0	700.1
	R1117 = 57 Geminorum																																
	1117 is double: ** 5.9 5.9 0.10" 90.0, dT = +0.28sec																																
	1117 has been reported as non-instantaneous (OCc1358). Observations are highly desired																																

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      day  Time      P   Star  Sp  Mag  Mag     % Elon Sun  Moon   CA   PA  VA  AA Libration   A   B   RV    Cct durn  R.A. (J2000)   Dec   Mdist   SV
y   m  d  h  m   s        No  D    v    r V  ill     Alt Alt Az   o    o   o   o   L    B   m/o m/o "/s     o  sec  h  m   s    o  m  s   Mm   m/s

21 May 16 16  6 36.3 r    1117cG8  5.0  4.6   20+  53  29 62 200 -67N 299 286 290 -6.2 -3.8 +1.4-1.6 .344  158.3      7 23 28.5  25  3  2 392.8 705.0
   R1117 = 57 Geminorum
      1117 is double: ** 5.9 5.9 0.10"  90.0, dT = +0.25sec
      1117 has been reported as non-instantaneous (OCc1358). Observations are highly desired
21 May 16 19 49 22.3 d    1140 R9  8.0  6.9V  21+  55  -3 35 266  64S 123  80 113 -6.8 -3.8 +0.2-2.2 .430  -20.4      7 31 54.5  24 30 13 394.2 876.2
   R1140 = NQ Geminorum
      1140 = NQ Gem, 7.4 to 8.18, V, Type ZAND+SR, Period 58.2 days, Phase  66%
21 May 16 21 26  4.5 D   79523wM5  7.7  6.8s  22+  56     20 284  42S 145 104 135 -6.9 -3.7 -0.5-2.4 .379  -42.8      7 34 59.3  24 15 56 395.4 990.2
     79523 is double: AB 7.8 11.1 92" 180.0, dT = +199sec
     79523 = NSV 17512, 7.69 to 7.78, Hp
21 May 16 22 38 15.6 D    1155 F0  6.4  6.2   22+  56     10 296  78N  85  48  75 -6.9 -3.7 -0.2-1.3 .538   15.9      7 38 14.4  24 21 38 396.31074.5
21 May 16 22 59 15.3 d   79578cA0  8.8  8.8   22+  56      8 300  80N  87  52  77 -6.9 -3.7 -0.3-1.2 .555   13.6      7 39  5.6  24 18 51 396.51097.9
     79578 is double: ** 9.6 9.6 0.10"  92.0, dT = +0.18sec
     79578 has been reported as non-instantaneous (OCc 762). Observations are highly desired
21 May 16 23  2 59.5 D    1157 A2  6.2  6.2   22+  56      7 301  81S 107  71  96 -6.9 -3.7 -0.5-1.4 .570   -6.1      7 39 12.0  24 13 21 396.61101.9
21 May 18 22 17  2.5 d   98547 G0  8.7  8.4   41+  79     24 271  76S 121  81 103 -8.0 -5.4 +0.1-1.9 .510   -8.9      9 24  6.9  19 28 31 385.8 965.5
21 May 18 22 48 47   M    1393 G7  6.5  6.0   41+  79     20 277   5N  22 341   3 -8.0 -5.4 +9.9+9.9 .000   90.0      9 24 45.3  19 47 12 386.21002.5
21 May 18 23 46  9.9 d   98567 A3  7.5  7.4   41+  80     11 287  29S 169 130 150 -8.0 -5.4 -0.7-2.3 .299  -58.3      9 26 34.5  19  3 36 386.91067.2
21 May 19 16 39 23.5 D    1484cA0  3.5  3.5s  49+  89  24 52 149  49N  70  89  49 -7.4 -6.2 +1.8+1.8 .293   44.6     10  7 20.0  16 45 46 379.3 756.4
   R1484 = eta Leonis
      1484 is double: AB 3.5 8.4 0.10" 240.6, dT = -0.34sec
      1484 is a close double. Observations are highly desired
      1484 = NSV 4738, 3.46 to 3.60, V
21 May 19 17 33 18.2 R    1484cA0  3.5  3.5s  49+  89  16 55 170 -40N 341 347 320 -7.5 -6.1 +0.8-2.6 .290  135.3     10  7 20.0  16 45 46 378.9 750.9
   R1484 = eta Leonis
      1484 is double: AB 3.5 8.4 0.10" 240.6, dT = +0.06sec
      1484 is a close double. Observations are highly desired
      1484 = NSV 4738, 3.46 to 3.60, V
21 May 19 22  9 11.8 d   99030 F8  8.8  8.4   51+  91     30 256  70S 131  92 110 -8.0 -5.9 +0.3-2.0 .484  -13.8     10 16  0.0  15 23 42 379.8 918.5
21 May 20  0 52 53.9 D    1514 A1  6.2  6.2s  52+  93      5 287  60N  81  44  60 -8.0 -5.8 -0.2-1.4 .504   31.8     10 21 50.3  14 58 33 381.71097.1
   R1514 = 42 Leonis
      1514 = NSV 4828, 6.09 to 6.17, V
21 May 20 22 29 53.7 D    1612 F5  7.3  7.1   62+ 104     30 247  19S 185 149 162 -7.7 -6.0 -0.6-3.0 .214  -64.6     11  7 13.3  10 12 44 373.9 904.5
21 May 20 23 19 44.2 d   99474cF8  8.4        62+ 104     23 257  89S 115  77  92 -7.7 -5.9 +0.4-1.8 .524    3.7     11  9 48.2  10  9 26 374.4 952.9
     99474 is double: AB 8.59 9.87 0.59" 302.5, dT = -1.1sec
     99474 is a close double. Observations are highly desired
21 May 21 14 16 51.7 d    1702 M0  4.0  3.3v  70+ 113  46 12  95  64S 141 179 118 -6.2 -6.2 +0.3+0.0 .487  -26.5 .01 11 45 51.6   6 31 46 371.9 982.5
   R1702 = nu Virginis
      1702 = nu. Vir, 4.1 to 4.16, Hp, Type SRB
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      day  Time      P   Star  Sp  Mag  Mag    % Elon Sun  Moon   CA   PA  VA  AA Libration    A    B   RV    Cct durn  R.A. (J2000)  Dec   Mdist   SV
 y   m  d  h  m   s        No  D     v    r V  ill     Alt Alt Az   o    o   o   o   L    B   m/o m/o  "/s     o  sec  h  m   s    o  m  s   Mm   m/s

21 May 21 15 11 39.6 r    1702 M0  4.0  3.3v  70+ 114  38 21 107 -64S 270 30€ 247 -6.2 -6.2 +0.€+1.€ .460 -153.4 .01 11 45 51.€   € 31 4€ 370.8 925.0
   R1702 = nu Virginis
      1702 = nu. Vir, 4.1 to 4.1€, Hp, Type SRB
21 May 21 20 50 30.7 D    1725cK0  7.€  7.1   72+ 11€  -9 41 204  23N  48  34  25 -€.7 -5.8 +4.0+2.5 .11€  75.4     11 5€ 48.3   5 20 41 3€7.5 818.7
      1725 is double: AB 7.4 7.€ 0.10" 105.1, dT = +0.47sec
      1725 is a close double. Observations are highly desired
21 May 21 20 57 55   Gr   1725cK0  7.€  7.1   72+ 11€  -9 40 ** GRAZE: CA  7.7N; Dist. 83km in az.  53deg. [Lat = 53.23-0.81(E.Long-5.00)]
21 May 21 21 5€ 29.€ d  119146cF5  8.4  8.2   72+ 117     35 223  75N 101  7€  78 -€.8 -5.7 +1.2-1.3 .443  22.0     11 58 47.€   4 49 53 3€7.7 851.8
    119146 is double: ** 9.4 9.4 0.10" 131.0, dT = +0.2sec
    119146 has been reported as non-instantaneous (OCc €€5). Observations are highly desired
21 May 23 20 33 10.2 d  139493KF5  8.0  7.8   90+ 143  -7 30 168  57S 148 15€ 128 -3.7 -4.0 +0.7-0.9 .440 -24.7     13 41 48.0 - 7 33 23 358.7 842.1
   *** A light curve is highly desired as  139493 is in the Kepler2 program {ID = 212728118}
21 May 23 21 23 20.5 d  139508kM* 8.1  7.3v  90+ 144 -12 31 182  41N  €€  €5  46 -3.8 -3.9 +2.3+0.8 .259  57.3     13 43 35.2 - 7 25 38 358.5 833.8
   *** A light curve is desired as  139508 is in the Kepler2 program {ID = 212733214}
    139508 = HIP 66972, 8.10, range 0.01, 5V, Type VAR, Period 0.09078 days
21 May 23 22 14 21.8 D    1969kK0  7.1  €.4   91+ 144     29 19€  38N  €3  53  43 -3.9 -3.8 +2.3+0.3 .243  59.€     13 44 5€.9 - 7 38  4 358.5 83€.5
   *** A light curve is desired as    1969 is in the Kepler2 program {ID = 212725073}
21 May 24  0 29 44.3 d  139567kK2  7.8  7.1   91+ 145     18 229  3€N  €1  32  41 -4.0 -3.€ +1.3-0.9 .277  57.4     13 48 49.4 - 8 11 2€ 359.3 897.8
   *** A light curve is desired as  139567 is in the Kepler2 program {ID = 212702731}
21 May 24 22  0 33.8 D    2092 K4  7.0  €.1   9€+ 158     24 177  51S 151 153 135 -1.9 -2.4 +0.8-0.9 .417 -31.1     14 40 32.2 -14  2 48 35€.0 840.2
21 May 24 22 33 52.3 d    209€ G€  8.0  7.€   97+ 158     24 186  51N  73  €9  57 -2.0 -2.3 +1.9+0.2 .335  4€.2     14 42  2.9 -13 51 15 35€.0 83€.3
21 May 25 21 23 3€.5 d    2233cG8  5.5       100+ 172 -11 15 155  30S 16€ 182 154 +0.1 -0.8 +0.2-0.8 .327 -49.9     15 38 54.€ -19 18  7 355.7 87€.4
   R2233 = 41 Librae
      2233 is double: AB 5.57 8.80 0.42" 103.9, dT = +0.6sec
      2233 is a close double. Observations are highly desired
   Distance of 2233 to Terminator = 2.2"; to 3km sunlit peak = 0.0"
21 Jun 12 17 47 52.8 d    1099wM1  5.8  5.0s   5+  25  17 35 267  83S  99  5€  91 -5.4 -3.4 +0.5-1.7 .457   1.€      7 14 42.0  24 53  € 395.5 87€.€
   R1099 = 52 Geminorum
      1099 is double: AB 6.0 12.7 31" 281.€, dT = -69sec
      1099 = NSV 3469, 5.79, range 0.08, V
21 Jun 13 20 14 23.3 d    1239 A4  €.€  €.5   10+  38  -3 20 283  55S 133  92 119 -€.3 -4.5 -0.3-2.0 .469 -27.0      8 13 41.7  23  8 16 393.€1004.9
21 Jun 14 22 18 55.0 d    1369 G5  8.9  8.3   18+  50      7 294  69N  83  46  €5 -€.8 -5.2 -0.2-1.3 .522  2€.0      9 11 45.7  20 21 13 390.91100.€
21 Jun 14 22 21 24.2 d   80684kG   8.7  8.4   18+  50      7 294  50N  €4  27  46 -€.8 -5.2 -0.1-1.1 .410  45.2      9 11 45.2  20 25 39 391.01103.5
   *** A light curve is desired as   80684 is in the Kepler2 program {ID = 212010389}
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