$$\mathcal{T} = X\cos\delta + Y\sin\delta$$

	φ	λ	X	Y	δ	$\mathcal{T}$	$\dfrac{\partial \mathcal{T}}{\partial \varphi}$	$\dfrac{\partial \mathcal{T}}{\partial \lambda}$
1	+40°	−125°	+232 $_{232}$	+74 $_{+74}$	−24°	+187,8	+528	+190
2	+40°	−70°	+185 $_{185}$	−33 $_{-34}$	+31°	+141,6		
3	+5°	−50°	+300° $_{304}$	−15 $_{-17}$	−60°	+163,0	+6	0
4	−20°	−40°	+257 $_{257}$	−37 $_{-38}$	+29°	+206,8		
5	−5°	+40°	+286 $_{287}$	−45 $_{-46}$	+33°	+215,4		
6	+25°	+120°	+345 $_{348}$	−3 $_{-5}$	+30°	+297,3		
7	+50°	+140°	+227 $_{229}$	−27 $_{-31}$	+21°	+202,2	+583	−153
8	−30°	+155°	+290 $_{291}$	+48 $_{+50}$	+13°	+293,0	+658	+150
9 $\quad k=\frac{1}{2}(2h+i)$	−10°	+135°	+370 $_{371}$	+20 $_{20}$	+90	+20,0	+1028	0

$$1)\quad 187,8 = -0,6997\,\underline{a} - 0,7143\,\underline{b} + 0,0036\,\underline{c} - 0,0201\,\underline{e} - 0,3161\,\underline{f} - 0,3052\,\underline{g} + 0,4465\,\underline{i} - 0,8996\,\underline{k}$$
$_{205}$

$$2)\quad 141,6 = -0,6566\,\underline{a} - 0,6938\,\underline{b} + 0,2955\,\underline{c} + 0,0266\,\underline{e} - 0,0309\,\underline{f} + 0,3620\,\underline{g} + 0,5769\,\underline{i} - 0,8442\,\underline{k}$$
$_{163}$

$$3)\quad 163,0 = -0,4981\,\underline{a} + 0,5233\,\underline{b} - 0,6915\,\underline{c} + 0,4258\,\underline{e} + 0,1925\,\underline{f} + 0,2587\,\underline{g} - 0,8420\,\underline{i} - 0,0868\,\underline{k}$$
$_{162}$

$$4)\quad 206,8 = -0,8219\,\underline{a} - 0,1792\,\underline{b} + 0,5407\,\underline{c} + 0,5577\,\underline{e} - 0,1977\,\underline{f} + 0,4066\,\underline{g} + 0,4974\,\underline{i} + 0,5622\,\underline{k}$$
$_{226}$

$$5)\quad 215,4 = -0,8355\,\underline{a} - 0,4642\,\underline{b} - 0,2941\,\underline{c} - 0,4945\,\underline{e} + 0,1659\,\underline{f} + 0,6630\,\underline{g} - 0,5216\,\underline{i} + 0,1456\,\underline{k}$$
$_{206}$

$$6)\quad 297,3 = -0,7849\,\underline{a} + 0,5670\,\underline{b} - 0,2500\,\underline{c} - 0,3764\,\underline{e} + 0,0607\,\underline{f} - 0,4613\,\underline{g} + 0,5583\,\underline{i} - 0,6634\,\underline{k}$$
$_{307}$

$$7)\quad 202,2 = -0,6001\,\underline{a} + 0,7342\,\underline{b} + 0,3174\,\underline{c} + 0,3145\,\underline{e} + 0,4927\,\underline{f} - 0,0710\,\underline{g} + 0,1461\,\underline{i} - 0,9194\,\underline{k}$$
$_{207}$

$$8)\quad 293,0 = -0,8438\,\underline{a} - 0,0020\,\underline{b} - 0,5367\,\underline{c} - 0,3079\,\underline{e} - 0,1977\,\underline{f} - 0,3941\,\underline{g} + 0,4204\,\underline{i} + 0,8438\,\underline{k}$$
$_{261}$

$$9)\quad 20,0 = \qquad\quad +0,7071\,\underline{b} - 0,7071\,\underline{c} - 0,1228\,\underline{e} \qquad\qquad +0,1228\,\underline{g} + 0,9848\,\underline{i}$$
$_{11}$

$$9)i\text{-ü}\qquad i = +20,31 - 0,7180\,b + 0,7180\,c + 0,1247\,e - 0,1247\,g$$

$$+172,73 = -0,6997\,\underline{a} - 1,0349\,\underline{b} + 0,3242\,\underline{c} + 0,0356\,\underline{e} - 0,3161\,\underline{f} - 0,3609\,\underline{g} - 0,8996\,\underline{k}$$

$$+180,10 = -0,4981\,\underline{a} + 1,1279\,\underline{b} - 1,2961\,\underline{c} + 0,3208\,\underline{e} + 0,1925\,\underline{f} + 0,3637\,g - 0,0868\,\underline{k}$$

$$+196,70 = -0,8219\,\underline{a} - 0,5363\,\underline{b} + 0,8978\,\underline{c} + 0,6197\,\underline{e} - 0,1977\,\underline{f} + 0,3446\,\underline{g} + 0,5622\,\underline{k}$$

$$+226,00 = -0,8355\,\underline{a} - 0,0897\,\underline{b} - 0,6686\,\underline{c} - 0,5595\,\underline{e} + 0,1659\,\underline{f} + 0,7280\,\underline{g} + 0,1456\,\underline{k}$$

$$+285,96 = -0,7849\,\underline{a} + 0,1661\,\underline{b} + 0,1509\,\underline{c} - 0,3068\,\underline{e} + 0,0607\,\underline{f} - 0,5309\,\underline{g} - 0,6634\,\underline{k}$$

$$+199,23 = -0,6001\,\underline{a} + 0,6293\,\underline{b} + 0,4223\,\underline{c} + 0,3327\,\underline{e} + 0,4927\,\underline{f} - 0,0892\,\underline{g} - 0,9194\,\underline{k}.$$

$$+284,46 = -0,8438\,\underline{a} - 0,3038\,\underline{b} - 0,2349\,\underline{c} - 0,2554\,\underline{e} - 0,1977\,\underline{f} - 0,4466\,\underline{g} + 0,8438\,\underline{k}.$$

$$\underline{k} = +337,12 + a + 0,3600\,b + 0,2784\,c + 0,3027\,e + 0,2343\,f + 0,5293\,g$$

$$+476,00 = -1,5993\,\underline{a} - 1,3588\,\underline{b} + 0,0738\,\underline{c} - 0,2367\,\underline{e} - 0,5269\,\underline{f} - 0,8371\,\underline{g}$$

$$+209,36 = -0,5849\,\underline{a} + 1,0967\,\underline{b} - 1,3203\,\underline{c} + 0,2945\,\underline{e} + 0,1722\,\underline{f} + 0,3178\,\underline{g}$$

$$+7,17 = -0,2597\,\underline{a} - 0,3339\,\underline{b} + 1,0543\,\underline{c} + 0,7899\,\underline{e} - 0,0660\,\underline{f} + 0,6422\,\underline{g}$$

$$+176,91 = -0,6899\,\underline{a} - 0,0373\,\underline{b} - 0,6281\,\underline{c} - 0,5154\,\underline{e} + 0,2000\,\underline{f} + 0,8051\,\underline{g}$$

$$+509,61 = -1,4483\,\underline{a} - 0,0727\,\underline{b} - 0,0338\,\underline{c} - 0,5076\,\underline{e} - 0,0947\,\underline{f} - 0,8820\,g$$

$$+509,18 = -1,5195\,\underline{a} + 0,2983\,\underline{b} + 0,1663\,\underline{c} + 0,0644\,\underline{e} + 0,2773\,\underline{f} - 0,5758\,\underline{g}$$

$$\underline{g} = -884,30 - 2,6389\,\underline{a} + 0,5181\,\underline{b} + 0,2888\,\underline{c} + 0,1118\,\underline{e} + 0,4876\,\underline{f}$$

$$+264,25 = -0,6097\,\underline{a} + 1,7925\,\underline{b} + 0,1680\,\underline{c} + 0,3303\,\underline{e} + 0,9300\,\underline{f}$$

$$+490,39 = -1,4235\,\underline{a} + 1,2614\,\underline{b} - 1,2285\,\underline{c} + 0,3300\,\underline{e} + 0,3252\,\underline{f}.$$

$$+575,07 = -1,9544\,\underline{a} - 0,0012\,\underline{b} + 1,2398\,\underline{c} + 0,8617\,\underline{e} + 0,2433\,\underline{f}.$$

$$+888,87 = -2,8145\,\underline{a} + 0,3798\,b - 0,3956\,c - 0,4254\,e + 0,5877\,f$$

~~$$+ = -2,4076\,a + 0,2999\,b - 0,4401\,c - 0,4426\,e + 0,4453\,f$$~~

$$+270,34 = -0,8792\,\underline{a} + 0,5297\,b + 0,2885\,\underline{c} + 0,6062\,\underline{e} + 0,5195\,\underline{f}.$$

$$\underline{f} = +520,38 + 1,6924\,\underline{a} - 1,0196\,\underline{b} - 0,5553\,\underline{c} - 1,1669\,\underline{e}$$

$$+219,70 = -0,9642\,\underline{a} - 0,8443\,\underline{b} + 0,3484\,\underline{c} + 0,7549\,\underline{e}$$

$$+321,16 = -0,8731\,\underline{a} + 0,9298\,\underline{b} - 1,4091\,\underline{c} - 0,0495\,\underline{e}$$

$$+448,46 = -1,5426\,\underline{a} - 0,2493\,b + 1,1047\,\underline{c} + 0,5778\,\underline{e}$$

$$+583,04 = -1,8199\,a - 0,2194\,b - 0,7219\,c - 1,1112\,e$$

~~$$+520,77 = -1,6540\,a - 0,1541\,b - 0,6874\,c - 0,9622\,e$$~~

~~$$\underline{e} = -541,23 - 1,7190\,a - 0,1601\,b - 0,7441\,c$$~~

$$\underline{e} = -524,69 - 1,6378\,\underline{a} - 0,1974\,b - 0,6497\,c$$

$$e = -541{,}23 - 1{,}7190\,\underline{a} - 0{,}1601\underline{b} - 0{,}7144\,\underline{c}$$

$$+628{,}27 = -2{,}2619\,\underline{a} - 0{,}9652\,\underline{b} + 0{,}1909\,\underline{c}$$

$$+294{,}37 = -0{,}7880\,\underline{a} + 0{,}9377\,\underline{b} - 1{,}3737\,\underline{c}$$

$$+761{,}18 = -2{,}5358\,\underline{a} - 0{,}3418\,\underline{b} + 0{,}6919\,\underline{c}$$

$$\underline{c} = +1100{,}13 + 3{,}6650\,\underline{a} + 0{,}4940\,\underline{b}$$

$$+418{,}26 = -1{,}5623\,\underline{a} - 0{,}8709\,\underline{b}$$

$$+1805{,}62 = -5{,}8226\,\underline{a} + 0{,}2591\,\underline{b}$$

$$\underline{b} = 6968{,}83 + 22{,}4724\,a$$

$$a = -306{,}97$$
$$b = +70{,}48$$
$$c = +9{,}90$$
$$e = -31{,}90$$

$$e = -524{,}69 - 1{,}6378\,a - 0{,}1974\,b - 0{,}6497\,c$$

$$+615{,}79 = -2{,}2006\,\underline{a} - 0{,}9933\,\underline{b} - 0{,}1421\,\underline{c}$$

$$+295{,}19 = -0{,}7920\,\underline{a} + 0{,}9396\,\underline{b} - 1{,}3769\,\underline{c}$$

$$+751{,}63 = -2{,}4889\,\underline{a} - 0{,}3634\,\underline{b} + 0{,}7293\,\underline{c}$$

$$\underline{c} = +1030{,}62 + 3{,}4127\,\underline{a} + 0{,}4982\,\underline{b}$$

$$+762{,}24 = -2{,}6855\,\underline{a} - 1{,}0641\,b$$

$$+1714{,}25 = -5{,}4909\,\underline{a} + 0{,}2536\,\underline{b}$$

$$\underline{b} = 6759{,}67 + 21{,}6518\,\underline{a}$$

$$a = -309{,}238$$
$$b = +64{,}111$$
$$C = +7{,}223$$
$$e = -35{,}569$$
$$f = -30{,}848$$
$$g = -51{,}783$$
$$i = -18{,}514$$
$$k = \tfrac{1}{2}(2h + i) = +7{,}569$$

$$h = +16{,}826$$

$$a = -30924$$
$$b = +6411$$
$$c = +722$$
$$\left. \begin{array}{l} e = -3557 \\ f = -3085 \\ g = -5778 \\ i = -1851 \end{array} \right\} \; d.$$
$$k = +757$$

$$X = -(a\cos\varphi + k\sin2\varphi) + (b\sin\varphi - e\cos2\varphi)\underline{\sin d} - (c\sin\varphi - g\cos2\varphi)\underline{\cos d}$$
$$-\tfrac{1}{2}f\sin\varphi\underline{\sin d} - \tfrac{1}{2}i\sin2\varphi\underline{\cos d}$$

$$Y = -(c + g\sin\varphi)\sin d - (b + e\sin\varphi)\cos d - i\cos\varphi\sin d + f\cos\varphi\cos d$$

$$X.$$

$a = -30\,924$

$b = +6411$

$c = +722$

$e = -3557$

$f = -3085$

$g = -5178$

$i = -1851$

$k = +757$

	$-(a\cos\varphi + k\sin 2\varphi)$	$\sin\lambda$ $+(b\sin\varphi - e\cos 2\varphi)$	$\cos\lambda$ $-(c\sin\varphi - g\cos 2\varphi)-(\tfrac{1}{2}f\sin 2\varphi)$	$\sin 2\lambda$	$\cos 2\lambda$ $-\tfrac{1}{2}i\sin 2\varphi$
-60	+ 16118	− 7331	+ 3214	− 1336 $\sin 2\lambda$	− 802 $\cos 2\lambda$
-50	+ 20624	− 5529	+ 1452	− 1520 $\sin 2\lambda$	− 912 $\cos 2\lambda$
-40	+ 24435	− 3563	− 435	− 1520 $\sin 2\lambda$	− 912 $\cos 2\lambda$
-30	+ 27437	− 1427	− 2228	− 1336 $\sin 2\lambda$	− 802 $\cos 2\lambda$
-20	+ 29555	+ 532	− 3720	− 992 $\sin 2\lambda$	− 595 $\cos 2\lambda$
-10	+ 30713	+ 2229	− 4741	− 528 $\sin 2\lambda$	− 317 $\cos 2\lambda$
0	+ 30924	+ 3557	− 5178	0	0
+10	+ 30195	+ 4455	− 4941	+ 528 $\sin 2\lambda$	+ 317 $\cos 2\lambda$
+20	+ 28581	+ 4918	− 4214	+ 992 $\sin 2\lambda$	+ 595 $\cos 2\lambda$
+30	+ 26125	+ 4985	− 2950	+ 1336 $\sin 2\lambda$	+ 802 $\cos 2\lambda$
+40	+ 22943	+ 4739	− 1363	+ 1520 $\sin 2\lambda$	+ 912 $\cos 2\lambda$
+50	+ 19132	+ 4293	+ 346	+ 1520 $\sin 2\lambda$	+ 912 $\cos 2\lambda$
+60	+ 14806	+ 3773	+ 1964	+ 1336 $\sin 2\lambda$	+ 802 $\cos 2\lambda$
+70					

	+161	φ=-60°			+244		φ=-40°			+296		φ=-20°			+309		φ=0°			+286	
0	0	+32	0	-8	+185	0	-4	0	-9	+231	0	-37	0	-6	+253	0	-52	-	-	+257	0	-
10	-13	+32	-5	-8	+167	-6	-4	-5	-9	+220	+1	-37	-3	-6	+251	+6	-51	-	-	+264	+9	-
20	-25	+30	-9	-6	+151	-12	-4	-10	-7	+211	+2	-35	-6	-5	+252	+12	-49	-	-	+272	+17	-
30	-37	+28	-12	-4	+136	-18	-4	-13	-5	+204	+3	-32	-9	-3	+255	+18	-45	-	-	+282	+25	-
40	-47	+25	-13	-1	+125	-23	-3	-15	-2	+201	+3	-28	-10	-1	+260	+23	-40	-	-	+292	+32	-
50	-56	+21	-13	+1	+114	-27	-3	-15	+2	+201	+4	-24	-10	+1	+267	+27	-33	-	-	+303	+38	-
60	-63	+16	-12	+4	+106	-30	-2	-13	+5	+204	+5	-19	-9	+3	+276	+31	-26	-	-	+314	+43	-
70	-69	+11	-9	+6	+100	-32	-1	-10	+7	+208	+5	-13	-6	+5	+287	+33	-18	-	-	+324	+46	-
80	-72	+6	-5	+8	+98	-34	-1	-5	+9	+213	+5	-6	-3	+6	+298	+35	-9	-	-	+335	+48	-
90	-73	0	0	+8	+96	-35	0	0	+9	+218	+5	0	0	+6	+307	+36	0	-	-	+345	+49	-
100	-72	-6	+5	+8	+96	-34	+1	+5	+9	+225	+5	+6	+3	+6	+316	+35	+9	-	-	+353	+48	+
110	-69	-11	+9	+6	+96	-32	+1	+10	+7	+230	+5	+13	+6	+5	+325	+33	+18	-	-	+360	+46	-
120	-63	-16	+12	+4	+98	-30	+2	+13	+5	+234	+5	+19	+9	+3	+332	+31	+26	-	-	+366	+43	-
130	-56	-21	+13	+1	+98	-27	+3	+15	+2	+237	+4	+24	+10	+1	+335	+27	+33	-	-	+369	+38	-
140	-47	-25	+13	-1	+101	-23	+3	+15	-2	+237	+3	+28	+10	-1	+336	+23	+40	-	-	+372	+32	-
150	-37	-28	+12	-4	+104	-18	+4	+13	-5	+238	+3	+32	+9	-3	+337	+18	+45	-	-	+372	+25	-
160	-25	-30	+9	-6	+109	-12	+4	+10	-7	+239	+2	+35	+6	-5	+339	+12	+49	-	-	+370	+17	-
170	-13	-32	+5	-8	+113	-6	+4	+5	-9	+238	+1	+37	+3	-6	+331	+6	+51	-	-	+366	+9	-
180	0	-32	0	-8	+121	0	+4	0	-9	+239	0	+37	0	-6	+327	0	+52	-	-	+361	0	-
190	+13	-32	-5	-8	+129	+6	+4	-5	-9	+240	-1	+37	-3	-6	+323	-6	+51	-	-	+360	-9	-
200	+25	-30	-9	-6	+141	+12	+4	-10	-7	+243	-2	+35	-6	-5	+318	-12	+49	-	-	+346	-17	-
210	+37	-28	-12	-4	+154	+18	+4	-13	-5	+248	-3	+32	-9	-3	+313	-18	+45	-	-	+336	-25	-
220	+47	-25	-13	-1	+169	+23	+3	-15	-2	+253	-3	+28	-10	-1	+310	-23	+40	-	-	+326	-32	-
230	+56	-21	-13	+1	+184	+27	+3	-15	+2	+261	-4	+24	-10	+1	+307	-27	+33	-	-	+315	-38	+
240	+63	-16	-12	+4	+200	+30	+2	-13	+5	+268	-5	+19	-9	+3	+304	-31	+26	-	-	+304	-43	-
250	+69	-11	-9	+6	+216	+32	+1	-10	+7	+274	-5	+13	-6	+5	+303	-33	+18	-	-	+294	-46	+
260	+72	-6	-5	+8	+230	+34	+1	-5	+9	+283	-5	+6	-3	+6	+300	-35	+9	-	-	+283	-48	+
270	+73	0	0	+8	+242	+35	0	0	+9	+288	-5	0	0	+6	+297	-36	0	-	-	+273	-49	-
280	+72	+6	+5	+8	+252	+34	-1	+5	+9	+291	-5	-6	+3	+6	+294	-35	-9	-	-	+265	-48	-
290	+69	+11	+9	+6	+256	+32	-1	+10	+7	+292	-5	-13	+6	+5	+289	-33	-18	-	-	+254	-46	-
300	+63	+16	+12	+4	+256	+30	-2	+13	+5	+290	-5	-19	+9	+3	+284	-31	-26	-	-	+252	-43	-
310	+56	+21	+13	+1	+252	+27	-3	+15	+2	+285	-4	-24	+10	+1	+279	-27	-33	-	-	+249	-38	-
320	+47	+25	+13	-1	+245	+23	-3	+15	-2	+277	-3	-28	+10	-1	+274	-23	-40	-	-	+246	-32	-
330	+37	+28	+12	-4	+234	+18	-4	+13	-5	+266	-3	-32	+9	-3	+267	-18	-45	-	-	+246	-25	-
340	+25	+30	+9	-6	+219	+12	-4	+10	-7	+255	-2	-37	+6	-5	+258	-12	-49	-	-	+248	-17	-
350	+13	+32	+5	-8	+203	+6	-4	+5	-9	+242	-1	-37	+3	-6	+255	-6	-51	-	-	+252	-9	-

+286	φ=+20°				+229	φ=+40°				+148	φ=+60°			
+257	0	-42	0	+6	+250	0	-14	0	+9	+224	0	+20	0	+8	+176
+264	+9	-42	+3	+6	+262	+8	-13	+5	+9	+238	+7	+19	+5	+8	+187
+272	+17	-40	+6	+5	+274	+16	-13	+10	+7	+249	+13	+18	+9	+6	+194
+282	+25	-36	+9	+3	+287	+24	-12	+13	+5	+259	+19	+17	+12	+4	+200
+292	+32	-32	+10	+1	+297	+30	-10	+15	+2	+266	+24	+15	+13	+1	+201
+303	+38	-27	+10	-1	+306	+36	-9	+15	-2	+269	+29	+13	+13	-1	+200
+314	+43	-21	+9	-3	+314	+41	-7	+13	-5	+271	+33	+10	+12	-4	+199
+324	+46	-14	+6	-5	+319	+45	-5	+10	-7	+272	+35	+7	+9	-6	+193
+335	+48	-7	+3	-6	+324	+47	-2	+5	-9	+270	+37	+3	+5	-8	+185
+345	+49	0	0	-6	+329	+47	0	0	-9	+267	+38	0	0	-8	+178
+353	+48	+7	-3	-6	+332	+47	+2	-5	-9	+264	+37	-3	-5	-8	+169
+360	+46	+14	-6	-5	+335	+45	+5	-10	-7	+262	+35	-7	-9	-6	+161
+366	+43	+21	-9	-3	+338	+41	+7	-13	-5	+259	+33	-10	-12	-4	+155
+369	+38	+27	-10	-1	+340	+36	+9	-15	-2	+257	+29	-13	-13	-1	+150
+372	+32	+32	-10	+1	+341	+30	+10	-15	+2	+256	+24	-15	-13	+1	+145
+372	+25	+36	-9	+3	+341	+24	+12	-13	+5	+257	+19	-17	-12	+4	+142
+370	+17	+40	-6	+5	+342	+16	+13	-10	+7	+255	+13	-18	-9	+6	+140
+366	+9	+42	-3	+6	+340	+8	+13	-5	+9	+254	+7	-19	-5	+8	+139
+361	0	+42	0	+6	+334	0	+14	0	+9	+252	0	-20	0	+8	+136
+360	-9	+42	+3	+6	+328	-8	+13	+5	+9	+248	-7	-19	+5	+8	+135
+346	-17	+40	+6	+5	+320	-16	+13	+10	+7	+243	-13	-18	+9	+6	+132
+336	-25	+36	+9	+3	+309	-24	+12	+13	+5	+235	-19	-17	+12	+4	+120
+326	-32	+32	+10	+1	+297	-30	+10	+15	+2	+226	-24	-15	+13	+1	+123
+315	-38	+27	+10	-1	+284	-36	+9	+15	+2	+215	-29	-13	+13	-1	+118
+304	-43	+21	+9	-3	+270	-41	+7	+13	-5	+203	-33	-10	+12	-4	+113
+294	-46	+14	+6	-5	+255	-45	+5	+10	-7	+194	-35	-7	+9	-6	+109
+283	-48	+7	+3	-6	+242	-47	+2	+5	-9	+180	-37	-3	+5	-8	+105
+273	-49	0	0	-6	+231	-47	0	0	-9	+173	-38	0	0	-8	+102
+265	-48	-7	-3	-6	+222	-47	-2	-5	-9	+166	-37	+3	-5	-8	+101
+254	-46	-14	-6	-5	+215	-45	-5	-10	-7	+162	-35	+7	-9	-6	+105
+252	-43	-21	-9	-3	+210	-41	-7	-13	-5	+163	-33	+10	-12	-4	+109
+249	-38	-27	-10	-1	+210	-36	-9	-15	-2	+167	-29	+13	-13	-1	+118
+246	-32	-32	-10	+1	+213	-30	-10	-15	+2	+176	-24	+15	-13	+1	+127
+246	-25	-36	-9	+3	+219	-24	-12	-13	+5	+185	-19	+17	-12	+4	+138
+248	-17	-40	-6	+5	+228	-16	-13	-10	+7	+197	-13	+18	-9	+6	+150
+252	-9	-42	-3	+6	+238	-8	-13	-5	+9	+212	-7	+19	-5	+8	+163

X

λ	φ=−50°				+206	φ=−30°				+274	φ=−10°				+307	φ=+10°				+302	+261
0°	0	+15	0	−9	+212	0	−22	0	−8	+244	0	−47	0	−3	+257	0	−50	0	+3	+255	0
10	−10	+14	−5	−9	+196	−2	−22	−5	−8	+237	+4	−47	−2	−3	+259	+8	−49	+2	+3	+266	+9
20	−19	+14	−10	−7	+184	−5	−21	−9	−6	+233	+8	−45	−3	−2	+265	+15	−47	+3	+2	+275	+17
30	−28	+13	−13	−5	+173	−7	−19	−12	−4	+232	+11	−41	−5	−2	+270	+22	−43	+5	+2	+288	+25
40	−36	+11	−15	−2	+164	−9	−17	−13	−1	+234	+14	−36	−5	−1	+279	+29	−38	+5	+1	+299	+32
50	−42	+9	−15	+2	+160	−11	−14	−13	+1	+237	+17	−30	−5	−1	+288	+34	−32	+5	+1	+310	+38
60	−48	+7	−13	+5	+157	−12	−11	−12	+4	+243	+19	−24	−5	−2	+295	+39	−25	+5	+2	+323	+43
70	−52	+5	−10	+7	+156	−13	−8	−9	+6	+250	+21	−16	−3	−2	+307	+42	−17	+3	+2	+332	+47
80	−54	+3	−5	+9	+159	−14	−4	−5	+8	+259	+22	−8	−2	−3	+316	+44	−9	+2	+3	+342	+49
90	−55	0	0	+9	+160	−14	0	0	+8	+268	+22	−0	0	−3	+326	+45	0	0	+3	+350	+50
100	−54	−3	+5	+9	+163	−14	+4	+5	+8	+277	+22	+8	+2	−3	+336	+44	+9	−2	+3	+356	+49
110	−52	−5	+10	+7	+166	−13	+8	+9	+6	+284	+21	+16	+3	−2	+345	+42	+17	−3	+2	+360	+47
120	−48	−7	+13	+5	+169	−12	+11	+12	+4	+289	+19	+24	+5	−2	+353	+39	+25	−5	+2	+363	+43
130	−42	−9	+15	+2	+172	−11	+14	+13	+1	+291	+17	+30	+5	−1	+358	+34	+32	−5	+1	+364	+38
140	−36	−11	+15	−2	+172	−9	+17	+13	−1	+294	+14	+36	+5	−1	+361	+29	+38	−5	+1	+365	+32
150	−28	−13	+13	−5	+173	−7	+19	+12	−4	+294	+11	+41	+5	−2	+362	+22	+43	−5	+2	+364	+25
160	−19	−14	+10	−7	+176	−5	+21	+9	−6	+294	+8	+45	+3	−2	+361	+15	+47	−3	+2	+363	+17
170	−10	−14	+5	−9	+178	−2	+22	+5	−8	+291	+4	+47	+2	−3	+357	+8	+49	−2	+3	+360	+9
180	0	−15	0	−9	+182	0	+22	0	−8	+288	0	+47	0	−3	+351	0	+50	0	+3	+355	0
190	+10	−14	−5	−9	+188	+2	+22	−5	−8	+285	−4	+47	−2	−3	+345	−8	+49	+2	+3	+348	−9
200	+19	−14	−10	−7	+194	+5	+21	−9	−6	+285	−8	+45	−3	−2	+339	−15	+47	+3	+2	+339	−17
210	+28	−13	−13	−5	+203	+7	+19	−12	−4	+284	−11	+41	−5	−2	+330	−22	+43	+5	+2	+330	−25
220	+36	−11	−15	−2	+214	+9	+17	−13	−1	+286	−14	+36	−5	−1	+323	−29	+38	+5	+1	+317	−32
230	+42	−9	−15	+2	+226	+11	+14	−13	+1	+287	−17	+30	−5	−1	+314	−34	+32	+5	+1	+306	−38
240	+48	−7	−13	+5	+239	+12	+11	−12	+4	+289	−19	+24	−5	−2	+305	−39	+25	+5	+2	+295	−43
250	+52	−5	−10	+7	+250	+13	+8	−9	+6	+292	−21	+16	−3	−2	+297	−42	+17	+3	+2	+282	−47
260	+54	−3	−5	+9	+261	+14	+4	−5	+8	+295	−22	+8	−2	−3	+288	−44	+9	+2	+3	+272	−49
270	+55	0	0	+9	+270	+14	0	0	+8	+296	−22	0	0	−3	+282	−45	0	0	+3	+260	−50
280	+54	+3	+5	+9	+277	+14	−4	+5	+8	+297	−22	−8	+2	−3	+276	−44	−9	−2	+3	+250	−49
290	+52	+5	+10	+7	+280	+13	−8	+9	+6	+294	−21	−16	+3	−2	+271	−42	−17	−3	+2	+242	−47
300	+48	+7	+13	+5	+279	+12	−11	+12	+4	+291	−19	−24	+5	−2	+267	−39	−25	−5	+2	+235	−43
310	+42	+9	+15	+2	+274	+11	−14	+13	+1	+285	−17	−30	+5	−1	+264	−34	−32	−5	+1	+232	−38
320	+36	+11	+15	−2	+266	+9	−17	+13	−1	+278	−14	−36	+5	−1	+261	−29	−38	−5	+1	+231	−32
330	+28	+13	+13	−5	+255	+7	−19	+12	−4	+270	−11	−41	+5	−2	+258	−22	−43	−5	+2	+234	−25
340	+19	+14	+10	−7	+242	+5	−21	+9	−6	+261	−8	−45	+3	−2	+255	−15	−47	−3	+2	+239	−17
350	+10	+14	+5	−9	226	+2	−22	+5	−8	+251	−4	−47	+2	−3	+255	−8	−49	−2	+3	+246	−9

	+261					+191				
3 +255	0	-30	0	+8	+239	0	+3	0	+9	+203
3 +266	+9	-29	+5	+8	+254	+7	+3	+5	+9	+215
2 +275	+17	-28	+9	+6	+265	+15	+3	+10	+7	+226
2 +288	+25	-26	+12	+4	+276	+21	+3	+13	+5	+233
1 +299	+32	-23	+13	+1	+284	+28	+3	+15	+2	+239
1 +310	+38	-19	+13	-1	+292	+33	+2	+15	-2	+239
2 +323	+43	-15	+12	-4	+297	+37	+2	+13	-5	+238
2 +332	+47	-10	+9	-6	+301	+40	+1	+10	-7	+235
3 +342	+49	-5	+5	-8	+302	+42	+1	+5	-9	+230
3 +350	+50	0	0	-8	+303	+43	0	0	-9	+225
3 +356	+49	+5	-5	-8	+302	+42	-1	-5	-9	+218
2 +360	+47	+10	-9	-6	+303	+40	-1	-10	-7	+213
2 +363	+43	+15	-12	-4	+303	+37	-2	-13	-5	+208
1 +364	+38	+19	-13	-1	+304	+33	-2	-15	-2	+205
1 +365	+32	+23	-13	+1	+304	+28	-3	-15	+2	+203
2 +364	+25	+26	-12	+4	+304	+21	-3	-13	+5	+201
2 +363	+17	+28	-9	+6	+303	+15	-3	-10	+7	+200
3 +360	+9	+29	-5	+8	+302	+7	-3	-5	+9	+199
3 +355	0	+30	0	+8	+299	0	-3	0	+9	+197
3 +348	-9	+29	+5	+8	+294	-7	-3	+5	+9	+195
2 +339	-17	+28	+9	+6	+287	-15	-3	+10	+7	+190
2 +330	-25	+26	+12	+4	+278	-21	-3	+13	+5	+185
1 +317	-32	+23	+13	+1	+266	-28	-3	+15	+2	+177
1 +306	-38	+19	+13	-1	+254	-33	-2	+15	-2	+169
2 +295	-43	+15	+12	-4	+241	-37	-2	+13	-5	+160
2 +282	-47	+10	+9	-6	+227	-40	-1	+10	-7	+153
3 +272	-49	+5	+5	-8	+214	-42	-1	+5	-9	+144
3 +260	-50	0	0	-8	+203	-43	0	0	-9	+139
3 +250	-49	-5	-5	-8	+194	-42	+1	-5	-9	+136
2 +242	-47	-10	-9	-6	+189	-40	+1	-10	-7	+135
2 +235	-43	-15	-12	-4	+187	-37	+2	-13	-5	+138
1 +232	-38	-19	-13	-1	+190	-33	+2	-15	-2	+143
1 +231	-32	-23	-13	+1	+194	-28	+3	-15	+2	+153
2 +234	-25	-26	-12	+4	+202	-21	+3	-13	+5	+165
2 +239	-17	-28	-9	+6	+213	-15	+3	-10	+7	+176
3 +246	-9	-29	-5	+8	+226	-7	+3	-5	+9	+191

$\mathcal{Y}$

$$c = +722$$
$$g = -5178$$
$$b = +6711$$
$$e = -3557$$
$$i = -1851$$
$$f = -3085$$

$$Y = -(c + g\sin\varphi)\sin\lambda - (b + e\sin\varphi)\cos\lambda - i\cos\varphi\,\sin 2\lambda + f\cos\varphi\cos 2\lambda$$

	$-(c + g\sin\varphi)\cdot\sin\lambda$	$-(b + e\sin\varphi)\cos\lambda$	$-i\cos\varphi\cdot\sin 2\lambda$	$+f\cos\varphi\cos 2\lambda$
-60	$-5206\sin\lambda$	$-9491\cos\lambda$	$+926\sin 2\lambda$	$-1543\cos 2\lambda$
-50	$-4689\sin\lambda$	$-9136\cos\lambda$	$+1190\sin 2\lambda$	$-1983\cos 2\lambda$
-40	$-4050\sin\lambda$	$-8697\cos\lambda$	$+1418\sin 2\lambda$	$-2363\cos 2\lambda$
-30	$-3311\sin\lambda$	$-8190\cos\lambda$	$+1603\sin 2\lambda$	$-2672\cos 2\lambda$
-20	$-2493\sin\lambda$	$-7628\cos\lambda$	$+1739\sin 2\lambda$	$-2899\cos 2\lambda$
-10	$-1621\sin\lambda$	$-7029\cos\lambda$	$+1823\sin 2\lambda$	$-3038\cos 2\lambda$
0	$-722\sin\lambda$	$-6411\cos\lambda$	$+1851\sin 2\lambda$	$-3085\cos 2\lambda$
$+10$	$+177\sin\lambda$	$-5793\cos\lambda$	$+1823\sin 2\lambda$	$-3038\cos 2\lambda$
$+20$	$+1049\sin\lambda$	$-5194\cos\lambda$	$+1739\sin 2\lambda$	$-2899\cos 2\lambda$
$+30$	$+1867\sin\lambda$	$-4632\cos\lambda$	$+1603\sin 2\lambda$	$-2672\cos 2\lambda$
$+40$	$+2606\sin\lambda$	$-4125\cos\lambda$	$+1418\sin 2\lambda$	$-2363\cos 2\lambda$
$+50$	$+3245\sin\lambda$	$-3686\cos\lambda$	$+1190\sin 2\lambda$	$-1983\cos 2\lambda$
$+60$	$+3762\sin\lambda$	$-3331\cos\lambda$	$+926\sin 2\lambda$	$-1543\cos 2\lambda$

λ	φ=-60°					φ=-40°					φ=-20°					φ=0°					
0	0	-95	0	-15	-110	0	-87	0	-24	-111	0	-76	0	-29	-105	0	-64	0	-31	-95	0
10	-9	-93	+3	-15	-114	-7	-86	+5	-22	-110	-4	-75	+6	-27	-100	-1	-63	+6	-29	-87	+2
20	-18	-89	+6	-12	-113	-14	-82	+9	-18	-105	-9	-72	+11	-22	-92	-2	-60	+12	-24	-74	+4
30	-26	-82	+8	-8	-108	-20	-75	+12	-12	-95	-12	-66	+15	-14	-77	-4	-56	+16	-15	-59	+5
40	-33	-73	+9	-3	-100	-26	-67	+14	-4	-83	-16	-58	+17	-5	-62	-5	-49	+18	-5	-41	+7
50	-40	-61	+9	+3	-89	-31	-56	+14	+4	-69	-19	-49	+17	+5	-46	-6	-41	+18	+5	-24	+8
60	-45	-47	+8	+8	-76	-35	-43	+12	+12	-54	-22	-38	+15	+14	-31	-6	-32	+16	+15	-7	+9
70	-49	-32	+6	+12	-63	-38	-30	+9	+18	-41	-23	-26	+11	+22	-16	-7	-22	+12	+24	+7	+10
80	-51	-17	+3	+15	-50	-40	-15	+5	+22	-28	-25	-13	+6	+27	-5	-7	-11	+6	+29	+17	+10
90	-52	0	0	+15	-37	-41	0	0	+24	-17	-25	0	0	+29	+4	-7	0	0	+31	+24	+10
100	-51	+17	-3	+15	-22	-40	+15	-5	+22	-8	-25	+13	-6	+27	+9	-7	+11	-6	+29	+27	+10
110	-49	+32	-6	+12	-11	-38	+30	-9	+18	+1	-23	+26	-11	+22	+14	-7	+22	-12	+24	+27	+10
120	-45	+47	-8	+8	+2	-35	+43	-12	+12	+8	-22	+38	-15	+14	+15	-6	+32	-16	+15	+25	+9
130	-40	+61	-9	+3	+15	-31	+56	-14	+4	+15	-19	+49	-17	+5	+18	-6	+41	-18	+5	+22	+8
140	-33	+73	-9	-3	+28	-26	+67	-14	-4	+23	-16	+58	-17	-5	+20	-5	+49	-18	-5	+21	+7
150	-26	+82	-8	-8	+40	-20	+75	-12	-12	+31	-12	+66	-15	-14	+25	-4	+56	-16	-15	+21	+5
160	-18	+89	-6	-12	+53	-14	+82	-9	-18	+41	-9	+72	-11	-22	+30	-2	+60	-12	-24	+22	+4
170	-9	+93	-3	-15	+66	-7	+86	-5	-22	+52	-4	+75	-6	-27	+38	-1	+63	-6	-29	+27	+2
180	0	+95	0	-15	+80	0	+87	0	-24	+63	0	+76	0	-29	+47	0	+64	0	-31	+33	0
190	+9	+93	+3	-15	+90	+7	+86	+5	-22	+76	+4	+75	+6	-27	+58	+1	+63	+6	-29	+41	-2
200	+18	+89	+6	-12	+101	+14	+82	+9	-18	+87	+9	+72	+11	-22	+70	+2	+60	+12	-24	+50	-4
210	+26	+82	+8	-8	+108	+20	+75	+12	-12	+95	+12	+66	+15	-14	+79	+4	+56	+16	-15	+61	-5
220	+33	+73	+9	-3	+112	+26	+67	+14	-4	+103	+16	+58	+17	-5	+86	+5	+49	+18	-5	+67	-7
230	+40	+61	+9	+3	+113	+31	+56	+14	+4	+105	+19	+49	+17	+5	+90	+6	+41	+18	+5	+70	-8
240	+45	+47	+8	+8	+108	+35	+43	+12	+12	+102	+22	+38	+15	+14	+89	+6	+32	+16	+15	+69	-9
250	+49	+32	+6	+12	+99	+38	+30	+9	+18	+95	+23	+26	+11	+22	+82	+7	+22	+12	+24	+65	-10
260	+51	+17	+3	+15	+86	+40	+15	+5	+22	+82	+25	+13	+6	+27	+73	+7	+11	+6	+29	+53	-10
270	+52	0	0	+15	+67	+41	0	0	+24	+65	+25	0	0	+29	+54	+7	0	0	+31	+38	-10
280	+51	-17	-3	+15	+46	+40	-15	-5	+22	+42	+25	-13	-6	+27	+33	+7	-11	-6	+29	+19	-10
290	+49	-32	-6	+12	+23	+38	-30	-9	+18	+17	+23	-26	-11	+22	+8	+7	-22	-12	+24	-3	-10
300	+45	-47	-8	+8	-2	+35	-43	-12	+12	-8	+22	-38	-15	+14	-17	+6	-32	-16	+15	-27	-9
310	+40	-61	-9	+3	-27	+31	-56	-14	+4	-35	+19	-49	-17	+5	-42	+6	-41	-18	+5	-48	-8
320	+33	-73	-9	-3	-52	+26	-67	-14	-4	-59	+16	-58	-17	-5	-64	+5	-49	-18	-5	-67	-7
330	+26	-82	-8	-8	-72	+20	-75	-12	-12	-79	+12	-66	-15	-14	-83	+4	-56	-16	-15	-83	-5
340	+18	-89	-6	-12	-89	+14	-82	-9	-18	-95	+9	-72	-11	-22	-96	+2	-60	-12	-24	-94	-3
350	+9	-93	-3	-15	-102	+7	-86	-5	-22	-106	+4	-75	-6	-27	-104	+1	-63	-6	-29	-97	-2

	$\varphi = 20°$					$+\varphi = +40°$					$\varphi = +60°$				
31	-95	0	-52	0	-29	-81	0	-41	0	-24	-65	0	-33	0	-15	-48
29	-87	+2	-51	+6	-27	-70	+5	-41	+5	-22	-53	+7	-33	+3	-15	-38
24	-74	+4	-49	+11	-22	-56	+9	-39	+9	-18	-39	+13	-31	+6	-12	-24
5	-59	+5	-45	+15	-14	-39	+13	-36	+12	-12	-23	+19	-29	+8	-8	-10
5	-41	+7	-40	+17	-5	-21	+17	-32	+14	-4	-5	+24	-26	+9	-3	+4
	+24	+8	-33	+17	+5	-3	+20	-27	+14	+4	+11	+29	-21	+9	+3	+20
5	-7	+9	-26	+15	+14	+12	+23	-21	+12	+12	+26	+33	-17	+8	+8	+32
4	+7	+10	-18	+11	+22	+25	+24	-14	+9	+18	+37	+35	-11	+6	+12	+42
9	+17	+10	-9	+6	+27	+34	+26	-7	+5	+22	+46	+37	-6	+3	+15	+49
1	+24	+10	0	0	+29	+39	+26	0	0	+24	+50	+38	0	0	+15	+53
9	+27	+10	+9	-6	+27	+40	+26	+7	-5	+22	+50	+37	+6	-3	+15	+55
4	+27	+10	+18	-11	+22	+39	+24	+14	-9	+18	+47	+35	+11	-6	+12	+52
5	+25	+9	+26	-15	+14	+34	+23	+21	-12	+12	+44	+33	+17	-8	+8	+50
5	+22	+8	+33	-17	+5	+29	+20	+27	-14	+4	+37	+29	+21	-9	+3	+44
	+21	+7	+40	-17	-5	+25	+17	+32	-14	-4	+31	+24	+26	-9	-3	+38
5	+21	+5	+45	-15	-14	+21	+13	+36	-12	-12	+25	+19	+29	-8	-8	+32
4	+22	+4	+49	-11	-22	+20	+9	+39	-9	-18	+21	+13	+31	-6	-12	+26
6	+27	+2	+51	-6	-27	+20	+5	+41	-5	-22	+19	+7	+33	-3	-15	+22
1	+33	0	+52	0	-29	+23	0	+41	0	-24	+17	0	+33	0	-15	+18
9	+41	-2	+51	+6	-27	+28	-5	+41	+5	-22	+19	-7	+33	+3	-15	+14
4	+50	-4	+49	+11	-22	+34	-9	+39	+9	-18	+21	-13	+31	+6	-12	+12
	+61	-5	+45	+15	-14	+41	-13	+36	+12	-12	+23	-19	+29	+8	-8	+10
	+67	-7	+40	+17	-5	+45	-17	+32	+14	-4	+25	-24	+26	+9	-3	+8
	+70	-8	+33	+17	+5	+47	-20	+27	+14	+4	+25	-29	+21	+9	+3	+4
5	+69	-9	+26	+15	+14	+46	-23	+21	+12	+12	+22	-33	+17	+8	+8	0
4	+65	-10	+18	+11	+22	+41	-24	+14	+9	+18	+17	-35	+11	+6	+12	-6
9	+53	-10	+9	+6	+27	+32	-26	+7	+5	+22	+8	-37	+6	+3	+15	-13
	+38	-10	0	0	+29	+19	-26	0	0	+24	-2	-38	0	0	+15	-23
	+19	-10	-9	-6	+27	+2	-26	-7	-5	+22	-16	-37	-6	-3	+15	-31
	-3	-10	-18	-11	+22	-17	-24	-14	-9	+18	-29	-35	-11	-6	+12	-40
	-27	-9	-26	-15	+14	-36	-23	-21	-12	+12	-44	-33	-17	-8	+8	-50
	-48	-8	-33	-17	+5	-53	-20	-27	-14	+4	-57	-29	-21	-9	+3	-56
	-67	-7	-40	-17	-5	-69	-17	-32	-14	-4	-67	-24	-26	-9	-3	-62
	-83	-5	-45	-15	-14	-79	-13	-36	-12	-12	-73	-19	-29	-8	-8	-64
	-94	-4	-49	-11	-22	-86	-9	-39	-9	-18	-75	-13	-31	-6	-12	-62
	-97	-2	-51	-6	-27	-86	-5	-41	-5	-22	-73	-7	-33	-3	-15	-58

7.

λ	φ=-50°					φ=-30°					φ=-10°					φ=+10°					φ=+30°	
0°	0	-91	0	-20	-111	0	-82	0	-27	-109	0	-70	0	-30	-100	0	-58	0	-30	-88	0	
10°	-8	-90	+4	-19	-113	-6	-81	+5	-25	-107	-3	-69	+6	-29	-95	0	-57	+6	-29	-80	+3	
20°	-16	-86	+8	-15	-109	-11	-77	+10	-20	-98	-6	-66	+12	-23	-83	+1	-54	+12	-23	-64	+6	
30°	-23	-79	+10	-10	-102	-17	-71	+14	-13	-87	-8	-61	+16	-15	-68	+1	-50	+16	-15	-48	+9	
40°	-30	-70	+12	-3	-91	-21	-63	+16	-5	-73	-10	-54	+18	-5	-51	+1	-44	+18	-5	-30	+12	
50°	-36	-59	+12	+3	-80	-25	-53	+16	+5	-57	-12	-45	+18	+5	-34	+1	-37	+18	+5	-13	+14	
60°	-41	-46	+10	+10	-67	-29	-41	+14	+13	-43	-14	-35	+16	+15	-18	+2	-29	+16	+15	+4	+16	
70°	-44	-31	+8	+15	-52	-31	-28	+10	+20	-29	-15	-24	+12	+23	-4	+2	-20	+12	+23	+17	+18	
80°	-46	-16	+4	+19	-39	-33	-14	+5	+25	-17	-16	-12	+6	+29	+7	+2	-10	+6	+29	+27	+18	
90°	-47	0	0	+20	-27	-33	0	0	+27	-6	-16	0	0	+30	+14	+2	0	0	+30	+32	+19	
100°	-46	+16	-4	+19	-15	-33	+14	-5	+25	+1	-16	+12	-6	+29	+19	+2	+10	-6	+29	+35	+18	
110°	-44	+31	-8	+15	-6	-31	+28	-10	+20	+7	-15	+24	-12	+23	+20	+2	+20	-12	+23	+33	+18	
120°	-41	+46	-10	+10	+5	-29	+41	-14	+13	+11	-14	+35	-16	+15	+20	+2	+29	-16	+15	+30	+16	
130°	-36	+59	-12	+3	+14	-25	+53	-16	+5	+17	-12	+45	-18	+5	+20	+1	+37	-18	+5	+25	+14	
140°	-30	+70	-12	-3	+25	-21	+63	-16	-5	+21	-10	+54	-18	-5	+21	+1	+44	-18	-5	+22	+12	
150°	-23	+79	-10	-10	+36	-17	+71	-14	-13	+27	-8	+61	-16	-15	+22	+1	+50	-16	-15	+20	+9	+
160°	-16	+86	-8	-15	+47	-11	+77	-10	-20	+36	-6	+66	-12	-23	+25	+1	+54	-12	-23	+20	+6	+
170°	-8	+90	-4	-19	+59	-6	+81	-5	-25	+45	-3	+69	-6	-29	+31	0	+57	-6	-29	+22	+3	+
180°	0	+91	0	-20	+71	0	+82	0	-27	+55	0	+70	0	-30	+40	0	+58	0	-30	+28	0	+
190°	+8	+90	+4	-19	+83	+6	+81	+5	-25	+67	+3	+69	+6	-29	+49	0	+57	+6	-29	+34	-3	+
200°	+16	+86	+8	-15	+95	+11	+77	+10	-20	+78	+6	+66	+12	-23	+61	+1	+54	+12	-23	+42	-6	+
210°	+23	+79	+10	-10	+102	+17	+71	+14	-13	+89	+8	+61	+16	-15	+70	-1	+50	+16	-15	+50	-9	+
220°	+30	+70	+12	-3	+109	+21	+63	+16	-5	+95	+10	+54	+18	-5	+77	-1	+44	+18	-5	+56	-12	+
230°	+36	+59	+12	+3	+110	+25	+53	+16	+5	+99	+12	+45	+18	+5	+80	-1	+37	+18	+5	+59	-14	+
240°	+41	+46	+10	+10	+107	+29	+41	+14	+13	+97	+14	+35	+16	+15	+80	+2	+29	+16	+15	+58	-16	+
250°	+44	+31	+8	+15	+98	+31	+28	+10	+20	+89	+15	+24	+12	+23	+74	-2	+20	+12	+23	+53	-18	+
260°	+46	+16	+4	+19	+85	+33	+14	+5	+25	+77	+16	+12	+6	+29	+63	-2	+10	+6	+29	+43	-18	+
270°	+47	0	0	+20	+67	+33	0	0	+27	+60	+16	0	0	+30	+46	-2	0	0	+30	+28	-19	+
280°	+46	-16	-4	+19	+45	+33	-14	-5	+25	+39	+16	-12	-6	+29	+27	-2	-10	-6	+29	+11	-18	+
290°	+44	-31	-8	+15	+20	+31	-28	-10	+20	+13	+15	-24	-12	+23	+2	-2	-20	-12	+23	-11	-18	+
300°	+41	-46	-10	+10	-5	+29	-41	-14	+13	-13	+14	-35	-16	+15	-22	-2	-29	-16	+15	-32	-16	
310°	+36	-59	-12	+3	-32	+25	-53	-16	+5	-39	+12	-45	-18	+5	-46	-1	-37	-18	+5	-51	-14	
320°	+30	-70	-12	-3	-55	+21	-63	-16	-5	-63	+10	-54	-18	-5	-67	-1	-44	-18	-5	-68	-12	
330°	+23	-79	-10	-10	-76	+17	-71	-14	-13	-81	+8	-61	-16	-15	-84	-1	-50	-16	-15	-82	-9	
340°	+16	-86	-8	-15	-93	+11	-77	-10	-20	-96	+6	-66	-12	-23	-95	-1	-54	-12	-23	-90	-6	
350°	+8	-90	-4	-19	-105	+6	-81	-5	-25	-105	+3	-69	-6	-29	-101	0	-57	-6	-29	-92	-3	

	$\varphi=+30°$					$\varphi=+50°$				
-88	0	-46	0	-27	-73	0	-37	0	-20	-57
-80	+3	-46	+5	-25	-63	+6	-36	+4	-19	-45
-64	+6	-44	+10	-20	-48	+11	-35	+8	-15	-31
-48	+9	-40	+14	-13	-30	+16	-32	+10	-10	-16
-30	+12	-35	+16	-5	-12	+21	-28	+12	-3	+2
-13	+14	-30	+16	+5	+5	+25	-24	+12	+3	+16
+4	+16	-23	+14	+13	+20	+28	-18	+10	+10	+30
+17	+18	-16	+10	+20	+32	+31	-13	+8	+15	+41
+27	+18	-8	+5	+25	+40	+32	-6	+4	+19	+49
+32	+19	0	0	+27	+46	+32	0	0	+20	+52
+35	+18	+8	-5	+25	+46	+32	+6	-4	+19	+53
+33	+18	+16	-10	+20	+44	+31	+13	-8	+15	+51
+30	+16	+23	-14	+13	+38	+28	+18	-10	+10	+46
+25	+14	+30	-16	+5	+33	+25	+24	-12	+3	+40
+22	+12	+35	-16	-5	+26	+21	+28	-12	-3	+34
+20	+9	+40	-14	-13	+22	+16	+32	-10	-10	+28
+20	+6	+44	-10	-20	+20	+11	+35	-8	-15	+23
+22	+3	+46	-5	-25	+19	+6	+36	-4	-19	+19
+28	0	+46	0	-27	+19	0	+37	0	-20	+17
+34	-3	+46	+5	-25	+23	-6	+36	+4	-19	+15
+42	-6	+44	+10	-20	+28	-11	+35	+8	-15	+17
+50	-9	+40	+14	-13	+32	-16	+32	+10	-10	+16
+56	-12	+35	+16	-5	+36	-21	+28	+12	-3	+16
+59	-14	+30	+16	+5	+37	-25	+24	+12	+3	+14
+58	-16	+23	+14	+13	+34	-28	+18	+10	+10	+10
+53	-18	+16	+10	+20	+28	-31	+13	+8	+15	+5
+43	-18	+8	+5	+25	+20	-32	+6	+4	+19	-3
+28	-19	0	0	+27	+8	-32	0	0	+20	-12
+11	-18	-8	-5	+25	-6	-32	-6	-4	+19	-23
-11	-18	-16	-10	+20	-24	-31	-13	-8	+15	-37
-32	-16	-23	-14	+13	-40	-28	-18	-10	+10	-46
-51	-14	-30	-16	+5	-55	-25	-24	-12	+3	-58
-68	-12	-35	-16	-5	-68	-21	-28	-12	-3	-64
-82	-9	-40	-14	-13	-76	-16	-32	-10	-10	-68
-90	-6	-44	-10	-20	-80	-11	-35	-8	-15	-69
-92	-3	-46	-5	-25	-79	-6	-36	-4	-19	-65

X Formulák

Z.

$a = -309,2 \quad b = +64,1 \quad c = +7,2 \quad e = -35,6 \quad f = -30,8 \quad g = -57,8$

$i = -18,5 \quad k = \frac{1}{2}(2h+i) = +7,6$

$$Z = -2\mu_s \sin\varphi - 2k\left(1-\tfrac{3}{2}\cos^2\varphi\right) - \left(2\mu_6\cos\varphi + \tfrac{3}{2}e\sin 2\varphi\right)\sin\lambda + \left(2\mu_c\cos\varphi + \tfrac{3}{2}g\sin\varphi\right)\cos\lambda + \tfrac{3}{2}f\cos^2\varphi\sin\lambda + \tfrac{3}{2}i\cos^2\varphi\cos\lambda$$

$\varphi = -60$	$Z = -545$	$- 18\sin\lambda$	$+75\cos\lambda$	$-12\sin 2\lambda$	$-7\cos 2\lambda$
-40	-399	$-46\sin\lambda$	$+87\cos\lambda$	$-28\sin 2\lambda$	$-16\cos 2\lambda$
-20	-207	$-86\sin\lambda$	$+63\cos\lambda$	$-41\sin 2\lambda$	$-25\cos 2\lambda$
0	$+8$	$-128\sin\lambda$	$+14\cos\lambda$	$-46\sin 2\lambda$	$-28\cos 2\lambda$
$+20$	$+216$	$-155\sin\lambda$	$-36\cos\lambda$	$-41\sin 2\lambda$	$-25\cos 2\lambda$
$+40$	$+396$	$-151\sin\lambda$	$-65\cos\lambda$	$-28\sin 2\lambda$	$-16\cos 2\lambda$
$+60$	$+526$	$-110\sin\lambda$	$-60\cos\lambda$	$-12\sin 2\lambda$	$-7\cos 2\lambda$

	φ = −60 (−595)					φ = −40 (−399)					φ = −20 (−207)					φ = 0 (+8)		
0	6	+75	0	−7	−477	0	+87	0	−16	−328	0	+63	0	−25	−169	0	+14	0
10	−3	+74	−4	−7	−485	−8	+86	−10	−15	−346	−15	+62	−14	−24	−188	−22	+14	−16
20	−6	+71	−8	−5	−493	−16	+82	−18	−12	−363	−29	+59	−26	−19	−222	−44	+13	−30
30	−9	+65	−10	−4	−503	−23	+75	−24	−8	−379	−43	+55	−36	−13	−244	−64	+12	−40
40	−12	+57	−12	−1	−513	−30	+67	−28	−3	−393	−55	+48	−40	−4	−258	−82	+11	−45
50	−14	+48	−12	+1	−522	−35	+56	−28	+2	−403	−66	+41	−40	+4	−268	−98	+9	−45
60	−16	+38	−10	+4	−529	−40	+44	−24	+8	−411	−74	+32	−26	+12	−269	−111	+7	−40
70	−17	+26	−8	+5	−539	−43	+30	−18	+12	−418	−81	+22	−26	+19	−273	−120	+5	−30
80	−18	+13	−4	+7	−547	−45	+15	−10	+15	−424	−85	+11	−14	+24	−271	−126	+2	−16
90	−18	0	0	+7	−556	−46	0	0	+16	−429	−86	0	0	+25	−268	−128	0	0
100	−18	−13	+4	+7	−565	−45	−15	+10	+15	−434	−85	−11	+14	+24	−263	−126	−2	+16
110	−17	−26	+8	+5	−575	−43	−30	+18	+12	−442	−81	−22	+26	+19	−263	−120	−5	+30
120	−16	−28	+10	+4	−585	−40	−44	+24	+8	−451	−74	−32	+26	+12	−265	−111	−7	+40
130	−14	−48	+12	+1	−594	−35	−56	+28	+2	−459	−66	−41	+40	+4	−270	−98	−9	+45
140	−12	−57	+12	−1	−603	−30	−67	+28	−2	−471	−55	−48	+40	−4	−274	−82	−11	+45
150	−9	−65	+10	−4	−613	−23	−75	+24	−8	−481	−43	−55	+36	−12	−282	−64	−12	+40
160	−6	−71	+8	−5	−619	−16	−82	+18	−12	−491	−29	−59	+26	−19	−288	−44	−13	+30
170	−3	−74	+4	−7	−625	−8	−86	+10	−15	−498	−15	−62	+14	−24	−294	−22	−14	+16
180	0	−75	0	−7	−627	0	−87	0	−16	−502	0	−63	0	−25	−295	0	−14	0
190	+3	−74	−4	−7	−627	+8	−86	−10	−15	−502	+15	−62	−14	−24	−292	+22	−14	−16
200	+6	−71	−8	−5	−623	+16	−82	−18	−12	−495	+29	−59	−26	−19	−282	+44	−13	−30
210	+9	−65	−10	−4	−615	+23	−75	−24	−8	−483	+43	−55	−36	−12	−268	+64	−12	−40
220	+12	−57	−12	−1	−603	+30	−67	−28	−2	−467	+55	−48	−40	−4	−244	+82	−11	−45
230	+14	−48	−12	+1	−590	+35	−56	−28	+2	−443	+66	−41	−40	+4	−218	+98	−9	−45
240	+16	−38	−10	+4	−583	+40	−44	−24	+8	−419	+74	−32	−26	+12	−188	+111	−7	−40
250	+17	−26	−8	+5	−557	+43	−30	−18	+12	−392	+81	−22	−26	+19	−155	+120	−5	−30
260	+18	−13	−4	+7	−537	+45	−15	−10	+15	−364	+85	−11	−14	+24	−123	+126	−2	−16
270	+18	0	0	+7	−520	+46	0	0	+16	−337	+86	0	0	+25	−96	+128	0	0
280	+18	+13	+4	+7	−503	+45	+15	+10	+15	−314	+85	+11	+14	+24	−70	+126	+2	+16
290	+17	+26	+8	+5	−489	+43	+30	+18	+12	−296	+81	+22	+26	+19	−59	+120	+5	+30
300	+16	+28	+10	+4	−477	+40	+44	+24	+8	−283	+74	+32	+26	+12	−52	+111	+7	+40
310	+14	+48	+12	+1	−470	+35	+56	+28	+2	−277	+66	+41	+40	+4	−56	+98	+9	+45
320	+12	+57	+12	−1	−465	+30	+67	+28	−2	−277	+55	+48	+40	−4	−68	+82	+11	+45
330	+9	+65	+10	−4	−465	+23	+75	+24	−8	−285	+43	+55	+26	−12	−86	+64	+12	+40
340	+6	+71	+8	−5	−465	+16	+82	+18	−12	−295	+29	+59	+26	−19	−112	+44	+13	+30
350	+3	+74	+4	−7	−471	+8	+86	+10	−15	−310	+15	+62	+14	−24	−140	+22	+14	+16

Handwritten numerical data table (four column groups across the page).

φ=0					φ=+20						φ=+40						φ=+60					
+14	0	-28	-6	+206	0	0	-36	0	-25	+155	+306	0	-65	0	-16	+315	+260	0	-60	0	-7	+459
+14	-16	-26	-42		-12	-27	-35	-14	-24	+116	-18	-26	-64	-10	-15	+281	-16	-19	-59	-4	-7	+437
+13	-30	-21	-74		-24	-53	-34	-26	-19	+84	-36	-52	-61	-18	-12	+253	-32	-38	-56	-8	-5	+419
+12	-40	-14	-98		-35	-78	-31	-36	-13	+58	-53	-76	-56	-24	-8	+232	-46	-55	-52	-10	-4	+405
+11	-45	-5	-113		-45	-100	-28	-40	-4	+44	-67	-97	-50	-28	-3	+218	-59	-71	-46	-12	-1	+396
+9	-45	+5	-121		-53	-119	-23	-40	+4	+38	-81	-116	-42	-28	+3	+213	-70	-84	-39	-12	+1	+392
+7	-40	+14	-122		-60	-134	-18	-26	+13	+41	-91	-131	-33	-24	+8	+216	-79	-95	-30	-10	+4	+395
+5	-20	+21	-116		-65	-146	-12	-26	+19	+51	-99	-142	-22	-18	+12	+226	-86	-103	-21	-8	+5	+399
+2	-16	+26	-106		-68	-153	-6	-14	+24	+67	-104	-149	-11	-10	+15	+241	-90	-108	-10	-4	+7	+411
0	0	+28	-92		-69	-155	0	0	+25	+86	-105	-151	0	0	+16	+261	-92	-110	0	0	+7	+423
-2	+16	+26	-78		-68	-153	+6	+14	+24	+107	-104	-149	+11	+10	+15	+283	-90	-108	+10	+4	+7	+439
-5	+30	+21	-66		-65	-146	+12	+26	+19	+127	-99	-142	+22	+18	+12	+306	-86	-103	+21	+8	+5	+457
-7	+40	+14	-56		-60	-134	+18	+26	+13	+149	-91	-131	+22	+24	+8	+330	-79	-95	+30	+10	+4	+475
-9	+45	+5	-49		-53	-119	+23	+40	+4	+164	-87	-116	+42	+28	+3	+353	-70	-84	+39	+12	+1	+494
-11	+45	-5	-45		-45	-100	+28	+40	-4	+180	-67	-97	+50	+28	-3	+374	-59	-71	+46	+12	-1	+512
-12	+40	-14	-42		-35	-78	+21	+26	-13	+195	-53	-76	+56	+24	-8	+392	-46	-55	+52	+10	-4	+529
-14	+20	-21	-39		-24	-53	+34	+26	-19	+204	-36	-52	+61	+18	-12	+411	-32	-38	+56	+8	-5	+547
-14	+16	-26	-38		-12	-27	+25	+14	-24	+214	-18	-26	+64	+10	-15	+429	-16	-19	+59	+4	-7	+563
-14	0	-28	-36		0	0	+36	0	-25	+227	0	0	+65	0	-16	+445	0	0	+60	0	-7	+579
-14	-16	-26	-26		+12	+27	+35	-14	-24	+240	+18	+26	+64	-10	-15	+461	+16	+19	+59	-4	-7	+593
-12	-20	-21	-12		+24	+53	+24	-26	-19	+258	+36	+52	+61	-18	-12	+479	+32	+38	+56	-8	-5	+607
-12	-40	-14	+6		+35	+78	+21	-36	-13	+276	+53	+76	+56	-24	-8	+496	+46	+55	+52	-10	-4	+619
-11	-45	-5	+29		+45	+100	+28	-40	-4	+300	+67	+97	+50	-28	-3	+512	+59	+71	+46	-12	-1	+630
-9	-45	+5	+57		+53	+119	+23	-40	+4	+322	+81	+116	+42	-28	+3	+529	+70	+84	+39	-12	+1	+638
-7	-40	+14	+86		+60	+134	+18	-26	+13	+355	+91	+131	+22	-24	+8	+544	+79	+95	+30	-10	+4	+645
-5	-20	+21	+114		+65	+146	+12	-26	+19	+367	+99	+142	+22	-18	+12	+554	+86	+103	+21	-8	+5	+647
-2	-16	+26	+142		+68	+153	+6	-14	+24	+384	+104	+149	+11	-10	+15	+561	+90	+108	+10	-4	+7	+647
0	0	+28	+164		+69	+155	0	0	+25	+396	+105	+157	0	0	+16	+563	+92	+110	0	0	+7	+643
+2	+16	+26	+178		+68	+153	-6	+14	+24	+401	+104	+149	-11	+10	+15	+559	+90	+108	-10	+4	+7	+635
+5	+20	+21	+184		+65	+146	-12	+26	+19	+395	+99	+142	-22	+18	+12	+546	+86	+103	-21	+8	+5	+621
+7	+40	+14	+180		+60	+134	-18	+26	+13	+381	+91	+131	-22	+24	+8	+526	+79	+95	-30	+10	+4	+605
+9	+45	+5	+165		+53	+119	-23	+40	+4	+356	+81	+116	-42	+28	+3	+501	+70	+84	-39	+12	+1	+584
+11	+45	-5	+141		+45	+100	-28	+40	-4	+324	+67	+97	-50	+28	-3	+468	+59	+71	-46	+12	-1	+562
+12	+40	-14	+110		+35	+78	-31	+26	-13	+286	+53	+76	-56	+24	-8	+432	+46	+55	-52	+10	-4	+535
+13	+20	-21	+74		+24	+53	-24	+26	-19	+242	+36	+52	-61	+18	-12	+393	+32	+38	-56	+8	-5	+508
+14	+16	-26	+34		+12	+27	-25	+14	-24	+198	+18	+26	-64	+10	-15	+353	+16	+19	-59	+4	-7	+483

X Formulák

Z nap

X Formulák

	φ=-60			φ=-40			φ=-20			φ=0			φ=+	
	Z_t	Z_0	Z_t-Z_0											
0	-370	-477	+107	-258	-328	+70	-170	-169	-1	-41	-6	-35	+174	+15
10	-390	-485	+95	-287	-346	+59	-212	-188	-24	-86	-42	-44	+139	+110
20	-407	-493	+86	-317	-363	+46	-246	-222	-24	-120	-74	-46	+125	+8
30	-428	-503	+75	-348	-379	+31	-284	-244	-40	-133	-98	-35	+123	+52
40	-450	-573	+63	-378	-393	+15	-317	-258	-59	-137	-113	-24	+126	+4
50	-469	-522	+53	-407	-403	-4	-336	-268	-68	-138	-121	-17	+131	
60	-491	-529	+38	-435	-411	-24	-348	-269	-79	-136	-122	-14	+137	+4
70	-513	-539	+26	-458	-418	-40	-357	-273	-84	-134	-116	-18	+146	+57
80	-539	-547	+8	-478	-424	-54	-362	-271	-91	-131	-106	-15	+160	+6
90	-575	-556	-19	-497	-429	-68	-369	-268	-101	-126	-92	-34	+173	+8
100	-602	-565	-37	-519	-434	-85	-375	-263	-112	-116	-78	-38	+187	+10
110	-631	-575	-56	-542	-442	-100	-383	-263	-120	-101	-66	-35	+197	+12
120	-645	-585	-60	-566	-451	-115	-388	-265	-123	-91	-56	-35	+199	+14
130	-650	-594	-56	-591	-459	-132	-389	-270	-119	-85	-49	-36	+192	+16
140	-655	-603	-52	-585	-471	-114	-384	-274	-110	-83	-45	-38	+179	
150	-627*	-613	-14*	-565	-481	-84	-364	-282	-82	-77	-42	-35	+166	+19
160	-639	-619	-20	-540	-491	-49	-335	-288	-47	-63	-39	-24	+160	+20
170	-638	-625	-13	-525	-498	-27	-311	-294	-17	-43	-38	-5	+167	
180	-639	-627	-12	-501	-502	+1	-287	-295	+8	-21	-36	+15	+186	+2
190	-636	-627	-9	-482	-502	+20	-263	-292	+29	-5	-26	+21	+208	+24
200	-633	-623	-10	-463	-495	+32	-247	-282	+35	+5	-12	+17	+231	+2
210	-631	-615	-16	-443	-483	+40	-234	-268	+34	+10	+6	+4	+248	+27
220	-624	-603	-21	-428	-467	+39	-227	-244	+17	+14	+29	-15	+265	+3
230	-623	-590	-33	-416	-443	+27	-217	-218	+1	+18	+57	-39	+280	+32
240	-606	-583	-23	-404	-419	+15	-205	-188	-17	+25	+86	-61	+298	+35
250	-588	-557	-31	-388	-392	+4	-187	-155	-32	+38	+114	-76	+320	+3
260	-561	-537	-25	-360	-364	+4	-163	-123	-40	+52	+142	-90	+340	+38
270	-522	-520	-2	-334	-337	+3	-136	-96	-40	+73	+164	-91	+355	+39
280	-476	-503	+27	-284	-314	+30	-108	-70	-38	+96	+178	-82	+370	+4
290	-425	-489	+64	-235	-296	+61	-77	-59	-18	+115	+184	-69	+374	+39
300	-380	-477	+97	-195	-283	+88	-52	-52	0	+133	+180	-47	+376	+4
310	-353	-470	+117	-173	-277	+104	-37	-56	+19	+148	+165	-17	+313*	+35
320	-341	-465	+134	-168	-277	+109	-35	-68	+33	+141	+141	0	+347	+3
330	-343	-465	+122	-180	-285	+105	-48	-86	+38	+114	+110	+4	+262*	+2
340	-350	-465	+115	-202	-295	+93	-76	-112	+36	+67	+74	-7	+268	+2
350	-359	-471	+112	-230	-310	+80	-121	-140	+19	+10	+34	-24	+220	+19

$q=+20$			$q=+40$			$q=+60$				
+174	+155	+19	+375	+315	+60	+466	+459	+7		
+139	+116	+23	+361	+281	+80	+458	+437	+21		
+125	+84	+41	+349	+253	+96	+464	+419	+45		
+123	+58	+65	+348	+232	+116	+475	+405	+70		
+126	+44	+82	+356	+218	+138	+490	+396	+94		
+131	+38	+93	+366	+213	+153	+509	+392	+117		
+137	+41	+96	+380	+216	+164	+523	+395	+128		
+146	+51	+95	+397	+226	+171	+534	+399	+135		
+160	+67	+93	+410	+241	+169	+546	+411	+135		
+173	+86	+87	+426	+261	+165	+552	+423	+129		
+187	+107	+80	+439	+283	+156	+560	+439	+121		
+197	+127	+70	+443	+306	+137	+563	+457	+106		
+199	+149	+50	+437	+330	+107	+560	+475	+85		
+192	+164	+28	+418	+353	+65	+553	+494	+59		
+179	+180	-1	+391	+374	+17	+539	+512	+27		
+166	+195	-29	+364	+392	-28	+512	+529	-17		
+160	+204	-44	+348	+411	-63	+495	+547	-52		
+167	+214	-47	+344	+429	-85	+496	+563	-67		
+186	+227	-41	+351	+445	-94	+501	+579	-78		
+208	+240	-32	+367	+461	-94	+578	+593	-75		
+231	+258	-27	+388	+479	-91	+541	+607	-66		
+248	+276	-28	+415	+496	-81	+563	+619	-56		
+265	+300	-35	+444	+572	-68	+581	+630	-49		
+280	+322	-42	+475	+529	-54	+604	+638	-34		
+298	+355	-57	+507	+544	-37	+632	+645	-13		
+320	+367	-47	+541	+554	-13	+638	+647	-9		
+340	+384	-44	+567	+561	+6	+629	+647	-18		
+355	+396	-41	+576	+563	+13	+574 [x]	+643	-69 [*]		
+370	+401	-31	+586	+559	+27	+620 [jan.]	+635	-15 [jan.]		
+374	+395	-21	+567	+546	+21	+592	+621	-29		
+376	+381	-5	+534	+526	+8	+589	+605	-16		
+313 [x]	+356	-43 [*]	+501	+501	0	+561	+584	-23		
+347	+324	+23	+457	+468	-11	+534	+562	-28		
+262 [x]	+286	-24 [*]	+431	+432	-1	+572	+535	-24		
+268	+242	+26	+411	+393	+18	+499	+508	-9		
+220	+198	+22	+390	+353	+37	+482	+483	-1		
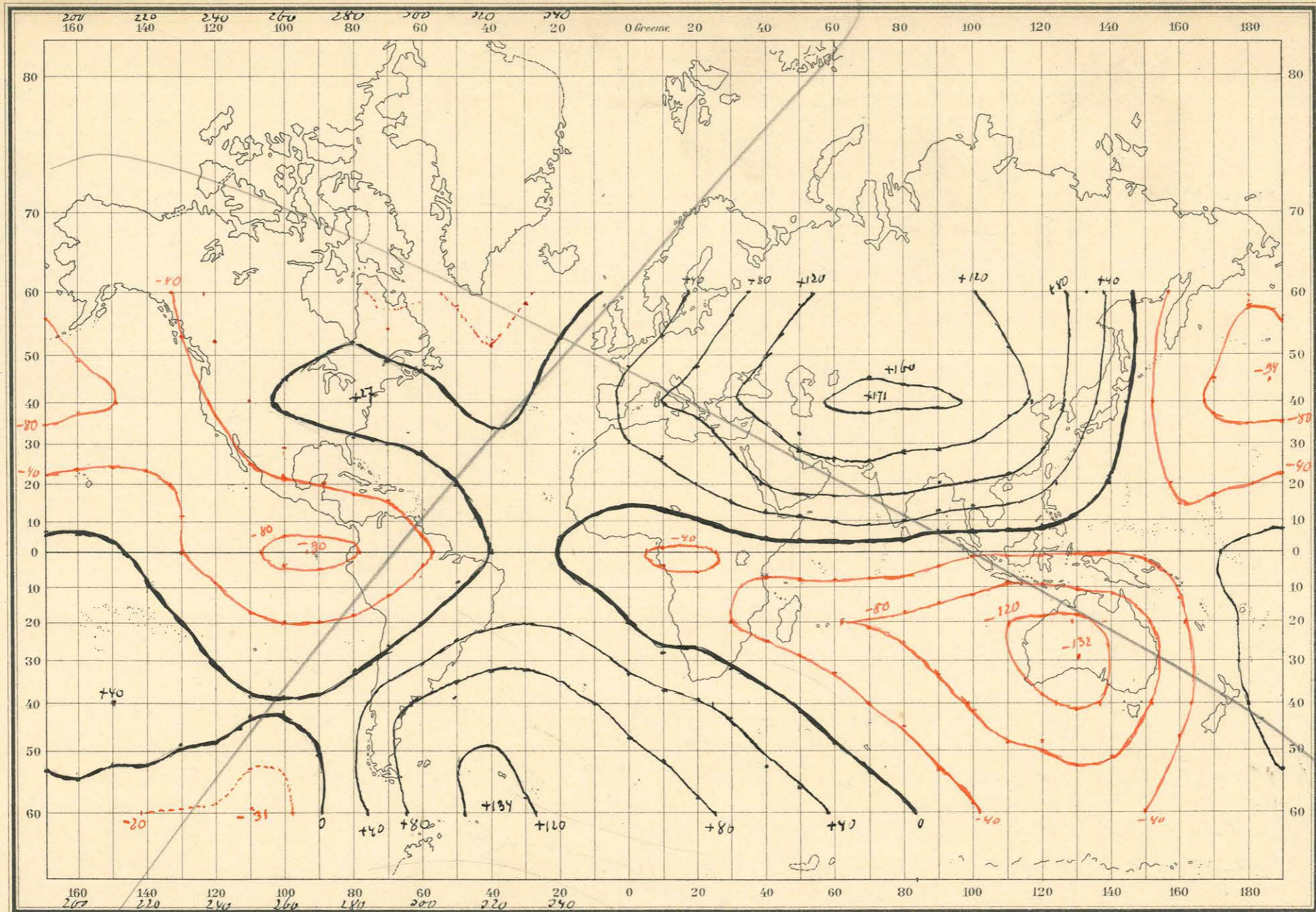
200 220 240 260 280 300 320 340 0 Greenw. 20 40 60 80 100 120 140 160 180
160 140 120 100 80 60 40 20

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60

-40 +60 +80 +120 +120 +40 +40

+160

+17 +171 -94

-80 -80 -90

-80 -90 -40

+40 -80 -120 -132

-20 -31 0 +40 +80 +134 +120 +80 +40 0 -40 -40

160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180
200 220 240 260 180 200 220 240

λ	Z_s	$\varphi=+10°$ Z_t	Z_s-Z_t	Z_s	$\varphi=+20°$ Z_t	Z_s-Z_t	Z_s	$\varphi=+30°$ Z_t	Z_s-Z_t	λ	λ
0	+5335	+8925	-3590	+17423	+17611	-188	+29764	+26570	+3194	0	0
10	+1393	+5861	-4468	+13860	+14881	-1021	+26845	+24253	+2592	10	10
20	-332	+3158	-3490	+12445	+12559	-114	+25538	+22356	+3182	20	20
30	-696	+965	-1661	+12249	+10777	+1472	+25355	+20990	+4365	30	30
40	-600	-625	+25	+12570	+9614	+2956	+25756	+20217	+5539	40	40
50	-407	-1578	+1177	+13101	+9088	+4013	+26639	+20048	+6591	50	50
60	-154	-1925	+1771	+13670	+9164	+4506	+28025	+20443	+7582	60	60
70	+158	-1748	+1906	+14654	+9757	+4897	+29748	+21319	+8429	70	70
80	+655	-1166	+1821	+16013	+10741	+5272	+31228	+22560	+8668	80	80
90	+1564	-320	+1884	+17254	+11977	+5277	+32512	+24032	+8480	90	90
100	+3224	+644	+2580	+18685	+13317	+5368	+33394	+25600	+7794	100	100
110	+4822	+1598	+3224	+19773	+14631	+5142	+35537	+27139	+6398	110	110
120	+5777	+2449	+3328	+19874	+15820	+4054	+32819	+28553	+4266	120	120
130	+6130	+3144	+2986	+19267	+16822	+2445	+31010	+29776	+1234	130	130
140	+5945	+3675	+2270	+17919	+17622	+297	+28417	+30785	-2368	140	140
150	+5670	+4085	+1585	+16643	+18249	-1606	+26461	+31592	-5131	150	150
160	+5785	+4458	+1327	+16032	+18767	-2735	+25315	+32246	-6931	160	160
170	+6663	+4893	+1770	+16695	+19265	-2570	+25873	+32815	-6942	170	170
180	+9056	+5501	+3555	+18614	+19841	-1227	+27156	+33378	-6222	180	180
190	+11194	+6383	+4811	+20782	+20585	+197	+28953	+34009	-5056	190	190
200	+12753	+7612	+5141	+23087	+21565	+1522	+30964	+34766	-3802	200	200
210	+13630	+9215	+4415	+24823	+22811	+2012	+33508	+35676	-2168	210	210
220	+14117	+11171	+2946	+26448	+24308	+2140	+35824	+36733	-909	220	220
230	+14738	+13404	+1334	+27965	+25998	+1967	+38465	+37890	+575	230	230
240	+16037	+15789	+248	+29793	+27776	+2017	+40909	+39071	+1838	240	240
250	+17684	+18158	-474	+31982	+29503	+2479	+43581	+40167	+3414	250	250
260	+19361	+20330	-969	+33993	+31025	+2968	+46229	+41054	+5175	260	260
270	+21228	+22110	-882	+35548	+32179	+3369	+48390	+41612	+6778	270	270
280	+23281	+23328	-047	+37042	+32825	+4217	+50117	+41730	+8387	280	280
290	+24532	+23848	+684	+37352	+32853	+4499	+50917	+41331	+9586	290	290
300	+25448	+23587	+1861	+37572	+32200	+5372	+47750	+40373	+7377	300	300
310	+26348	+22526	+3822	+36919	+30864	+6055	+44949	+38866	+6083	310	310
320	+24951	+20715	+4236	+37725	+28900	+5825	+41471	+36869	+4602	320	320
330	+21651	+18267	+3384	+31382	+26419	+4963	+37833	+34486	+3347	330	330
340	+16973	+15348	+1625	+26808	+23581	+3227	+35517	+31860	+3657	340	340
350	+11107	+12159	-1058	+22039	+20577	+1462	+32767	+29163	+3604	350	350

λ	λ	Z_s	Z_t	$\varphi=+70$ Z_s-Z_t	Z_s	Z_t	$\varphi=+50$ Z_s-Z_t	Z_s-Z_t	Z_s	$\varphi=+60$ Z_t	λ
0	0	+37500	+35603	+1897	+42791	+44397	−1606	−5988	+46564	+52552	0
10	10	+36187	+33740	+2447	+41994	+42995	−1001	−5797	+45791	+51588	10
20	20	+34880	+32275	+2605	+41360	+41939	−579	−4514	+46379	+50893	20
30	30	+34740	+31296	+3444	+41376	+41291	+085	−2732	+47770	+50502	30
40	40	+35596	+30847	+4749	+42412	+41080	+1332	−1418	+49022	+50440	40
50	50	+36624	+30931	+5693	+43643	+41305	+2338	+174	+50872	+50698	50
60	60	+38037	+31513	+6524	+45359	+41936	+3423	+1068	+52326	+51258	60
70	70	+39685	+32517	+7168	+46858	+42914	+3944	+1188	+53265	+52077	70
80	80	+41110	+33845	+7265	+49396	+44160	+5236	+1450	+54550	+53100	80
90	90	+42549	+35380	+7169	+50137	+45585	+4552	+878	+55143	+54265	90
100	100	+43870	+37005	+6865	+51122	+47092	+4030	+531	+56037	+55506	100
110	110	+44309	+38609	+5700	+52271	+48598	+3673	−478	+56281	+56759	110
120	120	+43701	+40105	+3596	+52300	+50024	+2276	−1978	+55994	+57972	120
130	130	+41825	+41431	+394	+51098	+51319	−229	−3865	+55231	+59096	130
140	140	+39094	+42557	−3463	+48493	+52448	−3955	−6233	+53873	+60106	140
150	150	+36470	+43482	−7012	+45169	+53403	−8234	−9772	+51210	+60982	150
160	160	+34788	+44237	−9449	+43469	+54193	−10724	−12228	+49497	+61725	160
170	170	+34406	+44864	−10458	+43213	+54845	−11632	−12760	+49580	+62340	170
180	180	+35100	+45423	−10323	+44086	+55389	−11303	−12744	+50096	+62840	180
190	190	+36706	+45966	−9260	+45788	+55861	−10073	−11459	+51783	+63242	190
200	200	+38789	+46539	−7750	+47971	+56289	−8318	−9511	+54046	+63557	200
210	210	+41417	+47162	−5745	+50595	+56687	−6092	−7529	+56265	+63794	210
220	220	+44390	+47833	−3443	+53692	+57054	−3362	−5839	+58115	+63954	220
230	230	+47448	+48521	−1073	+55848	+57373	−1525	−3608	+60416	+64024	230
240	240	+50698	+49173	+1525	+58197	+57610	+587	−809	+63181	+63990	240
250	250	+54093	+49709	+4384	+61114	+57718	+3396	+18	+63847	+63829	250
260	260	+56675	+50049	+6626	+61927	+57644	+4283	−657	+62857	+63514	260
270	270	+57624	+50102	+7522	+63022	+57337	+5685	−5672	+57355	+63027	270
280	280	+58595	+49797	+8798	+62048	+56760	+5288	−7712	+54636	+62348	280
290	290	+56736	+49085	+7651	+61296	+55882	+5414	−2267	+59208	+61475	290
300	300	+53404	+47945	+5459	+58287	+54706	+3581	−1473	+58943	+60416	300
310	310	+50045	+46397	+3648	+54636	+53255	+1381	−3098	+56096	+59194	310
320	320	+45726	+44499	+1227	+51222	+51582	−360	−4488	+53368	+57856	320
330	330	+43124	+42340	+784	+47611	+49759	−2148	−5200	+51254	+56454	330
340	340	+41066	+40045	+1021	+45745	+47883	−2138	−5169	+49884	+55053	340
350	350	+39068	+37750	+1318	+43809	+46059	−2250	−5543	+48187	+53730	350

λ	Z_s	Z_t	$q=-60$ Z_s-Z_t	Z_s	Z_t	$q=-50$ Z_s-Z_t	Z_s	Z_t	$q=-40$ Z_s-Z_t	λ	λ
0	-37016	-43122	+6106	-31275	-36431	+5156	-25829	-29469	+3640	0	0
10	-38979	-44884	+5905	-33429	-38741	+5312	-28792	-32241	+3449	10	10
20	-40654	-46812	+6158	-35723	-41197	+5474	-31745	-35104	+3359	20	20
30	-42745	-48829	+6084	-38362	-43695	+5333	-34730	-37935	+3205	30	30
40	-44992	-50864	+5872	-41060	-46150	+5090	-37823	-40627	+2804	40	40
50	-46863	-52865	+6002	-43802	-48493	+4691	-40668	-43111	+2443	50	50
60	-49083	-54781	+5698	-46356	-50678	+4322	-43498	-45345	+1847	60	60
70	-51372	-56581	+5209	-48725	-52676	+3951	-45850	-47318	+1868	70	70
80	-53943	-58239	+4296	-51613	-54478	+2865	-47850	-49038	+1188	80	80
90	-57514	-59735	+2221	-54530	-56081	+1551	-49757	-50530	+773	90	90
100	-60170	-61057	+887	-58170	-57486	-684	-51867	-51818	-49	100	100
110	-63174	-62187	-987	-62641	-58692	-3949	-54213	-52926	-1287	110	110
120	-64712	-63109	-1603	-65722	-59694	-6028	-56560	-53857	-2703	120	120
130	-64950	-63805	-1145	-67485	-60469	-7016	-59056	-54599	-4457	130	130
140	-65536	-64244	-1292	-67475	-60986	-6489	-58521	-55121	-3400	140	140
150	-62761	-64403	+1642	-65348	-61209	-4139	-56510	-55373	-1137	150	150
160	-62935	-64250	+1315	-62737	-61089	-1648	-54032	-55288	+1256	160	160
170	-63793	-63760	-33	-59147	-60601	+1454	-52525	-54805	+2280	170	170
180	-63853	-62918	-935	-57005	-59647	+2642	-50131	-53857	+3726	180	180
190	-63576	-61718	-1858	-54803	-58267	+3464	-48181	-52385	+4204	190	190
200	-62273	-60170	-3103	-53115	-56439	+3324	-46297	-50434	+4137	200	200
210	-63033	-58307	-4726	-51563	-54191	+2628	-44261	-47959	+3698	210	210
220	-62454	-56174	-6280	-50674	-57580	+906	-42834	-45045	+2211	220	220
230	-62322	-53845	-8477	-49906	-48693	-1213	-41617	-41789	+172	230	230
240	-60636	-51403	-9233	-49300	-45640	-3660	-40447	-38321	-2126	240	240
250	-58806	-48945	-9861	-47656	-42556	-5100	-38720	-34808	-3912	250	250
260	-56070	-46579	-9491	-45345	-39582	-5763	-36039	-31420	-4619	260	260
270	-52203	-44405	-7798	-41915	-36861	-5054	-32384	-28340	-4044	270	270
280	-47627	-42521	-5106	-37539	-34526	-3013	-28418	-25732	-2686	280	280
290	-42528	-41011	-1517	-33481	-32692	-789	-23454	-23732	+278	290	290
300	-38040	-39935	+1895	-28681	-31440	+2759	-19476	-22445	+2969	300	300
310	-35274	-39337	+4063	-26026	-30821	+4795	-17341	-21925	+4584	310	310
320	-34086	-39226	+5140	-25719	-30848	+5729	-16797	-21675	+4878	320	320
330	-34363	-39593	+5230	-25783	-31493	+5710	-18010	-23157	+5147	330	330
340	-34956	-40404	+5448	-27410	-32699	+5289	-20196	-27782	+4586	340	340
350	-35930	-41602	+5672	-29257	-34379	+5122	-22955	-26933	+3978	350	350

λ	λ	Z_s	Z_t	$\varphi=-30$ Z_s-Z_t	Z_s	Z_t	$\varphi=-20$ Z_s-Z_t	Z_s-Z_t	Z_s	$\varphi=-10$ Z_t	λ
0	0	-21558	-22310	+752	-17039	-14949	-2090	-3922	-11257	-7335	0
10	10	-25018	-25427	+409	-21150	-18272	-2878	-6084	-16799	-10715	10
20	20	-28748	-28555	-193	-24635	-21508	-3127	-6596	-20499	-13903	20
30	30	-32048	-31547	-501	-28453	-24497	-3956	-6748	-22887	-16739	30
40	40	-35484	-34293	-1191	-31707	-27125	-4582	-5443	-24550	-19107	40
50	50	-37972	-36721	-1251	-33610	-29327	-4283	-4429	-25381	-20952	50
60	60	-40126	-38802	-1324	-34809	-31088	-3721	-3455	-25732	-22277	60
70	70	-41738	-40545	-1193	-35660	-32440	-3220	-2711	-25845	-23134	70
80	80	-42572	-41985	-587	-36208	-33445	-2763	-2226	-25836	-23610	80
90	90	-43907	-43174	-733	-36891	-34185	-2706	-1780	-25596	-23816	90
100	100	-45767	-44169	-1598	-37529	-34747	-2782	-1178	-25042	-23864	100
110	110	-47904	-45013	-2891	-38298	-35202	-3096	-500	-24350	-23850	110
120	120	-49840	-45734	-4106	-38752	-35598	-3154	+291	-23552	-23843	120
130	130	-51031	-46331	-4700	-38884	-35945	-2939	+428	-23440	-23868	130
140	140	-51146	-46771	-4375	-38404	-36221	-2183	+1137	-22772	-23909	140
150	150	-48918	-46999	-1919	-36330	-36363	+33	+1009	-21898	-23907	150
160	160	-46096	-46935	+839	-33497	-36282	+2785	+3938	-19829	-23767	160
170	170	-43283	-46491	+3208	-31085	-35876	+4791	+6149	-17234	-23383	170
180	180	-39947	-45586	+5639	-28714	-35047	+6333	+7827	-14812	-22639	180
190	190	-38099	-44155	+6056	-26294	-33710	+7416	+8147	-13294	-21441	190
200	200	-36744	-42167	+5423	-24645	-31876	+7171	+7544	-12183	-19727	200
210	210	-35361	-39631	+4270	-23410	-29363	+5953	+6109	-11372	-17481	210
220	220	-34309	-36601	+2292	-22671	-25401	+2730	+4291	-10456	-14747	220
230	230	-32918	-33185	+267	-21720	-23035	+1315	+1895	-9727	-11622	230
240	240	-31285	-29528	-1757	-20472	-19420	-1052	-556	-8815	-8259	240
250	250	-29110	-25813	-3297	-18702	-15748	-2954	-2975	-7831	-4856	250
260	260	-26090	-22245	-3845	-16261	-12237	-4024	-4704	-6330	-1626	260
270	270	-22585	-19026	-3559	-13584	-9107	-4477	-5543	-4337	+1206	270
280	280	-18930	-16345	-2585	-10810	-6559	-4251	-5212	-1776	+3436	280
290	290	-15332	-14361	-971	-7726	-4762	-2964	-4010	+886	+4896	290
300	300	-12063	-13184	+1121	-5228	-3830	-1398	-2292	+3187	+5479	300
310	310	-10005	-12870	+2865	-3638	-3817	+179	-646	+4492	+5138	310
320	320	-9592	-13419	+3827	-3489	-4705	+1216	+354	+4253	+3899	320
330	330	-10064	-13767	+3703	-4813	-6392	+1579	+342	+2201	+1859	330
340	340	-13779	-16803	+3024	-7567	-8818	+1251	-476	-1303	-827	340
350	350	-17590	-19375	+1785	-12114	-11730	-384	-2070	-6035	-3965	350

λ	Z_s	Z_t	$Z_s - Z_t$ $\varphi = 0$	
0	−4056	+606	−4662	0
10	−8668	−2683	−5985	10
20	−12017	−5686	−6331	20
30	−13283	−8233	−5050	30
40	−13701	−10249	−3452	40
50	−13770	−11660	−2110	50
60	−13613	−12494	−1119	60
70	−13375	−12819	−556	70
80	−13088	−12742	−346	80
90	−12602	−12398	−304	90
100	−11616	−11916	+300	100
110	−10052	−11413	+1361	110
120	−9029	−10972	+1943	120
130	−8602	−10636	+2034	130
140	−8247	−10397	+2150	140
150	−7731	−10201	+2470	150
160	−6306	−9992	+3686	160
170	−4290	−9569	+5279	170
180	−2093	−8902	+6809	180
190	−423	−7863	+7440	190
200	+522	−6380	+6902	200
210	+1025	−4431	+5456	210
220	+1359	−2047	+3406	220
230	+1829	+684	+1145	230
240	+2479	+3616	−1137	240
250	+3752	+6569	−2817	250
260	+5162	+9332	−4170	260
270	+7297	+11694	−4397	270
280	+9549	+13462	−3913	280
290	+11533	+14479	−2946	290
300	+13315	+14646	−1331	300
310	+14794	+13932	+862	310
320	+14047	+12373	+1674	320
330	+11446	+10079	+1367	330
340	+6698	+7212	−514	340
350	+951	+3989	−3038	350

200
180   220
200   240
220   260
240   280
260   300
280   320
300   340
320   0 Greenw.   20   40   60   80   100   120   140   160   180

80

70

60

50

40

30

20

10

0

10

20

30

40

50

60