

附 録

ステレオ地圖使用表

或る觀測所より等距離にある地點の軌跡はステレオ地圖中では圓となるが其の中心は地圖の中心に對して外方へずれる、今其の半徑 r と觀測所の位置から圓の中心のずれ d とは次の式で與へられる、但し Δ は震央距離を角度にて表はしたもの、 φ は觀測所の緯度である。

$$d = \frac{\cos \varphi}{\cos \Delta + \sin \varphi} - \tan \frac{1}{2} (90^\circ - \varphi)$$

$$r = \frac{\sin \Delta}{\cos \Delta + \sin \varphi}$$

次表は地球の半徑を二十糎とした場合の各緯度及び震央距離に對する d 及び r の値を表示したものである。各欄中上の數字は d 、「ゴヂツク」體の數字は r を表はす。又表中震央距離の第二

行は I. S. S. (International Seismological Summary) (1934) の走時表に依る初期微動時間を表はす。

尙表中の數字の單位は總て耗をもつて表はす。

(φ)緯度		20°	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	(φ)
(Δ)	震央距離																	(Δ)
m s																		Km
10	1 59	1.6	1.6	1.5	1.5	1.4	1.4	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1110
		26.2	25.8	25.5	25.2	25.0	24.7	24.4	24.1	23.9	23.6	23.4	23.1	22.9	22.7	22.5	22.3	
		2.3	2.2	2.2	2.1	2.1	2.0	1.9	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.5	1.5	
12	2 20	31.5	31.1	30.7	30.4	30.0	29.7	29.4	29.0	28.7	28.4	28.1	27.8	27.6	27.3	27.0	26.8	1330
		3.2	3.1	3.0	2.9	2.8	2.7	2.6	2.6	2.5	2.4	2.3	2.3	2.2	2.1	2.1	2.0	
14	2 42	36.8	36.4	36.0	35.5	35.1	34.7	34.3	34.0	33.6	33.2	32.9	32.6	32.2	31.9	31.6	31.3	1560
		4.2	4.0	3.9	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6	
16	3 03	42.3	41.8	41.3	40.8	40.3	39.8	39.4	38.9	38.5	38.1	37.7	37.3	37.0	36.6	36.3	35.9	1780
		5.3	5.1	5.0	4.8	4.7	4.5	4.4	4.3	4.1	4.0	3.9	3.8	3.7	3.5	3.4	3.3	
18	3 23	47.8	47.2	46.6	46.1	45.5	45.0	44.5	44.0	43.5	43.0	42.6	42.2	41.7	41.3	40.9	40.5	2000
		6.6	6.4	6.2	6.0	5.8	5.6	5.5	5.3	5.1	5.0	4.8	4.7	4.5	4.4	4.3	4.1	
20	3 42	53.4	52.7	52.0	51.4	50.8	50.2	49.6	49.1	48.5	48.0	47.5	47.0	46.5	46.1	45.6	45.2	2220
		8.0	7.8	7.5	7.3	7.1	6.9	6.7	6.5	6.3	6.1	5.9	5.7	5.5	5.4	5.2	5.0	
22	4 00	59.0	58.3	57.6	56.8	56.2	55.5	54.9	54.2	53.6	53.1	52.5	51.9	51.4	50.9	50.4	49.9	2440
		9.7	9.4	9.1	8.8	8.5	8.2	8.0	7.8	7.5	7.3	7.1	6.9	6.7	6.5	6.3	6.1	
24	4 16	64.8	64.0	63.2	62.4	61.6	60.9	60.2	59.5	58.8	58.2	57.5	56.9	56.4	55.8	55.2	54.7	2670
		11.4	11.1	10.7	10.4	10.1	9.8	9.5	9.2	8.9	8.6	8.3	8.1	7.8	7.6	7.4	7.2	
26	4 34	70.7	69.8	68.9	68.0	67.2	66.4	65.6	64.8	64.1	63.4	62.7	62.0	61.4	60.7	60.1	59.5	2890
		13.4	13.0	12.6	12.2	11.8	11.4	11.0	10.7	10.4	10.1	9.8	9.5	9.2	8.9	8.6	8.4	
28	4 51	76.7	75.7	74.7	73.7	72.8	71.9	71.1	70.2	69.4	68.7	67.9	67.2	66.5	65.8	65.1	64.5	3110
		15.5	15.0	14.6	14.1	13.7	13.2	12.8	12.4	12.0	11.7	11.3	11.0	10.6	10.3	10.0	9.7	
30	5 06	82.8	81.7	80.6	79.6	78.6	77.6	76.7	75.8	74.9	74.0	73.2	72.4	71.6	70.9	70.2	69.5	3330
		18.0	17.4	16.8	16.3	15.8	15.3	14.8	14.3	13.8	13.4	13.0	12.6	12.2	11.9	11.5	11.1	
32	5 21	89.0	87.8	86.7	85.6	84.5	83.4	82.4	81.4	80.4	79.5	78.6	77.8	76.9	76.1	75.3	74.5	3560
		20.5	19.8	19.2	18.6	18.0	17.4	16.8	16.3	15.8	15.3	14.8	14.3	13.9	13.5	13.1	12.7	
34	5 35	95.5	94.2	92.9	91.7	90.5	89.4	88.2	87.2	86.1	85.1	84.2	83.2	82.3	81.4	80.6	79.7	3780
		23.2	22.5	21.8	21.1	20.4	19.8	19.1	18.5	17.9	17.4	16.8	16.3	15.8	15.3	14.8	14.4	
36	5 48	102	101	99.3	98.0	96.7	95.5	94.3	93.1	92.0	90.9	89.8	88.8	87.8	86.8	85.9	85.0	4000
		26.3	25.4	24.6	23.8	23.0	22.3	21.6	20.9	20.2	19.6	19.0	18.4	17.8	17.3	16.7	16.2	
38	6 00	109	107	106	104	103	102	100	99.1	97.9	96.7	95.6	94.5	93.4	92.4	91.4	90.4	4220
		29.6	28.6	27.7	26.8	25.9	25.1	24.3	23.5	22.7	22.0	21.3	20.7	20.0	19.4	18.8	18.2	
40	6 12	116	114	113	111	110	108	107	105	104	103	102	100	99.2	98.1	97.0	96.0	4440
		33.2	32.1	31.0	30.0	29.0	28.1	27.2	26.3	25.5	24.7	23.9	23.1	22.4	21.7	21.0	20.3	
42	6 24	123	121	120	118	116	115	113	112	110	109	108	106	105	104	103	102	4670

(Δ)	(φ)緯度		震央距離														(φ) (Δ) Km		
	20°	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35			
44	6	38	37.0	35.8	34.6	33.5	32.4	31.3	30.3	29.3	28.4	27.5	26.6	25.7	24.9	24.1	23.3	22.6	4890
		39	131	129	127	125	123	122	120	118	117	115	114	113	111	110	109	107	
46	6	48	41.2	39.8	38.5	37.2	36.0	34.8	33.7	32.6	31.5	30.5	29.5	28.6	27.7	26.8	25.9	25.1	5110
		49	139	137	135	133	131	129	127	125	124	122	120	119	117	116	115	113	
48	7	00	45.8	44.3	42.8	41.3	39.9	38.6	37.3	36.1	34.9	33.8	32.7	31.6	30.6	29.6	28.6	27.7	5330
		01	147	145	142	140	138	136	134	132	131	129	127	126	124	122	121	120	
50	7	12	50.8	49.1	47.4	45.8	44.2	42.7	41.3	39.9	38.6	37.3	36.1	34.9	33.8	32.7	31.6	30.6	5560
		13	156	153	151	148	146	144	142	140	138	136	134	132	131	129	127	126	
52	7	24	56.2	54.2	52.3	50.5	48.8	47.2	45.6	44.0	42.5	41.1	39.8	38.5	37.2	36.0	34.8	33.6	5780
		25	165	162	159	157	154	152	150	147	145	143	141	139	138	136	134	133	
54	7	36	62.1	59.9	57.8	55.8	53.8	52.0	50.2	48.5	46.8	45.2	43.7	42.3	40.9	39.5	38.2	36.9	6000
		37	174	171	168	165	163	160	158	155	153	151	149	147	145	143	141	139	
56	7	48	68.5	66.0	63.7	61.5	59.3	57.2	55.2	53.3	51.5	49.7	48.0	46.4	44.9	43.4	41.9	40.5	6220
		49	184	181	178	175	172	169	166	164	161	159	157	154	152	150	148	146	
58	8	00	75.5	72.7	70.1	67.6	65.2	62.9	60.7	58.6	56.6	54.6	52.7	50.9	49.2	47.5	45.9	44.4	6440
		01	195	191	188	184	181	178	175	172	170	168	165	162	160	158	156	154	
60	8	11	83.2	80.1	77.1	74.3	71.6	69.0	66.6	64.2	62.0	59.8	57.7	55.7	53.8	52.0	50.2	48.5	6670
		12	206	202	198	194	191	188	185	182	179	176	173	171	168	166	164	161	
62	8	23	91.6	88.1	84.8	81.6	78.6	75.8	73.0	70.4	67.9	65.5	63.2	61.0	58.9	56.8	54.8	52.9	6890
		24	218	213	209	205	202	198	195	191	188	185	182	179	177	174	172	169	
64	8	35	101	96.9	93.2	89.7	86.3	83.1	80.0	77.1	74.3	71.7	69.1	66.7	64.3	62.0	59.9	57.8	7110
		36	230	226	221	217	213	209	205	201	198	195	192	189	186	183	180	178	
66	8	46	111	106	102	98.5	94.7	91.1	87.7	84.5	81.4	78.4	75.5	72.8	70.2	67.7	65.3	63.0	7330
		47	244	239	234	229	225	220	216	212	209	205	202	198	195	192	189	186	
68	8	58	122	117	113	108	104	100	96.1	92.5	89.0	85.7	82.6	79.6	76.7	73.9	71.2	68.7	7560
		59	259	253	248	242	237	233	228	224	220	216	212	208	205	202	199	196	
70	9	09	135	129	124	119	115	110	105	101	97.4	93.8	90.3	86.9	83.7	80.6	77.6	74.8	7780
		10	275	268	262	257	251	246	241	236	232	227	223	219	216	212	209	205	
72	9	20	149	142	136	130	125	120	115	111	107	103	98.6	94.9	91.3	87.9	84.6	81.5	8000
		21	292	285	278	272	266	260	255	249	244	239	235	231	227	223	219	216	
74	9	32	164	157	150	144	138	132	127	122	117	112	108	104	100	95.9	92.3	88.8	8220
		33	311	303	296	289	282	275	269	264	258	253	248	243	239	234	230	226	
76	9	42	182	174	166	159	152	145	139	133	128	123	118	113	109	105	101	96.8	8440
		43	333	323	315	307	299	292	285	279	273	267	262	256	251	247	242	238	

(φ)緯度		(Δ)緯度															(φ)	
震央距離		20°	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	(Δ) Km
	^m ^s																	
78	9 53	202	192	183	175	167	160	153	147	141	135	129	124	119	114	110	106	8670
		356	345	336	327	318	310	303	296	289	282	276	271	265	260	255	250	
80	10 04	224	214	204	194	185	177	169	161	154	148	142	136	130	125	120	115	8890
		382	370	359	349	339	330	322	314	306	299	293	286	280	274	269	264	
82	10 16	250	238	226	215	205	195	186	178	170	163	156	149	143	137	131	126	9110
		412	398	385	374	363	353	343	334	325	317	310	303	296	290	284	278	
84	10 26	281	266	252	239	227	216	206	196	187	179	171	164	157	150	144	138	9330
		445	430	415	402	389	377	366	356	347	338	329	321	314	307	300	293	
86	10 37	316	299	282	267	254	241	229	218	207	197	188	180	172	164	157	150	9560
		485	466	449	433	419	405	393	381	370	360	350	341	333	325	317	310	
88	10 47	358	337	318	300	284	269	255	242	230	219	208	198	189	181	173	165	9780
		530	508	488	470	453	437	422	409	396	385	374	363	354	345	336	328	
90	10 58	410	384	360	339	320	302	285	270	256	243	231	220	209	199	190	181	10000
		585	558	534	512	492	473	456	441	426	413	400	388	377	367	358	349	

(φ)緯度		(Δ)緯度															(φ)	
震央距離		35°	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	(Δ) Km
	^m ^s																	
10°	1 59	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.6	1110
		22.3	22.1	21.9	21.7	21.5	21.3	21.2	21.0	20.8	20.7	20.5	20.4	20.2	20.1	20.0	19.8	
12	2 20	1.5	1.4	1.4	1.3	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	0.9	0.9	1330
		26.8	26.6	26.3	26.1	25.9	25.7	25.4	25.2	25.0	24.9	24.7	24.5	24.3	24.2	24.0	23.8	
14	2 42	2.0	1.9	1.9	1.8	1.8	1.7	1.6	1.6	1.6	1.5	1.5	1.4	1.4	1.3	1.3	1.2	1560
		31.3	31.1	30.8	30.5	30.2	30.0	29.7	29.5	29.3	29.1	28.8	28.6	28.4	28.2	28.0	27.8	
16	3 03	2.6	2.5	2.5	2.4	2.3	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.8	1.7	1.7	1.6	1780
		35.9	35.6	35.3	35.0	34.7	34.4	34.1	33.8	33.5	33.3	33.0	32.8	32.6	32.4	32.1	31.9	
18	3 23	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.7	2.6	2.5	2.4	2.4	2.3	2.2	2.1	2.1	2000
		40.5	40.2	39.8	39.4	39.1	38.8	38.5	38.2	37.9	37.6	37.3	37.0	36.7	36.5	36.2	36.0	
20	3 42	4.1	4.0	3.9	3.8	3.7	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.7	2.6	2220
		45.2	44.8	44.4	44.0	43.6	43.2	42.9	42.5	42.2	41.9	41.5	41.2	40.9	40.6	40.4	40.1	
22	4 00	5.0	4.9	4.7	4.6	4.5	4.3	4.2	4.1	3.9	3.8	3.7	3.6	3.5	3.3	3.2	3.1	2440
		49.9	49.5	49.0	48.6	48.1	47.7	47.3	46.9	46.6	46.2	45.8	45.5	45.2	44.9	44.5	44.2	

(Δ)	(φ)緯度		(φ)																	(Δ) Km
	震央距離		35°	35	37	38	39	40	41	42	43	44	45	46	47	48	49	50		
24	4	16	6.1	5.9	5.7	5.5	5.3	5.2	5.0	4.9	4.7	4.6	4.4	4.3	4.1	4.0	3.9	3.7	2670	
			54.7	54.2	53.7	53.2	52.7	52.3	51.8	51.4	51.0	50.6	50.2	49.8	49.4	49.1	48.8	48.4		
26	4	34	7.2	6.9	6.7	6.5	6.3	6.1	5.9	5.7	5.6	5.4	5.2	5.1	4.9	4.7	4.6	4.4	2890	
			59.5	59.0	58.4	57.9	57.4	56.9	56.4	55.9	55.5	55.0	54.6	54.2	53.8	53.4	53.0	52.7		
28	4	51	8.4	8.1	7.9	7.6	7.4	7.2	6.9	6.7	6.5	6.3	6.1	5.9	5.7	5.5	5.3	5.2	3110	
			64.5	63.8	63.2	62.7	62.1	61.5	61.0	60.5	60.0	59.5	59.1	58.6	58.2	57.7	57.3	56.9		
30	5	06	9.7	9.4	9.1	8.8	8.5	8.3	8.0	7.8	7.5	7.3	7.1	6.8	6.6	6.4	6.2	6.0	3330	
			69.5	68.8	68.1	67.5	66.9	66.3	65.7	65.1	64.6	64.1	63.6	63.1	62.6	62.1	61.7	61.3		
32	5	21	11.1	10.8	10.4	10.1	9.8	9.5	9.2	8.9	8.6	8.4	8.1	7.8	7.6	7.3	7.1	6.9	3560	
			74.5	73.8	73.1	72.4	71.7	71.1	70.5	69.9	69.3	68.7	98.1	67.6	67.1	66.6	66.1	65.7		
34	5	35	12.7	12.3	11.9	11.5	11.2	10.8	10.5	10.2	9.9	9.5	9.2	8.9	8.6	8.3	8.1	7.8	3780	
			79.7	78.9	78.2	77.4	76.7	76.0	75.3	74.7	74.0	73.4	72.8	72.2	71.7	71.1	70.6	70.1		
36	5	48	14.4	13.9	13.5	13.1	12.7	12.3	11.9	11.5	11.1	10.8	10.4	10.1	9.8	9.4	9.1	8.8	4000	
			85.0	84.2	83.3	82.5	81.7	81.0	80.2	79.5	78.8	78.2	77.5	76.9	76.3	75.7	75.2	74.6		
38	6	00	16.2	15.7	15.2	14.7	14.3	13.8	13.4	13.0	12.6	12.2	11.8	11.4	11.0	10.6	10.3	9.9	4220	
			90.4	89.5	88.6	87.7	86.9	86.1	85.3	84.5	83.8	83.1	82.4	81.7	81.0	80.4	79.8	79.2		
40	6	12	18.2	17.6	17.1	16.5	16.0	15.5	15.0	14.5	14.1	13.6	13.2	12.7	12.3	11.9	11.5	11.1	4440	
			96.0	95.0	94.0	93.0	92.1	91.3	90.4	89.6	88.8	88.0	87.3	86.6	85.9	85.2	84.5	83.9		
42	6	24	20.3	19.7	19.0	18.4	17.8	17.3	16.7	16.2	15.7	15.2	14.7	14.2	13.7	13.3	12.8	12.4	4670	
			102	101	99.5	98.5	97.5	96.6	95.6	94.8	93.9	93.1	92.3	91.5	90.8	90.0	89.3	88.7		
44	6	38	22.6	21.9	21.2	20.5	19.8	19.2	18.6	18.0	17.4	16.8	16.3	15.8	15.2	14.7	14.2	13.8	4890	
			107	106	105	104	103	102	101	100	99.2	98.3	97.4	96.6	95.8	95.0	94.3	93.5		
46	6	48	25.1	24.3	23.5	22.7	22.0	21.3	20.6	19.9	19.3	18.6	18.0	17.5	16.9	16.3	15.8	15.2	5110	
			113	112	111	110	109	108	107	106	105	104	103	102	101	100	99.3	98.5		
48	7	00	27.7	26.8	26.0	25.1	24.3	23.5	22.7	22.0	21.3	20.6	19.9	19.3	18.6	18.0	17.4	16.8	5330	
			120	118	117	116	114	113	112	111	110	109	108	107	106	105	104	104		
50	7	12	30.6	29.6	28.6	27.7	26.8	25.9	25.1	24.2	23.5	22.7	21.9	21.2	20.5	19.8	19.1	18.5	5560	
			126	125	123	122	120	119	118	117	116	114	113	112	111	111	110	109		
52	7	24	33.6	32.5	31.4	30.4	29.4	28.4	27.5	26.6	25.7	24.9	24.1	23.3	22.5	21.7	21.0	20.2	5780	
			133	131	129	128	127	125	124	123	121	120	119	118	117	116	115	114		
54	7	36	36.9	35.7	34.5	33.4	32.3	31.2	30.2	29.2	28.2	27.3	26.4	25.5	24.6	23.8	23.0	22.2	6000	
			139	138	136	134	133	131	130	129	127	126	125	124	123	122	121	120		
56	7	48	40.5	39.2	37.9	36.6	35.4	34.2	33.1	32.0	30.9	29.8	28.8	27.8	26.9	26.0	25.1	24.2	6220	
			146	145	143	141	140	138	136	135	134	132	131	130	128	127	126	125		

(Δ) 震央距離		(φ)緯度																(φ) K _m
		35°	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
58	8 00	41.4	42.9	41.4	40.0	48.7	37.4	36.1	34.9	33.7	42.6	31.5	30.4	29.4	28.4	27.4	26.4	6440
		15.4	152	150	148	146	145	143	141	140	139	137	136	134	133	132	131	
60	8 11	48.5	46.8	45.2	43.7	42.2	40.8	39.4	38.1	36.8	35.5	34.3	33.2	32.0	30.9	29.8	28.7	6670
		161	159	157	155	153	152	150	148	147	145	143	142	141	139	138	137	
62	8 23	52.9	51.1	49.4	47.7	46.1	44.5	43.0	41.5	40.1	38.7	37.4	36.1	34.8	33.6	32.4	31.3	6870
		169	167	165	163	161	159	157	155	153	152	150	149	147	146	144	143	
64	8 35	57.8	55.8	53.8	52.0	50.2	48.4	46.7	45.1	43.6	42.1	40.6	39.2	37.8	36.5	35.2	33.9	7110
		178	175	173	171	168	166	164	162	160	159	157	155	154	152	151	149	
66	8 46	63.0	60.8	58.7	56.6	54.6	52.7	50.8	49.1	47.4	45.7	44.1	42.6	41.1	39.6	38.2	36.8	7330
		186	184	181	179	176	174	172	170	168	166	164	162	161	159	157	156	
68	8 58	68.7	66.2	63.9	61.6	59.4	57.3	55.3	53.4	51.5	49.6	47.9	46.3	44.5	42.9	41.4	39.9	7560
		196	193	190	187	185	182	180	178	176	174	172	170	168	166	164	163	
70	9 09	74.8	72.1	69.5	67.0	64.6	62.3	60.0	57.9	55.9	53.9	52.0	50.1	48.3	46.5	44.8	43.2	7730
		205	202	199	196	194	191	188	186	184	181	179	177	175	173	171	170	
72	9 20	81.5	78.5	75.6	72.9	70.2	67.7	65.2	62.9	60.6	58.4	56.3	54.3	52.3	50.4	48.6	46.8	8000
		216	212	209	206	203	200	197	194	192	190	187	185	183	181	179	177	
74	9 32	88.8	85.5	82.3	79.3	76.4	73.6	70.9	68.3	65.8	63.4	61.1	58.9	56.7	54.6	52.6	50.6	8220
		226	223	219	216	212	209	206	204	201	198	196	193	191	189	187	185	
76	9 42	96.8	93.1	89.6	86.2	83.0	79.9	76.9	74.1	71.4	68.7	66.2	63.7	61.4	59.1	56.9	54.8	8440
		238	234	230	226	223	219	216	213	210	207	204	202	199	197	195	193	
78	9 53	106	101	97.5	93.8	90.2	86.8	83.5	80.4	77.4	74.5	71.7	69.0	66.4	63.9	61.5	59.2	8670
		250	246	242	238	234	230	226	223	220	217	214	211	208	206	203	201	
80	0 04	115	111	106	102	98.2	94.4	90.8	87.3	84.0	80.8	77.7	74.8	71.9	69.2	66.6	64.0	8890
		264	259	254	250	245	241	237	234	230	227	224	221	218	215	212	210	
82	10 16	126	121	116	111	107	103	98.6	94.8	91.2	87.7	84.3	81.0	77.9	74.9	72.0	69.2	9110
		278	272	267	262	258	253	249	245	241	238	234	231	228	225	222	219	
84	10 26	138	132	126	121	116	112	107	103	99.0	95.1	91.4	87.9	84.4	81.1	77.9	74.9	9330
		293	287	282	276	271	266	262	257	253	249	245	241	238	235	232	228	
86	10 37	150	144	138	132	127	122	117	112	107	103	99.2	95.3	91.5	87.9	84.4	81.0	9560
		310	303	297	291	285	280	275	270	265	261	257	253	249	245	242	239	
88	10 47	165	158	151	145	139	133	127	122	117	112	107	103	99.2	95.2	91.4	87.7	9780
		328	321	314	307	301	295	289	283	279	274	269	265	261	257	253	250	
90	10 58	181	173	165	158	151	145	139	133	127	122	117	112	108	103	99.1	95.0	10000
		349	340	332	325	318	311	305	299	293	288	283	278	273	269	265	261	