（資料1）　基準点パラメータ変換を世界測地系の基準点に【固定】して比較

固定点　UW-10

	① 日本測地系による図根点座標		② 日本測地の図根点座標をTKY2JDでパラメータ変換		③ 世界測地系による基準点座標		④【変換】 ②パラメータ変換と③基準点の間の移動量　②－③			方向角			⑤ 固定点の④移動量をすべての②に加算		【固定】固定点の座標を合致させた時の差 ⑤ － ③			方向角		
															⑥ mm	⑦ mm	⑧ 差 mm			
点 名	X座標	Y座標	X座標	Y座標	X座標	Y座標	X方向 mm	Y方向 mm	移動量 mm	度	分	秒	X座標	Y座標	X方向	Y方向	√((⑤^2+⑥^2)	度	分	秒
UW-10	43,188.665	−94,023.945	43,567.785	−94,264.461	43,567.712	−94,264.414	73.0	−47.0	**86.8**	327	13	30	43,567.7120	−94,264.4140	0.0	0.0	**0.0**	0	0	0
UW-2	44,142.909	−95,585.869	44,522.010	−95,826.384	44,521.984	−95,826.326	26.0	−58.0	**63.6**	294	8	44	44,521.9370	−95,826.3370	−47.0	−11.0	**48.3**	193	10	21
UW-4	43,784.309	−96,678.000	44,163.407	−96,918.512	44,163.386	−96,918.446	21.0	−66.0	**69.3**	287	39	0	44,163.3340	−96,918.4650	−52.0	−19.0	**55.4**	200	4	17
UW-5	43,820.820	−94,456.389	44,199.929	−94,696.905	44,199.879	−94,696.856	50.0	−49.0	**70.0**	315	34	43	44,199.8560	−94,696.8580	−23.0	−2.0	**23.1**	184	58	11
UW-6	43,493.730	−95,572.938	43,872.841	−95,813.456	43,872.803	−95,813.398	38.0	−58.0	**69.3**	303	13	54	43,872.7680	−95,813.4090	−35.0	−11.0	**36.7**	197	26	50
UW-7	43,162.243	−96,252.702	43,541.355	−96,493.219	43,541.328	−96,493.154	27.0	−65.0	**70.4**	292	33	26	43,541.2820	−96,493.1720	−46.0	−18.0	**49.4**	201	22	14
UW-8	43,054.152	−97,105.383	43,433.254	−97,345.892	43,433.243	−97,345.828	11.0	−64.0	**64.9**	279	45	9	43,433.1810	−97,345.8450	−62.0	−17.0	**64.3**	195	19	60
UW-9	43,205.452	−93,399.822	43,584.573	−93,640.336	43,584.497	−93,640.300	76.0	−36.0	**84.1**	334	39	14	43,584.5000	−93,640.2890	3.0	11.0	**11.4**	74	44	42
UW-10	43,188.665	−94,023.945	43,567.785	−94,264.461	43,567.712	−94,264.414	73.0	−47.0	**86.8**	327	13	30	43,567.7120	−94,264.4140	0.0	0.0	**0.0**	0	0	0
UW-12	42,733.312	−95,745.019	43,112.433	−95,985.537	43,112.404	−95,985.482	29.0	−55.0	**62.2**	297	48	5	43,112.3600	−95,985.4900	−44.0	−8.0	**44.7**	190	18	17
UW-13	42,565.955	−96,603.249	42,945.071	−96,843.764	42,945.056	−96,843.712	15.0	−52.0	**54.1**	286	5	27	42,944.9980	−96,843.7170	−58.0	−5.0	**58.2**	184	55	38
UW-14	42,427.869	−93,240.836	42,807.005	−93,481.349	42,806.936	−93,481.326	69.0	−23.0	**72.7**	341	33	54	42,806.9320	−93,481.3020	−4.0	24.0	**24.3**	99	27	44
UW-15	42,607.365	−94,110.989	42,986.495	−94,351.505	42,986.433	−94,351.473	62.0	−32.0	**69.8**	332	42	2	42,986.4220	−94,351.4580	−11.0	15.0	**18.6**	126	15	14
UW-16	42,231.451	−94,809.773	42,610.586	−95,050.289	42,610.538	−95,050.251	48.0	−38.0	**61.2**	321	37	57	42,610.5130	−95,050.2420	−25.0	9.0	**26.6**	160	12	4
UW-17	41,958.030	−94,035.027	42,337.172	−94,275.540	42,337.117	−94,275.512	55.0	−28.0	**61.7**	333	1	11	42,337.0990	−94,275.4930	−18.0	19.0	**26.2**	133	27	7
UW-18	41,792.912	−95,401.998	42,172.053	−95,642.515	42,172.011	−95,642.475	42.0	−40.0	**58.0**	316	23	50	42,171.9800	−95,642.4680	−31.0	7.0	**31.8**	167	16	32
UW-19	41,481.483	−95,067.591	41,860.631	−95,308.106	41,860.591	−95,308.078	40.0	−28.0	**48.8**	325	0	29	41,860.5580	−95,308.0590	−33.0	19.0	**38.1**	150	4	7
UW-20	41,425.572	−96,108.247	41,804.713	−96,348.764	41,804.688	−96,348.729	25.0	−35.0	**43.0**	305	32	16	41,804.6400	−96,348.7170	−48.0	12.0	**49.5**	165	57	50
UW-21	44,300.532	−94,745.610	44,679.632	−94,986.125	44,679.592	−94,986.071	40.3	−53.7	**67.1**	306	53	13	44,679.5593	−94,986.0777	−32.7	−6.7	**33.4**	191	34	45
UW-22	44,149.594	−95,222.618	44,528.696	−95,463.134	44,528.654	−95,463.077	42.0	−57.0	**70.8**	306	23	4	44,528.6230	−95,463.0870	−31.0	−10.0	**32.6**	197	52	43
UW-26	43,771.063	−95,157.945	44,150.172	−95,398.463	44,150.130	−95,398.408	42.0	−55.0	**69.2**	307	22	0	44,150.0990	−95,398.4160	−31.0	−8.0	**32.0**	194	28	13
UW-28	42,325.515	−92,169.722	42,704.651	−92,410.234	42,704.589	−92,410.227	62.0	−7.0	**62.4**	353	33	30	42,704.5780	−92,410.1870	−11.0	40.0	**41.5**	105	22	35
UW-29	42,090.008	−92,482.387	42,469.151	−92,722.899	42,469.091	−92,722.893	60.0	−6.0	**60.3**	354	17	22	42,469.0780	−92,722.8520	−13.0	41.0	**43.0**	107	35	33
UW-30	41,742.932	−93,045.568	42,122.085	−93,286.077	42,122.012	−93,286.067	73.0	−10.0	**73.7**	352	11	59	42,122.0120	−93,286.0300	0.0	37.0	**37.0**	89	59	60
UW-31	41,316.439	−92,600.779	41,695.607	−92,841.288	41,695.531	−92,841.280	76.0	−8.0	**76.4**	353	59	28	41,695.5340	−92,841.2410	3.0	39.0	**39.1**	85	36	5
UW-32	41,341.590	−92,063.737	41,720.760	−92,304.249	41,720.695	−92,304.244	65.0	−5.0	**65.2**	355	36	5	41,720.6870	−92,304.2020	−8.0	42.0	**42.8**	100	47	3
UW-33	40,907.419	−92,786.113	41,286.600	−93,026.619	41,286.523	−93,026.607	77.0	−12.0	**77.9**	351	8	31	41,286.5270	−93,026.5720	4.0	35.0	**35.2**	83	28	49
UW-34	40,830.820	−91,682.132	41,210.014	−91,922.648	41,209.906	−91,922.675	108.0	27.0	**111.3**	14	2	10	41,209.9410	−91,922.6010	35.0	74.0	**81.9**	64	41	14
UW-35	40,652.665	−92,235.216	41,031.862	−92,475.725	41,031.771	−92,475.715	91.0	−10.0	**91.5**	353	43	44	41,031.7890	−92,475.6780	18.0	37.0	**41.1**	64	3	28
UW-36	40,669.075	−91,038.224	41,048.283	−91,278.753	41,048.202	−91,278.750	81.0	−3.0	**81.1**	357	52	44	41,048.2100	−91,278.7060	8.0	44.0	**44.7**	79	41	43
UW-37	40,222.762	−91,918.865	40,601.979	−92,159.374	40,601.878	−92,159.366	101.0	−8.0	**101.3**	355	28	16	40,601.9060	−92,159.3270	28.0	39.0	**48.0**	54	19	25

（資料1）　基準点パラメータ変換を世界測地系の基準点に【固定】して比較

固定点　UW-10

	① 日本測地系による図根点座標		② 日本測地の図根点座標をTKY2JDでパラメータ変換		③ 世界測地系による基準点座標		④【変換】 ②パラメータ変換と③基準点の間の移動量　②－③			方向角			⑤ 固定点の④移動量をすべての②に加算		【固定】固定点の座標を合致させた時の差 ⑤ － ③			方向角		
															⑥ mm	⑦ mm	⑧ 差 mm			
点　名	X座標	Y座標	X座標	Y座標	X座標	Y座標	X方向 mm	Y方向 mm	移動量 mm	度	分	秒	X座標	Y座標	X方向	Y方向	√((⑤^2+⑥^2)	度	分	秒
UW-38	39,940.689	−91,673.371	40,319.918	−91,913.883	40,319.815	−91,913.877	103.0	−6.0	**103.2**	356	39	58	40,319.8450	−91,913.8360	30.0	41.0	**50.8**	53	48	24
UW-40	39,617.121	−90,716.571	39,996.372	−90,957.107	39,996.274	−90,957.127	98.0	20.0	**100.0**	11	32	5	39,996.2990	−90,957.0600	25.0	67.0	**71.5**	69	32	16
UW-41	39,426.911	−91,047.700	39,806.164	−91,288.225	39,806.051	−91,288.221	113.0	−4.0	**113.1**	357	58	22	39,806.0910	−91,288.1780	40.0	43.0	**58.7**	47	4	12
UW-42	42,555.532	−92,864.150	42,934.665	−93,104.662	42,934.586	−93,104.649	79.0	−13.0	**80.1**	350	39	19	42,934.5920	−93,104.6150	6.0	34.0	**34.5**	79	59	31
UW-44	42,405.558	−92,966.917	42,784.695	−93,207.429	42,784.626	−93,207.416	69.0	−13.0	**70.2**	349	19	49	42,784.6220	−93,207.3820	−4.0	34.0	**34.2**	96	42	35
UW-45	42,228.232	−92,765.793	42,607.373	−93,006.305	42,607.305	−93,006.286	68.0	−19.0	**70.6**	344	23	20	42,607.3000	−93,006.2580	−5.0	28.0	**28.4**	100	7	29
UW-46	42,288.929	−92,394.207	42,668.067	−92,634.719	42,668.011	−92,634.713	56.0	−6.0	**56.3**	353	53	4	42,667.9940	−92,634.6720	−17.0	41.0	**44.4**	112	31	14
UW-47	42,091.214	−92,231.712	42,470.357	−92,472.224	42,470.288	−92,472.215	69.0	−9.0	**69.6**	352	34	7	42,470.2840	−92,472.1770	−4.0	38.0	**38.2**	96	0	32
UW-48	42,028.189	−92,792.508	42,407.334	−93,033.020	42,407.271	−93,033.005	63.0	−15.0	**64.8**	346	36	27	42,407.2610	−93,032.9730	−10.0	32.0	**33.5**	107	21	14
UW-49	42,049.414	−93,001.264	42,428.559	−93,241.775	42,428.490	−93,241.764	69.0	−11.0	**69.9**	350	56	32	42,428.4860	−93,241.7280	−4.0	36.0	**36.2**	96	20	25
UW-50	42,075.271	−93,250.583	42,454.415	−93,491.095	42,454.354	−93,491.081	61.0	−14.0	**62.6**	347	4	26	42,454.3420	−93,491.0480	−12.0	33.0	**35.1**	109	58	59
UW-51	41,950.564	−92,453.288	42,329.711	−92,693.800	42,329.644	−92,693.799	67.3	−0.9	**67.3**	359	14	2	42,329.6383	−92,693.7529	−5.7	46.1	**46.5**	97	2	55
UW-52	41,803.950	−92,857.104	42,183.102	−93,097.614	42,183.032	−93,097.609	69.9	−5.1	**70.1**	355	49	37	42,183.0289	−93,097.5671	−3.1	41.9	**42.0**	94	13	53
UW-53	41,735.818	−92,382.750	42,114.973	−92,623.261	42,114.900	−92,623.251	72.6	−10.4	**73.3**	351	50	52	42,114.8996	−92,623.2144	−0.4	36.6	**36.6**	90	37	34
UW-54	41,685.480	−92,605.106	42,064.636	−92,845.616	42,064.565	−92,845.604	71.0	−12.0	**72.0**	350	24	25	42,064.5630	−92,845.5690	−2.0	35.0	**35.1**	93	16	14
UW-55	41,627.476	−92,807.228	42,006.633	−93,047.737	42,006.565	−93,047.722	68.0	−15.0	**69.6**	347	33	38	42,006.5600	−93,047.6900	−5.0	32.0	**32.4**	98	52	50
UW-56	41,492.858	−92,751.639	41,872.019	−92,992.148	41,871.943	−92,992.134	76.0	−14.0	**77.3**	349	33	45	41,871.9460	−92,992.1010	3.0	33.0	**33.1**	84	48	20
UW-58	41,206.409	−92,506.073	41,585.581	−92,746.582	41,585.507	−92,746.572	74.0	−10.0	**74.7**	352	18	14	41,585.5080	−92,746.5350	1.0	37.0	**37.0**	88	27	7
UW-59	41,156.080	−92,768.845	41,535.251	−93,009.352	41,535.181	−93,009.338	70.0	−14.0	**71.4**	348	41	24	41,535.1780	−93,009.3050	−3.0	33.0	**33.1**	95	11	40
UW-61	41,004.949	−92,088.114	41,384.132	−92,328.625	41,384.053	−92,328.620	79.0	−5.0	**79.2**	356	22	43	41,384.0590	−92,328.5780	6.0	42.0	**42.4**	81	52	12
UW-62	41,167.136	−91,783.821	41,546.315	−92,024.336	41,546.242	−92,024.331	73.0	−5.0	**73.2**	356	4	54	41,546.2420	−92,024.2890	0.0	42.0	**42.0**	89	59	60
UW-63	40,745.056	−91,925.038	41,124.251	−92,165.550	41,124.166	−92,165.538	85.0	−12.0	**85.8**	351	57	51	41,124.1780	−92,165.5030	12.0	35.0	**37.0**	71	4	31
UW-64	40,567.881	−92,473.655	40,947.079	−92,714.161	40,946.987	−92,714.148	92.0	−13.0	**92.9**	351	57	26	40,947.0060	−92,714.1140	19.0	34.0	**38.9**	60	48	9
UW-66	40,422.287	−91,467.444	40,801.500	−91,707.964	40,801.407	−91,707.949	93.0	−15.0	**94.2**	350	50	16	40,801.4270	−91,707.9170	20.0	32.0	**37.7**	57	59	41
UW-67	40,237.132	−92,073.511	40,616.347	−92,314.019	40,616.246	−92,314.005	101.0	−14.0	**102.0**	352	6	30	40,616.2740	−92,313.9720	28.0	33.0	**43.3**	49	41	9
UW-68	40,354.206	−90,782.460	40,733.430	−91,022.995	40,733.338	−91,022.990	92.0	−5.0	**92.1**	356	53	21	40,733.3570	−91,022.9480	19.0	42.0	**46.1**	65	39	32
UW-70	40,050.005	−91,191.909	40,429.236	−91,432.434	40,429.140	−91,432.440	96.0	6.0	**96.2**	3	34	35	40,429.1630	−91,432.3870	23.0	53.0	**57.8**	66	32	28
UW-71	39,978.542	−90,963.008	40,357.778	−91,203.538	40,357.678	−91,203.546	100.0	8.0	**100.3**	4	34	26	40,357.7050	−91,203.4910	27.0	55.0	**61.3**	63	51	11
UW-73	38,960.499	−89,887.697	39,339.791	−90,128.262	39,339.733	−90,128.280	58.0	18.0	**60.7**	17	14	29	39,339.7180	−90,128.2150	−15.0	65.0	**66.7**	102	59	41
UW-74	38,521.033	−89,694.131	38,900.343	−89,934.703	38,900.278	−89,934.699	65.0	−4.0	**65.1**	356	28	43	38,900.2700	−89,934.6560	−8.0	43.0	**43.7**	100	32	21
UW-77	37,982.220	−89,696.099	38,361.539	−89,936.667	38,361.488	−89,936.632	50.6	−34.6	**61.3**	325	38	9	38,361.4656	−89,936.6196	−22.4	12.4	**25.6**	151	1	56

（資料1）　基準点パラメータ変換を世界測地系の基準点に【固定】して比較

固定点　UW-10

	① 日本測地系による図根点座標		② 日本測地の図根点座標をTKY2JDでパラメータ変換		③ 世界測地系による基準点座標		④【変換】 ②パラメータ変換と③基準点の間の移動量　②－③			方向角			⑤ 固定点の④移動量をすべての②に加算		【固定】 固定点の座標を合致させた時の差 ⑤ － ③			方向角		
															⑥ mm	⑦ mm	⑧ 差 mm			
点　名	X座標	Y座標	X座標	Y座標	X座標	Y座標	X方向 mm	Y方向 mm	移動量 mm	度	分	秒	X座標	Y座標	X方向	Y方向	√((⑤^2+⑥^2)	度	分	秒
UW-78	40,342.260	−91,401.238	40,721.478	−91,641.759	40,721.381	−91,641.751	97.0	−8.0	**97.3**	355	17	7	40,721.4050	−91,641.7120	24.0	39.0	**45.8**	58	23	33
UW-79	40,290.694	−91,037.042	40,669.918	−91,277.571	40,669.817	−91,277.567	101.0	−4.0	**101.1**	357	43	55	40,669.8450	−91,277.5240	28.0	43.0	**51.3**	56	55	46
UW-80	44,349.466	−92,298.011	44,728.570	−92,538.518	44,728.489	−92,538.487	81.0	−31.0	**86.7**	339	3	26	44,728.4970	−92,538.4710	8.0	16.0	**17.9**	63	26	6
UW-81	44,254.483	−91,916.300	44,633.587	−92,156.806	44,633.505	−92,156.769	82.0	−37.0	**90.0**	335	42	51	44,633.5140	−92,156.7590	9.0	10.0	**13.5**	48	0	46
UW-82	43,836.437	−92,501.794	44,215.546	−92,742.305	44,215.456	−92,742.276	90.0	−29.0	**94.6**	342	8	24	44,215.4730	−92,742.2580	17.0	18.0	**24.8**	46	38	12
UW-83	43,880.932	−91,918.181	44,260.038	−92,158.690	44,259.944	−92,158.661	94.0	−29.0	**98.4**	342	51	16	44,259.9650	−92,158.6430	21.0	18.0	**27.7**	40	36	5
UW-84	43,508.728	−92,073.143	43,887.839	−92,313.653	43,887.745	−92,313.631	94.0	−21.9	**96.5**	346	53	7	43,887.7660	−92,313.6059	21.0	25.1	**32.7**	50	4	56
UW-85	43,090.786	−92,565.074	43,469.906	−92,805.586	43,469.818	−92,805.583	88.0	−3.0	**88.1**	358	2	51	43,469.8330	−92,805.5390	15.0	44.0	**46.5**	71	10	31
UW-86	42,950.177	−92,205.777	43,329.295	−92,446.288	43,329.219	−92,446.268	76.0	−20.0	**78.6**	345	15	23	43,329.2220	−92,446.2410	3.0	27.0	**27.2**	83	39	35
UW-87	42,723.304	−92,595.465	43,102.431	−92,835.977	43,102.344	−92,835.966	87.0	−11.0	**87.7**	352	47	38	43,102.3580	−92,835.9300	14.0	36.0	**38.6**	68	44	58
UW-88	42,557.529	−92,271.140	42,936.659	−92,511.652	42,936.577	−92,511.642	82.0	−10.0	**82.6**	353	2	49	42,936.5860	−92,511.6050	9.0	37.0	**38.1**	76	19	43
UW-89	42,997.788	−93,288.346	43,376.912	−93,528.860	43,376.828	−93,528.832	84.0	−28.0	**88.5**	341	33	54	43,376.8390	−93,528.8130	11.0	19.0	**22.0**	59	55	53
UW-90	42,988.661	−92,976.464	43,367.785	−93,216.977	43,367.696	−93,216.956	89.0	−21.0	**91.4**	346	43	25	43,367.7120	−93,216.9300	16.0	26.0	**30.5**	58	23	33
UW-91	43,003.383	−92,772.189	43,382.505	−93,012.701	43,382.412	−93,012.687	93.0	−14.0	**94.0**	351	26	21	43,382.4320	−93,012.6540	20.0	33.0	**38.6**	58	46	54
UW-92	42,748.801	−93,154.358	43,127.931	−93,394.871	43,127.845	−93,394.848	86.0	−23.0	**89.0**	345	1	38	43,127.8580	−93,394.8240	13.0	24.0	**27.3**	61	33	25
UW-93	44,988.259	−92,737.607	45,367.356	−92,978.111	45,367.269	−92,978.062	87.0	−49.0	**99.8**	330	36	40	45,367.2830	−92,978.0640	14.0	−2.0	**14.1**	351	52	12
UW-94	44,872.212	−92,868.031	45,251.311	−93,108.538	45,251.224	−93,108.487	87.0	−51.0	**100.8**	329	37	15	45,251.2380	−93,108.4910	14.0	−4.0	**14.6**	344	3	17
UW-95	44,731.423	−92,632.406	45,110.524	−92,872.913	45,110.436	−92,872.862	88.0	−51.0	**101.7**	329	54	21	45,110.4510	−92,872.8660	15.0	−4.0	**15.5**	345	4	7
UW-96	44,501.441	−92,772.404	44,880.544	−93,012.913	44,880.455	−93,012.861	89.0	−52.0	**103.1**	329	42	13	44,880.4710	−93,012.8660	16.0	−5.0	**16.8**	342	38	46
UW-97	44,436.143	−93,070.554	44,815.247	−93,311.064	44,815.159	−93,311.010	88.0	−54.0	**103.2**	328	27	55	44,815.1740	−93,311.0170	15.0	−7.0	**16.6**	334	58	59
UW-98	44,218.939	−93,042.718	44,598.046	−93,283.229	44,597.962	−93,283.181	84.0	−48.0	**96.7**	330	15	18	44,597.9730	−93,283.1820	11.0	−1.0	**11.0**	354	48	20
UW-99	44,196.211	−92,789.070	44,575.318	−93,029.580	44,575.231	−93,029.532	87.0	−48.0	**99.4**	331	6	48	44,575.2450	−93,029.5330	14.0	−1.0	**14.0**	355	54	52
UW-100	43,879.611	−93,238.341	44,258.721	−93,478.854	44,258.644	−93,478.810	77.0	−44.0	**88.7**	330	15	18	44,258.6480	−93,478.8070	4.0	3.0	**5.0**	36	52	12
UW-101	43,872.783	−92,927.232	44,251.894	−93,167.744	44,251.810	−93,167.698	84.0	−46.0	**95.8**	331	17	39	44,251.8210	−93,167.6970	11.0	1.0	**11.0**	5	11	40
UW-102	43,719.789	−93,504.906	44,098.901	−93,745.420	44,098.827	−93,745.375	74.0	−45.0	**86.6**	328	41	45	44,098.8280	−93,745.3730	1.0	2.0	**2.2**	63	26	6
UW-103	43,668.904	−93,155.980	44,048.018	−93,396.493	44,047.938	−93,396.449	80.0	−44.0	**91.3**	331	11	21	44,047.9450	−93,396.4460	7.0	3.0	**7.6**	23	11	55
UW-105	43,543.706	−93,783.782	43,922.821	−94,024.297	43,922.741	−94,024.247	80.0	−50.0	**94.3**	327	59	41	43,922.7480	−94,024.2500	7.0	−3.0	**7.6**	336	48	5
UW-106	40,543.060	−91,959.487	40,922.263	−92,199.997	40,922.171	−92,199.991	92.0	−6.0	**92.2**	356	16	7	40,922.1900	−92,199.9500	19.0	41.0	**45.2**	65	8	11
UW-107	40,452.932	−92,046.427	40,832.138	−92,286.936	40,832.045	−92,286.922	93.0	−14.0	**94.0**	351	26	21	40,832.0650	−92,286.8890	20.0	33.0	**38.6**	58	46	54
UW-108	40,318.095	−92,017.511	40,697.307	−92,258.020	40,697.210	−92,258.011	97.0	−9.0	**97.4**	354	41	57	40,697.2340	−92,257.9730	24.0	38.0	**44.9**	57	43	28
UW-109	41,068.302	−91,836.263	41,447.485	−92,076.777	41,447.406	−92,076.769	79.0	−8.0	**79.4**	354	13	3	41,447.4120	−92,076.7300	6.0	39.0	**39.5**	81	15	14

（資料1）　基準点パラメータ変換を世界測地系の基準点に【固定】して比較

固定点　UW-10

	① 日本測地系による図根点座標		② 日本測地の図根点座標をTKY2JDでパラメータ変換		③ 世界測地系による基準点座標		④【変換】 ②パラメータ変換と③基準点の間の移動量　②－③			方向角			⑤ 固定点の④移動量をすべての②に加算		【固定】 固定点の座標を合致させた時の差 ⑤ － ③			方向角		
															⑥ ㎜	⑦ ㎜	⑧ 差 ㎜			
点　名	X座標	Y座標	X座標	Y座標	X座標	Y座標	X方向 ㎜	Y方向 ㎜	移動量 ㎜	度	分	秒	X座標	Y座標	X方向	Y方向	√((⑤^2+⑥^2)	度	分	秒
UW-110	41,038.134	−91,915.738	41,417.317	−92,156.251	41,417.237	−92,156.243	80.0	−8.0	**80.4**	354	17	22	41,417.2440	−92,156.2040	7.0	39.0	**39.6**	79	49	28
UW-111	40,850.608	−92,103.180	41,229.797	−92,343.691	41,229.715	−92,343.680	82.0	−11.0	**82.7**	352	21	35	41,229.7240	−92,343.6440	9.0	36.0	**37.1**	75	57	50
UW-112	40,941.784	−91,741.076	41,320.973	−91,981.591	41,320.888	−91,981.585	85.0	−6.0	**85.2**	355	57	44	41,320.9000	−91,981.5440	12.0	41.0	**42.7**	73	41	10
UW-113	40,904.608	−91,919.746	41,283.797	−92,160.258	41,283.715	−92,160.249	82.0	−9.0	**82.5**	353	44	11	41,283.7240	−92,160.2110	9.0	38.0	**39.1**	76	40	32
UW-114	40,849.396	−91,776.647	41,228.588	−92,017.161	41,228.494	−92,017.162	94.0	1.0	**94.0**	0	36	34	41,228.5150	−92,017.1140	21.0	48.0	**52.4**	66	22	14
UW-115	40,979.177	−92,241.585	41,358.360	−92,482.095	41,358.280	−92,482.088	80.0	−7.0	**80.3**	354	59	58	41,358.2870	−92,482.0480	7.0	40.0	**40.6**	80	4	26
UW-116	40,856.013	−92,272.142	41,235.201	−92,512.651	41,235.117	−92,512.644	84.0	−7.0	**84.3**	355	14	11	41,235.1280	−92,512.6040	11.0	40.0	**41.5**	74	37	25
UW-117	40,695.677	−92,106.467	41,074.873	−92,346.977	41,074.785	−92,346.968	88.0	−9.0	**88.5**	354	9	38	41,074.8000	−92,346.9300	15.0	38.0	**40.9**	68	27	32
UW-118	40,655.633	−91,711.288	41,034.834	−91,951.803	41,034.741	−91,951.804	93.0	1.0	**93.0**	0	36	58	41,034.7610	−91,951.7560	20.0	48.0	**52.0**	67	22	48
UW-119	40,604.873	−91,850.130	40,984.075	−92,090.642	40,983.992	−92,090.640	83.0	−2.0	**83.0**	358	37	11	40,984.0020	−92,090.5950	10.0	45.0	**46.1**	77	28	16
UW-120	40,077.135	−91,820.799	40,456.358	−92,061.309	40,456.254	−92,061.303	104.0	−6.0	**104.2**	356	41	53	40,456.2850	−92,061.2620	31.0	41.0	**51.4**	52	54	26
UW-121	40,069.878	−91,675.884	40,449.103	−91,916.397	40,449.001	−91,916.386	102.0	−11.0	**102.6**	353	50	41	40,449.0300	−91,916.3500	29.0	36.0	**46.2**	51	8	48
UW-128	41,965.264	−92,657.018	42,344.411	−92,897.530	42,344.347	−92,897.519	64.0	−11.0	**64.9**	350	14	51	42,344.3380	−92,897.4830	−9.0	36.0	**37.1**	104	2	10
UW-129	41,824.113	−92,508.014	42,203.265	−92,748.525	42,203.195	−92,748.517	70.0	−8.0	**70.5**	353	28	49	42,203.1920	−92,748.4780	−3.0	39.0	**39.1**	94	23	55
UW-130	41,839.314	−92,732.990	42,218.465	−92,973.501	42,218.399	−92,973.493	66.0	−8.0	**66.5**	353	5	20	42,218.3920	−92,973.4540	−7.0	39.0	**39.6**	100	10	32
UW-131	43,726.335	−96,430.119	44,105.437	−96,670.633	44,105.413	−96,670.570	24.0	−63.0	**67.4**	290	51	16	44,105.3640	−96,670.5860	−49.0	−16.0	**51.5**	198	5	0
UW-132	43,630.729	−96,245.025	44,009.834	−96,485.540	44,009.808	−96,485.477	26.0	−63.0	**68.2**	292	25	33	44,009.7610	−96,485.4930	−47.0	−16.0	**49.6**	198	47	60
UW-133	43,532.461	−96,069.066	43,911.569	−96,309.582	43,911.540	−96,309.520	29.0	−62.0	**68.4**	295	4	3	43,911.4960	−96,309.5350	−44.0	−15.0	**46.5**	198	49	29
UW-134	43,503.625	−95,792.436	43,882.735	−96,032.953	43,882.702	−96,032.893	33.0	−60.0	**68.5**	298	48	39	43,882.6620	−96,032.9060	−40.0	−13.0	**42.1**	198	0	15
UW-135	43,551.613	−96,394.272	43,930.718	−96,634.787	43,930.691	−96,634.720	27.0	−67.0	**72.2**	291	56	55	43,930.6450	−96,634.7400	−46.0	−20.0	**50.2**	203	29	55
UW-136	43,446.927	−96,234.215	43,826.035	−96,474.731	43,826.007	−96,474.666	28.0	−65.0	**70.8**	293	18	18	43,825.9620	−96,474.6840	−45.0	−18.0	**48.5**	201	48	5
UW-137	43,380.933	−95,948.513	43,760.044	−96,189.030	43,760.014	−96,188.967	30.0	−63.0	**69.8**	295	27	48	43,759.9710	−96,188.9830	−43.0	−16.0	**45.9**	200	24	36
UW-138	43,304.746	−96,417.505	43,683.855	−96,658.021	43,683.829	−96,657.954	26.0	−67.0	**71.9**	291	12	33	43,683.7820	−96,657.9740	−47.0	−20.0	**51.1**	203	3	5
UW-139	43,156.554	−96,592.487	43,535.663	−96,833.002	43,535.651	−96,832.934	12.0	−68.0	**69.1**	280	0	29	43,535.5900	−96,832.9550	−61.0	−21.0	**64.5**	198	59	48
UW-140	44,907.837	−92,125.872	45,286.936	−92,366.374	45,286.844	−92,366.327	92.0	−47.0	**103.3**	332	56	20	45,286.8630	−92,366.3270	19.0	0.0	**19.0**	0	0	0
UW-141	44,691.902	−92,112.433	45,071.003	−92,352.937	45,070.909	−92,352.888	94.0	−49.0	**106.0**	332	28	5	45,070.9300	−92,352.8900	21.0	−2.0	**21.1**	354	33	35
UW-142	44,499.754	−92,123.405	44,878.856	−92,363.910	44,878.762	−92,363.859	94.0	−51.0	**106.9**	331	31	4	44,878.7830	−92,363.8630	21.0	−4.0	**21.4**	349	12	57
UW-143	43,016.446	−96,807.634	43,395.553	−97,048.147	43,395.538	−97,048.085	15.0	−62.0	**63.8**	283	36	2	43,395.4800	−97,048.1000	−58.0	−15.0	**59.9**	194	30	1
UW-144	42,931.984	−96,465.844	43,311.098	−96,706.361	43,311.074	−96,706.298	24.0	−63.0	**67.4**	290	51	16	43,311.0250	−96,706.3140	−49.0	−16.0	**51.5**	198	5	0
UW-145	42,937.252	−96,117.063	43,316.368	−96,357.580	43,316.342	−96,357.520	26.0	−60.0	**65.4**	293	25	43	43,316.2950	−96,357.5330	−47.0	−13.0	**48.8**	195	27	40
UW-146	42,641.688	−96,237.731	43,020.806	−96,478.247	43,020.783	−96,478.192	23.0	−55.0	**59.6**	292	41	38	43,020.7330	−96,478.2000	−50.0	−8.0	**50.6**	189	5	25

（資料1）　基準点パラメータ変換を世界測地系の基準点に【固定】して比較

固定点　UW-10

	① 日本測地系による図根点座標		② 日本測地の図根点座標をTKY2JDでパラメータ変換		③ 世界測地系による基準点座標		④【変換】 ②パラメータ変換と③基準点の間の移動量　②－③			方向角			⑤ 固定点の④移動量をすべての②に加算		【固定】固定点の座標を合致させた時の差 ⑤ － ③			方向角		
															⑥ mm	⑦ mm	⑧ 差 mm			
点 名	X座標	Y座標	X座標	Y座標	X座標	Y座標	X方向 mm	Y方向 mm	移動量 mm	度	分	秒	X座標	Y座標	X方向	Y方向	√((⑤^2+⑥^2)	度	分	秒
UW-148	44,126.770	−96,009.476	44,505.868	−96,249.990	44,505.846	−96,249.931	22.0	−59.0	**63.0**	290	26	58	44,505.7950	−96,249.9430	−51.0	−12.0	**52.4**	193	14	26
UW-149	44,046.241	−95,732.174	44,425.343	−95,972.690	44,425.316	−95,972.631	27.0	−59.0	**64.9**	294	35	24	44,425.2700	−95,972.6430	−46.0	−12.0	**47.5**	194	37	15
UW-150	43,923.437	−96,497.473	44,302.535	−96,737.986	44,302.520	−96,737.922	15.0	−64.0	**65.7**	283	11	26	44,302.4620	−96,737.9390	−58.0	−17.0	**60.4**	196	20	10
UW-151	43,848.669	−96,245.748	44,227.771	−96,486.263	44,227.750	−96,486.201	21.0	−62.0	**65.5**	288	42	42	44,227.6980	−96,486.2160	−52.0	−15.0	**54.1**	196	5	27
UW-152	43,656.871	−95,941.792	44,035.978	−96,182.308	44,035.951	−96,182.250	27.0	−58.0	**64.0**	294	57	46	44,035.9050	−96,182.2610	−46.0	−11.0	**47.3**	193	26	55
UW-153	43,766.537	−95,669.080	44,145.644	−95,909.597	44,145.613	−95,909.538	31.0	−59.0	**66.6**	297	43	7	44,145.5710	−95,909.5500	−42.0	−12.0	**43.7**	195	56	43
UW-154	42,509.014	−95,424.566	42,888.142	−95,665.084	42,888.109	−95,665.038	33.0	−46.0	**56.6**	305	39	19	42,888.0690	−95,665.0370	−40.0	1.0	**40.0**	178	34	4
UW-155	42,260.333	−95,405.316	42,639.465	−95,645.834	42,639.432	−95,645.791	33.0	−43.0	**54.2**	307	30	15	42,639.3920	−95,645.7870	−40.0	4.0	**40.2**	174	17	22
UW-156	42,243.727	−95,084.525	42,622.861	−95,325.042	42,622.822	−95,325.000	39.0	−42.0	**57.3**	312	52	44	42,622.7880	−95,324.9950	−34.0	5.0	**34.4**	171	38	3
UW-157	42,113.143	−95,520.560	42,492.276	−95,761.077	42,492.243	−95,761.035	33.0	−42.0	**53.4**	308	9	26	42,492.2030	−95,761.0300	−40.0	5.0	**40.3**	172	52	30
UW-158	42,079.262	−94,988.272	42,458.399	−95,228.789	42,458.356	−95,228.749	43.0	−40.0	**58.7**	317	4	12	42,458.3260	−95,228.7420	−30.0	7.0	**30.8**	166	51	58
UW-159	42,010.134	−95,289.575	42,389.271	−95,530.092	42,389.232	−95,530.051	39.0	−41.0	**56.6**	313	34	4	42,389.1980	−95,530.0450	−34.0	6.0	**34.5**	169	59	31
UW-160	41,879.987	−94,918.447	42,259.127	−95,158.963	42,259.086	−95,158.926	41.0	−37.0	**55.2**	317	56	8	42,259.0540	−95,158.9160	−32.0	10.0	**33.5**	162	38	46
UW-161	41,791.255	−95,748.797	42,170.392	−95,989.314	42,170.358	−95,989.273	34.0	−41.0	**53.3**	309	40	4	42,170.3190	−95,989.2670	−39.0	6.0	**39.5**	171	15	14
UW-162	41,668.717	−94,962.191	42,047.861	−95,202.706	42,047.819	−95,202.672	42.0	−34.0	**54.0**	321	0	32	42,047.7880	−95,202.6590	−31.0	13.0	**33.6**	157	14	56
UW-163	41,611.548	−95,925.943	41,990.687	−96,166.460	41,990.658	−96,166.424	29.0	−36.0	**46.2**	308	51	12	41,990.6140	−96,166.4130	−44.0	11.0	**45.4**	165	57	50
UW-164	41,593.765	−95,586.926	41,972.908	−95,827.443	41,972.873	−95,827.408	35.0	−35.0	**49.5**	314	59	60	41,972.8350	−95,827.3960	−38.0	12.0	**39.8**	162	28	28
UW-165	41,548.669	−95,333.763	41,927.816	−95,574.279	41,927.778	−95,574.247	38.0	−32.0	**49.7**	319	53	57	41,927.7430	−95,574.2320	−35.0	15.0	**38.1**	156	48	5
UW-166	41,426.782	−95,679.894	41,805.928	−95,920.411	41,805.894	−95,920.377	34.0	−34.0	**48.1**	314	59	60	41,805.8550	−95,920.3640	−39.0	13.0	**41.1**	161	33	54
UW-167	41,228.220	−95,393.998	41,607.373	−95,634.514	41,607.331	−95,634.480	42.0	−34.0	**54.0**	321	0	32	41,607.3000	−95,634.4670	−31.0	13.0	**33.6**	157	14	56
UW-168	42,493.269	−94,367.779	42,872.401	−94,608.295	42,872.345	−94,608.260	56.0	−35.0	**66.0**	327	59	41	42,872.3280	−94,608.2480	−17.0	12.0	**20.8**	144	46	57
UW-169	42,403.411	−94,072.620	42,782.545	−94,313.135	42,782.486	−94,313.105	59.0	−30.0	**66.2**	333	2	52	42,782.4720	−94,313.0880	−14.0	17.0	**22.0**	129	28	21
UW-170	42,484.066	−94,614.491	42,863.197	−94,855.007	42,863.148	−94,854.971	49.0	−36.0	**60.8**	323	41	44	42,863.1240	−94,854.9600	−24.0	11.0	**26.4**	155	22	35
UW-171	42,226.687	−94,612.024	42,605.822	−94,852.540	42,605.770	−94,852.504	52.0	−36.0	**63.2**	325	18	17	42,605.7490	−94,852.4930	−21.0	11.0	**23.7**	152	21	14
UW-172	42,203.523	−94,268.517	42,582.660	−94,509.032	42,582.605	−94,508.999	55.0	−33.0	**64.1**	329	2	10	42,582.5870	−94,508.9850	−18.0	14.0	**22.8**	142	7	30
UW-173	42,175.758	−93,997.561	42,554.896	−94,238.075	42,554.839	−94,238.046	57.0	−29.0	**64.0**	333	2	3	42,554.8230	−94,238.0280	−16.0	18.0	**24.1**	131	38	1
UW-174	42,076.141	−94,620.781	42,455.279	−94,861.297	42,455.227	−94,861.260	52.0	−37.0	**63.8**	324	34	0	42,455.2060	−94,861.2500	−21.0	10.0	**23.3**	154	32	12
UW-175	42,023.472	−94,239.578	42,402.612	−94,480.092	42,402.559	−94,480.060	53.0	−32.0	**61.9**	328	52	39	42,402.5390	−94,480.0450	−20.0	15.0	**25.0**	143	7	48
UW-176	42,644.508	−93,143.088	43,023.640	−93,383.601	43,023.568	−93,383.578	72.0	−23.0	**75.6**	342	17	3	43,023.5670	−93,383.5540	−1.0	24.0	**24.0**	92	23	9
UW-177	42,589.639	−92,959.883	42,968.772	−93,200.395	42,968.699	−93,200.377	73.0	−18.0	**75.2**	346	8	55	42,968.6990	−93,200.3480	0.0	29.0	**29.0**	89	59	60
UW-178	42,491.640	−92,962.643	42,870.775	−93,203.155	42,870.708	−93,203.139	67.0	−16.0	**68.9**	346	34	8	42,870.7020	−93,203.1080	−6.0	31.0	**31.6**	100	57	15

（資料1）　基準点パラメータ変換を世界測地系の基準点に【固定】して比較

固定点　UW-10

	① 日本測地系による図根点座標		② 日本測地の図根点座標をTKY2JDでパラメータ変換		③ 世界測地系による基準点座標		④【変換】 ②パラメータ変換と③基準点の間の移動量　②－③			方向角			⑤ 固定点の④移動量をすべての②に加算		【固定】固定点の座標を合致させた時の差 ⑤ － ③			方向角		
															⑥ mm	⑦ mm	⑧ 差 mm			
点 名	X座標	Y座標	X座標	Y座標	X座標	Y座標	X方向 mm	Y方向 mm	移動量 mm	度	分	秒	X座標	Y座標	X方向	Y方向	√((⑤^2+⑥^2)	度	分	秒
UW-179	42,497.022	−93,153.348	42,876.157	−93,393.861	42,876.087	−93,393.840	70.0	−21.0	**73.1**	343	18	3	42,876.0840	−93,393.8140	−3.0	26.0	**26.2**	96	34	55
UW-180	42,416.910	−93,097.218	42,796.047	−93,337.730	42,795.978	−93,337.712	69.0	−18.0	**71.3**	345	22	45	42,795.9740	−93,337.6830	−4.0	29.0	**29.3**	97	51	12
UW-181	42,424.509	−92,889.958	42,803.645	−93,130.470	42,803.575	−93,130.455	70.0	−15.0	**71.6**	347	54	19	42,803.5720	−93,130.4230	−3.0	32.0	**32.1**	95	21	21
UW-182	42,305.795	−93,148.474	42,684.934	−93,388.986	42,684.867	−93,388.968	67.0	−18.0	**69.4**	344	57	44	42,684.8610	−93,388.9390	−6.0	29.0	**29.6**	101	41	22
UW-183	42,278.137	−92,958.285	42,657.277	−93,198.797	42,657.208	−93,198.779	69.0	−18.0	**71.3**	345	22	45	42,657.2040	−93,198.7500	−4.0	29.0	**29.3**	97	51	12
UW-184	42,314.622	−92,833.142	42,693.761	−93,073.654	42,693.694	−93,073.638	67.0	−16.0	**68.9**	346	34	8	42,693.6880	−93,073.6070	−6.0	31.0	**31.6**	100	57	15
UW-185	42,186.267	−93,161.372	42,565.409	−93,401.884	42,565.345	−93,401.869	64.0	−15.0	**65.7**	346	48	34	42,565.3360	−93,401.8370	−9.0	32.0	**33.2**	105	42	31
UW-186	42,183.054	−93,045.256	42,562.196	−93,285.768	42,562.127	−93,285.752	69.0	−16.0	**70.8**	346	56	41	42,562.1230	−93,285.7210	−4.0	31.0	**31.3**	97	21	9
UW-187	42,133.148	−92,900.998	42,512.291	−93,141.510	42,512.231	−93,141.490	60.2	−19.5	**63.3**	342	3	7	42,512.2182	−93,141.4625	−12.8	27.5	**30.3**	114	57	35
UW-188	42,119.620	−92,784.569	42,498.763	−93,025.081	42,498.698	−93,025.065	65.0	−16.0	**66.9**	346	10	17	42,498.6900	−93,025.0340	−8.0	31.0	**32.0**	104	28	13
UW-189	42,064.684	−93,139.460	42,443.829	−93,379.972	42,443.762	−93,379.956	67.0	−16.0	**68.9**	346	34	8	42,443.7560	−93,379.9250	−6.0	31.0	**31.6**	100	57	15
UW-190	42,046.691	−92,904.489	42,425.836	−93,145.000	42,425.762	−93,144.987	74.0	−13.0	**75.1**	350	2	10	42,425.7630	−93,144.9530	1.0	34.0	**34.0**	88	18	55
UW-191	42,224.755	−92,956.550	42,603.896	−93,197.062	42,603.833	−93,197.046	63.3	−15.6	**65.2**	346	9	20	42,603.8233	−93,197.0146	−9.7	31.4	**32.9**	107	10	1
UW-192	42,202.587	−92,874.272	42,581.729	−93,114.784	42,581.651	−93,114.754	77.5	−29.6	**83.0**	339	5	47	42,581.6555	−93,114.7366	4.5	17.4	**18.0**	75	29	59
UW-193	42,167.985	−92,960.291	42,547.128	−93,200.803	42,547.072	−93,200.798	55.6	−4.5	**55.8**	355	22	22	42,547.0546	−93,200.7555	−17.4	42.5	**45.9**	112	15	53
UW-194	42,119.783	−92,954.578	42,498.927	−93,195.089	42,498.862	−93,195.076	64.7	−13.4	**66.1**	348	17	56	42,498.8537	−93,195.0424	−8.3	33.6	**34.6**	103	52	32
UW-195	42,991.829	−92,861.490	43,370.952	−93,102.003	43,370.862	−93,101.986	90.0	−17.0	**91.6**	349	18	13	43,370.8790	−93,101.9560	17.0	30.0	**34.5**	60	27	40
UW-196	42,883.196	−93,070.418	43,262.323	−93,310.931	43,262.235	−93,310.910	88.0	−21.0	**90.5**	346	34	41	43,262.2500	−93,310.8840	15.0	26.0	**30.0**	60	1	6
UW-197	42,879.287	−92,828.515	43,258.412	−93,069.028	43,258.315	−93,069.007	97.0	−21.0	**99.2**	347	47	3	43,258.3390	−93,068.9810	24.0	26.0	**35.4**	47	17	26
UW-198	42,860.044	−92,940.634	43,239.171	−93,181.147	43,239.078	−93,181.131	93.0	−16.0	**94.4**	350	14	18	43,239.0980	−93,181.1000	20.0	31.0	**36.9**	57	10	17
UW-199	42,755.264	−93,027.587	43,134.394	−93,268.100	43,134.301	−93,268.081	93.0	−19.0	**94.9**	348	27	12	43,134.3210	−93,268.0530	20.0	28.0	**34.4**	54	27	44
UW-200	42,676.931	−92,876.949	43,056.061	−93,117.461	43,055.973	−93,117.445	88.0	−16.0	**89.4**	349	41	43	43,055.9880	−93,117.4140	15.0	31.0	**34.4**	64	10	44
UW-201	42,665.703	−92,983.447	43,044.834	−93,223.959	43,044.749	−93,223.942	85.0	−17.0	**86.7**	348	41	24	43,044.7610	−93,223.9120	12.0	30.0	**32.3**	68	11	55
UW-202	42,565.618	−95,958.894	42,944.740	−96,199.411	42,944.715	−96,199.359	25.0	−52.0	**57.7**	295	40	37	42,944.6670	−96,199.3640	−48.0	−5.0	**48.3**	185	56	49
UW-203	42,624.094	−95,635.724	43,003.218	−95,876.242	43,003.188	−95,876.187	30.0	−55.0	**62.6**	298	36	38	43,003.1450	−95,876.1950	−43.0	−8.0	**43.7**	190	32	21
UW-204	42,566.839	−95,866.362	42,945.962	−96,106.879	42,945.932	−96,106.830	30.0	−49.0	**57.5**	301	28	37	42,945.8890	−96,106.8320	−43.0	−2.0	**43.0**	182	39	47
UW-205	42,575.216	−95,760.470	42,954.339	−96,000.987	42,954.300	−96,000.942	39.4	−45.3	**60.0**	311	0	55	42,954.2664	−96,000.9403	−33.6	1.7	**33.6**	177	6	13
UW-206	42,503.918	−95,520.932	42,883.045	−95,761.450	42,883.011	−95,761.402	33.7	−47.8	**58.5**	305	11	5	42,882.9717	−95,761.4028	−39.3	−0.8	**39.3**	181	9	58
UW-207	42,490.137	−95,593.131	42,869.263	−95,833.649	42,869.227	−95,833.600	36.2	−48.6	**60.6**	306	40	51	42,869.1902	−95,833.6016	−36.8	−1.6	**36.8**	182	29	22
UW-208	42,506.873	−95,697.678	42,885.998	−95,938.195	42,885.960	−95,938.148	38.0	−47.4	**60.8**	308	43	7	42,885.9250	−95,938.1484	−35.0	−0.4	**35.0**	180	39	17
UW-209	40,583.580	−92,821.465	40,962.775	−93,061.969	40,962.688	−93,061.961	87.0	−8.0	**87.4**	354	44	46	40,962.7020	−93,061.9220	14.0	39.0	**41.4**	70	15	11

（資料1）　基準点パラメータ変換を世界測地系の基準点に【固定】して比較

固定点　UW-10

	① 日本測地系による図根点座標		② 日本測地の図根点座標をTKY2JDでパラメータ変換		③ 世界測地系による基準点座標		④【変換】 ②パラメータ変換と③基準点の間の移動量　②－③			方向角			⑤ 固定点の④移動量をすべての②に加算		【固定】固定点の座標を合致させた時の差 ⑤ － ③			方向角		
															⑥ mm	⑦ mm	⑧ 差 mm			
点　名	X座標	Y座標	X座標	Y座標	X座標	Y座標	X方向 mm	Y方向 mm	移動量 mm	度	分	秒	X座標	Y座標	X方向	Y方向	√((⑤^2+⑥^2)	度	分	秒
UW-210	40,536.543	−92,964.470	40,915.739	−93,204.973	40,915.653	−93,204.967	86.0	−6.0	**86.2**	356	0	33	40,915.6660	−93,204.9260	13.0	41.0	**43.0**	72	24	27
UW-211	40,522.263	−92,611.556	40,901.462	−92,852.061	40,901.369	−92,852.052	93.0	−9.0	**93.4**	354	28	21	40,901.3890	−92,852.0140	20.0	38.0	**42.9**	62	14	29
UW-212	40,459.990	−92,884.430	40,839.189	−93,124.933	40,839.100	−93,124.929	89.0	−4.0	**89.1**	357	25	36	40,839.1160	−93,124.8860	16.0	43.0	**45.9**	69	35	24
UW-213	40,447.484	−92,752.587	40,826.685	−92,993.091	40,826.593	−92,993.083	92.0	−8.0	**92.3**	355	1	49	40,826.6120	−92,993.0440	19.0	39.0	**43.4**	64	1	32
UW-214	40,445.125	−93,115.284	40,824.323	−93,355.786	40,824.237	−93,355.781	86.0	−5.0	**86.1**	356	40	21	40,824.2500	−93,355.7390	13.0	42.0	**44.0**	72	48	5
UW-215	40,323.320	−93,042.076	40,702.524	−93,282.577	40,702.433	−93,282.575	91.0	−2.0	**91.0**	358	44	27	40,702.4510	−93,282.5300	18.0	45.0	**48.5**	68	11	55
UW-216	40,352.687	−92,879.135	40,731.891	−93,119.637	40,731.798	−93,119.634	93.0	−3.0	**93.0**	358	9	9	40,731.8180	−93,119.5900	20.0	44.0	**48.3**	65	33	22
UW-220	38,801.315	−89,639.711	39,180.618	−89,880.285	39,180.548	−89,880.282	69.6	−3.3	**69.7**	357	17	8	39,180.5446	−89,880.2383	−3.4	43.7	**43.8**	94	26	56
UW-221	38,679.520	−90,019.741	39,058.817	−90,260.301	39,058.754	−90,260.311	62.8	10.0	**63.6**	9	2	51	39,058.7438	−90,260.2540	−10.2	57.0	**57.9**	100	8	44
UW-222	38,316.371	−90,010.505	38,695.679	−90,251.065	38,695.621	−90,251.058	58.0	−7.0	**58.4**	353	7	6	38,695.6060	−90,251.0180	−15.0	40.0	**42.7**	110	33	22
UW-224	42,320.193	−92,614.943	42,699.331	−92,855.455	42,699.262	−92,855.443	69.0	−12.0	**70.0**	350	8	3	42,699.2580	−92,855.4080	−4.0	35.0	**35.2**	96	31	11
UW-225	42,797.699	−92,352.778	43,176.823	−92,593.290	43,176.742	−92,593.278	81.0	−12.0	**81.9**	351	34	23	43,176.7500	−92,593.2430	8.0	35.0	**35.9**	77	7	30
UW-226	42,985.253	−92,684.465	43,364.375	−92,924.977	43,364.284	−92,924.971	91.0	−6.0	**91.2**	356	13	40	43,364.3020	−92,924.9300	18.0	41.0	**44.8**	66	17	50
UW-227	42,984.055	−92,571.177	43,363.176	−92,811.689	43,363.091	−92,811.680	85.0	−9.0	**85.5**	353	57	21	43,363.1030	−92,811.6420	12.0	38.0	**39.8**	72	28	28
UW-228	42,974.094	−92,468.219	43,353.214	−92,708.731	43,353.133	−92,708.719	81.0	−12.0	**81.9**	351	34	23	43,353.1410	−92,708.6840	8.0	35.0	**35.9**	77	7	30
UW-229	42,962.442	−92,347.031	43,341.561	−92,587.542	43,341.484	−92,587.528	77.0	−14.0	**78.3**	349	41	43	43,341.4880	−92,587.4950	4.0	33.0	**33.2**	83	5	20
UW-230	42,872.818	−92,699.722	43,251.942	−92,940.234	43,251.851	−92,940.222	91.0	−12.0	**91.8**	352	29	16	43,251.8690	−92,940.1870	18.0	35.0	**39.4**	62	47	2
UW-231	42,867.183	−92,587.457	43,246.307	−92,827.969	43,246.223	−92,827.958	84.0	−11.0	**84.7**	352	32	22	43,246.2340	−92,827.9220	11.0	36.0	**37.6**	73	0	33
UW-232	42,832.997	−92,480.466	43,212.121	−92,720.978	43,212.039	−92,720.966	82.0	−12.0	**82.9**	351	40	28	43,212.0480	−92,720.9310	9.0	35.0	**36.1**	75	34	45
UW-233	42,753.746	−92,702.598	43,132.873	−92,943.110	43,132.780	−92,943.094	93.0	−16.0	**94.4**	350	14	18	43,132.8000	−92,943.0630	20.0	31.0	**36.9**	57	10	17
UW-234	42,698.343	−92,480.436	43,077.470	−92,720.948	43,077.386	−92,720.937	84.0	−11.0	**84.7**	352	32	22	43,077.3970	−92,720.9010	11.0	36.0	**37.6**	73	0	33
UW-235	42,684.904	−92,334.805	43,064.031	−92,575.317	43,063.949	−92,575.307	82.0	−10.0	**82.6**	353	2	49	43,063.9580	−92,575.2700	9.0	37.0	**38.1**	76	19	43
UW-240	43,544.706	−92,831.734	43,923.821	−93,072.246	43,923.740	−93,072.234	81.0	−12.0	**81.9**	351	34	23	43,923.7480	−93,072.1990	8.0	35.0	**35.9**	77	7	30
UW-242	44,013.432	−92,124.730	44,392.538	−92,365.239	44,392.449	−92,365.207	89.0	−32.0	**94.6**	340	13	26	44,392.4650	−92,365.1920	16.0	15.0	**21.9**	43	9	9
UW-247	40,786.182	−92,051.718	41,165.375	−92,292.229	41,165.289	−92,292.220	86.0	−9.0	**86.5**	354	1	32	41,165.3020	−92,292.1820	13.0	38.0	**40.2**	71	6	50
UW-248	40,688.724	−92,015.640	41,067.921	−92,256.151	41,067.833	−92,256.141	88.0	−10.0	**88.6**	353	31	1	41,067.8480	−92,256.1040	15.0	37.0	**39.9**	67	55	56
UW-249	40,596.738	−92,001.591	40,975.939	−92,242.101	40,975.852	−92,242.095	87.0	−6.0	**87.2**	356	3	17	40,975.8660	−92,242.0540	14.0	41.0	**43.3**	71	8	49
UW-254	40,141.741	−91,175.201	40,520.969	−91,415.727	40,520.871	−91,415.730	98.0	3.0	**98.0**	1	45	12	40,520.8960	−91,415.6800	25.0	50.0	**55.9**	63	26	6
UW-255	40,110.390	−90,983.546	40,489.621	−91,224.076	40,489.518	−91,224.074	103.0	−2.0	**103.0**	358	53	15	40,489.5480	−91,224.0290	30.0	45.0	**54.1**	56	18	36
UW-256	40,007.173	−91,065.110	40,386.407	−91,305.638	40,386.307	−91,305.641	100.0	3.0	**100.0**	1	43	6	40,386.3340	−91,305.5910	27.0	50.0	**56.8**	61	37	51
UW-258	43,768.099	−92,264.174	44,147.208	−92,504.684	44,147.110	−92,504.657	98.0	−27.0	**101.7**	344	35	48	44,147.1350	−92,504.6370	25.0	20.0	**32.0**	38	39	35

（資料1）　基準点パラメータ変換を世界測地系の基準点に【固定】して比較

固定点　UW-10

	① 日本測地系による図根点座標		② 日本測地の図根点座標をTKY2JDでパラメータ変換		③ 世界測地系による基準点座標		④【変換】 ②パラメータ変換と③基準点の間の移動量　②－③			方向角			⑤ 固定点の④移動量をすべての②に加算		【固定】固定点の座標を合致させた時の差 ⑤ － ③			方向角		
															⑥ mm	⑦ mm	⑧ 差 mm			
点　名	X座標	Y座標	X座標	Y座標	X座標	Y座標	X方向 mm	Y方向 mm	移動量 mm	度	分	秒	X座標	Y座標	X方向	Y方向	√((⑤^2+⑥^2)	度	分	秒
UW-259	43,345.256	−92,704.762	43,724.373	−92,945.274	43,724.277	−92,945.257	96.0	−17.0	**97.5**	349	57	29	43,724.3000	−92,945.2270	23.0	30.0	**37.8**	52	31	26
UW-260	43,241.914	−92,320.879	43,621.030	−92,561.390	43,620.939	−92,561.370	91.0	−20.0	**93.2**	347	36	17	43,620.9570	−92,561.3430	18.0	27.0	**32.4**	56	18	36
UW-261	43,613.950	−91,895.281	43,993.059	−92,135.790	43,992.964	−92,135.767	95.0	−23.0	**97.7**	346	23	25	43,992.9860	−92,135.7430	22.0	24.0	**32.6**	47	29	22
UWひまわり	40,965.665	−92,388.692	41,344.847	−92,629.201	41,344.767	−92,629.197	80.0	−4.0	**80.1**	357	8	15	41,344.7740	−92,629.1540	7.0	43.0	**43.6**	80	45	14
卯5−1	39,926.478	−90,662.404	40,305.720	−90,902.942	40,305.633	−90,902.950	87.0	8.0	**87.4**	5	15	14	40,305.6470	−90,902.8950	14.0	55.0	**56.8**	75	43	8
卯5−2	39,923.728	−90,807.717	40,302.968	−91,048.251	40,302.877	−91,048.266	91.0	15.0	**92.2**	9	21	37	40,302.8950	−91,048.2040	18.0	62.0	**64.6**	73	48	39
卯5−3	39,816.151	−90,694.274	40,195.396	−90,934.811	40,195.307	−90,934.819	89.0	8.0	**89.4**	5	8	11	40,195.3230	−90,934.7640	16.0	55.0	**57.3**	73	46	47
調−27	43,430.517	−94,397.344	43,809.632	−94,637.861	43,809.581	−94,637.818	51.0	−43.0	**66.7**	319	51	52	43,809.5590	−94,637.8140	−22.0	4.0	**22.4**	169	41	43
調−28	43,339.046	−94,196.880	43,718.163	−94,437.396	43,718.103	−94,437.356	60.0	−40.0	**72.1**	326	18	36	43,718.0900	−94,437.3490	−13.0	7.0	**14.8**	151	41	57
調−29	43,225.067	−93,558.296	43,604.187	−93,798.811	43,604.110	−93,798.782	77.0	−29.0	**82.3**	339	21	45	43,604.1140	−93,798.7640	4.0	18.0	**18.4**	77	28	16
調−30	43,195.662	−93,846.312	43,574.782	−94,086.827	43,574.715	−94,086.789	67.0	−38.0	**77.0**	330	26	23	43,574.7090	−94,086.7800	−6.0	9.0	**10.8**	123	41	24
調−31	43,253.244	−94,485.135	43,632.362	−94,725.652	43,632.309	−94,725.612	53.0	−40.0	**66.4**	322	57	27	43,632.2890	−94,725.6050	−20.0	7.0	**21.2**	160	42	36
調−33	43,154.126	−94,205.306	43,533.247	−94,445.823	43,533.188	−94,445.782	59.0	−41.0	**71.8**	325	12	14	43,533.1740	−94,445.7760	−14.0	6.0	**15.2**	156	48	5
調−34	43,051.609	−93,945.104	43,430.732	−94,185.620	43,430.662	−94,185.576	70.0	−44.0	**82.7**	327	50	52	43,430.6590	−94,185.5730	−3.0	3.0	**4.2**	134	59	60
調−35	42,978.988	−93,752.681	43,358.112	−93,993.196	43,358.037	−93,993.157	75.0	−39.0	**84.5**	332	31	32	43,358.0390	−93,993.1490	2.0	8.0	**8.2**	75	57	50
調−36	45,081.839	−92,524.116	45,460.935	−92,764.618	45,460.849	−92,764.573	86.0	−45.0	**97.1**	332	22	44	45,460.8620	−92,764.5710	13.0	2.0	**13.2**	8	44	46
調−37	44,618.019	−91,675.113	44,997.120	−91,915.616	44,997.025	−91,915.566	95.0	−50.0	**107.4**	332	14	29	44,997.0470	−91,915.5690	22.0	−3.0	**22.2**	352	14	5
調−38	44,368.142	−92,566.441	44,747.246	−92,806.949	44,747.152	−92,806.897	94.0	−52.0	**107.4**	331	2	56	44,747.1730	−92,806.9020	21.0	−5.0	**21.6**	346	36	27
調−39	43,494.494	−92,443.521	43,873.607	−92,684.032	43,873.500	−92,684.003	107.0	−29.0	**110.9**	344	50	8	43,873.5340	−92,683.9850	34.0	18.0	**38.5**	27	53	50
調−50	43,530.386	−94,617.061	43,909.499	−94,857.578	43,909.453	−94,857.536	46.0	−42.0	**62.3**	317	36	9	43,909.4260	−94,857.5310	−27.0	5.0	**27.5**	169	30	31
調−56	40,828.422	−93,746.568	41,207.593	−93,987.073	41,207.533	−93,987.066	60.0	−7.0	**60.4**	353	20	44	41,207.5200	−93,987.0260	−13.0	40.0	**42.1**	108	0	15
調−57	40,546.971	−93,218.858	40,926.163	−93,459.360	40,926.085	−93,459.356	78.0	−4.0	**78.1**	357	3	52	40,926.0900	−93,459.3130	5.0	43.0	**43.3**	83	22	3
調−58	40,628.081	−92,699.133	41,007.275	−92,939.638	41,007.185	−92,939.630	90.0	−8.0	**90.4**	354	55	13	41,007.2020	−92,939.5910	17.0	39.0	**42.5**	66	26	52
調−59	40,288.470	−93,948.088	40,667.664	−94,188.592	40,667.587	−94,188.598	77.0	6.0	**77.2**	4	27	20	40,667.5910	−94,188.5450	4.0	53.0	**53.2**	85	41	2
調−60	40,124.446	−93,095.668	40,503.658	−93,336.168	40,503.559	−93,336.167	99.0	−1.0	**99.0**	359	25	17	40,503.5850	−93,336.1210	26.0	46.0	**52.8**	60	31	27
調−61	39,734.689	−93,468.543	40,113.910	−93,709.040	40,113.813	−93,709.045	97.0	5.0	**97.1**	2	57	3	40,113.8370	−93,708.9930	24.0	52.0	**57.3**	65	13	29
調−62	39,668.915	−94,532.838	40,048.122	−94,773.340	40,048.027	−94,773.356	95.0	16.0	**96.3**	9	33	36	40,048.0490	−94,773.2930	22.0	63.0	**66.7**	70	45	2
調−63	39,640.028	−94,037.431	40,019.245	−94,277.930	40,019.142	−94,277.943	103.0	13.0	**103.8**	7	11	36	40,019.1720	−94,277.8830	30.0	60.0	**67.1**	63	26	6
3−4	40,038.697	−90,791.916	40,417.933	−91,032.451	40,417.839	−91,032.459	94.0	8.0	**94.3**	4	51	52	40,417.8600	−91,032.4040	21.0	55.0	**58.9**	69	6	8
245									**78.8**								**37.2**			

（資料2）　基準点パラメータ変換を世界測地系の基準点に【固定】して比較　今治支部

固定点　T75

	① 日本測地系による図根点座標		② 日本測地の図根点座標を TKY2JDでパラメータ変換		③ 世界測地系による基準点座標		④【変換】 ②パラメータ変換と③基準点の間の移動量　②－③			方向角			⑤ 固定点の④移動量をすべての②に加算		【固定】 固定点の座標を合致させた時の差 ⑤ － ③			方向角		
															⑥ ㎜	⑦ ㎜	⑧ 差 ㎜			
点　名	X座標	Y座標	X座標	Y座標	X座標	Y座標	X方向 ㎜	Y方向 ㎜	移動量 ㎜	度	分	秒	X座標	Y座標	X方向	Y方向	√(⑤^2+⑥^2)	度	分	秒
T75	117,718.126	−46,658.070	118,096.6887	−46,897.9282	118,096.9170	−46,898.0930	−228.3	164.8	**281.6**	144	10	34	118,096.9170	−46,898.0930	0.0	0.0	**0.0**	0	0	0
T1	118,036.269	−46,706.023	118,414.8511	−46,945.8927	118,415.0630	−46,946.0450	−211.9	152.3	**261.0**	144	17	38	118,415.0794	−46,946.0575	16.4	−12.5	**20.6**	322	41	8
T2	117,990.085	−46,677.213	118,368.6659	−46,917.0827	118,368.8830	−46,917.2260	−217.1	143.3	**260.1**	146	34	21	118,368.8942	−46,917.2475	11.2	−21.5	**24.2**	297	30	59
T3	117,961.999	−46,653.673	118,340.5799	−46,893.5433	118,340.7940	−46,893.6790	−214.1	135.7	**253.5**	147	37	58	118,340.8082	−46,893.7081	14.2	−29.1	**32.4**	296	0	40
T4	117,936.023	−46,630.655	118,314.6040	−46,870.5260	118,314.8200	−46,870.6640	−216.0	138.0	**256.3**	147	25	33	118,314.8323	−46,870.6908	12.3	−26.8	**29.5**	294	39	11
T5	117,906.746	−46,610.254	118,285.3268	−46,850.1255	118,285.5370	−46,850.2690	−210.2	143.5	**254.5**	145	40	45	118,285.5551	−46,850.2903	18.1	−21.3	**28.0**	310	21	24
T6	117,867.668	−46,586.584	118,246.2484	−46,826.4560	118,246.4600	−46,826.6040	−211.6	148.0	**258.2**	145	1	47	118,246.4767	−46,826.6208	16.7	−16.8	**23.7**	314	49	44
T7	117,841.224	−46,569.675	118,219.8043	−46,809.5474	118,220.0180	−46,809.6930	−213.7	145.6	**258.6**	145	43	56	118,220.0326	−46,809.7122	14.6	−19.2	**24.1**	307	14	60
T8	117,787.063	−46,537.672	118,165.6430	−46,777.5454	118,165.8610	−46,777.6950	−218.0	149.6	**264.4**	145	32	26	118,165.8713	−46,777.7102	10.3	−15.2	**18.4**	304	7	22
T9	117,743.914	−46,551.522	118,122.4898	−46,791.3924	118,122.7180	−46,791.5430	−228.2	150.6	**273.4**	146	34	38	118,122.7181	−46,791.5572	0.1	−14.2	**14.2**	270	24	13
T10	117,725.372	−46,518.154	118,103.9502	−46,758.0271	118,104.1640	−46,758.1710	−213.8	143.9	**257.7**	146	3	26	118,104.1785	−46,758.1919	14.5	−20.9	**25.4**	304	45	8
T11	117,727.410	−46,492.567	118,105.9911	−46,732.4428	118,106.2040	−46,732.5840	−212.9	141.2	**255.5**	146	26	48	118,106.2194	−46,732.6076	15.4	−23.6	**28.2**	303	7	34
T12	117,704.822	−46,466.874	118,083.4046	−46,706.7518	118,083.6190	−46,706.8890	−214.4	137.2	**254.5**	147	23	2	118,083.6329	−46,706.9166	13.9	−27.6	**30.9**	296	43	51
T13	117,660.740	−46,427.965	118,039.3245	−46,667.8457	118,039.5390	−46,667.9840	−214.5	138.3	**255.2**	147	11	16	118,039.5528	−46,668.0105	13.8	−26.5	**29.9**	297	30	30
T14	117,629.053	−46,400.411	118,007.6390	−46,640.2938	118,007.8590	−46,640.4160	−220.0	122.2	**251.7**	150	56	59	118,007.8673	−46,640.4586	8.3	−42.6	**43.4**	281	1	30
T15	117,597.557	−46,374.719	117,976.1445	−46,614.6040	117,976.3580	−46,614.7370	−213.5	133.0	**251.5**	148	4	45	117,976.3728	−46,614.7688	14.8	−31.8	**35.1**	294	57	28
T16	117,566.866	−46,351.867	117,945.4548	−46,591.7539	117,945.6670	−46,591.8800	−212.2	126.1	**246.8**	149	16	45	117,945.6831	−46,591.9187	16.1	−38.7	**41.9**	292	35	18
T21	117,424.543	−46,456.926	117,803.1167	−46,696.8018	117,803.3560	−46,696.9480	−239.3	146.2	**280.4**	148	34	38	117,803.3450	−46,696.9666	−11.0	−18.6	**21.6**	239	24	0
T22	117,466.597	−46,500.804	117,845.1628	−46,740.6709	117,845.4090	−46,740.8250	−246.2	154.1	**290.5**	147	57	25	117,845.3911	−46,740.8357	−17.9	−10.7	**20.9**	210	52	10
T23	117,499.991	−46,536.810	117,878.5533	−46,776.6726	117,878.8060	−46,776.8290	−252.7	156.4	**297.2**	148	14	46	117,878.7816	−46,776.8374	−24.4	−8.4	**25.8**	198	59	48
T25	117,550.000	−46,589.220	117,928.5589	−46,829.0783	117,928.8060	−46,829.2370	−247.1	158.7	**293.7**	147	17	22	117,928.7872	−46,829.2431	−18.8	−6.1	**19.8**	197	58	36
T26	117,595.037	−46,640.184	117,973.5929	−46,880.0383	117,973.8410	−46,880.2030	−248.1	164.7	**297.8**	146	25	19	117,973.8212	−46,880.2031	−19.8	−0.1	**19.8**	180	17	22
T27	117,636.802	−46,683.849	118,015.3558	−46,923.7004	118,015.6010	−46,923.8740	−245.2	173.6	**300.4**	144	42	6	118,015.5841	−46,923.8652	−16.9	8.8	**19.1**	152	29	37
T28	117,673.397	−46,724.853	118,051.9490	−46,964.7017	118,052.1960	−46,964.8730	−247.0	171.3	**300.6**	145	15	28	118,052.1773	−46,964.8665	−18.7	6.5	**19.8**	160	49	58
T29	117,708.224	−46,754.028	118,086.7755	−46,993.8755	118,087.0210	−46,994.0460	−245.5	170.5	**298.9**	145	13	12	118,087.0038	−46,994.0403	−17.2	5.7	**18.1**	161	39	54
T30	117,735.628	−46,783.021	118,114.1787	−47,022.8670	118,114.4220	−47,023.0370	−243.3	170.0	**296.8**	145	3	25	118,114.4070	−47,023.0318	−15.0	5.2	**15.9**	160	52	49
T31	117,770.156	−46,824.387	118,148.7053	−47,064.2309	118,148.9520	−47,064.4030	−246.7	172.1	**300.8**	145	6	0	118,148.9336	−47,064.3957	−18.4	7.3	**19.8**	158	21	35
T33	117,822.953	−46,881.032	118,201.5013	−47,120.8737	118,201.7460	−47,121.0540	−244.7	180.3	**304.0**	143	36	59	118,201.7296	−47,121.0385	−16.4	15.5	**22.6**	136	36	58

（資料2）　基準点パラメータ変換を世界測地系の基準点に【固定】して比較　今治支部

固定点　T75

	① 日本測地系による図根点座標		② 日本測地の図根点座標を TKY2JDでパラメータ変換		③ 世界測地系による基準点座標		④【変換】 ②パラメータ変換と③基準点 の間の移動量　②－③			方向角			⑤ 固定点の④移動量を すべての②に加算		【固定】 固定点の座標を合致させた時の差 ⑤ － ③			方向角		
															⑥ ㎜	⑦ ㎜	⑧ 差 ㎜			
点　名	X座標	Y座標	X座標	Y座標	X座標	Y座標	X方向 ㎜	Y方向 ㎜	移動量 ㎜	度	分	秒	X座標	Y座標	X方向	Y方向	√(⑤^2+⑥^2)	度	分	秒
T34	117,869.206	−46,847.228	118,247.7618	−47,087.0759	118,247.9930	−47,087.2460	−231.2	170.1	**287.0**	143	39	26	118,247.9901	−47,087.2407	−2.9	5.3	**6.0**	118	41	10
T35	117,915.615	−46,806.638	118,294.1786	−47,046.4925	118,294.4040	−47,046.6540	−225.4	161.5	**277.3**	144	22	42	118,294.4069	−47,046.6573	2.9	−3.3	**4.4**	311	18	31
T36	117,952.145	−46,779.299	118,330.7142	−47,019.1581	118,330.9350	−47,019.3200	−220.8	161.9	**273.8**	143	44	58	118,330.9425	−47,019.3229	7.5	−2.9	**8.0**	338	51	37
T37	117,973.904	−46,756.994	118,352.4769	−46,996.8562	118,352.6920	−46,997.0120	−215.1	155.8	**265.6**	144	5	1	118,352.7052	−46,997.0210	13.2	−9.0	**16.0**	325	42	47
T38	118,004.174	−46,736.817	118,382.7511	−46,976.6826	118,382.9660	−46,976.8370	−214.9	154.4	**264.6**	144	18	13	118,382.9794	−46,976.8474	13.4	−10.4	**17.0**	322	11	3
T42	117,814.045	−46,705.623	118,192.6100	−46,945.4812	118,192.8320	−46,945.6430	−222.0	161.8	**274.7**	143	54	52	118,192.8383	−46,945.6460	6.3	−3.0	**7.0**	334	32	12
T43	117,782.713	−46,672.988	118,161.2789	−46,912.8478	118,161.5030	−46,913.0100	−224.1	162.2	**276.6**	144	6	13	118,161.5072	−46,913.0126	4.2	−2.6	**4.9**	328	14	26
T44	117,763.221	−46,641.190	118,141.7887	−46,881.0520	118,142.0140	−46,881.2130	−225.3	161.0	**276.9**	144	27	1	118,142.0170	−46,881.2168	3.0	−3.8	**4.8**	308	17	25
T45	117,741.089	−46,626.984	118,119.6567	−46,866.8465	118,119.8810	−46,867.0090	−224.3	162.5	**277.0**	144	4	39	118,119.8850	−46,867.0113	4.0	−2.3	**4.6**	330	6	4
T46	117,709.638	−46,583.318	118,088.2082	−46,823.1837	118,088.4310	−46,823.3380	−222.8	154.3	**271.0**	145	17	44	118,088.4365	−46,823.3485	5.5	−10.5	**11.9**	297	38	46
T47	117,666.263	−46,546.611	118,044.8345	−46,786.4789	118,045.0600	−46,786.6330	−225.5	154.1	**273.1**	145	39	9	118,045.0628	−46,786.6437	2.8	−10.7	**11.1**	284	39	52
T48	117,640.311	−46,517.971	118,018.8841	−46,757.8410	118,019.1050	−46,757.9990	−220.9	158.0	**271.6**	144	25	32	118,019.1124	−46,758.0058	7.4	−6.8	**10.0**	317	25	10
T49	117,607.303	−46,482.855	117,985.8783	−46,722.7279	117,986.0970	−46,722.8810	−218.7	153.1	**267.0**	145	0	22	117,986.1066	−46,722.8927	9.6	−11.7	**15.1**	309	22	10
T50	117,574.402	−46,447.387	117,952.9796	−46,687.2629	117,953.1950	−46,687.4100	−215.4	147.1	**260.8**	145	40	13	117,953.2079	−46,687.4277	12.9	−17.7	**21.9**	306	5	6
T51	117,547.388	−46,417.556	117,925.9678	−46,657.4347	117,926.1810	−46,657.5820	−213.2	147.3	**259.1**	145	21	34	117,926.1961	−46,657.5995	15.1	−17.5	**23.1**	310	47	22
T52	117,524.717	−46,393.533	117,903.2987	−46,633.4139	117,903.5060	−46,633.5620	−207.3	148.1	**254.8**	144	27	26	117,903.5270	−46,633.5787	21.0	−16.7	**26.8**	321	30	25
T53	117,551.765	−46,361.711	117,930.3519	−46,601.5964	117,930.5520	−46,601.7320	−200.1	135.6	**241.7**	145	52	34	117,930.5802	−46,601.7612	28.2	−29.2	**40.6**	314	0	7
T54	117,579.725	−46,393.371	117,958.3094	−46,633.2534	117,958.5190	−46,633.3990	−209.6	145.6	**255.2**	145	12	50	117,958.5377	−46,633.4182	18.7	−19.2	**26.8**	314	14	39
T55	117,607.483	−46,415.309	117,986.0662	−46,655.1896	117,986.2780	−46,655.3290	−211.8	139.4	**253.6**	146	38	54	117,986.2945	−46,655.3544	16.5	−25.4	**30.3**	303	0	29
T56	117,642.812	−46,454.280	118,021.3926	−46,694.1572	118,021.6130	−46,694.2980	−220.4	140.8	**261.5**	147	25	41	118,021.6209	−46,694.3220	7.9	−24.0	**25.3**	288	13	11
T57	117,676.990	−46,498.907	118,055.5675	−46,738.7804	118,055.7910	−46,738.9310	−223.5	150.6	**269.5**	146	1	37	118,055.7958	−46,738.9452	4.8	−14.2	**15.0**	288	40	36
T59	117,803.666	−46,610.563	118,182.2397	−46,850.4299	118,182.4620	−46,850.5830	−222.3	153.1	**269.9**	145	26	40	118,182.4680	−46,850.5947	6.0	−11.7	**13.1**	297	8	59
T60	117,844.996	−46,615.815	118,223.5720	−46,855.6832	118,223.7860	−46,855.8330	−214.0	149.8	**261.2**	145	0	29	118,223.8003	−46,855.8480	14.3	−15.0	**20.7**	313	37	53
T61	117,830.570	−46,638.942	118,209.1428	−46,878.8074	118,209.3610	−46,878.9620	−218.2	154.6	**267.4**	144	40	53	118,209.3711	−46,878.9722	10.1	−10.2	**14.4**	314	43	4
T62	117,892.796	−46,672.260	118,271.3701	−46,912.1253	118,271.5830	−46,912.2770	−212.9	151.7	**261.4**	144	31	43	118,271.5984	−46,912.2901	15.4	−13.1	**20.2**	319	36	50
T63	117,878.642	−46,692.321	118,257.2132	−46,932.1837	118,257.4330	−46,932.3430	−219.8	159.3	**271.5**	144	4	2	118,257.4415	−46,932.3485	8.5	−5.5	**10.1**	327	5	41
T64	117,861.622	−46,701.867	118,240.1910	−46,941.7280	118,240.4100	−46,941.8870	−219.0	159.0	**270.6**	144	1	10	118,240.4193	−46,941.8928	9.3	−5.8	**11.0**	328	3	0
T65	117,888.919	−46,724.363	118,267.4880	−46,964.2234	118,267.7080	−46,964.3820	−220.0	158.6	**271.2**	144	12	43	118,267.7163	−46,964.3882	8.3	−6.2	**10.4**	323	14	27

（資料2）　基準点パラメータ変換を世界測地系の基準点に【固定】して比較　今治支部

固定点　T75

	① 日本測地系による図根点座標		② 日本測地の図根点座標を TKY2JDでパラメータ変換		③ 世界測地系による基準点座標		④【変換】 ②パラメータ変換と③基準点 の間の移動量　②－③			方向角			⑤ 固定点の④移動量を すべての②に加算		【固定】固定点の座標を合致させた時の差 ⑤ － ③			方向角		
															⑥ ㎜	⑦ ㎜	⑧ 差 ㎜			
点　名	X座標	Y座標	X座標	Y座標	X座標	Y座標	X方向 ㎜	Y方向 ㎜	移動量 ㎜	度	分	秒	X座標	Y座標	X方向	Y方向	√(⑤^2+⑥^2)	度	分	秒
T66	117,914.685	−46,754.816	118,293.2533	−46,994.6751	118,293.4740	−46,994.8370	−220.7	161.9	**273.7**	143	44	14	118,293.4816	−46,994.8399	7.6	−2.9	**8.1**	339	6	51
T67	117,940.335	−46,730.689	118,318.9075	−46,970.5516	118,319.1220	−46,970.7070	−214.5	155.4	**264.9**	144	4	39	118,319.1358	−46,970.7164	13.8	−9.4	**16.7**	325	44	20
T68	117,917.436	−46,698.524	118,296.0096	−46,938.3882	118,296.2270	−46,938.5410	−217.4	152.8	**265.7**	144	53	54	118,296.2379	−46,938.5530	10.9	−12.0	**16.2**	312	14	60
T70	117,793.835	−46,733.341	118,172.3956	−46,973.1954	118,172.6280	−46,973.3620	−232.4	166.6	**285.9**	144	21	52	118,172.6239	−46,973.3602	−4.1	1.8	**4.5**	156	17	50
T71	117,766.874	−46,753.608	118,145.4304	−46,993.4589	118,145.6620	−46,993.6260	−231.6	167.1	**285.6**	144	11	22	118,145.6587	−46,993.6237	−3.3	2.3	**4.0**	145	7	29
T72	117,764.636	−46,700.292	118,143.1977	−46,940.1481	118,143.4270	−46,940.3140	−229.3	165.9	**283.0**	144	6	50	118,143.4260	−46,940.3129	−1.0	1.1	**1.5**	132	16	25
T73	117,737.245	−46,716.042	118,115.8029	−46,955.8951	118,116.0380	−46,956.0630	−235.1	167.9	**288.9**	144	28	1	118,116.0312	−46,956.0599	−6.8	3.1	**7.5**	155	29	33
T74	117,693.232	−46,674.422	118,071.7911	−46,914.2772	118,072.0210	−46,914.4400	−229.9	162.8	**281.7**	144	41	47	118,072.0194	−46,914.4420	−1.6	−2.0	**2.6**	231	20	25
T75	117,718.126	−46,658.070	118,096.6887	−46,897.9282	118,096.9170	−46,898.0930	−228.3	164.8	**281.6**	144	10	34	118,096.9170	−46,898.0930	0.0	0.0	**0.0**	0	0	0
T76	117,691.999	−46,617.770	118,070.5642	−46,857.6312	118,070.7960	−46,857.8020	−231.8	170.8	**287.9**	143	36	56	118,070.7925	−46,857.7960	−3.5	6.0	**6.9**	120	15	23
T77	117,636.216	−46,565.475	118,014.7834	−46,805.3396	118,015.0150	−46,805.4950	−231.6	155.4	**278.9**	146	8	20	118,015.0117	−46,805.5044	−3.3	−9.4	**10.0**	250	39	20
T79	117,586.958	−46,556.501	117,965.5233	−46,796.3646	117,965.7530	−46,796.5110	−229.7	146.4	**272.4**	147	29	19	117,965.7516	−46,796.5294	−1.4	−18.4	**18.5**	265	38	56
T80	117,606.749	−46,537.564	117,985.3178	−46,777.4306	117,985.5500	−46,777.5810	−232.2	150.4	**276.7**	147	4	5	117,985.5461	−46,777.5954	−3.9	−14.4	**14.9**	254	50	45
T81	117,575.833	−46,515.535	117,954.4025	−46,755.4030	117,954.6270	−46,755.5580	−224.5	155.0	**272.8**	145	22	40	117,954.6308	−46,755.5678	3.8	−9.8	**10.5**	291	11	39
T82	117,553.121	−46,477.499	117,931.6938	−46,717.3707	117,931.9220	−46,717.5170	−228.2	146.3	**271.1**	147	20	9	117,931.9221	−46,717.5355	0.1	−18.5	**18.5**	270	18	35
T83	117,522.420	−46,507.012	117,900.9874	−46,746.8791	117,901.2280	−46,747.0390	−240.6	159.9	**288.9**	146	23	33	117,901.2157	−46,747.0439	−12.3	−4.9	**13.2**	201	43	16
T84	117,492.895	−46,469.916	117,871.4654	−46,709.7867	117,871.7010	−46,709.9300	−235.6	143.3	**275.8**	148	41	26	117,871.6937	−46,709.9515	−7.3	−21.5	**22.7**	251	14	45
3−3	117,692.228	−46,392.439	118,070.8181	−46,632.3244	118,071.0210	−46,632.4630	−202.9	138.6	**245.7**	145	39	48	118,071.0464	−46,632.4892	25.4	−26.2	**36.5**	314	6	42
NO1	117,828.780	−46,912.717	118,207.3257	−47,152.5561	118,207.5780	−47,152.7440	−252.3	187.9	**314.6**	143	19	23	118,207.5540	−47,152.7209	−24.0	23.1	**33.3**	136	5	41
3−4	117,632.848	−46,657.296	118,011.4046	−46,897.1500	118,011.6480	−46,897.3170	−243.4	167.0	**295.2**	145	32	44	118,011.6329	−46,897.3148	−15.1	2.2	**15.3**	171	42	38

三角関数の対数表 ①　0°　～　8°

○′	L. Sin	d.	L. Tan	d.c.	L. Cot	L. Cos	d.	○′
0 0	—		—		—	0,0000		60
10	7,4637		7,4637		2,5363	0000		50
20	7648		7648		2352	0000		40
30	9408		9409		0591	0000		30
40	8,0658		8,0658		1,9342	0000		20
50	1627		1627		8373	0000		10
1 0	8,2419		8,2419		1,7581	9,9999		89 0
10	3088		3089		6911	9999		50
20	3668		3669		6331	9999		40
30	4179		4181		5819	9999		30
40	4637		4638		5362	9998		20
50	5050		5053		4947	9998		10
2 0	8,5428		8,5431		1,4569	9,9997		88 0
10	5776		5779		4221	9997		50
20	6097		6101		3899	9996		40
30	6397		6401		3599	9996		30
40	6677		6682		3318	9995		20
50	6940		6945		3055	9995		10
3 0	8,7188		8,7194		1,2806	9,9994		87 0
10	7423		7429		2571	9993		50
20	7645		7652		2348	9993		40
30	7857		7865		2135	9992		30
40	8059		8067		1933	9991		20
50	8251		8261		1739	9990		10
4 0	8,8436		8,8446		1,1554	9,9989		86 0
10	8613		8624		1376	9989		50
20	8783		8795		1205	9988		40
30	8946		8960		1040	9987		30
40	9104		9118		0882	9986		20
50	9256		9272		0728	9985		10
		147		148			2	
5 0	8,9403		8,9420		1,0580	9,9983		85 0
10	9545	142	9563	143	0437	9982	1	50
20	9682	137	9701	138	0299	9981	1	40
30	9816	134	9836	135	0164	9980	1	30
40	9945	129	9966	130	0034	9979	1	20
50	9,0070	125	9,0093	127	0,9907	9977	2	10
		122		123			1	
6 0	9,0192		9,0216		0,9784	9,9976		84 0
10	0311	119	0336	120	9664	9975	1	50
20	0426	115	0453	117	9547	9973	2	40
30	0539	113	0567	114	9433	9972	1	30
40	0648	109	0678	111	9322	9971	1	20
50	0755	107	0786	108	9214	9969	2	10
		104		105			1	
7 0	9,0859		9,0891		0,9109	9,9968		83 0
10	0961	102	0995	104	9005	9966	2	50
20	1060	99	1096	101	8904	9964	2	40
30	1157	97	1194	98	8806	9963	1	30
40	1252	95	1291	97	8709	9961	2	20
50	1345	93	1385	94	8615	9959	2	10
		91		93			1	
8 0	9,1436		9,1478		0,8522	9,9958		82 0
10	1525	89	1569	91	8431	9956	2	50
20	1612	87	1658	89	8342	9954	2	40
30	1697	85	1745	87	8255	9952	2	30
40	1781	84	1831	86	8169	9950	2	20
50	1863	82	1915	84	8085	9948	2	10
60	9,1943	80	9,1997	82	0,8003	9,9946	2	81 0
	L. Cos	d.	L. Cot	d.c.	L. Tan	L. Sin	d.	○′

P. P.				
	79	78	77	76
10″	1,3	1,3	1,3	1,3
20	2,6	2,6	2,6	2,5
30	4,0	3,9	3,8	3,8
40	5,3	5,2	5,1	5,1
50	6,6	6,5	6,4	6,3
1′	7,9	7,8	7,7	7,6
2	15,8	15,6	15,4	15,2
3	23,7	23,4	23,1	22,8
4	31,6	31,2	30,8	30,4
5	39,5	39,0	38,5	38,0
6	47,4	46,8	46,2	45,6
7	55,3	54,6	53,9	53,2
8	63,2	62,4	61,6	60,8
9	71,1	70,2	69,3	68,4
	75	74	73	72
10″	1,2	1,2	1,2	1,2
20	2,5	2,5	2,4	2,4
30	3,8	3,7	3,6	3,6
40	5,0	4,9	4,9	4,8
50	6,2	6,2	6,1	6,0
1′	7,5	7,4	7,3	7,2
2	15,0	14,8	14,6	14,4
3	22,5	22,2	21,9	21,6
4	30,0	29,6	29,2	28,8
5	37,5	37,0	36,5	36,0
6	45,0	44,4	43,8	43,2
7	52,5	51,8	51,1	50,4
8	60,0	59,2	58,4	57,6
9	67,5	66,6	65,7	64,8
	71	70	69	68
10″	7,2	1,2	1,2	1,1
20	2,4	2,3	2,3	2,3
30	3,6	3,5	3,4	3,4
40	4,7	4,7	4,6	4,5
50	5,9	5,8	5,8	5,7
1′	7,1	7,0	6,9	6,8
2	14,2	14,0	13,8	13,6
3	21,3	21,0	20,7	20,4
4	28,4	28,0	27,6	27,2
5	35,5	35,0	34,5	34,0
6	42,6	42,0	41,4	40,8
7	49,7	49,0	48,3	47,6
8	56,8	56,0	55,2	54,4
9	63,9	63,0	62,1	61,2
	67	66	65	64
10″	1,1	1,1	1,1	1,1
20	2,2	2,2	2,2	2,1
30	3,4	3,3	3,2	3,2
40	4,5	4,4	4,3	4,3
50	5,6	5,5	5,4	5,3
1′	6,7	6,6	6,5	6,4
2	13,4	13,2	13,0	12,8
3	20,1	19,8	19,5	19,2
4	26,8	26,4	26,0	25,6
5	33,5	33,0	32,5	32,0
6	40,2	39,6	39,0	38,4
7	46,9	46,2	45,5	44,8
8	53,6	52,8	52,0	51,2
9	60,3	59,4	58,5	57,6
	63	62	61	60
10″	1,0	1,0	1,0	1,0
20	2,1	2,1	2,0	2,0
30	3,2	3,1	3,0	3,0
40	4,2	4,1	4,1	4,0
50	5,2	5,2	5,1	5,0
1′	6,3	6,2	6,1	6,0
2	12,6	12,4	12,2	12,0
3	18,9	18,6	18,3	18,0
4	25,2	24,8	24,4	24,0
5	31,5	31,0	30,5	30,0
6	37,8	37,2	36,6	36,0
7	44,1	43,4	42,7	42,0
8	50,4	49,6	48,8	48,0
9	56,7	55,8	54,9	54,0

81°　～　89°

三角関数の対数表 ②　9°　～　17°

○′	L. Sin	d.	L. Tan	d.c.	L. Cot	L. Cos	d.		P. P.				
										59	58	57	56
9 0	9,1943	79	9,1997	81	0,8003	9,9946	2	60	10″	1,0	1,0	1,0	0,9
10	2022	78	2078	80	7922	9944	2	50	20	2,0	1,9	1,9	1,9
20	2100	76	2158	78	7842	9942	2	40	30	3,0	2,9	2,8	2,8
30	2176	75	2236	77	7764	9940	2	30	40	3,9	3,9	3,8	3,7
40	2251	73	2313	76	7687	9938	2	20	50	4,9	4,8	4,8	4,7
50	2324	73	2389	74	7611	9936	2	10	1′	5,9	5,8	5,7	5,6
10 0	9,2397	71	9,2463	73	0,7537	9,9934	3	80 0	2	11,8	11,6	11,4	11,2
10	2468	70	2536	73	7464	9931	2	50	3	17,7	17,4	17,1	16,8
20	2538	68	2609	71	7391	9929	2	40	4	23,6	23,2	22,8	22,4
30	2606	68	2680	70	7320	9927	3	30	5	29,5	29,0	28,5	28,0
40	2674	66	2750	69	7250	9924	2	20	6	35,4	34,8	34,2	33,6
50	2740	66	2819	68	7181	9922	3	10	7	41,3	40,6	39,9	39,2
11 0	9,2806	64	9,2887	66	0,7113	9,9919	2	79 0	8	47,2	46,4	45,6	44,8
10	2870	64	2953	67	7047	9917	3	50	9	53,1	52,2	51,3	50,4
20	2934	63	3020	65	6980	9914	2	40		55	54	53	52
30	2997	61	3085	64	6915	9912	3	30	10″	0,9	0,9	0,9	0,9
40	3058	61	3149	63	6851	9909	2	20	20	1,8	1,8	1,8	1,7
50	3119	60	3212	63	6788	9907	3	10	30	2,8	2,7	2,6	2,6
12 0	9,3179	59	9,3275	61	0,6725	9,9904	3	78 0	40	3,7	3,6	3,5	3,5
10	3238	58	3336	61	6664	9901	2	50	50	4,6	4,5	4,4	4,3
20	3296	57	3397	61	6603	9899	3	40	1′	5,5	5,4	5,3	5,2
30	3353	57	3458	59	6542	9896	3	30	2	11,0	10,8	10,6	10,4
40	3410	56	3517	59	6483	9893	3	20	3	16,5	16,2	15,9	15,6
50	3466	55	3576	58	6424	9890	3	10	4	22,0	21,6	21,2	20,8
13 0	9,3521	54	9,3634	57	0,6366	9,9887	3	77 0	5	27,5	27,0	26,5	26,0
10	3575	54	3691	57	6309	9884	3	50	6	33,0	32,4	31,8	31,2
20	3629	53	3748	56	6252	9881	3	40	7	38,5	37,8	37,1	36,4
30	3682	52	3804	55	6196	9878	3	30	8	44,0	43,2	42,4	41,6
40	3734	52	3859	55	6141	9875	3	20	9	49,5	48,6	47,7	46,8
50	3786	51	3914	54	6086	9872	3	10		51	50	49	48
14 0	9,3837	50	9,3968	53	0,6032	9,9869	3	76 0	10″	0,8	0,8	0,8	0,8
10	3887	50	4021	53	5979	9866	3	50	20	1,7	1,7	1,6	1,6
20	3937	49	4074	53	5926	9863	4	40	30	2,6	2,5	2,4	2,4
30	3986	49	4127	51	5873	9859	3	30	40	3,4	3,3	3,3	3,2
40	4035	48	4178	52	5822	9856	3	20	50	4,2	4,2	4,1	4,0
50	4083	47	4230	51	5770	9853	4	10	1′	5,1	5,0	4,9	4,8
15 0	9,4130	47	9,4281	50	0,5719	9,9849	3	75 0	2	10,2	10,0	19,8	9,6
10	4177	46	4331	50	5669	9846	3	50	3	15,3	15,0	14,7	14,4
20	4223	46	4381	49	5619	9843	4	40	4	20,4	20,0	29,6	19,2
30	4269	45	4430	49	5570	9839	3	30	5	25,5	25,0	24,5	24,0
40	4314	45	4479	48	5521	9836	4	20	6	30,6	30,0	29,4	28,8
50	4359	44	4527	48	5473	9832	4	10	7	35,7	35,0	34,3	33,6
16 0	9,4403	44	9,4575	47	0,5425	9,9828	3	74 0	8	40,8	40,0	39,2	38,4
10	4447	44	4622	47	5378	9825	4	50	9	45,9	45,0	44,1	43,2
20	4491	44	4669	47	5331	9821	4	40		47	46	45	44
30	4533	42	4716	46	5284	9817	3	30	10″	0,8	0,8	0,8	0,7
40	4576	43	4762	46	5238	9814	4	20	20	1,6	1,5	1,5	1,5
50	4618	42	4808	45	5192	9810	4	10	30	2,4	2,3	2,2	2,2
17 0	9,4659	41	9,4853	45	0,5147	9,9806	4	73 0	40	3,1	3,1	3,0	2,9
10	4700	41	4898	45	5102	9802	4	50	50	3,9	3,8	3,8	3,7
20	4741	41	4943	44	5057	9798	4	40	1′	4,7	4,6	4,5	4,4
30	4781	40	4987	44	5013	9794	4	30	2	9,4	9,2	9,0	8,8
40	4821	40	5031	44	4969	9790	4	20	3	14,1	13,8	13,5	13,2
50	4861	40	5075	44	4925	9786	4	10	4	18,8	18,4	18,0	17,6
60	9,4900	39	9,5118	43	0,4882	9,9782	4	0	5	23,5	23,0	22,5	22,0
									6	28,2	27,6	27,0	26,4
									7	32,9	32,2	31,5	30,8
									8	37,6	36,8	36,0	35,2
									9	42,3	41,4	40,5	39,6
										43	42	41	40
									10″	0,7	0,7	0,7	0,7
									20	1,4	1,4	1,4	1,3
									30	2,2	2,1	2,0	2,0
									40	2,9	2,8	2,7	2,7
									50	3,6	3,5	3,4	3,3
									1′	4,3	4,2	4,1	4,0
									2	8,6	8,4	8,2	8,0
									3	12,9	12,6	12,3	12,0
									4	17,2	16,8	19,4	16,0
									5	21,5	21,0	20,5	20,0
									6	25,8	25,2	24,6	24,0
									7	30,1	29,4	28,7	28,0
									8	34,4	33,6	32,8	32,0
									9	38,7	37,8	36,9	36,0
	L. Cos	d.	L. Cot	d.c.	L. Tan	L. Sin	d.	○′	P. P.				

72°　～　80°

三角関数の対数表 ③　18°　～　26°

○′	L. Sin	d.	L. Tan	d.c.	L. Cot	L. Cos	d.	
18 0	9,4900		9,5118		0,4882	9,9782		60
10	4939	39	5161	43	4839	9778	4	50
20	4977	38	5203	42	4797	9774	4	40
30	5015	38	5245	42	4755	9770	4	30
40	5052	37	5287	42	4713	9765	5	20
50	5090	38	5329	42	4671	9761	4	10
		36		41			4	
19 0	9,5126	37	9,5370	41	0,4630	9,9757	5	71 0
10	5163	36	5411	40	4589	9752	4	50
20	5199	36	5451	40	4549	9748	5	40
30	5235	35	5491	40	4509	9743	4	30
40	5270	36	5531	40	4469	9739	5	20
50	5306	35	5571	40	4429	9734	4	10
20 0	9,5341	34	9,5611	39	0,4389	9,9730	5	70 0
10	5375	34	5650	39	4350	9725	4	50
20	5409	34	5689	38	4311	9721	5	40
30	5443	34	5727	39	4273	9716	5	30
40	5477	33	5766	38	4234	9711	5	20
50	5510	33	5804	38	4196	9706	4	10
21 0	9,5543	33	9,5842	37	0,4158	9,9702	5	69 0
10	5576	33	5879	38	4121	9697	5	50
20	5609	32	5917	37	4083	9692	5	40
30	5641	32	5954	37	4046	9687	5	30
40	5673	31	5991	37	4009	9682	5	20
50	5704	32	6028	36	3972	9677	5	10
22 0	9,5736	31	9,6064	36	0,3936	9,9672	5	68 0
10	5767	31	6100	36	3900	9667	6	50
20	5798	30	6136	36	3864	9661	5	40
30	5828	31	6172	36	3828	9656	5	30
40	5859	30	6208	35	3792	9651	5	20
50	5889	30	6243	36	3757	9646	6	10
23 0	9,5919	29	9,6279	35	0,3721	9,9640	5	67 0
10	5948	30	6314	34	3686	9635	6	50
20	5978	29	6348	35	3652	9629	5	40
30	6007	29	6383	34	3617	9624	6	30
40	6036	29	6417	35	3583	9618	5	20
50	6065	28	6452	34	3548	9613	6	10
24 0	9,6093	28	9,6486	34	0,3514	9,9607	5	66 0
10	6121	28	6520	33	3480	9602	6	50
20	6149	28	6553	34	3447	9596	6	40
30	6177	28	6587	33	3413	9590	6	30
40	6205	27	6620	34	3380	9584	5	20
50	6232	27	6654	33	3346	9579	6	10
25 0	9,6259	27	9,6687	33	0,3313	9,9573	6	65 0
10	6286	27	6720	32	3280	9567	6	50
20	6313	27	6752	33	3248	9561	6	40
30	6340	26	6785	32	3215	9555	6	30
40	6366	26	6817	33	3183	9549	6	20
50	6392	26	6850	32	3150	9543	6	10
26 0	9,6418	26	9,6882	32	0,3118	9,9537	7	64 0
10	6444	26	6914	32	3086	9530	6	50
20	6470	25	6946	31	3054	9524	6	40
30	6495	26	6977	32	3023	9518	6	30
40	6521	25	7009	31	2991	9512	7	20
50	6546	24	7040	32	2960	9505	6	10
60	9,6570		9,7072		0,2928	9,9499		63 0
	L. Cos	d.	L. Cot	d.c.	L. Tan	L. Sin	d.	○′

P. P.			
	43	42	41
10″	0,7	0,7	0,7
20	1,4	1,4	1,4
30	2,2	2,1	2,0
40	2,9	2,8	2,7
50	3,6	3,5	3,4
1′	4,3	4,2	4,1
2	8,6	8,4	8,2
3	12,9	12,6	12,3
4	17,2	16,8	16,4
5	21,5	21,0	20,5
6	25,8	25,2	24,6
7	30,1	29,4	28,7
8	34,4	33,6	32,8
9	38,7	37,8	36,9
	40	39	38
10″	0,7	0,6	0,6
20	1,3	1,3	1,3
30	2,0	2,0	1,9
40	2,7	2,6	2,5
50	3,3	3,2	3,2
1′	4,0	3,9	3,8
2	8,0	7,8	7,6
3	12,0	11,7	11,4
4	16,0	15,6	15,2
5	20,0	19,5	19,0
6	24,0	23,4	22,8
7	28,0	27,3	26,6
8	32,0	31,2	30,4
9	36,0	35,1	34,2
	37	36	35
10″	0,6	0,6	0,6
20	1,2	1,2	1,2
30	1,8	1,8	1,8
40	2,5	2,4	2,3
50	3,1	3,0	2,9
1′	3,7	3,6	3,5
2	7,4	7,2	7,0
3	11,1	10,8	10,5
4	14,8	14,4	14,0
5	18,5	18,0	17,5
6	22,2	21,6	21,0
7	25,9	25,2	24,5
8	29,6	28,8	28,0
9	33,3	32,4	31,5
	34	33	32
10″	0,6	0,6	0,5
20	1,1	1,1	1,1
30	1,7	1,6	1,6
40	2,3	2,2	2,1
50	2,8	2,8	2,7
1′	3,4	3,3	3,2
2	6,8	6,6	6,4
3	10,2	9,9	9,6
4	13,6	13,2	12,8
5	17,0	16,5	16,0
6	20,4	19,8	19,2
7	23,8	23,1	22,4
8	27,2	26,4	25,6
9	30,6	29,7	28,8
	31	30	29
10″	0,5	0,5	0,5
20	1,0	1,0	1,0
30	1,6	1,5	1,4
40	2,1	2,0	1,9
50	2,6	2,5	2,4
1′	3,1	3,0	2,9
2	6,2	6,0	5,8
3	9,3	9,0	8,7
4	12,4	12,0	11,6
5	15,5	15,0	14,5
6	18,6	18,0	17,4
7	21,7	21,0	20,3
8	24,8	24,0	23,2
9	27,9	27,0	26,1

P. P.

63°　～　71°

三角関数の対数表 ④　27°　～　35°

○′	L. Sin	d.	L. Tan	d.c.	L. Cot	L. Cos	d.		P. P.		
27 0	9,6570		9,7072		0,2928	9,9499		60		28	27	26
10	6595	25	7103	31	2897	9492	7	50	10″	0,5	0,4	0,4
20	6620	25	7134	31	2866	9486	6	40	20	0,9	0,9	0,9
30	6644	24	7165	31	2835	9479	7	30	30	1,4	1,4	1,3
40	6668	24	7196	31	2804	9473	6	20	40	1,9	1,8	1,7
50	6692	24	7226	30	2774	9466	7	10	50	2,3	2,2	2,2
		24		31			7		1′	2,8	2,7	2,6
28 0	9,6716	24	9,7257	30	0,2743	9,9459	6	62 0	2	5,6	5,4	5,2
10	6740	23	7287	30	2713	9453	7	50	3	8,4	8,1	7,8
20	6763	24	7317	31	2683	9446	7	40	4	11,2	10,8	10,4
30	6787	23	7348	30	2652	9439	7	30	5	14,0	13,5	13,0
40	6810	23	7378	30	2622	9432	7	20	6	16,8	16,2	15,6
50	6833	23	7408	30	2592	9425	7	10	7	19,6	18,9	18,2
		23		30			7		8	22,4	21,6	20,8
29 0	9,6856	22	9,7438	29	0,2562	9,9418	7	61 0	9	25,2	24,3	23,4
10	6878	23	7467	30	2533	9411	7	50		25	24	23
20	6901	22	7497	29	2503	9404	7	40	10″	0,4	0,4	0,4
30	6923	23	7526	30	2474	9397	7	30	20	0,8	0,8	0,8
40	6946	22	7556	29	2444	9390	7	20	30	1,2	1,2	1,2
50	6968	22	7585	29	2415	9383	8	10	40	1,7	1,6	1,5
30 0	9,6990	22	9,7614	30	0,2386	9,9375	7	60 0	50	2,1	2,0	1,9
10	7012	21	7644	29	2356	9368	7	50	1′	2,5	2,4	2,3
20	7033	22	7673	28	2327	9361	8	40	2	5,0	4,8	4,6
30	7055	21	7701	29	2299	9353	7	30	3	7,5	7,2	6,9
40	7076	21	7730	29	2270	9346	8	20	4	10,0	9,6	9,2
50	7097	21	7759	29	2241	9338	7	10	5	12,5	12,0	11,5
31 0	9,7118	21	9,7788	28	0,2212	9,9331	8	59 0	6	15,0	14,4	13,8
10	7139	21	7816	29	2184	9323	8	50	7	17,5	16,8	16,1
20	7160	21	7845	28	2155	9315	7	40	8	20,0	19,2	18,4
30	7181	21	7873	29	2127	9308	8	30	9	22,5	21,6	20,7
40	7201	20	7902	28	2098	9300	8	20		22	21	20
50	7222	21	7930	28	2070	9292	8	10	10″	0,4	0,4	0,3
32 0	9,7242	20	9,7958	28	0,2042	9,9284	8	58 0	20	0,7	0,7	0,7
10	7262	20	7986	28	2014	9276	8	50	30	1,1	1,0	1,0
20	7282	20	8014	28	1986	9268	8	40	40	1,5	1,4	1,3
30	7302	20	8042	28	1958	9260	8	30	50	1,8	1,8	1,7
40	7322	20	8070	28	1930	9252	8	20	1′	2,2	2,1	2,0
50	7342	20	8097	27	1903	9244	8	10	2	4,4	4,2	4,0
33 0	9,7361	19	9,8125	28	0,1875	9,9236	8	57 0	3	6,6	6,3	6,0
10	7380	19	8153	28	1847	9228	8	50	4	8,8	8,4	8,0
20	7400	20	8180	27	1820	9219	9	40	5	11,0	10,5	10,0
30	7419	19	8208	28	1792	9211	8	30	6	13,2	12,6	12,0
40	7438	19	8235	27	1765	9203	8	20	7	15,4	14,7	14,0
50	7457	19	8263	28	1737	9194	9	10	8	17,6	16,8	16,0
		19		27			8		9	19,8	18,9	18,0
34 0	9,7476	18	9,8290	27	0,1710	9,9186	9	56 0		19	18	17
10	7494	19	8317	27	1683	9177	8	50	10″	0,3	0,3	0,3
20	7513	18	8344	27	1656	9169	9	40	20	0,6	0,6	0,6
30	7531	19	8371	27	1629	9160	9	30	30	1,0	0,9	0,8
40	7550	18	8398	27	1602	9151	9	20	40	1,3	1,2	1,1
50	7568	18	8425	27	1575	9142	8	10	50	1,6	1,5	1,4
35 0	9,7586	18	9,8452	27	0,1548	9,9134	9	55 0	1′	1,9	1,8	1,7
10	7604	18	8479	27	1521	9125	9	50	2	3,8	3,6	3,4
20	7622	18	8506	27	1494	9116	9	40	3	5,7	5,4	5,1
30	7640	17	8533	26	1467	9107	9	30	4	7,6	7,2	6,8
40	7657	18	8559	27	1441	9098	9	20	5	9,5	9,0	8,5
50	7675	17	8586	27	1414	9089	9	10	6	11,4	10,8	10,2
60	9,7692		9,8613		0,1387	9,9080		54 0	7	13,3	12,6	11,9
									8	15,2	14,4	13,6
									9	17,1	16,2	15,3
	L. Cos	d.	L. Cot	d.c.	L. Tan	L. Sin	d.	○′		9	8	7
									1′	0.9	0.8	0.7
									2	1.8	1.6	1.4
									3	2.7	2.4	2.1
									4	3.6	3.2	2.8
									5	4.5	4.0	3.5
									6	5.4	4.8	4.2
									7	6.3	5.6	4.9
									8	7.2	6.4	5.6
									9	8.1	7.2	6.3
										6	5	4
									1′	0.6	0.5	0.4
									2	1.2	1.0	0.8
									3	1.8	1.5	1.2
									4	2.4	2.0	1.6
									5	3.0	2.5	2.0
									6	3.6	3.0	2.4
									7	4.2	3.5	2.8
									8	4.8	4.0	3.2
									9	5.4	4.5	3.6

54°　62°

三角関数の対数表 ⑤　36°　～　44°

○′	L. Sin	d.	L. Tan	d.c.	L. Cot	L. Cos	d.		P. P.		
										27	26	25
36 0	9,7692		9,8613		0,1387	9,9080		60				
10	7710	18	8639	26	1361	9070	10	50	10″	0,4	0,4	0,4
20	7727	17	8666	27	1334	9061	9	40	20	0,9	0,9	0,8
30	7744	17	8692	26	1308	9052	9	30	30	1,4	1,3	1,2
40	7761	17	8718	26	1282	9042	10	20	40	1,8	1,7	1,7
50	7778	17	8745	27	1255	9033	9	10	50	2,2	2,2	2,1
				26			10		1′	2,7	2,6	2,5
37 0	9,7795	16	9,8771	26	0,1229	9,9023	9	53 0	2	5,4	5,2	5,0
10	7811	17	8797	27	1203	9014	10	50	3	8,1	7,8	7,5
20	7828	16	8824	26	1176	9004	9	40	4	10,8	10,4	10,0
30	7844	17	8850	26	1150	8995	10	30	5	13,5	13,0	12,5
40	7861	16	8876	26	1124	8985	10	20	6	16,2	15,6	15,0
50	7877	16	8902	26	1098	8975	10	10	7	18,9	18,2	17,5
38 0	9,7893	17	9,8928	26	0,1072	9,8965	10	52 0	8	21,6	20,8	20,0
10	7910	16	8954	26	1046	8955	10	50	9	24,3	23,4	22,5
20	7926	15	8980	26	1020	8945	10	40				
30	7941	16	9006	26	0994	8935	10	30		17	16	15
40	7957	16	9032	26	0968	8925	10	20	10″	0,3	0,3	0,2
50	7973	16	9058	26	0942	8915	10	10	20	0,6	0,5	0,5
39 0	9,7989	15	9,9084	26	0,0916	9,8905	10	51 0	30	0,8	0,8	0,8
10	8004	16	9110	25	0890	8895	10	50	40	1,1	1,1	1,0
20	8020	15	9135	26	0865	8884	11	40	50	1,4	1,3	1,2
30	8035	15	9161	26	0839	8874	10	30	1′	1,7	1,6	1,5
40	8050	16	9187	25	0813	8864	10	20	2	3,4	3,2	3,0
50	8066	15	9212	26	0788	8853	11	10	3	5,1	4,8	4,5
40 0	9,8081	15	9,9238	26	0,0762	9,8843	10	50 0	4	6,8	6,4	6,0
10	8096	15	9264	25	0736	8832	11	50	5	8,5	8,0	7,5
20	8111	14	9289	26	0711	8821	11	40	6	10,2	9,6	9,0
30	8125	14	9315	26	0685	8810	11	30	7	11,9	11,2	10,5
40	8140	14	9341	25	0659	8800	10	20	8	13,6	12,8	12,0
50	8155	14	9396	26	0634	8789	11	10	9	15,3	14,4	13,5
41 0	9,8169	15	9,9392	25	0,0608	9,8778	11	49 0		14	13	12
10	8184	14	9417	26	0583	8767	11	50	10″	0,2	0,2	0,2
20	8198	15	9443	25	0557	8756	11	40	20	0,5	0,4	0,4
30	8213	14	9468	26	0532	8745	12	30	30	0,7	0,6	0,6
40	8227	14	9494	25	0506	8733	11	20	40	0,9	0,9	0,8
50	8241	14	9519	25	0481	8722	11	10	50	1,2	1,1	1,0
42 0	9,8255	14	9,9544	26	0,0456	9,8711	12	48 0	1′	1,4	1,3	1,2
10	8269	14	9570	25	0430	8699	11	50	2	2,8	2,6	2,4
20	8283	14	9595	26	0405	8688	12	40	3	4,2	3,9	3,6
30	8297	14	9621	25	0379	8676	11	30	4	5,6	5,2	4,8
40	8311	13	9646	25	0354	8665	12	20	5	7,0	6,5	6,0
50	8324	14	9671	26	0329	8653	12	10	6	8,4	7,8	7,2
43 0	9,8338	13	9,9697	25	0,0303	9,8641	12	47 0	7	9,8	9,1	8,4
10	8351	14	9722	25	0278	8629	11	50	8	11,2	10,4	9,6
20	8365	13	9747	25	0253	8618	12	40	9	12,6	11,7	10,8
30	8378	13	9772	26	0228	8606	12	30				
40	8391	14	9798	25	0202	8594	12	20		11	10	9
50	8405	13	9823	25	0177	8582	13	10	10″	0,2	0,2	0,2
44 0	9,8418	13	9,9848	26	0,0152	9,8569	12	46 0	20	0,4	0,3	0,3
10	8431	13	9874	25	0126	8557	12	50	30	0,6	0,5	0,4
20	8444	13	9899	25	0101	8545	13	40	40	0,7	0,7	0,6
30	8457	12	9924	25	0076	8532	12	30	50	0,9	0,8	0,8
40	8469	13	9949	25	0051	8520	13	20	1′	1,1	1,0	0,9
50	8482	13	9975	26	0025	8507	12	10	2	2,2	2,0	1,8
60	9,8495		0,0000	25	0,0000	9,8495		45 0	3	3,3	3,0	2,7
									4	4,4	4,0	3,6
									5	5,5	5,0	4,5
									6	6,6	6,0	5,4
									7	7,7	7,0	6,3
									8	8,8	8,0	7,2
									9	9,9	9,0	8,1
	L. Cos	d.	L. Cot	d.c.	L. Tan	L. Sin	d.	○′	P. P.			

45°　～　53°