

## รายการอ้างอิง

### ภาษาไทย

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ภาคผนวก

## ภาคผนวก ก

### ก.1 ค่าพิกัดของหมุดควบคุมที่นำมาใช้ในการวิจัย

เป็นค่าพิกัดที่ได้รับการปรับแก้จากหน่วยงาน NIMA (National Imagery and Mapping Agency) ของสหรัฐอเมริกา กล่าวคือ ในปี พ.ศ. 2539 กรมแผนที่ทหารได้รับความร่วมมือจากหน่วยงาน NIMA ในการหาค่าพิกัดบนพื้นหลักฐาน WGS84 โดยการรังวัดด้วยดาวเทียม GPS แบบสัมบูรณ์ ( absolute point positioning ) ใช้ข้อมูลการรังวัดในแต่ละสถานีอย่างน้อย 72 ชั่วโมงและใช้ข้อมูลการปรับแก้เวลาของดาวเทียมแบบละเอียด ( precise ephemeris ) ให้ความถูกต้อง ( accuracy ) ของค่าพิกัดบนพื้นหลักฐาน WGS84 ในเกณฑ์ 50 เซนติเมตร รวมทั้งการปรับแก้โครงข่ายของประเทศไทยบนพื้นหลักฐาน WGS84 และคำนวณหาค่าตัวแปรที่เหมาะสม เพื่อแปลงค่าพิกัดบนพื้นหลักฐาน WGS84 เป็นค่าพิกัดบนพื้นหลักฐาน INDIAN 1975 ซึ่งผลลัพธ์ที่ได้จากการประมวลผล คือ

1. ค่าพิกัดแบบสัมบูรณ์ ของสถานีควบคุมโครงข่าย จำนวน 4 สถานี บนพื้นหลักฐาน WGS84 คือ สถานี จ. อุทัยธานี ( GPS 3001 ) , จ. ลำปาง ( GPS 3217 ) , จ. ศรีสะเกษ ( GPS 3146 ) , จ. ปัตตานี ( GPS 3405 ) ซึ่งมีความถูกต้องอยู่ระหว่าง 0.25 – 0.50 เมตร ดังตารางที่ ก.1

2. ค่าพิกัดที่ปรับแก้แล้ว ของสถานีในโครงข่ายหลักของประเทศ จำนวน 172 สถานี ( โดยใช้สถานีควบคุมโครงข่ายทั้ง 4 สถานี เป็นค่า constrain ในการปรับแก้ ) ดังตารางที่ ก.2

3. ค่าตัวแปรในการแปลงค่าพิกัดจากพื้นหลักฐาน WGS84 เป็นพื้นหลักฐาน INDIAN 1975 ดังตารางที่ ก.4

ตารางที่ ก.1 ค่าพิกัดสัมบูรณ์ของสถานีควบคุมโครงข่าย จำนวน 4 สถานี

Station	หมายเลขหมุด GPS	Latitude	Longitude	Height (เมตร)
UTHAI	3001	15° 23' 01.54063"	100° 00' 47.53085"	107.887
LAMPANG	3217	18° 20' 07.22970"	99° 22' 16.34646"	240.348
SISAKET	3146	15° 21' 00.89983"	104° 09' 20.63304"	100.855
PATTANI	3405	06° 53' 22.91910"	101° 14' 40.81599"	-10.247

ค่าพิกัด 3 มิติของหมุดควบคุมดังกล่าวเป็นค่าพิกัดที่ กรมแผนที่ทหาร และ กรมที่ดินนำไปใช้กำหนดเป็นค่า constraint ในการปรับแก้โครงข่ายของแต่ละหน่วยงานในปัจจุบัน ยกเว้นหมุด GPS หมายเลข 3405 มีปัญหาหมุดถูกทำลายทางกรมที่ดินจึงไม่นำมาคำนวณปรับแก้โครงข่ายทั่วประเทศ

ก.2 ข้อมูลหมวดหลักฐานที่มีการรังวัดร่วมกันระหว่าง กรมแผนที่ทหาร และ กรมที่ดินและเป็นหมวดที่ถูกนำไปประมวลผลโดยหน่วยงาน NIMA

ค่าพิกัดของสถานีในโครงข่าย GPS ของประเทศไทย (GPS network) มีจำนวนทั้งสิ้น 176 สถานี (รวมสถานีควบคุมอีก 4 สถานี) แต่ในการวิจัยครั้งนี้ได้คัดเลือกเฉพาะหมวดหลักฐานที่มีการรังวัดร่วมกันระหว่าง กรมแผนที่ทหาร และ กรมที่ดิน มาเป็นค่าพิกัดอ้างอิง ซึ่งมีจำนวน 11 หมวด (รวมสถานีควบคุมอีก 4 สถานี)

ตารางที่ ก.2 หมวดหลักฐานที่มีการรังวัดร่วมกันระหว่าง กรมแผนที่ทหาร และ กรมที่ดินและเป็นหมวดที่ถูกนำไปประมวลผลโดยหน่วยงาน NIMA

ลำดับ	หมายเลขหมวดหลักฐาน ของ กรม ผท.ทหาร		หมายเลขหมวดหลักฐาน ของ กรมที่ดิน	สถานที่ตั้ง
1	3001	OTRI191	D05175	จ.อุทัยธานี
2	3173	OTRI84	D05116	จ.นครสวรรค์
3	3217	OTRI147	D05067	จ.ลำปาง
4	3239	OTRV57	D05108	จ.ตาก
5	3272	OTRV291	D05003	จ.เชียงราย
6	3273	OBMP1675	D05008	จ.พะเยา
7	3145	OTRI279	D05204	จ.ศรีสะเกษ
8	3146	RASISARAI,SISAKET	D05093	จ.ศรีสะเกษ
9	3308	OTRI22	D05267	จ.ประจวบคีรีขันธ์
10	3402	OTRI187	D05312	จ.ปัตตานี
11	3405	PATTANI	D05131	จ.ปัตตานี

ตารางที่ ก.3 ค่าพิกัดของหมุดบนพื้นหลักฐาน WGS 84 จากตาราง ก.2

ลำดับ	หมายเลขหมุด	Latitude (N)			Longitude (E)			Height (เมตร)
		°	'	"	°	'	"	
1	3001	15	23	1.54063	100	0	47.53085	107.887
2	3173	15	53	9.25743	99	27	29.1074	501.928
3	3217	18	20	7.2297	99	22	16.34646	240.348
4	3239	16	43	16.55012	98	35	16.53349	177.212
5	3272	19	56	58.18921	100	18	49.21822	377.944
6	3273	19	30	26.70671	100	17	3.44449	358.301
7	3145	15	11	48.92038	104	15	43.95088	111.225
8	3146	15	21	0.89983	104	9	20.63304	100.855
9	3308	11	11	42.00238	99	34	8.61096	201.091
10	3402	6	43	57.19272	101	5	48.38172	41.138
11	3405	6	53	22.9191	101	14	40.81599	-10.247

ตารางที่ ก.4 ค่าตัวแปรในการแปลงค่าพิกัดจากพื้นหลักฐาน WGS84 เป็น  
พื้นหลักฐาน INDIAN 1975

Parameters	
X ( เมตร )	-206
Y ( เมตร )	-837
Z ( เมตร )	-295

## ภาคผนวก ข

- ตารางแสดงค่าต่างของพิกัด UTM บนพื้นหลักฐานอินเดีย 1975 ที่ได้จากการแปลงค่าพิกัดโดยใช้ค่าตัวแปร 7 parameter (กรมที่ดิน) กับ 3 parameter (โครงข่ายที่ปรับแก้ร่วมกัน) ซึ่งใช้หมุดควบคุม 3 หมุดในการ คำนวณปรับแก้

- ตารางแสดงค่า Residual ของการใช้สมการโพลีโนเมียล ในการหาค่าตัวแปร ระหว่างค่าพิกัด UTM ที่ใช้ค่าตัวแปร 7 parameter ( กรมที่ดิน ) กับ 3 parameter ( โครงข่ายที่ปรับแก้ร่วมกัน ) ซึ่งใช้หมุดควบคุม 3 หมุดในการ คำนวณปรับแก้



ตารางที่ ข.1 แสดงค่าต่างของพิกัด UTM บนพื้นหลักฐานอินเดีย 1975 ที่ได้จากการแปลงค่าพิกัดโดยใช้ค่าตัวแปร 7 parameter (กรมที่ดิน) กับ 3 parameter (โครงการที่ปรับแก้ร่วมกัน) ซึ่งใช้หมุดควบคุม 3 หมุด ในการ คำนวณปรับแก้

Station	7 Parameters		3 Parameters (NIMA)		Diff (1) - (3)	
	(1) Northing	(2) Easting	(3) Northing	(4) Easting	Northing	Easting
D05001	2196230.801	519060.761	2196234.287	519072.987	-3.486	-12.226
D05002	2199781.473	585086.191	2199784.815	585098.525	-3.342	-12.334
D05003	2206123.919	637792.095	2206127.155	637804.533	-3.236	-12.438
D05004	2173155.393	557100.999	2173158.756	557113.227	-3.363	-12.228
D05005	2165156.454	592801.234	2165159.720	592813.501	-3.266	-12.267
D05006	2151309.646	499643.447	2151313.109	499655.539	-3.463	-12.092
D05007	2139796.979	553836.996	2139800.293	553849.145	-3.314	-12.149
D05008	2157171.66	635087.432	2157174.822	635099.743	-3.162	-12.311
D05009	2144861.637	697715.068	2144864.621	697727.481	-2.984	-12.413
D05010	2133917.018	390948.236	2133920.722	390960.138	-3.704	-11.902
D05011	2141160.416	446256.477	2141163.988	446268.478	-3.572	-12.001
D05012	2081670.393	387785.984	2081674.037	387797.748	-3.644	-11.764
D05013	2115639.228	495010.552	2115642.648	495022.548	-3.420	-11.996
D05014	2083007.308	497360.722	2083010.668	497372.640	-3.360	-11.918
D05015	2100197.702	529733.601	2100201.012	529745.616	-3.310	-12.015
D05016	2141867.061	609669.730	2141870.247	609681.974	-3.186	-12.245
D05017	2119810.083	634622.837	2119813.170	634635.073	-3.087	-12.236
D05018	2114906.368	690876.522	2114909.309	690888.855	-2.941	-12.333
D05019	2009944.231	387221.310	2009947.788	387232.869	-3.557	-11.559
D05020	2065335.99	430494.074	2065339.494	430505.849	-3.504	-11.775
D05021	2052267.93	503689.795	2052271.226	503701.648	-3.296	-11.853
D05022	2033846.528	466556.546	2033849.895	466568.287	-3.367	-11.741
D05023	2061035.694	557082.673	2061038.865	557094.634	-3.171	-11.961
D05024	2074424.613	603971.593	2074427.692	603983.663	-3.079	-12.070
D05025	2084607.745	651780.477	2084610.721	651792.662	-2.976	-12.185
D05026	2080620.425	688772.859	2080623.299	688785.106	-2.875	-12.247
D05027	2044319.993	705064.938	2044322.752	705077.128	-2.759	-12.190
D05028	2007292.334	670317.757	2007295.110	670329.781	-2.776	-12.024
D05029	2049061.74	625258.832	2049064.716	625270.879	-2.976	-12.047
D05030	2002803.81	620737.349	2002806.709	620749.268	-2.899	-11.919
D05031	2037185.363	580227.157	2037188.432	580239.102	-3.069	-11.945

ตารางที่ ข.1 ( ต่อ ) แสดงค่าต่างของพิกัด UTM บนพื้นหลักฐานอินเดียปี 1975 ที่ได้จากการแปลงค่าพิกัดโดยใช้ค่าตัวแปร  
7 parameter (กรมที่ดิน) กับ 3 parameter ( โครกข่ายที่ปรับแก้ร่วมกัน ) ซึ่งใช้หมุดควบคุม 3 หมุด  
ในการ คำนวณปรับแก้

Station	7 Parameters		3 Parameters (NIMA)		Diff (1) - (3)		Diff (2) - (4)	
	(1) Northing	(2) Easting	(3) Northing	(4) Easting	Northing	Easting	Northing	Easting
D05032	1992046.845	576107.084	1992049.844	576118.896	-2.999	-11.812		
D05033	2021537.956	549128.952	2021541.081	549140.796	-3.125	-11.844		
D05034	1976433.224	536889.251	1976436.305	536900.944	-3.081	-11.693		
D05035	1982075.091	499823.067	1982078.285	499834.723	-3.194	-11.656		
D05036	1980468.498	471517.912	1980471.772	471529.511	-3.274	-11.599		
D05037	2009281.521	461218.422	2009284.867	461230.087	-3.346	-11.665		
D05038	1984457.967	388207.720	1984461.497	388219.205	-3.530	-11.485		
D05039	1967814.754	432186.159	1967818.119	432197.666	-3.365	-11.507		
D05040	1905162.527	418416.781	1905165.841	418428.072	-3.314	-11.291		
D05041	1924165.326	442518.519	1924168.600	442529.902	-3.275	-11.383		
D05042	1949534.863	476652.033	1949538.074	476663.546	-3.211	-11.513		
D05043	1951332.102	514711.540	1951335.204	514723.120	-3.102	-11.580		
D05044	1916163.623	557875.945	1916166.537	557887.491	-2.914	-11.546		
D05045	1936692.798	580807.362	1936695.676	580819.008	-2.878	-11.647		
D05046	1948450.851	616580.930	1948453.662	616592.696	-2.811	-11.766		
D05047	1949094.396	635071.677	1949097.150	635083.473	-2.754	-11.796		
D05048	1988061.618	677513.907	1988064.339	677525.886	-2.721	-11.979		
D05049	1987469.07	697968.886	1987471.736	697980.898	-2.666	-12.012		
D05050	1949097.106	682461.213	1949099.734	682473.091	-2.628	-11.878		
D05051	1980739.63	782788.958	1980742.052	782801.126	-2.422	-12.168		
D05052	1937702.654	749301.667	1937705.074	749313.659	-2.420	-11.992		
D05053	1933963.934	793091.309	1933966.222	793103.377	-2.289	-12.068		
D05054	1911560.658	727596.639	1911563.081	727608.501	-2.423	-11.862		
D05055	1918022.3	703660.053	1918024.799	703671.897	-2.499	-11.844		
D05056	1893752.614	689674.353	1893755.105	689686.083	-2.491	-11.730		
D05057	1921688.015	658927.524	1921690.651	658939.281	-2.636	-11.757		
D05058	1912247.892	617165.102	1912250.629	617176.751	-2.737	-11.649		
D05059	1914438.175	588678.190	1914440.996	588689.788	-2.821	-11.598		
D05060	1905714.973	500221.369	1905718.039	500232.782	-3.067	-11.413		
D05061	1877369.082	450082.281	1877372.259	450093.527	-3.177	-11.246		
D05062	1863700.675	512748.470	1863703.632	512759.766	-2.957	-11.296		

ตารางที่ ข.1 ( ต่อ ) แสดงค่าต่างของพิกัด UTM บนพื้นหลักฐานอินเดีย 1975 ที่ได้จากการแปลงค่าพิกัดโดยใช้ค่าตัวแปร 7 parameter (กรมที่ดิน) กับ 3 parameter ( โครกข่ายที่ปรับแก้ร่วมกัน ) ซึ่งใช้หมุดควบคุม 3 หมุด ในการ คำนวณปรับแก้

Station	7 Parameters		3 Parameters (NIMA)		Diff (1) - (3)		Diff (2) - (4)	
	(1) Northing	(2) Easting	(3) Northing	(4) Easting	Northing	Easting	Northing	Easting
D05063	1862233.274	579405.305	1862236.025	579416.725	-2.751		-11.420	
D05064	1880406.34	587336.210	1880409.102	587347.699	-2.762		-11.489	
D05065	1880061.898	640282.287	1880064.503	640293.879	-2.605		-11.592	
D05066	1863453.726	671099.150	1863456.205	671110.746	-2.479		-11.596	
D05068	1880381.502	752949.890	1880383.780	752961.714	-2.278		-11.824	
D05069	1913442.406	795336.987	1913444.645	795349.000	-2.239		-12.014	
D05070	1915942.044	839307.871	1915944.158	839319.994	-2.115		-12.123	
D05071	1971348.091	849350.860	1971350.314	849363.156	-2.223		-12.296	
D05072	1978727.307	879736.077	1978729.466	879748.465	-2.159		-12.388	
D05073	1996292.752	932166.369	1996294.824	932178.935	-2.072		-12.566	
D05074	2007341.744	966911.140	2007343.771	966923.828	-2.027		-12.688	
D05075	1988911.166	1025475.424	1988912.983	1025488.229	-1.817		-12.805	
D05076	1951119.955	1029232.232	1951121.649	1029244.955	-1.694		-12.723	
D05077	1948873.413	982613.000	1948875.225	982625.578	-1.812		-12.578	
D05078	1924683.259	1015933.258	1924684.910	1015945.876	-1.651		-12.618	
D05079	1959810.641	951525.631	1959812.567	951538.156	-1.926		-12.525	
D05080	1960584.758	915021.198	1960586.777	915033.629	-2.019		-12.431	
D05081	1927701.273	904176.640	1927703.240	904188.956	-1.967		-12.316	
D05082	1922119.108	926146.210	1922121.000	926158.569	-1.892		-12.359	
D05083	1869922.887	888329.071	1869924.750	888341.193	-1.863		-12.122	
D05084	1868098.743	805913.041	1868100.851	805924.972	-2.108		-11.931	
D05085	1873443.026	859711.857	1873444.970	859723.906	-1.944		-12.049	
D05086	1872578.744	952738.251	1872580.425	952750.551	-1.681		-12.300	
D05087	1891786.959	1012865.647	1891788.523	1012878.165	-1.564		-12.519	
D05088	1907975.455	1056241.590	1907976.948	1056254.283	-1.493		-12.693	
D05089	1956359.186	1085771.545	1956360.749	1085784.445	-1.563		-12.900	
D05090	1898957.958	1097218.211	1898959.309	1097230.953	-1.351		-12.742	
D05091	1869658.003	1090231.843	1869659.242	1090244.508	-1.239		-12.665	
D05092	1841287.491	1048292.012	1841288.786	1048304.474	-1.295		-12.462	
D05094	1851036.249	983551.143	1851037.768	983563.458	-1.519		-12.315	
D05095	1830735.764	956067.368	1830737.315	956079.562	-1.551		-12.194	

ตารางที่ ข.1 (ต่อ) แสดงค่าต่างของพิกัด UTM บนพื้นหลักฐานอินเดีย 1975 ที่ได้จากการแปลงค่าพิกัดโดยใช้ค่าตัวแปร 7 parameter (กรมที่ดิน) กับ 3 parameter (โครงข่ายที่ปรับแก้รวมกัน) ซึ่งใช้หมุดควบคุม 3 หมุด ในการคำนวณปรับแก้

Station	7 Parameters		3 Parameters (NIMA)		Diff (1) - (3)	
	(1) Northing	(2) Easting	(3) Northing	(4) Easting	Northing	Easting
D05096	1838736.747	933745.517	1838738.384	933757.706	-1.637	-12.189
D05097	1826235.61	866890.474	1826237.417	866902.431	-1.807	-11.958
D05098	1840018.436	835542.839	1840020.374	835554.756	-1.938	-11.917
D05099	1846106.456	791426.628	1846108.547	791438.453	-2.091	-11.825
D05100	1814458.28	840990.063	1814460.134	841001.923	-1.854	-11.860
D05101	1806445.545	806370.584	1806447.484	806382.339	-1.939	-11.755
D05102	1861068.31	741899.556	1861070.581	741911.296	-2.271	-11.740
D05103	1850420.03	715171.736	1850422.352	715183.388	-2.322	-11.653
D05104	1818569.192	641628.150	1818571.665	641639.559	-2.473	-11.409
D05105	1851632.765	617224.445	1851635.382	617235.906	-2.617	-11.461
D05106	1827849.479	591750.569	1827852.127	591761.913	-2.648	-11.344
D05107	1843774.749	529741.926	1843777.625	529753.205	-2.876	-11.279
D05108	1848459.124	456396.028	1848462.234	456407.185	-3.110	-11.157
D05109	1811412.073	467043.094	1811415.086	467054.121	-3.013	-11.027
D05110	1803106.563	548295.252	1803109.289	548306.451	-2.727	-11.199
D05111	1792568.908	577290.619	1792571.538	577301.835	-2.630	-11.216
D05112	1795284.022	620568.250	1795286.520	620579.557	-2.498	-11.307
D05113	1821114.854	666792.172	1821117.256	666803.626	-2.402	-11.454
D05114	1790352.814	699317.494	1790355.049	699328.906	-2.235	-11.412
D05115	1772158.641	485277.309	1772161.574	485288.292	-2.933	-10.983
D05116	1756062.397	549362.741	1756065.049	549373.800	-2.652	-11.059
D05117	1775484.622	590972.221	1775487.178	590983.414	-2.556	-11.193
D05118	1768092.712	623284.333	1768095.148	623295.561	-2.436	-11.228
D05119	1779544.348	644267.794	1779546.738	644279.084	-2.390	-11.291
D05120	1755059.968	680640.309	1755062.176	680651.606	-2.208	-11.297
D05121	1764175.295	708326.723	1764177.441	708338.107	-2.146	-11.384
D05122	1770457.419	721687.670	1770459.535	721699.098	-2.116	-11.428
D05123	1789697.649	729966.751	1789699.794	729978.280	-2.145	-11.529
D05124	1745793.899	789614.247	1745795.737	789625.763	-1.838	-11.516
D05125	1774974.43	807801.177	1774976.283	807812.860	-1.853	-11.683
D05126	1783431.626	848890.786	1783433.370	848902.574	-1.744	-11.788

ตารางที่ ข.1 ( ต่อ ) แสดงค่าต่างของพิกัด UTM บนพื้นหลักฐานอินเดียปี 1975 ที่ได้จากการแปลงค่าพิกัดโดยใช้ค่าตัวแปร 7 parameter ( กรมที่ดิน ) กับ 3 parameter ( โครงข่ายที่ปรับแก้ร่วมกัน ) ซึ่งใช้หมุดควบคุม 3 หมุด ในการ คำนวณปรับแก้

Station	7 Parameters		3 Parameters (NIMA)		Diff (1) - (3)	
	(1) Northing	(2) Easting	(3) Northing	(4) Easting	Northing	Easting
D05127	1785777.336	879666.185	1785778.989	879678.068	-1.653	-11.883
D05128	1825460.499	907186.629	1825462.186	907198.698	-1.687	-12.069
D05129	1793468.672	925849.871	1793470.226	925861.900	-1.555	-12.030
D05130	1778536.322	937641.408	1778537.782	937653.403	-1.460	-11.995
D05132	1823978.612	984178.041	1823980.050	984190.265	-1.438	-12.224
D05133	1806662.792	1040335.991	1806664.025	1040348.331	-1.233	-12.340
D05134	1839676.673	1106593.968	1839677.818	1106606.560	-1.145	-12.593
D05135	1795036.358	1135334.146	1795037.282	1135346.679	-0.924	-12.533
D05136	1801592.712	1093177.327	1801593.805	1093189.786	-1.093	-12.459
D05137	1760586.844	1104764.376	1760587.745	1104776.731	-0.901	-12.355
D05138	1784099.923	1033692.405	1784101.110	1033704.657	-1.187	-12.252
D05139	1783394.881	989228.855	1783396.201	989240.993	-1.320	-12.138
D05140	1777993.138	961968.711	1777994.534	961980.775	-1.396	-12.064
D05141	1733595.971	964231.165	1733597.213	964243.068	-1.242	-11.903
D05142	1764008.699	1007932.223	1764009.900	1007944.343	-1.201	-12.120
D05143	1751186.962	1016998.106	1751188.104	1017010.203	-1.142	-12.097
D05144	1752093.63	1055335.309	1752094.658	1055347.506	-1.028	-12.197
D05145	1723245.797	987111.838	1723246.942	987123.767	-1.145	-11.929
D05146	1704146.012	971405.674	1704147.144	971417.493	-1.132	-11.819
D05147	1751700.28	887694.568	1751701.802	887706.332	-1.522	-11.764
D05148	1700141.875	902070.096	1700143.221	902081.728	-1.346	-11.632
D05149	1700504.609	866991.418	1700506.072	867002.965	-1.463	-11.547
D05150	1748203.005	843075.654	1748204.672	843087.298	-1.667	-11.644
D05151	1746340.39	812049.438	1746342.154	812061.011	-1.764	-11.573
D05152	1718275.46	803881.036	1718277.180	803892.488	-1.720	-11.452
D05153	1708449.718	840116.833	1708451.292	840128.341	-1.574	-11.508
D05154	1682313.954	802946.010	1682315.585	802957.336	-1.631	-11.326
D05155	1697673.064	756498.940	1697674.902	756510.201	-1.839	-11.261
D05156	1745008.325	759345.679	1745010.261	759357.109	-1.936	-11.430
D05157	1745574.075	745755.316	1745576.059	745766.715	-1.984	-11.399
D05158	1732249.021	728053.691	1732251.029	728065.011	-2.008	-11.321

ตารางที่ ข.1 ( ต่อ ) แสดงค่าต่างของพิกัด UTM บนพื้นหลักฐานอินเดียปี 1975 ที่ได้จากการแปลงค่าพิกัดโดยใช้ค่าตัวแปร 7 parameter (กรมที่ดิน) กับ 3 parameter ( โครงข่ายที่ปรับแก้ร่วมกัน ) ซึ่งใช้หาค่าความคลาด 3 หมวด ในการ คำนวณปรับแก้

Station	7 Parameters		3 Parameters (NIMA)		Diff (1) - (3)		Diff (2) - (4)	
	(1) Northing	(2) Easting	(3) Northing	(4) Easting	Northing	Easting	Northing	Easting
D05159	1728098.466	718327.269	1728100.493	718338.555	-2.027	-11.286		
D05160	1708853.854	721675.119	1708855.829	721686.344	-1.975	-11.225		
D05161	1715546.788	687596.787	1715548.882	687607.981	-2.094	-11.194		
D05162	1724396.16	644186.639	1724398.437	644197.760	-2.277	-11.121		
D05163	1736099.743	624279.998	1736102.116	624291.127	-2.373	-11.129		
D05164	1741092.317	584833.065	1741094.834	584844.130	-2.517	-11.065		
D05165	1712394.18	553852.845	1712396.749	553863.757	-2.569	-10.912		
D05166	1675098.017	441670.447	1675100.916	441681.024	-2.899	-10.577		
D05167	1629923.627	460057.828	1629926.381	460068.264	-2.754	-10.437		
D05168	1597592.332	485372.396	1597594.933	485382.753	-2.601	-10.357		
D05169	1613732.576	512604.237	1613735.105	512614.710	-2.529	-10.473		
D05170	1667594.543	556199.244	1667597.017	556210.000	-2.474	-10.756		
D05171	1640314.795	574823.163	1640317.148	574833.856	-2.353	-10.693		
D05172	1613658.236	551287.278	1613660.621	551297.820	-2.385	-10.542		
D05173	1617793.585	595334.716	1617795.818	595345.364	-2.233	-10.648		
D05174	1641558.345	618334.810	1641560.546	618345.599	-2.202	-10.789		
D05175	1700721.633	609058.352	1700723.987	609069.340	-2.354	-10.988		
D05176	1688322.148	644085.007	1688324.359	644096.010	-2.211	-11.003		
D05177	1641783.341	653271.816	1641785.395	653282.672	-2.054	-10.856		
D05178	1666313.047	684974.885	1666315.051	684985.886	-2.004	-11.001		
D05179	1636511.548	678203.761	1636513.505	678214.644	-1.957	-10.883		
D05180	1679552.058	732786.490	1679553.925	732797.638	-1.867	-11.148		
D05181	1636151.644	772115.210	1636153.266	772126.302	-1.622	-11.093		
D05182	1630445.148	716357.472	1630446.955	716368.420	-1.808	-10.948		
D05183	1612110.716	763083.800	1612112.310	763094.788	-1.594	-10.988		
D05184	1617031.467	796592.121	1617032.959	796603.241	-1.492	-11.120		
D05185	1663925.841	838119.503	1663927.306	838130.855	-1.465	-11.352		
D05186	1628333.867	835593.879	1628335.238	835605.098	-1.371	-11.219		
D05187	1661435.568	883963.523	1661436.871	883974.986	-1.303	-11.463		
D05188	1664646.81	913816.759	1664648.022	913828.308	-1.212	-11.549		
D05189	1626378.617	881305.038	1626379.838	881316.381	-1.221	-11.343		

ตารางที่ ข.1 ( ต่อ ) แสดงค่าต่างของพิกัด UTM บนพื้นหลักฐานอินเดีย 1975 ที่ได้จากการแปลงค่าพิกัดโดยใช้ค่าตัวแปร 7 parameter ( กรมที่ดิน ) กับ 3 parameter ( โครกข่ายที่ปรับแก้ร่วมกัน ) ซึ่งใช้หาค่าความคลาด 3 หมวด ในการ คำนวณปรับแก้

Station	7 Parameters		3 Parameters (NIMA)		Diff (1) - (3)		Diff (2) - (4)	
	(1) Northing	(2) Easting	(3) Northing	(4) Easting	Northing	Easting	Northing	Easting
D05190	1610602.643	925257.372	1610603.666	925268.767	-1.023	-11.395		
D05191	1654816.852	941369.117	1654817.942	941380.704	-1.090	-11.587		
D05192	1659440.712	988754.514	1659441.655	988766.216	-0.943	-11.702		
D05193	1676795.509	1017935.731	1676796.405	1017947.529	-0.896	-11.798		
D05194	1714375.958	1051968.456	1714376.875	1051980.543	-0.917	-12.087		
D05195	1717685.342	1096272.401	1717686.133	1096284.693	-0.791	-12.292		
D05196	1739736.96	1131953.933	1739737.724	1131966.276	-0.764	-12.343		
D05197	1730639.291	1158997.025	1730639.941	1159009.381	-0.651	-12.356		
D05198	1694026.834	1168800.369	1694027.347	1168812.665	-0.513	-12.296		
D05199	1651174.332	1148780.872	1651174.755	1148792.997	-0.423	-12.125		
D05200	1632218.408	1101874.145	1632218.909	1101886.070	-0.501	-11.925		
D05201	1699547.505	1116593.738	1699548.215	1116605.858	-0.710	-12.120		
D05202	1718783.371	1141367.318	1718784.060	1141379.605	-0.689	-12.287		
D05203	1693773.562	1084155.748	1693774.319	1084167.838	-0.757	-12.090		
D05204	1686627.791	1066218.810	1686628.581	1066230.818	-0.790	-12.008		
D05205	1625687.204	1060191.438	1625687.813	1060203.219	-0.610	-11.781		
D05206	1621265.722	1032780.114	1621266.407	1032791.803	-0.685	-11.689		
D05207	1602176.555	978446.208	1602177.369	978457.700	-0.814	-11.492		
D05208	1516056.877	879042.339	1516057.788	879053.251	-0.911	-10.912		
D05209	1598977.82	854956.178	1598979.050	854967.332	-1.230	-11.154		
D05210	1589321.901	806281.208	1589323.271	806292.223	-1.370	-11.015		
D05211	1559740.552	824347.027	1559741.786	824357.966	-1.234	-10.939		
D05212	1507585.938	837446.707	1507586.983	837457.488	-1.045	-10.781		
D05213	1476006.209	782724.437	1476007.374	782734.966	-1.165	-10.529		
D05214	1546560.36	797639.781	1546561.659	797650.607	-1.299	-10.826		
D05215	1571255.058	753107.654	1571256.583	753118.464	-1.525	-10.810		
D05216	1547994.155	740606.115	1547995.669	740616.811	-1.514	-10.696		
D05217	1506449.623	755465.556	1506450.977	755476.135	-1.354	-10.579		
D05218	1515063.333	700659.748	1515064.921	700670.230	-1.588	-10.482		
D05219	1550492.539	701959.880	1550494.204	701970.494	-1.665	-10.614		
D05220	1566459.999	709295.655	1566461.675	709306.344	-1.676	-10.689		

ตารางที่ ข.1 ( ต่อ ) แสดงค่าต่างของพิกัด UTM บนพื้นหลักฐานอินเดีย 1975 ที่ได้จากการแปลงค่าพิกัดโดยใช้ค่าตัวแปร 7 parameter (กรมที่ดิน) กับ 3 parameter ( โครงข่ายที่ปรับแก้ร่วมกัน ) ซึ่งใช้หมุดควบคุม 3 หมุด ในการ คำนวณปรับแก้

Station	7 Parameters		3 Parameters (NIMA)		Diff (1) - (3)	
	(1) Northing	(2) Easting	(3) Northing	(4) Easting	Northing	Easting
D05221	1587732.136	682837.370	1587733.970	682848.082	-1.834	-10.712
D05222	1603820.23	677716.051	1603822.114	677726.808	-1.884	-10.757
D05223	1624347.641	692075.209	1624349.521	692086.079	-1.880	-10.870
D05224	1616711.145	656375.062	1616713.138	656385.831	-1.993	-10.769
D05225	1593079.958	708081.072	1593081.702	708091.860	-1.744	-10.788
D05226	1566101.233	640886.201	1566103.182	640896.748	-1.949	-10.547
D05227	1595583.613	623192.398	1595585.689	623203.012	-2.076	-10.614
D05228	1561816.673	575387.436	1561818.862	575397.826	-2.189	-10.390
D05229	1542259.711	608667.437	1542261.723	608677.821	-2.012	-10.385
D05230	1554760.478	536102.229	1554762.803	536112.519	-2.325	-10.290
D05231	1543326.235	520757.729	1543328.596	520767.937	-2.361	-10.208
D05232	1537090.95	554163.936	1537093.166	554174.183	-2.216	-10.247
D05233	1505211.309	544025.096	1505213.495	544035.180	-2.186	-10.084
D05234	1506189.129	590356.360	1506191.144	590366.559	-2.015	-10.199
D05235	1494823.812	585397.415	1494825.805	585407.530	-1.993	-10.115
D05236	1503363.257	639246.558	1503365.033	639256.813	-1.776	-10.255
D05237	1517633.611	688182.020	1517635.259	688192.486	-1.648	-10.466
D05238	1504572.818	684258.750	1504574.443	684269.130	-1.625	-10.380
D05239	1494786.957	697724.112	1494788.502	697734.506	-1.545	-10.394
D05240	1456631.633	709224.783	1456633.039	709235.051	-1.406	-10.268
D05241	1417889.552	707911.668	1417890.863	707921.776	-1.311	-10.108
D05242	1419584.373	766193.228	1419585.451	766203.494	-1.078	-10.266
D05243	1446742.662	761048.767	1446743.835	761059.128	-1.173	-10.361
D05244	1431726.538	804354.771	1431727.494	804365.188	-0.956	-10.417
D05245	1398680.98	788035.484	1398681.912	788045.724	-0.932	-10.240
D05246	1380789.879	837290.372	1380790.557	837300.678	-0.678	-10.306
D05247	1395539.711	830655.794	1395540.460	830666.141	-0.749	-10.347
D05248	1421101.401	844348.347	1421102.162	844358.848	-0.762	-10.501
D05249	1409688.148	861078.830	1409688.812	861089.326	-0.664	-10.496
D05250	1394924.56	841777.508	1394925.261	841787.883	-0.701	-10.375
D05251	1391408.572	885191.660	1391409.088	885202.146	-0.516	-10.486



ตารางที่ ข.1 ( ต่อ ) แสดงค่าต่างของพิกัด UTM บนพื้นหลักฐานอินเดีย 1975 ที่ได้จากการแปลงค่าพิกัดโดยใช้ค่าตัวแปร 7 parameter (กรมที่ดิน) กับ 3 parameter ( โครงข่ายที่ปรับแก้ร่วมกัน ) ซึ่งใช้หมุดควบคุม 3 หมุด ในการ คำนวณปรับแก้

Station	7 Parameters		3 Parameters (NIMA)		Diff (1) - (3)	
	(1) Northing	(2) Easting	(3) Northing	(4) Easting	Northing	Easting
D05252	1357166.152	882906.557	1357166.577	882916.896	-0.425	-10.340
D05253	1472318.64	560715.514	1472320.688	560725.490	-2.048	-9.976
D05254	1448846.058	601645.422	1448847.878	601655.352	-1.820	-9.930
D05255	1426934.26	569999.197	1426936.152	570008.944	-1.892	-9.747
D05256	1438030.593	615898.372	1438032.320	615908.232	-1.727	-9.860
D05257	1384905.111	559867.316	1384906.951	559876.843	-1.840	-9.527
D05258	1406372.08	598775.027	1406373.807	598784.728	-1.727	-9.701
D05259	1369726.535	599453.678	1369728.174	599463.218	-1.639	-9.541
D05260	1353999.316	595022.909	1354000.941	595032.374	-1.625	-9.465
D05261	1335336.519	593421.793	1335338.100	593431.135	-1.581	-9.342
D05262	1336785.916	577447.237	1336787.565	577456.550	-1.649	-9.313
D05263	1302565.763	584685.436	1302567.299	584694.592	-1.536	-9.156
D05264	1301460.107	575730.386	1301461.680	575739.519	-1.573	-9.133
D05265	1265531.781	551260.146	1265533.383	551269.060	-1.602	-8.914
D05266	1277372.803	570326.940	1277374.347	570335.949	-1.544	-9.009
D05267	1237287.179	562454.634	1237288.663	562463.443	-1.484	-8.809
D05268	1242907.108	550777.953	1242908.660	550786.759	-1.552	-8.806
D05269	1216187.952	550306.163	1216189.441	550314.830	-1.489	-8.667
D05270	1212848.549	535843.110	1212850.099	535851.726	-1.550	-8.616
D05271	1178201.669	522145.185	1178203.208	522153.595	-1.539	-8.410
D05272	1182248.392	514290.551	1182249.979	514298.964	-1.587	-8.413
D05273	1150505.743	476259.693	1150507.441	476267.866	-1.698	-8.173
D05274	1161332.849	511228.044	1161334.399	511236.341	-1.550	-8.297
D05275	1133589.797	521921.022	1133591.230	521929.197	-1.433	-8.175
D05276	1125129.604	468999.707	1125131.277	469007.732	-1.673	-8.025
D05277	1081582.97	475904.528	1081584.514	475912.341	-1.544	-7.813
D05278	1066700.436	516244.482	1066701.746	516252.310	-1.311	-7.828
D05279	1041363.281	504423.386	1041364.591	504431.049	-1.310	-7.663
D05280	1044527.474	444635.288	1044529.093	444642.833	-1.619	-7.546
D05281	995035.8456	419880.745	995037.488	419887.974	-1.642	-7.230
D05282	981660.2761	463856.395	981661.661	463863.645	-1.385	-7.251

ตารางที่ ข.1 ( ต่อ ) แสดงค่าต่างของพิกัด UTM บนพื้นหลักฐานอินเดียปี 1975 ที่ได้จากการแปลงค่าพิกัดโดยใช้ค่าตัวแปร  
7 parameter (กรรมาต์ดิน) กับ 3 parameter ( โครงข่ายที่ปรับแก้ร่วมกัน ) ซึ่งใช้หาค่าความคลาดเคลื่อน 3 ชนิด  
ในการ คำนวณปรับแก้

Station	7 Parameters		3 Parameters (NIMA)		Diff (1) - (3)		Diff (2) - (4)	
	(1) Northing	(2) Easting	(3) Northing	(4) Easting	Northing	Easting	Northing	Easting
D05283	997752.3463	495193.591	997753.605	495200.999	-1.259	-7.409		
D05284	1012405.381	554430.590	1012406.368	554438.210	-0.987	-7.620		
D05285	989024.2511	598949.612	989024.952	598957.208	-0.701	-7.596		
D05286	968277.8736	540138.798	968278.831	540146.148	-0.957	-7.350		
D05287	937193.5281	488977.096	937194.682	488984.159	-1.154	-7.063		
D05288	948464.3276	427936.191	948465.832	427943.185	-1.504	-6.994		
D05289	890661.7177	491252.723	890662.756	491259.538	-1.038	-6.815		
D05290	908261.3472	536063.610	908262.185	536070.621	-0.838	-7.011		
D05291	933985.9577	541974.520	933986.821	541981.684	-0.863	-7.164		
D05292	937051.4216	607158.635	937051.949	607165.970	-0.527	-7.335		
D05293	899701.2054	584982.568	899701.759	584989.645	-0.554	-7.077		
D05294	881811.5706	638556.081	881811.791	638563.186	-0.220	-7.105		
D05295	880350.3388	610369.827	880350.703	610376.853	-0.364	-7.026		
D05296	860542.1767	575982.448	860542.678	575989.286	-0.501	-6.838		
D05297	861448.4614	523086.282	861449.260	523093.002	-0.799	-6.720		
D05298	810168.2817	557188.862	810168.758	557195.368	-0.476	-6.506		
D05299	841598.7225	618566.742	841598.940	618573.575	-0.217	-6.833		
D05300	869302.746	641859.275	869302.913	641866.314	-0.167	-7.039		
D05301	826017.8283	659142.840	826017.783	659149.682	0.045	-6.842		
D05302	803478.7109	629679.104	803478.764	629685.749	-0.053	-6.645		
D05303	811958.2834	595461.295	811958.548	595467.917	-0.265	-6.622		
D05304	766771.0609	589265.015	766771.237	589271.340	-0.176	-6.325		
D05305	732225.7347	618371.155	732225.655	618377.331	0.080	-6.176		
D05306	755099.512	621774.214	755099.469	621780.523	0.043	-6.310		
D05307	785567.6533	680629.883	785567.362	680636.527	0.291	-6.644		
D05308	759307.406	707664.485	759306.868	707671.050	0.538	-6.565		
D05309	743935.4465	687576.129	743935.004	687582.557	0.443	-6.428		
D05310	722428.0113	656958.764	722427.680	656964.981	0.331	-6.217		
D05311	716344.5679	723975.803	716343.825	723982.140	0.743	-6.337		
D05312	744378.899	732097.108	744378.217	732103.606	0.682	-6.498		
D05313	716441.5945	750886.157	716440.713	750892.562	0.882	-6.405		

ตารางที่ ข.1 ( ต่อ ) แสดงค่าต่างของพิกัด UTM บนพื้นหลักฐานอินเดีย 1975 ที่ได้จากการแปลงค่าพิกัดโดยใช้ค่าตัวแปร 7 parameter (กรรมที่ดิน) กับ 3 parameter (โครงข่ายที่ปรับแก้ร่วมกัน) ซึ่งใช้หมุดควบคุม 3 หมุด ในการคำนวณปรับแก้

Station	7 Parameters		3 Parameters (NIMA)		Diff (1) - (3)	
	(1) Northing	(2) Easting	(3) Northing	(4) Easting	Northing	Easting
D05314	729448.2414	783245.166	729447.227	783251.714	1.014	-6.548
D05315	686748.1508	781079.548	686747.011	781085.875	1.140	-6.327
D05316	692642.8875	750377.042	692641.935	750383.313	0.952	-6.271
D05317	681160.0034	742307.563	681159.066	742313.754	0.937	-6.191
D05318	638004.1226	733346.548	638003.107	733352.453	1.016	-5.905
D05319	657295.2826	819775.052	657293.820	819781.335	1.463	-6.283
D05320	704388.1971	822619.346	704386.874	822625.892	1.323	-6.546
D05321	881965.8445	430245.975	881967.196	430252.611	-1.351	-6.636
D05322	860858.4544	426503.305	860859.783	426509.810	-1.329	-6.505
D05323	1818068.052	730077.492	1818070.281	730089.051	-2.229	-11.559
D05324	1755468.193	1167850.305	1755468.888	1167862.771	-0.695	-12.466
D05325	1635617.251	970460.807	1635618.191	970472.397	-0.940	-11.590
GPS3076	1844789.599	1083230.588	1844790.829	1083243.139	-1.230	-12.551
GPS3128	1716522.181	878921.629	1716523.642	878933.263	-1.461	-11.634
GPS3138	1835930.577	909592.493	1835932.292	909604.594	-1.715	-12.101
GPS3146	1703372.236	1054336.597	1703373.111	1054348.632	-0.875	-12.035
GPS3153	1756488.882	969777.354	1756490.184	969789.345	-1.302	-11.991
GPS3217	2027020.45	539544.728	2027023.609	539556.581	-3.159	-11.853
GPS3405	761838.6987	748370.908	761837.257	748377.993	1.442	-7.085
MIN					0.043	-5.905
MAX					-3.704	-12.900
MEAN					-1.747	-10.689
S.D.					1.013	1.823
R.M.S.					2.019	10.844

ตารางที่ ข.2 ค่า Residual ของการใช้สมการโพลีโนเมียล First Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05001	519060.761	2196230.801	519072.987	2196234.287	-0.463956	-0.260482	0.532078
D05002	585086.191	2199781.473	585098.525	2199784.815	-0.543306	-0.200489	0.579118
D05003	637792.095	2206123.919	637804.533	2206127.155	-0.604075	-0.151842	0.622866
D05004	557100.999	2173155.393	557113.227	2173158.756	-0.460956	-0.207274	0.505414
D05005	592801.234	2165156.454	592813.501	2165159.720	-0.480243	-0.170805	0.509714
D05006	499643.447	2151309.646	499655.539	2151313.109	-0.352581	-0.240986	0.427069
D05007	553836.996	2139796.979	553849.145	2139800.293	-0.386793	-0.188850	0.430433
D05008	635087.432	2157171.660	635099.743	2157174.822	-0.511743	-0.120194	0.525669
D05009	697715.068	2144861.637	697727.481	2144864.621	-0.519462	-0.068078	0.523904
D05010	390948.236	2133917.018	390960.138	2133920.722	-0.184078	-0.308840	0.359537
D05011	446256.477	2141160.416	446268.478	2141163.988	-0.260531	-0.279931	0.382410
D05012	387785.984	2081670.393	387797.748	2081674.037	-0.087269	-0.256970	0.271384
D05013	495010.552	2115639.228	495022.548	2115642.648	-0.281826	-0.215562	0.354814
D05014	497360.722	2083007.308	497372.640	2083010.668	-0.224435	-0.191784	0.295215
D05015	529733.601	2100197.702	529745.616	2100201.012	-0.286293	-0.177851	0.337038
D05016	609669.730	2141867.061	609681.974	2141870.247	-0.446177	-0.142170	0.468280
D05017	634622.837	2119810.083	634635.073	2119813.170	-0.423510	-0.109418	0.437416
D05018	690876.522	2114906.368	690888.855	2114909.309	-0.451748	-0.063095	0.456133
D05019	387221.310	2009944.231	387232.869	2009947.788	0.020251	-0.178246	0.179393
D05020	430494.074	2065335.990	430505.849	2065339.494	-0.116658	-0.221499	0.250342
D05021	503689.795	2052267.930	503701.648	2052271.226	-0.172613	-0.163633	0.237846
D05022	466556.546	2033846.528	466568.287	2033849.895	-0.108019	-0.168996	0.200568
D05023	557082.673	2061035.694	557094.634	2061038.865	-0.241688	-0.137442	0.278035
D05024	603971.593	2074424.613	603983.663	2074427.692	-0.312864	-0.109957	0.331624
D05025	651780.477	2084607.745	651792.662	2084610.721	-0.366535	-0.083026	0.375821
D05026	688772.859	2080620.425	688785.106	2080623.299	-0.383584	-0.056774	0.387762
D05027	705064.938	2044319.993	705077.128	2044322.752	-0.325592	-0.034600	0.327425
D05028	670317.757	2007292.334	670329.781	2007295.110	-0.240524	-0.042830	0.244308
D05029	625258.832	2049061.740	625270.879	2049064.716	-0.281314	-0.085271	0.293954
D05030	620737.349	2002803.810	620749.268	2002806.709	-0.196935	-0.068759	0.208593
D05031	580227.157	2037185.363	580239.102	2037188.432	-0.214533	-0.109317	0.240780
D05032	576107.084	1992046.845	576118.896	1992049.844	-0.141054	-0.087129	0.165795

ตารางที่ ข.2 ( ต่อ) ค่า Residual ของการใช้สมการพหุนาม First Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05033	549128.952	2021537.956	549140.796	2021541.081	-0.166687	-0.116756	0.203510
D05034	536889.251	1976433.224	536900.944	1976436.305	-0.090208	-0.094753	0.130827
D05035	499823.067	1982075.091	499834.723	1982078.285	-0.055142	-0.114108	0.126733
D05036	471517.912	1980468.498	471529.511	1980471.772	-0.031459	-0.121363	0.125374
D05037	461218.422	2009281.521	461230.087	2009284.867	-0.063587	-0.149780	0.162719
D05038	388207.720	1984457.967	388219.205	1984461.497	0.054207	-0.142544	0.152503
D05039	432186.159	1967814.754	432197.666	1967818.119	0.033848	-0.127267	0.131691
D05040	418416.781	1905162.527	418428.072	1905165.841	0.125407	-0.076195	0.146740
D05041	442518.519	1924165.326	442529.902	1924168.600	0.072230	-0.083089	0.110096
D05042	476652.033	1949534.863	476663.546	1949538.074	0.003318	-0.095601	0.095658
D05043	514711.540	1951332.102	514723.120	1951335.204	-0.036596	-0.086428	0.093857
D05044	557875.945	1916163.623	557887.491	1916166.537	-0.030497	-0.053498	0.061580
D05045	580807.362	1936692.798	580819.008	1936695.676	-0.079246	-0.063720	0.101686
D05046	616580.930	1948450.851	616592.696	1948453.662	-0.103402	-0.043164	0.112050
D05047	635071.677	1949094.396	635083.473	1949097.150	-0.124349	-0.042215	0.131319
D05048	677513.907	1988061.618	677525.886	1988064.339	-0.220869	-0.029774	0.222866
D05049	697968.886	1987469.070	697980.898	1987471.736	-0.238570	-0.017622	0.239220
D05050	682461.213	1949097.106	682473.091	1949099.734	-0.165778	-0.015853	0.166535
D05051	782788.958	1980739.630	782801.126	1980742.052	-0.274287	0.026813	0.275594
D05052	749301.667	1937702.654	749313.659	1937705.074	-0.176439	0.017670	0.177322
D05053	793091.309	1933963.934	793103.377	1933966.222	-0.198268	0.035197	0.201368
D05054	727596.639	1911560.658	727608.501	1911563.081	-0.136544	0.011946	0.137066
D05055	703660.053	1918022.300	703671.897	1918024.799	-0.120227	-0.004109	0.120297
D05056	689674.353	1893752.614	689686.083	1893755.105	-0.092555	-0.000387	0.092556
D05057	658927.524	1921688.015	658939.281	1921690.651	-0.106626	-0.019497	0.108394
D05058	617165.102	1912247.892	617176.751	1912250.629	-0.064925	-0.030722	0.071827
D05059	588678.190	1914438.175	588689.788	1914440.996	-0.051234	-0.043431	0.067165
D05060	500221.369	1905714.973	500232.782	1905718.039	0.031966	-0.062464	0.070169
D05061	450082.281	1877369.082	450093.527	1877372.259	0.118470	-0.046463	0.127255
D05062	512748.470	1863700.675	512759.766	1863703.632	0.064542	-0.033049	0.072511
D05063	579405.305	1862233.274	579416.725	1862236.025	0.021309	-0.021304	0.030132
D05064	587336.210	1880406.340	587347.699	1880409.102	-0.009156	-0.027253	0.028750

ตารางที่ ข.2 ( ต่อ) ค่า Residual ของการใช้สมการพหุนาม First Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05065	640282.287	1880061.898	640293.879	1880064.503	-0.042551	-0.013215	0.044555
D05066	671099.150	1863453.726	671110.746	1863456.205	-0.046784	-0.001338	0.046803
D05068	752949.890	1880381.502	752961.714	1880383.780	-0.105360	0.021292	0.107490
D05069	795336.987	1913442.406	795349.000	1913444.645	-0.170123	0.041352	0.175076
D05070	839307.871	1915942.044	839319.994	1915944.158	-0.185477	0.051890	0.192599
D05071	849350.860	1971348.091	849363.156	1971350.314	-0.278908	0.063763	0.286104
D05072	879736.077	1978727.307	879748.465	1978729.466	-0.298042	0.080222	0.308650
D05073	932166.369	1996292.752	932178.935	1996294.824	-0.332763	0.120768	0.354000
D05074	966911.140	2007341.744	966923.828	2007343.771	-0.349165	0.161672	0.384778
D05075	1025475.424	1988911.166	1025488.229	1988912.983	-0.304759	0.183021	0.355492
D05076	1029232.232	1951119.955	1029244.955	1951121.649	-0.232657	0.160373	0.282575
D05077	982613.000	1948873.413	982625.578	1948875.225	-0.246502	0.133729	0.280440
D05078	1015933.258	1924683.259	1015945.876	1924684.910	-0.188375	0.136365	0.232553
D05079	951525.631	1959810.641	951538.156	1959812.567	-0.265971	0.122228	0.292712
D05080	915021.198	1960584.758	915033.629	1960586.777	-0.268259	0.096049	0.284935
D05081	904176.640	1927701.273	904188.956	1927703.240	-0.212412	0.085991	0.229158
D05082	926146.210	1922119.108	926158.569	1922121.000	-0.202421	0.094668	0.223464
D05083	888329.071	1869922.887	888341.193	1869924.750	-0.114577	0.065997	0.132225
D05084	805913.041	1868098.743	805924.972	1868100.851	-0.083028	0.050271	0.097061
D05085	859711.857	1873443.026	859723.906	1873444.970	-0.128313	0.046764	0.136569
D05086	952738.251	1872578.744	952750.551	1872580.425	-0.115837	0.084885	0.143609
D05087	1012865.647	1891786.959	1012878.165	1891788.523	-0.137727	0.116342	0.180289
D05088	1056241.590	1907975.455	1056254.283	1907976.948	-0.145896	0.146992	0.207105
D05089	1085771.545	1956359.186	1085784.445	1956360.749	-0.225624	0.198923	0.300793
D05090	1097218.211	1898957.958	1097230.953	1898959.309	-0.164507	0.157805	0.227958
D05091	1090231.843	1869658.003	1090244.508	1869659.242	-0.096249	0.091782	0.132995
D05092	1048292.012	1841287.491	1048304.474	1841288.786	-0.066991	0.079203	0.103735
D05094	983551.143	1851036.249	983563.458	1851037.768	-0.087662	0.072275	0.113614
D05095	956067.368	1830735.764	956079.562	1830737.315	-0.049049	0.063326	0.080100
D05096	933745.517	1838736.747	933757.706	1838738.384	-0.030613	0.058867	0.066352
D05097	866890.474	1826235.610	866902.431	1826237.417	-0.034288	0.043113	0.055085
D05098	835542.839	1840018.436	835554.756	1840020.374	-0.052419	0.041128	0.066628

ตารางที่ ข.2 ( ต่อ) ค่า Residual ของการใช้สมการโพลีโนเมียล First Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05099	791426.628	1846106.456	791438.453	1846108.547	-0.055928	0.038064	0.067652
D05100	840990.063	1814458.280	841001.923	1814460.134	-0.012761	0.034346	0.036640
D05101	806370.584	1806445.545	806382.339	1806447.484	0.007148	0.026753	0.027691
D05102	741899.556	1861068.310	741911.296	1861070.581	-0.076827	0.023874	0.080451
D05103	715171.736	1850420.030	715183.388	1850422.352	-0.049041	0.013810	0.050949
D05104	641628.150	1818569.192	641639.559	1818571.665	0.037615	0.002748	0.037716
D05105	617224.445	1851632.765	617235.906	1851635.382	0.009786	-0.008946	0.013259
D05106	591750.569	1827849.479	591761.913	1827852.127	0.062268	-0.004297	0.062416
D05107	529741.926	1843774.749	529753.205	1843777.625	0.089696	-0.012868	0.090615
D05108	456396.028	1848459.124	456407.185	1848462.234	0.138399	-0.025634	0.140753
D05109	467043.094	1811412.073	467054.121	1811415.086	0.141329	-0.001867	0.141342
D05110	548295.252	1803106.563	548306.451	1803109.289	0.137740	-0.008222	0.137985
D05111	577290.619	1792568.908	577301.835	1792571.538	0.124925	0.013619	0.125665
D05112	620568.250	1795284.022	620579.557	1795286.520	0.091441	0.014425	0.092572
D05113	666792.172	1821114.854	666803.626	1821117.256	0.006040	0.006710	0.009028
D05114	699317.494	1790352.814	699328.906	1790355.049	0.012737	0.016141	0.020561
D05115	485277.309	1772158.641	485288.292	1772161.574	0.220069	0.068449	0.230468
D05116	549362.741	1756062.397	549373.800	1756065.049	0.198973	0.031097	0.201388
D05117	590972.221	1775484.622	590983.414	1775487.178	0.140382	0.023515	0.142337
D05118	623284.333	1768092.712	623295.561	1768095.148	0.123286	0.024672	0.125731
D05119	644267.794	1779544.348	644279.084	1779546.738	0.080977	0.019390	0.083266
D05120	680640.309	1755059.968	680651.606	1755062.176	0.099431	0.011527	0.100097
D05121	708326.723	1764175.295	708338.107	1764177.441	0.074797	0.017254	0.076761
D05122	721687.670	1770457.419	721699.098	1770459.535	0.056757	0.015538	0.058846
D05123	729966.751	1789697.649	729978.280	1789699.794	0.052758	0.026216	0.058912
D05124	789614.247	1745793.899	789625.763	1745795.737	0.074811	0.013548	0.076028
D05125	807801.177	1774974.430	807812.860	1774976.283	0.067901	0.018863	0.070472
D05126	848890.786	1783431.626	848902.574	1783433.370	0.029214	0.022222	0.036705
D05127	879666.185	1785777.336	879678.068	1785778.989	0.033893	0.024693	0.041934
D05128	907186.629	1825460.499	907198.698	1825462.186	-0.023871	0.054485	0.059485
D05129	925849.871	1793468.672	925861.900	1793470.226	0.026261	0.056219	0.062050
D05130	937641.408	1778536.322	937653.403	1778537.782	0.026308	0.035011	0.043793

ตารางที่ ข.2 ( ต่อ) ค่า Residual ของการใช้สมการโพลีโนเมียล First Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05132	984178.041	1823978.612	984190.265	1823980.050	-0.062955	0.056492	0.084586
D05133	1040335.991	1806662.792	1040348.331	1806664.025	-0.018117	0.072500	0.074729
D05134	1106593.968	1839676.673	1106606.560	1839677.818	-0.081843	0.120421	0.145600
D05135	1135334.146	1795036.358	1135346.679	1795037.282	-0.022104	0.096099	0.098608
D05136	1093177.327	1801592.712	1093189.786	1801593.805	-0.014746	0.114240	0.115188
D05137	1104764.376	1760586.844	1104776.731	1760587.745	0.028905	0.055277	0.062379
D05138	1033692.405	1784099.923	1033704.657	1784101.110	0.009032	0.057842	0.058543
D05139	989228.855	1783394.881	989240.993	1783396.201	0.013887	0.049528	0.051438
D05140	961968.711	1777993.138	961980.775	1777994.534	0.034307	0.050497	0.061049
D05141	964231.165	1733595.971	964243.068	1733597.213	0.059949	0.007475	0.060413
D05142	1007932.223	1764008.699	1007944.343	1764009.900	0.031248	0.035946	0.047630
D05143	1016998.106	1751186.962	1017010.203	1751188.104	0.040241	0.036044	0.054023
D05144	1055335.309	1752093.630	1055347.506	1752094.658	0.036466	0.043190	0.056526
D05145	987111.838	1723245.797	987123.767	1723246.942	0.071245	0.008218	0.071718
D05146	971405.674	1704146.012	971417.493	1704147.144	0.084978	-0.010667	0.085645
D05147	887694.568	1751700.280	887706.332	1751701.802	0.041764	-0.000896	0.041773
D05148	902070.096	1700141.875	902081.728	1700143.221	0.095915	-0.010245	0.096461
D05149	866991.418	1700504.609	867002.965	1700506.072	0.100698	-0.006879	0.100933
D05150	843075.654	1748203.005	843087.298	1748204.672	0.053132	0.008812	0.053858
D05151	812049.438	1746340.390	812061.011	1746342.154	0.071012	0.010406	0.071771
D05152	803881.036	1718275.460	803892.488	1718277.180	0.092993	0.005697	0.093167
D05153	840116.833	1708449.718	840128.341	1708451.292	0.097233	-0.000845	0.097237
D05154	802946.010	1682313.954	802957.336	1682315.585	0.125380	-0.002310	0.125401
D05155	756498.940	1697673.064	756510.201	1697674.902	0.114736	0.019476	0.116377
D05156	759345.679	1745008.325	759357.109	1745010.261	0.071047	0.016062	0.072840
D05157	745755.316	1745574.075	745766.715	1745576.059	0.072987	0.019045	0.075431
D05158	728053.691	1732249.021	728065.011	1732251.029	0.097874	0.017254	0.099383
D05159	718327.269	1728098.466	718338.555	1728100.493	0.107204	0.014677	0.108204
D05160	721675.119	1708853.854	721686.344	1708855.829	0.120942	0.018393	0.122332
D05161	687596.787	1715546.788	687607.981	1715548.882	0.149668	0.012189	0.150163
D05162	644186.639	1724396.160	644197.760	1724398.437	0.151346	0.034945	0.155327
D05163	624279.998	1736099.743	624291.127	1736102.116	0.160435	0.039603	0.165250



ตารางที่ ข.2 (ต่อ) ค่า Residual ของการใช้สมการพหุนาม First Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05164	584833.065	1741092.317	584844.130	1741094.834	0.177516	0.045110	0.183158
D05165	553852.845	1712394.180	553863.757	1712396.749	0.229652	0.064534	0.238547
D05166	441670.447	1675098.017	441681.024	1675100.916	0.348551	0.120958	0.368943
D05167	460057.828	1629923.627	460068.264	1629926.381	0.355569	0.140597	0.382357
D05168	485372.396	1597592.332	485382.753	1597594.933	0.350850	0.144509	0.379446
D05169	512604.237	1613732.576	512614.710	1613735.105	0.325936	0.122365	0.348148
D05170	556199.244	1667594.543	556210.000	1667597.017	0.261821	0.081722	0.274278
D05171	574823.163	1640314.795	574833.856	1640317.148	0.268620	0.084323	0.281544
D05172	551287.278	1613658.236	551297.820	1613660.621	0.294515	0.102914	0.311978
D05173	595334.716	1617793.585	595345.364	1617795.818	0.267868	0.082878	0.280396
D05174	618334.810	1641558.345	618345.599	1641560.546	0.245909	0.069319	0.255492
D05175	609058.352	1700721.633	609069.340	1700723.987	0.212499	0.054298	0.219326
D05176	644085.007	1688322.148	644096.010	1688324.359	0.190050	0.052880	0.197269
D05177	653271.816	1641783.341	653282.672	1641785.395	0.220946	0.034124	0.223566
D05178	684974.885	1666313.047	684985.886	1666315.051	0.177005	0.028760	0.179326
D05179	678203.761	1636511.548	678214.644	1636513.505	0.205877	0.029600	0.207994
D05180	732786.490	1679552.058	732797.638	1679553.925	0.142075	0.014562	0.142819
D05181	772115.210	1636151.644	772126.302	1636153.266	0.171862	-0.002612	0.171882
D05182	716357.472	1630445.148	716368.420	1630446.955	0.197820	0.016443	0.198502
D05183	763083.800	1612110.716	763094.788	1612112.310	0.195639	-0.003495	0.195671
D05184	796592.121	1617031.467	796603.241	1617032.959	0.219033	-0.009251	0.219228
D05185	838119.503	1663925.841	838130.855	1663927.306	0.139519	-0.012267	0.140057
D05186	835593.879	1628333.867	835605.098	1628335.238	0.167446	-0.031252	0.170337
D05187	883963.523	1661435.568	883974.986	1661436.871	0.141925	-0.021051	0.143478
D05188	913816.759	1664646.810	913828.308	1664648.022	0.136252	-0.023567	0.138275
D05189	881305.038	1626378.617	881316.381	1626379.838	0.180878	-0.029712	0.183302
D05190	925257.372	1610602.643	925268.767	1610603.666	0.186826	-0.049545	0.193284
D05191	941369.117	1654816.852	941380.704	1654817.942	0.145125	-0.034018	0.149059
D05192	988754.514	1659440.712	988766.216	1659441.655	0.116666	-0.039463	0.123160
D05193	1017935.731	1676795.509	1017947.529	1676796.405	0.061408	-0.033177	0.069797
D05194	1051968.456	1714375.958	1051980.543	1714376.875	0.098803	0.009466	0.099255
D05195	1096272.401	1717685.342	1096284.693	1717686.133	0.174069	0.018184	0.175016

ตารางที่ ข.2 ( ต่อ) ค่า Residual ของการใช้สมการโพลีโนเมียล First Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05196	1131953.933	1739736.960	1131966.276	1739737.724	0.036513	0.054400	0.065517
D05197	1158997.025	1730639.291	1159009.381	1730639.941	0.018537	0.048600	0.052015
D05198	1168800.369	1694026.834	1168812.665	1694027.347	0.091781	0.028640	0.096145
D05199	1148780.872	1651174.332	1148792.997	1651174.755	0.158754	-0.025632	0.160809
D05200	1101874.145	1632218.408	1101886.070	1632218.909	0.163119	-0.054170	0.171879
D05201	1116593.738	1699547.505	1116605.858	1699548.215	0.027803	0.044888	0.052801
D05202	1141367.318	1718783.371	1141379.605	1718784.060	0.046865	0.058610	0.075043
D05203	1084155.748	1693773.562	1084167.838	1693774.319	0.107321	0.001079	0.107327
D05204	1066218.810	1686627.791	1066230.818	1686628.581	0.103024	-0.006901	0.103255
D05205	1060191.438	1625687.204	1060203.219	1625687.813	0.155998	-0.064935	0.168973
D05206	1032780.114	1621265.722	1032791.803	1621266.407	0.154560	-0.066741	0.168355
D05207	978446.208	1602176.555	978457.700	1602177.369	0.181846	-0.067849	0.194091
D05208	879042.339	1516056.877	879053.251	1516057.788	0.234196	-0.089296	0.250642
D05209	854956.178	1598977.820	854967.332	1598979.050	0.179326	-0.041427	0.184049
D05210	806281.208	1589321.901	806292.223	1589323.271	0.208966	-0.035374	0.211939
D05211	824347.027	1559740.552	824357.966	1559741.786	0.214200	-0.044192	0.218711
D05212	837446.707	1507585.938	837457.488	1507586.983	0.248260	-0.069250	0.257737
D05213	782724.437	1476006.209	782734.966	1476007.374	0.275724	-0.051431	0.280480
D05214	797639.781	1546560.360	797650.607	1546561.659	0.227912	-0.034276	0.230475
D05215	753107.654	1571255.058	753118.464	1571256.583	0.220796	-0.009139	0.220985
D05216	740606.115	1547994.155	740616.811	1547995.669	0.240228	-0.006002	0.240303
D05217	755465.556	1506449.623	755476.135	1506450.977	0.264693	-0.021185	0.265539
D05218	700659.748	1515063.333	700670.230	1515064.921	0.273071	0.016481	0.273567
D05219	701959.880	1550492.539	701970.494	1550494.204	0.248041	0.014906	0.248489
D05220	709295.655	1566459.999	709306.344	1566461.675	0.234691	0.012195	0.235008
D05221	682837.370	1587732.136	682848.082	1587733.970	0.234348	0.035438	0.237012
D05222	677716.051	1603820.230	677726.808	1603822.114	0.222917	0.031393	0.225117
D05223	692075.209	1624347.641	692086.079	1624349.521	0.209502	0.025612	0.211061
D05224	656375.062	1616711.145	656385.831	1616713.138	0.234593	0.041665	0.238264
D05225	708081.072	1593079.958	708091.860	1593081.702	0.221414	0.014111	0.221863
D05226	640886.201	1566101.233	640896.748	1566103.182	0.272408	0.066080	0.280308
D05227	623192.398	1595583.613	623203.012	1595585.689	0.257634	0.067325	0.266285

ตารางที่ ข.2 ( ต่อ) ค่า Residual ของการใช้สมการโพลีโนเมียล First Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters )

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05228	575387.436	1561816.673	575397.826	1561818.862	0.304568	0.105494	0.322321
D05229	608667.437	1542259.711	608677.821	1542261.723	0.296708	0.081178	0.307612
D05230	536102.229	1554760.478	536112.519	1554762.803	0.337480	0.131665	0.362254
D05231	520757.729	1543326.235	520767.937	1543328.596	0.345028	0.145037	0.374272
D05232	554163.936	1537090.950	554174.183	1537093.166	0.324067	0.122010	0.346274
D05233	544025.096	1505211.309	544035.180	1505213.495	0.325722	0.133876	0.352162
D05234	590356.360	1506189.129	590366.559	1506191.144	0.315820	0.109558	0.334283
D05235	585397.415	1494823.812	585407.530	1494825.805	0.294022	0.098161	0.309975
D05236	639246.558	1503363.257	639256.813	1503365.033	0.256749	0.034352	0.259037
D05237	688182.020	1517633.611	688192.486	1517635.259	0.278420	0.030359	0.280070
D05238	684258.750	1504572.818	684269.130	1504574.443	0.259278	0.025252	0.260504
D05239	697724.112	1494786.957	697734.506	1494788.502	0.280647	0.011404	0.280879
D05240	709224.783	1456631.633	709235.051	1456633.039	0.290161	-0.001494	0.290165
D05241	707911.668	1417889.552	707921.776	1417890.863	0.301591	-0.010222	0.301764
D05242	766193.228	1419584.373	766203.494	1419585.451	0.300457	-0.059792	0.306349
D05243	761048.767	1446742.662	761059.128	1446743.835	0.291080	-0.044769	0.294502
D05244	804354.771	1431726.538	804365.188	1431727.494	0.299416	-0.087455	0.311927
D05245	788035.484	1398680.980	788045.724	1398681.912	0.308223	-0.086737	0.320195
D05246	837290.372	1380789.879	837300.678	1380790.557	0.323535	-0.140581	0.352757
D05247	830655.794	1395539.711	830666.141	1395540.460	0.317849	-0.125365	0.341679
D05248	844348.347	1421101.401	844358.848	1421102.162	0.325337	-0.129048	0.349997
D05249	861078.830	1409688.148	861089.326	1409688.812	0.326261	-0.145596	0.357273
D05250	841777.508	1394924.560	841787.883	1394925.261	0.319552	-0.136169	0.347355
D05251	885191.660	1391408.572	885202.146	1391409.088	0.332735	-0.173370	0.375193
D05252	882906.557	1357166.152	882916.896	1357166.577	0.340183	-0.191733	0.390495
D05253	560715.514	1472318.640	560725.490	1472320.688	0.316899	0.126371	0.341166
D05254	601645.422	1448846.058	601655.352	1448847.878	0.266096	0.084797	0.279281
D05255	569999.197	1426934.260	570008.944	1426936.152	0.260536	0.106229	0.281361
D05256	615898.372	1438030.593	615908.232	1438032.320	0.205880	0.062887	0.215270
D05257	559867.316	1384905.111	559876.843	1384906.951	0.249188	0.119825	0.276501
D05258	598775.027	1406372.080	598784.728	1406373.807	0.228766	0.081779	0.242944
D05259	599453.678	1369726.535	599463.218	1369728.174	0.224916	0.081559	0.239247

ตารางที่ ข.2 (ต่อ) ค่า Residual ของการใช้สมการพหุนาม First Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05260	595022.909	1353999.316	595032.374	1354000.941	0.229659	0.090048	0.246682
D05261	593421.793	1335336.519	593431.135	1335338.100	0.191762	0.084493	0.209552
D05262	577447.237	1336785.916	577456.550	1336787.565	0.198080	0.097745	0.220884
D05263	584685.436	1302565.763	584694.592	1302567.299	0.170630	0.087950	0.191962
D05264	575730.386	1301460.107	575739.519	1301461.680	0.175746	0.098740	0.201584
D05265	551260.146	1265531.781	551269.060	1265533.383	0.176282	0.132984	0.220817
D05266	570326.940	1277372.803	570335.949	1277374.347	0.170276	0.108630	0.201976
D05267	562454.634	1237287.179	562463.443	1237288.663	0.164615	0.116951	0.201930
D05268	550777.953	1242907.108	550786.759	1242908.660	0.167653	0.134280	0.214799
D05269	550306.163	1216187.952	550314.830	1216189.441	0.145753	0.132174	0.196759
D05270	535843.110	1212848.549	535851.726	1212850.099	0.146901	0.154472	0.213170
D05271	522145.185	1178201.669	522153.595	1178203.208	0.126826	0.180358	0.220486
D05272	514290.551	1182248.392	514298.964	1182249.979	0.132733	0.193651	0.234774
D05273	476259.693	1150505.743	476267.866	1150507.441	0.129433	0.256518	0.287323
D05274	511228.044	1161332.849	511236.341	1161334.399	0.115412	0.195659	0.227162
D05275	521921.022	1133589.797	521929.197	1133591.230	0.085875	0.177842	0.197490
D05276	468999.707	1125129.604	469007.732	1125131.277	0.110388	0.267449	0.289334
D05277	475904.528	1081582.970	475912.341	1081584.514	0.069251	0.262366	0.271352
D05278	516244.482	1066700.436	516252.310	1066701.746	0.043733	0.192832	0.197729
D05279	504423.386	1041363.281	504431.049	1041364.591	0.019397	0.214007	0.214884
D05280	444635.288	1044527.474	444642.833	1044529.093	0.043383	0.323382	0.326279
D05281	419880.745	995035.846	419887.974	995037.488	0.006478	0.382793	0.382848
D05282	463856.395	981660.276	463863.645	981661.661	-0.029043	0.297928	0.299341
D05283	495193.591	997752.346	495200.999	997753.605	-0.022441	0.234897	0.235967
D05284	554430.590	1012405.381	554438.210	1012406.368	-0.028258	0.119432	0.122729
D05285	598949.612	989024.251	598957.208	989024.952	-0.066804	0.031085	0.073682
D05286	540138.798	968277.874	540146.148	968278.831	-0.069672	0.146954	0.162633
D05287	488977.096	937193.528	488984.159	937194.682	-0.088629	0.251563	0.266719
D05288	427936.191	948464.328	427943.185	948465.832	-0.047537	0.379476	0.382441
D05289	491252.723	890661.718	491259.538	890662.756	-0.140764	0.251969	0.288623
D05290	536063.610	908261.347	536070.621	908262.185	-0.137789	0.154438	0.206971
D05291	541974.520	933985.958	541981.684	933986.821	-0.111741	0.138855	0.178233

ตารางที่ ข.2 ( ต่อ) ค่า Residual ของการใช้สมการพหุนาม First Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05292	607158.635	937051.422	607165.970	937051.949	-0.123795	0.005378	0.123912
D05293	584982.568	899701.205	584989.645	899701.759	-0.162068	0.047519	0.168890
D05294	638556.081	881811.571	638563.186	881811.791	-0.196009	-0.071642	0.208692
D05295	610369.827	880350.339	610376.853	880350.703	-0.195266	-0.015055	0.195846
D05296	575982.448	860542.177	575989.286	860542.678	-0.207810	0.057749	0.215685
D05297	523086.282	861448.461	523093.002	861449.260	-0.191982	0.182858	0.265131
D05298	557188.862	810168.282	557195.368	810168.758	-0.272412	0.089987	0.286890
D05299	618566.742	841598.723	618573.575	841598.940	-0.241562	-0.044883	0.245696
D05300	641859.275	869302.746	641866.314	869302.913	-0.216365	-0.085204	0.232537
D05301	659142.840	826017.828	659149.682	826017.783	-0.270666	-0.140827	0.305111
D05302	629679.104	803478.711	629685.749	803478.764	-0.293189	-0.084514	0.305127
D05303	595461.295	811958.283	595467.917	811958.548	-0.263848	-0.002839	0.263864
D05304	589265.015	766771.061	589271.340	766771.237	-0.348750	-0.005713	0.348797
D05305	618371.155	732225.735	618377.331	732225.655	-0.423741	-0.087238	0.432628
D05306	621774.214	755099.512	621780.523	755099.469	-0.398799	-0.093025	0.409505
D05307	680629.883	785567.653	680636.527	785567.362	-0.349207	-0.223258	0.414475
D05308	707664.485	759307.406	707671.050	759306.868	-0.384733	-0.321696	0.501505
D05309	687576.129	743935.447	687582.557	743935.004	-0.402754	-0.254879	0.476628
D05310	656958.764	722428.011	656964.981	722427.680	-0.440747	-0.191884	0.480705
D05311	723975.803	716344.568	723982.140	716343.825	-0.468898	-0.373798	0.599659
D05312	732097.108	744378.899	732103.606	744378.217	-0.450624	-0.352269	0.571975
D05313	750886.157	716441.595	750892.562	716440.713	-0.471402	-0.426101	0.635439
D05314	783245.166	729448.241	783251.714	729447.227	-0.469080	-0.485340	0.674975
D05315	781079.548	686748.151	781085.875	686747.011	-0.499266	-0.517964	0.719412
D05316	750377.042	692642.888	750383.313	692641.935	-0.500870	-0.443149	0.668769
D05317	742307.563	681160.003	742313.754	681159.066	-0.510057	-0.427173	0.665308
D05318	733346.548	638004.123	733352.453	638003.107	-0.585568	-0.433381	0.728498
D05319	819775.052	657295.283	819781.335	657293.820	-0.516315	-0.647552	0.828194
D05320	822619.346	704388.197	822625.892	704386.874	-0.464947	-0.608907	0.766122
D05321	430245.975	881965.845	430252.611	881967.196	-0.123173	0.389330	0.408349
D05322	426503.305	860858.454	426509.810	860859.783	-0.152891	0.403699	0.431681
D05323	730077.492	1818068.052	730089.051	1818070.281	-0.040562	0.044304	0.060068

ตารางที่ ข.2 (ต่อ) ค่า Residual ของการใช้สมการโพลีโนเมียล First Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05324	1167850.305	1755468.193	1167862.771	1755468.888	-0.002194	0.064070	0.064107
D05325	970460.807	1635617.251	970472.397	1635618.191	0.155623	-0.045635	0.162176
GPS3076	1083230.588	1844789.599	1083243.139	1844790.829	-0.084170	0.118359	0.145236
GPS3128	878921.629	1716522.181	878933.263	1716523.642	0.087166	-0.007934	0.087526
GPS3138	909592.493	1835930.577	909604.594	1835932.292	-0.043542	0.065764	0.078872
GPS3146	1054336.597	1703372.236	1054348.632	1703373.111	0.088354	0.000783	0.088358
GPS3153	969777.354	1756488.882	969789.345	1756490.184	0.034227	0.031834	0.046743
GPS3217	539544.728	2027020.450	539556.581	2027023.609	-0.156502	-0.126377	0.201157
MIN					-0.002194	-0.000387	0.009028
MAX					-0.604070	-0.647550	0.828194
MEAN					0.000000	0.000000	0.220746
S.D.					0.223973	0.140029	0.144549
R.M.S.					0.223973	0.140029	0.263862

ตารางที่ ข.3 ค่า Residual ของการใช้สมการโพลีโนเมียล Second Degree ในการหาค่าตัวแปร ระหว่างค่าพิกัด UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05001	519060.761	2196230.801	519072.987	2196234.287	0.006304	-0.002006	0.006615
D05002	585086.191	2199781.473	585098.525	2199784.815	-0.001765	0.000107	0.001768
D05003	637792.095	2206123.919	637804.533	2206127.155	-0.001607	0.001832	0.002437
D05004	557100.999	2173155.393	557113.227	2173158.756	-0.002877	0.000062	0.002878
D05005	592801.234	2165156.454	592813.501	2165159.720	-0.006645	0.000347	0.006654
D05006	499643.447	2151309.646	499655.539	2151313.109	0.005174	-0.003556	0.006279
D05007	553836.996	2139796.979	553849.145	2139800.293	-0.000405	-0.002464	0.002497
D05008	635087.432	2157171.660	635099.743	2157174.822	-0.019189	0.009684	0.021494
D05009	697715.068	2144861.637	697727.481	2144864.621	-0.004981	0.001523	0.005209
D05010	390948.236	2133917.018	390960.138	2133920.722	0.024759	-0.009429	0.026493
D05011	446256.477	2141160.416	446268.478	2141163.988	0.022485	-0.011628	0.025314
D05012	387785.984	2081670.393	387797.748	2081674.037	0.025097	-0.011091	0.027438
D05013	495010.552	2115639.228	495022.548	2115642.648	0.002051	-0.004257	0.004726
D05014	497360.722	2083007.308	497372.640	2083010.668	0.001596	-0.008280	0.008432
D05015	529733.601	2100197.702	529745.616	2100201.012	0.001278	-0.002173	0.002521
D05016	609669.730	2141867.061	609681.974	2141870.247	-0.006693	0.000829	0.006744
D05017	634622.837	2119810.083	634635.073	2119813.170	-0.008687	0.001821	0.008876
D05018	690876.522	2114906.368	690888.855	2114909.309	-0.004871	0.001374	0.005061
D05019	387221.310	2009944.231	387232.869	2009947.788	0.017619	-0.005262	0.018387
D05020	430494.074	2065335.990	430505.849	2065339.494	0.013046	-0.014839	0.019758
D05021	503689.795	2052267.930	503701.648	2052271.226	0.005430	-0.007515	0.009271
D05022	466556.546	2033846.528	466568.287	2033849.895	0.004923	-0.008335	0.009681
D05023	557082.673	2061035.694	557094.634	2061038.865	-0.001571	-0.005827	0.006035
D05024	603971.593	2074424.613	603983.663	2074427.692	-0.010084	-0.000001	0.010084
D05025	651780.477	2084607.745	651792.662	2084610.721	-0.008017	-0.000893	0.008067
D05026	688772.859	2080620.425	688785.106	2080623.299	-0.006579	-0.002706	0.007114
D05027	705064.938	2044319.993	705077.128	2044322.752	-0.006765	-0.002871	0.007349
D05028	670317.757	2007292.334	670329.781	2007295.110	-0.009833	-0.001626	0.009966
D05029	625258.832	2049061.740	625270.879	2049064.716	-0.008570	-0.001509	0.008701
D05030	620737.349	2002803.810	620749.268	2002806.709	-0.007443	-0.003466	0.008210
D05031	580227.157	2037185.363	580239.102	2037188.432	0.002719	-0.005344	0.005996
D05032	576107.084	1992046.845	576118.896	1992049.844	-0.001878	-0.005922	0.006212

ตารางที่ ข.3 ( ต่อ ) ค่า Residual ของการใช้สมการโพลีโนเมียล Second Degree ในการหาค่าตัวแปร ระหว่างค่าพิกัด  
UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters )

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05033	549128.952	2021537.956	549140.796	2021541.081	-0.001011	-0.005596	0.005687
D05034	536889.251	1976433.224	536900.944	1976436.305	-0.005914	-0.006155	0.008536
D05035	499823.067	1982075.091	499834.723	1982078.285	0.006908	-0.007518	0.010210
D05036	471517.912	1980468.498	471529.511	1980471.772	0.003436	-0.005508	0.006491
D05037	461218.422	2009281.521	461230.087	2009284.867	0.005394	-0.006931	0.008783
D05038	388207.720	1984457.967	388219.205	1984461.497	0.015582	0.005033	0.016374
D05039	432186.159	1967814.754	432197.666	1967818.119	0.014581	-0.008659	0.016958
D05040	418416.781	1905162.527	418428.072	1905165.841	0.011814	-0.007724	0.014115
D05041	442518.519	1924165.326	442529.902	1924168.600	0.003840	-0.003344	0.005092
D05042	476652.033	1949534.863	476663.546	1949538.074	-0.001435	-0.004838	0.005046
D05043	514711.540	1951332.102	514723.120	1951335.204	-0.006996	-0.005956	0.009188
D05044	557875.945	1916163.623	557887.491	1916166.537	-0.016497	-0.006171	0.017614
D05045	580807.362	1936692.798	580819.008	1936695.676	-0.020237	-0.012687	0.023885
D05046	616580.930	1948450.851	616592.696	1948453.662	-0.002485	0.000755	0.002597
D05047	635071.677	1949094.396	635083.473	1949097.150	-0.010279	-0.005019	0.011439
D05048	677513.907	1988061.618	677525.886	1988064.339	-0.018058	0.001658	0.018134
D05049	697968.886	1987469.070	697980.898	1987471.736	-0.024330	0.003307	0.024554
D05050	682461.213	1949097.106	682473.091	1949099.734	-0.022573	0.002502	0.022711
D05051	782788.958	1980739.630	782801.126	1980742.052	-0.026290	0.001931	0.026361
D05052	749301.667	1937702.654	749313.659	1937705.074	-0.015409	0.006066	0.016560
D05053	793091.309	1933963.934	793103.377	1933966.222	-0.023376	0.004450	0.023795
D05054	727596.639	1911560.658	727608.501	1911563.081	-0.025931	0.005932	0.026601
D05055	703660.053	1918022.300	703671.897	1918024.799	-0.012275	-0.000718	0.012296
D05056	689674.353	1893752.614	689686.083	1893755.105	-0.026813	0.002801	0.026959
D05057	658927.524	1921688.015	658939.281	1921690.651	-0.018376	0.000093	0.018376
D05058	617165.102	1912247.892	617176.751	1912250.629	-0.015822	-0.001377	0.015881
D05059	588678.190	1914438.175	588689.788	1914440.996	-0.017938	-0.005181	0.018672
D05060	500221.369	1905714.973	500232.782	1905718.039	-0.011509	-0.007988	0.014009
D05061	450082.281	1877369.082	450093.527	1877372.259	-0.000259	-0.004168	0.004176
D05062	512748.470	1863700.675	512759.766	1863703.632	-0.020439	-0.006657	0.021496
D05063	579405.305	1862233.274	579416.725	1862236.025	-0.018969	-0.004230	0.019435
D05064	587336.210	1880406.340	587347.699	1880409.102	-0.021714	-0.003680	0.022024



ตารางที่ ข.3 ( ต่อ ) ค่า Residual ของการใช้สมการโพลีโนเมียล Second Degree ในการหาค่าตัวแปร ระหว่างค่าพิกัด  
UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters )

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05065	640282.287	1880061.898	640293.879	1880064.503	-0.022768	-0.000856	0.022784
D05066	671099.150	1863453.726	671110.746	1863456.205	-0.031479	0.000040	0.031479
D05068	752949.890	1880381.502	752961.714	1880383.780	-0.027993	0.004536	0.028358
D05069	795336.987	1913442.406	795349.000	1913444.645	-0.026467	0.010137	0.028342
D05070	839307.871	1915942.044	839319.994	1915944.158	-0.021559	0.002359	0.021688
D05071	849350.860	1971348.091	849363.156	1971350.314	-0.019025	0.002289	0.019162
D05072	879736.077	1978727.307	879748.465	1978729.466	-0.014186	-0.000022	0.014186
D05073	932166.369	1996292.752	932178.935	1996294.824	-0.000120	0.003041	0.003044
D05074	966911.140	2007341.744	966923.828	2007343.771	0.013933	0.016166	0.021342
D05075	1025475.424	1988911.166	1025488.229	1988912.983	0.033989	0.003820	0.034203
C05076	1029232.232	1951119.955	1029244.955	1951121.649	0.035005	-0.001121	0.035023
D05077	982613.000	1948873.413	982625.578	1948875.225	0.010271	0.001665	0.010405
D05078	1015933.258	1924683.259	1015945.876	1924684.910	0.030305	-0.002825	0.030436
D05079	951525.631	1959810.641	951538.156	1959812.567	0.004195	0.004204	0.005939
D05080	915021.198	1960584.758	915033.629	1960586.777	-0.005927	-0.000770	0.005977
D05081	904176.640	1927701.273	904188.956	1927703.240	-0.009641	0.004131	0.010488
D05082	926146.210	1922119.108	926158.569	1922121.000	-0.003516	0.003655	0.005071
D05083	888329.071	1869922.887	888341.193	1869924.750	-0.006926	0.007027	0.009866
D05084	805913.041	1868098.743	805924.972	1868100.851	-0.002294	0.018231	0.018375
D05085	859711.857	1873443.026	859723.906	1873444.970	-0.022907	-0.003210	0.023131
D05086	952738.251	1872578.744	952750.551	1872580.425	0.008532	0.001020	0.008593
D05087	1012865.647	1891786.959	1012878.165	1891788.523	0.024674	-0.003170	0.024877
D05088	1056241.590	1907975.455	1056254.283	1907976.948	0.046791	-0.004281	0.046987
D05089	1085771.545	1956359.186	1085784.445	1956360.749	0.056320	-0.002377	0.056370
D05090	1097218.211	1898957.958	1097230.953	1898959.309	0.013003	-0.009309	0.015992
D05091	1090231.843	1869658.003	1090244.508	1869659.242	0.031763	-0.049714	0.058994
D05092	1048292.012	1841287.491	1048304.474	1841288.786	0.016606	-0.024158	0.029315
D05094	983551.143	1851036.249	983563.458	1851037.768	0.007670	-0.012980	0.015077
D05095	956067.368	1830735.764	956079.562	1830737.315	0.013613	-0.002795	0.013897
D05096	933745.517	1838736.747	933757.706	1838738.384	0.040476	-0.004075	0.040681
D05097	866890.474	1826235.610	866902.431	1826237.417	0.006606	0.002384	0.007023
D05098	835542.839	1840018.436	835554.756	1840020.374	-0.001107	0.004873	0.004997

ตารางที่ ข.3 ( ต่อ ) ค่า Residual ของการใช้สมการพหุนาม Second Degree ในการหาค่าตัวแปร ระหว่างค่าพิกัด  
UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters )

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05099	791426.628	1846106.456	791438.453	1846108.547	-0.010493	0.011694	0.015711
D05100	840990.063	1814458.280	841001.923	1814460.134	0.006333	0.001947	0.006626
D05101	806370.584	1806445.545	806382.339	1806447.484	0.006532	0.001698	0.006749
D05102	741899.556	1861068.310	741911.296	1861070.581	-0.030729	0.009156	0.032064
D05103	715171.736	1850420.030	715183.388	1850422.352	-0.028793	0.004132	0.029088
D05104	641628.150	1818569.192	641639.559	1818571.665	-0.017020	-0.002369	0.017184
D05105	617224.445	1851632.765	617235.906	1851635.382	-0.019827	-0.001474	0.019882
D05106	591750.569	1827849.479	591761.913	1827852.127	-0.010290	-0.002590	0.010611
D05107	529741.926	1843774.749	529753.205	1843777.625	-0.005670	0.000712	0.005714
D05108	456396.028	1848459.124	456407.185	1848462.234	-0.007202	-0.004921	0.008723
D05109	467043.094	1811412.073	467054.121	1811415.086	-0.033667	-0.006587	0.034305
D05110	548295.252	1803106.563	548306.451	1803109.289	0.011659	-0.015582	0.019461
D05111	577290.619	1792568.908	577301.835	1792571.538	0.006239	0.002179	0.006609
D05112	620568.250	1795284.022	620579.557	1795286.520	0.000155	0.003974	0.003977
D05113	666792.172	1821114.854	666803.626	1821117.256	-0.032711	-0.000145	0.032712
D05114	699317.494	1790352.814	699328.906	1790355.049	-0.045606	0.002189	0.045658
D05115	485277.309	1772158.641	485288.292	1772161.574	0.022407	0.040685	0.046447
D05116	549362.741	1756062.397	549373.800	1756065.049	0.029273	0.002871	0.029413
D05117	590972.221	1775484.622	590983.414	1775487.178	0.012842	0.006289	0.014299
D05118	623284.333	1768092.712	623295.561	1768095.148	0.006043	0.006778	0.009081
D05119	644267.794	1779544.348	644279.084	1779546.738	-0.014283	0.004849	0.015084
D05120	680640.309	1755059.968	680651.606	1755062.176	-0.003492	-0.006225	0.007137
D05121	708326.723	1764175.295	708338.107	1764177.441	-0.007602	0.001002	0.007668
D05122	721687.670	1770457.419	721699.098	1770459.535	-0.013890	-0.000493	0.013899
D05123	729966.751	1789697.649	729978.280	1789699.794	0.006229	0.010432	0.012150
D05124	789614.247	1745793.899	789625.763	1745795.737	0.000592	-0.001678	0.001779
D05125	807801.177	1774974.430	807812.860	1774976.283	0.030391	-0.001584	0.030432
D05126	848890.786	1783431.626	848902.574	1783433.370	0.011718	-0.004153	0.012432
D05127	879666.185	1785777.336	879678.068	1785778.989	0.025471	-0.006522	0.026292
D05128	907186.629	1825460.499	907198.698	1825462.186	0.024244	0.004111	0.024590
D05129	925849.871	1793468.672	925861.900	1793470.226	0.034662	0.014260	0.037481
D05130	937641.408	1778536.322	937653.403	1778537.782	0.017020	-0.002380	0.017186

ตารางที่ ข.3 ( ต่อ ) ค่า Residual ของการใช้สมการพหุนาม Second Degree ในการหาค่าตัวแปร ระหว่างค่าพิกัด  
UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters )

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05132	984178.041	1823978.612	984190.265	1823980.050	-0.007287	-0.014601	0.016318
D05133	1040335.991	1806662.792	1040348.331	1806664.025	0.014401	-0.004560	0.015106
D05134	1106593.968	1839676.673	1106606.560	1839677.818	-0.003096	-0.004677	0.005609
D05135	1135334.146	1795036.358	1135346.679	1795037.282	-0.014621	-0.000791	0.014642
D05136	1093177.327	1801592.712	1093189.786	1801593.805	0.007551	0.025028	0.026142
D05137	1104764.376	1760586.844	1104776.731	1760587.745	-0.007386	-0.002487	0.007794
D05138	1033692.405	1784099.923	1033704.657	1784101.110	0.010405	-0.001972	0.010590
D05139	989228.855	1783394.881	989240.993	1783396.201	0.014206	-0.000005	0.014206
D05140	961968.711	1777993.138	961980.775	1777994.534	0.026315	0.009205	0.027878
D05141	964231.165	1733595.971	964243.068	1733597.213	-0.001651	-0.010000	0.010136
D05142	1007932.223	1764008.699	1007944.343	1764009.900	0.006749	-0.005260	0.008556
D05143	1016998.106	1751186.962	1017010.203	1751188.104	-0.000538	0.001810	0.001888
D05144	1055335.309	1752093.630	1055347.506	1752094.658	-0.005360	0.002144	0.005773
D05145	987111.838	1723245.797	987123.767	1723246.942	-0.002015	-0.004729	0.005140
D05146	971405.674	1704146.012	971417.493	1704147.144	-0.009094	-0.011333	0.014531
D05147	887694.568	1751700.280	887706.332	1751701.802	-0.005663	-0.021156	0.021901
D05148	902070.096	1700141.875	902081.728	1700143.221	-0.004843	-0.009841	0.010968
D05149	866991.418	1700504.609	867002.965	1700506.072	-0.003424	-0.008378	0.009051
D05150	843075.654	1748203.005	843087.298	1748204.672	-0.005884	-0.007895	0.009846
D05151	812049.438	1746340.390	812061.011	1746342.154	0.003124	-0.005069	0.005955
D05152	803881.036	1718275.460	803892.488	1718277.180	-0.005270	-0.004423	0.006880
D05153	840116.833	1708449.718	840128.341	1708451.292	-0.003259	-0.006505	0.007275
D05154	802946.010	1682313.954	802957.336	1682315.585	-0.006008	-0.004971	0.007798
D05155	756498.940	1697673.064	756510.201	1697674.902	-0.014472	0.007963	0.016518
D05156	759345.679	1745008.325	759357.109	1745010.261	-0.012808	0.000609	0.012823
D05157	745755.316	1745574.075	745766.715	1745576.059	-0.014665	0.003237	0.015018
D05158	728053.691	1732249.021	728065.011	1732251.029	-0.008742	0.000939	0.008792
D05159	718327.269	1728098.466	718338.555	1728100.493	-0.006696	-0.002385	0.007108
D05160	721675.119	1708853.854	721686.344	1708855.829	-0.009148	0.001708	0.009306
D05161	687596.787	1715546.788	687607.981	1715548.882	0.013164	-0.008718	0.015789
D05162	644186.639	1724396.160	644197.760	1724398.437	0.004325	0.009306	0.010262
D05163	624279.998	1736099.743	624291.127	1736102.116	0.014208	0.013823	0.019823

ตารางที่ ข.3 ( ต่อ ) ค่า Residual ของการใช้สมการโพลีโนเมียล Second Degree ในการหาค่าตัวแปร ระหว่างค่าพิกัด  
UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters )

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05164	584833.065	1741092.317	584844.130	1741094.834	0.015259	0.015706	0.021897
D05165	553852.845	1712394.180	553863.757	1712396.749	0.027211	0.019388	0.033411
D05166	441670.447	1675098.017	441681.024	1675100.916	0.052026	0.023835	0.057225
D05167	460057.828	1629923.627	460068.264	1629926.381	0.049087	0.025001	0.055087
D05168	485372.396	1597592.332	485382.753	1597594.933	0.046754	0.025363	0.053191
D05169	512604.237	1613732.576	512614.710	1613735.105	0.043075	0.023887	0.049255
D05170	556199.244	1667594.543	556210.000	1667597.017	0.030095	0.020897	0.036639
D05171	574823.163	1640314.795	574833.856	1640317.148	0.030259	0.021468	0.037101
D05172	551287.278	1613658.236	551297.820	1613660.621	0.031432	0.022350	0.038568
D05173	595334.716	1617793.585	595345.364	1617795.818	0.026928	0.022546	0.035120
D05174	618334.810	1641558.345	618345.599	1641560.546	0.027706	0.022473	0.035675
D05175	609058.352	1700721.633	609069.340	1700723.987	0.030038	0.017443	0.034735
D05176	644085.007	1688322.148	644096.010	1688324.359	0.014009	0.021178	0.025392
D05177	653271.816	1641783.341	653282.672	1641785.395	0.016663	-0.000945	0.016689
D05178	684974.885	1666313.047	684985.886	1666315.051	0.000539	0.004524	0.004556
D05179	678203.761	1636511.548	678214.644	1636513.505	0.007087	0.002260	0.007438
D05180	732786.490	1679552.058	732797.638	1679553.925	-0.009003	0.000694	0.009029
D05181	772115.210	1636151.644	772126.302	1636153.266	-0.001876	-0.002195	0.002887
D05182	716357.472	1630445.148	716368.420	1630446.955	0.006823	0.001326	0.006950
D05183	763083.800	1612110.716	763094.788	1612112.310	0.004174	-0.001387	0.004398
D05184	796592.121	1617031.467	796603.241	1617032.959	0.036684	0.002289	0.036755
D05185	838119.503	1663925.841	838130.855	1663927.306	-0.001493	-0.004611	0.004847
D05186	835593.879	1628333.867	835605.098	1628335.238	-0.001755	-0.012426	0.012550
D05187	883963.523	1661435.568	883974.986	1661436.871	0.003701	-0.005483	0.006615
D05188	913816.759	1664646.810	913828.308	1664648.022	0.002542	-0.005632	0.006179
D05189	881305.038	1626378.617	881316.381	1626379.838	0.013954	0.000698	0.013972
D05190	925257.372	1610602.643	925268.767	1610603.666	0.008587	-0.001043	0.008650
D05191	941369.117	1654816.852	941380.704	1654817.942	0.002999	-0.007574	0.008146
D05192	988754.514	1659440.712	988766.216	1659441.655	-0.023013	-0.011000	0.025507
D05193	1017935.731	1676795.509	1017947.529	1676796.405	-0.063557	-0.015306	0.065374
D05194	1051968.456	1714375.958	1051980.543	1714376.875	0.011388	-0.002042	0.011569
D05195	1096272.401	1717685.342	1096284.693	1717686.133	0.084478	-0.000509	0.084479

ตารางที่ ข.3 ( ต่อ ) ค่า Residual ของการใช้สมการโพลีโนเมียล Second Degree ในการหาค่าตัวแปร ระหว่างค่าพิกัด  
UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters )

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05196	1131953.933	1739736.960	1131966.276	1739737.724	-0.031908	0.010012	0.033442
D05197	1158997.025	1730639.291	1159009.381	1730639.941	-0.067597	0.008106	0.068082
D05198	1168800.369	1694026.834	1168812.665	1694027.347	-0.042528	0.024999	0.049331
D05199	1148780.872	1651174.332	1148792.997	1651174.755	-0.017977	0.017251	0.024915
D05200	1101874.145	1632218.408	1101886.070	1632218.909	-0.020128	0.005766	0.020937
D05201	1116593.738	1699547.505	1116605.858	1699548.215	-0.087137	0.040693	0.096170
D05202	1141367.318	1718783.371	1141379.605	1718784.060	-0.050225	0.032943	0.060065
D05203	1084155.748	1693773.562	1084167.838	1693774.319	-0.008118	0.004409	0.009238
D05204	1066218.810	1686627.791	1066230.818	1686628.581	-0.017461	0.003251	0.017761
D05205	1060191.438	1625687.204	1060203.219	1625687.813	-0.024248	-0.003196	0.024458
D05206	1032780.114	1621265.722	1032791.803	1621266.407	-0.024792	-0.004959	0.025283
D05207	978446.208	1602176.555	978457.700	1602177.369	-0.006079	-0.001834	0.006350
D05208	879042.339	1516056.877	879053.251	1516057.788	0.001348	-0.006152	0.006297
D05209	854956.178	1598977.820	854967.332	1598979.050	-0.008541	-0.006322	0.010626
D05210	806281.208	1589321.901	806292.223	1589323.271	0.010579	-0.012981	0.016746
D05211	824347.027	1559740.552	824357.966	1559741.786	0.001169	-0.005033	0.005167
D05212	837446.707	1507585.938	837457.488	1507586.983	0.012504	-0.003160	0.012898
D05213	782724.437	1476006.209	782734.966	1476007.374	0.028323	-0.005249	0.028805
D05214	797639.781	1546560.360	797650.607	1546561.659	0.006178	-0.002399	0.006628
D05215	753107.654	1571255.058	753118.464	1571256.583	0.004654	-0.003298	0.005704
D05216	740606.115	1547994.155	740616.811	1547995.669	0.011303	-0.001711	0.011431
D05217	755465.556	1506449.623	755476.135	1506450.977	0.023043	-0.000256	0.023044
D05218	700659.748	1515063.333	700670.230	1515064.921	0.025040	0.003706	0.025312
D05219	701959.880	1550492.539	701970.494	1550494.204	0.012262	-0.000511	0.012273
D05220	709295.655	1566459.999	709306.344	1566461.675	0.007276	-0.001004	0.007345
D05221	682837.370	1587732.136	682848.082	1587733.970	0.009924	0.009237	0.013558
D05222	677716.051	1603820.230	677726.808	1603822.114	0.005122	0.003073	0.005973
D05223	692075.209	1624347.641	692086.079	1624349.521	0.007678	0.002705	0.008141
D05224	656375.062	1616711.145	656385.831	1616713.138	0.016769	0.005552	0.017664
D05225	708081.072	1593079.958	708091.860	1593081.702	0.006545	-0.001678	0.006757
D05226	640886.201	1566101.233	640896.748	1566103.182	0.025704	0.019413	0.032211
D05227	623192.398	1595583.613	623203.012	1595585.689	0.017212	0.015185	0.022953

ตารางที่ ข.3 ( ต่อ ) ค่า Residual ของการใช้สมการโพลีโนเมียล Second Degree ในการหาค่าตัวแปร ระหว่างค่าพิกัด

UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters )

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05228	575387.436	1561816.673	575397.826	1561818.862	0.032218	0.023174	0.039687
D05229	608667.437	1542259.711	608677.821	1542261.723	0.031048	0.014474	0.034256
D05230	536102.229	1554760.478	536112.519	1554762.803	0.045979	0.024715	0.052201
D05231	520757.729	1543326.235	520767.937	1543328.596	0.043611	0.024931	0.050234
D05232	554163.936	1537090.950	554174.183	1537093.166	0.036094	0.021201	0.041861
D05233	544025.096	1505211.309	544035.180	1505213.495	0.027848	0.018202	0.033270
D05234	590356.360	1506189.129	590366.559	1506191.144	0.035521	0.026311	0.044204
D05235	585397.415	1494823.812	585407.530	1494825.805	0.010313	0.009794	0.014223
D05236	639246.558	1503363.257	639256.813	1503365.033	-0.008865	-0.016415	0.018656
D05237	688182.020	1517633.611	688192.486	1517635.259	0.028463	0.009929	0.030145
D05238	684258.750	1504572.818	684269.130	1504574.443	0.005043	0.003408	0.006086
D05239	697724.112	1494786.957	697734.506	1494788.502	0.026889	-0.000947	0.026906
D05240	709224.783	1456631.633	709235.051	1456633.039	0.031794	-0.000552	0.031799
D05241	707911.668	1417889.552	707921.776	1417890.863	0.040653	-0.003222	0.040781
D05242	766193.228	1419584.373	766203.494	1419585.451	0.043965	-0.006739	0.044479
D05243	761048.767	1446742.662	761059.128	1446743.835	0.036900	-0.004106	0.037128
D05244	804354.771	1431726.538	804365.188	1431727.494	0.044626	-0.010176	0.045771
D05245	788035.484	1398680.980	788045.724	1398681.912	0.051291	-0.008684	0.052021
D05246	837290.372	1380789.879	837300.678	1380790.557	0.063989	-0.013854	0.065472
D05247	830655.794	1395539.711	830666.141	1395540.460	0.059128	-0.011583	0.060251
D05248	844348.347	1421101.401	844358.848	1421102.162	0.067767	-0.017761	0.070056
D05249	861078.830	1409688.148	861089.326	1409688.812	0.065973	-0.015866	0.067854
D05250	841777.508	1394924.560	841787.883	1394925.261	0.059938	-0.013246	0.061384
D05251	885191.660	1391408.572	885202.146	1391409.088	0.067857	-0.014458	0.069380
D05252	882906.557	1357166.152	882916.896	1357166.577	0.074999	-0.012762	0.076077
D05253	560715.514	1472318.640	560725.490	1472320.688	0.022569	0.015834	0.027570
D05254	601645.422	1448846.058	601655.352	1448847.878	-0.015746	0.003593	0.016150
D05255	569999.197	1426934.260	570008.944	1426936.152	-0.029859	-0.003976	0.030123
D05256	615898.372	1438030.593	615908.232	1438032.320	-0.072112	-0.007282	0.072479
D05257	559867.316	1384905.111	559876.843	1384906.951	-0.038008	-0.005304	0.038377
D05258	598775.027	1406372.080	598784.728	1406373.807	-0.051506	-0.004615	0.051712
D05259	599453.678	1369726.535	599463.218	1369728.174	-0.048866	-0.005561	0.049182

ตารางที่ ข.3 ( ต่อ ) ค่า Residual ของการใช้สมการพหุนาม Second Degree ในการหาค่าตัวแปร ระหว่างค่าพิกัด  
UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters )

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05260	595022.909	1353999.316	595032.374	1354000.941	-0.041135	-0.001920	0.041180
D05261	593421.793	1335336.519	593431.135	1335338.100	-0.073679	-0.009480	0.074286
D05262	577447.237	1336785.916	577456.550	1336787.565	-0.071251	-0.013469	0.072513
D05263	584685.436	1302565.763	584694.592	1302567.299	-0.083898	-0.016131	0.085435
D05264	575730.386	1301460.107	575739.519	1301461.680	-0.080013	-0.015794	0.081557
D05265	551260.146	1265531.781	551269.060	1265533.383	-0.066028	-0.012924	0.067281
D05266	570326.940	1277372.803	570335.949	1277374.347	-0.074836	-0.012996	0.075956
D05267	562454.634	1237287.179	562463.443	1237288.663	-0.058416	-0.015429	0.060419
D05268	550777.953	1242907.108	550786.759	1242908.660	-0.061021	-0.013406	0.062477
D05269	550306.163	1216187.952	550314.830	1216189.441	-0.064834	-0.017056	0.067040
D05270	535843.110	1212848.549	535851.726	1212850.099	-0.063718	-0.015026	0.065465
D05271	522145.185	1178201.669	522153.595	1178203.208	-0.058534	-0.010983	0.059555
D05272	514290.551	1182248.392	514298.964	1182249.979	-0.057460	-0.009076	0.058172
D05273	476259.693	1150505.743	476267.866	1150507.441	-0.039283	-0.008228	0.040136
D05274	511228.044	1161332.849	511236.341	1161334.399	-0.056891	-0.013359	0.058438
D05275	521921.022	1133589.797	521929.197	1133591.230	-0.058449	-0.015903	0.060574
D05276	468999.707	1125129.604	469007.732	1125131.277	-0.034067	-0.012781	0.036385
D05277	475904.528	1081582.970	475912.341	1081584.514	-0.025389	-0.011535	0.027886
D05278	516244.482	1066700.436	516252.310	1066701.746	-0.028473	-0.011206	0.030599
D05279	504423.386	1041363.281	504431.049	1041364.591	-0.022620	-0.011115	0.025203
D05280	444635.288	1044527.474	444642.833	1044529.093	-0.010097	-0.011213	0.015089
D05281	419880.745	995035.846	419887.974	995037.488	0.018067	-0.006897	0.019339
D05282	463856.395	981660.276	463863.645	981661.661	0.007750	-0.006058	0.009836
D05283	495193.591	997752.346	495200.999	997753.605	-0.006622	-0.007408	0.009936
D05284	554430.590	1012405.381	554438.210	1012406.368	-0.030973	-0.011759	0.033130
D05285	598949.612	989024.251	598957.208	989024.952	-0.040533	-0.012132	0.042309
D05286	540138.798	968277.874	540146.148	968278.831	-0.010863	-0.005620	0.012231
D05287	488977.096	937193.528	488984.159	937194.682	0.017850	-0.001778	0.017938
D05288	427936.191	948464.328	427943.185	948465.832	0.037037	-0.000351	0.037039
D05289	491252.723	890661.718	491259.538	890662.756	0.042976	0.006178	0.043418
D05290	536063.610	908261.347	536070.621	908262.185	0.014213	0.002700	0.014467
D05291	541974.520	933985.958	541981.684	933986.821	-0.001257	-0.004885	0.005044

ตารางที่ ข.3 ( ต่อ ) ค่า Residual ของการใช้สมการโพลีโนเมียล Second Degree ในการหาค่าตัวแปร ระหว่างค่าพิกัด  
UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters )

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05292	607158.635	937051.422	607165.970	937051.949	-0.024499	-0.006987	0.025476
D05293	584982.568	899701.205	584989.645	899701.759	-0.001306	0.000924	0.001600
D05294	638556.081	881811.571	638563.186	881811.791	-0.016098	0.001214	0.016144
D05295	610369.827	880350.339	610376.853	880350.703	-0.006979	-0.001498	0.007138
D05296	575982.448	860542.177	575989.286	860542.678	0.020368	0.003325	0.020638
D05297	523086.282	861448.461	523093.002	861449.260	0.041304	0.010988	0.042740
D05298	557188.862	810168.282	557195.368	810168.758	0.051155	0.007858	0.051755
D05299	618566.742	841598.723	618573.575	841598.940	0.011430	0.001583	0.011540
D05300	641859.275	869302.746	641866.314	869302.913	-0.016586	0.000162	0.016587
D05301	659142.840	826017.828	659149.682	826017.783	-0.000962	0.003243	0.003382
D05302	629679.104	803478.711	629685.749	803478.764	0.026326	0.003849	0.026606
D05303	595461.295	811958.283	595467.917	811958.548	0.048526	0.003115	0.048626
D05304	589265.015	766771.061	589271.340	766771.237	0.052997	0.003245	0.053096
D05305	618371.155	732225.735	618377.331	732225.655	0.040437	0.008298	0.041280
D05306	621774.214	755099.512	621780.523	755099.469	0.017253	-0.000332	0.017256
D05307	680629.883	785567.653	680636.527	785567.362	-0.012564	-0.007710	0.014741
D05308	707664.485	759307.406	707671.050	759306.868	-0.008573	-0.026134	0.027505
D05309	687576.129	743935.447	687582.557	743935.004	0.012052	0.003006	0.012421
D05310	656958.764	722428.011	656964.981	722427.680	0.030205	0.004530	0.030543
D05311	723975.803	716344.568	723982.140	716343.825	-0.014380	-0.008189	0.016548
D05312	732097.108	744378.899	732103.606	744378.217	-0.056247	0.011894	0.057491
D05313	750886.157	716441.595	750892.562	716440.713	-0.030514	0.005163	0.030948
D05314	783245.166	729448.241	783251.714	729447.227	-0.071451	0.012863	0.072599
D05315	781079.548	686748.151	781085.875	686747.011	-0.013765	0.013165	0.019047
D05316	750377.042	692642.888	750383.313	692641.935	-0.010560	0.006457	0.012378
D05317	742307.563	681160.003	742313.754	681159.066	0.008926	0.011698	0.014714
D05318	733346.548	638004.123	733352.453	638003.107	0.033618	0.018086	0.038174
D05319	819775.052	657295.283	819781.335	657293.820	0.007630	0.009054	0.011840
D05320	822619.346	704388.197	822625.892	704386.874	-0.040669	0.007357	0.041329
D05321	430245.975	881965.845	430252.611	881967.196	0.075075	0.008797	0.075589
D05322	426503.305	860858.454	426509.810	860859.783	0.083949	0.013532	0.085033
D05323	730077.492	1818068.052	730089.051	1818070.281	-0.054105	0.029604	0.061674



ตารางที่ ข.3 ( ต่อ ) ค่า Residual ของการใช้สมการพหุนาม Second Degree ในการหาค่าตัวแปร ระหว่างค่าพิกัด  
UTM( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters )

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05324	1167850.305	1755468.193	1167862.771	1755468.888	-0.057250	-0.003706	0.057370
D05325	970460.807	1635617.251	970472.397	1635618.191	-0.004388	-0.003547	0.005642
GPS3076	1083230.588	1844789.599	1083243.139	1844790.829	0.004076	-0.001233	0.004259
GPS3128	878921.629	1716522.181	878933.263	1716523.642	0.000539	-0.014857	0.014867
GPS3138	909592.493	1835930.577	909604.594	1835932.292	0.019519	0.010980	0.022396
GPS3146	1054336.597	1703372.236	1054348.632	1703373.111	-0.011931	-0.002216	0.012135
GPS3153	969777.354	1756488.882	969789.345	1756490.184	-0.000159	0.000962	0.000975
GPS3217	539544.728	2027020.450	539556.581	2027023.609	0.010308	-0.006884	0.012396
MIN					-0.000120	-0.000001	0.000975
MAX					-0.087140	-0.049710	0.096170
MEAN					0.000000	0.000000	0.024373
S.D.					0.029681	0.010697	0.019988
R.M.S.					0.029681	0.010697	0.031521

ตารางที่ ข.4 ค่า Residual ของการใช้สมการพหุนาม Third Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05001	519072.987	2196234.287	519060.761	2196230.801	-0.014675	-0.011660	0.018744
D05002	585098.525	2199784.815	585086.191	2199781.473	-0.022132	-0.009796	0.024203
D05003	637804.533	2206127.155	637792.095	2206123.919	-0.030649	-0.010328	0.032343
D05004	557113.227	2173158.756	557100.999	2173155.393	-0.012907	-0.008573	0.015495
D05005	592813.501	2165159.720	592801.234	2165156.454	-0.014574	-0.006431	0.015930
D05006	499655.539	2151313.109	499643.447	2151309.646	-0.005171	-0.006995	0.008699
D05007	553849.145	2139800.293	553836.996	2139796.979	-0.011973	-0.003156	0.012382
D05008	635099.743	2157174.822	635087.432	2157171.660	-0.005971	-0.013988	0.015209
D05009	697727.481	2144864.621	697715.068	2144861.637	-0.021793	-0.004702	0.022295
D05010	390960.138	2133920.722	390948.236	2133917.018	0.020022	-0.013127	0.023941
D05011	446268.478	2141163.988	446256.477	2141160.416	-0.003587	-0.003588	0.005073
D05012	387797.748	2081674.037	387785.984	2081670.393	0.019156	-0.006053	0.020089
D05013	495022.548	2115642.648	495010.552	2115639.228	0.000671	-0.003267	0.003335
D05014	497372.640	2083010.668	497360.722	2083007.308	0.001379	0.003732	0.003978
D05015	529745.616	2100201.012	529733.601	2100197.702	-0.006437	-0.001532	0.006617
D05016	609681.974	2141870.247	609669.730	2141867.061	-0.014170	-0.004455	0.014854
D05017	634635.073	2119813.170	634622.837	2119810.083	-0.011995	-0.003399	0.012467
D05018	690888.855	2114909.309	690876.522	2114906.368	-0.017495	-0.002614	0.017689
D05019	387232.869	2009947.788	387221.310	2009944.231	0.022936	-0.005228	0.023525
D05020	430505.849	2065339.494	430494.074	2065335.990	0.011470	0.005239	0.012610
D05021	503701.648	2052271.226	503689.795	2052267.930	-0.003363	0.005716	0.006631
D05022	466568.287	2033849.895	466556.546	2033846.528	0.006849	0.004993	0.008475
D05023	557094.634	2061038.865	557082.673	2061035.694	-0.006455	0.006207	0.008956
D05024	603983.663	2074427.692	603971.593	2074424.613	-0.004018	0.000845	0.004106
D05025	651792.662	2084610.721	651780.477	2084607.745	-0.009785	0.001555	0.009908
D05026	688785.106	2080623.299	688772.859	2080620.425	-0.011460	0.003342	0.011937
D05027	705077.128	2044322.752	705064.938	2044319.993	-0.007037	0.004831	0.008536
D05028	670329.781	2007295.110	670317.757	2007292.334	-0.001091	0.005489	0.005597
D05029	625270.879	2049064.716	625258.832	2049061.740	-0.004935	0.003941	0.006316
D05030	620749.268	2002806.709	620737.349	2002803.810	-0.002720	0.007855	0.008313
D05031	580239.102	2037188.432	580227.157	2037185.363	-0.012269	0.007769	0.014522
D05032	576118.896	1992049.844	576107.084	1992046.845	-0.005279	0.010340	0.011610

ตารางที่ ข.4 ( ต่อ) ค่า Residual ของการใช้สมการโพลีโนเมียล Third Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05033	549140.796	2021541.081	549128.952	2021537.956	-0.004293	0.007949	0.009034
D05034	536900.944	1976436.305	536889.251	1976433.224	0.003311	0.010229	0.010751
D05035	499834.723	1982078.285	499823.067	1982075.091	-0.003477	0.009687	0.010292
D05036	471529.511	1980471.772	471517.912	1980468.498	0.006316	0.005955	0.008680
D05037	461230.087	2009284.867	461218.422	2009281.521	0.007617	0.004817	0.009012
D05038	388219.205	1984461.497	388207.720	1984457.967	0.022916	-0.013368	0.026530
D05039	432197.666	1967818.119	432186.159	1967814.754	0.006151	0.006519	0.008963
D05040	418428.072	1905165.841	418416.781	1905162.527	0.010310	0.007663	0.012846
D05041	442529.902	1924168.600	442518.519	1924165.326	0.011935	0.004468	0.012744
D05042	476663.546	1949538.074	476652.033	1949534.863	0.009387	0.007216	0.011840
D05043	514723.120	1951335.204	514711.540	1951332.102	0.007748	0.010236	0.012838
D05044	557887.491	1916166.537	557875.945	1916163.623	0.012480	0.012769	0.017855
D05045	580819.008	1936695.676	580807.362	1936692.798	0.014436	0.019003	0.023864
D05046	616592.696	1948453.662	616580.930	1948450.851	-0.004881	0.005303	0.007207
D05047	635083.473	1949097.150	635071.677	1949094.396	0.002767	0.010918	0.011263
D05048	677525.886	1988064.339	677513.907	1988061.618	0.008750	0.002654	0.009143
D05049	697980.898	1987471.736	697968.886	1987469.070	0.015681	0.000590	0.015692
D05050	682473.091	1949099.734	682461.213	1949097.106	0.016095	0.002572	0.016299
D05051	782801.126	1980742.052	782788.958	1980739.630	0.022750	-0.000430	0.022755
D05052	749313.659	1937705.074	749301.667	1937702.654	0.013474	-0.002805	0.013763
D05053	793103.377	1933966.222	793091.309	1933963.934	0.024823	-0.002702	0.024969
D05054	727608.501	1911563.081	727596.639	1911560.658	0.024278	-0.001710	0.024338
D05055	703671.897	1918024.799	703660.053	1918022.300	0.008703	0.005647	0.010374
D05056	689686.083	1893755.105	689674.353	1893752.614	0.023669	0.002727	0.023826
D05057	658939.281	1921690.651	658927.524	1921688.015	0.012554	0.005928	0.013884
D05058	617176.751	1912250.629	617165.102	1912247.892	0.009723	0.008167	0.012698
D05059	588689.788	1914440.996	588678.190	1914438.175	0.012290	0.012050	0.017212
D05060	500232.782	1905718.039	500221.369	1905714.973	0.014122	0.013309	0.019405
D05061	450093.527	1877372.259	450082.281	1877369.082	0.012033	0.007757	0.014316
D05062	512759.766	1863703.632	512748.470	1863700.675	0.020539	0.013507	0.024582
D05063	579416.725	1862236.025	579405.305	1862233.274	0.014272	0.011911	0.018589
D05064	587347.699	1880409.102	587336.210	1880406.340	0.016660	0.011122	0.020031

ตารางที่ ข.4 (ต่อ) ค่า Residual ของการใช้สมการพหุนาม Third Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05065	640293.879	1880064.503	640282.287	1880061.898	0.017931	0.007692	0.019511
D05066	671110.746	1863456.205	671099.150	1863453.726	0.028453	0.006132	0.029106
D05068	752961.714	1880383.780	752949.890	1880381.502	0.030038	-0.001112	0.030059
D05069	795349.000	1913444.645	795336.987	1913442.406	0.029684	-0.008341	0.030834
D05070	839319.994	1915944.158	839307.871	1915942.044	0.027581	-0.002125	0.027662
D05071	849363.156	1971350.314	849350.860	1971348.091	0.020336	-0.002902	0.020542
D05072	879748.465	1978729.466	879736.077	1978727.307	0.015910	-0.001634	0.015994
D05073	932178.935	1996294.824	932166.369	1996292.752	0.000279	-0.006271	0.006277
D05074	966923.828	2007343.771	966911.140	2007341.744	-0.016291	-0.020131	0.025897
D05075	1025488.229	1988912.983	1025475.424	1988911.166	-0.038816	-0.007250	0.039487
D05076	1029244.955	1951121.649	1029232.232	1951119.955	-0.035827	-0.001434	0.035855
D05077	982625.578	1948875.225	982613.000	1948873.413	-0.006255	-0.004587	0.007757
D05078	1015945.876	1924684.910	1015933.258	1924683.259	-0.026871	0.000471	0.026875
D05079	951538.156	1959812.567	951525.631	1959810.641	0.000066	-0.007089	0.007089
D05080	915033.629	1960586.777	915021.198	1960584.758	0.010453	-0.001513	0.010562
D05081	904188.956	1927703.240	904176.640	1927701.273	0.017362	-0.005836	0.018317
D05082	926158.569	1922121.000	926146.210	1922119.108	0.011956	-0.005764	0.013273
D05083	888341.193	1869924.750	888329.071	1869922.887	0.018704	-0.008219	0.020430
D05084	805924.972	1868100.851	805913.041	1868098.743	0.009283	-0.016808	0.019201
D05085	859723.906	1873444.970	859711.857	1873443.026	0.033188	0.002820	0.033307
D05086	952750.551	1872580.425	952738.251	1872578.744	0.003362	-0.003251	0.004676
D05087	1012878.165	1891788.523	1012865.647	1891786.959	-0.018231	0.001127	0.018266
D05088	1056254.283	1907976.948	1056241.590	1907975.455	-0.047919	0.003185	0.048025
D05089	1085784.445	1956360.749	1085771.545	1956359.186	-0.068025	0.001538	0.068043
D05090	1097230.953	1898959.309	1097218.211	1898957.958	-0.022655	0.010354	0.024909
D05091	1090244.508	1869659.242	1090231.843	1869658.003	-0.037936	0.050826	0.063423
D05092	1048304.474	1841288.786	1048292.012	1841287.491	-0.012500	0.023463	0.026585
D05094	983563.458	1851037.768	983551.143	1851036.249	0.003929	0.010776	0.011470
D05095	956079.562	1830737.315	956067.368	1830735.764	0.000402	0.000492	0.000635
D05096	933757.706	1838738.384	933745.517	1838736.747	-0.026324	0.001950	0.026396
D05097	866902.431	1826237.417	866890.474	1826235.610	0.006572	-0.003260	0.007336
D05098	835554.756	1840020.374	835542.839	1840018.436	0.011759	-0.004660	0.012649

ตารางที่ ข.4 ( ต่อ) ค่า Residual ของการใช้สมการพหุนาม Third Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05099	791438.453	1846108.547	791426.628	1846106.456	0.017457	-0.009845	0.020042
D05100	841001.923	1814460.134	840990.063	1814458.280	0.005786	-0.002155	0.006175
D05101	806382.339	1806447.484	806370.584	1806445.545	0.003265	-0.000793	0.003360
D05102	741911.296	1861070.581	741899.556	1861068.310	0.032840	-0.005353	0.033273
D05103	715183.388	1850422.352	715171.736	1850420.030	0.029199	0.000609	0.029205
D05104	641639.559	1818571.665	641628.150	1818569.192	0.013500	0.009284	0.016384
D05105	617235.906	1851635.382	617224.445	1851632.765	0.015072	0.008887	0.017497
D05106	591761.913	1827852.127	591750.569	1827849.479	0.005544	0.010427	0.011809
D05107	529753.205	1843777.625	529741.926	1843774.749	0.003661	0.006855	0.007771
D05108	456407.185	1848462.234	456396.028	1848459.124	0.016246	0.009789	0.018967
D05109	467054.121	1811415.086	467043.094	1811412.073	0.038972	0.012819	0.041026
D05110	548306.451	1803109.289	548295.252	1803106.563	-0.015531	0.023682	0.028320
D05111	577301.835	1792571.538	577290.619	1792568.908	-0.011024	0.005827	0.012469
D05112	620579.557	1795286.520	620568.250	1795284.022	-0.004331	0.003339	0.005468
D05113	666803.626	1821117.256	666792.172	1821114.854	0.030512	0.006365	0.031169
D05114	699328.906	1790355.049	699317.494	1790352.814	0.046355	0.002657	0.046431
D05115	485288.292	1772161.574	485277.309	1772158.641	-0.021578	-0.033313	0.039691
D05116	549373.800	1756065.049	549362.741	1756062.397	-0.034050	0.005225	0.034448
D05117	590983.414	1775487.178	590972.221	1775484.622	-0.017742	0.001482	0.017804
D05118	623295.561	1768095.148	623284.333	1768092.712	-0.010091	0.000260	0.010095
D05119	644279.084	1779546.738	644267.794	1779544.348	0.011252	0.001727	0.011384
D05120	680651.606	1755062.176	680640.309	1755059.968	0.003119	0.011273	0.011696
D05121	708338.107	1764177.441	708326.723	1764175.295	0.009508	0.003137	0.010012
D05122	721699.098	1770459.535	721687.670	1770457.419	0.016918	0.004205	0.017432
D05123	729978.280	1789699.794	729966.751	1789697.649	-0.002797	-0.006768	0.007323
D05124	789625.763	1745795.737	789614.247	1745793.899	0.009135	0.002236	0.009404
D05125	807812.860	1774976.283	807801.177	1774974.430	-0.019596	0.001984	0.019696
D05126	848902.574	1783433.370	848890.786	1783431.626	0.001909	0.003296	0.003809
D05127	879678.068	1785778.989	879666.185	1785777.336	-0.010295	0.004862	0.011385
D05128	907198.698	1825462.186	907186.629	1825460.499	-0.009614	-0.005932	0.011297
D05129	925861.900	1793470.226	925849.871	1793468.672	-0.018773	-0.016631	0.025080
D05130	937653.403	1778537.782	937641.408	1778536.322	-0.000906	-0.000239	0.000937

ตารางที่ ข.4 ( ต่อ) ค่า Residual ของการใช้สมการโพลีโนเมียล Third Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05132	984190.265	1823980.050	984178.041	1823978.612	0.020021	0.012381	0.023540
D05133	1040348.331	1806664.025	1040335.991	1806662.792	-0.007933	0.003688	0.008749
D05134	1106606.560	1839677.818	1106593.968	1839676.673	-0.006497	0.007332	0.009796
D05135	1135346.679	1795037.282	1135334.146	1795036.358	-0.004253	0.006649	0.007893
D05136	1093189.786	1801593.805	1093177.327	1801592.712	-0.012715	-0.022938	0.026226
D05137	1104776.731	1760587.745	1104764.376	1760586.844	-0.001521	0.005830	0.006025
D05138	1033704.657	1784101.110	1033692.405	1784099.923	-0.002529	0.000853	0.002668
D05139	989240.993	1783396.201	989228.855	1783394.881	-0.000829	-0.002317	0.002461
D05140	961980.775	1777994.534	961968.711	1777993.138	-0.010999	-0.011841	0.016161
D05141	964243.068	1733597.213	964231.165	1733595.971	0.017118	0.006911	0.018460
D05142	1007944.343	1764009.900	1007932.223	1764008.699	0.004863	0.003231	0.005839
D05143	1017010.203	1751188.104	1016998.106	1751186.962	0.010960	-0.003633	0.011546
D05144	1055347.506	1752094.658	1055335.309	1752093.630	0.009152	-0.002268	0.009429
D05145	987123.767	1723246.942	987111.838	1723245.797	0.015651	0.001869	0.015762
D05146	971417.493	1704147.144	971405.674	1704146.012	0.023759	0.007957	0.025056
D05147	887706.332	1751701.802	887694.568	1751700.280	0.021793	0.018813	0.028790
D05148	902081.728	1700143.221	902070.096	1700141.875	0.021400	0.006335	0.022318
D05149	867002.965	1700506.072	866991.418	1700504.609	0.018927	0.005505	0.019711
D05150	843087.298	1748204.672	843075.654	1748203.005	0.019824	0.006630	0.020903
D05151	812061.011	1746342.154	812049.438	1746340.390	0.008530	0.004803	0.009789
D05152	803892.488	1718277.180	803881.036	1718275.460	0.016482	0.003868	0.016930
D05153	840128.341	1708451.292	840116.833	1708449.718	0.017263	0.004520	0.017845
D05154	802957.336	1682315.585	802946.010	1682313.954	0.017109	0.003597	0.017483
D05155	756510.201	1697674.902	756498.940	1697673.064	0.021340	-0.007146	0.022505
D05156	759357.109	1745010.261	759345.679	1745008.325	0.019726	0.001132	0.019758
D05157	745766.715	1745576.059	745755.316	1745574.075	0.020276	-0.000932	0.020297
D05158	728065.011	1732251.029	728053.691	1732249.021	0.012761	0.001827	0.012891
D05159	718338.555	1728100.493	718327.269	1728098.466	0.009808	0.005465	0.011228
D05160	721686.344	1708855.829	721675.119	1708853.854	0.012618	0.000818	0.012644
D05161	687607.981	1715548.882	687596.787	1715546.788	-0.012862	0.012778	0.018131
D05162	644197.760	1724398.437	644186.639	1724396.160	-0.007379	-0.003483	0.008160
D05163	624291.127	1736102.116	624279.998	1736099.743	-0.018344	-0.007200	0.019706

ตารางที่ ข.4 (ต่อ) ค่า Residual ของการใช้สมการพหุนาม Third Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters )

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05164	584844.130	1741094.834	584833.065	1741092.317	-0.020609	-0.008103	0.022145
D05165	553863.757	1712396.749	553852.845	1712394.180	-0.033093	-0.011643	0.035082
D05166	441681.024	1675100.916	441670.447	1675098.017	-0.049219	-0.017456	0.052222
D05167	460068.264	1629926.381	460057.828	1629923.627	-0.051532	-0.018334	0.054696
D05168	485382.753	1597594.933	485372.396	1597592.332	-0.053403	-0.018830	0.056626
D05169	512614.710	1613735.105	512604.237	1613732.576	-0.050851	-0.017166	0.053670
D05170	556210.000	1667597.017	556199.244	1667594.543	-0.037166	-0.013788	0.039641
D05171	574833.856	1640317.148	574823.163	1640314.795	-0.037871	-0.015247	0.040825
D05172	551297.820	1613660.621	551287.278	1613658.236	-0.040072	-0.016164	0.043210
D05173	595345.364	1617795.818	595334.716	1617793.585	-0.034423	-0.017410	0.038576
D05174	618345.599	1641560.546	618334.810	1641558.345	-0.033486	-0.017512	0.037788
D05175	609069.340	1700723.987	609058.352	1700721.633	-0.035267	-0.010954	0.036929
D05176	644096.010	1688324.359	644085.007	1688322.148	-0.017373	-0.016049	0.023652
D05177	653282.672	1641785.395	653271.816	1641783.341	-0.019981	0.004618	0.020508
D05178	684985.886	1666315.051	684974.885	1666313.047	-0.000785	-0.001501	0.001694
D05179	678214.644	1636513.505	678203.761	1636511.548	-0.008348	0.000253	0.008352
D05180	732797.638	1679553.925	732786.490	1679552.058	0.013470	0.000658	0.013486
D05181	772126.302	1636153.266	772115.210	1636151.644	0.009705	0.000737	0.009733
D05182	716368.420	1630446.955	716357.472	1630445.148	-0.004530	-0.000619	0.004572
D05183	763094.788	1612112.310	763083.800	1612110.716	0.002370	-0.000420	0.002406
D05184	796603.241	1617032.959	796592.121	1617031.467	-0.027042	-0.005224	0.027542
D05185	838130.855	1663927.306	838119.503	1663925.841	0.015063	0.001625	0.015150
D05186	835605.098	1628335.238	835593.879	1628333.867	0.014512	0.008573	0.016855
D05187	883974.986	1661436.871	883963.523	1661435.568	0.011948	0.001404	0.012030
D05188	913828.308	1664648.022	913816.759	1664646.810	0.013503	0.001306	0.013566
D05189	881316.381	1626379.838	881305.038	1626378.617	0.000754	-0.005574	0.005625
D05190	925268.767	1610603.666	925257.372	1610602.643	0.005456	-0.004439	0.007034
D05191	941380.704	1654817.942	941369.117	1654816.852	0.012149	0.003070	0.012531
D05192	988766.216	1659441.655	988754.514	1659440.712	0.034765	0.007411	0.035546
D05193	1017947.529	1676796.405	1017935.731	1676795.509	0.072107	0.012969	0.073264
D05194	1051980.543	1714376.875	1051968.456	1714375.958	-0.007742	0.001664	0.007919
D05195	1096284.693	1717686.133	1096272.401	1717685.342	-0.092146	0.003362	0.092207

ตารางที่ ข.4 ( ต่อ) ค่า Residual ของการใช้สมการโพลีโนเมียล Third Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05196	1131966.276	1739737.724	1131953.933	1739736.960	0.012883	-0.003797	0.013431
D05197	1159009.381	1730639.941	1158997.025	1730639.291	0.036767	0.001532	0.036799
D05198	1168812.665	1694027.347	1168800.369	1694026.834	0.004488	-0.013372	0.014105
D05199	1148792.997	1651174.755	1148780.872	1651174.332	-0.014333	-0.007903	0.016367
D05200	1101886.070	1632218.909	1101874.145	1632218.408	0.004983	-0.002072	0.005397
D05201	1116605.858	1699548.215	1116593.738	1699547.505	0.071784	-0.035774	0.080204
D05202	1141379.605	1718784.060	1141367.318	1718783.371	0.026403	-0.025390	0.036630
D05203	1084167.838	1693774.319	1084155.748	1693773.562	0.002906	-0.002528	0.003852
D05204	1066230.818	1686628.581	1066218.810	1686627.791	0.016689	-0.002764	0.016916
D05205	1060203.219	1625687.813	1060191.438	1625687.204	0.021143	0.003053	0.021362
D05206	1032791.803	1621266.407	1032780.114	1621265.722	0.027635	0.002903	0.027787
D05207	978457.700	1602177.369	978446.208	1602176.555	0.016070	-0.002905	0.016331
D05208	879053.251	1516057.788	879042.339	1516056.877	0.008354	-0.001554	0.008497
D05209	854967.332	1598979.050	854956.178	1598977.820	0.021493	0.001193	0.021526
D05210	806292.223	1589323.271	806281.208	1589321.901	-0.000870	0.008892	0.008934
D05211	824357.966	1559741.786	824347.027	1559740.552	0.008786	-0.000487	0.008800
D05212	837457.488	1507586.983	837446.707	1507585.938	-0.004190	-0.004221	0.005948
D05213	782734.966	1476007.374	782724.437	1476006.209	-0.024601	-0.001628	0.024655
D05214	797650.607	1546561.659	797639.781	1546560.360	0.001485	-0.002723	0.003101
D05215	753118.464	1571256.583	753107.654	1571255.058	-0.000021	0.000622	0.000622
D05216	740616.811	1547995.669	740606.115	1547994.155	-0.008501	-0.001203	0.008585
D05217	755476.135	1506450.977	755465.556	1506449.623	-0.020251	-0.004637	0.020775
D05218	700670.230	1515064.921	700659.748	1515063.333	-0.026985	-0.005983	0.027640
D05219	701970.494	1550494.204	701959.880	1550492.539	-0.013095	-0.000644	0.013111
D05220	709306.344	1566461.675	709295.655	1566459.999	-0.006993	0.000045	0.006994
D05221	682848.082	1587733.970	682837.370	1587732.136	-0.011680	-0.008357	0.014362
D05222	677726.808	1603822.114	677716.051	1603820.230	-0.007016	-0.001482	0.007171
D05223	692086.079	1624349.521	692075.209	1624347.641	-0.007847	-0.001128	0.007927
D05224	656385.831	1616713.138	656375.062	1616711.145	-0.020285	-0.002687	0.020462
D05225	708091.860	1593081.702	708081.072	1593079.958	-0.005765	0.001618	0.005987
D05226	640896.748	1566103.182	640886.201	1566101.233	-0.031591	-0.017402	0.036066
D05227	623203.012	1595585.689	623192.398	1595583.613	-0.023682	-0.011603	0.026372



ตารางที่ ข.4 ( ต่อ) ค่า Residual ของการใช้สมการโพลีโนเมียล Third Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05228	575397.826	1561818.862	575387.436	1561816.673	-0.041965	-0.018863	0.046010
D05229	608677.821	1542261.723	608667.437	1542259.711	-0.039776	-0.011891	0.041515
D05230	536112.519	1554762.803	536102.229	1554760.478	-0.056440	-0.019549	0.059730
D05231	520767.937	1543328.596	520757.729	1543326.235	-0.054198	-0.019737	0.057680
D05232	554174.183	1537093.166	554163.936	1537090.950	-0.047051	-0.016928	0.050004
D05233	544035.180	1505213.495	544025.096	1505211.309	-0.039853	-0.014507	0.042411
D05234	590366.559	1506191.144	590356.360	1506189.129	-0.046207	-0.024123	0.052124
D05235	585407.530	1494825.805	585397.415	1494823.812	-0.021534	-0.007766	0.022892
D05236	639256.813	1503365.033	639246.558	1503363.257	0.001227	0.016498	0.016544
D05237	688192.486	1517635.259	688182.020	1517633.611	-0.031496	-0.011561	0.033550
D05238	684269.130	1504574.443	684258.750	1504572.818	-0.008809	-0.005302	0.010282
D05239	697734.506	1494788.502	697724.112	1494786.957	-0.029715	-0.001884	0.029774
D05240	709235.051	1456633.039	709224.783	1456631.633	-0.034816	-0.004085	0.035055
D05241	707921.776	1417890.863	707911.668	1417889.552	-0.045124	-0.002654	0.045202
D05242	766203.494	1419585.451	766193.228	1419584.373	-0.043935	-0.001372	0.043956
D05243	761059.128	1446743.835	761048.767	1446742.662	-0.036026	-0.002960	0.036147
D05244	804365.188	1431727.494	804354.771	1431726.538	-0.041785	0.001300	0.041806
D05245	788045.724	1398681.912	788035.484	1398680.980	-0.051011	-0.000734	0.051016
D05246	837300.678	1380790.557	837290.372	1380789.879	-0.063340	0.003004	0.063412
D05247	830666.141	1395540.460	830655.794	1395539.711	-0.057571	0.001183	0.057583
D05248	844358.848	1421102.162	844348.347	1421101.401	-0.064338	0.007853	0.064816
D05249	861089.326	1409688.812	861078.830	1409688.148	-0.063308	0.005550	0.063551
D05250	841787.883	1394925.261	841777.508	1394924.560	-0.058294	0.002698	0.058356
D05251	885202.146	1391409.088	885191.660	1391408.572	-0.067236	0.003800	0.067344
D05252	882916.896	1357166.577	882906.557	1357166.152	-0.077199	0.001430	0.077212
D05253	560725.490	1472320.688	560715.514	1472318.640	-0.035242	-0.013593	0.037773
D05254	601655.352	1448847.878	601645.422	1448846.058	0.004144	-0.003659	0.005529
D05255	570008.944	1426936.152	569999.197	1426934.260	0.016323	0.004511	0.016935
D05256	615908.232	1438032.320	615898.372	1438030.593	0.061090	0.006249	0.061409
D05257	559876.843	1384906.951	559867.316	1384905.111	0.023320	0.004971	0.023844
D05258	598784.728	1406373.807	598775.027	1406372.080	0.038735	0.003316	0.038876
D05259	599463.218	1369728.174	599453.678	1369726.535	0.035367	0.003085	0.035501

ตารางที่ ข.4 (ต่อ) ค่า Residual ของการใช้สมการพหุนาม Third Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters )

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05260	595032.374	1354000.941	595022.909	1353999.316	0.027141	-0.000836	0.027154
D05261	593431.135	1335338.100	593421.793	1335336.519	0.059321	0.006242	0.059648
D05262	577456.550	1336787.565	577447.237	1336785.916	0.056309	0.010989	0.057371
D05263	584694.592	1302567.299	584685.436	1302565.763	0.068826	0.012363	0.069927
D05264	575739.519	1301461.680	575730.386	1301460.107	0.064658	0.012402	0.065837
D05265	551269.060	1265533.383	551260.146	1265531.781	0.050168	0.009704	0.051098
D05266	570335.949	1277374.347	570326.940	1277372.803	0.059232	0.009218	0.059945
D05267	562463.443	1237288.663	562454.634	1237287.179	0.042782	0.011061	0.044189
D05268	550786.759	1242908.660	550777.953	1242907.108	0.045275	0.009687	0.046300
D05269	550314.830	1216189.441	550306.163	1216187.952	0.049377	0.012799	0.051009
D05270	535851.726	1212850.099	535843.110	1212848.549	0.048429	0.011347	0.049741
D05271	522153.595	1178203.208	522145.185	1178201.669	0.044353	0.007309	0.044952
D05272	514298.964	1182249.979	514290.551	1182248.392	0.043432	0.005797	0.043817
D05273	476267.866	1150507.441	476259.693	1150505.743	0.028682	0.006044	0.029312
D05274	511236.341	1161334.399	511228.044	1161332.849	0.043670	0.009916	0.044782
D05275	521929.197	1133591.230	521921.022	1133589.797	0.045880	0.011681	0.047344
D05276	469007.732	1125131.277	468999.707	1125129.604	0.025384	0.010653	0.027529
D05277	475912.341	1081584.514	475904.528	1081582.970	0.018818	0.008973	0.020848
D05278	516252.310	1066701.746	516244.482	1066700.436	0.019868	0.006893	0.021030
D05279	504431.049	1041364.591	504423.386	1041363.281	0.016697	0.007386	0.018258
D05280	444642.833	1044529.093	444635.288	1044527.474	0.010184	0.009918	0.014215
D05281	419887.974	995037.488	419880.745	995035.846	-0.008740	0.006966	0.011176
D05282	463863.645	981661.661	463856.395	981660.276	-0.003604	0.004677	0.005904
D05283	495200.999	997753.605	495193.591	997752.346	0.005459	0.004439	0.007036
D05284	554438.210	1012406.368	554430.590	1012405.381	0.024224	0.005864	0.024924
D05285	598957.208	989024.952	598949.612	989024.251	0.033401	0.004442	0.033695
D05286	540146.148	968278.831	540138.798	968277.874	0.008893	0.000974	0.008946
D05287	488984.159	937194.682	488977.096	937193.528	-0.011307	0.000162	0.011308
D05288	427943.185	948465.832	427936.191	948464.328	-0.022974	0.001034	0.022998
D05289	491259.538	890662.756	491252.723	890661.718	-0.030097	-0.006557	0.030803
D05290	536070.621	908262.185	536063.610	908261.347	-0.009030	-0.005737	0.010698
D05291	541981.684	933986.821	541974.520	933985.958	0.002790	0.000867	0.002922

ตารางที่ ข.4 ( ต่อ) ค่า Residual ของการใช้สมการโพลีโนเมียล Third Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05292	607165.970	937051.949	607158.635	937051.422	0.020901	-0.000017	0.020901
D05293	584989.645	899701.759	584982.568	899701.205	0.003028	-0.005891	0.006624
D05294	638563.186	881811.791	638556.081	881811.571	0.014862	-0.007518	0.016655
D05295	610376.853	880350.703	610369.827	880350.339	0.008528	-0.003775	0.009326
D05296	575989.286	860542.678	575982.448	860542.177	-0.013043	-0.006409	0.014533
D05297	523093.002	861449.260	523086.282	861448.461	-0.028035	-0.011752	0.030399
D05298	557195.368	810168.758	557188.862	810168.282	-0.034062	-0.007663	0.034913
D05299	618573.575	841598.940	618566.742	841598.723	-0.006375	-0.005396	0.008352
D05300	641866.314	869302.913	641859.275	869302.746	0.016182	-0.006028	0.017269
D05301	659149.682	826017.783	659142.840	826017.828	0.002790	-0.007316	0.007830
D05302	629685.749	803478.764	629679.104	803478.711	-0.017936	-0.005848	0.018865
D05303	595467.917	811958.548	595461.295	811958.283	-0.036763	-0.004527	0.037041
D05304	589271.340	766771.237	589265.015	766771.061	-0.033228	-0.001557	0.033264
D05305	618377.331	732225.655	618371.155	732225.735	-0.019586	-0.004822	0.020171
D05306	621780.523	755099.469	621774.214	755099.512	-0.000740	0.001895	0.002034
D05307	680636.527	785567.362	680629.883	785567.653	0.015399	0.005956	0.016510
D05308	707671.050	759306.868	707664.485	759307.406	0.009118	0.026378	0.027910
D05309	687582.557	743935.004	687576.129	743935.447	-0.005801	-0.001479	0.005987
D05310	656964.981	722427.680	656958.764	722428.011	-0.014991	-0.000399	0.015018
D05311	723982.140	716343.825	723975.803	716344.568	0.015653	0.012606	0.020098
D05312	732103.606	744378.217	732097.108	744378.899	0.052868	-0.010043	0.053814
D05313	750892.562	716440.713	750886.157	716441.595	0.024788	-0.000068	0.024788
D05314	783251.714	729447.227	783245.166	729448.241	0.055553	-0.007818	0.056100
D05315	781085.875	686747.011	781079.548	686748.151	0.001253	-0.003383	0.003607
D05316	750383.313	692641.935	750377.042	692642.888	0.007120	0.001227	0.007225
D05317	742313.754	681159.066	742307.563	681160.003	-0.008852	-0.002973	0.009338
D05318	733352.453	638003.107	733346.548	638004.123	-0.025617	-0.004320	0.025979
D05319	819781.335	657293.820	819775.052	657295.283	-0.032714	0.007320	0.033523
D05320	822625.892	704386.874	822619.346	704388.197	0.012543	0.003077	0.012915
D05321	430252.611	881967.196	430245.975	881965.845	-0.050704	-0.006204	0.051082
D05322	426509.810	860859.783	426503.305	860858.454	-0.054885	-0.009953	0.055780
D05323	730089.051	1818070.281	730077.492	1818068.052	0.056826	-0.025623	0.062335

ตารางที่ ข.4 ( ต่อ) ค่า Residual ของการใช้สมการพหุนาม Third Degree ในการหาค่าตัวแปรระหว่างค่าพิกัด  
UTM ( 7Parameters ) กับค่าพิกัด UTM ( 3 Parameters)

Station	(1) 7 Parameters		(2) 3 Parameters (NIMA)		X Residual	Y Residual	RMS.error
	Northing	Easting	Northing	Easting			
D05324	1167862.771	1755468.888	1167850.305	1755468.193	0.023565	0.014109	0.027466
D05325	970472.397	1635618.191	970460.807	1635617.251	0.016932	-0.000869	0.016954
GPS3076	1083243.139	1844790.829	1083230.588	1844789.599	-0.007484	0.002242	0.007813
GPS3128	878933.263	1716523.642	878921.629	1716522.181	0.015498	0.012055	0.019635
GPS3138	909604.594	1835932.292	909592.493	1835930.577	-0.005320	-0.012774	0.013837
GPS3146	1054348.632	1703373.111	1054336.597	1703372.236	0.014681	0.001949	0.014809
GPS3153	969789.345	1756490.184	969777.354	1756488.882	0.015274	-0.003745	0.015727
GPS3217	539556.581	2027023.609	539544.728	2027020.450	-0.014415	0.008577	0.016774
MIN					-0.000021	-0.000017	0.000622
MAX					-0.092146	0.050826	0.092207
MEAN					0.000000	0.000000	0.023011
S.D.					0.027130	0.009356	0.017101
R.M.S.					0.027130	0.009356	0.028669

## ประวัติผู้เขียน

ร้อยเอก นันทบุล อินทุญาติ เกิดเมื่อวันที่ 22 กรกฎาคม พ.ศ.2515 ที่จังหวัด พิษณุโลก สำเร็จการศึกษาปริญญาวิศวกรรมศาสตรบัณฑิต สาขาวิศวกรรมแผนที่ โรงเรียนนายร้อยพระจุลจอมเกล้า ในปีการศึกษา 2537 และเข้าศึกษาต่อในหลักสูตรวิศวกรรมศาสตรมหาบัณฑิต ที่ภาควิชาสำรวจ คณะวิศวกรรมศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย เมื่อ พ.ศ. 2539

