

The results of Control Point Survey

THE STUDY
FOR
ESTABLISHMENT OF GEOGRAPHIC
DATABASE
IN
THE REPUBLIC OF THE GAMBIA

RESULTS
OF
CONTROL POINT SURVEY


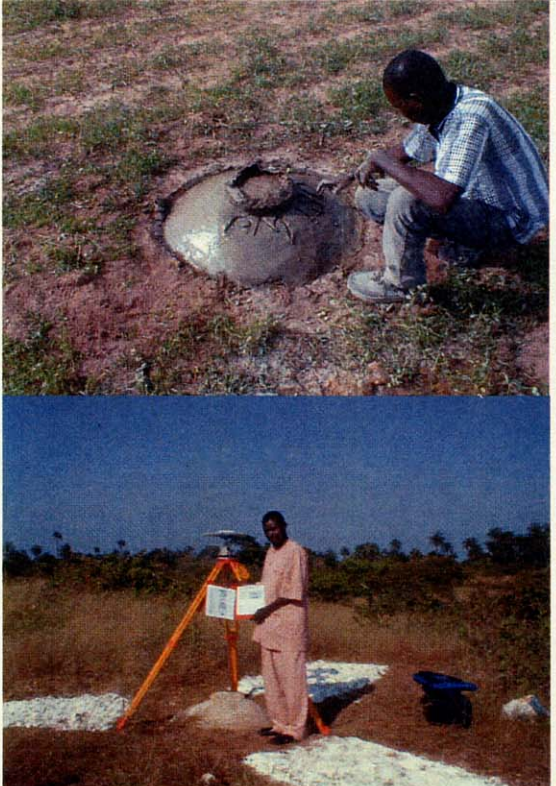
MARCH 2002

JAPAN INTERNATIONAL COOPERATION AGENCY

Point Id	Point Class	Latitude	Longitude	Ellip. Hgt.
N1	Control	13° 05' 55.57910" N	16° 45' 49.03416" W	35.722
N2	Control	13° 27' 08.56154" N	16° 35' 22.27207" W	37.863
N3	Control	13° 10' 04.52137" N	16° 24' 59.74873" W	56.035
N4	Control	13° 31' 43.12949" N	16° 10' 36.05240" W	62.683
N5	Control	13° 13' 42.41408" N	16° 05' 48.31298" W	44.501
N6	Control	13° 14' 50.70676" N	15° 50' 06.57357" W	41.126
N7	Control	13° 34' 15.15276" N	15° 48' 41.35211" W	59.307
N8	Control	13° 44' 18.16614" N	15° 23' 46.85361" W	55.499
N9	Control	13° 23' 51.97874" N	15° 23' 28.20885" W	42.692
N10	Control	13° 46' 59.13647" N	14° 59' 33.45374" W	45.139
N11	Control	13° 32' 50.63285" N	15° 01' 14.98621" W	58.538
N12	Control	13° 33' 11.36680" N	14° 44' 54.04608" W	50.952
N13	Control	13° 37' 30.89831" N	14° 30' 57.18141" W	75.996
N14	Control	13° 18' 58.72146" N	14° 31' 42.63683" W	58.695
N15	Control	13° 30' 07.56842" N	14° 12' 22.68712" W	76.805
N16	Control	13° 13' 09.81567" N	14° 11' 15.11171" W	89.753
N17	Control	13° 24' 22.30210" N	13° 53' 29.64585" W	67.147
NJAU	Control	13° 45' 25.74508" N	15° 11' 19.10509" W	62.568
G1	Control	13° 18' 34.34069" N	16° 47' 09.28606" W	39.169
G2	Control	13° 35' 23.69764" N	16° 25' 20.69608" W	67.857
G3	Control	13° 10' 43.94695" N	15° 48' 32.13743" W	43.476
G4	Control	13° 21' 34.69058" N	15° 17' 50.97591" W	75.788
G5	Control	13° 44' 52.52519" N	15° 16' 42.06503" W	73.488
G6	Control	13° 27' 48.10335" N	14° 56' 24.51859" W	65.087
G7	Control	13° 45' 37.70286" N	14° 51' 56.25512" W	78.051
G8	Control	13° 14' 21.06039" N	14° 23' 14.18069" W	63.248
G9	Control	13° 32' 52.75088" N	14° 03' 18.56270" W	79.198
G10	Control	13° 20' 06.85477" N	13° 56' 34.87234" W	45.654
G11	Control	13° 32' 58.68276" N	13° 53' 25.40467" W	47.534
L1	Control	13° 28' 52.33167" N	16° 40' 50.54748" W	44.231
L2	Control	13° 17' 10.05005" N	16° 37' 05.55770" W	44.735
L3	Control	13° 10' 48.20742" N	16° 34' 31.91352" W	46.080
L4	Control	13° 19' 59.77416" N	16° 23' 04.23327" W	32.574
L5	Control	13° 21' 07.03308" N	15° 58' 02.08557" W	58.238
L6	Control	13° 33' 27.73807" N	15° 54' 53.16970" W	56.373
L7	Control	13° 23' 02.64002" N	15° 31' 47.65292" W	62.730
L8	Control	13° 27' 31.78708" N	15° 32' 09.18157" W	61.390
L9	Control	13° 34' 33.95901" N	15° 36' 16.27877" W	54.103
L10	Control	13° 36' 52.20314" N	15° 10' 14.97213" W	41.517
L11	Control	13° 40' 39.38941" N	14° 52' 27.40182" W	46.606
L12	Control	13° 30' 10.50734" N	14° 29' 58.47598" W	54.375
L13	Control	13° 22' 12.35086" N	14° 17' 03.92469" W	53.717
L14	Control	13° 21' 32.59331" N	14° 00' 18.47807" W	77.030
L15	Control	13° 19' 35.36952" N	13° 50' 57.55162" W	86.247

Point Id	Point Class	Easting	Northing	Ellip. Hgt.	Geoidal Height	Ortometric Height	
N1	Control	308799.219	1448725.639	35.722	28.407	7.315	
N2	Control	327928.009	1487718.776	37.863	28.879	8.984	
N3	Control	346472.130	1456138.196	56.035	28.756	27.279	
N4	Control	372666.538	1495903.916	62.683	29.460	33.223	
N5	Control	381169.728	1462659.470	44.501	29.322	15.179	
N6	Control	409521.854	1464648.187	41.126	30.055	11.071	
N7	Control	412204.125	1500414.022	59.307	30.177	29.130	
N8	Control	457149.764	1518827.885	55.499	30.475	25.024	
N9	Control	457649.364	1481157.992	42.692	30.858	11.834	
N10	Control	500797.061	1523737.746	45.139	30.282	14.857	
N11	Control	497746.273	1497671.793	58.538	30.650	27.888	
N12	Control	527228.063	1498322.651	50.952	30.624	20.328	
N13	Control	552364.257	1506333.514	75.996	30.398	45.598	
N14	Control	551063.985	1472164.243	58.695	31.112	27.583	
N15	Control	585895.847	1492801.327	76.805	30.475	46.330	
N16	Control	588029.867	1461540.536	89.753	31.344	58.409	
N17	Control	620008.084	1482325.174	67.147	30.810	36.337	
NJAU	Control	479607.344	1520876.709	62.568	30.383	32.185	
G1	Control	306547.815	1472061.137	39.169	28.519	10.650	
G2	Control	346109.606	1502822.728	67.857	29.213	38.644	
G3	Control	412339.469	1457057.969	43.476	30.106	13.370	
G4	Control	467786.374	1476926.421	75.788	30.901	44.888	
G5	Control	469908.035	1519865.574	73.488	30.435	43.053	
G6	Control	506478.609	1488378.896	65.087	30.793	34.294	
G7	Control	514526.023	1521240.123	78.051	30.271	47.780	
G8	Control	566381.948	1463667.654	63.248	31.280	31.968	
G9	Control	602234.832	1497934.247	79.198	30.356	48.842	
G10	Control	614470.385	1474452.402	45.654	31.027	14.627	
G11	Control	620064.028	1498191.396	47.534	30.322	17.212	
L1	Control	318075.898	1490973.347	44.231	28.806	15.425	
L2	Control	324701.271	1469346.574	44.735	28.691	16.044	
L3	Control	329251.811	1457583.142	46.080	28.643	17.437	
L4	Control	350051.664	1474409.202	32.574	28.978	3.596	
L5	Control	395255.825	1476261.667	58.238	29.754	28.484	
L6	Control	401023.572	1498996.793	56.373	29.970	26.403	
L7	Control	442625.444	1479670.258	62.730	30.780	31.950	
L8	Control	441995.882	1487940.015	61.390	30.813	30.577	
L9	Control	434598.239	1500926.843	54.103	30.554	23.549	
L10	Control	481522.051	1505099.172	41.517	30.596	10.921	
L11	Control	513595.509	1512075.367	46.606	30.420	16.186	
L12	Control	554155.858	1492807.918	54.375	30.663	23.712	
L13	Control	577483.305	1478175.884	53.717	30.910	22.807	
L14	Control	607732.424	1477058.794	77.030	30.946	46.084	
L15	Control	624623.727	1473530.128	86.247	31.051	55.196	

FIRST ORDER POINT DESCRIPTION

NAME	N1	MAP SHEET	HEIGHT OVERLLAY SHEET # 2
LOCATION	KARTUNG		
A C C E S S DESCRIPTION	On entering Kartong branch off from road leading to sand mining site		
OWNER OF PROPERTY			
BENCHMARK DESCRIPTION AND SURROUNDINGS	Point Located on a hill near Gardens on road to Sand Mining site. Approx 100meters from geology office on the right towards Sand Mining Site.		
DATE OF INSTALLATION	2001/07/17	INSTALLED BY	MORTEN STRAND
DATE OF GPS OBSERVATION	2001/11/28	OPERATOR	ATSUSHI MASANO
WGS-84	LATITUDE	13° 05' 55.57910"	
	LONGITUDE	16° 45' 49.03416"	
ARTOMETRIC HEIGHT		7.315	
			
1/50,000			

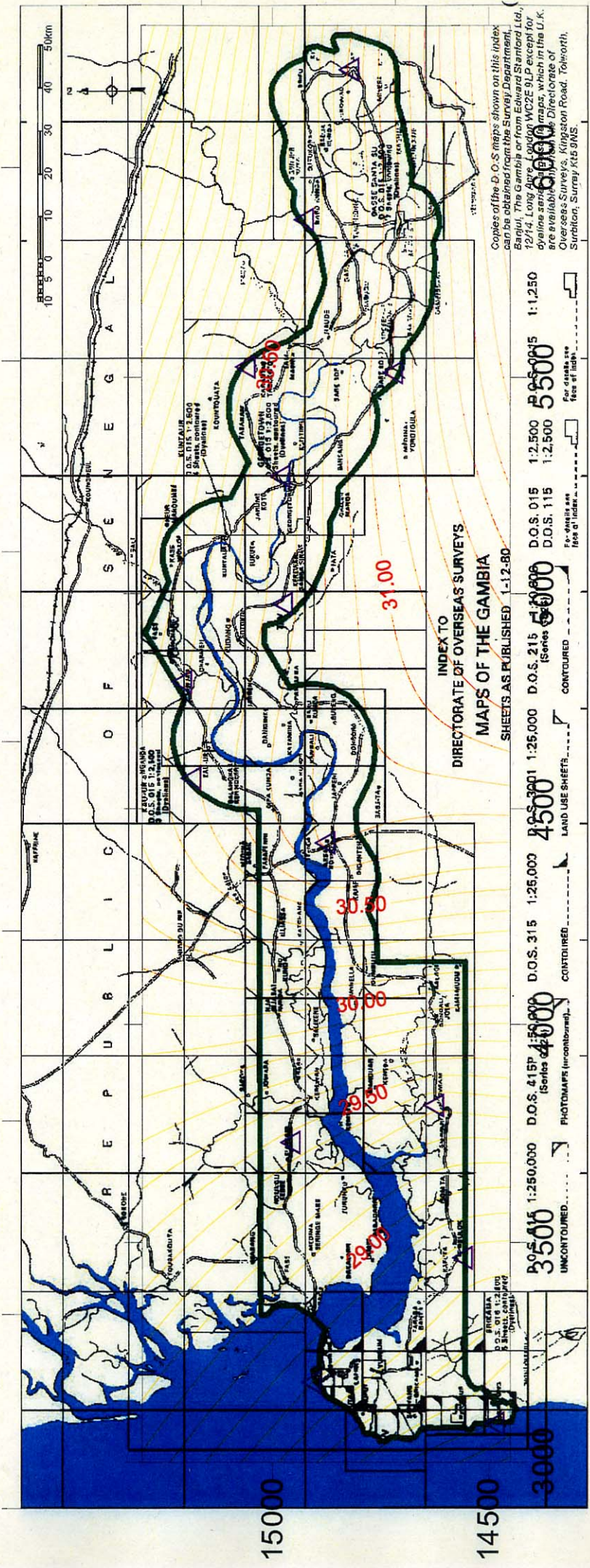
GPS BOOKING SHEET

DL&S THE GAMBIA

Station and Project Information: 1 order GPS-survey			
Site Name N1 (KARIONG)		Date(YY-MM-DD) 2001-11-28	
Receiver Type/ Serial Number ASHTECH X2		Session 332 A	
GMT/UTC start 08.50		GMT/UTC stop 15.03	
Antenna Setup: Ashtech GPS L1/L2 with ground plane			
Antenna Height Vertical 1			
Before Meas.	After Meas.		
A= 1.380 1.415	A= 1.380		
Antenna Height Slope Distance Meas.			
Before Meas.	After Meas.		
B= 1.436	B= 1.436		
Antenna Height Vertical 2			
C= 1.415	C= 1.415		
A: Pillar setup, reading to be taken at bottom of antenna (Antenna reference point)			
B: Tripod setup, reading to be taken at bottom notch of ground plane			
C: Vertical measurement, reading to be taken at bottom of ground plane / blue plastic			
Antenna Reading Check		Discrepancy=	Description/Comments
Result = A_{check}		$A_{check} - A_{(Vertical\ 1)}$	
$A_{check} = C - 0.035$			
$A_{check} = \sqrt{B^2 - 0.04} - 0.43$			
Station Setup			
Check list			
	Before mea	After mea.	
Tribrach centering?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Power cable connection?	<input checked="" type="checkbox"/>		
Antenna cable connection?	<input checked="" type="checkbox"/>		
Memory card inserted?	<input checked="" type="checkbox"/>		
Satellite status during observation		<input checked="" type="checkbox"/>	
GPS Team		Operator MASADO	

THE GAMBIA GEOID MODEL
 Reference Ellipsoid WGS84
 Contour Level 10cm

(km)



Copies of the D.O.S. maps shown on this index can be obtained from the Survey Department, Banjul, The Gambia or from Edward Stanford Ltd, 12/14, Long Acre, London WC2E 9LP except for dyeline series 6000. D.O.S. maps, which in the U.K. are available from the Director of Overseas Surveys, Kingston Road, Tolworth, Surbiton, Surrey KT5 9MS.

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 DIRECTORATE OF OVERSEAS SURVEYS
 MAPS OF THE GAMBIA
 SHEETS AS PUBLISHED 1-12-80

3050	1:250,000	D.O.S. 415P	1:50,000	D.O.S. 3001	1:25,000	4500	1:25,000	D.O.S. 015	1:2,500	5500	1:1,250
UNCONTOURED	PHOTOMAPS (in contour)	CONTOURED	CONTOURED	CONTOURED	CONTOURED	CONTOURED	CONTOURED	CONTOURED	CONTOURED	CONTOURED	CONTOURED

Triangles indicate points used for estimation of model.

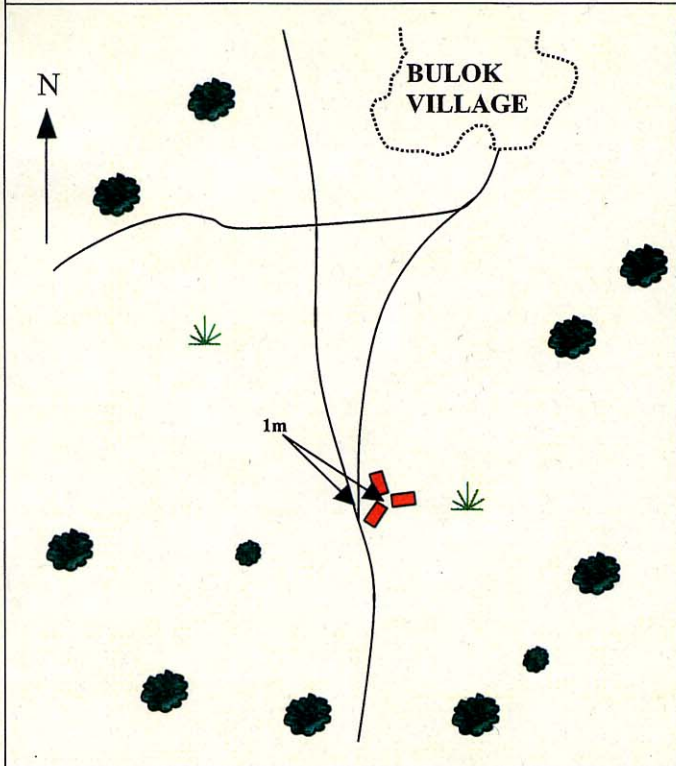
AIR PHOTO SIGNAL DESCRIPTION

DL&S/JICA

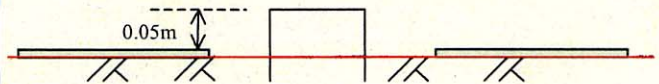
Point name	N3		Operator	ATSUSHI MASANO		
Signal shape	Y-SHAPE	Signal distance	From benchmark	0.00	Inspector	AKIRA NISHIMURA
			Above benchmark	-0.05		
Color	WHITE		Above ground	0.00	Date of installation	01.11.2001
Coordinate zone	UTM 28	E	N	H		
Point coordinates	Main point	346472.130	1456138.196	27.279		
	Eccentric point			27.229		
	Alternative point					

Schematic map

Ground photography



Profile



Adjacent aerial photographs for stereo rendition

Flight strip No.: 6

Photo No.: 436



Flight strip No.: 6

Photo No.: 437

