

The document of Aerial Photography

THE REPUBLIC



OF THE GAMBIA

Department of Lands & Surveys
Mummaur El-Ghadaffi Avenue
Banjul.

Ref. SA 20/132/01/(21)

19th December 2001

TO WHOM IT MAY CONCERN

This letter serves to confirm that the bearers of these Aerial Photographs and other reports, Messes. Tomoharu Yokota and Katsuyuki Kondo are doing so on behalf of the Government of The Gambia.

These photos and reports are en route to Japan for processing after which they will be returned to the Gambia for further action.

The items include the following:

1. Contact Prints - 2 sets
2. Negative films - 1 set
3. Diapositive films- 1 set
4. Photo index map (scale 1:250,000) - 1 set
5. Raw data of airborne GPS -1 set (CD Rom and printed sheets)
6. Recorded time data (event record):- 1 set (CD-Rom and printed sheets)
7. Co-ordinates list of the projection centre -1 set
8. Certified calibration records of Camera-1 set
9. Flight records - 1 set
10. Weekly progress reports -1 set for every week

Should you require any further confirmation regarding the above, please do not hesitate to contact the writer.

On behalf of the Government of the Gambia we thank you for your co-operation and assistance to these two JICA Officials easy passage to Japan.


O S Jarjusey
For Director Lands & Surveys



1:50000 Maps Specification

THE REPUBLIC OF THE GAMBIA 1:50,000 MAPS

Specification

Rev.1.4


















21st July 2002

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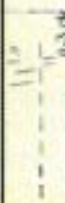






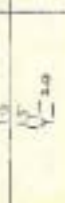
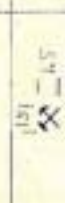
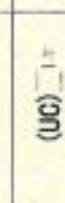
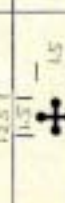





Category	Feature Class	Class Code	Item Code	Feature Item	Figure	Data Type	Line Width (mm)	Symbol Height* Width (mm)	Color	Layers	GIS Attribute	Remarks
Boundary	Administrative Boundary	11	01	International Boundary		Line	0.3	-	Black	Boundary	Vec	
			02	Divisional Boundary		Line	0.3	-	Black	Boundary	Vec	
			03	District Boundary		Line	0.2	-	Black	Boundary	Vec	
Transportation Facilities	Road (Symbolized)	21	01	Main Road		Line	0.15	-	Black Red	Surface	Vec	Total Width 0.8mm 高規格の道路は0.8mm、0.6mm、0.4mm
			02	Secondary Road		Line	0.15	-	Black Yellow	Surface	Vec	Total Width 0.6mm
			03	Other Road or Track		Line	0.15	-	Black White	Surface	Vec	Total Width 0.4mm
			04	Footpath		Line	0.2	-	Black	Surface	Vec	*Dashed Line should be applied →
	Road (Real Width)	22	01	Road Edge 道路縁		Line Area	0.15	-	Black Red	Road	Cad	Only for Publication expression
			02	Dual Carriages Way中央分離帯		Line Area	0.15	-	Black White	Road	Cad	"
			01	Bridge		Line	0.2	2.0*1.0	Black	Road	Cad	Vehicle/Human
			02	Culvert		Line	0.2	1.0*2.0	Black	Road	Cad	Symbolized Item
Buildings	Prominent House	31	01	Huts		Point	-	0.6*0.6	Orange	Buildings	Cad	Prominent House(small)
			02	Buildings		Line Area	0.2	-	Black Orange	Buildings	Cad	Prominent House(Large)
			03	Named Buildings		Line Area	0.2	-	Black	Buildings	Cad	Prominent House(Build up)
Generalized House	Building Symbols	32	01	Populated Area Town/Village		Line Area	0.15	-	Orange	Surface	Vec	Generalized Houses
			01	Government And Municipal Office		Point	0.2	1.5*-	Black	Landmark	Cad	Place symbol without indicate point.
			02	Court		Point	0.2	1.5*-	Black	Landmark	Cad	"


1:50,000 Symbols Specification

Category	Feature Class	Class Code	Item Code	Feature Item	Figure	Data Type	Line Width (mm)	Symbol Height* Width (mm)	Color	Layers	GIS Attribute *	Remarks
		33	03	Custom Post		Point	0.1 0.2	2.0*2.0	Black	Landmark	Cad	"
		33	04	Post Office		Point	0.1	1.5*2.0	Black	Landmark	Cad	"
		33	05	Police Station		Point	0.1 0.2	2.0*2.0	Black	Landmark	Cad	"
		33	06	Police Post		Point	0.2	1.5*1.5	Black	Landmark	Cad	"
		33	07	Church		Point	0.2	2.0*1.5	Black	Landmark	Cad	"
		33	08	Mosque		Point	0.2	2.0*1.5	Black	Landmark	Cad	"
		33	09	School		Point	0.2	1.5*1.5	Black	Landmark	Cad	"
		33	10	Community Centre		Point	0.2	1.5*-	Black	Landmark	Cad	"
		33	11	Hospital		Point	0.2	1.5*-	Black	Landmark	Cad	"
		33	12	Health Centre		Point	0.2	1.5*1.5	Black	Landmark	Cad	"
		33	13	Dispensary		Point	-	1.5*1.5	Black	Landmark	Cad	"
		33	14	Telephone Exchange		Point	-	1.5*1.5	Black	Landmark	Cad	"
		33	15	Telephone Kiosk		Point	-	1.5*1.5	Black	Landmark	Cad	"
		33	16	Market		Point	0.2	1.5*-	Black	Landmark	Cad	"
		33	17	Rest House / Camp		Point	0.2	1.5*-	Black	Landmark	Cad	"
		33	18	Electricity Transmitter		Point	0.2	1.5*-	Black	Landmark	Cad	"
		33	19	Electricity Power Station		Point	0.2	1.5*-	Black	Landmark	Cad	"

Apply for Transform Station
EP 2 EPS

Category	Feature Class	Class Code	Item Code	Feature Item	Figure	Data Type	Line Width (mm)	Symbol Height* Width (mm)	Color	Layers	GIS Attribute	Remarks
		33	20	Mixed Farming Centre		Point	0.2	1.5*-	Black	Landmark	Cad	"
		33	21	Petrol Station		Point	-	1.5*1.5	Black	Landmark	Cad	"
		33	22	Hotel		Point	-	1.5*2.0	Black	Landmark	Cad	"
		33	23	Wharf Town		Point	0.2	2.0*1.5	Black	Landmark	Cad	"
		33	24	Airport		Point	0.1	2.0*2.0	Black	Landmark	Cad	"
Small Object	Small Object	41	01	Water Tank		Point	0.2	1.5*-	Blue	Utilities	Cad	" Shape of This Feature should be applied to Attribute of This
		41	02	Water Tower		Point	0.2	1.5*-	Blue	Utilities	Cad	" Shape of This Feature should be applied to Attribute of This
		41	03	Reservoir		Point	0.2	1.5*-	Blue	Utilities	Cad	" Shape of This Feature should be applied to Attribute of This
		41	04	Bore Hole		Point	0.2	1.5*-	Blue	Utilities	Cad	"
		41	05	Water Pipe Line		Line	0.2 0.15	1.5*-	Blue	Utilities	Cad	"
		41	06	Power Line		Line	0.15	1.0*2.0	Black	Utilities	Cad	"
		41	07	Antenna		Point	0.2	2.0*1.5	Black	Utilities	Cad	"
		41	08	Telephone Line		Line	0.15	0.5	Black	Utilities	Cad	Telephone Line/Telegraph Line
		41	09	Reserve Boundary		Line	0.15		Black	Utilities	Cad	"
		Waters	Waters	51	01	Coast Line		Line Area	0.15	-	L.Blue	Surface
51	02			River		Line Area	0.15	-	Blue L.Blue	Surface	Vec	"
51	03			Stream		Line	0.2	-	Blue	Surface	Vec	"

Category	Feature Class	Class Code	Item Code	Feature Item	Figure	Data Type	Line Width (mm)	Symbol Height* Width (mm)	Color	Layers	GIS Attribute	Remarks			
		51	04	Seasonal River/Stream		Line	0.2	-	[Blue]	Surface	Vec	*Dashed Line should be applied			
		51	05	Lake / Pond		Line Area	0.15	-	Blue L.Blue	Surface	Vec				
		51	06	Sand Island		Area	-	0.3	-	D.Glay L.Blue	Surface	Vec	Points should be placed randomly.		
	Structures Related to Water	52	01	Ferry		Line	0.15	1.0*0.5	Black	Water Facilities	Cad		Vehicle/Human A=1.2 0.5		
		52	02	Jetty		Line	0.2	-	Black	Water Facilities	Cad				
	Specific Areas		61	01	Specific Area Boundary		Line Area	0.15	-	Black	Surface	Vec		Applied for Cemetary,Airport,Mines	
61			02	Christian Cemetary		Point	0.2	2.0*1.5	Black	Surface	Vec		Place symbol without indicate point. It can be placed in the prual.		
61			03	Muslim Cemetary		Point	0.2	2.0*1.5	Black	Surface	Vec		"		
61			04	Mine		Point	0.2	1.5*1.5	Black	Surface	Vec		Place symbol without indicate point.		
61			05	Under Construction		Point	0.2	1.5*-	Black	Surface	Vec		"		
61			06	Ruins		Point	0.2	1.5*1.5	Black	Surface	Vec				
Vegetation		71	01	Vegetation Boundary	-	Line	-	-	-	Surface	Vec		Invisible Item		
		71	02	Rice Field		Area	-	1.5	D.Glay Y.Green	Surface	Vec		Filled Color 0.3 = 1 = 1.5		
		71	03	Cultivation		Area	-	1.5*1.5	D.Glay Y.Green	Surface	Vec		"	0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5 9.5	
		71	04	Palms		Area	-	1.5*1.5	D.Glay Y.Green	Surface	Vec		"	0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5 9.5	
		71	05	Plantation		Area	-	1.0*1.0	D.Glay Y.Green	Surface	Vec			"	0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5 9.5
		71	06	Forest		Area	-	1.5*1.5	D.Glay D.Green	Surface	Vec			"	Symbol Should be Placed randomly.

Category	Feature Class	Class Code	Item Code	Feature Item (Others)	Figure	Data Type	Line Width (mm)	Symbol Height* Width (mm)	Color	Layers	GIS Attribute *	Remarks
		84	02	Boundary Pillar (Others)		Point	-	1.5*-	Black	GCP	Cad	

* Vec: Topological structured Item *Cad: Geometrical structured Item

Category	Feature Class	Class Code	Item Code	Feature Item	Figure	Font	Height (m)	Color	Type	Layers	GIS Attribute	Remarks
Annotation	Administration	91	01	Country	REPUBLIC OF SENEGAL	Univers	-	Black	U/C	Annotation	Cad	
		91	02	Divisional Headquarters		Univers	150 3.5	Black	U/C	Annotation	Cad	With Underline
		91	03	Town		Univers	150 3.5	Black	U/C	Annotation	Cad	
		91	04	Village		Univers	125 3.5	Black	U/C	Annotation	Cad	
		91	05	Hamlet		Univers	100 3.5	Black	U/L/C	Annotation	Cad	
	Land Mark	92	01	Bridge	Univers	Univers	75 3.5	Black	U/L/C	Annotation	Cad	
		92	02	Named Buildings	Univers	Univers	75 3.5	Black	U/L/C	Annotation	Cad	
	Water Areas	93	01	Sea	<i>NORTH ATLANTIC OCEAN</i>	Univers Italic	250 3.0	Blue	U/C	Annotation	Cad	
		93	02	Bay	-	Univers Italic	250 3.0	Blue	U/C	Annotation	Cad	None
		93	03	Gambia River	<i>RIVER GAMBIA</i>	Univers Italic	250 3.0	Blue	U/C	Annotation	Cad	
		93	04	River	<i>LAWY RIVER</i>	Univers Italic	100 3.0	Blue	U/C	Annotation	Cad	
		93	05	Stream	<i>River</i>	Univers Italic	75 3.5	Blue	U/L/C	Annotation	Cad	
		93	06	Cape/Point	<i>Barra Point</i>	Univers	100 3.0	Black	U/L/C	Annotation	Cad	
		93	07	Island	<i>BIJAL ISLANDS</i>	Univers	100 3.0	Black	U/C	Annotation	Cad	
		93	08	Lake/Pond	<i>Manakro River Pond</i>	Univers Italic	75 3.5	Blue	U/L/C	Annotation	Cad	
	Specific Areas	94	01	Reserves	<i>FUSINE FOREST RESERVE</i>	Univers	100 3.0	Black	U/L/C	Annotation	Cad	
		94	02	Airport	<i>DABAL INTERNATIONAL AIRPORT</i>	Univers	100 3.0	Black	U/L/C	Annotation	Cad	

Category	Feature Class	Class Code	Item Code	Feature Item	Figure	Font	Height (m)	Color	Type	Layers	GIS Attribute	Remarks
	Control Point	95	01	Point Name	as 127	Univers Italic	75 1.2	Black	U/C	Annotatio n	Cad	三角点, 水准点, 写意点, 点石
			02	Height Value	as	Univers	75 1.5	Brown	U/C	Annotatio n	Cad	
	03	Contour Height Value	as	Univers Italic	75 1.5	Brown	U/C	Annotatio n	Cad			

Hight Reference

Group	m on Paper	mm on Paper	pt on Paper
250	5	14	
150	3	8.5	
125	2.5	7	
100	2	5.5	
75	1.5	4	

National Base Map Symbols Regulation (Draft)

NATIONAL BASE MAP SYMBOLS REGULATION

(Draft)

**DEPARTMENT OF LANDS AND SURVEYS,
DEPARTMENT OF STATE FOR
LOCAL GOVERNMENT AND LANDS,
REPUBLIC OF THE GAMBIA**

National Base Map Symbols Regulation for the Republic of the Gambia

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Chapter 1 General Rules

1.1 General Rules

1.1.1 Objectives

These map symbols regulations aim to define the items to be represented on the 1:50,000-scale national base maps of the Republic of the Gambia (hereinafter referred to as national base maps) as well as the principles for the selection and representation method of such items.

1.1.2 Characteristics of a National Base Map

A national base map refers to a typical small-scale topographic map that expresses in detail actual area conditions and serves to promote the rational administrative policies of the central government and the municipalities.

1.1.3 Instructions for Map Symbol Utilization

The director of the Department of Lands and Surveys may give instructions, when necessary, regarding the selection of items to be represented and the representation methods to adopt.

1.2 National Base Map Specifications

1.2.1 Position Standards

The WGS84 reference system shall be adopted for the positions to be represented on the national base maps. These positions shall be expressed using the Universal Traverse Mercator (hereinafter referred to as UTM) coordinates.

1.2.2 Projection Method

For projection, the UTM shall be adopted.

1.2.3 Size of National Base Map

1.3 Principles for Representation

1.3.1 Items to be Represented

1. All items specified in Chapter 2 shall be represented on national base maps. Items to be indicated are restricted to permanent objects observed in field investigations. However, the items below may be expressed as well.
 - (1) Objects that are under construction and will be completed roughly within a year.
 - (2) Non-permanent objects that are considered of importance.
2. Objects that do not meet the application criteria for the map symbols specified in Chapter 2 may also be expressed if their omission will significantly affect the rationality of the map.

1.3.2 Method of Representation

1. Ground surface conditions shall be expressed in accordance with the national base map scale, as accurately and in as much detail as possible.
2. Objects shall be represented on the national base map by delineating the shape of their orthographic projection using symbols. Objects that are difficult to project orthographically, shall be indicated by placing specified symbols at the center of their orthographic projection.
3. Objects without any specified symbols for representation shall be expressed using annotations such as names and types.

1.3.3 Selection of Items to be Represented and Overall Representation

1. The items to be expressed on the national base map shall be selected and represented appropriately in accordance with the map scale.
2. In the selection, the importance and shape of the object shall be examined and extra care should be taken to prevent omitting highly important items. The local features of each item shall be modified when necessary and expressed in such a way that the actual conditions are easily understood.

1.3.4 Repositioning of Represented Items

Only under inevitable circumstances shall repositioning be carried out, and if repositioning is indeed necessary, it shall be minimized.

1.3.5 Overlapping of Represented Items

In case the annotations and symbols inevitably overlap, the following rules shall be applied.

- (1) If symbols of different color overlap one another, they shall be indicated by placing one on top of the other. However, if the relationship of the items of the overlapping symbols is three dimensional, the item underneath shall not be represented.

- (2) If symbols of the same color come in contact on a plane, the symbols shall be adjoined and expressed. However, if the relationship of the items of the adjoined symbols is three-dimensional, the symbol for the item underneath shall be separated and drawn away from the symbol of the upper item.
- (3) If symbols of same colors are adjacent to each other, they shall be expressed at a distance of 0.2mm from each other.

1.3.6 Permissible Error for the Size of Letters & Map Symbols

In case of unavoidable circumstances, the permissible error for the size of letters and symbols to be expressed on the national base map shall be within $\pm 0.2\text{mm}$.

1.3.7 Classification of Lines

Lines on the national base map shall be classified as shown in the table below.

Classification of Lines

Line No	Thickness	Remarks
Special No. 0	0.08mm	The permissible error for line thickness is $\pm 0.01\text{mm}$ for every line number.
No. 1	0.10mm	
Special No. 1	0.15mm	
No. 2	0.20mm	
No. 3	0.30mm	

Chapter 2 Map Symbols

2.1 General Rules

2.1.1 Map Symbols

Map symbols are specified symbols for the representation of objects on a national base map, and are classified into: boundaries, transportation facilities, buildings, small objects, water areas, specific areas, vegetation, topographic features and control points.

2.2 Boundaries

2.2.1 Administrative Boundaries

Boundaries shall be classified into administrative boundaries, international boundaries, divisional boundaries and district boundaries.

2.3 Transportation Facilities

Transportation facilities shall be classified into roads and road facilities.

2.3.1 Roads

1. Roads refer to those for general traffic and shall be classified into true-to-scale roads and symbolized roads.
2. For true-to-scale-roads, the width shall be indicated. For symbolized roads, the centerline of the symbol shall be aligned with centerline of the actual road.

2.3.2 Road Facilities

Road facilities refer to structures, such as bridges, etc., that are integrated with roads to perfect their utility.

2.4 Buildings

Buildings shall be classified into buildings and building symbols.

2.4.1 Buildings

1. Buildings refer to structures used for dwellings and/or other reasons.

2. Buildings shall be classified into prominent buildings and generalized buildings.
3. Prominent buildings shall be classified into huts (small) and buildings (large), according to their size on the map, and named buildings.

2.4.2 Building Symbols

1. Building symbols are used to clearly represent the functions and use of a building.
2. Building symbols shall be placed on the map as follows.
 - (1) When the symbol can be placed within the building, it shall be placed at the center.
 - (2) When the symbol cannot be placed within the building, it shall be placed in the following order of priority: above, below, left, right.
 - (3) Symbols representing multiple buildings shall be placed at the location of the main building or at their center.
 - (4) If a building symbol is used for a part of a generalized building, the target building shall be separated and expressed as prominent building and the symbol shall be placed in it.
 - (5) If a building symbol is used to indicate a part of an individual building, the symbol shall be placed at the corresponding location.

2.5 Small Objects

2.5.1 Small Objects

1. These refer to objects generally small in size that can only be expressed using specified symbols.
2. As a rule, small objects that serve as excellent landmarks for identifying points shall be represented. However, if they are closely located to each other and it would be difficult to express all the objects, the less important ones may be omitted.
3. Symbols for small objects, except for those particularly specified, shall be expressed in such a way that the center point, or the centreline, of the symbol is at the true location of the object concerned.
4. Except for those particularly specified, the symbols for small objects shall be expressed perpendicular to the lower neatline.

2.6 Water Areas

Water areas shall be classified into water areas and structures related to water.

2.6.1 Water Areas

Water areas refer to coastlines, rivers, streams, lakes and ponds.

2.6.2 Structures Related to Water

Structures related to water refer to structures on the coastline and ferries.

2.7 Specific Areas

1. Specific areas refer to cemeteries, airports, etc., that have to be distinguished from other areas for the sake of map reading. Specific area symbols are defined as symbols that represent specific areas.
2. Depending on prevailing conditions, specific areas shall be represented using specific area boundaries, specific area symbols and/or annotations.
3. As a rule, the specific areas symbols shall be placed roughly at the center of the area. However, if there is a need to specify a principal area, the symbol shall be placed at the location of the principal area, and a multiple number of specific area symbols shall be placed at the location of a cemetery.
4. Specific area symbols shall be expressed perpendicular to the lower neatline.

2.8 Vegetation

1. Vegetation refers to the different types of ground vegetation and the ground conditions. Vegetation boundaries and vegetation symbols are used for representation.
2. In representing vegetation, the vegetation boundary shall be used to enclose the area and the symbols for the different types of vegetation shall be placed within the enclosed area perpendicular to the lower neatline. Furthermore, the enclosed area shall be painted a specific colour.
3. Vegetation in areas measuring roughly under 3.0mm x 3.0mm or 1.5mm x 6.0mm on the map shall not be expressed, unless their omission in small and narrow areas is considered inappropriate.
4. If the omission of adjacent small areas with the same vegetation type is considered inappropriate, the areas shall be properly combined and expressed in accordance with the surrounding conditions.

2.9 Topographic Feature

1. Topographic feature refers to ground surface undulations, and, as a rule, contour lines shall be used to express these features.
2. Topographic features, that are difficult or inappropriate to represent using contour lines, shall be expressed using distorted area symbols.

2.9.1 Contour Lines

Contour lines are classified into normal contour lines, index contour lines, and intermediate contour lines.

2.9.2 Distorted Areas

Distorted areas shall be classified into and indicated on the map as cliffs and steep slopes.

2.10 Control Points

2.10.1 Control Points

1. Control points shall be classified into and indicated on the map as triangometrical stations, bench marks, spot heights without stone markers, and spot heights determined using a plotter.
2. The elevations of trigonometrical stations, bench marks, spot heights without stone markers and spot heights determined using a plotter, shall be indicated.
3. As a rule, the control points, including the contour line values, shall be expressed at a density of 10 to 15 points for every 10cm x 10cm on the map.
4. The position of the principle points of aerial photos used in topographic map production shall be indicated.

2.10.2 Boundary Pillars

Boundary pillars shall be classified into and represented on the map as international boundary pillars and other border pillars including those for the Gambia River.

2.11 Forms of Topographic Map Symbols

The table below shows the forms and application of the topographic map symbols.

Chapter 3 Annotation

3.1 General Rule

Annotations refer to expressions using letters and numbers and shall be used to indicate the inherent names (hereinafter referred to as “proper name”) of areas, manmade structures, and natural objects, the name, type and condition of objects without designated symbols, as well as elevations and contour line values.

3.1.1 Principles for Annotation

As a rule, annotations shall be made as follows.

- (1) Annotations shall be made for small objects, areas, and linear objects in accordance with the object type, area and shape on the map.
 - a. Small objects refer to those that exist on their own (e.g. independent buildings) and cover an area of less than 5.0mm x 5.0mm on the map.
 - b. Areas refer to agglomerated areas, as in residential areas, and stretches of land.
 - c. Linear objects refer to objects like rivers where the length is extremely longer in comparison to the width.
- (2) The annotation of proper names shall be restricted to present official names. For those without official names or with official names that are hardly ever used, the most commonly used name shall be adopted.
- (3) As a rule, abbreviated names shall not be annotated. In the case of commonly used abbreviations, however, they may be annotated as long as no questions shall arise as a result of their representation.
- (4) In case an annotation contains many letters and is inappropriate to abbreviate, it may be represented in two lines.
- (5) Annotations shall be positioned in such a way that they precisely indicate the target object, and do not erase important topography or objects.
- (6) Annotations shall be properly positioned so that they do not cross other lettering locations, as it would create confusion in reading.

3.1.2 Selection of Items to be annotated

The selection of annotations shall be carried out as follows.

- (1) All administrative names shall be indicated.
- (2) For the names of rivers, lakes, ponds, bays, islands, and other objects, only those that are famous and/or those considered important for the use of the map shall be indicated.

3.1.3 Writing Style & Font

- (1) The writing style shall be universal or universal italics.
- (2) The letters shall be upright or slanted to the right.

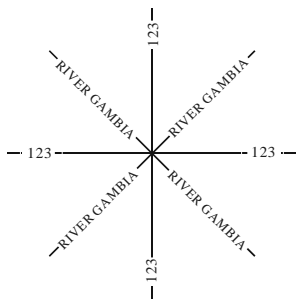
3.1.4 Lettering Location

Lettering location refers to the arrangement of an annotation and is classified into horizontal lettering location and oblique lettering location.

- (1) Horizontal lettering location refers to the horizontal (from left to right) arrangement of the letters parallel to the lower neatline.
- (2) Oblique lettering location refers to the arrangement of the letters along a straight line slanted at an appropriate angle to the lower neatline.

3.1.5 Lettering Direction

The direction of the lettering shall be as shown in the following diagram.



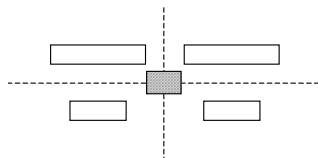
3.1.6 Annotation Arrangement

1. The annotations shall be arranged as shown in the following diagram.

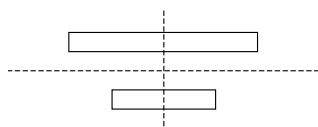
Annotation Categories	Lettering Location	Location of the Annotation	Remarks
Small Objects	Horizontal	<p>The standard interval between the object and the annotation shall be 1.0mm.</p> <p>* The location of annotations for features that are poorly visible and difficult to annotate based on the above mentioned method, may be appropriately moved.</p>	
Area	Horizontal	<p>Area Annotations shall be placed within the object</p> <p>Area Annotations shall be placed outside the object</p>	
Linear Objects	Oblique	The direction of the annotations shall be as shown in 3.1.5	Annotations for very wide linear objects shall be placed within the target object. Contour line values shall be expressed on the contour line.

2. When the lettering is expressed in two lines, the interval between lettering locations shall be 1.0mm. The following specifications shall also be applied .

- (1) For small objects, the letters on the side of the object shall be completed, and the center line of the two lines shall be drawn to coincide with the center of the object. Annotations shall be ranked in this order: ,



- (2) For areas, the center of each line shall be aligned with the center of the target area.



3.1.7 Annotation Application

Feature Class	Class Code	Item Code	Feature Item	Figure	Font	pt	Color	Annotation Categories			
								Small Object	Area (I)	Area (II)	Liner Objects
Adoministartion	91	01	Country	REPUBLIC OF SENEGAL	Univers	-	Black				
	91	02	Divisional Headquarters	BRIKAMA	Univers	8.5	Black				
	91	03	Town	JESWANG	Univers	8.5	Black				
	91	04	Village	SANYANG	Univers	7	Black				
	91	05	Hamlet	Pancholi	Univers	5.5	Black				
Land Mark	92	01	Bridge	Oyster Creek Bridge	Univers	4	Black				
	92	02	Named Buildings	Government Quarters	Univers	4	Black				
Water Areas	93	01	Sea	NORTH ATRANTIC OCEAN	Univers Italic	14	Blue				
	93	02	Bay	-	Univers Italic	14	Blue				
	93	03	Gambia River	RIVER GAMBIA	Univers Italic	14	Blue				
	93	04	River	LAMIN BOLON	Univers Italic	7	Blue				
	93	05	Stream	River Banfat	Univers Italic	4	Blue				
	93	06	Cape/Point	Borra Point	Univers	5.5	Black				
	93	07	Island	BIJUL ISLANDS	Univers	5.5	Black				
	93	08	Lake/Pond	Korohaliy Sacred Pond	Univers Italic	4	Blue				
Specific Areas	94	01	Reserves	FURUYAR FOREST PARK	Univers	7	Black				
	94	02	Airport	BANJUL INTERNATIONAL AIRPORT	Univers	7	Black				
Control Point	95	01	Point Name	CS AZ 7	Univers Italic	4	Black				
	95	02	Height Value	62	Univers	4	Brown				
	95	03	Contour Height Value	50	Univers Italic	4	Brown				
Other	96	01	Airphoto Principal Point		Univers	4	Black				

3.2 Detailed Rules

3.2.1 Administrative Names

As a rule, all administrative names shall be indicated.

3.2.2 Bridges

The names of bridges that are famous and/or are considered important for the use of the map shall be indicated.

3.2.3 Buildings

Annotations for building names shall be carried out as follows:

- (1) The names of buildings that are famous and/or considered important for the use of the map shall be indicated.
- (2) If annotations are to be made for buildings with building symbols, the building symbol shall be omitted.
- (3) For universities, the abbreviation of university names shall be annotated. If deemed particularly necessary, the names of the university departments shall be expressed as well.

3.2.4 Water Areas

Names of water areas shall be indicated as follows:

- (1) River names shall be indicated according to the methods specified for the annotation of linear objects.
- (2) Rivers that cannot be indicated as linear objects due to their configuration (i.e. in the corner of the map) may be annotated according to the method specified for small objects and/or areas.
- (3) Depending on the shape and expanse, the names of lakes, ponds, and marshes shall be annotated according to the methods specified for either small objects or areas.
- (4) Depending on the shape and expanse, bay names shall be annotated according to the methods specified for either small objects or areas.
- (5) Depending on the shape and size, island and cape names shall be annotated in accordance with the methods specified for either small objects or areas.

3.2.5 Structures Related to Water

Depending on the scale, the names of boat/ferry docking places shall be annotated in accordance with the methods specified for either small objects or areas.

3.2.6 Specific Areas

- (1) The names of specific areas shall be annotated according to the method specified for areas. If this is inappropriate because the area on the map is narrow, the annotation may be made according to the method specified for either small objects or linear objects.

3.2.7 Names and Elevations of Control Points

1. The elevations and names of control points shall be indicated on the right side and lower right or the left side and lower left of their respective symbols. However, if the location overlaps other important objects, the location may be moved as deemed appropriate.

2. The elevations of trigonometrical stations, bench marks and spot height without stone markers shall be indicated in meters.

3.2.8 Values of Contour Lines

Contour line values shall be expressed as follows:

- (1) The values of contours shall mainly be indicated on index contour lines, primary and secondary intermediate contour lines, and depression contours. They may also be indicated on normal contour lines in flat areas if deemed necessary for the sake of map reading.
- (2) The values shall be positioned so as not to block the representation of the topography. Values shall not be expressed on ridges and valleys with large curvatures.
- (3) Values shall be positioned so that the center of the numbers and the contour line are aligned.
- (4) The values, including those for the control points, shall be expressed at a density of 15 to 20 values for every 10cm x 10cm on the map.

3.2.9 Annotation of Explanations

In cases when map symbols cannot clearly identify conditions and types, annotation of explanations shall be annotated according to the methods specified for small objects, areas, and/or linear objects, depending on the type of the object concerned.

Category	Feature Class	Class Code	Item Code	Feature Item	Figure	Data Type	Line Width (mm)	Color
	Pillars	84	01	International Boudary Pillar	▲	Point	0.1	Black
		84	02	Boundary Pillar (Others)	▲	Point	-	Black

* Vec: Topological structured Item *Cad: Geometrical structured Item

Applications

1. International boundary pillars are the pillars that establish the international boundaries of which the concerned countries have agreed upon.
 2. Of the above-mentioned international boundary pillars, those that have been resurveyed or readjusted based on the new geodetic system shall be indicated.
1. Boundary pillars refer to pillars that have been installed with a fixed objective (i.e. river boundary pillars). As a rule, all boundary pillars shall be indicated.

Chapter 3 Annotation

3.1 General Rule

Annotations refer to expressions using letters and numbers and shall be used to indicate the inherent names (hereinafter referred to as “proper name”) of areas, manmade structures, and natural objects, the name, type and condition of objects without designated symbols, as well as elevations and contour line values.

3.1.1 Principles for Annotation

As a rule, annotations shall be made as follows.

- (1) Annotations shall be made for small objects, areas, and linear objects in accordance with the object type, area and shape on the map.
 - a. Small objects refer to those that exist on their own (e.g. independent buildings) and cover an area of less than 5.0mm x 5.0mm on the map.
 - b. Areas refer to agglomerated areas, as in residential areas, and stretches of land.
 - c. Linear objects refer to objects like rivers where the length is extremely longer in comparison to the width.
- (2) The annotation of proper names shall be restricted to present official names. For those without official names or with official names that are hardly ever used, the most commonly used name shall be adopted.
- (3) As a rule, abbreviated names shall not be annotated. In the case of commonly used abbreviations, however, they may be annotated as long as no questions shall arise as a result of their representation.
- (4) In case an annotation contains many letters and is inappropriate to abbreviate, it may be represented in two lines.
- (5) Annotations shall be positioned in such a way that they precisely indicate the target object, and do not erase important topography or objects.
- (6) Annotations shall be properly positioned so that they do not cross other lettering locations, as it would create confusion in reading.

3.1.2 Selection of Items to be annotated

The selection of annotations shall be carried out as follows.

- (1) All administrative names shall be indicated.
- (2) For the names of rivers, lakes, ponds, bays, islands, and other objects, only those that are famous and/or those considered important for the use of the map shall be indicated.

3.1.3 Writing Style & Font

- (1) The writing style shall be universal or universal italics.
- (2) The letters shall be upright or slanted to the right.

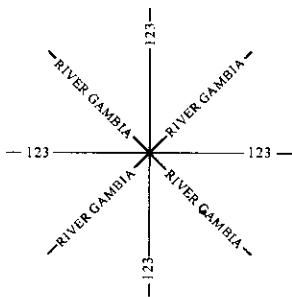
3.1.4 Lettering Location

Lettering location refers to the arrangement of an annotation and is classified into horizontal lettering location and oblique lettering location.

- (1) Horizontal lettering location refers to the horizontal (from left to right) arrangement of the letters parallel to the lower neatline.
- (2) Oblique lettering location refers to the arrangement of the letters along a straight line slanted at an appropriate angle to the lower neatline.

3.1.5 Lettering Direction

The direction of the lettering shall be as shown in the following diagram.



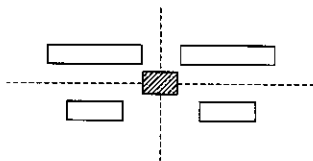
3.1.6 Annotation Arrangement

1. The annotations shall be arranged as shown in the following diagram.

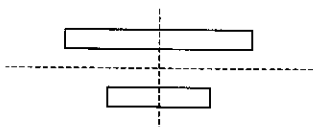
Annotation Categories	Lettering Location	Location of the Annotation	Remarks
Small Objects	Horizontal	The standard interval between the object and the annotation shall be 1.0mm. * The location of annotations for features that are poorly visible and difficult to annotate based on the above mentioned method, may be appropriately moved.	
Area	Horizontal	Area I Annotations shall be placed within the object Area II Annotations shall be placed outside the object	
Linear Objects	Oblique	The direction of the annotations shall be as shown in 3.1.5	Annotations for very wide linear objects shall be placed within the target object. Contour line values shall be expressed on the contour line.

2. When the lettering is expressed in two lines, the interval between lettering locations shall be 1.0mm. The following specifications shall also be applied .

- (1) For small objects, the letters on the side of the object shall be completed, and the center line of the two lines shall be drawn to coincide with the center of the object. Annotations shall be ranked in this order: ①, ②



- (2) For areas, the center of each line shall be aligned with the center of the target area.



3.1.7 Annotation Application

Feature Class	Class Code	Item Code	Feature Item	Figure	Font	pt	Color	Annotation Categories			
								Small Object	Area (I)	Area (II)	Liner Objects
Administration	91	01	Country	REPUBLIC OF SENEGAL	Univers	-	Black		○		
	91	02	Divisional Headquarters	BRIKAMA	Univers	8.5	Black		○		
	91	03	Town	JESWANG	Univers	8.5	Black		○		
	91	04	Village	SANYANG	Univers	7	Black		○		
	91	05	Hamlet	Panchols	Univers	5.5	Black		○	○	
Land Mark	92	01	Bridge	Water Canal Bridge	Univers	4	Black	○			○
	92	02	Named Buildings	Government Quarters	Univers	4	Black	○	○	○	
Water Areas	93	01	Sea	NORTH ATLANTIC OCEAN	Univers Italic	14	Blue	○	○	○	○
	93	02	Bay	-	Univers Italic	14	Blue	○	○		○
	93	03	Gambia River	RIVER GAMBIA	Univers Italic	14	Blue	○	○	○	○
	93	04	River	LAMIN RIVER	Univers Italic	7	Blue	○	○		○
	93	05	Stream	River Branch	Univers Italic	4	Blue	○	○		○
	93	06	Cape/Point	Barra Point	Univers	5.5	Black	○		○	
	93	07	Island	BIJAL ISLANDS	Univers	5.5	Black	○	○	○	
	93	08	Lake/Pond	Artificially Created Pond	Univers Italic	4	Blue	○	○	○	
Specific Areas	94	01	Reserves	FUMBAR FOREST PARK	Univers	7	Black	○	○	○	○
	94	02	Airport	BAJAJAL INTERNATIONAL AIRPORT	Univers	7	Black	○	○	○	○
Control Point	95	01	Point Name	12 42 7	Univers Italic	4	Black				
	95	02	Height Value	42	Univers	4	Brown				
	95	03	Contour Height Value	20	Univers Italic	4	Brown				
Other	96	01	Airphoto Principal Point		Univers	4	Black				

3.2 Detailed Rules

3.2.1 Administrative Names

As a rule, all administrative names shall be indicated.

3.2.2 Bridges

The names of bridges that are famous and/or are considered important for the use of the map shall be indicated.

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Annotations for building names shall be carried out as follows:

- (1) The names of buildings that are famous and/or considered important for the use of the map shall be indicated.
- (2) If annotations are to be made for buildings with building symbols, the building symbol shall be omitted.
- (3) For universities, the abbreviation of university names shall be annotated. If deemed particularly necessary, the names of the university departments shall be expressed as well.

3.2.4 Water Areas

Names of water areas shall be indicated as follows:

- (1) River names shall be indicated according to the methods specified for the annotation of linear objects.
- (2) Rivers that cannot be indicated as linear objects due to their configuration (i.e. in the corner of the map) may be annotated according to the method specified for small objects and/or areas.
- (3) Depending on the shape and expanse, the names of lakes, ponds, and marshes shall be annotated according to the methods specified for either small objects or areas.
- (4) Depending on the shape and expanse, bay names shall be annotated according to the methods specified for either small objects or areas.
- (5) Depending on the shape and size, island and cape names shall be annotated in accordance with the methods specified for either small objects or areas.

3.2.5 Structures Related to Water

Depending on the scale, the names of boat/ferry docking places shall be annotated in accordance with the methods specified for either small objects or areas.

3.2.6 Specific Areas

The names of specific areas shall be annotated according to the method specified for areas. If this is inappropriate because the area on the map is narrow, the annotation may be made according to the method specified for either small objects or linear objects.

3.2.7 Names and Elevations of Control Points

1. The elevations and names of control points shall be indicated on the right side and lower right or the left side and lower left of their respective symbols. However, if the location overlaps other important objects, the location may be moved as deemed appropriate.

2. The elevations of trigonometrical stations, bench marks and spot height without stone markers shall be indicated in meters.

3.2.8 Values of Contour Lines

Contour line values shall be expressed as follows:

- (1) The values of contours shall mainly be indicated on index contour lines, primary and secondary intermediate contour lines, and depression contours. They may also be indicated on normal contour lines in flat areas if deemed necessary for the sake of map reading.
- (2) The values shall be positioned so as not to block the representation of the topography. Values shall not be expressed on ridges and valleys with large curvatures.
- (3) Values shall be positioned so that the center of the numbers and the contour line are aligned.
- (4) The values, including those for the control points, shall be expressed at a density of 15 to 20 values for every 10cm x 10cm on the map.

3.2.9 Annotation of Explanations

In cases when map symbols cannot clearly identify conditions and types, annotation of explanations shall be annotated according to the methods specified for small objects, areas, and/or linear objects, depending on the type of the object concerned.