

2-1 Procès-verbal lors de commencement des travaux sur place

PROCES-VERBAL

POUR

L'ETUDE SUR LA REALISATION DE LA CARTOGRAPHIE TOPOGRAPHIQUE

AU ROYAUME DU MAROC

ENTRE

L'AGENCE JAPONAISE DE COOPERTATION INTERNATIONALE

ET

DIRECTION DE LA CONSERVATION FONCIERE

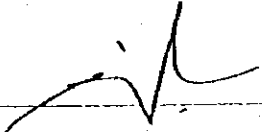
ET DES TRAVAUX TOPOGRAPHIQUES (DCF II)

MINISTERE DE L'AGRICULTURE

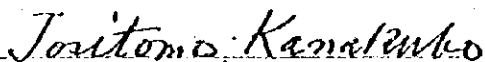
ET DE LA REFORME AGRICOLE

Rabat, 10th November 1988

FOR DIRECTION DE LA CONSERVATION
FONCIERE ET DES TRAVAUX TOPOGRAPHIQUES
MINISTERE DE L'AGRICULTURE ET DE LA
REFORME AGRICOLE


ABDELATIF BELBACHIR
Director of DCF II

FOR JAPAN INTERNATIONAL
COOPERATION AGENCY



IOSITOMO KANAKUBO
Leader of JICA study team



KOKICHI KIMURA
JICA Advisory Team

The Japanese Study Team organized by JICA and headed by Mr. TOSITOMO KANAKUBO visited the Kingdom of Morocco on 27th Oct. 1988 to carry out the first year work for the Study on Topographic Mapping in the Kingdom of Morocco. Prior to the commencement of the first year survey work, a series of meetings were held from 28th Oct. to 10th Nov. and following items have been confirmed and agreed by DCFTT and JICA Study Team.

- (1) DCFTT agreed with the plan of operation (including aerial photographs to be taken at a scale of 1: 10000 along the existing levelling routes in order to urgently proceed pricking bench marks) proposed by JICA Study Team.

(see Appendix)

- (2) JICA Study Team received the following data necessary for the first year survey work from DCFTT.

- . 1:50,000 Topographic maps
- . Result and description of triangulation points
- . Result and description of bench marks
- . Data for projection (Lambert conical conformal)

- (3) DCFTT promised to secure the permission for JICA Study Team to take out the following data from Morocco to Japan after the first year work.

- . Aerial negatives 1:40,000
- . Contact prints 1:40,000(1 set)
- . " " 1:10,000(1 set)
- . Two times enlargement photos 1:40,000(1 set)
- . Four times enlargement photos 1:10,000(1 set)

T.K.
JK

- 1 - JICA Study Team shall submit DCFIT original negatives of aerial photographs (scale 1:10000)
- 2 - JICA Study Team shall submit DCFIT the negative copy of original negatives of aerial photographs (scale 1:40000) before taking the said original negatives out of Morocco to Japan.
- 3 - The fee, which side to bear for producing the above mentioned copy, would be discussed between DCFIT and JICA study team in the future.

(4) DCFIT, JICA Study Team and JICA advisory team recognized the importance of promoting technical transfer in this Project.

DCFIT demanded that 4 high ranking officials and 15 counterparts be received for training in Japan during 3 years of this Project.

JICA advisory team promised to convey the request to the Government of Japan and to support such a request always and by all means for the favorable consideration by the Japanese Government.



Appendix. The list of attendants of the meetings.

Moroccan Side :

- 1 - Abdelatif BELDACHIR
Directeur de la Conservation Foncière et des
Travaux Topographiques
- 2 - Abdelmjid HAKAM
Chef de la Division de la Cartographie, DCF II
- 3 - El Maâti BAKKAR
Chef de la Division du Cadastre, DCF II
- 4 - Jamal Eddine GUERRAOU
Chef de la Division de la Production, DCF II
- 5 - Lahsen TIKDIRINE
Chef du Service de la Géodésie, DCF II
- 6 - Lahoussine AQUEDE
Chef du Service de la Topographie, DCF II
- 7 - Mohamed HANAN
Chef du Service de la Cartographie, DCF II
- 8 - Mohamed ALAHIANE
Chef du Service de la Documentation Technique, DCF II

Japanese Side :

1. JICA Study Team

- 1 - Tositomo KANAKUBO
Leader
- 2 - Rokuro NAKAMURA
Deputy Leader
- 3 - Chozo OBARA
Mapping planner
- 4 - Masakuni NAKAYAMA
Interpreter
- 5 - Katsuyuki HATAKEYAMA
Chief Engineer
- 6 - Yuji OUCHI
Engineer

2. Advisory Team

- 7 - Kokichi KIMURA
Head of Observation Division
Crustal Dynamics Department
Geographical Survey Institute, M.O.C.
- 8 - Hisamitsu NISHIO
Staff
First Development Survey Division
Social Development Cooperation Department
JICA

Appendix

**PLAN OF OPERATION
FOR
THE STUDY ON TOPOGRAPHIC MAPPING
IN
THE KINGDOM OF MOROCCO**

OCT. 1988

JAPAN INTERNATIONAL COOPERATION AGENCY

CONTENTS

- (1) Objective of the study
 - (2) Study area
 - (3) Study period
2. Items of work under 3-year programme
- (1) F.Y. 1988 (First year)
 - (2) F.Y. 1989 (Second year, Tentative)
 - (3) F.Y. 1990 (Third year, Tentative)
 - (4) Work schedule
3. First year work
- (1) Organization and schedule
 - (2) Group formation of the field survey team
 - (3) Technical aspects
 - (4) Undertakings by DCFTT
 - (5) Final delivery

1. Outline of the project

(1) Objective of the Study

The objective is to implement the study for the national base mapping in the scale of 1:25,000 in response to the request of the Government of the Kingdom of Morocco, by Japan International Cooperation Agency (JICA), which will contribute as basic materials for the preparation of national development plans in various fields.

Through the implementation of the Study, the technical transfer from Japanese Study team to Moroccan counterparts will be done.

(2) Study area

The area to be mapped is approx. 8,500 km² situated south-west of Casablanca along The Atlantic. Location Map and Sheet Index are shown in attached ANNEX D-1 .

(3) Study period

The study period will be three (3) years starting from October 1988.

2. Items of work under 3-year programme

(1) F.Y. 1988 (First year)

Aerial signalization	35 points
Aerial photography (1:40,000)	approx. 8,500 km ² / 1,842 km
Aerial photography (1:10,000)	approx. 438 km
Ground control point survey	9 points (employing Global Positioning System)
Minor-order levelling	approx. 612 km
Pricking of existing levelling route	approx. 438 km

(2) F.Y. 1989 (Second year, Tentative)

Field Identification	approx. 8,500 km ²
Aerial triangulation	approx. 504 models
Stereo plotting (1:25,000)	approx. 8,500 km ² / 57 sheets
Compilation (1:25,000)	approx. 8,500 km ² / 57 sheets

(3) F.Y. 1990 (Third year, Tentative)

Field completion approx. 8,500 km²
Drafting approx. 8,500 km² / 57 sheets
Printing approx. 57 sheets (1,000 copies / each sheet)

(4) Work schedule

(see ANNEX A)

3. First year work

(1) Organization and schedule

(see ANNEX B)

(2) Group formation of the field survey team

(see ANNEX C)

(3) Technical aspects

(a) Aerial photos : 1:40,000 photos to be taken newly by JICA study team

(b) Map symbols : 1:25,000 map symbols of DCFTT

(c) Criteria of surveying :

- Reference ellipsoid	Clark 1880
- Projection	Lambert conical conformal
- Sheet line (grid line)	7'30" x 7'30"
- Scale	1 : 25,000
- Specifications	JICA specifications for overseas surveying (A)
- Contour-line interval	Flat area : 5 m Steep slope area : 10 m

(d) Accuracy

Map accuracy	Horizontal	0.5 mm on the map
	Spot height	$\Delta h / 3$ (Δh = contour interval)
	Contour	$\Delta h / 2$ (Δh = contour interval)
Levelling	Minor order	50 mm/S (S : distance, m)

(e) Map symbols, color separation

Map symbols and application rules as well as color separation design shall be principally based on the 1:25,000 map symbols of DCFTT and Scope of Work. However, the detailed applications shall be discussed between the both sides for finalization.

(f) Aerial signalization

Aerial signals shall be established on the existing triangulation points and the ground control points to be observed this time for the aerial triangulation. If any signal is not recognized clearly on the aerial photos after aerial shooting, those signalized points shall be pricked on the photos later. (see ANNEX D-2)

(g) Aerial photography

Photograph of a scale of 1:40,000 shall be taken in the direction of east and west and along the seashore. Photograph of a scale of 1:10,000 shall be taken for pricking along the existing levelling route, parallel with aerial signalization in order to implement the smooth work. (see ANNEX D-3 and ANNEX D-4)

(h) Ground control point survey

The observations of the ground control points shall be carried out by Trans-location Method, employing Global Positioning System. (see ANNEX D-2)

(i) Levelling

Any levelling route shall be started from an existing national bench mark and

... tied to another national bench mark.

Double running levelling shall be done in order to maintain the required accuracy. (see ANNEX D-5)

4. Undertaking by DCFIT

- (1) To secure flight permission for conducting aerial photography and use of airport
- (2) To secure permission for the use of radio communication facilities
- (3) To secure permission for the team to take all necessary data and documents, including original negatives of aerial photo, related to the study out of Morocco to Japan by the team
- (4) To assign necessary number of counterpart personnel
(see ANNEX E-1)
- (5) To provide suitable office space with necessary equipment in Casablanca
(see ANNEX E-2)
- (6) To provide office boy and typist
- (7) To provide Identification Card to team members
- (8) To provide available data and informations
- (9) To make necessary arrangement to exempt the restriction on foreign currency which is to be brought to Morocco by Japanese study team for their study and to secure no restriction for exchanging foreign currency to local currency and reconverting unspent local currency to foreign currency .
- (10) To make necessary arrangement to exempt the duty and tax on customs clearance for instruments and other materials to be carried into and out from Morocco by Japanese study team for the execution of the study.
- (11) To make necessary arrangement to secure the safety of the members of the study team

- (12) To make necessary arrangement to permit entering to the private property in the study area by the members of the study team.

5. Final Delivery

(First year)

(1) Aerial photography

- Aerial negatives
- Contact prints
- Photo index map
- Flight record
- Quality control sheets

(2) Aerial signalization

- Aerial signals location index
- Eccentricity measurement and computation sheets
- Description of aerial signals
- Quality control sheets

(3) Control point survey

- Observation and computation sheets
- Quality control sheets

(4) Levelling

- Observation and computation sheets
- Levelling net diagram
- Route-pricked enlarged photos
- Quality control sheets

(Second year)

(1) Field identification

- Enlarged photos used for field identification
- Quality control sheets

(2) Aerial triangulation index map

- Aerial triangulation index map
- Aerial positives indicating pass-points / tie-points
- Contact prints indicating pass-points / tie-points
- Control point residual table
- Result table
- Quality control sheets

(3) Stereo plotting

- Plotted sheets
- Control point plotted sheets
- Orientation record sheets
- Quality control sheets

(4) Compilation

- Compilation sheets
- Annotation sheets
- Control point plotted sheets
- Quality control sheets

(Third year)

(1) Field completion

- Compilation manuscripts
- Annotation data indicated on the blue prints of the compilation sheets
- Quality control sheets

(2) Drafting

- Original manuscripts
- Annotation plates
- Reproducible negatives
- Quality control sheets

(3) Printing

- Printed maps
- Printing plates (aluminum)
- Surprints
- Quality control sheets

ANNEX B

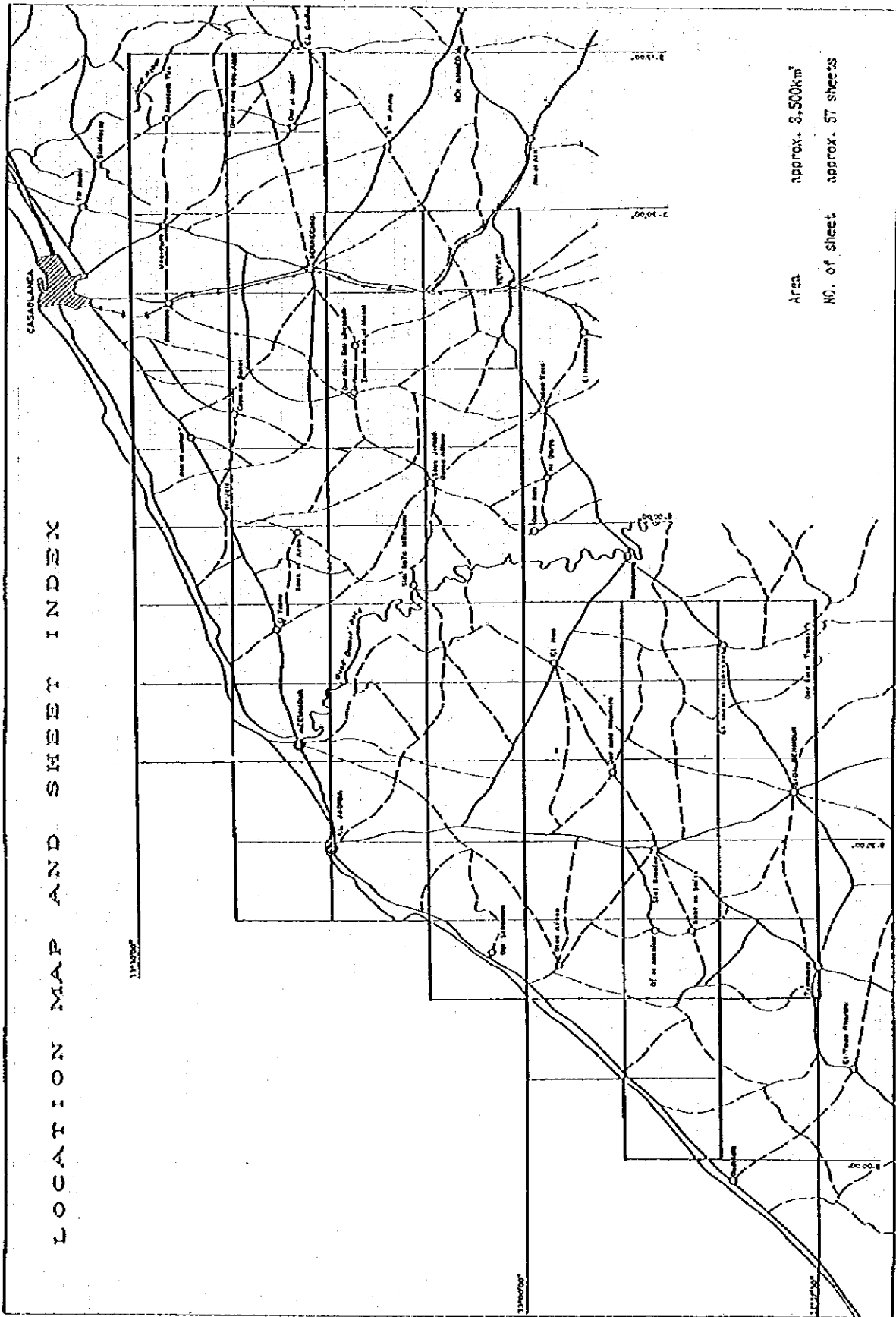
Organization and Schedule of the First Year Field Survey Team

Name	Month	Assignment	Oct.	Nov.	Dec.	Jan.	Feb.
T. Kanakubo		Leader	26 14	14		31	14
R. Nakamura		Deputy leader	26				14
C. Obara		Mapping planner	26				14
M. Nakayama		Interpreter	26				14
S. Ohta		Mechanic	26				14
K. Hatakeyama		Chief engineer	26				14
T. Koya		Engineer for aerial photography		2			11
T. Masuda		Engineer		2			9
T. Nakajima		"		2			9
T. Aoki		"		2			9
K. Usuda		"		2			9
Y. Ichigami		"		2			9
Y. Furukawa		"		2			9
M. Hasegawa		"		2			9
T. Furukawa		"		2			9
S. Ide		"		2			9
Y. Ouchi		"	26				14
Y. Momota		"		2			9
M. Miyazaki		"		2			9

Group Formation of The First-year Survey Team

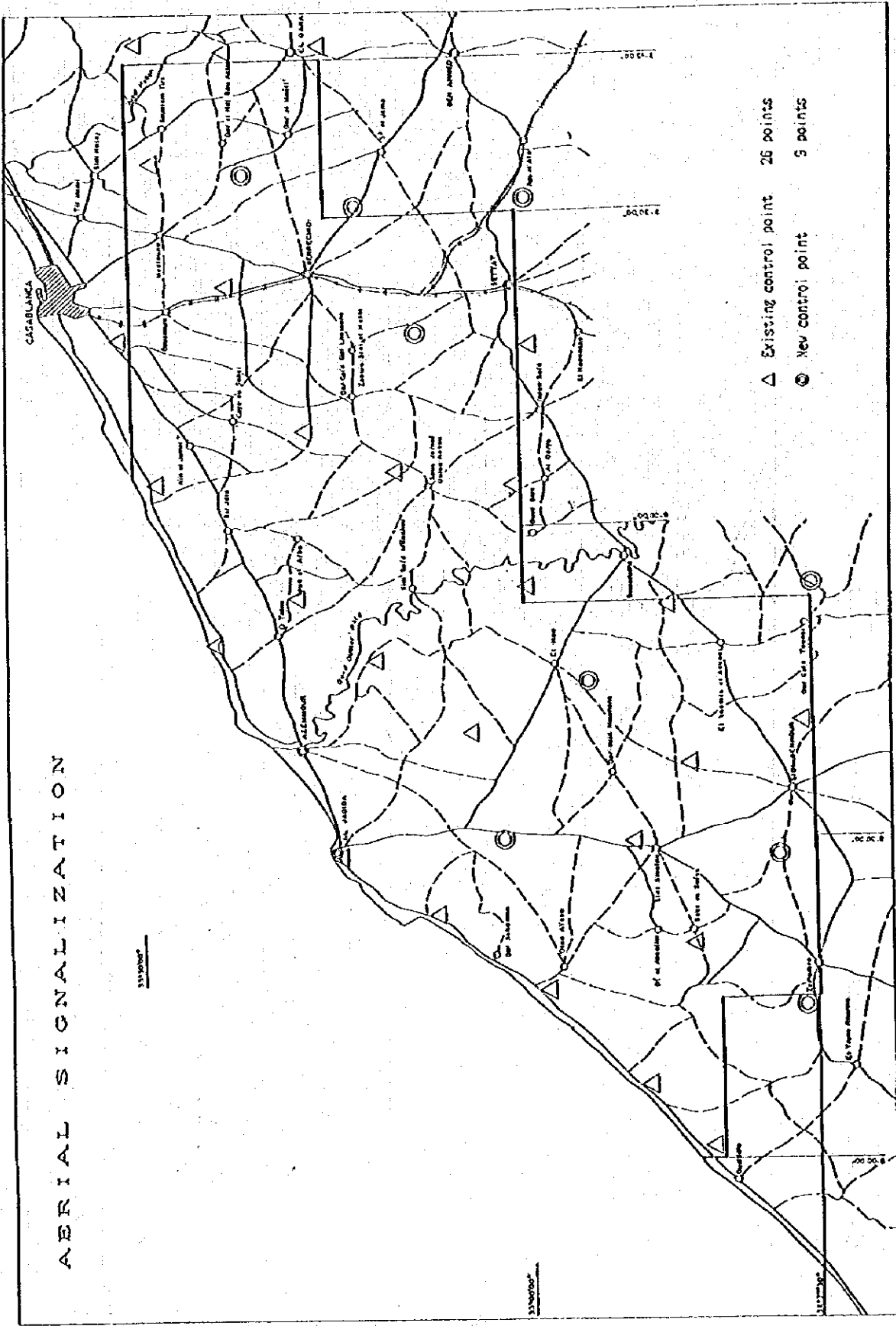
	Number of Chief Surveyor	Number of Party	Number of Person	Total
Aerial photography	0	1	1 Japanese engineer	1 Japanese engineer
Aerial signalization / Ground control survey / levelling	1	3	2 Japanese engineers 1 DCFTI counterpart	6 Japanese engineers 3 DCFTI counterparts
Aerial signalization / pricking / levelling		3	2 Japanese engineers 1 DCFTI counterpart	6 Japanese engineers 3 DCFTI counterparts

LOCATION MAP AND SHEET INDEX



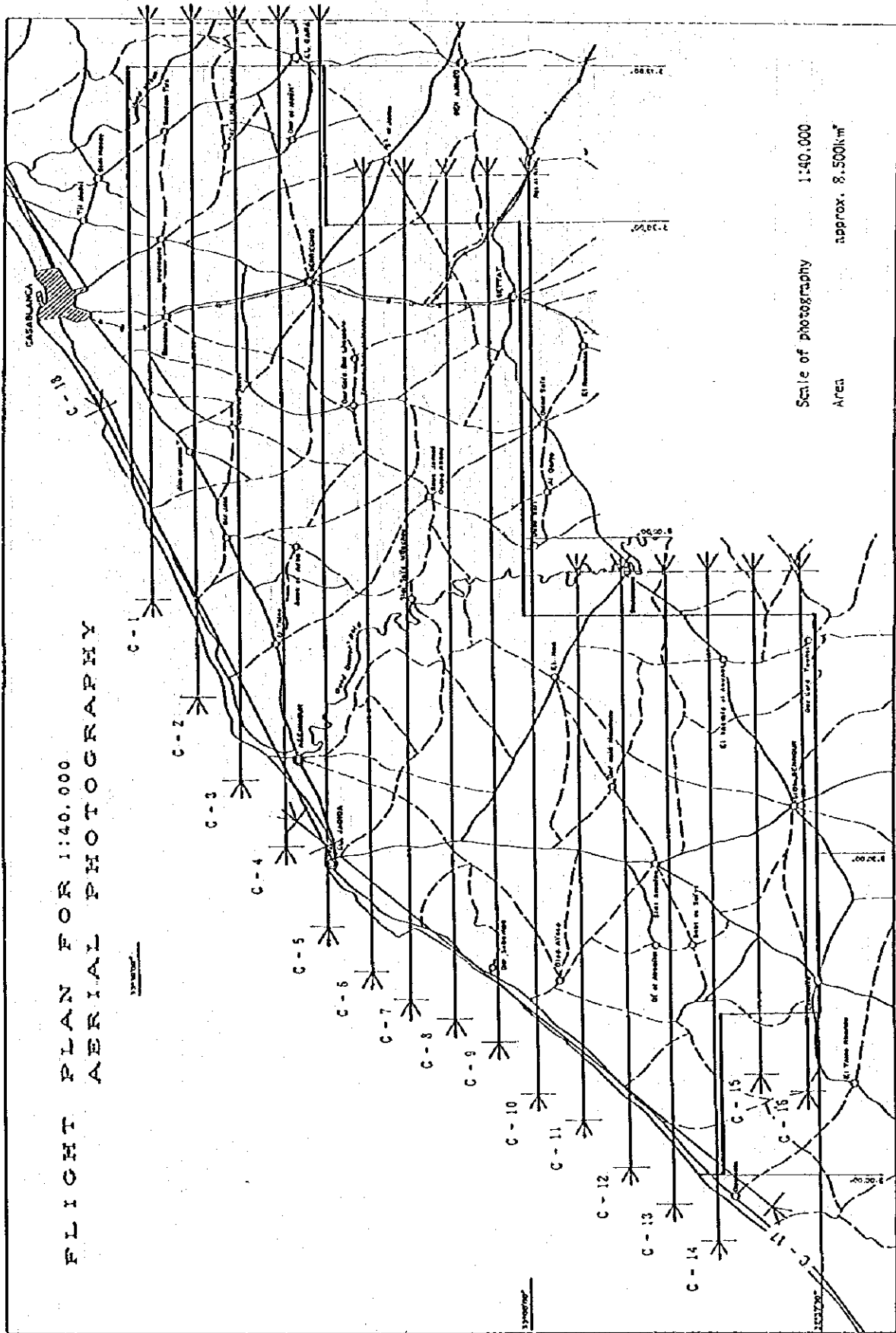
Area approx. 3,500km²
 No. of sheet approx. 57 sheets

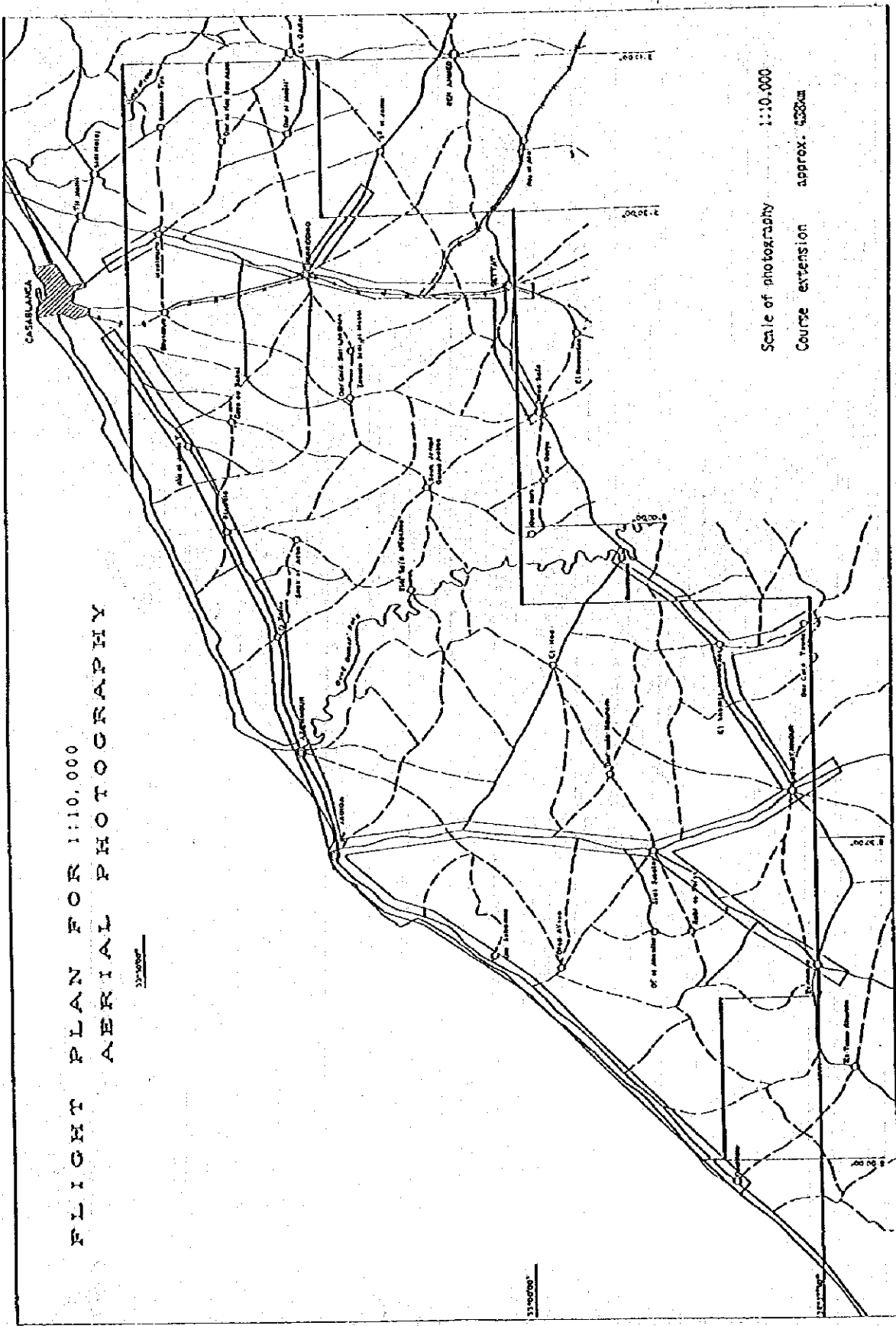
AERIAL SIGNALIZATION



- △ Existing control point 26 points
- New control point 5 points



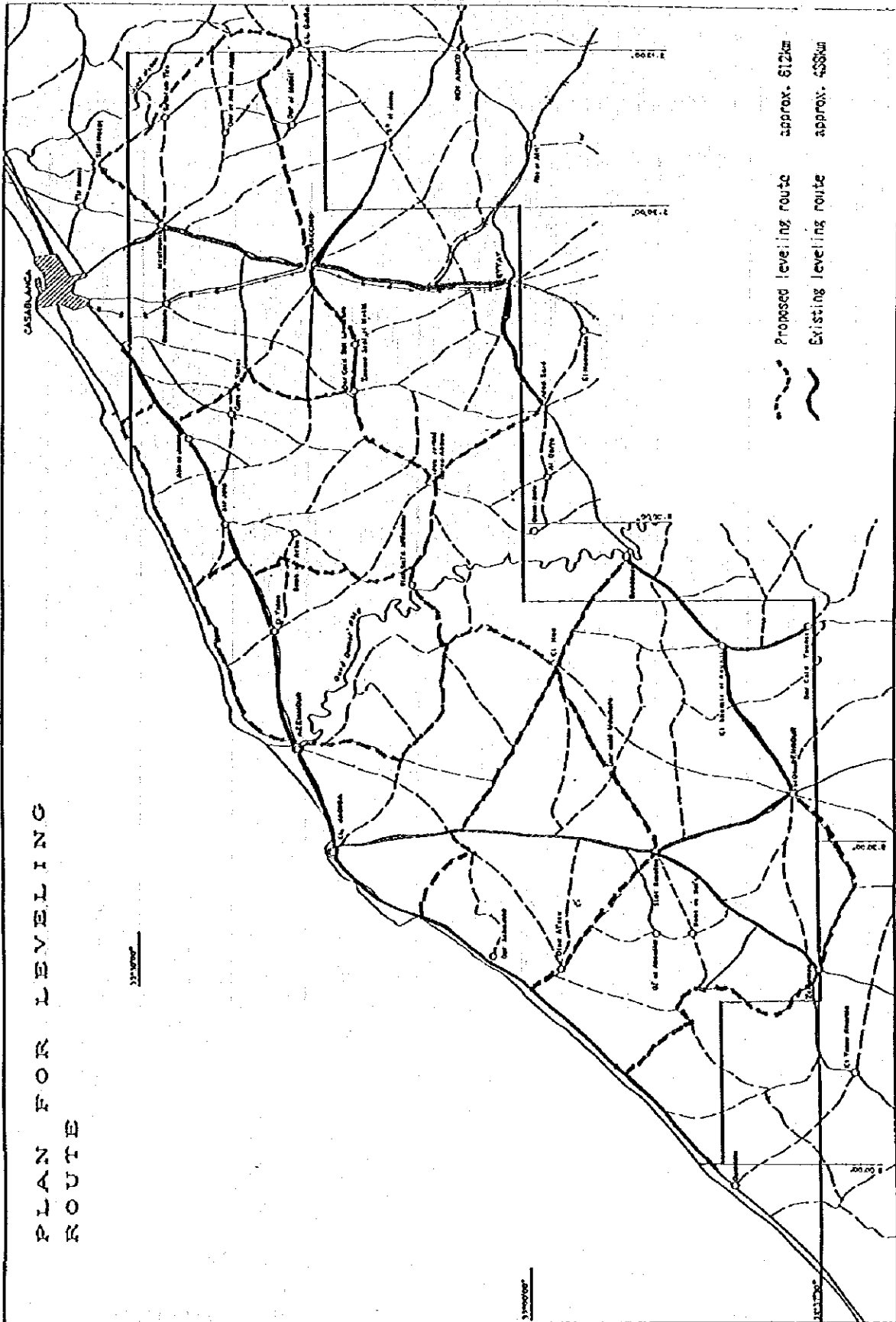




FLIGHT PLAN FOR AERIAL PHOTOGRAPHY

Scale of photography 1:10,000
Course extension approx. 438km





PLAN FOR LEVELING
ROUTE

ANNEX E

Counterparts and office / parking space to be provided by DCTT for the first-year work

1. Counterparts

	Number of Counterparts	Period	Remarks
Chief Counterpart	1	Oct. 28 ~ Feb. 11	For headquarters
Counterparts Specialized in Geodesy	6	Nov. 7 ~ Feb. 6	For ground control point survey, aerial signalization, pricking and levelling

2. Office / parking space

	Period	Remarks
Office	Oct. 28 ~ Feb. 11	with typewriter, furniture, telephone, and etc.
Parking space	Oct. 28 ~ Feb. 11	For 8 units of vehicles

2-2 Procès-verbal lors d'achèvement des travaux sur place

PROCES-VERBAL

POUR

L'ETUDE SUR LA REALISATION DE LA CARTOGRAPHIE TOPOGRAPHIQUE

AU ROYAUME DU MAROC

ENTRE

L'AGENCE JAPONAISE DE COOPERATION INTERNATIONALE

ET

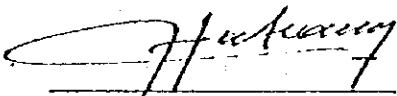
DIRECTION DE LA CONSERVATION FONCIERE ET DES TRAVAUX TOPOGRAPHIQUES

(DCFTT)

MINISTERE DE L'AGRICULTURE ET DE LA REFORME AGRAIRE

Rabat, 9th February 1989

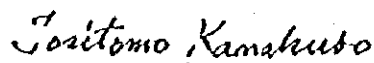
FOR DIRECTION DE LA CONSERVATION
FONCIERE ET DES TRAVAUX
TOPOGRAPHIQUES
MINISTERE DE L'AGRICULTURE
ET DE LA REFORME AGRAIRE



ABDELMJID HAKAM

Chef de la Division de
la Cartographie, DCFTT

FOR JAPAN INTERNATIONAL
COOPERATION AGENCY



TOSITOMO KANAKUBO

Leader of JICA Study Team

Upon the completion of field work in the first year's survey work, a joint meeting was held during the period of 2nd to 9th of February 1989, and the following items were discussed and mutually agreed upon between DCFTT and JICA Study Team.

List of attendants is shown in Annex.

1. JICA Study Team briefly reported the progress of the first year's field work for the Topographic Mapping, submitting the "Progress Report of the First Year's Field Work for the Topographic Mapping in the Kingdom of Morocco" prepared by JICA Study Team.
2. DCFTT bore the fee for producing copies of original negatives in relation to (3)-3 in Minutes of Discussion made on 10th November 1988.
3. JICA Study Team shall return original negatives of aerial photographs in scale of 1:40,000 to DCFTT by the end of January 1990.
4. JICA Study Team submitted DCFTT 1 set of original negatives of aerial photography in scale of 1:10,000.

5. JICA Study Team requested DCFTT to prepare the following data necessary for the field identification by the commencement of the second year's work.

- (1) Result and description of triangulation points
- (2) Data of administrative boundaries and geographical names
- (3) Data of road with class
- (4) Data of transmission line with number of voltage
- (5) Data for canal under the ground

6. DCFTT submitted the Symbols for 1:25,000 topographic map adopted by DCFTT to JICA Study Team.

Japan side agreed to use the above mentioned Symbols for mapping in principal. Some symbols shall, however, be discussed continuously for better cartographic explanation on maps in the future.

7. Both side confirmed that coast line shall be realized by plotting of 1:40,000 aerial photographs, lacking of adequate data of coast line and bathmetric lines.

8. DCFTT requested JICA Study Team to submit the data of quality control and inspection for the aerial photography as well as of ground control point survey by GPS and levelling in relation to the first year's survey work.

9. DCFTT shall keep securely seven vehicles belong to JICA by the commencement of the second year's field work.



Z. K.

Annex: The list of attendants of the meeting.

Moroccan Side :

DCFTT

- 1) **Abdelmajid RAKAM**
chef de la Division de la Cartographie
- 2) **Lahcen TIKDIRINE**
Chef du Service de la Geodesie
- 3) **Lahoussine AQUEDE**
Chef du Service de la Topographie
- 4) **Mohamed HWAM**
Chef du Service de la Cartographie
- 5) **Mohamed ALAHIAN**
Chef du Service de la Documentation Technique
- 6) **Mohamed BELKABIR**
du Service de la Cartographie
- 7) **M^{me} Zahra DAFIR**
du Service de la Cartographie
- 8) **Allal CUISTO**
du Service de la Cartographie



Japanese Side :

JICA Study Team

- 1) Tositomo KANAKUBO
Leader
- 2) Rokuro NAKAMURA
Deputy Leader
- 3) Chozo OBARA
Mapping Planner
- 4) Masakuni NAKAYAMA
Interpreter
- 5) Katsuyuki HATAKEYAMA
Chief Engineer
- 6) Yuji OUCHI
Engineer

Geographical Survey Institute

- 7) Kokichi KINURA
Head of Observation Division
Crustal Dynamic Department

JICA

- 8) Tadashi SHINOURA
Head of First Development Survey Division
Social Development Cooperation Department

Ambassade du Japon au Maroc

- 9) Kazumi JIGAMI
Premier Secretaire

JICA au Maroc

- 10) Mutsukazu ONO
Directeur de JICA et de JOCV au Maroc


 T.K.

2-3 Procès-verbal lors de commencement des travaux sur place

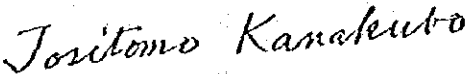
MINUTES OF DISCUSSIONS
FOR
THE STUDY ON TOPOGRAPHIC MAPPING IN THE KINGDOM OF MOROCCO
BETWEEN
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
AND
DIRECTION DE LA CONSERVATION FONCIERE ET DES TRAVAUX TOPOGRAPHIQUES
(DCFTT)
MINISTERE DE L'AGRICULTURE ET DE LA REFORME AGRAIRE

Rabat, 20th July 1989

FOR DIRECTION DE LA CONSERVATION
FONCIERE ET DES TRAVAUX
TOPOGRAPHIQUES
MINISTERE DE L'AGRICULTURE
ET DE LA REFORME AGRAIRE


ABDELMAJID HAKAM
Chef de la Division de
la Cartographie. DCFTT

FOR JAPAN INTERNATIONAL
COOPERATION AGENCY

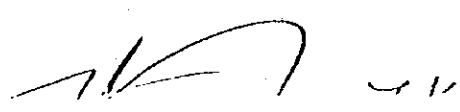


TOSITOMO KANAKUBO
Leader of JICA Study Team

The Japanese Study Team organized by JICA and headed by Mr. TOSITOMI KANAKUBO visited the Kingdom of Morocco on 13th July 1989 to carry out the second year work for Study on Topographic Mapping in the Kingdom of Morocco.

Prior to the commencement of the second year survey work, a series of meetings were held from 17th July to 20th July and following items have been confirmed and agreed by DCFTT and JICA Study Team.

- I) DCFTT agreed with the plan of operation proposed by JICA Study Team (see Appendix).
- II) JICA Study Team submitted DCFTT the original negatives of aerial photography in scale of 1:40,000 and data of quality control and inspection for the above mentioned aerial photography as well as of ground control point survey by GPS and levelling in relation to the first year survey work.
- III) JICA Study Team received the following data necessary for the second year work from DCFTT.
 - 1- Result and description of triangulation points
 - 2- Data of administrative boundaries and geographical names
 - 3- Data of road with class
 - 4- Data of transmission line with number of voltage
 - 5- Data for canal under the ground
 - 6- Experimental printed sheets of the topographic map in scale of 1:25,000 "Mohammedia" and "Tit Mellil"
 - 7- Table of cartographic symbols for the topographic map in scale of 1:25,000 (Draft)



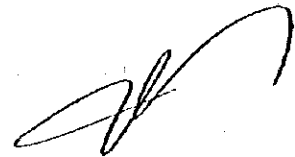
IV) JICA Study Team presented DCFTT the following materials necessary for the technical consultation.

- 1- Cartographic symbols and specification (draft) of the topographic map in scale of 1:25,000 for the survey area
- 2- Manuscripts of sample sheets by stereo plotting
- 3- Colour samples of the topographic map for printing

V) JICA Study Team and DCFTT discussed and confirmed the basic items of the cartographic symbols and colours which will be used for the topographic map of the survey area.

Concerning details of the above-mentioned items, both sides agreed to continue the technical consultation.

VI) In the case of revision of administrative boundaries, if necessary, DCFTT shall carry out to draw new administrative boundaries on the plotted manuscripts which will be brought by JICA Study Team at the third year work.



T-K

Annexe: The list of attendants of the meeting.

Moroccan Side:

DCFTT:

- 1) Abdelatif BELBACHIR
Directeur de la Conservation Foncière et des travaux
Topographiques
- 2) Abdelmjid HAKAM
Chef de la Division de la Cartographie
- 3) Maati BAKKAR
Chef de la Division du Cadastre
- 4) Lahcen TIKDIRINE
Chef du Service de la Geodesie
- 5) Lahoussine AQUEDE
Chef du Service de la Topographie
- 6) Mohamed HMAM
Chef du Service de la Cartographie
- 7) Mohamed ALAHIAN
Chef du Service de la Documentation Technique
- 8) Mohamed BELKABIR
du Service de la Cartographie
- 9) Larbi FATHI
du Service de la Geodesie
- 10) Hamid OUZZINE
du Service de la Geodesie

Japanese Side:

JICA Study Team:

- 1) Tositomo KANAKUBO
Leader
- 2) Keikichi YOSHIDA
Deputy Leader
- 3) Mamoru MURATA
Mapping Planner
- 4) Yoshihiko MIYAZAKI
Interpreter



T.K.

5) Katsuyuki HATAKEYAMA
Chief Engineer

6) Yuji OUCHI
Engineer

JICA au Maroc:

7) Susumu YANAI
Directeur de JICA et de JOCV au Maroc



T.K.

PLAN OF OPERATION
FOR
THE STUDY ON TOPOGRAPHIC MAPPING
(2ND YEAR WORK)
IN
THE KINGDOM OF MOROCCO

JULY 1989

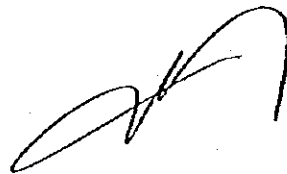
JAPAN INTERNATIONAL COOPERATION AGENCY



T.K.

CONTENTS

1. Outline of the Project
2. Field Identification
3. Aerial Triangulation
4. Stereo Plotting
5. Compilation
6. Work Schedule
7. Organization and Schedule
8. Group Formation of JICA and DCFTT
9. Items to be consulted and confirmed during field work
10. Undertaking by DCFTT



T.K.

1. Outline of the Project

The 2nd year work includes Field Identification in Morocco and Aerial Triangulation, Stereo Plotting and Compilation in Japan .

The compilation manuscripts shall be developed on the basis of the result of the Field Identification.

The 2nd year work is summarized as follows.(see Appendix-1)

Item of work	Volume of work	Remarks
Field Work		
Field Identification	approx. 8.500km ²	
Indoor Work		
Aerial Triangulation	510 models	
Stereo Plotting	approx. 8.500km ²	Scale:1/25.000
Compilation	57 sheets	"

2. Field Identification

2-1 Outline

Various items to be shown in the base map shall be identified in the field.

2-2 Technical Meeting

JICA study team and DCFTT shall discuss on marginal information, map symbols and specifications of the base map.

2-3 Data Collection

The information on administrative boundary, geographical names, and etc. which are prepared by DCFTT shall be collected.

2-4 Field Identification

Based upon the result of the technical discussion and collected data, the

variety of items to be expressed in the base map shall be identified in the field. the result of which shall be subsequently recorded for preparation of the materials necessary for stereo plotting and compilation on the aerial photographs, the source-map, etc.

3. Aerial Triangulation

3-1 Outline

The coordinates of the pass points and tie points necessary for stereo plotting shall be determined by using aerial photographs.

3-2 Method

Aerial Triangulation shall be carried out by means of analytical method. The bundle method shall be applied for adjustment.

3-3 Aerial photographs and ground control points to be used.

Aerial photographs and the results of ground control points, obtained by the 1st year work, shall be used.

4. Stereo Plotting

4-1 Outline

Based upon the result of the aerial triangulation and field identification, the plotted manuscripts shall be prepared by means of stereo plotting in which the necessary objectives to be expressed in the maps are measured and mapped out by stereo plotter.

4-2 Stereo Plotting

Stereo plotting shall be done to prepare two kinds of plotted manuscript which show planimetric features and contour lines respectively.

The criteria shall be as follows:

- | | |
|-------------------------|---------------------------|
| - Reference ellipsoid | Clarke 1880 |
| - Projection | Lambert conical conformal |
| - Sheet line(grid line) | 7'30''x 7'30'' |
| - Contour line interval | Flat area 5 m |



Sleep slope area 10 m

4-3 Tying

Tie-strip shall be prepared for tying of the plotted manuscripts with the national base maps which have been prepared or under preparation by DCFTT.

5. Compilation

Compilation of the plotted manuscripts shall be carried out on the basis of the results of the field identification, collected data and the applicable Map Symbols to develop the original manuscripts and other necessary materials for the succeeding work.

6. Work Schedule

See ANNEX A

7. Organization and Schedule

See ANNEX B

8. Group Formation of JICA and DCFTT

Work Items	JICA Study Team	DCFTT	Period
Technical Consulation	Leader Deputy Leader Mapping Planner Translator	Chief Counterpart	Jul. 17th - Oct. 10th
Field Identification	Chief Engineer 1 Engineers 12	Counterparts 6	Jul. 24th - Oct. 6th



T.K.

9. Items to be consulted and confirmed during field work

9-1 Data to be provided by DCFTT

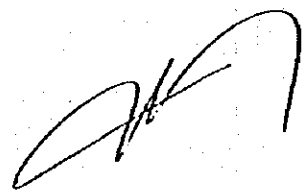
- (1) Result and description of triangulation points.
- (2) Data of administrative boundaries and geographical names. ⇨
- (3) Data of road with class.
- (4) Data of transmission line with number of voltage.
- (5) Data of Canal under the ground.

9-2 Data to be prepared by JICA

- (1) Map symbols and specifications.(draft)
- (2) Sample map on stereo plotting.
- (3) Sample colour for printing.

9-3 Items to be determined through technical consultation

- (1) Map symbols and specifications.
- (2) Administrative names and boundaries.
- (3) Names of government / municipality, mosque, road, river, ect.
- (4) Manner of expression on military establishments.
- (5) Manner of expression on grid line, symbol of magnetic north, destination annotation.
- (6) Sheet titles (name) and sheet codes / numbers.
- (7) Marginal information and legend.
- (8) Names of colour applied for printing.
- (9) Data on tying of 1:25,000 base maps between JICA's mapping area and DCFTT's.
- (10) Manner of sheet-extension.




10. Undertaking by DCFIT

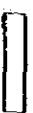
- (1) To make necessary arrangement to exempt the duty and tax on customs clearance for instruments and other materials to be carried into and out from Morocco by Japanese study team for the execution of the study.
- (2) To secure permission for the team to take all necessary data and documents, including aerial photo, related to the study out of Morocco to Japan by the team.
- (3) To make necessary arrangement to secure the safety of the members of the study team.
- (4) To provide Identification Card to team members.
- (5) To make necessary arrangement to permit entering to the private property in the study area by the members of the study team.
- (6) To assign necessary number of counterpart personnel.
- (7) To make necessary arrangement to exempt the restriction on foreign currency which is to be brought to Morocco by Japanese study team for their study and to secure no restriction for exchanging foreign currency to local currency and reconverting unspent local currency to foreign currency.
- (8) To provide suitable office space with necessary equipment in Casablanca.
- (9) To make necessary arrangement for hiring drivers and laborers.



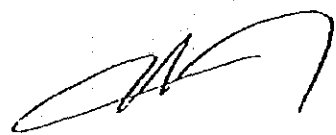
T.K.

W o r k S c h e d u l e

 Work in Morocco

 Work in Japan

Year Month		F. Y. 1989												F. Y. 1990 (Tentative)											
		6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3		
Technical Meeting																									
Field Identification																									
Aerial Triangulation																									
Stereo Plotting																									
Compilation																									
Field Completion																									
Drafting																									
Proof																									
Printing																									



T.K.

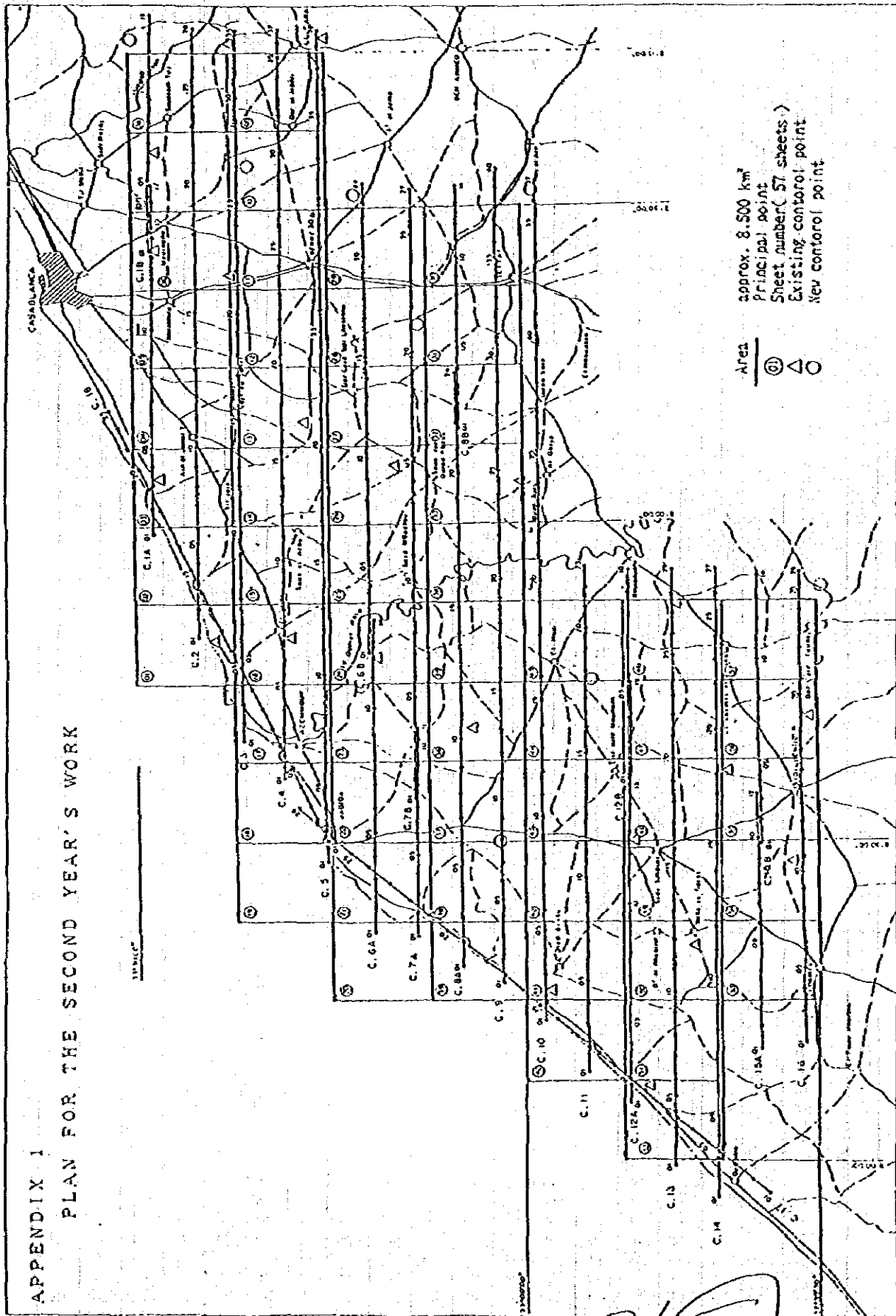
ANNEX B

Organization and Schedule of JICA Survey Team

Name	Month	Assignment	Jul.	Aug.	Sep.	Oct.
T. Kanakubo		Leader	12 23		30 14	
K. Yoshida		Depnty leader	12			14
M. Murata		Mapping planner	12			14
Y. Miyazaki		Interpreter	12			14
S. Ohta		Mechanic	12			14
K. Hatakeyama		Chcif engineer	12			14
T. Masuda		Engineer	22			9
T. Nakajima		"	22			9
K. Usuda		"	22			9
Y. Furukawa		"	22			9
I. Itaya		"	22			9
M. Satoji		"	22			9
M. Hasegawa		"	22			9
T. Furukawa		"	22			9
Y. Ouchi		"	12			14
M. Miyazaki		"	22			9
T. Kawame		"	22			9
Y. Arima		"	22			9

APPENDIX 1

PLAN FOR THE SECOND YEAR'S WORK



Area
 ○ Principal point
 △ Existing control point
 ○ New control point

1:500,000

T.K.

2-4 Procès-verbal lors d'achèvement des travaux sur place

MINUTES OF DISCUSSIONS

FOR

THE STUDY ON TOPOGRAPHIC MAPPING IN THE KINGDOM OF MOROCCO

BETWEEN

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

AND

DIRECTION DE LA CONSERVATION FONCIERE ET DES TRAVAUX TOPOGRAPHIQUES

(DCFTT)

MINISTERE DE L'AGRICULTURE ET DE LA REFORME AGRAIRE

Rabat, 9 Th October 1989

FOR DIRECTION DE LA CONSERVATION
FONCIERE ET DES TRAVAUX
TOPOGRAPHIQUES
MINISTERE DE L'AGRICULTURE
ET DE LA REFORME AGRAIRE

ABDELMJID HAKAM
Chef de la Division de
la Cartographie, DCFTT

FOR JAPAN INTERNATIONAL
COOPERATION AGENCY

TOSITOMO KANAKUBO
Leader of JICA Study
Team

Upon the successful completion of field work in the Second Year Survey, joint meetings were held during the period of October 2nd to 9th, 1989, at the conference room in DCFTT. (List of attendants is shown at pages 5 and 6)

Mr. Tositomo Kanakubo, JICA Team Leader, reported results of survey work and expressed his sincere gratitude to DCFTT for its close cooperation.

Both sides discussed about results of the field identification and the succeeding work to be conducted in the second year, and agreed as follows:

I. Results of the Field Identification

The following work has been completed by both sides:

By the JICA Team

1- All the items to be expressed on the topographic map have been checked and confirmed within the whole project area.

2- Map symbols and specifications for topographic map have been discussed and finalized.

By DCFTT

1- Sample of marginal information have been provided.

2- Fair drawn Arabic Legend for marginal information and enlarged official seal of DCFTT which are described on polyester base have been provided.

3- Annotation data have been confirmed and represented on the enlarged maps and/or aerial photographs.

4- Sheet names and sheet numbers to be used for second year's work have been provided.

T.K.

II Technical Discussions

1. Map symbols and specifications.

On the basis of the existing Moroccan specifications, the map symbols and specifications to be applied for map representation have been discussed and finalized. (see Annex 1)

2. Cartographic details.

In addition to the Annex 1, cartographic details which are describing special rules and necessary information have been confirmed and agreed. (see Annex 2).

Appendixes consisted herein are as follows:

- (1) Sheet index with sheet numbers (see Appendix 1)
- (2) Sheet names (see Appendix 2)
- (3) Shading method (see Appendix 3)
- (4) Cartographic method for road (see Appendix 4)
- (5) Cartographic method for boundary (see Appendix 5)
- (6) Cartographic method for coastal area (see Appendix 6)
- (7) Cartographic method for road in built-up area (see Appendix 7)
- (8) Annotation method for linear feature (see Appendix 8)
- (9) Lettering size and style (see Appendix 9)
- (10) Others (see Appendix 10)

3. JICA Team Leader submitted revised sample printing in five colours with hill shading for evaluation.

T.K.

III. Succeeding Work of the Second Year.

By JICA Team

In accordance with the Plan of Operation prepared at July 1989, Stereo Plotting and Compilation shall be carried out in Japan.

By DCFTT

DCFTT shall provide the following data by the commencement of the Third Year's work:

- 1- Magnetic north declination values.
- 2- Sheet names both of in French and Arabic letter to be used for scribing.
- 3- Names of destined place on road.
- 4- Names of destined station on railway.

IV. Others.

DCFTT shall maintain 7 vehicles which belong to JICA by the commencement of the third year's work.

T. K.

LIST OF ATTENDANTS

DCFTT:

- 1) Abdelatif BELBACHIR
Directeur de la Conservation foncière et des travaux
topographiques
- 2) Abdelmajid HAKAM
Chef de la Division de la Carographie
- 3) Maati BAKKAR
Chef de la Division du Cadastre
- 4) Lahcen TIKDIRINE
Chef du Service de la Géodésie
- 5) Lahoussine AQUEDE
Chef du Service de la Topographie
- 6) Mohamed HMAM
Chef du Service de la Cartographie
- 7) Mohamed ALAHIAN
Chef du Service de la Documentation technique

JICA Study Team :

1) Tositomo KANAKUDO
Leader

2) Keikichi YOSHIDA
Deputy Leader

3) Manoru MURATA
Mapping planner

4) Yoshihiko MIYAZAKI
Interpreter

5) Katsuyuki HATAKEYAMA
Chief engineer

6) Yuji OUCHI
Engineer

Geographical Survey Institute:

7) Kokichi KIMURA
Head of Second Geodetic Division
Geodetic Department

JICA:

8) Hiroshi IZAKI
Staff of second Training Division
Training Affairs Department

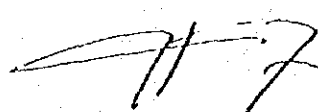
Ambassade du Japon au Maroc

9) Kazumi JIGAMI
Premier Secretaire

JICA au Maroc:

10) Susumu YANAI
Directeur de JICA et de JOCV au Maroc

11) Keigo OKATSU
Conseiller-adjoint JICA et JOCV au Maroc



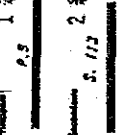
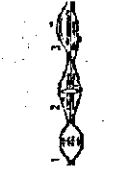

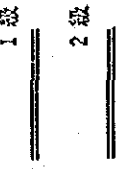
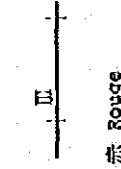
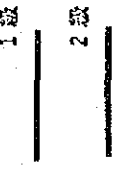
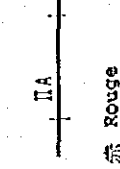
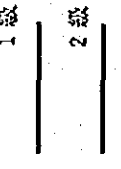
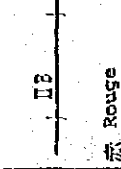
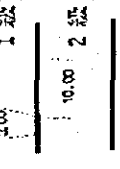
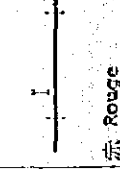

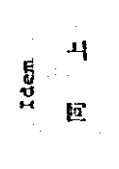
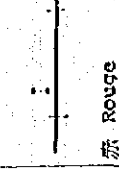
T. K.

TABLEAU DES SIGNES CONVENTIONNELS
UTILISES POUR LA CARTE TOPOGRAPHIQUE
AU 1:25000
DU ROYAUME DU MAROC

OCTOBRE 1989

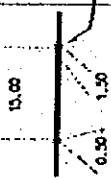
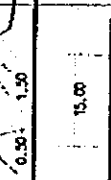
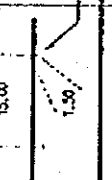
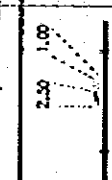
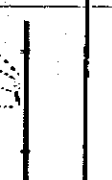

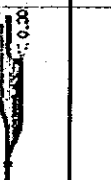



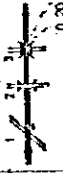
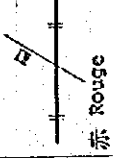
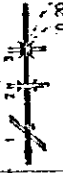
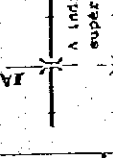
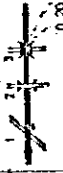
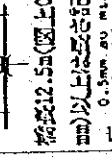




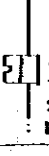
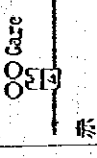




Jadon Karabekian

No 番号	Designation 名 称	Signe sur la carte 地図記号	Couleur 色	Signe sur la carte complète 標準記号	Signe sur la minusc. restituée 図化記号	Signe sur les notes 現地記号	Points modifiés 図式変更事項
101	Route à 2 chaussées séparées 2車道の双車道自動車道路および道路 (中央分線付道路) Autoroute : péage (1), site de service (2), site de repos (3)	 1.5 2.1/3	黒 Noire 赤 Rouge	Même signe que pour la carte 地図記号と同じ 黒 Noire 赤 Rouge	赤 Rouge	A indiquer la largeur de la route. 5 2 赤 Rouge 1.5 2.1/3	
101	(1) 料金所(2) サービスエリア(3) 休憩所	 1 級 2 級	黒 Noire 赤 Rouge	Même signe que pour la carte 地図記号と同じ 黒 Noire 赤 Rouge	赤 Rouge	 II A 赤 Rouge	
102	Route de très bonne visibilité (3 voies et plus) 非常に良好な通行可能状態にある道路 (2車道以上)	 1 級 2 級	黒 Noire 赤 Rouge	Même signe que pour la carte 地図記号と同じ 黒 Noire 赤 Rouge	赤 Rouge	 II A 赤 Rouge	
103	Route de bonne visibilité (2 voies étroites) 良好な通行可能状態にある道路 (狭い2車線)	 1 級 2 級	黒 Noire 赤 Rouge	Idem 同上	Idem 同上	 II B 赤 Rouge	
104	Route étroite régulièrement entretenue 定期的に維持補修がなされる狭い道路	 10.00 2 級	黒 Noire 赤 Rouge	Idem 同上	Idem 同上	 赤 Rouge	
105	Autre route étroite : régulièrement entretenue (régulièrement privé ou à accès réglementé)	 0.00	黒 Noire 赤 Rouge	Idem 同上	Idem 同上	 赤 Rouge	
107	Rue dans les agglomérations 不規則な維持補修がなされる道路	 0.00	黒 Noire 赤 Rouge	 赤 Rouge	赤 Rouge	 赤 Rouge	Les rues dans les agglomérations sont représentées à l'échelle lorsqu'elles ont une largeur supérieure à 1.5m et une longueur supérieure à 5m sur la carte. La largeur minimale sur la carte est de 0.2m.

No. 番号	Designation 名 称	Signe sur la carte 地図記号	Echelle en ligne 線号	Couleur 色	Signe sur la carte complète 編入記号	Signe sur les photos 現地記号	Points modifiés 図式変更事項
	Chemin d'exploitation (continuité alternée), bei forestiers (1), voies (2) (Éventuellement piste cyclable)		0.20		Même signe que pour la carte 地図記号に同じ	赤 赤 Rouge	
108	林道(遊歩道が不可通表の)			黒 Noire	黒 Noire	赤 Rouge	
109	林道(遊歩道が不可通表の) Ligne de coupe, lepra, service militaire ou de piétons (continuité alternée) (Éventuellement piste cyclable) 仕立線または小道、赤線遊歩道、狭い小 道、歩行者用の小道(遊歩道が不可通表の)		0.30 3.00	黒 Noire	同上	赤 Rouge	
111	Voies d'ancien type carrossable		0.75 0.50	黒 Noire	同上	赤 Rouge	
112	車の通過可能な古い道の後 Route en tunnel : rectiligne et vités-ups à 500 m (1), courbe ou supérieurs à 500 m (2). Route sous paravente (3) トンネル道路 (1)500m以下の直線 (2)直線もしくは500m以上のもの (3)なだれ防止施設		1.00 0.20 0.10	黒 Noire	同上	赤 Rouge 黒 赤 Rouge 赤 Rouge	
151	Autoroute (1) et route (2) en construction ou en projet 建設中の道路		1.00 5.00	黒 Noire	en const 黒 Noire	赤 Rouge	
152	建設中または計画(1)高さ (2)一般 Route ou chemin : en remblai (1), en déblai (2) 盛土または切土区間の道路		0.20 0.20	黒 Noire	Même signe que pour la carte 地図記号に同じ	赤 Rouge 緑 赤 Rouge	
153	(1) 盛土		2.00	黒 Noire	同上	赤 Rouge	
154	(2) 切土		2.00	黒 Noire	同上	赤 Rouge	


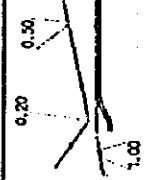
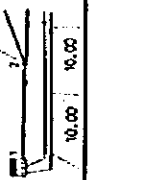



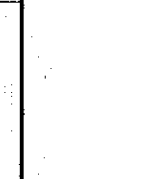
No 番号	Designation 名称	Signe sur la carte 地図記号	Couleur 色	Signe sur la carte complète 縮尺記号	Signe sur la minuscule restituée 図化記号	Signe sur les photos 現地記号	Points modifiés 図式変更事項
156	Route en corniche, en encaissement (1), murs de soutènement (2) 156 橋梁		黒 Noire		Verte Noire 緑 黒 Rouge 赤		
157	Route ou chemin bordé d'arbres 157 並木(道路および道沿いに並ぶ樹木)		黒 Noire	Même signe que pour la carte 地図記号と同じ	A restituer la position exacte 緑 Verte 赤 真位置を図化 Rouge	Verte 緑 Rouge 赤	Longueur supérieure à 10m sur la carte. Les arbres sont représentés à leur position exacte lorsqu'ils sont plantés irrégulièrement. 長さ10m以上、長さ10m以下でまばらの 場合は、真位置に独立樹の記号を表示する。
158	Allée et chemin privés (avant les notions caractéristiques des routes (1)) Allée de parc, de jardin (autres (largeur inférieure à 2,50 m (2))		黒 Noire	idem 同上			
159	私道、公園、庭園等の小道 私道		黒 Noire	idem 同上			
160	Carrefour aménagé 道路の交差(交差点、十字路、分岐点、 ロータリー等)		黒 Noire 赤 Rouge	idem 同上	A représenter par la forme réelle 現況 赤 Rouge	A représenter par la forme réelle 現況 赤 Rouge	
161	Rue en escalier		黒 Noire	idem 同上			
162	階段道		黒 Noire	idem 同上			






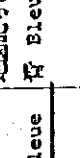
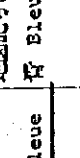
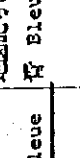
No 番号	Designation 名称	Signe sur la carte 地図記号	Couleur 色	Signe sur la carte complète 縮尺記号	Signe sur la minuce restituée 図化記号	Signe sur les photos 現像記号	POINTS MODIFIES 図式変更事項
201	Chemin de fer à voie normale 標準軌道の鉄道 2 voies 2 線		黒 Noire	Même signe que pour la carte 地図記号と同じ 黒 Noire	A restituer l'axe entre les deux voies 上下線中心を記入 黒 Noire	A indiquer l'axe entre les deux voies 上下線中心を記入 赤 Rouge	
202	1 voie 単線		黒 Noire	Idem 同上	黒 Noire	赤 Rouge	
203	Ligne électrifiée 電化された鉄道		黒 Noire	Idem 同上	黒 Noire	赤 Rouge	Le signe de la ligne électrifiée est placé de manière visible. 電化記号を表示する位置は、分かり 易いよう配置する。
204	Voies de garage ou de service 車庫線、操車場		黒 Noire	Idem 同上	黒 Noire	赤 Rouge	
205	Sur route ou chemin 路側軌道		黒 Noire	Idem 同上	黒 Noire	赤 Rouge	
213	en construction 建設中の鉄道		黒 Noire	— en const. — 黒 Noire	— en const. — 黒 Noire	— en const. — 赤 Rouge	
214	abandonnée 廃止された鉄道		黒 Noire	(abandonnée) 黒 Noire	Verte 緑 Noire	(abandonnée) 黒 Noire	
215	dépotée 取り外された鉄道		黒 Noire 茶 Bistre	Noire Rouge 黒 赤	Verte 緑 Noire	Noire 赤 Noire	

N° 番号	Nom Désignation	Signe sur la carte 地図記号	Couleur 色	Signe sur la minute complète pour la carte 編纂記号	Signe sur la minute restituée 図化記号	Signe sur les photos 現地記号	Points modifiés 図式変更事項
216	Passage : à niveau (1), supérieur (2), inférieur (3) 道路と鉄道の交差 (1) 踏切		黒 Noire	Même signe que pour la carte 地図記号と同じ 黒 Noire	Rouge 赤 黒 Noire	 赤 Rouge	
217	(2) 高架橋		黒 Noire	Idem 同上	Rouge 赤 黒 Noire	 Rouge	橋はすべてを標示する Tous les ponts sont à représenter.
218	(3) 架道橋		黒 Noire	Idem 同上	Rouge 赤 黒 Noire	 Rouge	A indiquer la longueur du pont lorsqu'elle est supérieure à 12.5 m (0.5mm sur la carte)
219	Viaduc		黒 Noire	Idem 同上	 黒 Noire	 赤 Rouge	
220	Gare (avec personnel) (1), Arrêt (sans personnel) (2) 駅、小駅、停車場、停留所		赤 Rouge 黒 Noire	Idem 同上	 黒 Noire	 赤 Rouge	Le nom de la gare est à indiquer. Le quai à voyageurs est à représenter lorsqu'il n'est pas couvert et qu'il a une longueur supérieure à 100 m. 駅名はすべてを標示する。 旅客用ホームは、長さ100m以上で屋根がない場合は要する。
221	Quai à marchandises 貨物用ホーム		黒 Noire	Idem 同上	 黒 Noire	 赤 Rouge	
222	Voie ferrée en camiche, en encaissement 切土、盛土 Voie ferrée : en remblai (1), en déblai (2) かき Murs de soutènement 擁壁部分		黒 Noire	Idem 同上	Verte 緑 黒 Noire	Verte 緑 黒 Noire	

CHEMINS DE FER

鉄 道

N°	Désignation	Signe sur la carte	Couleur	Signe sur la minute compléte	Signe sur la minute restituée	Signe sur les photos	Points modifiés
番号	名 称	地図記号	色	縮尺記号	図化記号	現地記号	図式変更事項
225	傾斜輸送鉄道、ケーブルカー Chemins de transport, plan incliné, funiculaire		黒 Noire	Même signe que pour la carte 黒 Noire	黒 Noire	赤 Rouge	
251	送電線 Ligne aérienne de transport d'énergie électrique (Voltage égal ou supérieur à 20 kV)		黒 Noire	Même signe que pour la carte 黒 Noire	黒 Noire	赤 Rouge	A indiquer les voltages supérieurs à 20 kV selon les documents. 資料によりボルト数 20KV以上を表示する
252	発電所、変電所、 (1) 発電所、 (2) 変電所 Centrale électrique, poste électrique (1) Transformateur (2)		赤 Rouge 黒 Noire	Idem 同上	黒 Noire	赤 Rouge	
301	永続性のある帯水層 Nappe d'eau permanente		青 Bleue	Même signe que pour la carte 青 Bleue	青 Bleue	青 Bleue	A représenter à partir des photos aériennes 空中写真から表示する。
302	浸水しやすい区域 Zone inondable		青 Bleue	資料、図化を参考 青 Bleue	青 Bleue	青 Bleue	
303	泥 (5) 泥 Sable (1)		青 Bleue 青 緑 Verte	青 緑 Verte 青 緑 Verte	青 緑 Verte	青 緑 Verte	
304	砂 (2) 砂 Sable (1)		青 Bleue 青 緑 Verte	青 緑 Verte 青 緑 Verte	青 緑 Verte	青 緑 Verte	










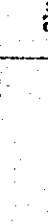



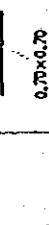




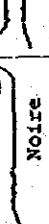





No. 番号	Designation 名 称	Signe sur la carte 地図記号	Couleur 色	Signe sur la minute complète 縮尺記号	Signe sur la minute simplifiée 圖化記号	Signe sur les photos 現地記号	Points modifiés 図式変更事項
305	Zone inondable 浸水しやすい区域 glaciers et puits (2) (2) 砂利および深		Bleu	 Bleu Verte	 Bleu Verte	G	
306	blocs rocheux (3) (3) 大きなすたの岩塊		Bleu	même signe que pour la carte 地図記号と同じ Bleu	 Bleu	R	
307	rochers (4) (4) 礫 (岩塊)		Bleu	Bleu	Bleu	Bleu	
321	Niveau des eaux d'un plan d'eau naturel ou artificiel; 水 部 321 水域のある水域の境界 Lignes des plus basses mers. Limite définie des eaux permanentes (1) (1) 常時水のある水域(明道) Limite médiane des eaux permanentes (2) (2) 常時水のある水域(不明道)		Bleu	Bleu	Bleu	Bleu	La limite des eaux au moment de la prise de vues sera représentée. 撮影時の水かき線を表示する
324	Lignes des plus hautes mers. Limite définie des eaux non permanentes (3) (3) 水域のない水域の境界		Bleu	Bleu	Bleu	Bleu	
325	Limite médiane des eaux non permanentes (4) (4) 水域のない水域の不明道境界		Bleu	Bleu	Bleu	Bleu	

N° 番号	Désignation 名 称	Signe sur la carte 地図記号	Contour 色	Signe sur la minute complètes 採集記号	Signe sur la minute restituée 図化記号	Signe sur les photos 現地記号	Points modifiés 図式変更事項
	Cours d'eau permanent 永久河川			Même signe que pour la carte 地図記号と同じ	Même signe que pour la carte 地図記号と同じ	青 Bleue	A représenter par la largeur du cours d'eau au moment de prise de vues 撮影時の川幅で表示する
331	幅 7.5m以下の永続性のある河川		青 Bleue	青 Bleue	青 Bleue	青 Bleue	
337	幅 7.5m以上の永続性のある河川		青 Bleue	同上 青 Bleue	同上 青 Bleue	青 Bleue	A représenter par la largeur du cours d'eau au moment de prise de vues 撮影時の川幅で表示する
	Cours d'eau temporaire 季節により現われる河川 (カヌー川)			同上 青 Bleue	同上 青 Bleue		
332	幅 7.5m以下の一時的な河川		青 Bleue	同上 青 Bleue	同上 青 Bleue	青 Bleue	
	± berges définies (1)			同上 青 Bleue	同上 青 Bleue		
338	幅 7.5m以上の明確な河岸をもつ 永続性のない河川		青 Bleue	同上 青 Bleue	同上 青 Bleue	青 Bleue	
	± berges non définies (2)			同上 青 Bleue	同上 青 Bleue		
339	幅 7.5m以上の不明な河岸をもつ 永続性のない河川		青 Bleue	同上 青 Bleue	同上 青 Bleue	青 Bleue	
	Canal navigable ou non ; navigable avec traction mécanique (1)						
	水路 航行可能または不可能な水路		青 Bleue				
	幅 7.5m以下の水路		青 Bleue				
333	幅 7.5m以上の水路		青 Bleue	同上 青 Bleue	同上 青 Bleue	青 Bleue	
	d'alimentation, d'irrigation, d'épuration de déchets 給水用、干拓用、灌漑用、排水路等		青 Bleue	同上 青 Bleue	同上 青 Bleue	青 Bleue	
	幅 7.5m以下の水路		青 Bleue	同上 青 Bleue	同上 青 Bleue	青 Bleue	
	A: 7.5m~15m B: 15m~25m		青 Bleue	同上 青 Bleue	同上 青 Bleue	青 Bleue	
337	幅 7.5m以上の水路		青 Bleue	同上 青 Bleue	同上 青 Bleue	青 Bleue	A: 25m以上は幅記号(B) Bleu (A indiquer la largeur supérieure à 25 m)













HYDROGRAPHIE

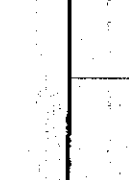
N° 番号	Designation 名称	Signe sur la carte 地図記号	Échelle 縮号	Couleur 色	Signe sur la minute complétée 縮集記号	Signe sur la minute restituée 図化記号	Signe sur les photos 現地記号	Points modifiés 図式変更事項
334	水陸 souterrain 地下水路 幅 7.5m以下の航行可能な水路 いは不可能な地下水路		0.10 0.20	Bleue Noire 青、黒	Même signe que pour la carte 地図記号と同じ 青、黒 Noire 青、黒	→ --- () Bleue Noire 青、黒	→ --- () Bleue Rouge 青、赤	Le signe du canal souterrain sera représenté par une courbe () 赤口記号を () とする。
	幅 7.5m以上の地下水路 en construction 建設中の水路		0.10 0.20	Bleue Noire 青、黒	Idem 同上	→ --- () Bleue Noire 青、黒	→ --- () Bleue Rouge 青、赤	
335	幅 7.5m以下の建設中の水路			青 Bleue	青 Bleue	青 Bleue	青 Bleue	
336	幅 7.5m以上の建設中の水路 abandonné, à sec 廃止された水路 幅 7.5m以下の水が全くないゆ、僅かしか残っていない廃止された水路		0.15	青 Bleue 茶 Bistre 青、赤、黒	青 Bleue Noire 青、黒	青 Bleue Noire 青、黒	青 Bleue Noire 青、黒	
343	幅 7.5m以上の廃止された水路 Aqueduc : au sol (1), élevé (2), souterrain (3) 梁水路 (1) 地上梁水路 (2) 梁、アーチ構造物、橋上に構築された梁水路 (3) 地下梁水路		0.15	青 Bleue 茶 Bistre 青、赤、黒	Idem 同上 青 Bleue Noire 青、黒	青 Bleue Noire 青、黒	青 Bleue Noire 青、黒	
344	地下梁水路		0.20	青 Bleue 黒 Noire 青、黒	Idem 同上 黒 Noire 青、黒	青 Bleue 黒 Noire 青、黒	青 Bleue 黒 Noire 青、黒	

HYDROGRAPHIE

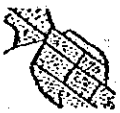


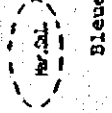



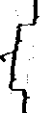

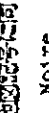
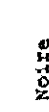
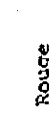
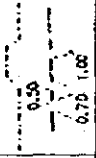
No 番号	Nom 名称	Désignation 名称	Signe sur la carte 地図記号	Couleur 色	Signe sur la minuce complète 縮尺記号	Signe sur la minuce restituée 図化記号	Signe sur les photos 現地記号	Points modifiés 図式変更事項
Conduite forcée (1): conduite de gaz (hydrocarbure) (2)								
345	(1) 水圧管		 0.20 0.70x0.70	青 Bleue	Même signe que pour la carte 地図記号に同じ 青 Bleue	 0.20	 青 Bleue	
346	(2) ガス、石油などの導管		 0.20	黒 Noire	Même signe que pour la carte 地図記号に同じ 黒 Noire	 0.20	 黒 Noire	
347	Quai, mur de défense 護岸		 0.20	黒 Noire	Même signe que pour la carte 地図記号に同じ 黒 Noire	 0.20	 黒 Noire	
348	堤防、突堤、杭出し、 防波堤、治堤、 水溜り、分岐堤、 埠頭...	Digue, jetée, môle, estrade, brancard, brancard, épave, dige de rassurement, wharf, Largueur: allongeur 3 m (1), allongeur 3 m (2)	 0.20	黒 Noire	Idem 同上	 0.20	 赤 Rouge	
349	防波堤、治堤、 水溜り、分岐堤、 埠頭...	maquette, môle 石 金属	 0.15	茶 Bistre	Même signe que pour la carte 地図記号に同じ 赤 Rouge	 0.15	 赤 Rouge	
350	Point d'eau : source, source captée, fontaine (1), esturgeon, résurgence, puits, puits, creux, abreuvoir, lavoir (2)		 0.15	茶 Bistre	Idem 同上	 0.15	 赤 Rouge	L'abréviation est 'AYN' 略注記を 'Aynとする。
351	(1) 水源、泉、湧水、水汲場		 0.12	青 Bleue	Même signe que pour la carte 地図記号に同じ 青 Bleue	 0.12	 青 Bleue	
	(2) 井戸、雨水たの、家庭の水汲場、共同洗水槽		 0.12	青 Bleue	Idem 同上	 0.12	 青 Bleue	

No 番号	Designation 名 称	Signe sur la carte 地図記号	Couleur 色	Signe sur la minute complète 縮尺記号	Signe sur la minute restituée 図化記号	Signe sur les photos 現地記号	POINTS MODIFIES 図式変更事項
351	Réservoir d'eau (1), Château d'eau (2), Station : de pompage, de filtrage, d'épuration : prise d'eau verticale (3) (1) 貯水池 (2) 貯水タワー(給水塔) (3) ポンプ場、浄水場、垂直取水口		青 Bleue	Bassin 青 Bleue	 青 Bleue	Bassin 青 Bleue	
352	Puits : à ciel ouvert (1), couvert (2), Bassin : de décantation, d'épuration, d'élevage piscicole, de creosolants (3), Mars (4) (1) 屋外プール (2) 屋内プール (3) 沈砂池、浄化槽、鯉魚池、クレソール池 (4) 沼池		青 Bleue	St. pomp 青 Bleue	St. pomp 青 Bleue	St. pomp 青 Bleue	
353	Cours d'eau berrés d'arbres		青 Bleue	Noire 青 Bleue	Noire 青 Bleue	Noire 青 Bleue	Longueur supérieure à 10mm sur la carte. 長さ10mm以上を表示 Les arbres sont représentés à leur position exacte lorsqu'ils sont plantés irrégulièrement. 独立のときは真位置に表示。
354	Cascades, chute d'eau (1), Cravasse, sarras (2)		青 Bleue	Noire 青 Bleue	Noire 青 Bleue	Noire 青 Bleue	
355	Barrage : grand (1), petit (2), Prise d'eau sur petit cours d'eau (2), Claque de remousment (3)		青 Bleue	Noire 青 Bleue	Noire 青 Bleue	Noire 青 Bleue	
356	(2) 小ダム、(他の)水門、水障、排水口		青 Bleue	Noire 青 Bleue	Noire 青 Bleue	Noire 青 Bleue	
356	(3) 分水堤		青 Bleue	Noire 青 Bleue	Noire 青 Bleue	Noire 青 Bleue	

No. 番号	Designation 名称	Signe sur la carte 地図記号	Couleur 色	Signe sur la minute complétée 補筆記号	Signe sur la minute restituee 図化記号	Signe sur les photos 現地記号	Points modificias 図式変更事項
357	Pont viateur : ordinaire (1), suspendu (2), mobile (3) 橋本より渡橋	 0.20	黒 Noire	Même signe que pour la carte 地図記号に同じ	Même signe que pour la carte 地図記号に同じ		Tous les ponts sont à représenter 橋本すべてを表示する
	(1) 普通橋および渡橋		黒 Noire	黒 Noire	赤 Rouge	赤 Rouge	橋本12.5m(图上0.5mm)以上は改訂記入
	(2) 吊橋		黒 Noire	黒 Noire	黒 Noire	黒 Noire	A indiquer la longueur du pont lorsqu'elle est supérieure à 12.5 m (0.5mm sur la carte) 0.5mm au minimum
	(3) 渡し船、可動橋		黒 Noire	黒 Noire	赤 Rouge	赤 Rouge	赤 Rouge
358	Passerelle (1), Cul de ratier (2), Bec : autos (3), piétons (4) (1) 河川上の通路		黒 Noire	黒 Noire	赤 Rouge	赤 Rouge	赤 Rouge
359	(2) 渡し場または渡船		黒 Noire	黒 Noire	黒 Noire	黒 Noire	黒 Noire
360	(3) 渡し船(自動車用)		黒 Noire	黒 Noire	黒 Noire	黒 Noire	黒 Noire
	(4) 渡し船(歩行専用)		黒 Noire	黒 Noire	黒 Noire	黒 Noire	黒 Noire
362	Cale : d'arrimage de halage, de construction ou de lancement 船台		黒 Noire	黒 Noire	黒 Noire	黒 Noire	黒 Noire
363	Phare (1), Feu (2), Bataillon (3), Semaphore (4) (1) 燈台		黒 Noire	黒 Noire	黒 Noire	黒 Noire	黒 Noire
364	(2) 灯標		黒 Noire	黒 Noire	黒 Noire	黒 Noire	黒 Noire

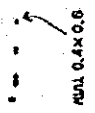

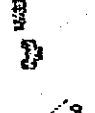


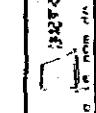

N° 番号	Designation 名 称	Signe sur la carte 地図記号	Couleur 色	Signe sur la minute complète 得架記号	Signe sur la minute restituee 図化記号	Signe sur les photos 現地記号	Points modifiés 図式変更事項
365	Phare (1) Feu (2) Batavia (3) Singapour (4) (3) 灯 塔 (4) 燈塔	☆ ☆ ☆ ☆	Bleue 青	Même signe que pour la carte 地図記号に同じ	Bleue 青	Bleue 青	
366	(4) 航海信号機		Noire 黒	Même signe que pour la carte 地図記号に同じ	Noire 黒	Noire 黒	赤 赤
367	Balise ordinaire (1) & touraille (2) : bouée : ordinaire (3) : lumineuse (4) 航路標識	☆ 1.20 0.12 0.10 0.08 0.06 0.04 0.03 0.02 0.01	Noire 黒	Même signe que pour la carte 地図記号に同じ	Noire 黒	Noire 黒	赤 赤
368	(1) 普通航路標識 (2) 燈塔 (3) 普通アイ (4) 普通アイ		Bleue 青	Même signe que pour la carte 地図記号に同じ	Bleue 青	Bleue 青	赤 赤
369	Lave 洗 滌		Bleue 青	Idem 同上	Bleue 青	Bleue 青	赤 赤
371	Pêcheries 漁 場 Berchets (1) (1) 魚取場 collecteurs d'huîtres (2) (2) 貝の採取場 parc à huîtres (3) (3) 養貝場		Noire 黒	Même signe que pour la carte 地図記号に同じ	Noire 黒	Noire 黒	赤 赤

HYDROGRAPHIE




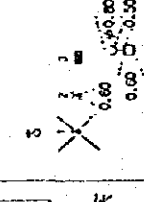
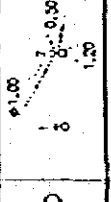
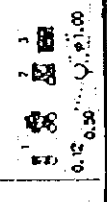
N° 番号	Désignation 名称	Signe sur la carte 地図記号	Signe sur la planche complète 図化記号	Signe sur la planche complète 図化記号	Signe sur les photos. 現地記号	Points modifiés 図式変更事項
371	造塔 Installation (en de pierre en ciment (4).		Même signe que pour la carte 地図記号と同じ 黒 Noire	Même signe que pour la carte 地図記号と同じ 黒 Noire	Même signe que pour la carte 地図記号と同じ 赤 Rouge	
	(4) かいほのたのの圖定記号					
	塔石 (5) (5) その他の塔石		Idem 同上	Idem 同上	Idem 同上	
372	水塔 Marsais salant					
	塔田		Idem 同上	Idem 同上	Idem 同上	
401	Mur en maçonnerie					
	組積み壁(塔石積み、コンクリート壁)	0.20	黒 Noire	黒 Noire	赤 Rouge	
	Mur de revêtement (1): cultures en terrasses (2)		Même signe que pour la carte 地図記号と同じ	Même signe que pour la carte 地図記号と同じ	Même signe que pour la carte 地図記号と同じ	
402	(1) 擁壁					
	(2) 段々畑	0.08	黒 Noire	黒 Noire	赤 Rouge	
403	Mur en ruine, en pierres sèches					
	崩れた壁、から積み壁	0.15	黒 Noire	黒 Noire	黒 Noire	

No. 番号	Designation 名 称	Signe sur la carte 地図記号	Couleur 色	Signe sur la minute compléte 縮尺記号	Signe sur la minute restreinte 縮尺記号	Signe sur les photos 現地記号	POINTS MODIFIÉS 図式変更事項
404	Culture en treillage métallique, grille en fer (金網栽培子、金網による垣(鉄柵))		黒 Noire	Même signe que pour la carte 地図記号と同じ 黒 Noire	黒 Noire	赤 Rouge	
405	Fossé habituellement à sec 溝(通常水のない大きな溝)		青 Bleu	青 Bleu	青 Bleu	青 Bleu	
407	Haie, bande d'arbres, bande de bois étroite 垣 板		緑 Verte	緑 Verte	緑 Verte	緑 Verte	
408	Lévet de terre : végétaux (1), avec arbres (2) (1) 堤防		茶 Bistre	赤 Rouge	緑 Verte	赤 Rouge	
410	(2) 柱木のある土の堤防 Outrages sans végétaux なだれ(土の堤防)		緑 Verte	緑 Verte	緑 Verte	赤 Rouge 緑 Verte 赤 緑	
409	Détail linéaire non identifié 未定型の線状地物		黒 Noire	黒 Noire	黒 Noire	黒 Noire	Interpretation par l'appareil de restitution 図化装置による
412	Détail linéaire non identifié 未定型の線状地物		黒 Noire	黒 Noire	黒 Noire	黒 Noire	図化装置による

CLÔTURES ET LIMITES
柵 圍

N°	Désignation	名 称	Signe sur la carte	地図記号	線号	Couleur	色	Signe sur la minute compléte	縮尺記号	Signe sur la minute restituée	図化記号	Signe sur les photos	写真記号	Points modifiés	図式変更事項
	Maison ou bâtiment ordinaire de petites dimensions														
501	小規模な一般住宅および建物			Mul. 0.4x0.6											
502	大規模な一般住宅および建物			Mul. 1.0											
503	市 (国) 役所、町 (村) 役所、公共建物			Mul. 1.0											
504	工場および製鉄関係の大規模建物			Mul. 1.0											
505	都市の中心部 (商業建物) とその郊外			Mul. 1.0											
506	地下、岩窟住居														
507	山の避難小屋														
508	郵便市場、格納庫、温室、ガソリンスタンド			Mul. 1.0											
	同上 (建築物のサイズは 509 を参照)														
	市 場			Mul. 1.0											




CONSTRUCTIONS DIVERSES 各種標記建物

No. 番号	Designation 名	Signe sur la carte 地図記号	Couleur 色	Signe sur la minute compléte 編纂記号	Signe sur la minute restructuon 図化記号	Signe sur les photos 現地撮影記号	Points modifiés 図式変更事項	
509	Baraque, baraquement, bungalow, cabane, abri バザック、仮小屋、バンガロー、小屋、 避難小屋		赤 Rouge	Même signe que pour la carte 地図記号に同じ	黒 Noire	赤 Rouge		
510	Tour isolée, donjon, pigeonnier (1), 独立塔、塔、塔舎							
513	Terrain de camping キャンプ場	A	黒 Noire	Même signe que pour la carte 地図記号に同じ	黒 Noire	赤 Rouge		
514	Ruines de machinements 廃 塔(傾斜落ちた塔類)		黒 Noire	Même signe que pour la carte 地図記号に同じ	黒 Noire	赤 Rouge		Porter l'abréviation "Mon." lorsqu'il s'agit des ruines historiques. 歴史的な廃城は mon と注記する。
521	(1) 鐘樓 (2) ミナレット Édifices religieux: 寺院塔屋 clocher (1) 鐘樓 minaret (2) ミナレット mosquée (3) مسجد de moins de 50 m sans clocher, sans minaret. 鐘樓、ミナレットのない50m以下の宗 教的小建築物		黒 Noire	Même signe que pour la carte 地図記号に同じ	黒 Noire	赤 Rouge		
522	de moins de 50 m avec clocher, avec minaret 鐘樓、ミナレットを備えた50m以下の 宗教的小建築物		黒 Noire	Même signe que pour la carte 地図記号に同じ	黒 Noire	赤 Rouge		
523	de plus de 50 m 50m以上の宗教的小建築物		赤 Rouge 黒 Noire	黒 Noire	黒 Noire	赤 Rouge		

CONSTRUCTIONS DIVERSES 各種建築物

No 番号	Designation 名 称	Signe sur la carte 地図記号	Couleur 色	Signe sur le maquette completee 模型記号	Signe sur la maquette 図化記号	Signe sur les photos 現地記号	Points modifiés
							図式変更事項
525	Cimetiere : chéouan (1), musulman (2), israelite (3) 墓地 (1)キリスト教 (2)回教 (3)ユダヤ教		黒 Noire		黒 Noire		
526	Douba, Marabout クワバ マラブ		黒 Noire		黒 Noire		
527	Monument, stèle 記念建築物、石碑		黒 Noire		黒 Noire		
528	Moulin à vent (1), éolienne (2) (1)風車 (2)風車		黒 Noire		黒 Noire		
529	Reservoir : hydrocarbure, de gaz (gazodépot) 石油およびガスのタンク、(ガスタンク)		黒 Noire		黒 Noire		
530	Cylindre : de condensation, de dépotage ; reservoir industriel 凝縮塔、荷降塔留塔、工業タンク等		黒 Noire		黒 Noire		
534	Cheminée d'usage (1), Pylône (2) 煙囪、高炉		黒 Noire		黒 Noire		
537	(1) 工場煙突		黒 Noire		黒 Noire		
538	(2) 塔 (テレビ、ラジオ、無線、 航路灯台等の高塔)		黒 Noire		黒 Noire		

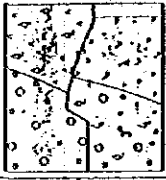
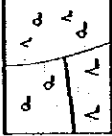
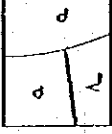

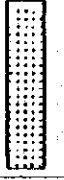

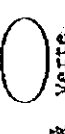
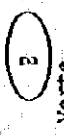
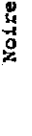
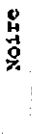

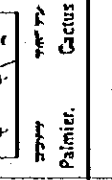
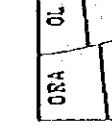
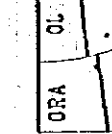
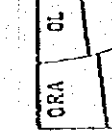



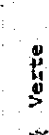


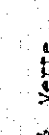

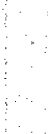

CONSTRUCTIONS DIVERSES
各種建築物

N° 番号	Designation 名 称	Signe sur la carte 地図記号	Couleur 色	Signe sur la notice compléee 編纂記号	Signe sur la notice réactualisée 図化記号	Signe sur les photos 現地撮影記号	POINTS MODIFIÉS 図式変更事項
541	Point géodésique 三角点 construction permanente au point métrique au sol 普通の三角点		Noire 黒	Porter la cote-sol arrondie au mètre 標高は単位で表示 黒 Noire	Δ 黒 Noire		
	construction ayant un signe conventionnel 地図記号を増する建築物により構成さ れる三角点		Noire 黒		O □ 黒 Noire		
	autre point その他の三角点		Noire 黒	Noire 黒	Δ 黒 Noire		
542	Repère de nivellement (1) Point de vue aménagé, balvédère, table d'orientation (2) (1) 水準点 (2) 設備の整った展望台、見晴らし台 方向盤	RN 黒 Noire	RN 黒 Noire	RN 黒 Noire	Porter la cote-sol sur le plan des points de contrôle 基準点図に標 高を記入 黒 Noire		
543	Point de cote 標高点	0.20 0.152	Noire 黒	Porter la cote-sol sur le plan des points de contrôle 基準点図に記入 黒 Noire	X.152 Porter la cote-sol sur le plan des points de contrôle 152 points de contrôle 152 基準点図に記入		Les points de cote y compris les points excentriques des points de contrôle sont indiqués en principe à un intervalle de 5 cm sur la carte. Porter la cote-sol arrondie au mètre. 標高の値は5cmの区間を以て 表示する。標高は単位で表示。

CONSTRUCTIONS DIVERSES 各種建築物

N° 番号	Designation 名称	Signe sur la carte 地図記号	Couleur 色	Signe sur la notice complète 縮尺記号	Signe sur la notice résumée 図化記号	Signe sur les planches 現地記号	Points modifiés 図式変更事項
551	Aéroports piste aménagée (1), non aménagée (2), en construction (3), déprisée (4) 飛行場 (1) 滑走路 (2) (3) 工事中 (4)		黒 Noire	現況で表示 黒 Noire	現況で表示 黒 Noire	現況で表示 赤 Rouge	
552	Stade, terrain de sport, vélodrome 競技場、グラウンド、自転車競技場		黒 Noire	Idem 同上	Idem 同上	Idem 同上	
553	Terrain de football, de rugby サッカー、ラグビー場		黒 Noire	Idem 同上	Idem 同上	Idem 同上	
554	Hippodrome, champ de courses 競馬場		黒 Noire	Idem 同上	Idem 同上	Idem 同上	
555	Tennis (1), Terrain de ski (2) (1) テニスコート						
556	(2) スキーのジャンプ台 雪原施設						
561	fort (1), (1) 軍事用地および施設	2	黒 Noire	現況で表示 黒 Noire	現況で表示 黒 Noire	現況で表示 赤 Rouge	
562	casemate (2) (2) 防衛施設 organisation défensive (2) (2) 防衛網	2	黒 Noire	Même signe que pour la carte 地図記号に同じ 黒 Noire	Même signe que pour la carte 地図記号に同じ 黒 Noire	Même signe que pour la carte 地図記号に同じ 赤 Rouge	

CONSTRUCTIONS DIVERSES

N° 番号	Designation 名 称	Signe sur la carte 地図記号	Couleur 色	Signe sur la minusc complété 縮尺記号	Signe sur la minusc, restituée 図化記号	Signe sur les photos 現地記号	Points modifiés 図式変更事項
601	Bois et forêt 森林 (1) 広葉樹 (2) 針葉樹 feuillus et conifères (3) (3) 混合林		Verte 緑				
602	Broussaille (4) (4) 灌木		Verte 緑				
414	Limite de végétation et de plantations (5) (5) 植生および造林地の境界		Verte 緑				
511	Plantation, verger, pépinière, jardin avec arbres, horticultrice 樹林地、果樹園、苗木、柳林 樹木のある庭園、ホップ畑		Verte 緑				A représenter lorsque la superficie est supérieure à 4 mm x 4 mm sur la carte. 図上 4mm x 4mm以上を表示する。
616	Végét. ブドウ畑		Verte 緑				
642			Verte 緑				
643			Verte 緑				

No. 番号	Designation 名 称	Signe sur la carte 地図記号	Couleur 色	Signe sur la minute complete 縮尺記号	Signe sur la minute restituée 図化記号	Signe sur les photos 現地記号	POINTS MODIFIÉS 図式変更事項
605	Vegetation equatique (1), rizière (2) (1) 水生植物		Verte 緑				
618	(2) 水田		Verte 緑				
632	Arbre isolé : en bouie, en fuscau, chalaigquier, peuplier, olivier. 0.4 x 1.0 x 0.200 反なる寄りまき		Noire 黒	Même signe que pour la carte 地図記号に同じ			A inscrire les noms des arbres. 00000 樹木名記入する
645	Bouquet, bouquet d'arbres, gros buisson isolé 木立、樹木の集まり、 独立した大きな茂み		Verte 緑	Même signe que pour la carte 地図記号に同じ			Interpretation par l'appareil de restitution 図化機による
701	Courbes de niveau (1) (1) 等高線(曲線 5m, 計曲線 25m)		Bistre 黒	Même signe que pour la carte 地図記号に同じ			Interpretation par l'appareil de restitution 図化機による
702			Bistre 黒	Même signe que pour la carte 地図記号に同じ			Interpretation par l'appareil de restitution 図化機による
703	Petite cuvette (5), (5) 小盆地 petit cratère (6), (6) 小クレーク		Bleue 青	Même signe que pour la carte 地図記号に同じ			Interpretation par l'appareil de restitution 図化機による
704	Tous et escarpement naturels en terre : peu importants (1), importants (2)		Bistre 黒	Même signe que pour la carte 地図記号に同じ			Interpretation par l'appareil de restitution 図化機による
705	Tous et escarpement naturels en terre : peu importants (1), importants (2)		Bistre 黒	Même signe que pour la carte 地図記号に同じ			Interpretation par l'appareil de restitution 図化機による

et 5 m sont

Les talus ayant une hauteur comprise entre 3 et 5 m sont représentés avec les barreaux éliminés.







高さ3~5mを細いケハで表示

Les talus ayant une hauteur supérieure à 5 m sont représentés avec les barreaux renforcés.

高さ5m以上を太いケハで表示

N° 番号	Désignation 名称	Signe sur la carte 地圖記号	Couleur 色	Signe sur la minute complètes 標尺記号	Signe sur la minute reconstituées 圖化記号	Signe sur les photos 現地地圖記号	Points modifiés 圖式変更事項
706	Sable durs 砂、砂丘		茶 Bistre 赤 緑 Verte			Rouge 赤 La zone est à interpréter par l'appareil de restitution. 赤 区域は図化判別	
707	Terrain mouillé, ou et revêtu Terrain spongieux. 標のあるいは雨後のある乾湿な土地		茶 Bistre 赤	赤 赤	Verte 赤 緑 Verte 赤 緑	赤 Rouge 赤 Applicable aux terrains humides sans végétation	
708	Sablère, ballastière, carrière 砂取場、砂採集場、泥灰岩採石場		茶 Bistre 赤 Rouge	Même signe que pour la carte 地圖記号に同じ 赤 Rouge			Applicable aux celles supérieures à 8 mm sur la carte 図上8mm以上
709	Talus et escarpement rocheux : peu importants (1), importants (2), Tas de cailloux (3)		黒 Noire 黒 Noire	黒 Noire 黒 Noire	Verte 赤 Rouge 赤 Rouge	赤 Rouge 赤 Rouge 赤 Rouge	Applicable aux celles supérieures à 8 mm sur la carte 図上8mm以上
710	(1) 小岩壁		黒 Noire	黒 Noire	Verte	赤 Rouge	Applicable aux celles supérieures à 8 mm sur la carte 図上8mm以上
711	(2) 岩壁 (砂岩) (3) 小石の山 (砂岩)		黒 Noire 黒 Noire	黒 Noire 黒 Noire	Verte 赤 Rouge	赤 Rouge 赤 Rouge	Applicable aux celles supérieures à 8 mm sur la carte 図上8mm以上
712	Éboulis, moiraines, blocs rocheux 崩落物、堆積、岩塊		黒 Noire 茶 Bistre 青 Bleue	Même signe que pour la carte 地圖記号に同じ			
713	Craquelé, terri : en schistes (1), abandonnés (2) 崩落物、堆積、岩塊		黒 Noire 茶 Bistre	Même signe que pour la carte 地圖記号に同じ			
714	Carrière 採石場		黒 Noire 茶 Bistre	Même signe que pour la carte 地圖記号に同じ 黒 Noire			赤 Rouge 赤 Rouge
715	Massif rocheux, terres pentes 岩塊、急勾配		黒 Noire 茶 Bistre	Même signe que pour la carte 地圖記号に同じ			赤 Rouge 赤 Rouge

FIGURE DU TERRAIN

No. 番号	Designation 名 称	Signe sur la carte 地図記号	Couleur 色	Signe sur la minute complétée 編纂記号	Signe sur la minute restituée 図化記号	Signe sur les photos 現地記号	Points modifiés 図式変更事項
801	Limite 境界 Limite d'Etat avec bornes 国境	-----	黒 Noire	Même signe que pour la carte 地図記号と同じ 黒 Noire	Verte A inscrire les limites et les toponymes sur les plans 緑 境界・地名を資料に記入		Selon les documents
802	Limite de province 県界		黒 Noire	Idem 同上	Bleue 青 同上		Selon les documents
803	Limite de canton 郡界		黒 Noire	Idem 同上	Rouge 赤 同上		Selon les documents
804	Limite de commune 市町村界		黒 Noire	Idem 同上	Rouge 赤 同上		Selon les documents
805	Limite de terre collective 公共用地界		黒 Noire	Idem 同上	Collective 黒 Noire		Selon les documents
806	Limite de camp militaire 軍事基地の境界		黒 Noire	Idem 同上	赤 赤		Selon les documents
807	Limite de zone réglementée de champ de tir 射撃場の境界		黒 Noire	Idem 同上	赤 赤		Selon les documents
808	Limite de forêt domaniale 国有林界	-----	緑 Verte	Idem 同上	緑 Verte		Selon les documents
809	Limite de parc naturel 自然公園の境界	-----	緑 Verte	Idem 同上	緑 Verte		Selon les documents
413	zone périphérique	-----	緑 Verte	Idem 同上	緑 Verte		Selon les documents

LIMITES ET NOTATIONS ADMINISTRATIVES

CARTOGRAPHIC
DETAILS

Healey

Josito Kamburo

1) Hill Shading

Oblique hill shading, assuming North-west oblique illumination, shall be applied. Density rate of shading is shown in accordance with Appendix 3.

2) Point Symbols

Point symbols shall be placed on the exact position and all symbols shall be stand right.

3) Destination Annotation

(1) Road

Destination annotation of road shall be stated for principal road which is indicated by double line.

(2) Railway

Destination annotation of railway shall be applied the terminal station etc.

4) Route Number of Road

The route number shall be placed at terminals, junctions and close to built-up area and neat line. In built-up area, route number may be omitted. (see Appendix 4)

5) Boundary

(1) Boundary classification is as follows (for the survey area).

a) Préfecture boundary or Province boundary.

b) Local administrative boundary (Cercle · Commune)

- (2) If the administrative boundary is running or crossing on linear features, boundary line shall be drawn in accordance with Appendix 5

6) Coastline

- (1) Coastline shall be drawn along the shoreline identifiable on aerial photography.
- (2) Coastline shall be drawn precisely and priority to other natural features in drawing.
- (3) Rocky reef shall be drawn as much as identifiable. Where small reefs are densed and difficult to draw independently, the main reef shall be selected and drawn its outline.
- (4) Coastline shall be drawn by symbol specification, and typical topography along coast line shall be shown in accordance with Appendix 6.

- 7) Elevated intersections are compiled in accordance with Appendix 4.

8) Special Topography

- (1) The symbol shall be used for terrain not suitable and difficult to represent by contour line such as:

Small depression

Outcrop

Earth cliff

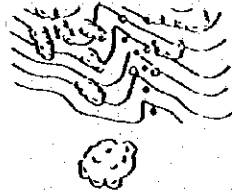
- a) Small depression

Small depression considered to be expressed shall be indicated even exaggerating out look in the following symbol.



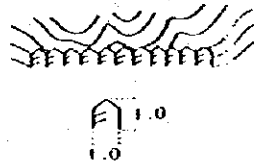
b) Outcrop

Where the outcrop is out the contour lines, outcrop shall be drawn as follows.



c) Cliff

Cliff shall be drawn in black parallel lines as follows.



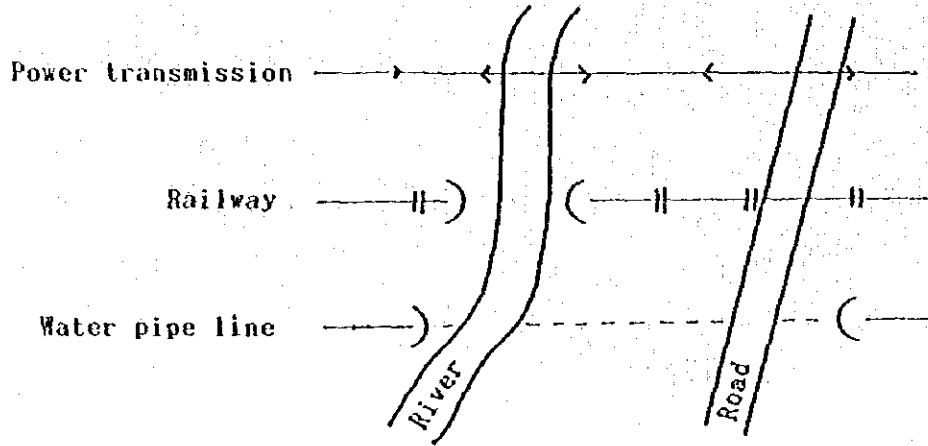
d) Earth cliff

Earth cliff shall be drawn in brown short line along maximum slope as follows.



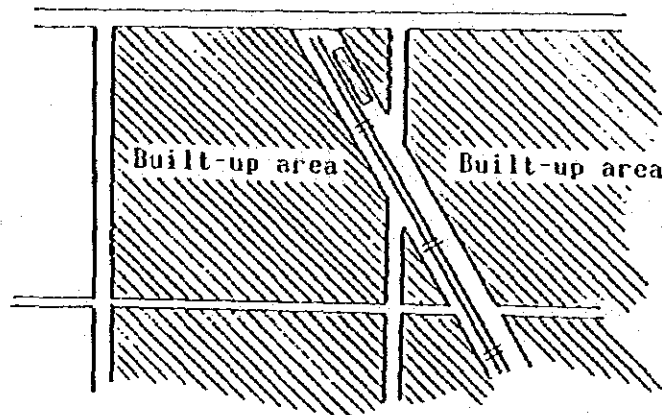
9) Indication of power transmission line, water pipe line and railway.

In the case of acrossing double line road or double line river, they shall be shown as follows.



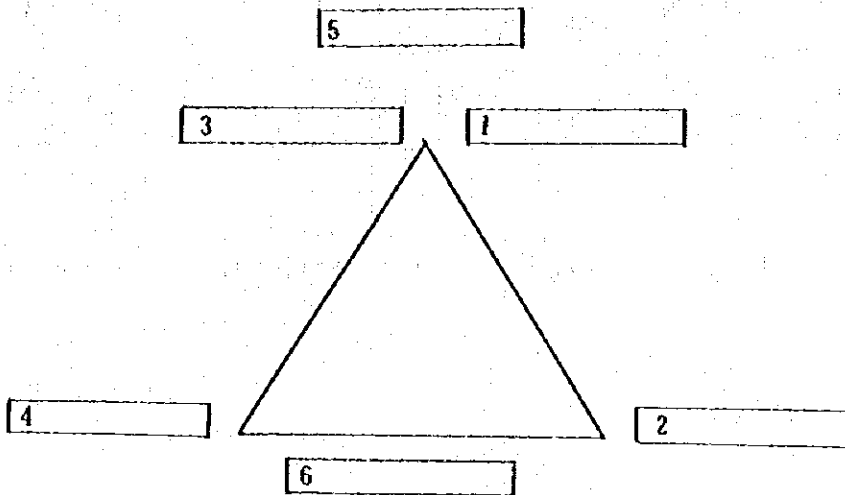
10) Railway

Railway in built-up area shall be indicated and shall be shown as follows.



11) Entry method of annotation

Entry position of annotation shall be shown as following order.



12) Roads in built-up area shall be shown in accordance with Appendix 7.

13) Annotation of linear feature shall be shown in accordance with Appendix 8.

14) The following five colors shall be used for final printing and detailed application of color are described on Annex 1.

(1) Black

(2) Red

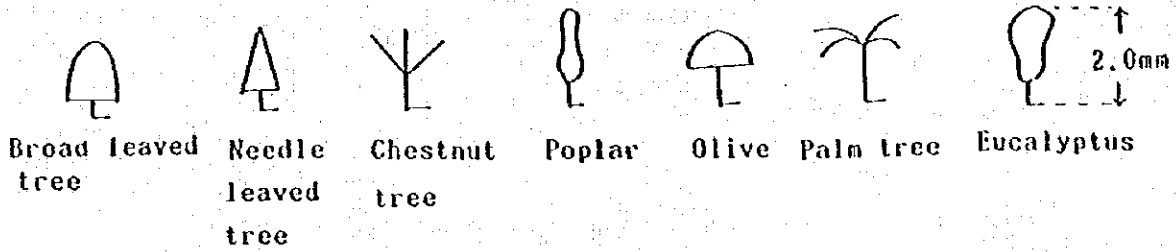
(3) Blue

(4) Green

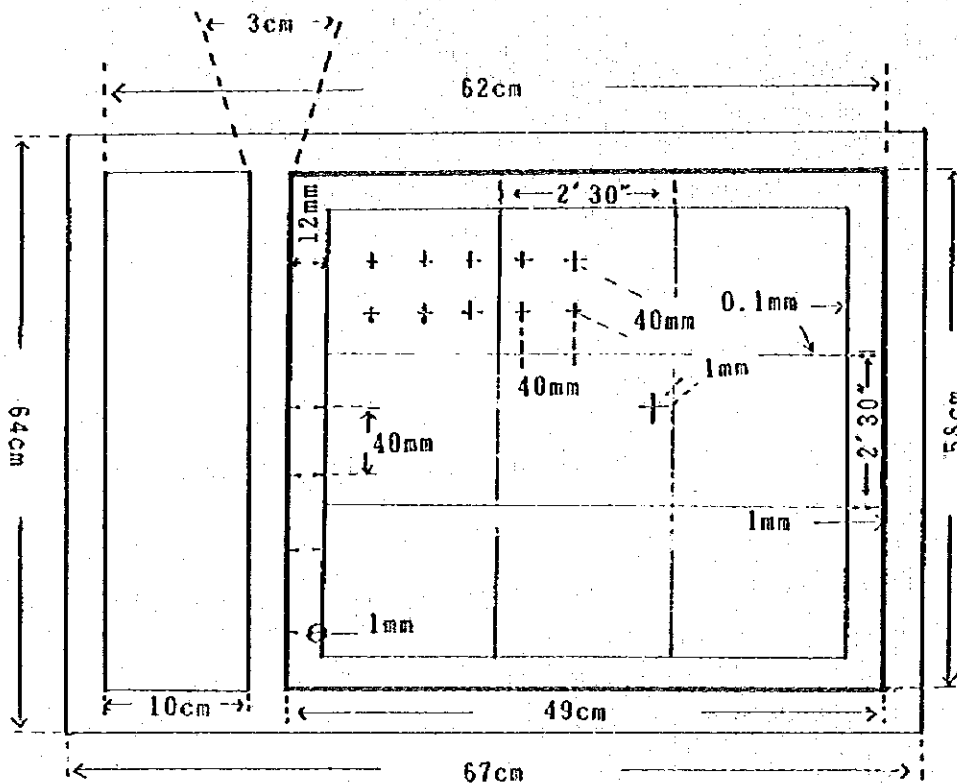
(5) Brown

15) Independent Tree

Independent Tree which is valuable as landmark shall be shown as follows

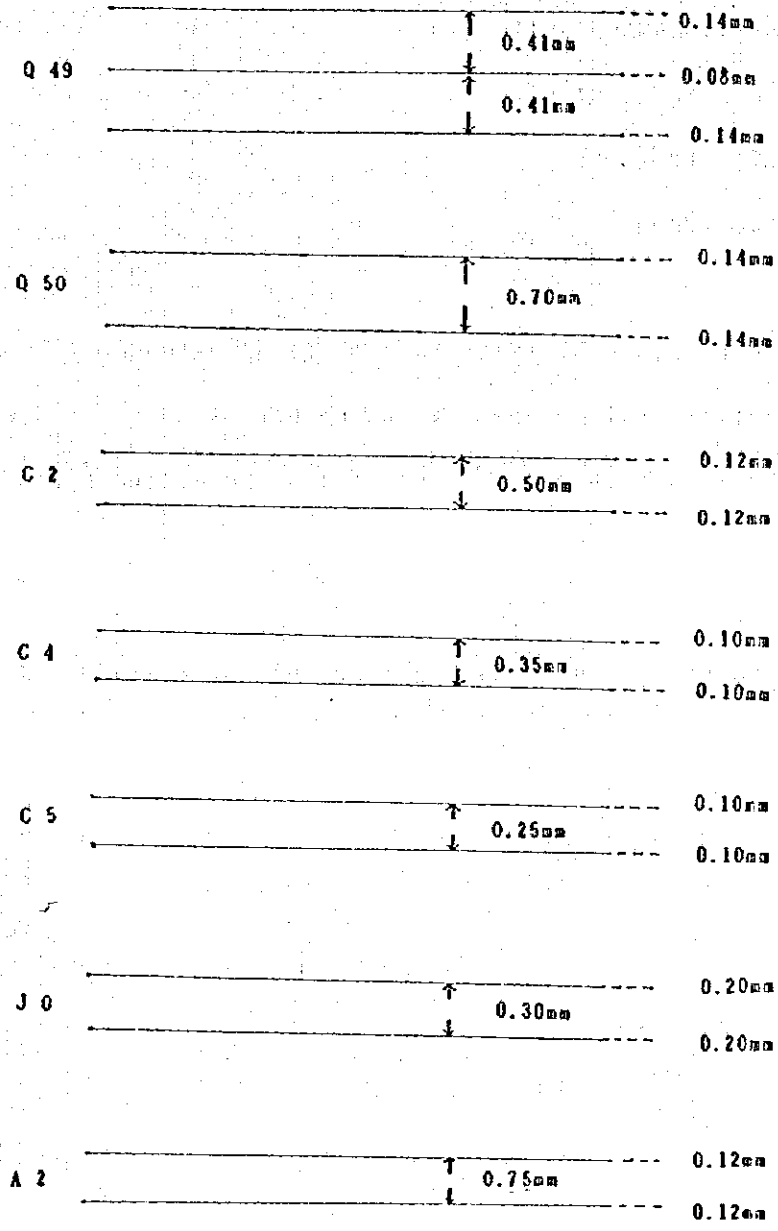


16) The map sheet dimension shall be shown as follows:



17) The lettering size and style is shown in accordance with Appendix 9. Lettering type of Japanese photo-setting machine with French accent (aigu grave, circonflexe) shall be used for this project.

18) The line thickness and width shall be shown as follows:

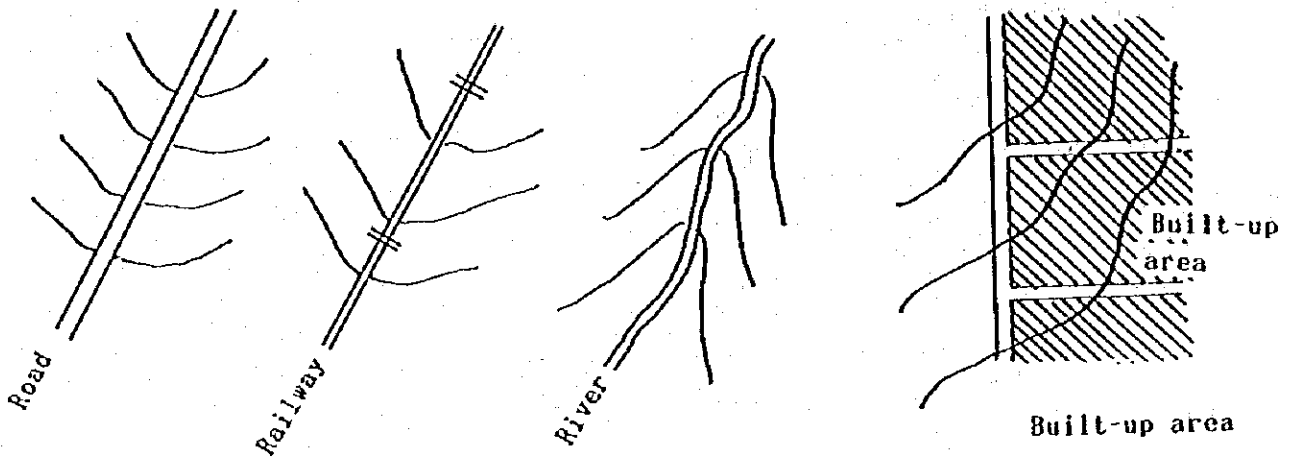


19) The index map of marginal information (in the lower left hand side) shall be indicated as Appendix 10.

20) The administrative boundary lines and administrative names to be drawn in the box of marginal information (in the lower right hand side) which shall be indicated Préfecture and Province and Cercle and Commune, but shall be omitted Commune names.

21) The format of map number NI-29-X-2-d-3 shall be extended to westward to cover small portion of land area of map number NI-29-X-2-c-4. Consequently this map sheet is numbered as NI-29-X-2-c-4,d-3. (see Appendix 1 and 10).

22) If contour lines are crossing double line road or railway and river, they shall be shown as follows.



L i s t o f A p p e n d i x e s

- Appendix 1 : Sheet index with sheet numbers**

- Appendix 2 : Sheet names**

- Appendix 3 : Shading method**

- Appendix 4 : Cartographic method for road**

- Appendix 5 : Cartographic method for boundary**

- Appendix 6 : Cartographic method for coastal area**

- Appendix 7 : Cartographic method for road in built-up area**

- Appendix 8 : Annotation method for linear feature**

- Appendix 9 : Lettering size and style**

- Appendix 10 : Others**

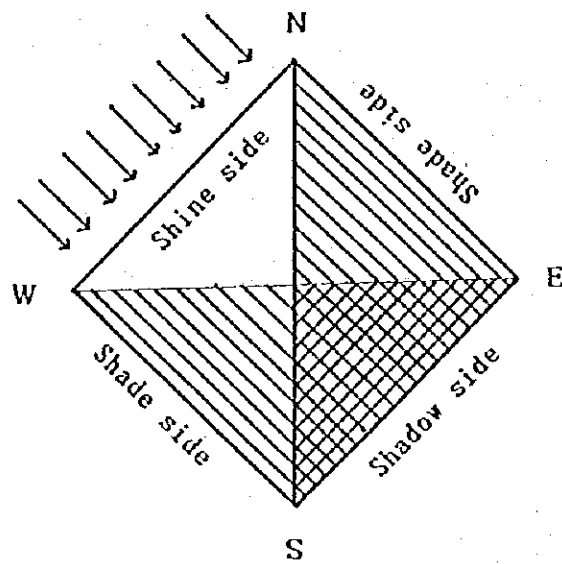
Appendix 1

						**	**	**	**	**	**	**	**
						X-2-c-4, d-3	X-2-d-4	XI-1-c-3	XI-1-c-4	XI-1-d-3	XI-1-d-4	XI-2-c-3	XI-2-c-4
		**	**	**	**	**	**	**	**	**	**	**	**
		X-1-d-2	X-2-c-1	X-2-c-2	X-2-d-1	X-2-d-2	XI-1-c-1	XI-1-c-2	XI-1-d-1	XI-1-d-2	XI-2-c-1	XI-2-c-2	
	**	**	**	**	**	**	**	**	**	**	**	**	**
	X-1-b-3	X-1-b-4	X-2-a-3	X-1-a-4	X-2-b-3	X-2-b-4	XI-1-a-3	XI-1-a-4	XI-1-b-3	XI-1-b-4			
	**	**	**	**	**	**	**	**	**	**	**	**	**
	X-1-b-1	X-1-b-2	X-2-a-1	X-2-a-2	X-2-b-1	X-2-b-2	XI-1-a-1	XI-1-a-2	XI-1-b-1	XI-1-b-2			
NI-29	**	**	**	**	**	**	**	**	**	**	**	**	**
	IV-3-c-4	IV-3-d-3	IV-3-d-4	IV-4-c-3	IV-4-c-4	IV-4-d-3							
**	**	**	**	**	**	**	**	**	**	**	**	**	**
IV-3-c-1	IV-3-c-2	IV-3-d-1	IV-3-d-2	IV-4-c-1	IV-4-c-2	IV-4-d-1							
	**	**	**	**	**	**	**	**	**	**	**	**	**
	IV-3-b-3	IV-3-b-4	IV-4-a-3	IV-4-a-4	IV-4-b-3								

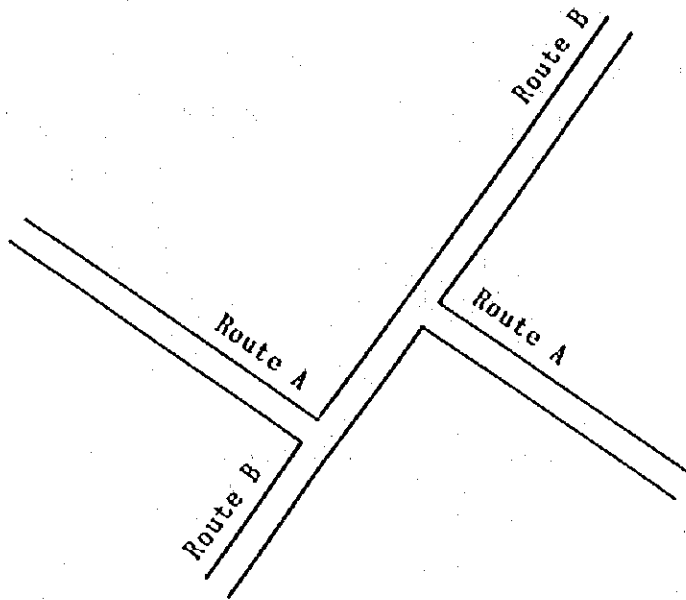
NOMS DES FEUILLES A L'ECHELLE 1/25,000

01	NI-29-X -2-c-4				
	-d-3	S' M ⁴	AÇ-ÇANHAJI		
02	NI-29-X -2-d-4		SIDI BORJA		
03	NI-29-XI -1-c-3		BIR JDID NORD		
04	NI-29-XI -1-c-4		HAD AS-SWALEM		
05	NI-29-XI -1-d-3		DOUSKOURA		
06	NI-29-XI -1-d-4		HADYOUNA		
07	NI-29-XI -2-c-3		QAÇBAT O' ZIYANE		
08	NI-29-XI -2-c-4		HAD HMALINE AL WAD		
09	NI-29-XI -2-c-2		TLAT O' ÇABBAJ		
10	NI-29-XI -2-c-1		AJ-JAOMA		
11	NI-29-XI -1-d-2		BARRECHIO		
12	NI-29-XI -1-d-1		OULAD HAJJAJ		
13	NI-29-XI -1-c-2		LA'SILAT		
14	NI-29-XI -1-c-1		BIR JDID SUD		
15	NI-29-X -2-d-2		LARB'A CHTOUKA		
16	NI-29-X -2-d-1		TNINE CHTOUKA		
17	NI-29-X -2-c-2		AZEMMOUR		
18	NI-29-X -2-c-1		L'ADIR		
19	NI-29-X -1-d-2		AL-JADIDA		
20	NI-29-X -1-b-3		JORF LAÇFAR		
21	NI-29-X -1-b-4		MOULAY 'ABDALLAH		
22	NI-29-X -2-a-3		AL-JADIDA EST		
23	NI-29-X -2-a-4		JAM'AT AL HAWZIYA		
24	NI-29-X -2-b-3		'AYN MAZGALLA		
25	NI-29-X -2-b-4		SIDI S'ID M'ACHOU		
26	NI-29-XI -1-a-3		GHNIMIYINE		
27	NI-29-XI -1-a-4		TLAT GHNIMIYINE		
28	NI-29-XI -1-b-3	Z ⁴	S' AL MAKKI		
29	NI-29-XI -1-b-4		SIDI AL 'AYDI		
30	NI-29-XI -1-b-2		SETTAT EST		
31	NI-29-XI -1-b-1		SETTAT OUEST		
32	NI-29-XI -1-a-2	O'	SIDI AT-TAWTI		
33	NI-29-XI -1-a-1	JAM'AT O'	'ABBOU		
34	NI-29-X -2-b-2		'AYN TALMEST		
35	NI-29-X -2-b-1		BIR AL BABBOUCHE		
36	NI-29-X -2-a-2		TLAT O' HANDANE		
37	NI-29-X -2-a-1		OULAD RAHMOUNE		
38	NI-29-X -1-b-2		SEBT O' DWIB		
39	NI-29-X -1-b-1		SIDI AL 'ABED		
40	NI-29-IV -3-c-4		JAM'AT O' GHANEM		
41	NI-29-IV -3-d-3		HAD O' 'ISSA		
42	NI-29-IV -3-d-4		DAR GRARTA		
43	NI-29-IV -4-c-3	S'	LARB'AT MOGRESS		
44	NI-29-IV -4-c-4	JAM'AT O'	HAMDANE		
45	NI-29-IV -4-d-3	HAD O'	FRAJ		
46	NI-29-IV -4-d-1	O'	SIDI HSINE		
47	NI-29-IV -4-c-2	O'	MOUMENE		
48	NI-29-IV -4-c-1	JAM'AT BNI	HLAL		
49	NI-29-IV -3-d-2		SIDI SMA'IL		
50	NI-29-IV -3-d-1		SEBT SAYSS		
51	NI-29-IV -3-c-2	O'	GHANEM		
52	NI-29-IV -3-c-1	Z ⁴	S' AHMED B. MBAREK		
53	NI-29-IV -3-b-3		ZMAHRA		
54	NI-29-IV -3-b-4	O'	BOU S'ID		
55	NI-29-IV -4-a-3		SIDI BENNOUR		
56	NI-29-IV -4-a-4	O' S'	'ABDALWAHED		
57	NI-29-IV -4-b-3		LARB'A AL 'AWNAT		

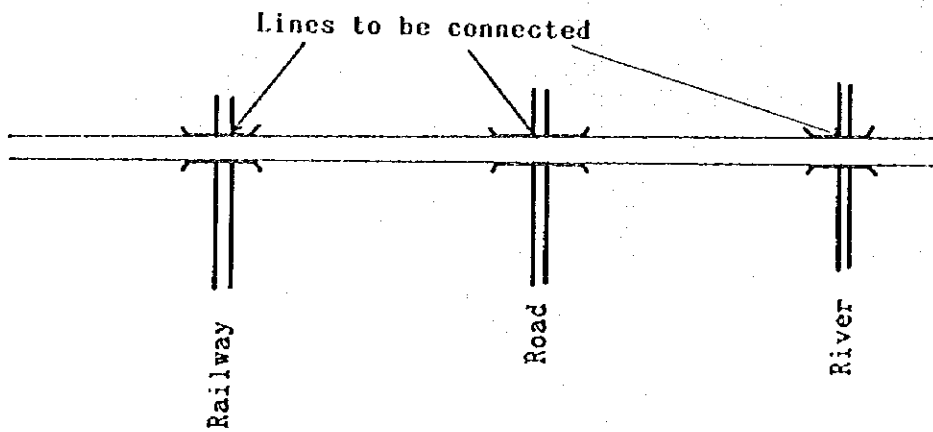
Slope angle	0°~5°	5°~15°	15°~25°	25°~35°	35°~45°
Rate of colour tone	0 white colour	1	2	4	8



Road numbering



Under pass and over pass



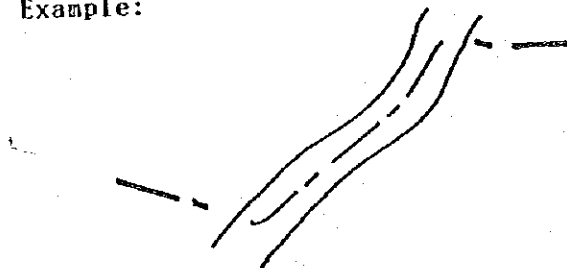
- A) Boundary line running in the single or narrow double lines shall not be expressed.

Example:



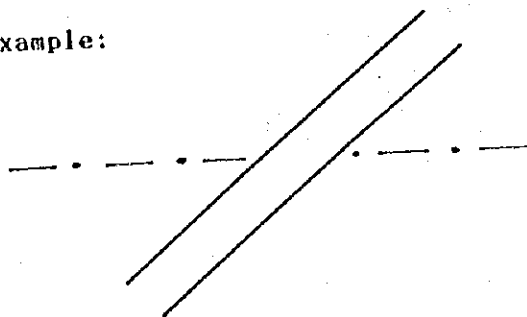
- B) Boundary line running in the wide double lines river shall be expressed along the center of the river.

Example:

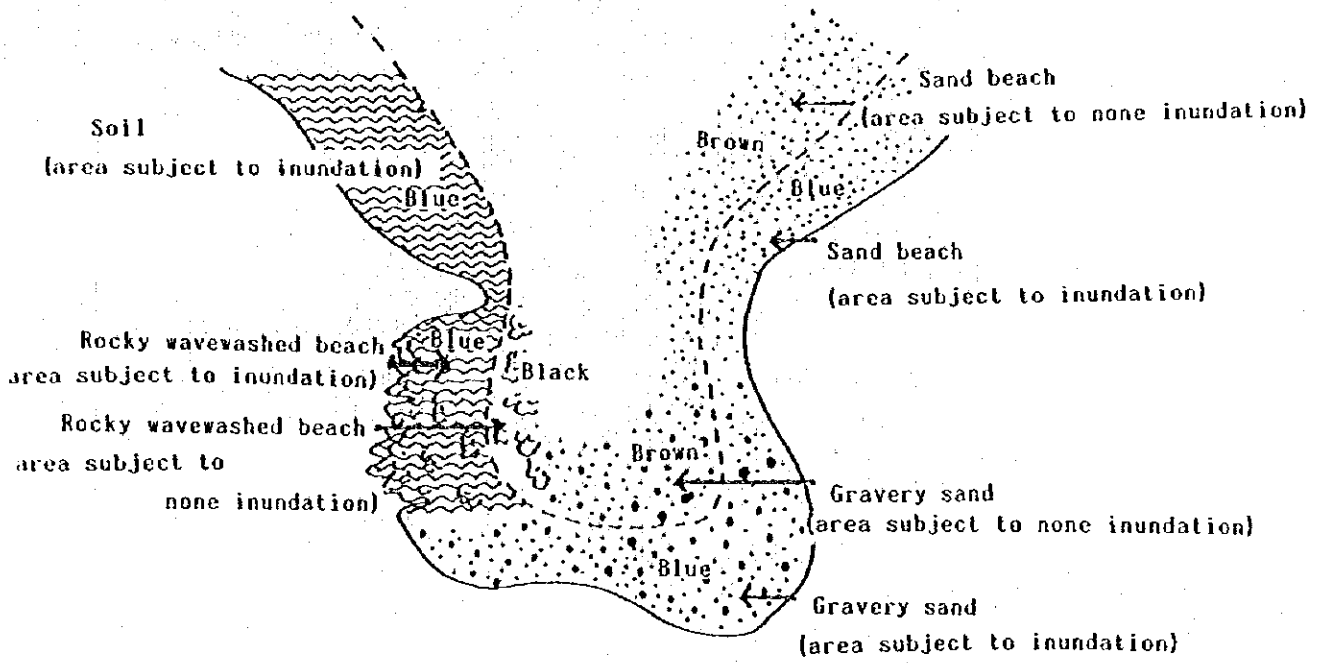


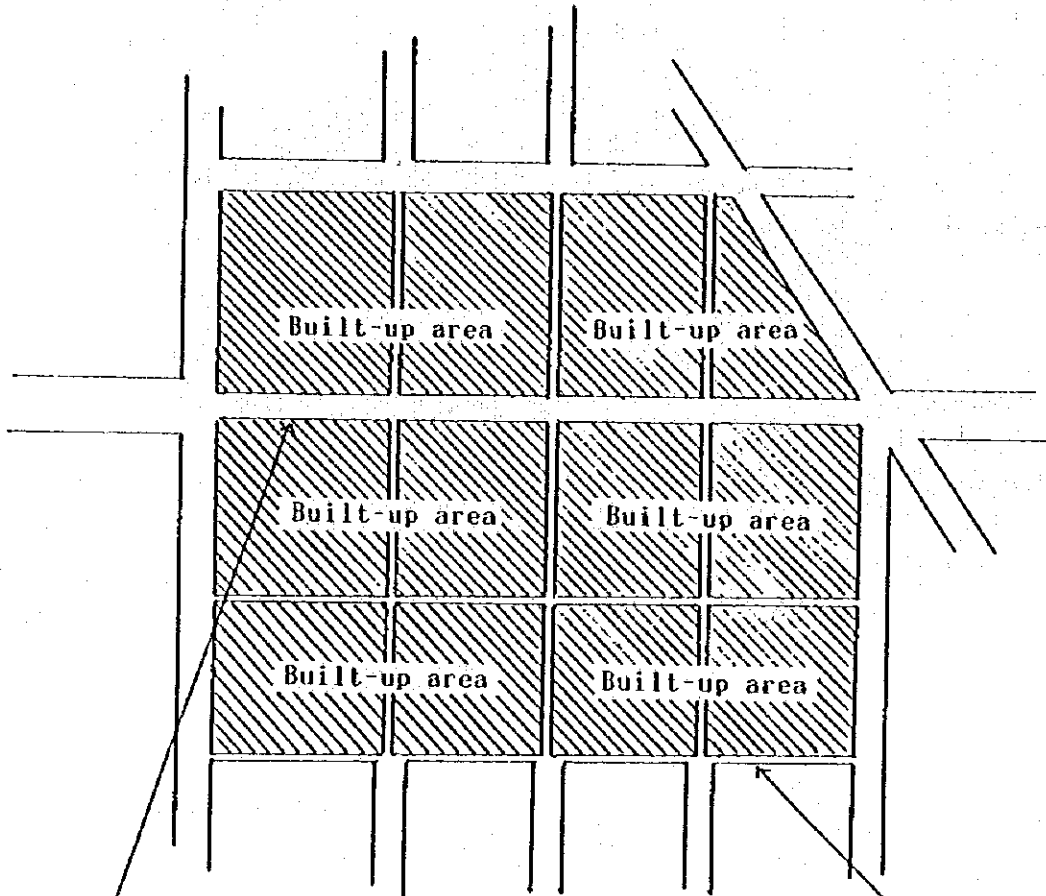
- C) Boundary line crossing the planimetric features (road, pipe line, etc.) shall be omitted,

Example:



Appendix 6



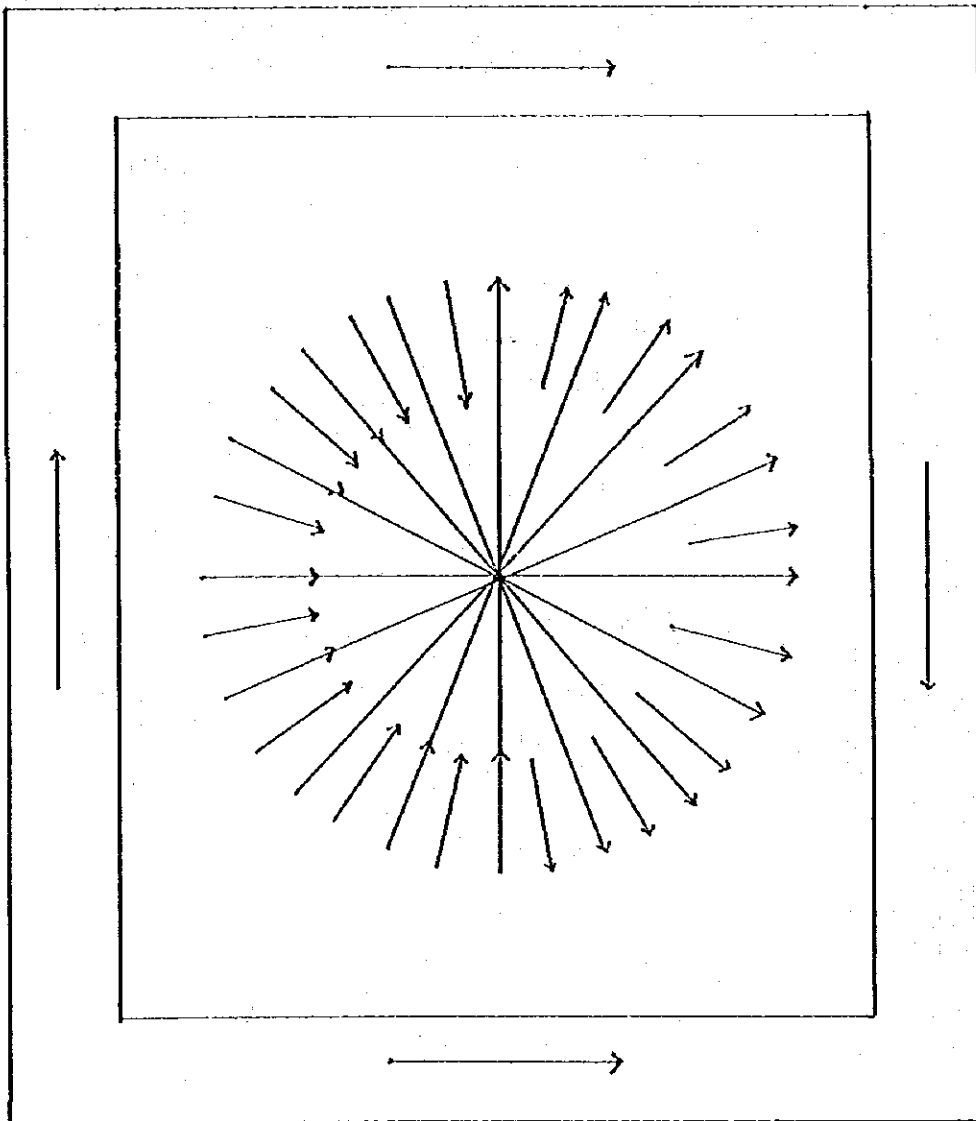


In built-up area, main road shall be drawn in scale.

Other small road shall be 0.3mm width in minimum.

General rule of annotation of geographic name for linear feature shall be indicated as follows.

Natural area such as mountains, hills, table lands, sand dunes, uncultivated plains, waste lands, etc shall be applied with this rule.



Direction order of letter —————>

Moroccan lettering type

Japanese lettering type

ECRITURES

Lieux habités :
751-57

Nombres techniques ronds :

- de plus de 100 000 habitants
- de plus de 99 950 habitants
- de 25 000 à 100 000 habitants
- de 24 950 à 99 950 habitants
- de 5 000 à 25 000 habitants
- de 4 950 à 24 950 habitants
- de 1 000 à 5 000 habitants
- de 950 à 4 949 habitants
- de 200 à 1 000 habitants
- de 175 à 949 habitants
- de moins de 200 habitants
- de moins de 174 habitants, quartier de ville
- groupe d'habitations, (de 2 à 10 foyers) ou de 4 à 20 bâtiments - Petit quartier de ville
- construction isolée
- 1 foyer ou de 1 à 3 bâtiments

R A B A T
OUARZAZAT

IFRANE

Ain Leuh

El Jabha

Les orangers

Dr Jada

Fouca

Lieux-dits non-habités :
(Bois, parc, feu dit)
651-56

- plus de 20 km²
- de 10 à 20 km²
- de 5 à 10 km²
- de 2 à 5 km²
- de 1 à 2 km²
- de 0,25 à 1 km²

FORET

FORET

FORET

Forêt, Bois

Forêt, Bois

Bois, Lieu-dit

Bois, Lieu-dit

Bois, Lieu dit

Orographie : (montagne, sommet, pointe, cap, pic, aiguille, pyramide, vallée, combe, R., rocher...)
151-55

MONTS

MONTS

MONTAGNE

Montagne

Montagne

Montagne

Montagne

Montagne

Cités remarquables et désignations : Gite, Pyl., Rues, Anc. carr.,
Chât., Gare, Tr., Silo.

(102-22) 3210

ROUEN
COLMAR
COLMAR

2810

2410

2010

1610

1410

1110

9 10

Murat

Noyarey

St-Jean

la Poyat

la Garde Chat

(12-25) 2810

FORET

R { 18 10

FORET

1610

FORET

1810

Forêt, Bois

1510

Forêt, Bois

1210

Bois, Bois, Lieu dit

1010

Bois, Lieu dit

9 10

Bois, Lieu dit

(102-25) 2410

MONTS

2010

MONTS

V

18 10

MONTAGNE

W

16 10

Montagne

1410

Montagne

1210

Montagne

1010

Montagne

5 10

Montagne

5 10

Gite, Pyl, Rues, Anc. Carr, Chat, Gare, Tr, Silo

Moroccan lettering type

Japanese lettering type

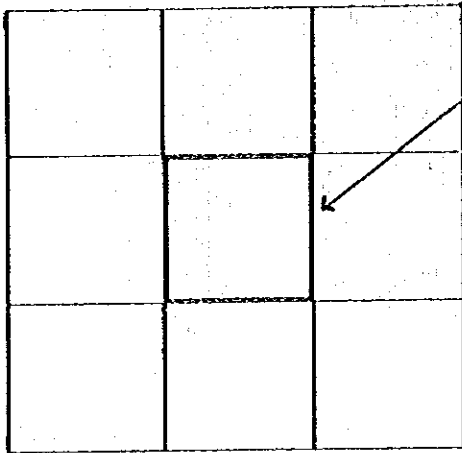
Hydrographie : Fleuve, rivière, ruisseau, canal, glacier,
251-56 golfe, baie, radeau.

FLEUVE 340
FLEUVE 341
FLEUVE 342
Fleuve 350
Fleuve 351
Fleuve 352
Fleuve 353
Fleuve 354

(100-25) 24 1A
 D 20 1A
 11 1A
 10 1A
 15 1A
 E 13 1A
 11 1A
 9 1A

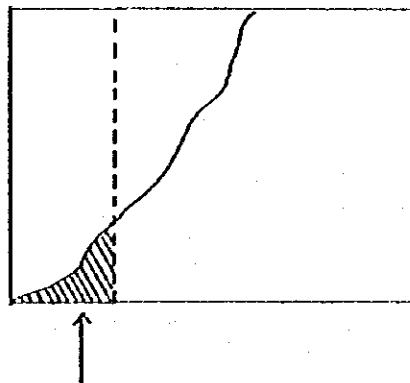
FLEUVE
FLEUVE
FLEUVE
Fleuve
Fleuve
Fleuve
Fleuve
Fleuve

Index map



The applicable map of sheet line shall be written 0.4mm lines.

Extension of sheet number NI-29-X-2-d-3



This portion shall be extended

2-5 Procès-verbal lors de commencement des travaux sur place

MINUTES OF DISCUSSIONS

FOR THE STUDY ON TOPOGRAPHIC MAPPING IN THE KINGDOM OF MOROCCO
(1:25,000)

BETWEEN

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

AND

DIRECTION DE LA CONSERVATION FONCIERE ET DES TRAVAUX TOPOGRAPHIQUES

(DCFTT)

MINISTERE DE L'AGRICULTURE ET DE LA REFORME AGRAIRE

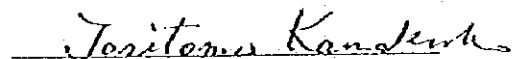
Rabat, 11th July 1990

FOR DIRECTION DE LA CONSERVATION
FONCIERE ET DES TRAVAUX
TOPOGRAPHIQUES
MINISTERE DE L'AGRICULTURE
ET DE LA REFORME AGRAIRE



Abdelatif BEMBACHIR
Directeur
de la Conservation Foncière
et des Travaux Topographiques

FOR JAPAN INTERNATIONAL
COOPERATION AGENCY



TOSITOMO KANAKUBO
Leader of JICA Study
Team

The Japanese study team organized by JICA and headed by Mr. TOSITOMO KANAKUBO visited the Kingdom of Morocco on 26th June 1990 to carry out the third year work for Study on Topographic Mapping in the Kingdom of Morocco .

Prior to the commencement of the third year survey work, series of meeting were held from 27th June to 11th July and following items have been confirmed and agreed by DCFTT and JICA Study Team.

(List of attendants is shown at pages 6 and 7)

1. DCFTT agreed with the Plan of Operation proposed by JICA Study Team. (See Appendix)

Besides, details of each item were agreed as follows:

1) Data to be provided by DCFTT (see the Plan of Operation 8-1)
The following data were submitted to JICA Study Team .

. Sheet names both of in French and Arabic letters to be used for printing .

. Legend of Arabic letters (Positive film).

. Magnetic north declination value and true north azimuth for each sheet .

. Names of the sheets of the mapping is being carried out by DCFTT.

The following data shall be provided by the completion of the field compilation work .

. Changed administrative names and boundaries, residential names and geographical names .

. Destination annotation of road (It shall be indicated on the map for annotation data).

2) Items to be determined through technical consultation (see the Plan of Operation 8-3). Following items were determined by technical consultation.

(1) Related items of drafting on the basis of map symbols and specifications .

. Legend provided by DCFTT shall be used .

. Legend of Arabic letters shall be changed to red color.

(2) Specifications on marginal information, drafting and printing on the basis of sample color map for printing.

. Principal road and secondary road shall be distinguished more clearly in red color.

. Hill shading shall be used halftones 0 to 40% in density.

(3) Manner of expression on military areas.

. Military areas shall be expressed with word " CASERNE ".

Expression of CASERNE shall be indicated on the map for annotation data by DCFTT.

(4) Treatment on uncertain administrative boundaries.

. Uncertain administrative boundaries shall not be drawn.

(5) Treatment on extension sheet.

. It shall be shown in attachment 1.

(6) Manner of expression on destination annotation.

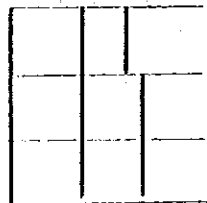
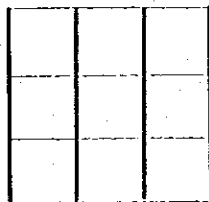
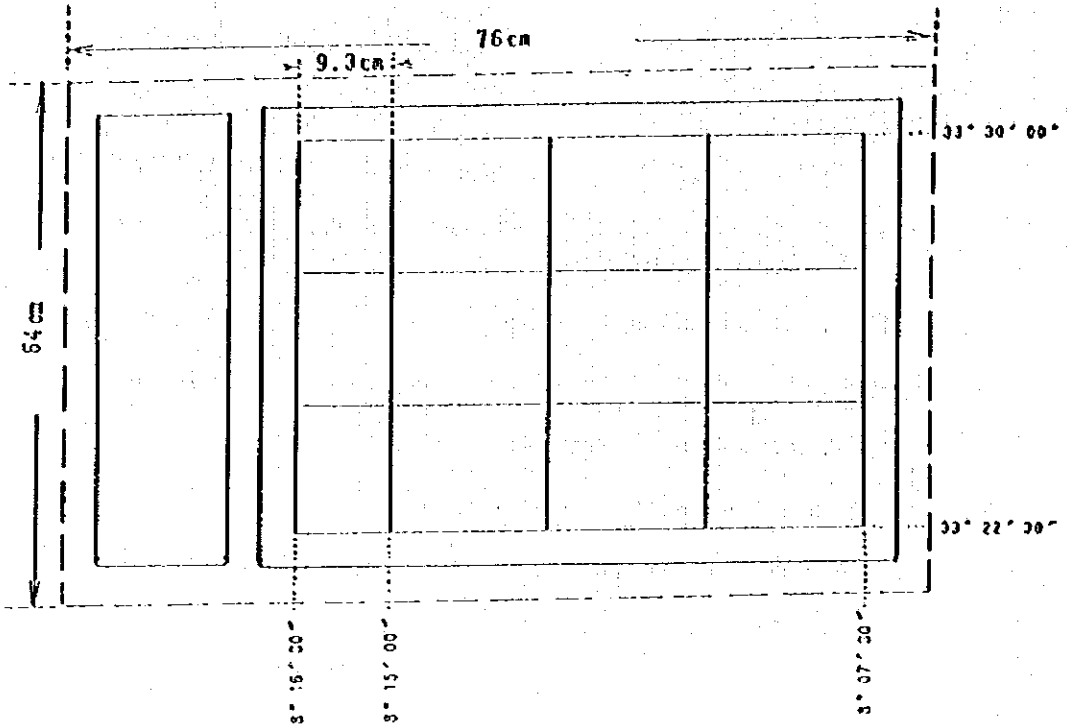
. It shall be shown in attachment 2.

II Others

DCFTT has proposed to hold a seminar for technical transfer of 1:25,000 national base map in Kingdom of MOROCCO after the completion of the whole works.

JICA study team shall convey the above message to Japanese government.

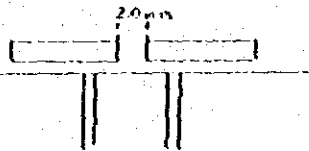
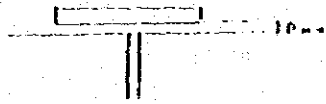
Attachment 1



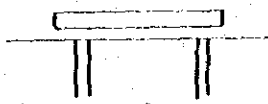
INDEX MAP

T.K

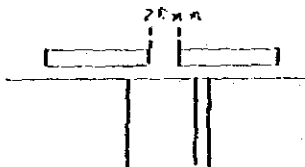
Attachment 2



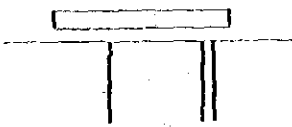
In case of different annotations



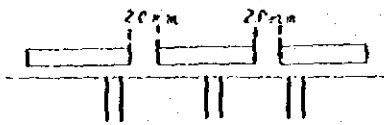
In case of same annotation.



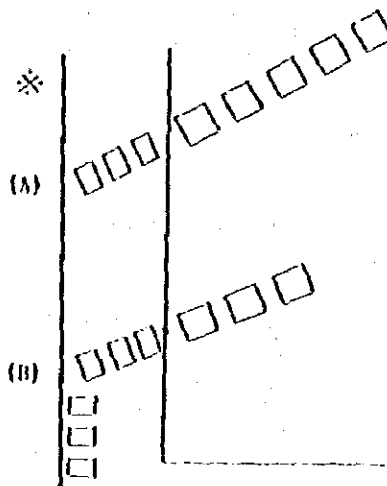
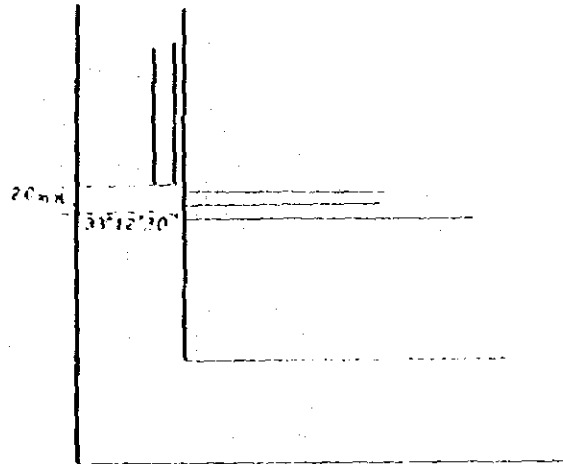
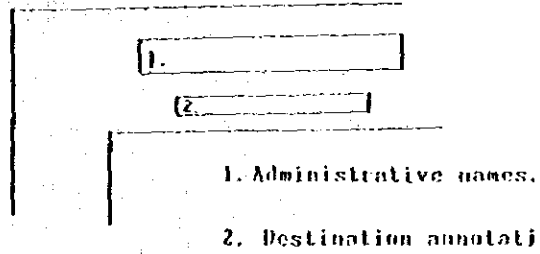
In case of different annotations



In case of same annotation



In case of different annotations



※ In the case of marginal annotation .

(1) Lettering outside of neatline shall be arranged along the lettering flow inside of neatline. (A)

However the letters shall be arranged inside and parallel to outer neatline when they shall make a long line. (B)

(2) As for the size of lettering, the height shall be as same as those inside of neatline but the width shall be reduced.

In this case ,the lettering shall be changed in adequate style.

T.K.

LIST OF ATTENDANTS

D C F T T:

- 1) Abdelatif BELBACHIR
Directeur de la Conservation Foncière et des Travaux
Topographiques .
- 2) Abdelmajid HAKAM
Chef de la Division de la Cartographie
- 3) Maati BAKKAR
Chef de la Division du Cadastre
- 4) Jamal Eddine GUERRAOUI
Chef de la Division de la Production
- 5) Lahcen TIKDIRINE
Chef du Service de la Géodésie
- 6) Lahoussine AQUEDE
Chef du Service de la Topographie
- 7) Mohamed IMAM
Chef du Service de la Cartographie
- 8) Mohamed ALAHHAN
Chef du Service de la Documentation Technique
- 9) Larbi FATIH
Ingénieur au Service de la Géodésie
- 10) Brahim AMMARI
Ingénieur au Service de la Cartographie
- 11) Zhor DAFIR
Ingénieur au Service de la Cartographie

JICA Study Team:

- 1) Tosilomo KANAKUBO
Leader
- 2) Keikichi YOSHIDA
Deputy Leader
- 3) Mamoru MURATA
Mapping planner
- 4) Yoshihiko MIYAZAKI
Interpreter
- 5) Katsuyuki HATAKEYAMA
Chief engineer
- 6) Yuji OUCHI
Engineer
- 7) Fumihiko SIMAMINE
Engineer

JICA au Maroc:

- 8) Susumu YANAI
Directeur de JICA et de JOCV au Maroc

Ambassade du Japon au Maroc:

- 9) Kazumi JIGAMI
Premier Secrétaire

PLAN OF OPERATION
FOR
THE STUDY ON TOPOGRAPHIC MAPPING
(3rd YEAR WORK)
IN
THE KINGDOM OF MOROCCO

JUNE 1990

JAPAN INTERNATIONAL COOPERATION AGENCY

CONTENTS

1. Outline of the project
2. Field completion
3. Drafting
4. Printing
5. Work schedule
6. Organization and schedule
7. Group formation of JICA and DCFTT
8. Items to be consulted and confirmed during field work
9. Undertaking by DCFTT

1. Outline of the project

The 3rd year work includes Field completion in Morocco and Drafting and Printing in Japan.

The original manuscripts shall be developed on the basis of the result of Field completion.

The 3rd year work is summarized as follows.

Item of work	Volume of work	Remarks
Field work Field completion	Approx. 8,500 km ²	
In-door Work Drafting Printing	57 sheets 57 sheets	1,000 copies/each sheet (5 colors)

2. Field completion

2-1 Outline

Field Completion shall be checked and confirmed uncertain items which can not be identified during the stereo plotting and compilation works.

2-2 Technical meeting

(1) Related items of drafting on the basis of map symbols and specifications of national base map.

(2) Specifications on marginal information, drafting and printing on the basis of sample color map for printing prepared by JICA.

2-3 Data collection

(1) Data for changed administrative names and boundaries, residential names, geographical names and etc..

(2) Sheet names both of in French and Arabic letter to be used for Printing
(Positive film)

(3) Legend of Arabic letter. (Positive film)

(4) Magnetic north declination value and true north azimuth for each sheet.

2-4 Field completion

Field completion shall be verified important items in compilation manuscripts, uncertain items which can not be identified during stereo plotting and compilation works and planimetric features caused secular change after aerial photography.

The results of the field completion shall be incorporated in compilation manuscripts and shall be developed original manuscripts.

3. Drafting

3-1 Outline

In accordance with the completed compilation manuscript, drafting shall be carried out the scribing for each color and shall be developed original drafting manuscript.

3-2 Method

Map symbols using for developing original drafting manuscript shall be applied for the 1:25,000 national base map symbols and specifications discussed and agreed with DCFTT.

Scribing shall be done for 5 colors separation (black, red, blue, brown and green) and shall be developed mask plates, positive plates and hill shading plates.

Development of the hill shading plates shall be drawn by pencil after overlapping with polyester base (Neoart #500) on the original manuscript.

4. Printing

4-1 Outline

As printing is the final stage for national base map work, proof printing shall be developed and inspected carefully prior to final printing.

4-2 Printing

Printing shall be carried out by Lithography method.

4-3 Cutting

Size of printing paper for national base map shall be 64 cm × 67 cm agreed with DCFTT.

In connection with the extension sheet, size of printing paper shall be determined by consultation with DCFTT.

5. Work schedule

See ANNEX A.

6. Organization and Schedule

See ANNEX B.

7. Group formation of JICA and DCFTT

Work Items	JICA Study Team	DCFTT
Technical Consultation	Staff of the head quarters	Chief counterparts
Field Compilation	Chief Engineer Engineers	Counterparts

8. Items to be consulted and confirmed during field work.

8-1 Data to be provided by DCFTT

- (1) Changed administrative names and boundaries, residential names and geographical names.
- (2) Sheet names both of in French and Arabic letter to be used for printing.
(Positive film)
- (3) Legend of Arabic letter. (Positive film)
- (4) Magnetic north declination value and true north azimuth for each sheet.
- (5) Destination annotation of road.
- (6) Sheet names of being carried out the mapping by DCFTT.

8-2 Data to be prepared by JICA

(1) Sample color map for printing

(2) Legend

(3) Map for annotation data

8-3 Items to be determined through technical consultation

(1) Related items of drafting on the basis of map symbols and specifications

(2) Specifications on marginal information, drafting and printing on the basis of sample color map for printing

(3) Manner of expression on military establishments

(4) Treatment on administrative boundaries and uncertain items

(5) Size of paper and numbering for extension sheet

(6) Manner of expression on destination annotation

9. Undertaking by DCFTT

(1) To make necessary arrangement to exempt the duty and tax on customs clearance for instruments and other materials to be carried into and out from Morocco by Japanese study team for the execution of the study.

(2) To secure permission for the team to take all necessary data and documents, including aerial photo, related to the study out of Morocco to Japan by the team.

(3) To make necessary arrangement to secure the safety of the members of the study team and to provide Identification Card to team members.

(4) To exempt the study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the study team for their services in connection with the implementation of the study.

(5) To make necessary arrangement to permit entering to the private property in the study area by the members of the study team.

(6) To assign necessary number of counterpart personnel.

(7) To request cooperation for study to related ministry and administrative agency.





(8) To make necessary arrangement to exempt the restriction on foreign currency which is to be brought to Morocco by Japanese study team for their study and to secure no restriction for exchanging foreign currency to local currency and reconverting unspent local currency to foreign currency.



(9) To provide suitable office space with necessary equipment in Casablanca.

(10) To make necessary arrangement for hiring drivers.

(11) To provide medical services as needed. Its expenses will be chargeable to members of the Study team.

Work Schedule

		F. Y. 1990											
Year	Month	6	7	8	9	10	11	12	1	2	3		
Items													
Field completion													
Drafting													
Proof													
Printing													

 Work in Morocco
 Work in Japan

Organization and Schedule of JICA Survey Team

Name	Month	Assignment	June	July	August	September
T. Kanakubo	Leader	25	14	21	4	
K. Yoshida	Deputy leader	25			4	
M. Murata	Mapping planner	25			4	
Y. Miyazaki	Interpreter	25			4	
S. Ohta	Mechanic	25			4	
K. Hatakeyama	Chief engineer	25			4	
T. Masuda	Engineer	1			25	
K. Usuda	"	1			25	
Y. Furukawa	"	1			25	
I. Itaya	"	1			25	
M. Hasegawa	"	1			25	
Y. Uchi	"	25			4	
M. Miyazaki	"	1			25	
T. Kawame	"	1			25	
F. Shimamine	"	25	14			

2-6 Procès-verbal lors d'achèvement des travaux sur place

MINUTES OF DISCUSSIONS

FOR

THE STUDY ON TOPOGRAPHIC MAPPING IN THE KINGDOM OF MOROCCO

(1:25,000)

BETWEEN

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

AND

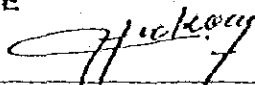
DIRECTION DE LA CONSERVATION FONCIERE ET DES TRAVAUX TOPOGRAPHIQUES

(DCFTT)

MINISTERE DE L'AGRICULTURE ET DE LA REFORME AGRAIRE

RABAT, 27th AUGUST 1970

FOR DIRECTION DE LA CONSERVATION
FONCIERE ET DES TRAVAUX
TOPOGRAPHIQUES
MINISTERE DE L'AGRICULTURE
ET DE LA REFORME AGRAIRE



ABDELMJID HAKAM, Ingénieur Général,
Chef de la Division de la Cartographie

FOR JAPAN INTERNATIONAL
COOPERATION AGENCY



TOSITOMO KANAKUBO
Leader of JICA Study
Team

Upon the successful completion of field work in the third year survey, a series of meetings were held during the period of August 23rd to 27th, 1990 at the conference room in DCFTT.

(List of attendants is shown at pages 2 and 3)

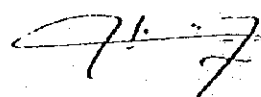
Mr. Tositomo KANAKUBO, JICA Study Team Leader, reported results of survey work and expressed his sincere gratitude to DCFTT for its close cooperation.

On behalf of DCFTT, Mr. Abdelmjid HAKAM expressed his thanks to Japanese side and his appreciation for the good work which has been carried out.

Both sides discussed about results of the field completion and the succeeding work to be conducted in the final year, and agreed as follows:

I. Change of two sheet names:

- 1- NI-29-X-2-a-3 AL-JADIDA-EST TO SIDI MAÇBAH
- 2- NI-29-XI-1-d-2 BARRECHID TO BERRECHID



T. K.

LIST OF ATTENDANTS

DCFTT:

- 1) Abdelatif BELBACHIR
Directeur de la Conservation Foncière et des travaux
Topographiques
- 2) Abdelmjid HAKAM
Chef de la Division de la Cartographie
- 3) Maati BAKKAR
Chef de la Division du Cadastre
- 4) Jamal Eddine GUERRADUI
Chef de la Division de la Production
- 5) Lahcen TIKDIRINE
Chef du Service de la Geodesie
- 6) Lahoussine ABUEDE
Chef du Service de la Topographie
- 7) Mohamed IMAM
Chef du Service de la Cartographie
- 8) Mohamed ALANIAN
Chef du Service de la Documentation Technique

1. JICA Study Team:

- 1) Tositomo KANAKUBO
Leader
- 2) Keikichi YOSHIDA
Deputy Leader
- 3) Mamoru MURATA
Mapping Planner
- 4) Yoshihiko MIYAZAKI
Interpreter
- 5) Katsuyuki HATAKEYAMA
Chief Engineer
- 6) Yuji OUCHI
Engineer

2. Geographical Survey Institute:

- 7) Makoto MITSUHASHI
Assistant Head, Map Source Material Division,
Map Management. GSI

3. JICA:

- 8) Keizou KAGAWA
First Development Survey Division
Social Development Cooperation Department
JICA

4. Ambassade du Japon au Maroc:

- 9) Kazumi JIGAMI
Ambassade du Japon au Maroc
Premier Secrétaire

5. JICA au Maroc:

- 10) Susumu YANAI
Directeur de JICA et de JOCV au Maroc

JICA