

6 OFFICE WORK

6-1 Outline of work

As the office work, aerial triangulation, detail plotting, compilation were conducted. Amount of each work planned are as follows:

Aerial Triangulation:	400 models
Detail plotting	: 6,500 km ²
Compilation	: 6,500 km ²
	9 sheets (net 8.3 sheets)

6-2 Aerial triangulation

a) Outline

Scale	: about 1:50,000
Number of course	: 34 courses
Number of control point	: Horizontal - 11 points
	Vertical - 51 points

For the Aerial Triangulation, block adjustment by the independent model method was conducted. Taking the plotting work schedule into consideration, whole area was divided into two blocks; one covered by photography in the first year work and the other covered by photography in the second year work, and the computation for both blocks were made separately.

b) Major Equipment

Point Transfer Device:	KERN PMG-2
Observation Device	: ZEISS/JENA Stecometer
Computer	: UNIVAC VANGURD 1100

Fig. 4 Aerial Triangulation Index Map

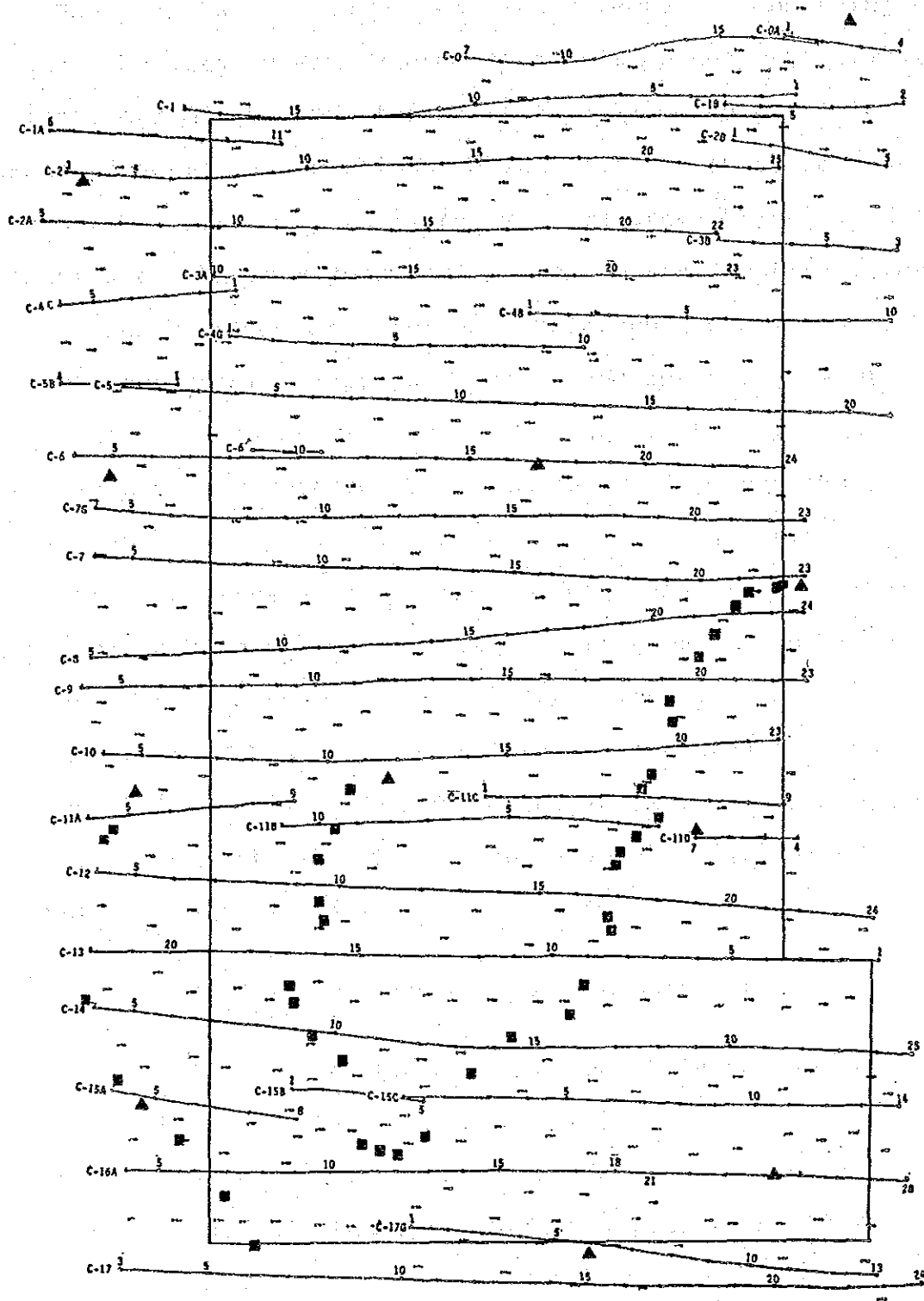


Photo Scale about 1:50,000

▲ NNSS Point

■ B.M. Point

- Tie Point

c) Point Selection and Transfer

Pass points and tie points were selected by observing the aerial photographs with stereoscopic vision and were transferred, pricked and marked onto the positive films with precision point transfer device. The points, being clear in three successive photographs with comparatively small relative heights, were selected as the pass point and marked on the positive films.

More than one tie point were selected and pricked at the place where the overlapping of upper and lower course of each model was clearly seen. Due to the fact that 60 percent of the project area was covered by mountaneous and forest zone, it took transfer long time for point selection and pricking.

For the transfer of control points, description of air photo signal, description of bench mark pricking point and 2-time enlarged photos of bench mark pricking were used, and the position of NNSS control points and bench marks were pricked on the positive films with stereoscopic vision. The reference number attached to the above computation of pass points, the points and control point were as follows:

012010	}	Pass point (photo number 12)
012020		
012030		
414080		Tie point (Point No. 8 in course 14)
106010		NNSS point (D-A601)
203010		Bench mark

"O" at the end stands for original point and "l" for eccentric point.

d) Measurement of Photo Coordinates

Measurement of the photo coordinates were made by measuring twice the pass points, tie points and the bench marks of each model together with the fiducial marks. The measurement was made by stereocomparator and the mean value of the two measurements, if discrepancy limited within 0.02 mm, was adopted.

e) Orientation

When the result of the computation of orientation having made use of the above photo coordinates exceeded the limit of the specifications of geodetic and photogrammetric surveying for oversea (base map), those photo coordinates were remeasured. The ratio of such remeasurement of this time was about 20 percent.

f) Computation of Block adjustment and Accuracy

At the geodetic coordinates computation, coordinate value computed based on the broadcasting ephemeris was used as the coordinates of NNSS control points. Adjustment computation were made by dividing the project area into two blocks by the independent model method and did the simultaneous adjustment computation on planimetry and height. The block I was composed of 19 courses, C-6 - C-17, covering 279 models and the adjustment computation was executed using 9 NNSS observation points, 51 bench marks and indirect leveling points. The Block II was composed of 15 courses, C-0 - C-5 covering 147 models. The control points used were 2 NNSS observation points as well as 17 tie points on course C-6 in Block I. The adjustment computation was executed in such a manner as to connect the Block II with the Block I. The result of computation on each block are as follows:

Block	No. of Course	No. of Model	No. of Control Point		Residual of Control Point				Tie Point			
			Horizontal	Vertical	(Horizontal)		(Vertical)		(Horizontal)		(Vertical)	
					Mean Square Error	Maximum Value	Mean Square Error	Maximum Value	Mean Square Error	Maximum Value	Mean Square Error	Maximum Value
I	19	279	9	51	2.01 m	3.59 m	0.85 m	-1.99 m	1.19 m	3.14 m	0.93 m	2.67 m
II	15	147	* (19)	* (19)	3.0 m	8.48 m	2.85 m	7.87 m	1.40 m	3.00 m	0.90 m	2.77 m

* This includes 17 tie points of Block I.

6-3 Detail plotting

Detail plotting was executed making use of the photographs of the field identification by precision plotting instruments, WILD A-10, ZEISS PRANIMAT D2 and ZEISS/JENA Stereometrograph G. There was some part which was hard to interpret due to mist, however, by making use of a overlapped part of the side lap of upper and lower courses, this problem was solved.

Relative and absolute orientation the stereo model was executed according to the specifications of geodetic and photogrammetric for oversea (basic map). Position error between the model point and the corresponding point on map sheet was in average within 0.1 mm on the sheet for the control points and the pass points. Height discrepancy was in average within 1 m, both of which were in a satisfactory range. Earth curvature correction value at the absolute orientation calculated based on the flight altitude was maximum within 1.5 m. Judging this value from the plotting scale of 1:50,000, it was small enough to be in allowance of the above specifications. At the detail plotting, all of the paths and buildings, which had not been indicated on the field identification photograph but could be interpreted, were plotted.

The topographic feature of the project area was not like those with monotonous regular slope observed in Japan but was hilly all over the area. Special attention was paid to the critical topography such as salient, depression, etc. for omission of plotting. Elevation measurement was read twice and pricked on the separately prepared overlay and their

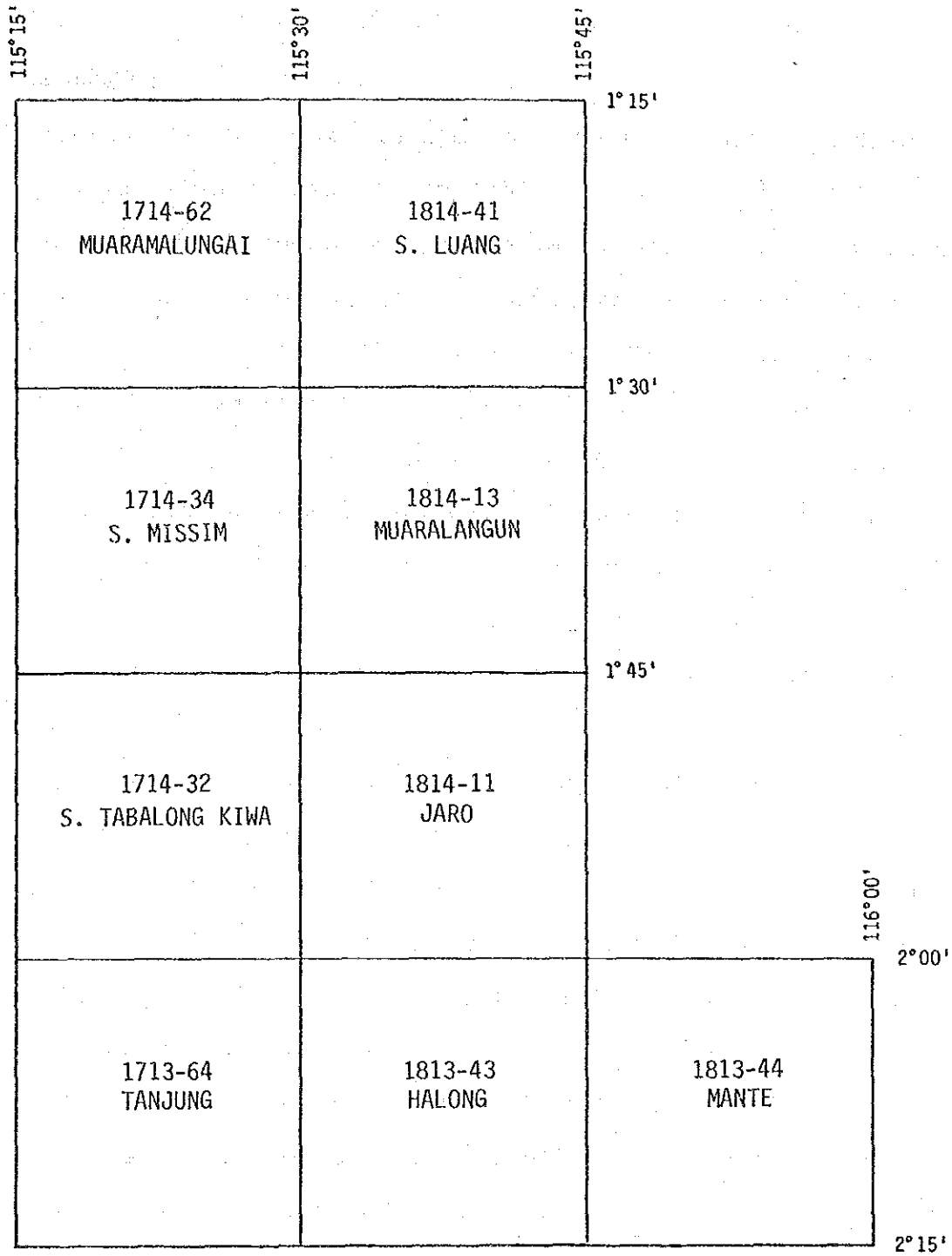
average value was adopted. The density of the spot height on the map was one point per 5 x 5 cm square except for the area where measurement was difficult because of thick vegetation. In order to avoid disunity, a unified instruction was given to each operator engaged to the plotting work regarding kind of plotting paper, orientation method, plotting limits of each model, map symbols and application rule of the symbol, practical method of detail plotting work, connection of each sheet, etc.

Plotting of buildings and residential area were carefully made, because the size of buildings was generally small. Basically all of the buildings were plotted with a red point and every house in the residential area were plotted. However, the expression was left to the process of compilation. The paths were hidden under the forest and could not identify all of them by pocket stereoscope. An effort to express the extension or connection of the paths was continued at the stereoscopic measurement by plotting instrument. For the other items, which could not be clearly surveyed by the field identification due to inaccessibility and were left for interpretation, it was tried at the stereoscopic measurement by plotting instrument to check them again.

The followings are the main instruments and the specifications used for detail plotting:

- a. Plotting Instrument: ZEISS/JENA Stereometrograph G
WILD A-10
ZEISS Planimat D2
- b. Plotting Paper : KIMOTO NSW #500 miler

Fig. 5 Sheet Number and Sheet Name of Topographic Map



- c. Projection : UTM (Zone 50)
- d. Reference Ellipsoid: ID-1974 (GRS-67)
- e. Coordinategraph : DAINI-SEIKOSHA D-SCAN

6-4 Compilation

The compilation was executed based on the National Base Map Symbols of Indonesia (scale 1:50,000) and the items of the agreement with Indonesia on the map symbol. The compilation sheet was specially prepared by a plotting device (coordinate-graph), which was different from the one used for the detail plotting. The compilation work is to select, according to a rule, the items plotted on the restitution manuscript and got by the field identification, and to arrange and plot such selected items by the map symbols. In order to execute the compilation of each topographic map, it is absolutely necessary to have clear standard for interpretation and application of the symbols. For that purpose, a meeting had been held with the Indonesian side to discuss about application of symbols prior to the field identification.

Before commencement of the compilation work, an instruction for the work had been prepared to keep the unity of the compilation. The instruction included symbols, application standard of the symbols, etc.

There were several problems at the execution of compilation. Those were selection of an independent building among buildings and structures, limits to be indicated as the residential area, direction of the building, handling of road classification and path path and items to be indicated as marginal information.

The independent buildings along the road were selected and marked, taking size of a symbol into consideration, to meet the actual landscape. The huts scattered in the rice field and farm were not selected except for comparatively big one, because if those huts were plotted as they were, it would look as if there were villages.

Originally, only Tanjung city and Murungpudak (PERTAMINA residential area) were indicated as the residential area, however, by the strong request of the Indonesian side, it was extended to the other area as indicated on the drawings made by the Indonesian side.

As already referred to in the Field Identification, there had been no reliable maps describing the road classification. Therefore, it was indicated again at field completion on the copy of the compilation manuscript based on the data made by Indonesian side. The pathes, which were covered by the thick forest and could not find their continuity at the plotting process, were tried to be completed again at the field completion. However, it was agreed with Indonesian side that incompleted pathes would not be expressed on the map.

Geographical names, which had been collected at the field identification and were plotted on the copy of the compilation manuscript, were used at the field completion for revision, supplementation, etc. It was decided to adjust the geographical names after such revision and supplementation were completed.

There was no reliable data available on the administrative boundary. In this regard, it was agreed that Indonesian side would prepare the administrative boundary data on the copy of the compilation manuscript at the field completion.

The marginal information includes items drafted at the compilation process and approved by Indonesian side, necessary data for expression, the data in Indonesian language, etc. The latter part of the above were agreed to be prepared by Indonesian side during the period of field completion.

7 IMPRESSION OF THE SECOND YEAR WORK

The following are the impression after execution of the second year work of the Topographic Mapping Project for Upper Stream Area of Negara River Basin.

1. The aerial photography which had been planned for the first year work, but a part of it has been carried over to the second year work due to bad weather condition, was planned and prepared to be executed as soon as possible. However, as same as last year, weather condition was very bad, too. The project area was covered by the range of steep mountains with an elevation of more than 1,000 m. Due to such topographic features, cloud was formed very quickly and easily by raise of temperature and air movement. Blue sky was expected only early in the morning by around nine o'clock, that was at low sun altitude. Thus, it could be said that the area is not proper for aerial photography necessary for the mapping of mountaneous area. There was no other way but to proceed the photography catching a fine interval. For that purpose, 1) collection of weather information on the project area from the other aircraft, 2) daily flight to the project area for collection of weather data, 3) trial to enter the photography course, etc., were repeated. The photography was executed repeatedly catching a short fine interval and completed within a planned period of time.
2. The scale of the aerial photographs taken for the project area was limited to 1:50,000 due to the climbing ability of the aircraft and this gave a certain merit and demerit to the following works. Bigger photograph scale resulted higher photo resolving

power and easy photo interpretation, which contributed to higher quality of the final results. On the other hand, number of models were increased and it took rather long time for orientation.

3. As stated above, due to delayed passing of the rainy season and continued bad weather, the pricking and the field identification work could not be executed as expected. The road conditions at the northern district of Tanjung became worse to worst and the Japanese survey team and Indonesian counterparts had to cooperate each other to carry out the work in the planned period overcoming such bad road conditions.

4. Aerial triangulation was executed dividing the area into two blocks, for the work planned in the first year overlapped to the second year and it has been necessary to finish the work as soon as possible just after the completion of the field identification. As the result of computation of adjustment, it was found that the final results of both blocks were in the limit of residual at the ground control point. At the southern block, where the distribution of the control point was in good order, a good result was obtained by usual method. However, at the northern block, it was difficult to set the control point. Therefore, to keep horizontal and vertical accuracy, data of the southern block such as tie point were made use of.

5. Regarding the symbols, meetings were held with BAKOSURTANAL on the items such as unknown definition, incompatibility of description of symbols and their samples, unknown rule of application, etc., and reached mutual agreement on the interpretation and application of the symbols.

6. Owing to the big photo scale, there was no problem of interpretation at the plotting of buildings, structures, main roads, vegetations, etc. However, the area was in the rainy tropical zone and there was thick vegetation cover. This caused difficulties in the photo interpretation of paths, and rivers under the jungle, boundaries of old rubber plantations and the neighboring forest and waste land. It was agreed that those which could be accessible at the field completion would be confirmed at the site and those which could not be confirmed by foot would not be expressed.

7. Problems at the compilation were the expression of building and the road classification. As the expression of buildings, there are two ways, residential area which represents congested area of buildings and 'building' representing independent building.

Originally, residential area was intended to apply only to Tanjung City which formed a town and the other places where the buildings were built along the road, or village were expressed by the building symbol. As the result of the discussion on this matter with specialists of BAKOSURTANAL, they requested to express such buildings mentioned above as residential area. In compliance with such request, all of the place where Indonesian side instructed on a copy of a compilation manuscript were decided to be expressed as residential area.

The size of the symbol for buildings was rather big, and if all of the houses scattered were given separate symbol, the area would look like big villages. Same effects were expected

to the huts scattered in the farm. To avoid such complication, those buildings were selected considering the balance with the impression of villages along the road.

There was no reliable map covering the road classification and Japanese side requested again to the Indonesian side to provide such data. The confirmation and revision of road classification were made at the field completion.

8. Administrative names and geographical names, which were collected at the field identification, were plotted on the copy of compilation manuscript and they were reconfirmed at the field. Thus revision, supplementation, deletion of errors, etc. were made effectively.

9. Regarding the administrative boundaries, there were some documents confirming the boundary. However, sometimes the boundaries had not been confirmed, because they lay in the deep mountain and it was impossible to check them on foot, and sometimes because the person in charge of checking had no knowledge about the detail topographic maps. In conclusion, it was very difficult to confirm the boundaries on the maps. It was told that the Indonesian topographic map had in some cases no indication of administrative boundaries by the reason that they were not determined.

This time, however, complying with the strong desires of Directorate General of Water Resources Development (DPU) as well as the local authorities concerned, execution of the necessary survey and presentation of data by the Indonesian side were decided. The data is scheduled to reach at Jakarta Office of JICA by May 15, 1985. If the survey will still be on the way

at that time, the Indonesian side will provide the data from the boundary information of the existing geographical map with the scale of 1:250,000.

8 SUGGESTIONS TO THE 3rd YEAR WORK

The field completion work has been finished in the second year and the work left to the third year are the final process of work such as drawing (scribing) and printing. Unknown items on those work had been cleared at the meeting with BAKOSURTANAL held at the field completion work. Thus, there would be no problem to execute in performing the drawing (scribing) and printing according to the Specifications of the Topographic Map of Indonesia (1:50,000). However, the following technical points should be taken into consideration at the above work.

1. According to the Specifications of the Topographic Map of Indonesia (1:50,000), there are printed parts on upper and left side of the map with about 1 cm width and it is used for border match. The map is cut outside of such printing. It is necessary, therefore, to draw those parts twice and an attention should be paid at the drawing (scribing) so that those borders will match exactly.

2. According to the map specifications to be applied, the contour is colored by orange color and the symbol representing forests by green. Considering from the contrast of the colors, contour orange may be looked sank into forests green, that is, there may be difficulties to read the topographic features from such contrast of color. Therefore a certain measure should be taken for making more strong contrast of contour and forests. It may be also necessary to discuss about color tone with the Indonesian counterparts who will visit Japan.

APPENDICES

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1. SURVEY SCHEDULE

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(Aerial Photography • Pricking • Field Identification)

- June 18 (Mon) '84 Mr. D. Nakajima (Supervisor of the aerial photography) left Japan and arrived Jakarta
- 19 (Tue) Visited JICA Office and Ministry of Public Works (DPU)
- 20 (Wed) Visited P.T. EXSA International Co., Ltd. and started negotiation for the contract of the aerial photography
- 22 (Fri) Signed the contract of the aerial photography with EXSA
- 23 (Sat) Nakajima moved from Jakarta to Banjarbaru via Banjarmasin
(EXSA's aircraft also moved from Jakarta to Banjarmasin Siamusudin Noor Airport)
- 24 (Sun) Made technical discussion with EXSA team and test flight
- 25 (Mon) Visited Banjarmasin DPU Office
(Henceforward, Nakajima had carried out the supervisory work on the aerial photography till August 18, '84 at Banjarbaru)
- July 9 (Mon) Messrs. H. Kimura, M. Murata, M. Togashi
(Team members) left Japan and arrived Jakarta
- 10 (Tue) Visited JICA Office, DPU

- July 11 (Wed) '84 Started discussion on the 2nd year work at DPU
- 12 (Thur) After visiting DPU, made technical discussion on the aerial photogtaphy at EXSA
- 13 (Fri) Meeting at DPU with attendance of Ir. R. Sarbini, Director, Ir. Sidharta, Deputy Director of Directorate General of Water Resources Development (DGWRD), DPU, Prof. J. Rais, Chairman of BAKOSURTANAL, etc.
(Joint Meeting with the Negara downstream team)
- 14 (Sat) Preparation of survey data
- 15 (Sun) Kimura, Murata, Togashi moved to Banjarmasin
- 16 (Mon) Meeting at Banjarmasin DPU on the 2nd year work (joint meeting with the Negara downstream team)
- 17 (Tue) Made technical discussion with EXSA team at Banjarbaru
- 18 (Wed) Kimura, Murata returned to Jakarta (Togashi left for Tanjung via Barabai)
• 4 members of the field party (H. Morita, T. Morita, A. Matsuo, K. Nishijima) left Japan and arrived Jakarta
- 19 (Thur) Visited JICA Office and DPU
- 20 (Fri) Meeting at BAKOSURTANAL (Cibinong) for technical details of map symbol and its application of Indonesia with Prof. J. Rais

July 21 (Sat) '84 Meeting at EXSA for the aerial photography and work schedule

Field party (H. Morita and other 3 members) left for Banjarmasin

23 (Mon) Mr. Y. Egawa, JICA Supervisor (Director of Topographic Div., Topographic Dept., Geographical Survey Institute, Ministry of Construction) left Japan and arrived Jakarta

24 (Tue) Visited JICA Office and DPU

25 (Wed) Preparation of a draft Minutes of Meeting held at BAKOSURTANAL
(The field party left Banjarmasin for Tanjung)

26 (Thur) Preparation of the draft Minutes of Meeting held at BAKOSURTANAL

27 (Fri) Reporting at DPU on the results of discussions made at BAKOSURTANAL
• Mr. S. Saito, team leader, left Japan and arrived Jakarta (The field party started the pricking work and finished it on August 4, '84)

28 (Sat) Visited JICA Office and DPU

30 (Mon) After technical talks on the aerial photography at EXSA, visited BAKOSURTANAL for discussion on the field identification including map symbol and its application with Prof. J. Rais (Mr. Bebas Purnawan, Toponame expert, was nominated for the counterpart of BANKOSURTANAL)

- July 31 (Tue) '84 Visited DPU and EXSA, and made preparation of survey data
- Aug. 1 (Wed) Egawa (JICA Supervisor), Saito, Kimura, Murata moved to Banjarmasin and had meeting at Banjarmasin DPU on survey schedule
- 2 (Thur) Visited Barambai tide irrigation pilot farm via Marabahan through Barito River (Egawa left for Barabai to supervise the survey work of the Negara downstream project)
- 3 (Fri) Saito, Kimura, Murata visited the base camp of the Negara downstream team at Barabai on the way to Tanjung
- 4 (Sat) Data collection at Tanjung DPU Office and PERTAMINA Petroleum Corporation
- 5 (Sun) Team's meeting after the field survey along the National Road from Tanjung to the boundary of East Kalimantan (The field party started the field identification work and finished it on August 20, '84.)
- 6 (Mon) Egawa, Saito, Kimura, Murata returned to Banjarmasin from Tanjung and had meeting with Mr. Rusfai Nurdin (DPU counterpart) and Mr. Bebas Purnawan (BAKOSURTANAL counterpart)
- 7 (Tue) Egawa, Saito, Kimura, Murata returned to Jakarta from Banjarmasin
- 8 (Wed) Made technical discussion on the aerial photography at EXSA after reporting at JICA Office and DPU

Aug. 9 (Thur) '84 Preparation of a draft Minutes of Meeting

10 (Fri) After reporting at JICA Office, signed the Minutes of Meeting at DPU (by Ir. Sarbini, Director, DGWRD, DPU and Saito, team leader)
 • Egawa, JICA Supervisor, left Jakarta for Japan

11 (Sat) Saito left Jakarta for Japan

13 (Mon) Data collection at NTT (Nippon Telegraph & Telephone Public Corporation) Jakarta Office and DPU

14 (Tue) Data collection at BAKOSURTANAL

15 (Wed) Compilation of various survey data

16 (Thur) Made technical talks on the aerial photography with EXSA team (A part of the results was checked)

17 (Fri) Kimura, Murata moved to Banjarmasin from Jakarta and had meeting with EXSA team on the aerial photographic work (Most of the project area were reportedly photographed)

18 (Sat) Murata moved to Tanjung
 • Completion of the aerial photography of the project area was reported by Nakajima (result not yet checked)

19 (Sun) Nakajima moved to Banjarmasin from Banjarbaru

20 (Mon) Preparation of data

- Aug. 21 (Tue) '84 Murata, Togashi, H. Morita, T. Morita, Matsuo and Nishijima completed the work in the Tanjung area and returned to Banjarmasin
- 22 (Wed) After reporting the result of the field work, made discussion on the preliminary arrangements for the field completion to be conducted in January '85 at DPU (Henceforward, Murata and other 5 members had carried out office work and meetings at local authorities concerned till August 28 at Banjarmasin) Kimura and Nakajima moved to Jarkata from Banjarmasin
- 23 (Thur) After reporting the survey result at JICA Office, made temporal inspection on the part of the aerial photographic results at EXSA
- 24 (Fri) Reporting the survey results and made discussion on survey schedule at DPU
- 25 (Sat) After inspection work at EXSA, visited JICA Office and DPU
- 26 (Sun) Nakajima left Jakarta for Japan
- 27 (Mon) Preparation of a draft interim report
- 28 (Tue) "
- 29 (Wed) Murata and other 5 members returned to Jakarta from Banjarmasin
(Henceforward, office work had been carried out until the leave for Japan)

Aug. 31 (Fri) '84 Reporting on the progress of the work at DPU

Sep. 1 (Sat) Preparation of the draft interim report and data collection

3 (Mon) Visited JICA Office and DPU for explanation of the interim report

4 (Tue) Final meeting at EXSA and BAKOSURTANAL (H. Morita, T. Morita, Matsuo, Nishijia left Jakarta for Japan)

5 (Wed) Presentation of the interim report at DPU and reporting at JICA Office

6 (Thur) National Holiday (Hari Raja)

7 (Fri) Kimura, Murata, Togashi left Jakarta for Japan

(Field Completion)

Jan. 16 '85 (Wed) Field party (Togashi, H. Morita, T. Morita, Matsuo) left Japan and arrived Jakarta

17 (Thur) Visited JICA Office and DPU

18 (Fri) Meeting at JICA Office and DPU

19 (Sat) Meeting at DPU and preparation of survey data

20 (Sun) The field party moved to Banjarmasin from Jakarta

21 (Mon) Meeting at Banjarmasin DPU

22 (Tue) Meeting at Banjarmasin DPU and preparation of survey data

- Jan. 23 (Wed) '85 The field party moved to Tanjung from Banjarmasin
- 24 (Thur) After visiting Governor and Police Station of Kabupaten Tabalong, started the field completion work.
[Henceforward, the field party continued the field completion work till Feb. 2, '85 in the project area of the South, East and Central Kalimantan Provinces]
- 30 (Wed) Togashi and other 3 members attended Joint Meeting held at the Government office of Kabupaten Tabalong (Tanjung)
- Feb. 1 (Fri) Saito, team leader, and Kusaka left Japan and arrived Jakarta
- 2 (Sat) Visited JICA Office and DPU
- 3 (Sun) The field party moved to Tanjung from Banjarmasin
- 4 (Mon) Saito, Kusaka had meeting at DPU and BAKOSURTANAL
- 5 (Tue) Saito moved to Banjarmasin and attended to the Joint Meeting of Provincial Governments with the field party. (Kusaka continued meeting with DPU at Jakarta)
- 6 (Wed) Meeting at Banjarmasin DPU in regard to data provided by the Indonesian side.

- Feb. 7 (Thur) '85 Saito and the field party returned to Jakarta from Banjarmasin
(Messrs. Akiyama, Murakami, JICA Supervisor, arrived Jakarta)
- 8 (Fri) Visited JICA Office and Japanese Embassy
- 9 (Sat) Meeting at DPU
(H. Morita, T. Morita and Matsuo left Jakarta for Japan)
- 11 (Mon) Meeting at DPU and BAKOSURTANAL
- 12 (Tue) Preparing of the minutes of meetings
- 13 (Wed) Signing of the minutes of meetings
- 14 (Thur) After reporting the survey results at JICA Office and the Japanese Embassy, Saito, Togashi and Kusaka left Jakarta
- 15 (Fri) Returned Tokyo

2. MINUTES OF MEETING WITH THE INDONESIAN SIDE

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(1) Minutes of Meeting at the Field Identification

(August '84)

MINUTES OF MEETINGS ON THE TOPOGRAPHIC MAPPING
PROJECT OF THE UPPER STREAM AREA OF THE NEGARA
RIVER BASIN, SOUTH KALIMANTAN, INDONESIA

1. Date and Place:

July 13, 1984	Meeting Room, DGWRD, DPU, Jakarta
July 16, 1984	Meeting Room, DPU, Banjarmasin
July 20, 1984	Meeting Room, BAKOSURTANAL, Cibinong
July 30, 1984	" " , " , "

Attendants of Meetings are listed in Attachments 1-4.

2. The chairman, Mr. Sarbini Ronodibroto, delivered an introductory speech at the first meeting held at DGWRD, DPU on July 13 '84, and the Japanese team briefed the draft Plan of Operation for the 2nd year work of the topographic mapping project of the upper stream area of the Negara river basin, South Kalimantan (refer to Attachment 5), and which was discussed in a very smooth manner and confirmed by the both sides.

3. Concerning "SPESIFIKASI PETA RUPABUMI INDONESIA SKALA 1/50,000. BAKOSURTANAL", discussions were made at BAKOSURTANAL and confirmed as attached hereto. (refer to Attachment 6)

At the discussions, BAKOSURTANAL promised to nominate one (1) counterpart (topo name expert) to cooperate with the Japanese team in the field identification work.

4. Related to the 2nd year work of the upper stream mapping project, JICA informs one person counterpart would be allocated for training in Japan, 2 months (October - November '84).

Jakarta, August 10, 1984



Ir. Sarbini Ronodibroto
Director
Directorate of Planning
and Programming, DGWRD



Mr. Sho Saito
Team Leader of the Topo-
graphic mapping Project
Of the Upper Stream Area
of the Negara river basin
South Kalimantan

Attendants of Meeting
(July 13, 1984)

1. The Government of Indonesia

Mr. Sarbini Ronodibroto	Director of Planning and Programming, DGWRD
Mr. Sidharta	Dit. of Planning and Programming, DGWRD
Prof. Jacob Rais	BAKOSURTANAL
Mr. Soetopo	P4S, Jakarta
Mr. Suharto	Dit. of Planning and Programming, DGWRD
Sr. Sudyanto	"
Mr. Beddi	"
Mr. Haryanto	"
Mr. Kartono	PUSDATA, Public Works

2. The Japanese Survey Team

Mr. H. Kimura	Deputy Leader (Negara Upper Stream)
Mr. M. Murata	Chief Surveyor (")
Mr. M. Togashi	Surveyor (")
Dr. K. Muraoka	Team Leader (Negara Downstream)
Mr. T. Watanabe	Surveyor (")

Attachment 2

Attendants of Meeting

(July 16, 1984)

1. The Government of Indonesia

Mr. Hally Dezar	Chief of Public Works, South Kalimantan
Mr. A. Tamdjid	Water Resources Development Division, South Kalimantan
Mr. Rachmat Norlias	P3SA, South Kalimantan
Mr. Agus Susanto	"
Mr. Sudyanto	Dit. of Planning and Programming
Mr. Suharto	"

2. The Japanese Survey Team

Mr. H. Kimura	Deputy Leader (Negara Upper Stream)
Mr. M. Murata	Chief Surveyor(")
Mr. M. Togashi	Surveyor (")
Dr. K. Muraoka	Team Leader (Negara Downstream)

Attachment 3

Attendants of Meeting

(July 20, 1984)

1. The Government of Indonesia

Prof. J. Rais	BAKOSURTANAL
Mr. Bebas Purnawan	"
Mr. Riadika Mastra	"
Mr. Beddi Juwadi	Dit. of Planning and Programming

2. The Japanese Survey Team

Mr. H. Kimura	Deputy Leader (Negara Upper Stream)
Mr. M. Murata	Chief Surveyor (")
Mr. M. Togashi	Surveyor (")
Dr. K. Muraoka	Team Leader (Negara Downstream)

Attachment 4

Attendants of Meeting

(July 30, 1984)

1. The Government of Indonesia

Prof. J. Rais	BAKOSURTANAL
Mr. Bebas Purnawan	"
Mr. Riadika Mastra	"

2. The Japanese Survey Team

Mr. S. Saito	Team Leader (Negara Upper Stream)
Mr. H. Kimura	Deputy Leader(")
Mr. M. Murata	Chief Surveyor(")
Dr. Y. Egawa	Advisor

Attachment 5

PLAN OF OPERATION
FOR
TOPOGRAPHIC MAPPING PROJECT OF THE UPSTREAM AREA
OF
THE NEGARA RIVER BASIN IN SOUTH KALIMANTAN
IN
THE REPUBLIC OF INDONESIA

-- 2nd Year --

July 1984

JAPAN INTERNATIONAL COOPERATION AGENCY

(contents omitted)

Minutes of Meeting at BAKOSURTANAL

As regards to the application of "SPESIFIKASI PETA RUPABUMI INDONESIA SKALA 1/50,000, BAKOSURTANAL" for the topographic mapping project of the upper stream area of the Negara river basin, the following matters were discussed and agreed by the both sides:

A. Referring to "SPESIFIKASI"

1. I.6. Datum (page 2)
Transformation parameter value from Doppler NWL-9D to ID-1974 shall be as follows :
$$\Delta Y = + 14.757m$$
2. 1.7. Selang Kontur (page 2)
Contour intervals for Index Contour shall be 100 m.
3. 1.8. Standard Ketelitian Peta (page 2)
Mapping accuracy standard shall be the Australian specifications to be provided by BAKOSURTANAL.
4. II.1. Umum (page 3)
Adoption of additional map symbols, if any, shall be discussed between both parties after the field identification work completed.
5. II.2. Unsur-unsur yang perlu digambarkan (page 3)
Classification of roads based on "UURI No. 13/1980/jalan" shall be provided by DPU.
6. IV.2.1. Penempatan simbol-simbol (page 4)
AMS specifications shall basically be adopted for the direction and center of symbol marks: Center of symbol mark shall be its gravity center.

Example:



7. V.2. Screen dan Stipel (page 5)

BAKOSURTANAL shall provide negatives of zip-a-tones, which are not available in Japan.

B. Referring to "SIMBOL PETA DEFINISI DAN KEGUNAANNYA"

(Lampiran A)

1. 1.1. Bangunan (page 2)

(1) The application standard of temporary house shall be for a house in which somebody live at the time of field survey. Minimum size shall be 3m x 3m.

(2) When neighbouring houses are close to less than 0.2mm on map, the two houses shall be generalized.

2. 1.3. Kantor Pemerintahan (page 2)

Symbol "G" (Gubernuran) stands for administrative office of Province.

3. 1.4. Tempat beribadat (page 2)

Islamic temple exists even in small village.

The most important temple in one area shall be selected for expression in consultation with the Indonesian counterparts.

Description of some symbol marks shall be corrected as follows:

Hindu	---->	Kong Fu Tse
Budha	---->	Hindu, Budha

4. 1.5. Makam (page 2)

Application standard of cemetery shall basically be minimum of 100m x 100m (2mm x 2mm on map) or its equivalent.

5. 1.6. Tempat bangunan bersejarah (page 2,

Data related to historical monuments or buildings shall be provided by DPU.

6. 1.7. Menara (page 2)
Data related oil towers shall be provided by DPU.
7. 1.10. Pusat listrik (page 2)
Data related to power stations shall be provided by DPU.
8. 1.12. Kawat listrik tegangan tinggi (page 5)
Data related to high tension power transmission lines shall be provided by DPU.
However, the transmission line in the densely populated area shall not be expressed.
9. 1.13. Kawat telepon, telegram (page 4)
 - (1) Data related to telephone and telegram lines shall be provided by DPU.
 - (2) The application standard shall be only for the lines between town and town and exclude those lying underground or in the densely populated area.
10. 1.14. Pipa bahan bakar (page 4)
 - (1) Data related to pipe lines shall be provided by DPU.
 - (2) The expression of pipe lines shall be made only for main routes. Small branch routes as well as the lines in the densely populated area, shall be excluded.
11. 2.1 - 2.6. Jalan (page 6)
 - (1) Roads shall be expressed according to the road classification to be provided by DPU.
 - (2) Any other road which can not be classified in the Items 2.1. - 2.4. or 2.6, shall be classified in 2.5 Jalan lainnya.
12. 2.8. Tonggak kilometer (page 8)
Both distances from Banjarmasin and Tanjung are marked on the kilometer post. Selection of its origin shall be made by DPU.

13. 3.6. Titik tinggi (page 12)
Density of spot heights shall be basically one point per 5cm x 5cm on map, except jungle area where stereo-plotting will be difficult.
14. 3.7. Tebing (page 12)
Minimum application standard of cliff shall be more than 3m in height and 100 m in length.
15. 3.9 Timbunan & 3.10. Galian (page 14)
Minimum application standard of embankment or canal shall be more than 100m in length.
16. 4.3 Perkebunan (page 16)
Minimum application standard of plantation shall be more than 250m x 250m (5mm x 5mm on map) with annotation of vegetation classified.
17. 4.6 Tegalan/ladang (page 18)
Minimum application standard of field shall be more than 150m x 150m (3mm x 3mm on map).
18. 5. BATAS ADMINISTRASI (page 18)
Administrative boundaries shall be expressed according to data to be provided by DPU.

(1) Administrative boundary on single line shall not be expressed.

Example:



(2) Administrative boundary on double lines shall be expressed in the center.

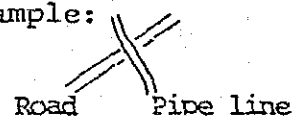
Example:



(3) Where boundary crosses linear feature (road, pipe line, etc.), the boundary shall be cut off at the crossing. Example:



However, pipe line installed on overbridge shall be expressed as it is, with linear feature being cut off at the crossing. Example:



C. Referring to "BENTUK DAN UKURAN LEMBAR" (Lampiran E)

1. PETUNJUK PEMBACAAN KOORDINAT UTM
Unit of UTM coordinates shall be expressed in 100m.
2. DIAGRAM ARAH UTARA
Minimum unit of azimuth of magnetic north and true north shall be 5'.
3. DIAGRAM LOKASI
UTM zone number shall be placed under bottom line of the neatline of DIAGRAM LOKASI.
4. JENIS HURUF
Lettering styles indicated hereto,
 - (1) UNIVERS BOLD (UN65B)
 - (2) UNIVERS MEDIUM (UN55M)
 - (3) UNIVERS MEDIUM CONDESED (UN55MC)
 - (4) TIMES ROMAN ITALIC,shall be replaced by the following styles which are available in Japan, respectively :
 - (1) E102-24 (UNIVERS 65 DEMIBOLD)
 - (2) E102-24 (UNIVERS 55 MEDIUM)
 - (3) E100-22
 - (4) E30-25 (TIMES NEWROMAN ITALIC)
5. Following temporary symbols shall be used for the field identification :

(BAKOSURTANAL 1:50,000 SYMBOL MARKS)

4.1	SAWAH	
4.2	SAWAH TADAH HUJAN	
4.3	PERKEBUNAN	↑
4.4	HUTAN	Q
4.5	BELUKAR	⊙
4.6	TEGALAN/LADANG	Ld

(2) Minutes of Meeting at the Field Completion (February '85)

MINUTES OF MEETING ON TOPOGRAPHIC MAPPING PROJECT OF
UPPER STREAM AREA OF NEGARA RIVER BASIN,
SOUTH KALIMANTAN, INDONESIA

I. Dates and Places of Meeting

- 1) February 9, 1985: Directorate General of Water Resources Development
Ministry of Public Works (Jakarta)
- 2) February 11, 1985: - ditto -

Attendants of meetings are as listed in Appendix-1 and 2.

II. Results of the Meetings

Preceding the meetings at DGWRD, DPU, three preliminary meetings had been held as follows:

- 1) Meetings between local government officials and the Japanese Survey Team in Banjarmasin and Tanjung.
- 2) Meeting between BAKOSURTANAL and the Japanese Survey Team in Cibinong.

The meetings in Tanjung and Banjarmasin were concerned about administrative boundaries and geographical names. The meeting in Cibinong was concerned about technical matters related to scribing and printing work.

The meetings at D.P.U. Jakarta were concerned about the reports of activities that had been conducted by the Japanese Survey Team and the Indonesian counterparts. Matters concerning administrative boundaries were also discussed in the meetings at D.P.U. (Refer to Appendix-3, 4, 5 and 6)

Major items of discussions and their results are as follows.

II-1. Administrative Boundaries

Administrative boundaries have been remained undetermined by the time of the meeting. However, D.P.U. emphasized that administrative boundaries should be drawn on maps completely.

If the official information on administrative boundaries between East Kalimantan and South Kalimantan, and between Central Kalimantan and South Kalimantan, and on other boundaries are not sent to JICA Jakarta office by May 15, 1985, the Japanese Survey Team is requested

draw the boundary lines based on the information on the boundary lines which the Government of Indonesia will transfer from 1:250,000 scale existing topographic map which will be sent to J.I.C.A. Jakarta office not later than May 15,1985. This information will be drawn in 1:50,000 scale by the Government of Indonesia. In this case the remark saying "Administrative boundary line between _____ and _____ ; and between _____ and _____ were drawn by referring to the existing 1:250,000 scale topographic map." should be put.

II-2. Geographical Names

Geographical names to be printed on the maps are those listed on "Table for Confirmation of Geographical Names" authorized by D.P.U. and BAKOSURTANAL.

II-3. Scribing and Printing

"Instructions from BAKOSURTANAL Concerning the Scribing and Printing Work" (Appendix-7) will be regarded as the additional technical specifications required for this topographic mapping work.

II-4. Training of Indonesian Counterparts

Related to the scribing and printing work of the 3rd year work to be carried out in Japan in 1985, the following counterpart training allocation was explained by the Japanese side:

For scribing work : 2 persons for 1.0 month

For printing work: 1 person for 0.5 month

The Japanese side noted that the participants for printing work

needs to be a high ranking officer who has a power to authorize the results of printing work. Indonesian side said that D.P.U. would pay attention to the requirements of J.I.C.A. concerning the participants. Starting time of the training will be determined according to the progress of the scribing and printing work.

II-5. Number of Sets of Maps to be Printed.

In the Scope of Work for this mapping project the number of sets of the map to be printed is stipulated as 1,000 for each map sheet. The Indonesian side explained that not only offices of the central government but also various offices of local governments such as of province, county, district, and town and police offices use topographical maps. The Indonesian side said that 1,000 sets would not be sufficient to cope with existing and expected needs for the accurate topographic maps, therefore, if possible 2,000 sets of maps would be printed for each sheet. The Japanese side took note of this request.

II-6. Number of Colours of the Map

In the Plan of Operation attached to the Minutes of Meeting for this mapping project dated August 10, 1984, the number of colours to be used for the printing of the 1:50,000 scale topographic maps is stipulated as five. Regardless of the above mentioned agreement, both sides agreed to change the number of colours from five to four (black, blue, green, and brown) in accordance with the Figure-1 "Schematic Diagram of Scribing and Printing" of the "Instructions from BAKOSURTANAL Concerning the Scribing and Printing Work".

II-7. Delivery of Data and Information to be Provided by
The Indonesian Government

As for data and information which cannot be prepared by the Indonesian government for the Japanese Survey Team by their departure, and expected to be used for 1:50,000 scale topographic mapping, they shall be delivered to J.I.C.A. Jakarta office by May 15, 1985 with appropriate authorization.

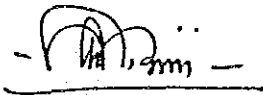
II-8. Delivery of Topographic Maps

Printed 1:50,000 scale topographic maps and other materials which should be delivered to the Indonesian government according to the Scope of Work, shall be sent to the following office and address:

- Office: Directorate General of Water Resources Development,
Ministry of Public Works
- Attn: Director, Directorate of Planning and Programming
- Address: Jl. Pattimura No. 20, Kebayoran Baru,
Jakarta-Selatan

For confirmation of the above,

February 13, 1985



Ir. Sarbini Ronodibroto
Director,
Directorate of Planning
and Programming, DGWRD



Sho Saito
Leader of the Japanese
Survey Team



Minoru Akiyama

Supervisor of
the Japanese Survey Team



REPUBLIK INDONESIA
DEPARTEMEN PEKERJAAN UMUM
DIREKTORAT JENDERAL PENGAIRAN
DIREKTORAT BINA PROGRAM PENGAIRAN

JALAN PATTIMURA NO. 20/PERC. 7 TILP. 736616 (3 satuan) TEROMDL POS 39/KBT -- KEBAYORAN BARU
JAKARTA

Alamat Kawat : DITJEN AIR

DAFTAR HADIR

Undangan Rapat : UPPER STREAM -- S. NEGARA (KALSEL)
Meeting Invitation

Hari dan Tanggal : Sabtu, 9 Februari 1985
Day and date

Tempat : Ruang Sidang Dit. DPP
Place

Pukul : 10.00 - 12.00 WIB
Time

Pimpinan Rapat : KA.SUB DIT. P2WS
Chairman

No.	<u>N a m a</u> N a m e	<u>Instansi</u> Office	<u>Jabatan</u> Occupation	<u>Tanda Tangan</u> Signature
1.	Ir. M. Sidharto	B P P	Kasubdit.P2WS	
2.	Ir. Suharto	B P P	Ka. Sie Survey	
3.	Ir. Bebas Furnawan	BAKOSURTANAL	Staf Kartografi	
4.	B. Ali Syahbana	B P P	Staf Sie Survey	
5.	Moh. Husfai	B P P	Staf Sie Survey	
6.	Milman Kosasih	"	Staf PWS II	
7.	Subandiyo	"	Staf Sub Dag, ABLN	
8.	B. Pramono	"	Ka. Sie PWS II	
9.	Ir. Narianto W.	"	Staf Sie Survey	
10.	Tzutomu Kusaka		JICA, Survey Team	
11.	HIKIO TOGASHI		"	
12.	HIROSHI MURAKAMI	JICA	Staf	
13.	SHO SAITO	"	Team Leader	
14.	Minoru AKIYAMA	Ministry of Construction	Supervisor	



REPUBLIC INDONESIA
 DEPARTEMEN PEKERJAAN UMUM
 DIREKTORAT JENDERAL PENGAIRAN
DIREKTORAT BINA PROGRAM PENGAIRAN
 JALAN PATTIMURA NO. 20/PERIC. 7 TELP. 736816 (3 Jalur) TEROMOL POS 39/KBT - KEBAYORAN BARU
 JAKARTA

Alamat Kawat : DITJEN AIR

List of Attendance

Meeting Date : Februari 11th, 1985
 Place : Dicertor Room
 Subject : UPPER STREAM S. NEGARA (SOUTH KALIMANTAN)
 Time : 01.00 / 02.00

No.	Name	Office	Occupation	Signature
1.	Ir. Sarbini	BPP	Director	
2.	Ir. M. Sidharto	BPP	Chief of P2WS	
3.	Ir. Suharto	BPP		
4.	Mr. Sho Saito	JICA	Team Leader	
5.	Mr. Hiroshi Murakami	"	Staff	
6.	Mr. Mikio Tojoshi	"	Survey Team	
7.	Mr. Tzutomu Kuzaka	"	"	
8.	Mr. Minoru Akiyama	"	Supervisor	

LAPORAN HASIL RAPAT PERTEMUAN DENGAN BAPAK BUPATI
KEPALA DAERAH TINGKAT II TABALONG BESERTA INSTAN-
SI YANG BERTHUBUNGAN ERAT DALAM RANGKA PEMETAAN WI-
LAYAH SUNGAI NEGARA UPSTREAM PADA TANGGAL 30 JA-
NUARI 1985 DI TANJUNG KALIMANTAN SELATAN.

- Rapat pertemuan dipimpin oleh Bapak Bupati Kepala Daerah Ting-
kat II Tabalong yang diwakili oleh Kepala Bagian Pemerintahan-
Tingkat II Tabalong mengambil tempat di Kantor Bupati Kepala -
Daerah Tingkat II Tabalong di Tanjung, masalah yang akan diba-
has meliputi :
 1. Masalah tapal batas Prop.Kal.Sel. dengan Prop.Kal.Teng. dan
Prop. Kal.Tim.
 2. Masalah pengecekan kembali data-data untuk nama-nama :
a. Kampung, b. Sungai, c. Gunung dan lain-lain.
 3. Masalah yang dianggap perlu untuk menunjang pelaksanaan pe-
metaan tersebut.
- Penjelasan dari ketua rapat pertemuan oleh Kepala Bagian Peme-
rintahan Tingkat II Tabalong.
 - Bahwa pada tahun anggaran 1983/1984, tim Tingkat II Tabalong
telah mengadakan pengukuran pada wilayah-wilayah Kambitan,
Muara hutan komap, Muara hutan kumeng sepanjang 50 Km.
 - Untuk wilayah gunung kosari akan dilaksanakan tahun anggaran
1985/1986 yang akan datang.
- Penjelasan dari ketua counterpart.
 - Bahwa pada tahun anggaran 1983/1984 telah diadakan pengukur-
an oleh team JICA (Japan International Cooperation Agency)
dalam rangka bantuan Pemerintah Jepang kepada Pemerintah In-
donesia untuk pembuatan peta topografi skala 1 : 50.000, pa-
da wilayah sungai Negara (upstream dan downstream).
 - Pada tahun anggaran 1984/1985 sebagai lanjutan pekerjaan ter-
sebut telah diadakan pemetaan udara, yang mana hasil sementa-
ra terdapat masalah tapal batas antara Kal.Sel, Kal.Teng dan
Kal.Tim.serta masalah penyempurnaan data-data sungai, Gunung
dan Kampung.
 - Direncanakan pada tahun anggaran 1985/1986 untuk pelaksanaan
tersebut akan berakhir pada bulan Mei 1986 yang akan datang,
dimana menghasilkan peta topografi skala 1 : 50.000.

Masalah.

- Masalah yang dihadapi :

- Timbulnya perbedaan menentukan masalah batas wilayah dengan Propinsi yang bersebelahan (antara Propinsi Kal. Sel. Kal.Teng dan Kal.Tim.).
- Adanya perbedaan nama tempat, nama sungai dan nama gunung misalnya : gunung lehung dan gunung lasung, gunung besar dan gunung batu besar dan istilah desa dan kampung.

- Hasil rapat.

- Sebagai input untuk pembahasan selanjutnya, antar Gubernur (Prop. Kal.Sel. Prop. Kal.Teng. dan Prop.Kal.Tim.).
- Rencana rapat antar Gubernur (Gub.Kal.Sel. Gub.Kal.Teng)- direncanakan pada tanggal 5 Februari 1985 bertempat di Kantor Gubernur Kepala Daerah Tingkat I Propinsi Kalimantan Selatan di Banjarmasin.
- Untuk Gubernur Kepala Daerah Tingkat I Propinsi Kalimantan Timur direncanakan pada tanggal 7 Februari 1985, hubungi beliau beserta staf menghadiri rapat di Jakarta mulai tanggal 4 Februari 1985 sampai dengan tanggal 6 Februari 1985.

Demikian laporan ini dibuat untuk dapat diketahui sebagaimana mestinya.-

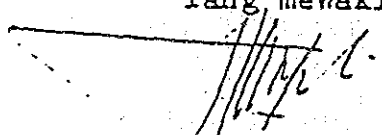
Tembusan kepada Yth :

Banjarmasin, 31 Januari 1985.

1. Kakanwil Dept.P.U. Prop. Dati I Kal-Sel di Banjarmasin.
2. Kepala Bagian Pengairan DPUP. Dati I Kalimantan Selatan di Banjarmasin.

PEMBUAT LAPORAN.

Penimpin Proyek Perencanaan Pengembangan Sumber Sumber-Air Kalimantan Selatan.
Yang mewakili,


= . Drs. T. EKO HARYANTO . =
NIP. 110 019 185.-

DAFTAR HADIR PERTEMUAN ANTARA TEAM JEPANG (JICA)
DENGAN BUPATI SERTA INSTANSI YANG BERHUBUNGAN ERAT
DALAM RANGKA PEMETAAN WILAYAH SUNGAI NEGARA UPSTREAM
KALIMANTAN SELATAN.-

W A K T U : RABU , 30 JANUARI 1985.
TEMPAT : KANTOR BUPATI TABALONG DI TANJUNG.

PIHAK JEPANG (JICA)

1. Mr. M. TOGASHI
2. Mr. H. MORITA
3. Mr. T. MORITA
4. Mr. T. MATSUO

J A B A T A N :

- Surveyor JICA
Surveyor JICA
Surveyor JICA
Surveyor JICA

PIHAK INDONESIA

1. Drs. DJAYA FITRIANI Kabag. Pemerintahan
2. Drs. ARDIANSYAH Kabag. Sos. Bol.
3. Drs. I S M E T BAPPEDA TABALONG.
4. M. SYAMSI FADILAH Ka. Cab. DPU Tabalong
5. M. Yussie BE Ka. Sie Air DPU Tabalong.
6. Gt. M. Jumberi Dinas PU Kabupaten.
7. Yuhanie. D. Bag. Pembangunan
8. H. Djohansyah Dinas Kehutanan
9. I r a w a n . S. Dinas Agaria
10. R i f a n i Staf Pemerintahan.
11. M. NAWAWI BA. Camat Tanta
12. Yusran Kaderi Camat Tanjung
13. S a t a r . A. Kep. Kantor Camat Haruai
14. HARIAMAN HARIAN Camat Muara Uya
15. Drs. Heru Agus Utomo Camat Murung Pudak
16. MASKUNI BA Camat Banua Lawas
17. DARWIN AWI BA Camat Kelua
18. Brs. T. Eko Haryanto DPU Kalimantan Selatan
19. Zulkarnain Bsc DPU Kalimantan Selatan
20. FX Agus Susanto Counterpart
21. S u w o t o Counterpart
22. Nana Nasuha BE Counterpart
23. Pidy Sukardi Counterpart

HASIL LIPUTAN RAPAT PERTEMUAN ANTAR
PEJABAT PEMERINTAH PROPINSI KALIMAN
TAN SELATAN DAN PROPINSI KAL- TENG.

Hari : Selasa
Tanggal : 5 Februari 1985
J a m : 10.00 WITA
Tempat : Kantor Gubernur Kepala Daerah
Tingkat I Kal.Sel.di Banjarmasin.

- Rapat dipimpin oleh Bapak Asisten I Pemerintahan, Sekwilda Tingkat I Kalimantan Selatan, mewakili Bapak Gubernur Kepala Daerah Tingkat I Kalimantan Selatan.
- Rapat dibuka dengan memperkenalkan para anggota rapat, - untuk pejabat Pemerintah Propinsi Kalimantan Tengah.
 - Bapak Kepala Biro Bina Pemerintahan, Setwilda Tingkat-I Kalimantan Tengah mewakili Bapak Gubernur Kepala Daerah Tingkat I Kalimantan Tengah.
 - Bapak Kepala Direktorat Agraria Propinsi Kalimantan Tengah.
- Anggota rapat dari pejabat Pemerintah Propinsi Kalimantan Selatan :
 - Bapak Kepala Bidang Fisik Bappeda Tingkat I Kalimantan Selatan.
 - Bapak Bupati KDH Tkt.II Tabalong, Tanjung.
 - Bapak Bupati KDR Tkt.II Hulu Sungai Utara, Amuntai.
 - Bapak Bupati KDH Tkt.II Hulu Sungai Tengah, Barabai.
 - Bapak Kepala Direktorat Agraria Propinsi Tingkat I - Kalimantan Selatan.
 - Bapak Kepala Bagian Pengairan DPUP. Dati I Kal.Selatan.

Bapak Asisten I Pemerintahan Sekwilda Tingkat I Kal. Selatan.

- Pihak Propinsi Kalimantan Timur mengusulkan rapat pertemuan dapat diselenggarakan pada tanggal 7 Maret 1985 di Jakarta, sehubungan dengan rapat Gubernur seluruh Indonesia.
- Tujuan dari pada pemetaan ini adalah pembuatan peta Topografi skala 1 : 50.000, yang direncanakan akan di cetak sebanyak 1.000 lembar.
- Sambutan dari Bapak Kepala Bagian Pengairan DPUP.Dati I Kal. Selatan.
 - Memperkenalkan anggota Team Survey Topografi JICA Jepang dan Staf DPUP. Dati I Kalimantan Selatan.

- Sejak tahun 1972 untuk daerah Amuntai sudah dilaksanakan pemetaan, sedangkan untuk daerah Tabalong belum dilaksanakan.
- Untuk pelaksanaan pemetaan daerah Tabalong baru dimulai tahun 1983 yang menurut rencana akan dilaksanakan dalam 3 tahun anggaran 1983/1984 s/d 1985/1986.
- Tujuan dari pada pemetaan ini untuk pembuatan peta Topografi skala 1 : 50.000, pada daerah upstream Tabalong.
- Hasilnya untuk menunjang rencana Master plan Negara River Basin secara Makro.
- Untuk menunjang pelaksanaan pemetaan tersebut, Pemerintah Jepang telah memberikan Grant Aid kepada Pemerintah-Indonesia guna pelaksanaan pemetaan ini selama 3 tahun - anggaran dimulai sejak :
 1. Tahun Anggaran 1983/1984 - Pelaksanaan photo udara.
 2. Tahun Anggaran 1984/1985 - Pelaksanaan titik-titik ketinggian (ground control) pada bulan Juli - s/d Agustus 1984.
 3. Tahun Anggaran 1985/1986 - Pelaksanaan pengumpulan data untuk nama-nama sungai, gunung, Kecamatan, desa, serta data tapal batas antara Kal. Selatan dan Kal. Tengah - serta Kal. Timur.
- Guna lebih memantapkan pelaksanaan tersebut diatas Team Jepang bersama staf DPUP Dati I Kalimantan Selatan Bagian Pengairan, mengadakan rapat pertemuan dengan pemerintah Tingkat II Tabalong pada tanggal 30 Januari 1985, - membicarakan masalah batas Kal.Selatan, Kal. Tengah dan Kal. Timur, serta pengecekan kembali nama-nama sungai - gunung, kecamatan, desa dll.
- Rencana Team akan kembali ke Jakarta pada tanggal 7 Februari 1985 dan selanjutnya tanggal 15 Februari 1985 - kembali ke Jepang.
- Untuk hal-hal tersebut diatas Bapak Kepala Bagian Pengairan mengharapkan out put dari pada pertemuan hari ini - menghasilkan suatu kesepakatan untuk penentuan tapal batas antara Kal.Sel. dan Kal.Tengah, khususnya yang berbatasan dengan daerah Tanah Grogot dan daerah Barito Selatan (Ampah, Tamiyang layang).

Sambutan dari Bapak Bupati KDH Tkt.II Tabalong.

- Pertemuan dilaksanakan 2 (dua) kali yaitu pada tanggal 26 Januari 1985 antara Team Jepang dengan Pemerintah Daerah Tingkat II Tabalong.
Yang mana pihak Team Jepang telah menyerahkan Draft kasar dan data-data sungai, kampung dll. yang disebarakan keseluruh Kecamatan untuk pengecekan kembali atas data data tersebut di atas.
- Pertemuan kedua pada tanggal 30 Januari 1985 yang mana hasil dari pertemuan telah menghasilkan data-data yang pasti untuk nama-nama sungai, gunung, kecamatan, desa-sedangkan untuk tapal Batas Kal.Selatan, Kal. Tengah - serta Kal. Timur belum dapat dipastikan, karena belum ada titik batas yang tepat.
- Oleh karena itu, Bapak Bupati meminta kepada pihak Pemerintah Propinsi Tingkat I Kal.Tengah dapat menentukan tapal batas secara administrative.

Penjelasan dari Bapak Kepala Biro Pemerintahan Tkt.I Kal. Tengah.

- Oleh karena telah adanya kesepakatan bersama antara Gubernur KDH Tkt.I Kalimantan Selatan dan Gubernur Kalimantan Tengah yang telah disyahkan oleh Menteri Dalam-Negeri maka sebaiknya untuk data tapal batas tersebut bisa diambil dari data yang telah disepakati bersama.

Penjelasan dari Team Jepang.

- Bahwa pekerjaan tahap ke 3 (tiga) tahun anggaran 1984/1985 meliputi :
 - photo udara
 - ground control
 - field completion

Sebagai hambatan yang belum terpecahkan adalah masalah Tapal batas Kal.Sel. dan Kal. Tengah serta Kal.Timur.

Pertanyaan dari Bapak Manihuruk Kalimantan Tengah.

- Pemetaan apa yang sedang dilaksanakan oleh Team Jepang sekarang ini?
- Apa tujuan pemetaan ini?
- Karena kalaumasalah tapal batas sudah disepakati antara Gubernur KDH Tingkat I Kal.Selatan dan Gubernur KDH Tkt. I Kal.Tengah dan telah disyahkan oleh Bapak Menteri Dalam Negeri.

Jawaban dari Kepala Bagian Pengairan DPUP. Dati I Kal. Sel.

- Tujuannya ialah untuk mengenal daerah sendiri.
- Untuk perencanaan Master Plan Negara River Basin
- Untuk pembuatan peta topografi skala 1 : 50.000 yang nantinya untuk keperluan instansi-instansi lainnya yang menggunakan, agar lebih tepat dan nantinya tidak menimbulkan.

Kepala Direktorat Agraria Tingkat I Kalimantan Tengah.

- Telah diadakan pematokan sepanjang 400 Km, yang belum tinggal 200 Km lagi.
- Untuk masalah tapal batas tidak ada permasalahan lagi karena sudah ada. Kesepakatan kedua belah pihak antara Gubernur KDH Tingkat I Kalimantan Selatan dan Gubernur KDH Tingkat I Kalimantan Tengah yang telah disetujui oleh Menteri Dalam Negeri pada tanggal 16 Maret 1982.
- Jadi tidak perlu lagi adanya penandatanganan.
- Apa sasaran Team Jepang dalam pembuatan peta Topografi-skala 1 : 50.000.

Jawaban Bapak Bupati KDH Tingkat II Tabalong.

- Karena belum ada data yang pasti, maka Team Jepang membuat tapal batas yang ideal mengenai tata air dan sungai.

Jawaban dari Bapak Asisten I Sekwilda Tingkat I Kal. Selatan

- Untuk data tapal batas sudah ada datanya dipemerintah Daerah Tingkat I Kalimantan Selatan.

Penjelasan dari Agraria Tingkat I Kalimantan Selatan.

- File completion harus ada indentification yang telah disepakati.
- Untuk membantu pembuatan tapal batas sudah ada 4 titik Astronomi.
- Peta Design yang telah disetujui oleh Menteri Dalam Negeri bisa sebagai landasan penentuan tapal batas Kal. Sel. dan Kal. Tengah.

Penjelasan Asisten I Sekwilda Tingkat I Kalimantan Selatan.

- Untuk penentuan tapal batas Propinsi Kalimantan Selatan dan Propinsi Kalimantan Tengah, tidak merubah kesepakatan yang telah dibuat antar Gubernur Kepala Daerah Tingkat I Kalimantan Selatan dengan Gubernur Kepala Daerah Tingkat I Kalimantan Tengah yang telah disyahkan oleh Menteri Dalam Negeri.

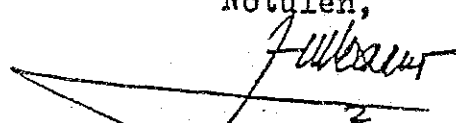
Kesimpulan pertemuan Acara pada hari ini.

- Untuk mengambil data batas wilayah Kalimantan Selatan dan Kalimantan Tengah dengan menggunakan data yang telah disepakati bersama antara Gubernur Kepala Daerah Tingkat I Kalimantan Selatan dengan Gubernur Kepala Daerah Tingkat I Kalimantan Tengah yang telah disyahkan oleh Bapak Menteri Dalam Negeri tanggal 16 Maret 1982.
- Untuk penentuan tapal batas dapat menggunakan peta Design yang telah ada.
- Untuk patokan pengambilan tapal batas menggunakan 4 titik Astronomi yang sudah ada.
- Hasil dari pada pertemuan untuk penetapan tapal batas Kalimantan Selatan dan Kalimantan Tengah yang telah disepakati bersama, telah dibuatkan Berita Acara kesepakatan-untuk hal tersebut di atas, antara Kepala Biro Bina Pemerintahan Setwilda Tingkat I Kalimantan Tengah dengan Asisten I Sekwilda Tingkat I Kalimantan Selatan pada hari Selasa tanggal 5 Pebruari 1985.

Demikian catatan hasil monitoring Rapat pertemuan antar Pejabat pemerintah Tingkat I Kalimantan Selatan dengan Pejabat - Tingkat I Kalimantan Tengah.

Banjarmasin, 5 Pebruari, 1985.

Notulen,



ZULKARNAIN, B.Sc.
NIP. 110022058.-

DAFTAR HADIR PERTEMUAN ANTARA GUBERNUR KDH TINGKAT I
KALIMANTAN SELATAN , GUBERNUR KDH TINGKAT I KALIMANTAN
TENGAH DAN GUBERNUR KDH TINGKAT I KALIMANTAN TIMUR DALAM
RANGKA PEMETAAN WILAYAH SUNGAI NEGARA UP STREAM .

W A K T U : 5 F E B R U A R I 1985.
T E M P A T : KANTOR GUBERNUR KDH TINGKAT I KALIMANTAN SELATAN.

PIHAK JEPANG (JICA)

1. Mr. Sho SAITO
2. Mr. Mikio TOGASHI
3. Mr. Takuji MORITA
4. Mr. Hiroo MORITA
5. Mr. Tokuhe MATSUO
6. Mr. Keiji MIYA

JABATAN :

- Team Leader JICA
Surveyor JICA
Surveyor JICA
Surveyor JICA
Surveyor JICA
Expert DPU

PIHAK INDONESIA

1. Drs. Syahriell Darham Asisten I Bidang Pemerintahan
2. F. Bakari BA EAPBEDA Tingkat I Kal.Sel.
3. Landung. S. Bupati Tk.II Tabalong
4. Ardansyah Fama Bupati Tk.II H.S.U.
5. Eddy Rosasi Bupati Tk.II H.S.T.
6. Ir. A. Tandjid Kabag. Air DPU Kal.Sel.
7. Nasir Nasution Agraria Kal.Sel.
8. Bramantjo Agraria Kal.Sel.
9. M.Muelyono Agraria Kal.Sel.
10. Drs.T.Eko Haryanto DPU Kal.Sel.
11. Zulkarnain. B.Sc DPU Kal.Sel.
12. Nana Nasuha BE Counterpart JICA
13. FX Agus Susanto Counterpart JICA
14. S u w o t o Counterpart JICA
15. Didy Sukardi Counterpart JICA
16. Drs. Donnis. N. Singaraca Karo. Bina Pem. Kal. Teng.
17. R.M. Manurung Agraria Kal. Teng.
18. Anrullah Agraria Kal. Teng.
19. Gt. Zulfikar Biro Pemerintahan Umum.

SURAT KETERANGAN

Yang bertanda tangan dibawah ini :

N a m a : Ir. A. TAMDJID
J a b a t a n : Kepala Bagian Pengairan Dinas Pekerjaan Umum Propinsi Dati I Kalimantan Selatan.
A l a m a t : Jalan D.I. Panjaitan No. 14 Banjarmasin.

Dengan ini menerangkan bahwa, untuk permasalahan batas wilayah Propinsi Kalimantan Selatan dan Kalimantan Tengah, serta antara Propinsi Kalimantan Selatan dan Kalimantan Timur pada saat ini dalam tahap penyelesaian.

Dengan demikian belum dapat diplot dalam peta hasil mapping dari Team Survey Jepang.

Diusahakan pada akhir April 1985 kalau sudah selesai akan dikirimkan ke Jepang (Tokyo).

Demikian Surat Keterangan ini kami buat, agar dapat dipergunakan seperlunya.-

Banjarmasin, 6 Pebruari 1985.



BAGIAN PENGAIRAN,

(Signature)
Ir. A. TAMDJID
NIP. 540003692

SURAT KETERANGAN

Yang bertanda tangan dibawah ini :

N a m a : Ir. A. TAMDJID
J a b a t a n : Kepala Bagian Pengairan Dinas
Pekerjaan Umum Propinsi Dati I
Kalimantan Selatan.
A l a m a t : Jalan D.I. Panjaitan No. 14
Banjarmasin.

Dengan ini menerangkan bahwa, untuk pelaksanaan pengumpulan data-data mengenai nama-nama Kabupaten, Kecamatan, Desa, nama - sungai dll. telah di check bersama Bapak Bupati KDH II Kabupaten - Tabalong beserta Camat, Counterpart dan Team Survey Jepang.

Berkas hasil pengecekan terlampir

Demikian Surat Keterangan ini kami buat, agar dapat diper - gunakan seperlunya.-

Banjarmasin, 6 Pebruari 1985.

KEPALA BAGIAN PENGAIRAN,



Ir. A. TAMDJID
NIP.540003697.

INSTRUCTIONS FROM BAKOSURTANAL CONCERNING
THE SCRIBING AND PRINTING WORK

(Topographic Mapping Project of Upper Stream Area of
Negara River Basin, South Kalimantan, Indonesia)

February 13, 1985

February 13, 1985

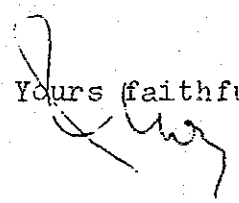
Mr. Sho Saito
Leader of the Japanese Survey Team for
the Topographic Mapping Project of
the Upper Stream Area of the Negara River Basin,
South Kalimantan, Indonesia

Dear Mr. Saito,

Considering the scribing and printing work of the
Topographic Mapping Project of the Upper Stream Area of
the Negara River Basin, South Kalimantan, Indonesia,
BAKOSURTANAL agrees that:

- 1) "Instructions from BAKOSURTANAL Concerning the
Scribing and Printing Work" shall be regarded as
the additional technical specifications for the
mapping project;
- 2) All the names which should be shown on the topo-
graphic maps to be produced shall be as shown in
"Table for Confirmation of Geographical Names".

Yours faithfully,



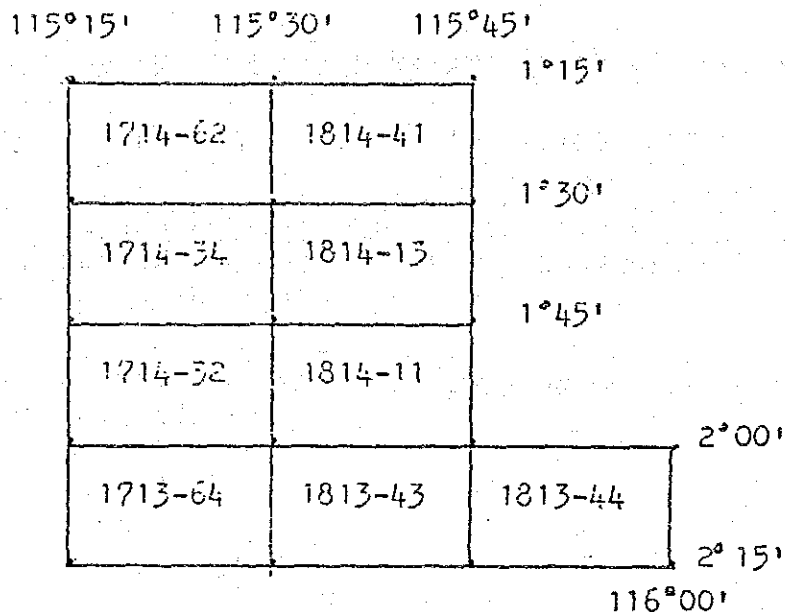
Prof. Ir. Jacob Rais

Chairman of National
Coordination Agency for
Surveys and Mapping

- 7 -

INSTRUCTIONS FROM BAKOSURTANAL CONCERNING THE SCRIBING AND PRINTING WORK

1. Sheet numbers shall be as shown below:



2. Sheet names shall be as follows:

<u>Sheet Number</u>	<u>Sheet Name</u>
1714-62	MUARAMALUNGAI
1714-34	S. MISSIM
1714-32	S. TABALONG KIWA
1713-64	TANJUNG
1814-41	S. LUANG
1814-13	MUARALANGUN
1814-11	JARO
1813-43	HALONG
1813-44	MANTE

3. Edition number at the upper right corner of the margin shall be I (one) except for sheets 1713-64 and 1813-43 which should be Edisi-II. Year of publication to be printed after the edition number is "1985".

4. U.T.M. zone number to be printed at the lower part of DIAGRAM LOKASI shall be in black. Type of lettering of the zone number shall be UN55MC and its size shall be 6.8pt.
5. Address and mark of BAKOSURTANAL shall be the same as those of the sample map. Original sheet of the mark shall be provided by the Indonesian government for printing in Japan.
6. Map history (KETERANGAN RIWAYAT) shall be printed as follows:
 PETA INI DIGAMBAR DENGAN CARA FOTOGRA METRI 1983-1984 DARI FOTO UDARA SKALA 1:50.000 DALAM RANGKA PEMETAAN DASAR NASIONAL, BADAN KOORDINASI SURVEY DAN PEMETAAN DASAR NASIONAL (BAKOSURTANAL) DALAM RANGKA PERJANJIAN KERJASAMA PEMERINTAH REPUBLIK INDONESIA DAN PEMERINTAH JEPANG(JICA).
7. Following JICA mark shall be printed on the appropriate part of the maps:



8. Points to be used as sample points are as follows:

Sheet Number	Point Name	U.T.M. km	
		E	N
1714-62	Jembatan	311.09843.9	
1714-34	Persimpangan Jalan	323.99826.7	
1714-32	Titik Doppler D-A606	322.29796.7	
1713-64	Titik Tinggi Geodesi T.T.G.III	321.69765.0	
1814-41	.993 Puncak G.Lumut	336.49852.6	
1814-13	Titik Doppler D-A607	337.09827.9	
1814-11	Titik Doppler D-A603	352.59791.1	
1813-43	Titik Doppler D-A600	360.29756.8	
1813-44	.226 dekat Mante	369.49760.8	

9. Proper expression of U.T.M. coordinates is:

T = 000m , U = 000m

10. Abbreviations (SINGKATAN) to be shown in the marginal information shall be the one stated in SPESIFIKASI PETA RIJABUMI INDONESIA SKALA 1:50.000, Lampiran A.1.3 and C. The symbol "K" which stands for Kotamadya is added to the Lampiran A. 1.3.

11. The UG line should be drawn parallel to left sheet line (which is parallel to longitude line). The unit value of angles between UG and UM, and between UG and US should be 5 minutes.
12. Lettering styles of symbols (No. 7.1 to No. 7.5) shall be as follows:

<u>No.</u>	<u>Lettering of "SHAKEN"</u>
7.1	E30-25
7.2	E30-25
7.3	E30-24
7.4	E102-24
7.5	E102-24

13. Data of magnetic declination shall be provided by the Indonesian government. The data shall be the results of the latest calculation. In the case such latest data are not available, BAKOSURTANAL will use "DEKLINASI MAGNIT EPOCH 1980 s/d 1985" of The Defense Mapping Agency Hydrographic Center to obtain the declination information.
14. The placement of control point values should follow the A.M.S. specifications.
15. The placement of symbol marks (1.3 to 1.10 of Lampiran A) should follow the following steps:
 - a) symbol marks should be placed in map north orientation;
 - b) symbol size should follow Lampiran A of the Map Specification;
 - c) in order to get the clarity, symbol mark location on maps may be shifted.
16. Values of U.T.M. coordinates to be printed at each marginal corner shall be rounded by counting fractions of 0.5 meter and over as a unit and cutting away the rest.
17. Printing paper shall be the same as the sample. (Results of physical and chemical tests of the sample paper are attached as Appendix-A.)

18. Flow chart of colour separation for scribing and printing is as shown in "Schematic Diagram of Scribing and Printing" (Appendix-B).
19. All the boxes in PETUNJUK LETAK PETA(Lampiran F) should be fulfilled with the sheet names and numbers although some of them probably might never be printed.
20. The complete "Magnetic Declination Information Text" is as follows:

DEKLINASI MAGNETIK RATA-RATA _____ TAHUN _____
DIPUSAT LEMBAR PETA
DEKLINASI TERSEBUT TIAP TAHUN BERKURANG DENGAN _____

or

DEKLINASI MAGNETIK RATA-RATA _____ TAHUN _____
DIPUSAT LEMBAR PETA
DEKLINASI TERSEBUT TIAP TAHUN TIDAK ADA PERUBAHAN

21. Original sheet of marginal information (only right hand side) shall be supplied by BAKOSURTANAL.
22. As for province names, the name(s) of province(s) which is(are) covered by a map shall be printed just below the DIAGRAM LOKASI text above the DIAGRAM LOKASI box. As for PEMBAGIAN DAERAH ADMINISTRASI box, the name(s) shall be printed just below the PEMBAGIAN DAERAH ADMINISTRASI text.
23. Additional specifications to LAMPIRAN A item 7(NAMA-NAMA) are as follows:
 - a) Specifications for the size of lettering, i.e. max. 5.0mm and min. 1.5mm, is the height of the first capital letter of a word.
 - b) If the size of the first letter of an annotation exceeds the size of 2.2 mm, all the letters in such an annotation shall be printed in capital letters. Therefore, as for annotations whose capital letters are between 2.1mm and 1.5mm in height, only abbreviated letters and head letters will be printed in capital letters.
 - c) Letter size of names of rivers within the mapping area will be as follows:
Except for S.Tabalong, the letter size of all the

river names and tributary names are 1.5mm. Letter size of S.Tabalong shall be 2.0mm. Further, if a river course shown in one map sheet is long or complex, river name will be annotated at more than one location for the purpose of better identification of such river.

- d) Letter sizes of names of towns and villages of item 7.3 is as follows:

DESA: 2.0mm
KAMPUNG: 1.5mm

- e) All the names which should be shown on the 1:50,000 scale topographical maps are listed in "Table for Confirmation of Geographical Names" which was authorized by BAKOSURTANAL AND D.P.U. The table shows not only correct spelling of the names but also correct separation or unification of the names. Just for the reference purposes, principles of the word separation and unification are shown below.

- e-1. Basically, even if annotation is composed of two words, they will be printed in one word.

(Examples)

<u>Incorrect</u>	<u>Correct</u>
Murung Puduk Tanjung Kota BANJAR MASIN	Murungpudak Tanjungkota BANJARMASIN

- e-2. Regardless of instructions of e-1. above, words such as UTARA, SELATAN, TIMUR, BARAT, KIWA, KIRI, KANAN, ATAS, BAWAH, TENGAH, DALAM, LUAR, HILIR, etc. will be printed separately.

(Examples)

KALIMANTAN TIMUR
Puin Kanan
Jaing Hulu

(Exception)

Sungaipanjang
Kotabaru
Dusuntengah
Muaraaja
Baritobaru

- f) Letter sizes for mountains, a mountain, and a hill of item 7.2 are as follows;

Pegunungan (Peg) : 3.0mm
Gunung (G) : 2.2mm
Bukit (Bt) : 1.6mm

Note: Only the first letter of abbreviation and name will be printed in capital letters, such as Peg.Tabalong, G.Banjar, and Bt.Tanjung.

24. As for this mapping area, SINGKATAN DAN ISTILAH SETEMPAT of Lampiran C shall be as follows:

S - Sei, Sungai
G - Gunung
Peg - Pegunungan
Bt - Bukit

25. In the "Singkatan" at the lower margin of each map, only those words which occur in each map will be printed together with their abbreviations. Words and their abbreviations which are not necessary for a map shall not be printed. In the case that some unnecessary words are omitted, next(lower) words shall be moved upwards to fill the blank spaces to be made by omitted words.

26. Symbols of 1.3 Kantor pemerintahan, 1.4 Tempat beribadat, and 1.10 Pusat Listrik of Lampiran A shall be placed just above the centers of the true location of buildings to be expressed by such symbols regardless of the shape and size of such buildings. This instruction shall not be applied to the cases described in item 15.c) above.

27. Changes in the context of Lampiran F as well as the additional instructions to Lampiran F are as follows:

- a) Symbol of bench marks in Keterangan in the marginal information will be changed from "W" to "T.T.G.". Expression of bench marks on the map shall be as examples shown below:

Second order bench marks: $\frac{T.T.G.-II.10}{75.29}$

Third order bench marks: $\frac{T.T.G.-III.2}{24.67}$

- b) Destinations of roads which will be cut by border lines of the maps shall be printed only for Jalan arteri. Distance to destinations will be expressed down to the unit of kilometers. Names of destinations will be the names of towns which are in the class equal to or higher than "Ibukota kecamatan". As for the destinations which locate beyond the mapping area, distance to such destinations shall not be printed because such distance is uncertain.

- c) Text of Datum Vertikal in the marginal information shall be as follows:

Datum Vertikal: Muka laut di Takisong,
Kalimantan Selatan

- d) If more than one province occur in one map sheet, boundary symbol and province identification numbers shall be printed in the following manner in the box of PEMBAGIAN DAERAH ADMINISTRASI.

d-1. Boundary symbols

For the clarification purposes, length of short lines which consist the boundary symbol shall be reduced while the weight of the lines shall not be changed.

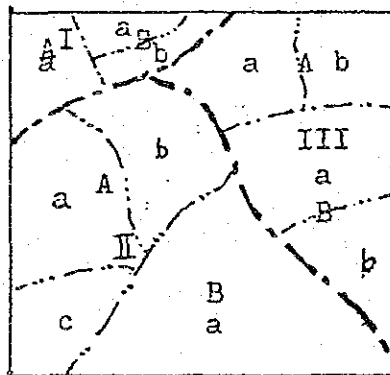
Normal Symbol

Changed Symbol



d-2. Identification of provinces

Each province shall be identified by numbers such as I, II, III..... by placing these numbers in the centers of provinces as shown below. Lower class administrative areas will be identified by using capital and lower case letters.



28. A.M.S. specifications shall be applied to the ways of expression, location of annotations, or location of printing of the following items:

- a) administrative names
- b) geographical names
- c) contour lines and contour line values
- d) control points

29. As for the houses and buildings which should be shown by generalized representation of built-up areas, their location shall be indicated by BAKOSURTANAL on appropriate maps.

30. As for administrative boundary lines to be drawn in the box of PEMBAGIAN DAERAH ADMINISTRASI, administrative boundary lines shown on the existing 1:250,000 scale topographic maps shall be used as the source information of such boundary lines if official settlement of the location of administrative boundary line cannot be accomplished by the Indonesian government.

31. In addition to the instructions given above, instructions stipulated in "Official Report - 1:50,000 Scale Topographic Map" dated August 14, 1984 (refer to Appendix-C) shall also be regarded as the additional technical specifications for this topographic mapping project.

Appendix-A.

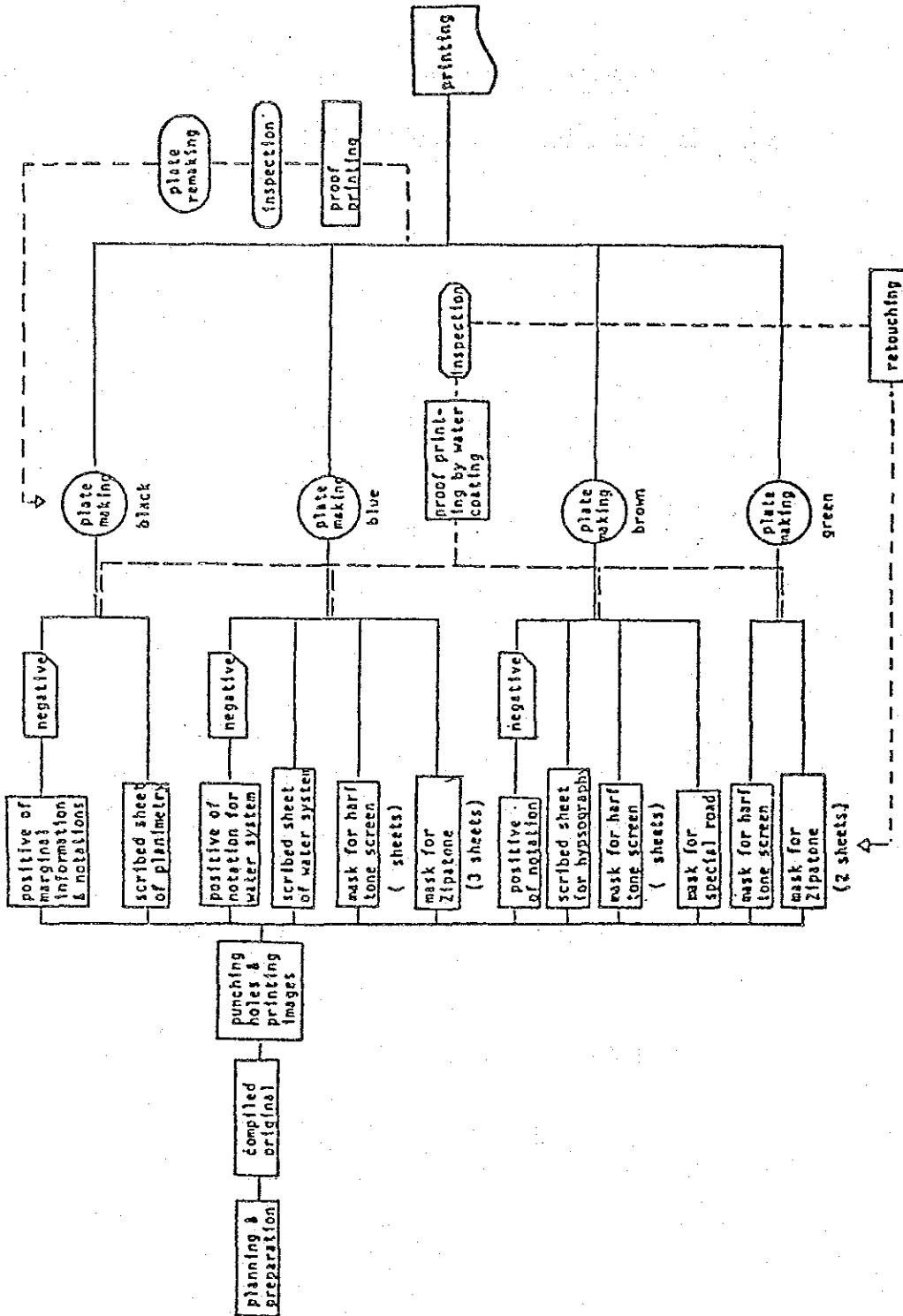
Physical and Chemical Characteristics of Printing Paper

Item		Average	Maximum	Minimum	
Folding endurance (time)	Machine direction	2,400	3,200	1,900	
Tension/1 kg (MIT type tester)	Gross direction	3,100	4,000	2,600	
Bursting strength (kgf/cm ²)	Dry	5.53	5.85	5.10	
	Wet	2.81	3.50	2.45	
Tensile breaking strength (kgf)	Dry	Machine direction	11.6	12.1	11.1
		Cross direction	8.93	9.30	8.45
	Wet	Machine direction	3.59	3.80	3.30
		Cross direction	3.31	3.50	3.15
Tearing strength (gf)	Machine direction	92.0	94.0	90.0	
	Cross direction	87.7	90.0	86.0	
Smoothness (sec)	Surface	120	140	100	
	Back	100	120	90	
Expansion (%) (RH 60~80)	Machine direction	0.05	-	-	
	Cross direction	0.10	-	-	
Opacity (%)		90.7	91.0	90.4	
Brightness (%)		89.2	89.3	89.1	
Size condition (see)		71	77	60	
Thickness (mm)		0.101	0.104	0.099	
Surface strength (A)	Surface	26	26	26	
Weight (g/m ²)			90.9		
Water content (%)			7.9		
PH			6.3		

Paper material	Unbreached pulp
Ground pump	Not contained
Flow of fibres	Good
Curling and other defects	None
Texture	Good
Dust	None
Difference in quality between surface and back	Little

NOTE: Wet means the condition in which the specimen has been immersed in water of 20°C and is soaked with superfluous water.

Schematic Diagram of Scribing and Printing



OFFICIAL REPORT

1:50,000 SCALE TOPOGRAPHIC MAP

August 14, 1984

OFFICIAL REPORT

1:50,000 SCALE TOPOGRAPHIC MAP

I. This official report is made on 14th August, 1984 as a supplement to SPESIFIKASI PETA RUPABUMI SKALA 1:50.000 BAKOSURTANAL for field identification survey purposes for 1:50.000 scale topographic mapping of Kalimantan selatan.

II. The Supplement to the Map Specification "SPESIFIKASI PETA RUPABUMI SKALA 1:50.000 BAKOSURTANAL"

II-1. "Lampiran B" to the specifications

1.1. Jalan setapak, 2.6

To be added: Jalan setapak or footpath shall include all the abandoned (unused) roads which can be passed only by foot during field identification work.

1.2. Jembatan, 2.9

To be added: Bridges of more than 25 meters and less than 100 meters in length shall be drawn by bridge symbol of 2 mm size.

1.3. Titik sipat datar, 3.17

The elevation values of Bench Marks shall be printed below the identification of their points in the unit of meters and down to the second decimal fraction numbers.

Meanwhile, values of Astronomical, Doppler, Cadastral, and Triangulation points shall be expressed in meters and as integer numbers.

1.4. Perkebunan, 4.3

To be added: Plantations having size of more than 100 meters by 500 meters shall be drawn on the map.

1.5. Batas administrasi, 5.1

As for administration boundaries which don't exist at the time of field identification survey, the Japanese side and the Indonesian side will solve this problem after the photogrammetric plotting work is finished.

1.6. Sungai, 6.6

To be added: Rivers of more than 10 meters and less than 25 meters wide shall be drawn on the map with single lines. The width of rivers shown on the map shall be the width of their average surface. For mapping areas where there is no river wider than 10 meters, rivers whose width is more than 5 meters may be selected and drawn on the map.

II-2. "Lampiran C" to the specifications

2.1. Singkatan (page 2)

The word "Kali-Kali" shall be changed with the word "Sungai-Sungai".

III. This survey agreement is made and agreed by:

Ir. Bebas Purnawan
Mr. Mikio Togashi
Mr. Moh Rusfai Nurdin, BE

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