

SECTOR XV  
TOPOGRAPHIC SURVEY

# TOPOGRAPHIC SURVEY

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9.236.000  
9.235.000  
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9.233.000  
9.232.000  
9.231.000

N  
SCALE 1:10000

- LEGEND
- Water
  - Canal
  - Drainage
  - Highway
  - Tramway
  - Road
  - Footpath
  - Boundary
  - Settlement
  - Plantation
  - Forest
  - Barren land
  - Swamp
  - Marsh
  - Waterfall
  - Spring
  - Well
  - Water tower
  - Electricity
  - Telephone
  - Post office
  - Police station
  - Religious building
  - Government building
  - Industrial building
  - Public building
  - Private building
  - Other building
  - Other structure
  - Other object

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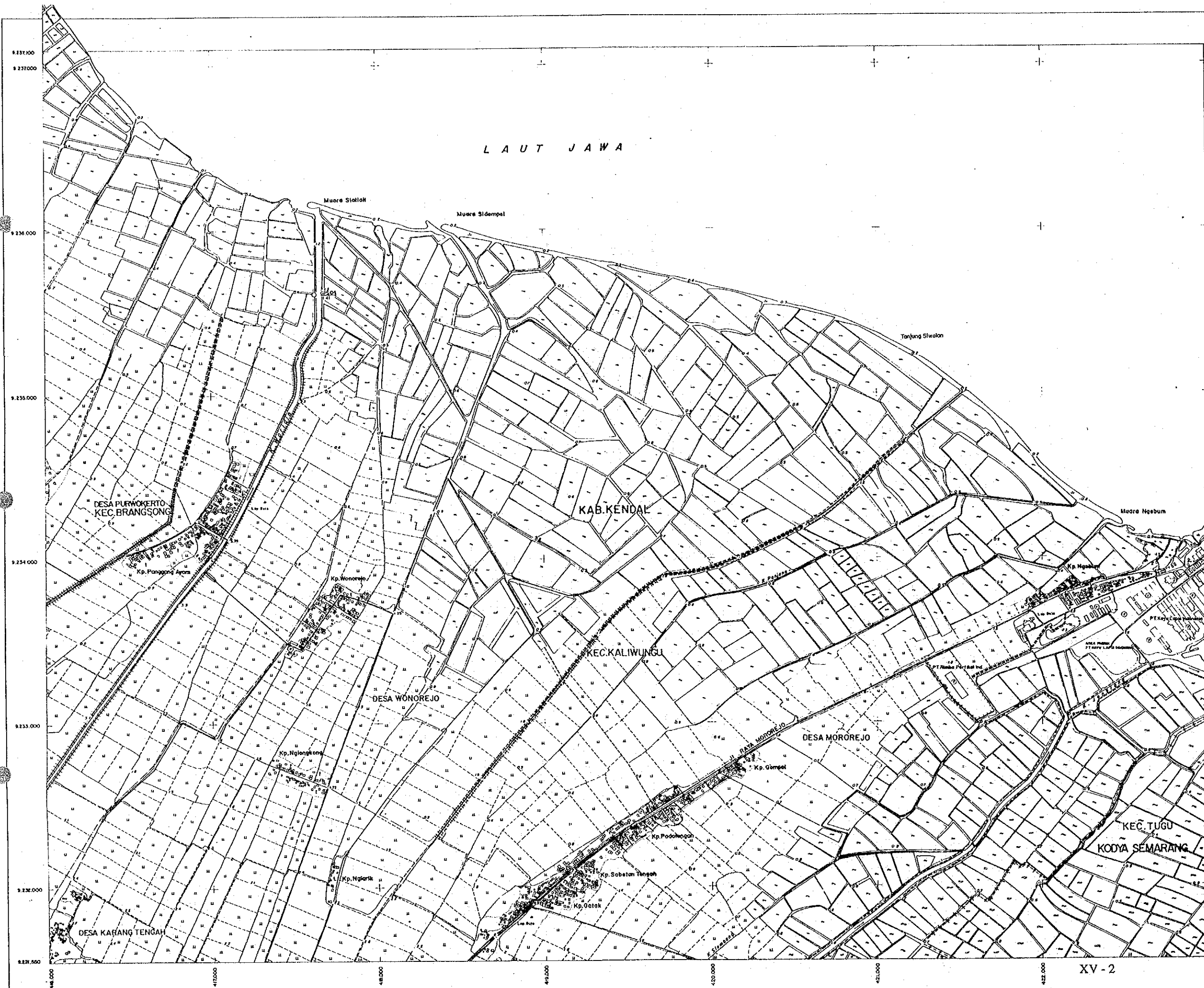
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REPUBLIC OF INDONESIA  
MINISTRY OF PUBLIC WORKS  
DIRECTORATE GENERAL OF  
WATER RESOURCES DEVELOPMENT

MASTER PLAN ON WATER RESOURCES  
DEVELOPMENT AND FEASIBILITY STUDY  
FOR URGENT FLOOD CONTROL AND URBAN  
DRAINAGE IN SEMARANG CITY AND SUBURBS

TOPOGRAPHIC MAP  
SCALE 1:10000

AEROPHOTOGRAPHY  
ACQUIRED FROM PT. BANGSUTAMA,  
GROUND CONTROL & MAPPING  
MAY-DEC. 1981 BY SURVIVALS TOOLS  
JAPAN INTERNATIONAL COOPERATION AGENCY



N

SCALE 1 : 10000

**LEGEND**

	GPS Post		Fence (Concrete)
	Bench Mark 100		Fence
	Spot Elevation		Manometer
	Road/Building		Depression
	Quarry built up area		Stream Bedrock
	Factory		Stream Channel
	Police Office		Swamp Shaded
	Police Station		Rice Field
	Church Building		Palm Land
	Mosque		Pine Trees
	Church		Tidal
	Hospital		Orchard
	Post Office		Swamp
	School		Grass Land
	Market		Bush
	Telephone Station		Shrub
	Bus Station		Mangrove Swamp
	Telephone Office		Sand
	Well		Water Gate
	Road 3.00m		Mine Pit
	Road and Fire Line		Road/Canal
	Road 3-10m		Canal
	Road 6-10m		Canal (Small)
	Bridge		Canal (Large)
	Post Bridge		Boundary of Investment
	Making Line and Drain		Lot Line of other land use
	Four Line		Apartment
	Two Line		Piling ground
	Two Dotted		Mass House
	Two Dashed		Military Area
	Boundary		Pleistocene Boundary
	Quarry		Suburban Boundary
	Outcrop		Irrigation Boundary
	Station		Paved Road
			Road 3.00m

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**TOPOGRAPHIC MAP**  
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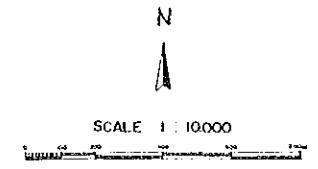
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AEROPHOTOGRAPHY  
 AUGUST 1981 BY BAKOSURTANAL  
 GROUND CONTROL POINTS  
 MAY - DEC 1981 BY SOLDER TECHNIK  
 JAPAN INTERNATIONAL COOPERATION AGENCY





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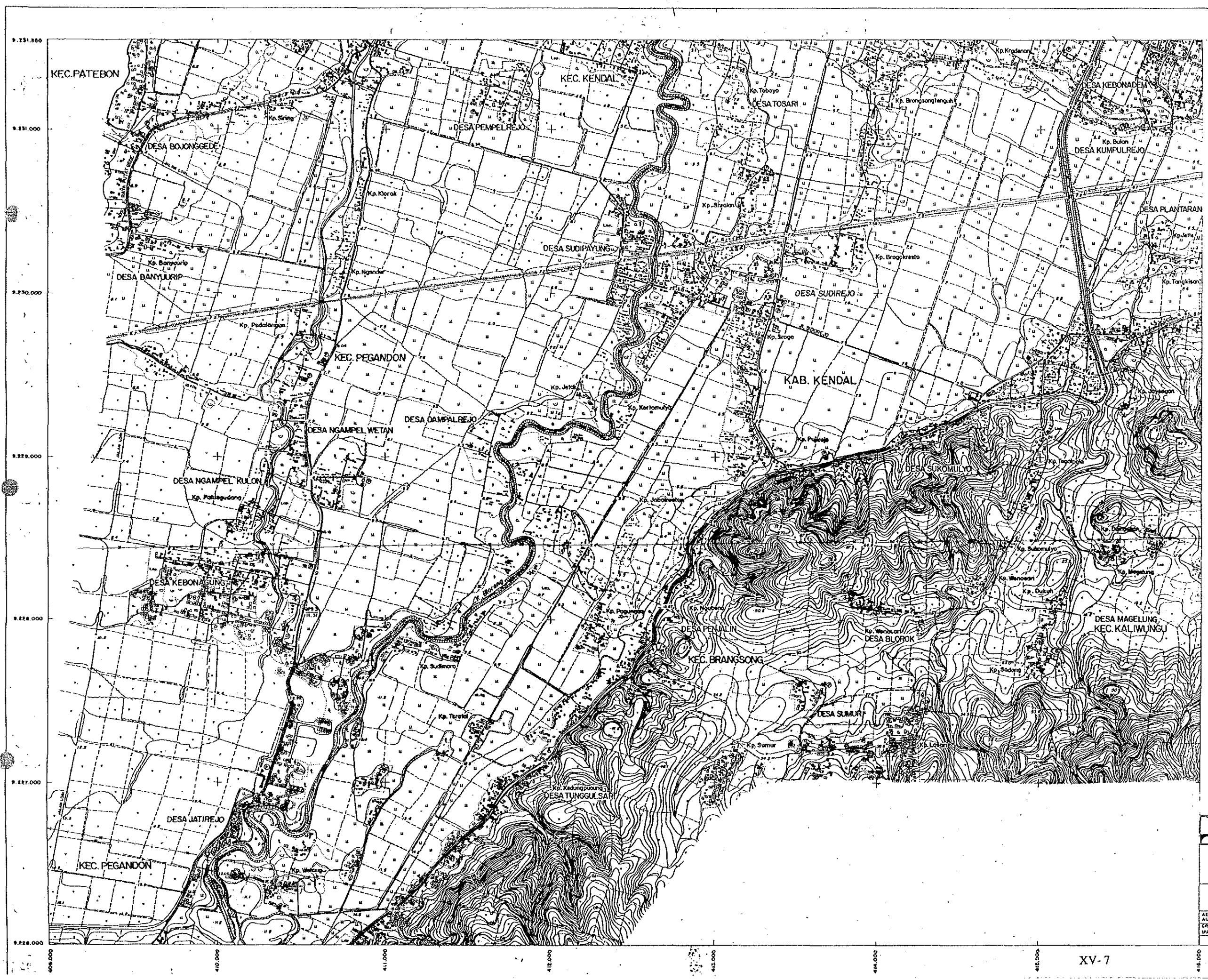


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	1:25 Contour		1:10 Contour
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SCALE 1:10000

- LEGEND
- 875 Feet
  - 1000 Feet
  - 1500 Feet
  - 2000 Feet
  - 2500 Feet
  - 3000 Feet
  - 3500 Feet
  - 4000 Feet
  - 4500 Feet
  - 5000 Feet
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  - 98000 Feet
  - 98500 Feet
  - 99000 Feet
  - 99500 Feet
  - 100000 Feet

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DRAINAGE IN SEMARANG AND SUBURBS

TOPOGRAPHIC MAP 7  
SCALE 1:10000

AERO-PHOTOGRAPHY :  
AUGUST, 1951, BY BAKOSURTANAL  
GROUND CONTROL & MAPPING  
MAY-DEC, 1952, BY GEJAYA TENK  
JAPAN INTERNATIONAL COOPERATION AGENCY





9.231.000  
9.230.000  
9.229.000  
9.228.000  
9.227.000  
9.226.000

LAUT JAWA

N  
SCALE 1 : 10,000

LEGEND

- 500 Feet
- 1000 Feet
- 1500 Feet
- 2000 Feet
- 2500 Feet
- 3000 Feet
- 3500 Feet
- 4000 Feet
- 4500 Feet
- 5000 Feet
- 5500 Feet
- 6000 Feet
- 6500 Feet
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- 7500 Feet
- 8000 Feet
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- 98500 Feet
- 99000 Feet
- 99500 Feet
- 100000 Feet

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TOPOGRAPHIC MAP  
SCALE 1 : 10,000

9

ALERO - PHOTOGRAPHY  
AUGUST, 1961, BY BAKOSURTANAL  
GROUND CONTROL & MAPPING  
MAY-DEC, 1962, BY GEOTAYA TEHNIK  
JAPAN INTERNATIONAL COOPERATION AGENCY



N  
SCALE 1:10000

- LEGEND
- 475 Feet
  - 450 Feet
  - 425 Feet
  - 400 Feet
  - 375 Feet
  - 350 Feet
  - 325 Feet
  - 300 Feet
  - 275 Feet
  - 250 Feet
  - 225 Feet
  - 200 Feet
  - 175 Feet
  - 150 Feet
  - 125 Feet
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  - 9900 Feet
  - 10000 Feet

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FOR URGENT FLOOD CONTROL AND URBAN  
DRAINAGE IN SEMARANG CITY AND SUBURBS.

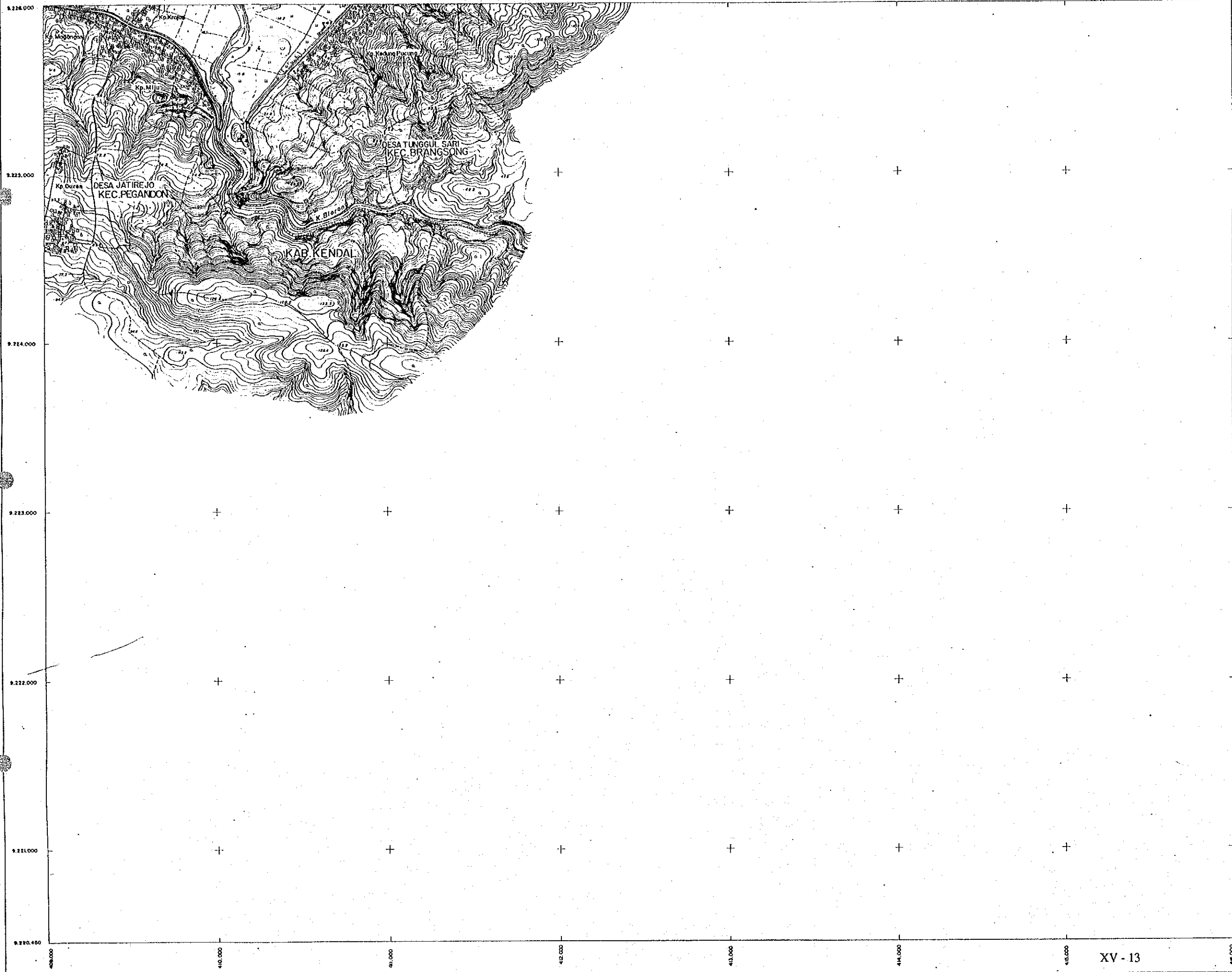
TOPOGRAPHIC MAP  
SCALE 1:10000

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AERO- PHOTOGRAPHY  
AUGUST 1961, BY BAKOSURTANAL  
GROUND CONTROL & MAPPING  
MAY-DEC 1962, BY GEORJA TEHRIG  
JAPAN INTERNATIONAL COOPERATION AGENCY







N  
↑

SCALE 1 : 10000

**LEGEND**

	GPS Point		Fence (Concrete)
	Sand Mar/TIR		Fence
	Spot Elevation		Watercourse
	Loading Point		Drainage
	House/Building		Bridge
	Empty built up area		Sewer Channel
	Factory		Sewer Channel
	Public Office		Rice Field
	Public Building		Rice Land
	Church Mosque		Palm Tree
	Church		Tree
	Mosque		Orchard
	Post Office		Bank
	School		Gas Line
	Market		Bus
	Sanatorium Station		River
	Burn		Irrigation Canal
	Gas Station		Well
	Telephone Office		Water Dam
	Hamlet		Water Pit
	Road P 2 Dm		Pond/Lake
	Road and Track 4m		Swamp
	Road 4 - 2.0m		Off Road Control
	Road 2 - 1.0m		Off Road Control
	Arête		Off Road Control
	Foot Bridge		Boundary of vegetation
	Railway and Bridge		Land Use of Agriculture
	Power Line		Encastment
	Sea Level		Leq
	Spot (M)		Stone Pile
	Spot (M)		Monopylon Bridge
	Spot (M)		Provincial Boundary
	Encastment		Kabupaten Boundary
	Contour		Kecamatan Boundary
	Contour		Fish Pond
	Contour		Sand & Gravel

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**TOPOGRAPHIC MAP** 13  
 SCALE 1:10000

AERO-PHOTOGRAPHY  
 AUGUST 1991, BY BANGSURTANAL  
 GROUND CONTROL & MAPPING  
 MAY-DEC 1992, BY GEOJAYA TENIK  
 JAPAN INTERNATIONAL COOPERATION AGENCY













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 SCALE 1 : 10000

- LEGEND
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TOPOGRAPHIC MAP  
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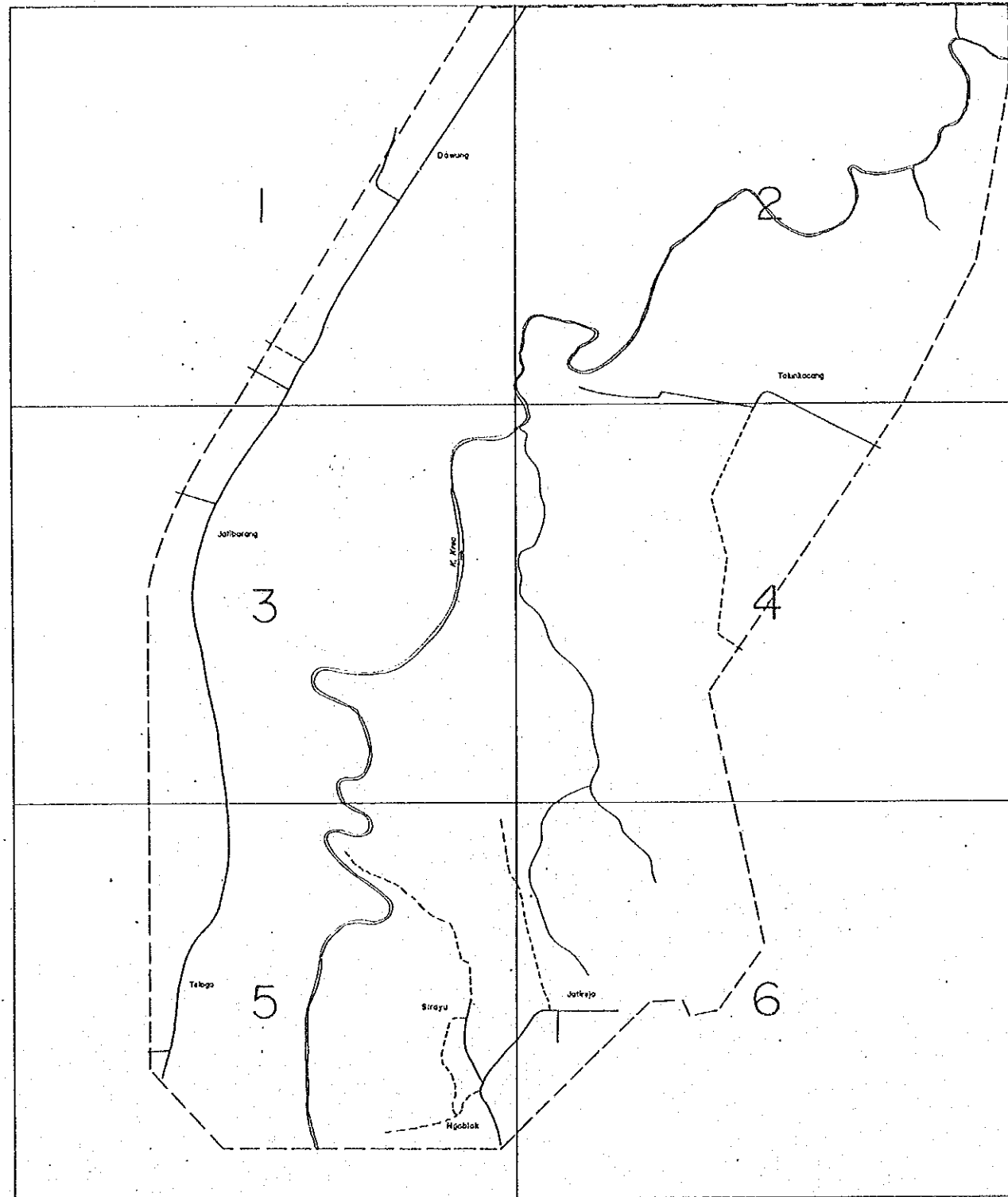
18

AERO- PHOTOGRAPHY  
 AUGUST, 1951, BY BAKOSURTANAL  
 GROUND CONTROL & MAPPING  
 MAY-DEC 1951, BY GEOLINA TERANG  
 JAPAN INTERNATIONAL COOPERATION AGENCY

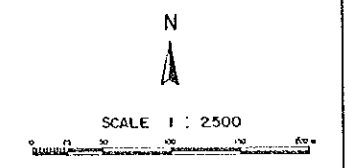
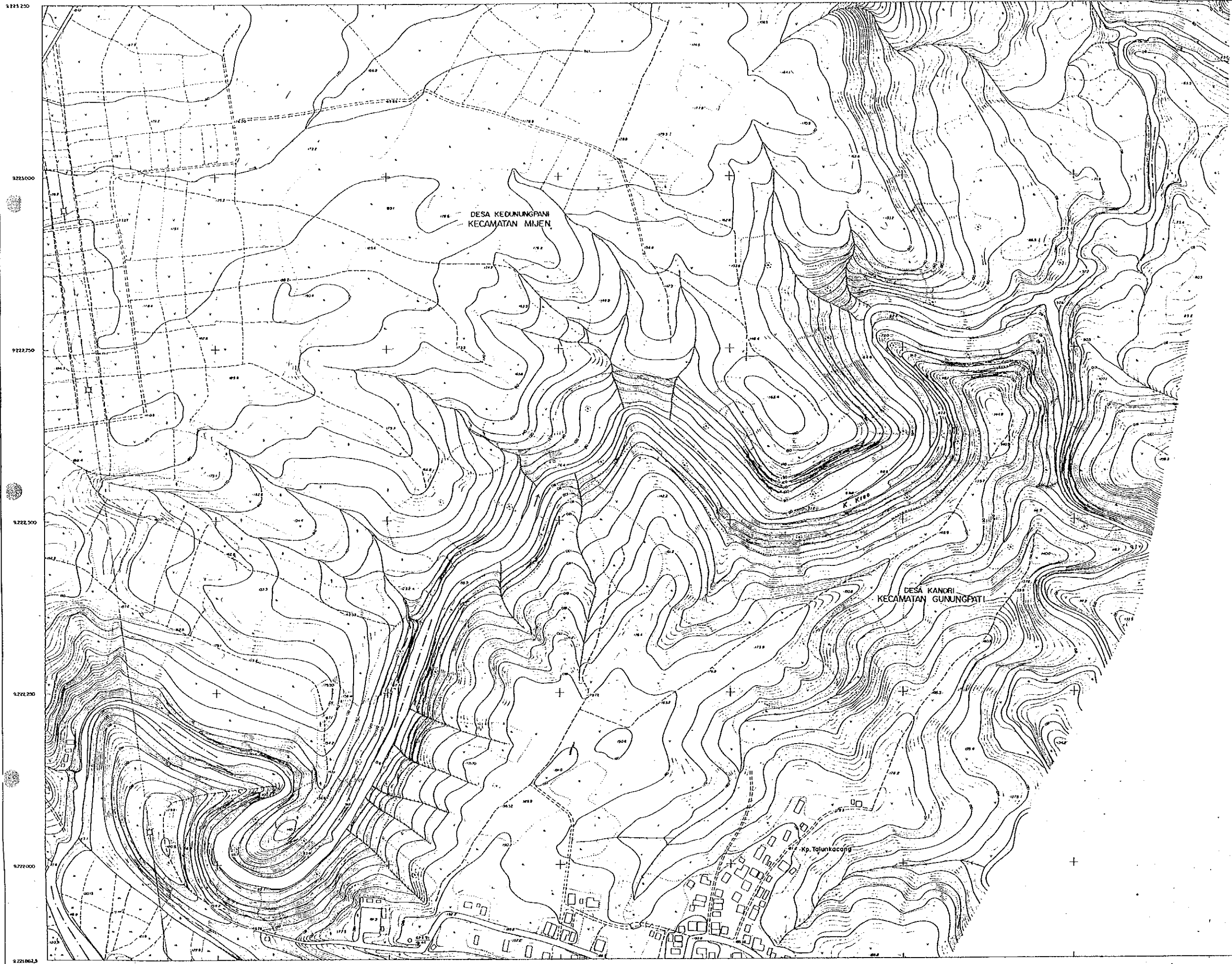


SHEET INDEX OF MAP  
SEMARANG PROJECT PHASE.3

SCALE . 1:10000







**LEGEND**

	Spot Elevation		Contour Line
	Boundary		Road
	Building		River
	Cemetery		Canal
	Public Office		Dam
	School		Well
	Mosque		Pond
	Church		Field
	Forest		Swamp
	Hill		Embankment
	Tunnel		Culvert
	Bridge		Dam
	Railway		Power Line
	Telephone		Water Pipe
	Sewer		Drainage
	Canal		Irrigation
	Dam		Embankment
	Well		Pond
	Field		Swamp
	Hill		Embankment
	Tunnel		Culvert
	Bridge		Dam
	Railway		Power Line
	Telephone		Water Pipe
	Sewer		Drainage
	Canal		Irrigation

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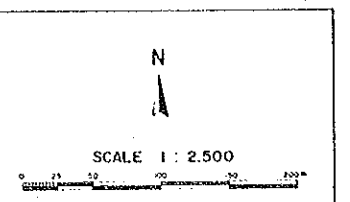
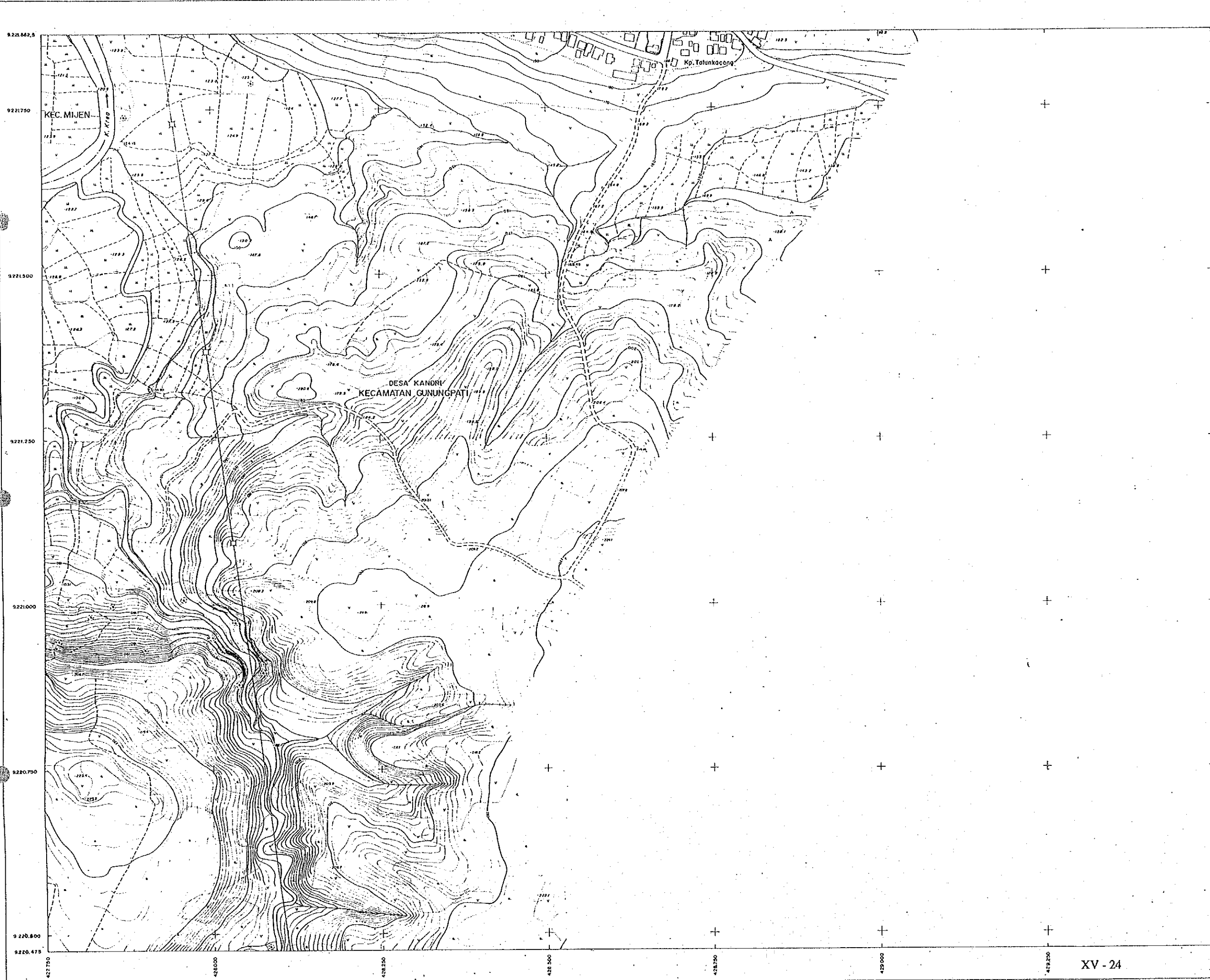
MASTER PLAN ON WATER RESOURCES  
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**TOPOGRAPHIC MAP**      2  
 SCALE 1 : 2,500

AERO - PHOTOGRAPHY :  
 AUGUST, 1991, BY BARDIANTANAL  
 GROUND CONTROL & MAPPING  
 MAY - JUNE 1993, BY GEDJATA TENHAK  
 JAPAN INTERNATIONAL COOPERATION AGENCY







**LEGEND**

	GPS Point		Fence (Concrete)
	Spot Elevation		Fence
	Contour Interval		Mountain
	Water Building		Cemetery
	Quarry Built-up Area		Electric Station
	Ferry		Drainage
	Public Office		Drainage Channel
	Police Station		Rice Field
	Electric Station		Park Land
	Market		Park Trees
	Church		Field
	Hospital		Sugar Cane
	Post Office		Bamboo
	School		Grass Land
	Market		Bush
	Department Station		Pond
	Bus		Irrigation Canal
	Gas Station		Weir
	Telephone Office		Water Race
	Road 4.0m		Water Fall
	Road 6.0m		Pond/Lake
	Road and Drainage		Swamp
	Road 8.0m		Cliff (Spot) Elevation
	Road 12.0m		Cliff (Spot) Elevation
	Railway		Boundary of settlement
	Railway and Bridge		Limit of the Map
	Power Line		Reservoir
	Tunnel		Pier-Wharf
	Tunnel		Sand-mound
	Tunnel		Military Detachment
	Tunnel		Private Boundary
	Tunnel		Kampung Boundary
	Tunnel		Kampong Boundary
	Tunnel		Fish pond
	Tunnel		Sand & Shallow
	Tunnel		Subsidy Track

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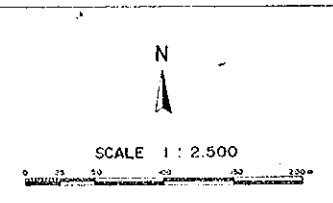
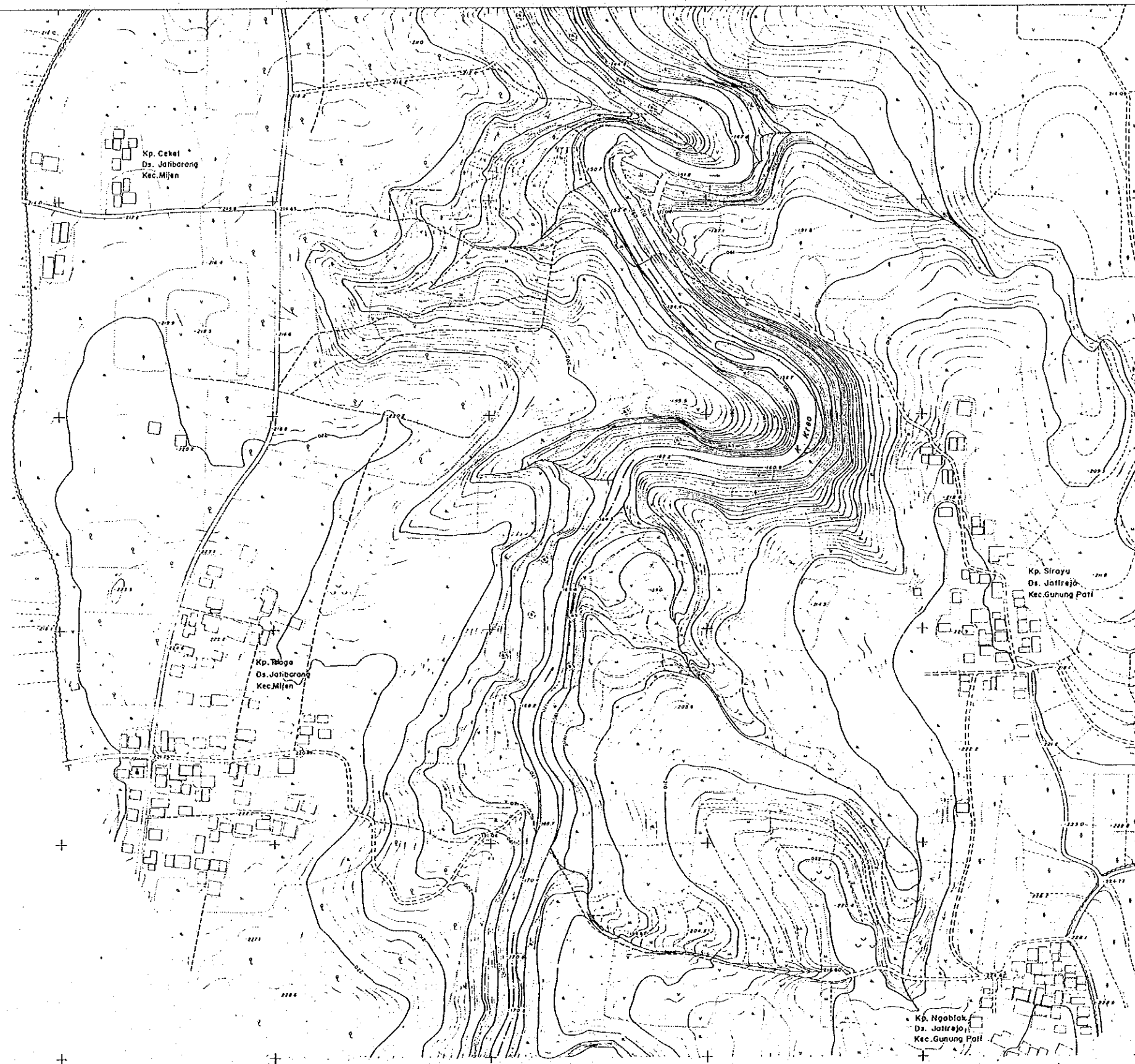
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**TOPOGRAPHIC MAP** 4  
 SCALE 1 : 2.500

AERO-PHOTOGRAPHY  
 AUGUST 1964, BY DIKOSURJANAL  
 GROUND CONTROL & MAPPING  
 MAY - AUG. 1955, BY GEO. J. H. THOMAS  
 JAPAN INTERNATIONAL COOPERATION AGENCY

9 220 475  
 9 220 250  
 9 220 000  
 9 219 750  
 9 219 500  
 9 219 250  
 9 219 000



**LEGEND**

	GPS Point		Fence (Concrete)
	Backwash EFD		Fence
	Soil Crossover		Watermark
	Living Path		Drainage
	House Building		Street Median
	Delivery and up area		Green Channel
	Airway		Canal Channel
	Public Office		Rice Field
	Public Station		Paddy Land
	Culture Temple		Palm Tree
	Mosque		Tree
	Church		Super Canal
	Hospital		Stadium
	Post Office		Golf Land
	School		Park
	Market		Airport
	Transportation Station		Airport Runway
	Dam		Airport Taxiway
	Gas Station		Airport Apron
	Telephone Office		Airport Ramp
	Well		Airport Taxiway
	Road > 20m		Road/Canal
	Road and Drainage		Tunnel
	Road < 20m		Cliff (Shaded)
	Road < 10m		Cliff (Shaded)
	Bridge		Boundary of Irrigation
	Foot Bridge		Line of the Height
	Railway and Bridge		Reservoir
	Power Line		Pier or Dike
	Tunnel		Shore Road
	Sea Dike		Military Station
	Tunnel/Well		Precinct Boundary
	Embankment		Village Boundary
	Cutting		Commune Boundary
	Canals		Park
	Canals		Sand & Shallow
	Canals		Nuclear Area

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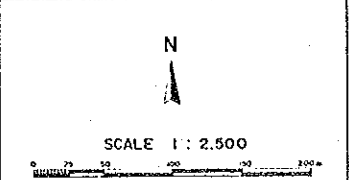
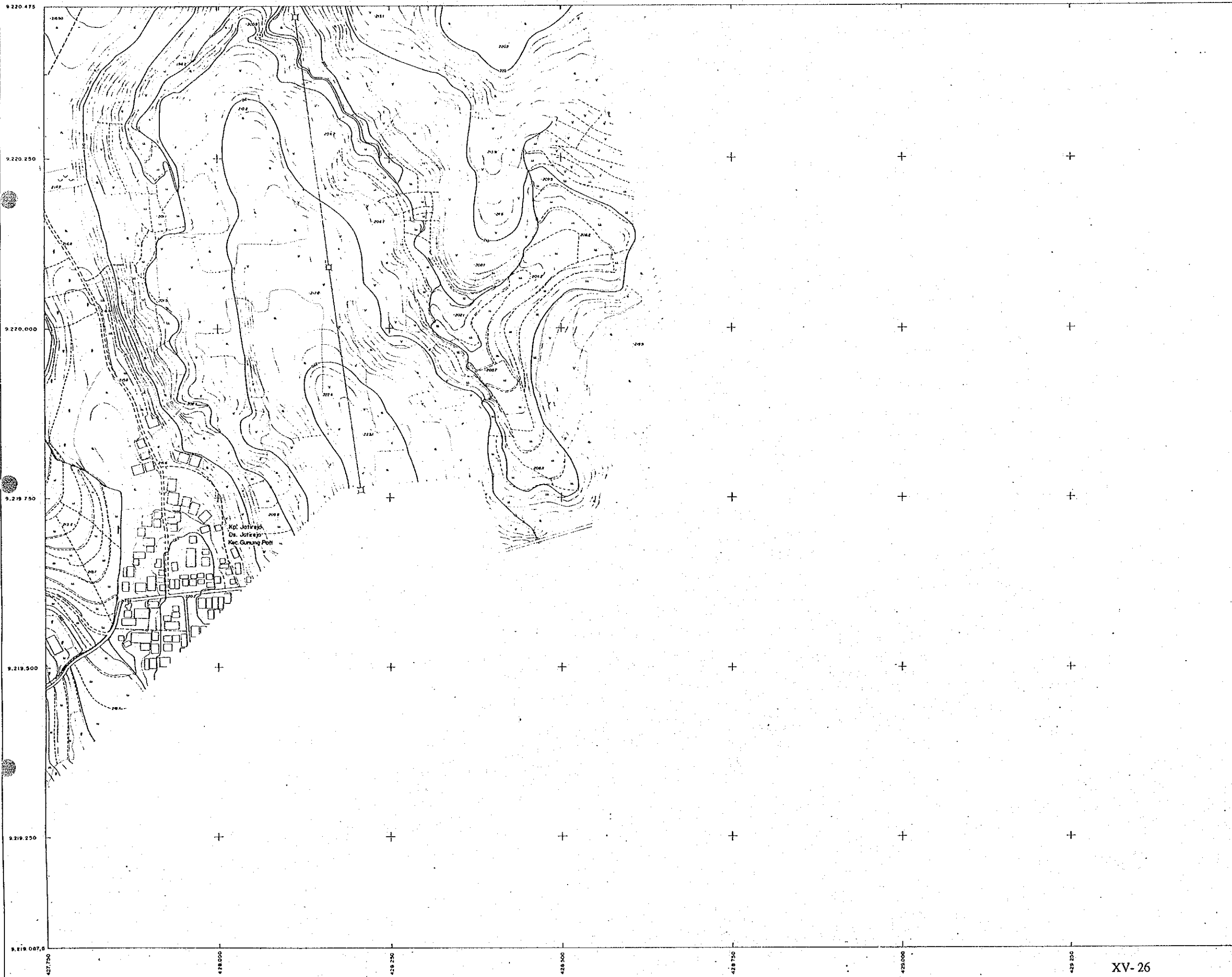
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**TOPOGRAPHIC MAP**  
 SCALE 1 : 2.500

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AERO- PHOTOGRAPHY  
 AUGUST 1981 BY BAKOSURTANAL  
 GROUND CONTROL & MAPPING  
 MAP - SURVEYS BY GEOSAS TEJUH  
 JAPAN INTERNATIONAL COOPERATION AGENCY



**LEGEND**

○	CPK Post	□	Fence (Concrete)
□	Bench Mark F16	□	Fence
○	Spot Elevation	□	Wall
○	Leveling Point	○	Well
□	House/Building	○	Depression
□	Drainage Building	○	Grass Shaded
○	Public Office	○	Grass Clear
○	Place Name	○	Rice Field
○	Canal/Tunnel	○	Farm Land
○	Church	○	Palm Tree
○	House	○	Tree
○	Post Office	○	Super Grass
○	School	○	Wood
○	Market	○	Grass Land
○	Transformer Station	○	Bank
○	Bank	○	Water
○	Gas Station	○	Highway Canal
○	Telephone Office	○	Canal
○	Water	○	Water Gate
○	Water > 20m	○	Water Fall
○	Armed Force	○	Power Line
○	Road > 7.5m	○	Swamp
○	Road < 7.5m	○	CPK Sheet Control
○	Bridge	○	CPK Sheet Control
○	Foot Bridge	○	Boundary of Protection
○	Submarine and Bridge	○	Limit of the Red Line
○	Power Line	○	Reservoir
○	Tele Line	○	Proposed
○	Tele Cable	○	Shrub Land
○	Roll Limit	○	Military Burial
○	Embassary	○	Process Boundary
○	Culvert	○	Adaptation Boundary
○	Canal	○	Kasaband Boundary
○	Sewer	○	Fish Pond
○	Face Tree	○	Soil & Storage
		○	Rabbit Trace

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**TOPOGRAPHIC MAP**  
 SCALE 1 : 2.500

AERIAL PHOTOGRAPHY  
 AUGUST 1974 BY BAKOSURTANAL  
 GROUND CONTROL & MAPPING  
 MAY - JUN 1993 BY GEOJAYA TEHRAN  
 JAPAN INTERNATIONAL COOPERATION AGENCY