

FAP24

Government of
the People's
Republic of
Bangladesh

Water Resources
Planning
Organization

European
Commission

Delft
Hydraulics



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RIVER SURVEY PROJECT

Special
Report
No.23

River Data Book
April 1995 - May 1996

Part B.7: Mymensingh

October 1996

2

Special Report 23

River Data Book
April 1995 - March 1996

Part B.7: Mymensingh

October 1996

Contents of entire Data Book**Part A:****Text volume**

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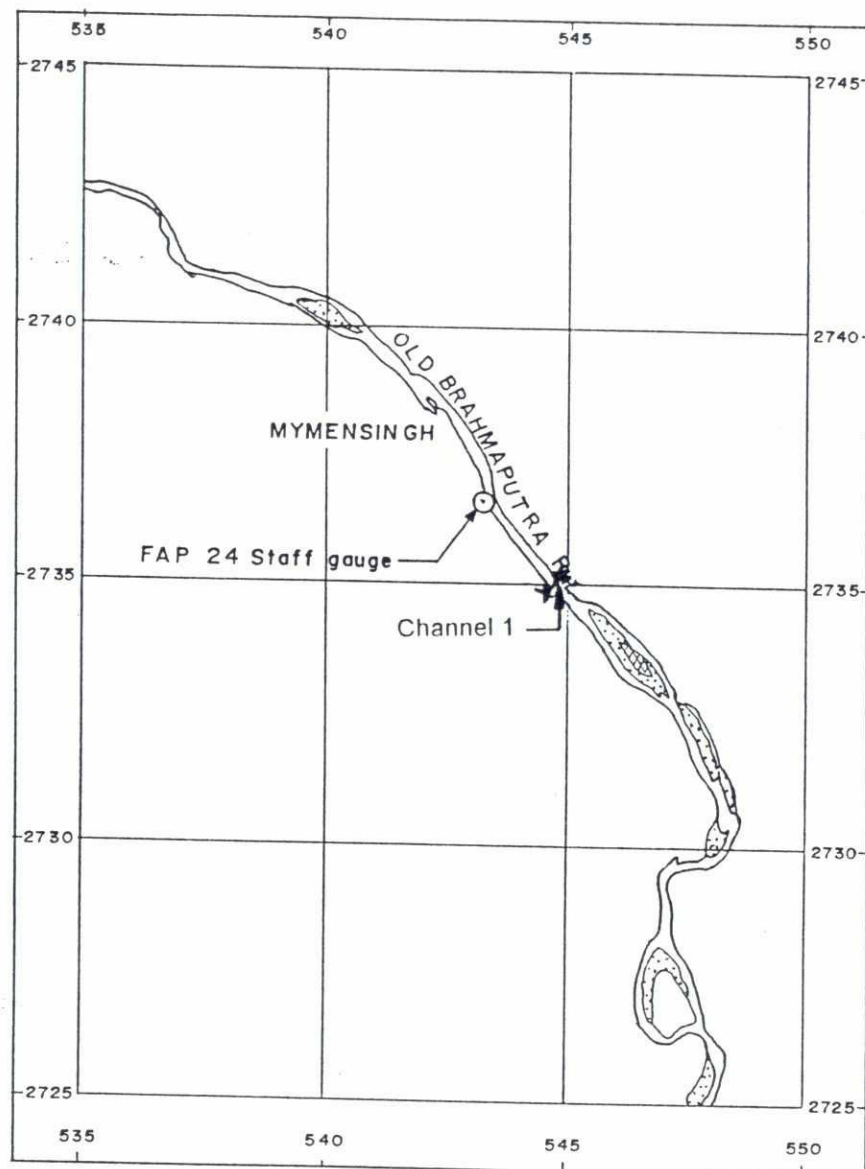
- B.1 Bahadurabad
- B.2 Sirajganj
- B.3 Aricha (Teota)
- B.4 Hardinge Bridge
- B.5 Baruria
- B.6 Mawa
- B.7 Mymensingh
- B.8 Tilly
- B.9 Gorai
- B.10 Arial Khan
- B.11 Bhairab Bazar

Part C:**Special surveys April 1995 - March 1996**

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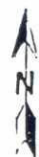
Contents of Part B.7

| Survey No. | Time |
|-------------------|-------------|
| 145 | 3/4 95 |
| 156 | 20/5 95 |
| 163 | 14/6 95 |
| 177 | 30-31/7 95 |
| 183 | 22-23/8 95 |
| 199 | 26/9 95 |
| 215 | 27/10 95 |
| 232 | 22/11 95 |
| 240 | 21/12 95 |
| 248 | 14/1 96 |



LEGEND:-

- x-x Cross section
- High land
- Unstable/low char
- FAP 24 Staff gauge



5000m 2500m 0

Map is based on satellite images of Nov. 1990

FAP 24

 DELFT - DHI

RIVER SURVEY PROJECT
 Flood Plan Coordination Organization
 Commission of the European Communities

Survey Bulletin 145 : 03 April, 1995

Location 7 : Old Brahmaputra River, Mymensingh

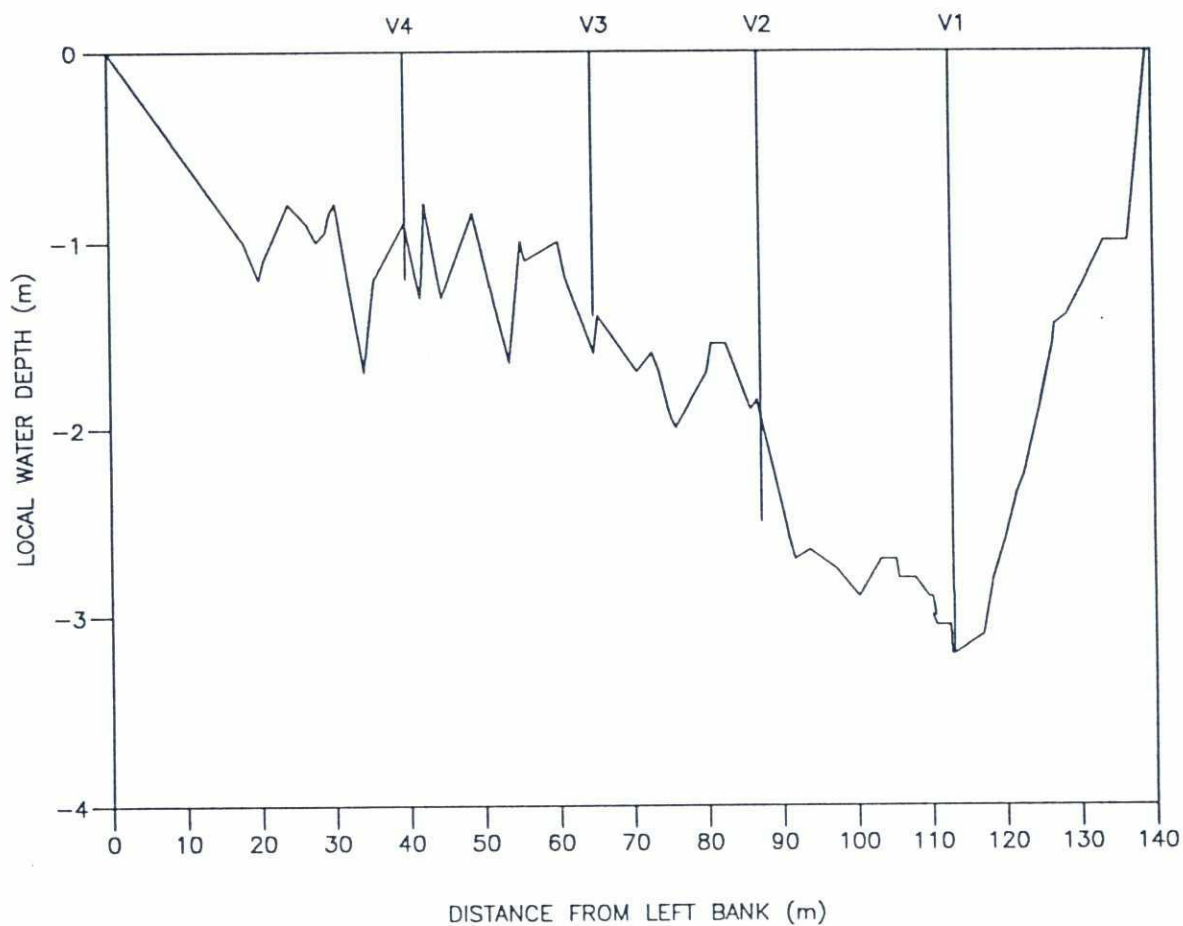
Date : 12 Sep 1995

Init : ss


Location map

page

1.1



Water level : 6.15 m + PWD measured at the station indicated on page 1.1

| | | | |
|---|--------------------|--|-------------|
| FAP 24  DELFT - DHI | | Survey Bulletin 145 : 03 April, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y5439T04 | Date : 12 Sep 1995 | Cross-sections and measured verticals Channel 1 | page 1.2 |
| | Init : ss | | |

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| Type of measurement | Method | No. of measurements in channel | | | |
|---------------------------|-----------------------------|--------------------------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| Discharge | ADCP transect | - | - | - | - |
| | EMF transect | - | - | - | - |
| | Echo-Sounding | 2 | - | - | - |
| Vertical current profile | No. of verticals in channel | 4 | - | - | - |
| | ADCP | - | - | - | - |
| | S4 current meter | 4 | - | - | - |
| | Ott current meter | - | - | - | - |
| Vertical sediment profile | Pump bottle sampling | 13 | - | - | - |
| | Andreasen settling tube | - | - | - | - |
| | MEX turbidity meter | - | - | - | - |
| | Integrated bottle sampling | - | - | - | - |
| | Collapsible bag | - | - | - | - |
| Bed load | Dune tracking | - | - | - | - |
| | Helley-Smith sampler | - | - | - | - |
| | Delft Bottle | - | - | - | - |
| Bed material | US BM-54 bed sampler | - | - | - | - |
| | Van Veen bed sampler | - | - | - | - |


Table 2.1: Survey programme as made

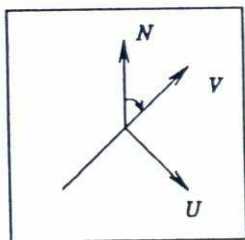
| Channel | Width (m) | Area (m ²) | Stage h (m+PWD) | Discharge Q (m ³ /s) | Bed load transport Sb (kg/s) | Suspended Sediment transport Ss total (kg/s) |
|-----------|--------------|---------------------------|--------------------|------------------------------------|---------------------------------|---|
| Channel 1 | 139 | 227 | 6.15 | 3.47 | - | 0 |

Table 2.2: Key figures

| Gauge Location | Channel | Date | Water level (Daily average) (m+PWD) | Gauge |
|----------------|-----------|-----------|---|--------|
| Mymensingh | Channel 1 | 03 Apr 95 | 6.15 | FAP 24 |

Table 2.3: Water-levels

| | | | |
|---|--------------------|--|------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 145 : 03 April, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y5439T04 | Date : 12 Sep 1995 | Survey programme as made and key figures | page |
| | Init : ss | | 2.1 |

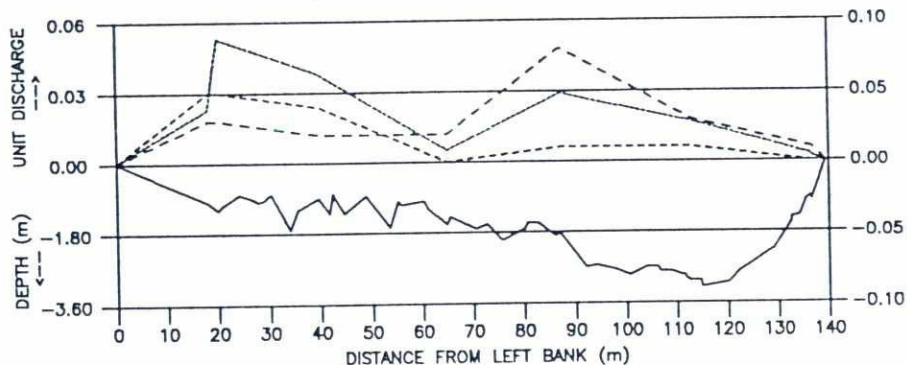


TRANSECT AZIMUTH = 46°

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



FLOW

LEGEND :

WATER DEPTH (m below STAGE)

..... UNIT DISCHARGE ($m^3/s.m$)

----- U - (m/s)

- . - . - V - (m/s)

STAGE = 6.15 (m+PWD)

A = 227 (m^2)

Q = 3.47 (m^3/s)

SAMPLES CONTAINED MAINLY
PARTS OF VEGETATION

LEGEND :

—— S_{TOTAL} 0.00 (kg/s)

----- S_{WASH LOAD} 0.00 (kg/s)

- . - . - S_{SUSP. RED} 0.00 (kg/s)

—— S_{RED LOAD} 0.00 (kg/s)

SEDIMENT TRANSPORT

SAMPLE NOT COLLECTED

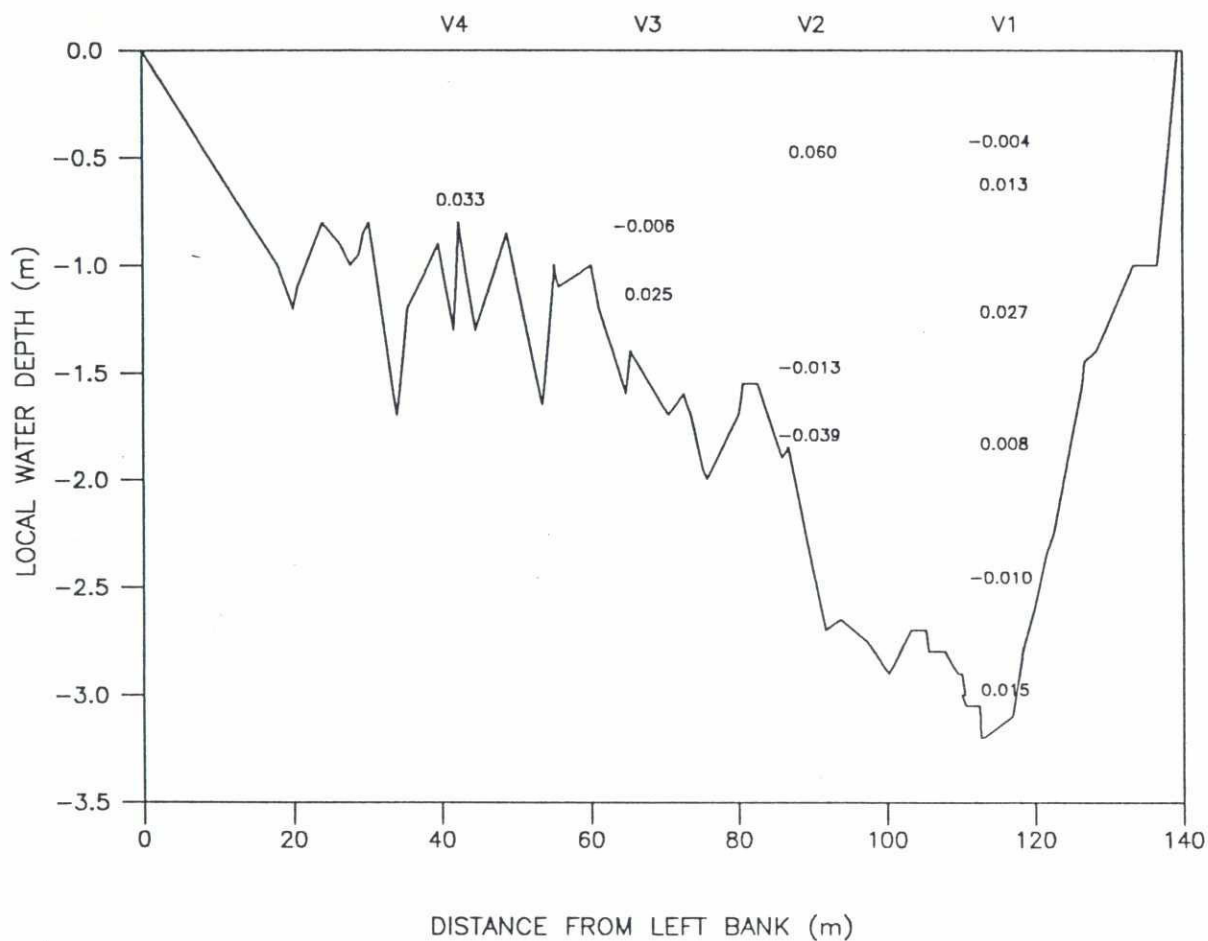
LEGEND :

◆◆◆◆◆ D_{60 SUSP.} (mm)


△△△△△ D_{60 RED LOAD} (mm)

□□□□□ D_{60 RED MAT.} (mm)

GRAIN SIZE




Water level : 6.15 m + PWD measured at the station indicated on page 1.1

| | | | |
|---|--------------------|--|------|
| FAP 24  DELFT - DHI | | Survey Bulletin 145 : 03 April, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y5439T04 | Date : 12 Sep 1995 | Cross-sectional distribution of flow velocity Channel 1 | page |
| | Init : ss | | 4.1 |

| Andreasen settling tube | | | | | | | |
|--|----------|---------------------------|--------------|---|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent < 0.06 mm > 0.06 mm | D35 (mm) | D50 (mm) | D65 (mm) |
| Sample not collected | | | | | | | |
| Table 5.1: Grain size of near bed suspended sediment (0.3 m above river bed) | | | | | | | |

| US BM-54 bed samples | | | | | | | |
|--|----------|---------------------------|--------------|---|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent < 0.06 mm > 0.06 mm | D35 (mm) | D50 (mm) | D65 (mm) |
| Sample not collected | | | | | | | |
| Table 5.2 : Grain size of bed material | | | | | | | |

| Helley-Smith | | | | | | | |
|-------------------------------------|----------|---------------------------|--------------|---|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent < 0.06 mm > 0.06 mm | D35 (mm) | D50 (mm) | D65 (mm) |
| Sample not collected | | | | | | | |
| Table 5.3 : Grain sizes of bed load | | | | | | | |

| | | | |
|--|---|--------------------------------------|------|
|  <p>FAP 24 DELFT - DHI</p> | <p>RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities</p> | Survey Bulletin 145 : 03 April, 1995 | |
| | Location 7 : Old Brahmaputra River, Mymensingh | | |
| | Date : 12 Sep 1995 | Grain size distributions | page |
| | Init : ss | | 5.1 |

02

| Method | Channel | Time (YYMMDDHHMM-HHMM) | File name |
|---------------|---------|------------------------------------|------------------------|
| Echo-sounding | 1 | 9504031220-1223 9504031224-1227 | Y5439T04 * Y5439T05 |

Table 6.1: Echo-sounding

* : echo-sounding in PSD 24 data base and presented in Sections 3 and 4

| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | File name |
|---|---------|----------|---------------------------|----------------|-----------------|--------------|------------|
| Vertical current & turbidity profiles (ADCP/S4/MEX) | 1 | 1 | 9504031241-1305 | 544797 | 734491 | 3.20 | Y5439P01 * |
| | | 2 | 9504031326-1337 | 544814 | 734510 | 2.50 | Y5439P02 * |
| | | 3 | 9504031347-1400 | 544833 | 734524 | 1.40 | Y5439P03 * |
| | | 4 | 9504031404-1410 | 544857 | 734539 | 1.20 | Y5439P04 * |


Table 6.2: Vertical profiles

* ADCP & MEX not available


| Method | Channel | Vertical | No. of samples | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) |
|--------------------------------------|---------|----------|-------------------|---------------------------|----------------|-----------------|--------------|
| Suspended sediments (pump bottle) | 1 | 1 | 6 | 9504031241-1305 | 544797 | 734491 | 3.20 |
| | | 2 | 3 | 9504031326-1337 | 544814 | 734510 | 2.50 |
| | | 3 | 3 | 9504031347-1400 | 544833 | 734524 | 1.40 |
| | | 4 | 1 | 9504031404-1410 | 544857 | 734539 | 1.20 |

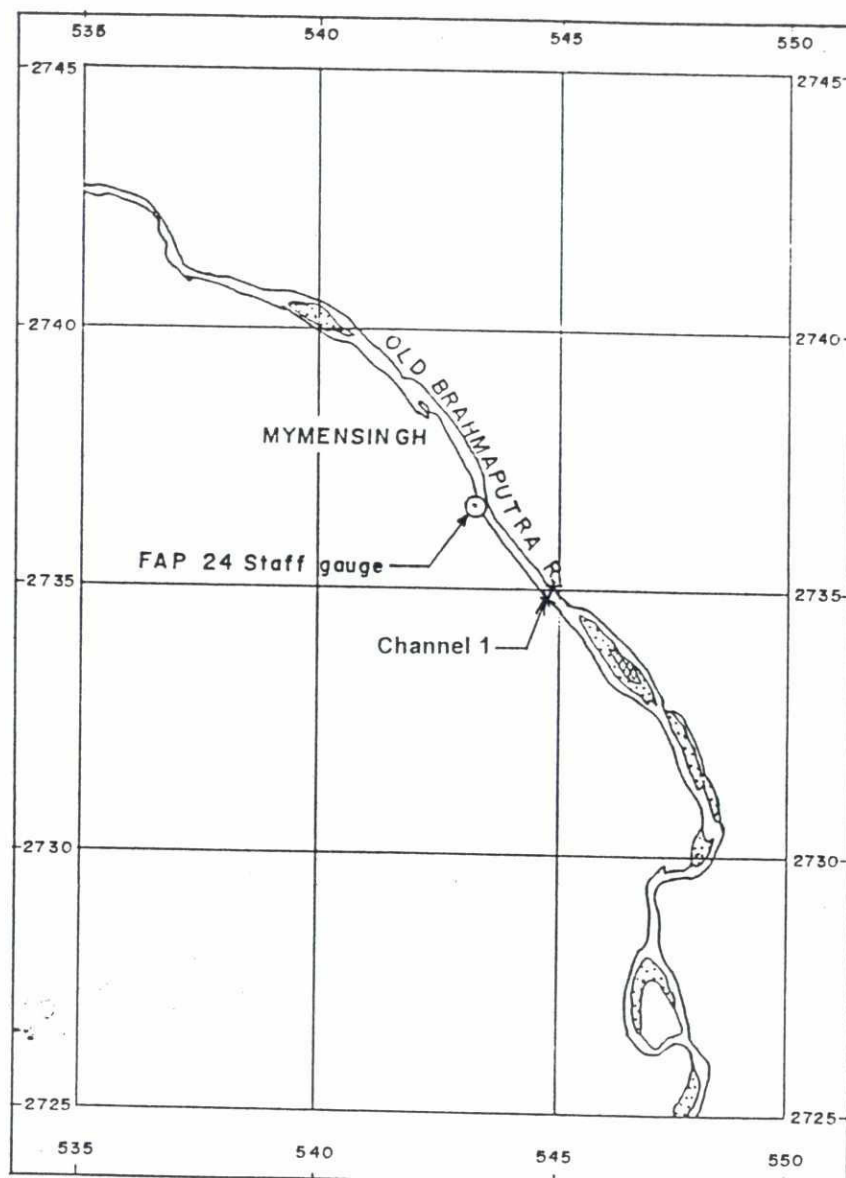
Table 6.3: Suspended sediment - point sample



| | | | |
|---|---|--|-------------|
|  FAP 24 DELFT - DHI | RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities | Survey Bulletin 145 : 03 April, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 12 Sep 1995 | Collected data and their storage (1) | page 6.1 |
| | Init : ss | | |

| Types of Data | Channel | Format | Filename |
|--|---------|---------|---------------|
| ADCP/S4/EMF data | 1 | QUATTRO | Y5439T04 .ase |
| Echosounder data | 1 | QUATTRO | Y5439T04 .ech |
| Sediment transport data | 1 | QUATTRO | Y5439T04 .sed |
| Susp. sed. conc. analysis | 1 | QUATTRO | Y5439T04 .ssc |
| Transect plot data | 1 | QUATTRO | Y5439T04 .trs |
| Table 7.1 PSD 24 Database file description | | | |

| | | | |
|--|--------------------|--|-------------|
|  <p>FAP 24 DELFT - DHI</p> | | Survey Bulletin 145 : 03 April, 1995 | |
| <p>RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities</p> | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 12 Sep 1995 | PSD 24 Database file description | page 7.1 |
| | Init : ss | | |



LEGEND:-

- ✕✕ Cross section
- ▨ High land
- Unstable/low char
- ⊙ FAP 24*Staff gauge



5000m 2500m 0

Map is based on satellite images of Nov. 1990

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT

Flood Plan Coordination Organization
Commission of the European Communities

Survey Bulletin 156 : 20 May, 1995

Location 7 : Old Brahmaputra River, Mymensingh

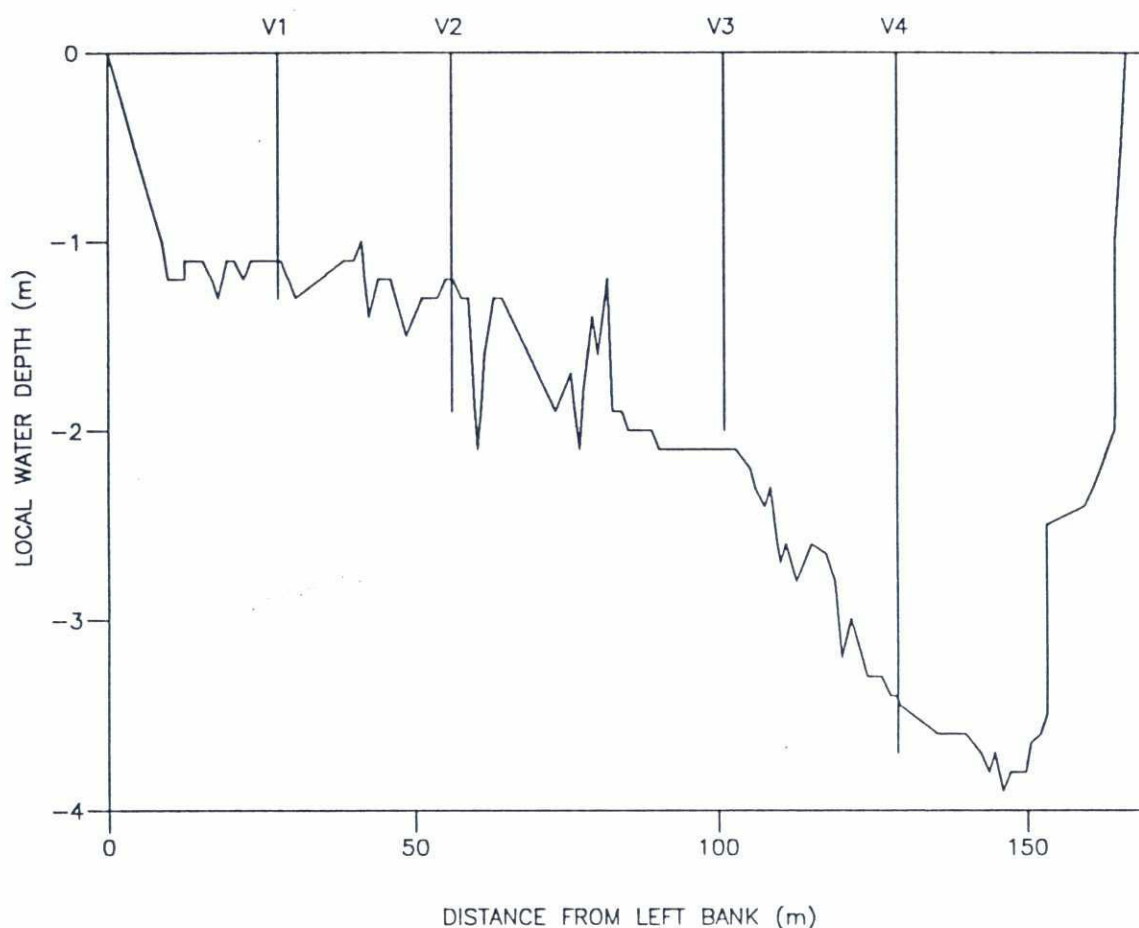
Date : 26 Sep 1995

Init : mk


Location map

page
1.1

2/6



Water-level : 7.08 m + PWD measured at the station indicated on page 1.1

| | | | |
|---|--------------------|--|------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 156 : 20 May, 1995 | |
| | | Location 07 : Old Brahmaputra, Mymensingh | |
| File : Y55K9T02 | Date : 26 Sep 1995 | Cross-sections and measured verticals Channel 1 | page |
| | Init : mk | | 1.2 |

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| Type of measurement | Method | No. of measurements in channel | | | |
|---------------------------|-----------------------------|-----------------------------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| Discharge | ADCP transect | - | - | - | - |
| | EMF transect | - | - | - | - |
| | Echo-Sounding | 2 | - | - | - |
| Vertical current profile | No. of verticals in channel | 4 | - | - | - |
| | ADCP | - | - | - | - |
| | S4 current meter | 4 | - | - | - |
| | Ott current meter | - | - | - | - |
| Vertical sediment profile | Pump bottle sampling | 15 | - | - | - |
| | Andreasen settling tube | - | - | - | - |
| | MEX turbidity meter | - | - | - | - |
| | Integrated bottle sampling | - | - | - | - |
| | Collapsible bag | - | - | - | - |
| Bed load | Dune tracking | - | - | - | - |
| | Helley-Smith sampler | - | - | - | - |
| | Delft Bottle | - | - | - | - |
| Bed material | US BM-54 bed sampler | - | - | - | - |
| | Van Veen bed sampler | - | - | - | - |


Table 2.1: Survey programme as made

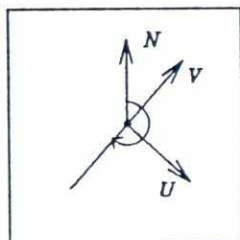
| Channel | Width (m) | Area (m ²) | Stage h (m+PWD) | Discharge Q (m ³ /s) | Bed load transport Sb (kg/s) | Suspended Sediment transport Ss total (kg/s) |
|-----------|--------------|---------------------------|--------------------|------------------------------------|------------------------------------|--|
| Channel 1 | 166 | 333 | 7.08 | 38 | 0 | 2.35 |

Table 2.2: Key figures

| Gauge Location | Channel | Date | Water level (Daily average) (m + PWD) | Gauge |
|----------------|-----------|-----------|---|--------|
| Mymensingh | Channel 1 | 20 May 95 | 7.08 | FAP 24 |

Table 2.3: Water-levels

| | | | |
|---|---|--|-------------|
|  FAP 24 DELFT - DHI | RIVER SURVEY PROJECT <small>Flood Plan Coordination Organization Commission of the European Communities</small> | Survey Bulletin 156 : 20 May, 1995 | |
| | | Location 07 : Old Brahmaputra, Mymensingh | |
| File : Y55K9T02 | Date : 26 Sep 1995 | Survey programme as made and key figures | page 2.1 |
| | Init : mk | | |

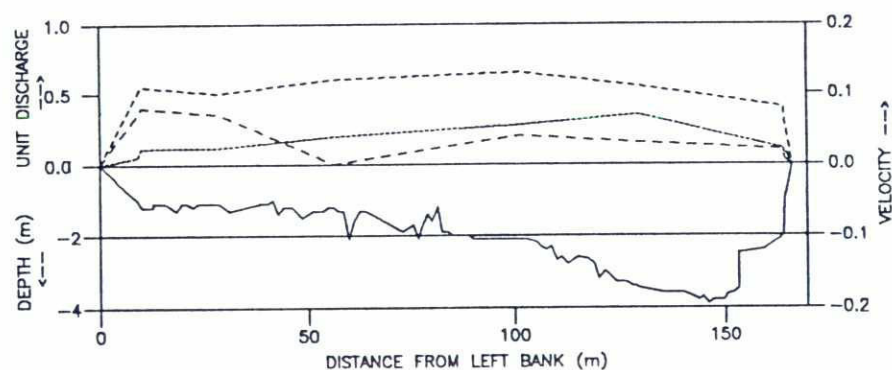


TRANSECT AZIMUTH = 222°

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



FLOW

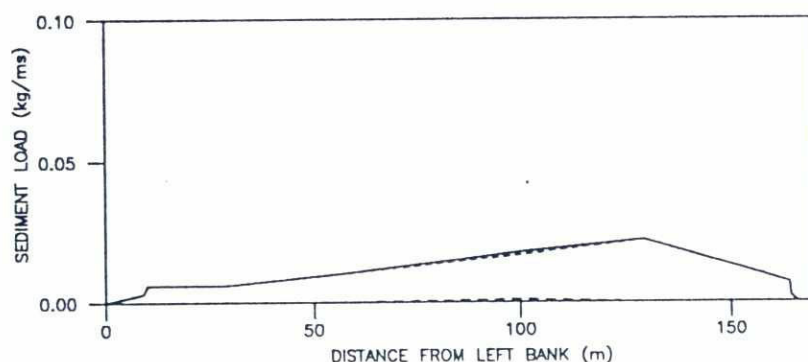
LEGEND :

— WATER DEPTH (m below STAGE)
 UNIT DISCHARGE (m³/s.m)
 - - - U - (m/s)
 - . - V - (m/s)

STAGE = 7.08 (m+PWD)

A = 333 (m³)

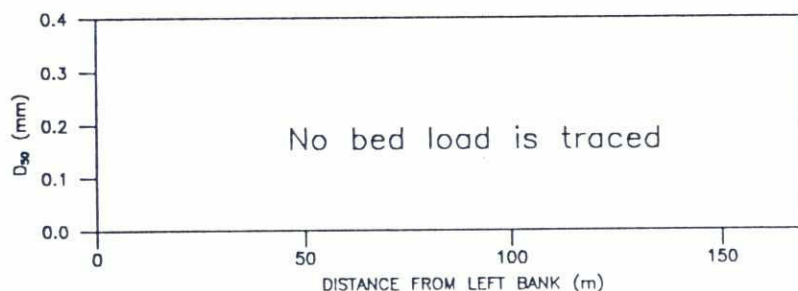
Q = 38 (m³/s)



SEDIMENT TRANSPORT

LEGEND :

— S_TOTAL 2.36 (kg/s)
 - - - S_WASH_LOAD 2.31 (kg/s)
 - . - S_SUSP. BED 0.04 (kg/s)
 S_BED_LOAD 0 (kg/s)



GRAIN SIZE

LEGEND :

♦♦♦♦♦ D50 SUSP. (mm)
 ▲▲▲▲▲ D50 BED LOAD (mm)
 □□□□□ D50 BED MAT. (mm)

FAP 24



RIVER SURVEY PROJECT
 Flood Plan Coordination Organization

Commission of the European Communities

Survey Bulletin 156 : 20 May, 1995

Location 07 : Old Brahmaputra, Mymensingh

File : Y55K9T02

Date : 26 Sep 1995

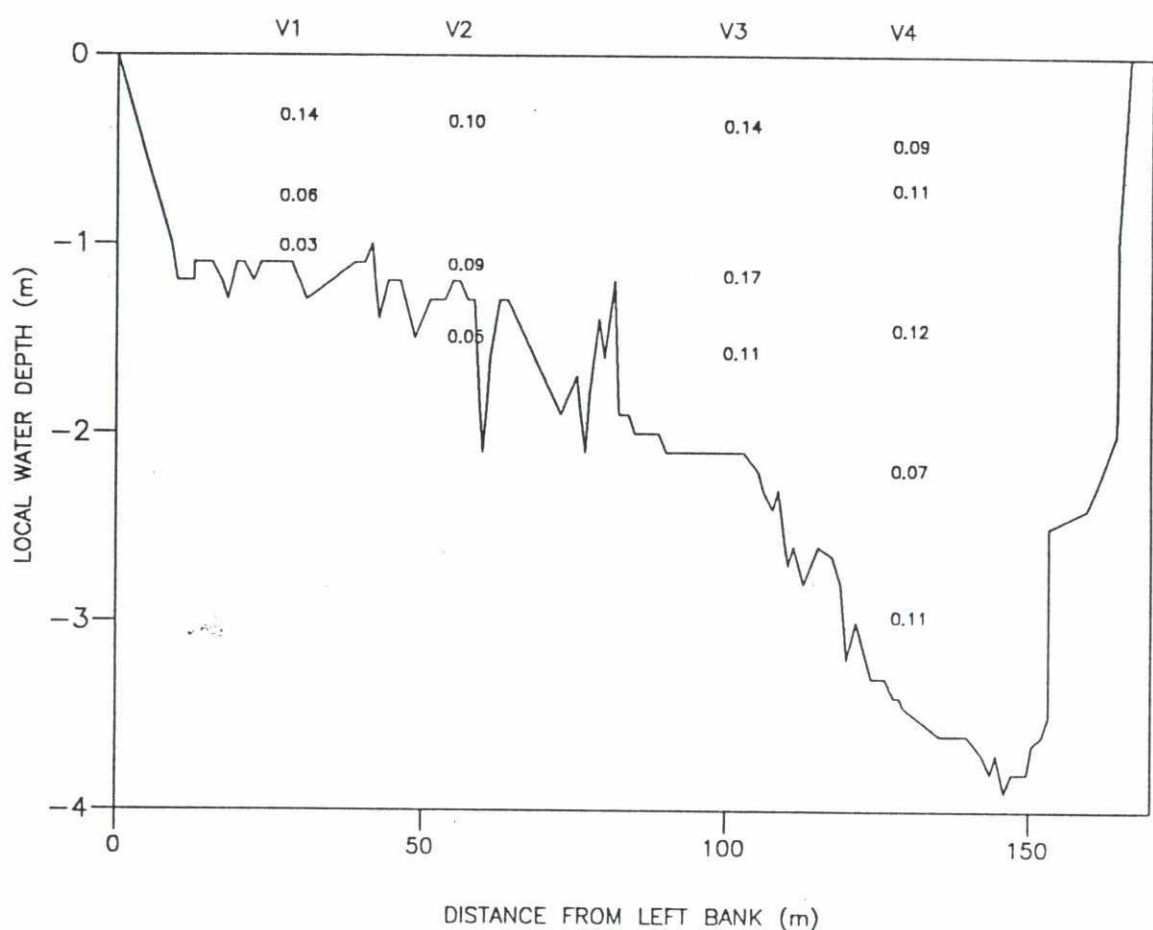
Init : mk

Horizontal distribution of flow and sediments
 Channel 1


page

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29



Water-level : 7.08 m + PWD measured at the station indicated on page 1.1


| | | | |
|---|--------------------|--|------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 156 : 20 May, 1995 | |
| | | Location 07 : Old Brahmaputra, Mymensingh | |
| File : Y55K9T02 | Date : 26 Sep 1995 | Cross-sectional distribution of flow velocity Channel 1 | page |
| | Init : mk | | 41 |

| Andreasen settling tube | | | | | | | |
|---------------------------------|----------|---------------------------|-------|---------------------------------------|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth | Weight percent < 0.06 mm > 0.06 mm | D10 (mm) | D50 (mm) | D90 (mm) |
| <div>Sample not collected</div> | | | | | | | |

Table 5.1: Grain size of near bed suspended sediment (0.3 m above river bed)

| US BM-54 bed samples | | | | | | | |
|----------------------|----------|---------------------------|-------|---------------------------------------|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth | Weight percent < 0.06 mm > 0.06 mm | D10 (mm) | D50 (mm) | D90 (mm) |
| Sample not collected | | | | | | | |

Table 5.2 : Grain size of bed material

| | | | |
|--|--|---|-------------|
| <p>FAP 24</p>  <p>DELFT - DHI</p> | <p>RIVER SURVEY PROJECT</p> <p>Flood Plan Coordination Organization</p> <p>Commission of the European Communities</p> | <p>Survey Bulletin 156 : 20 May, 1995</p> | |
| | | <p>Location 07 : Old Brahmaputra, Mymensingh</p> | |
| | <p>Date : 26 Sep 1995</p> | <p>Grain size distributions</p> | <p>page</p> |
| | <p>Init : mk</p> | | <p>5.1</p> |

m

| Method | Channel | Time (YYMMDDHHMM-HHMM) | File name |
|----------------|---------|------------------------------------|------------------------|
| Echo soundings | 1 | 9505201219-1222 9505201224-1228 | Y55K9T01 Y55K9T02 * |


Table 6.1: Echo soundings *: echo sounding in PSD 24 data base and presented in Sections 3 and 4

| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | File name |
|---|---------|----------|---------------------------|----------------|-----------------|--------------|------------|
| Vertical current & turbidity profiles (ADCP/S4/MEX) | 1 | 1 | 9505201417-1428 | 544884 | 734565 | 1.30 | Y55K9P04 * |
| | | 2 | 9505201401-1411 | 544858 | 734550 | 1.90 | Y55K9P03 * |
| | | 3 | 9505201344-1354 | 544829 | 734526 | 2.00 | Y55K9P02 * |
| | | 4 | 9505201309-1336 | 544806 | 734502 | 3.70 | Y55K9P01 * |


Table 6.2: Vertical profiles * ADCP and MEX not available

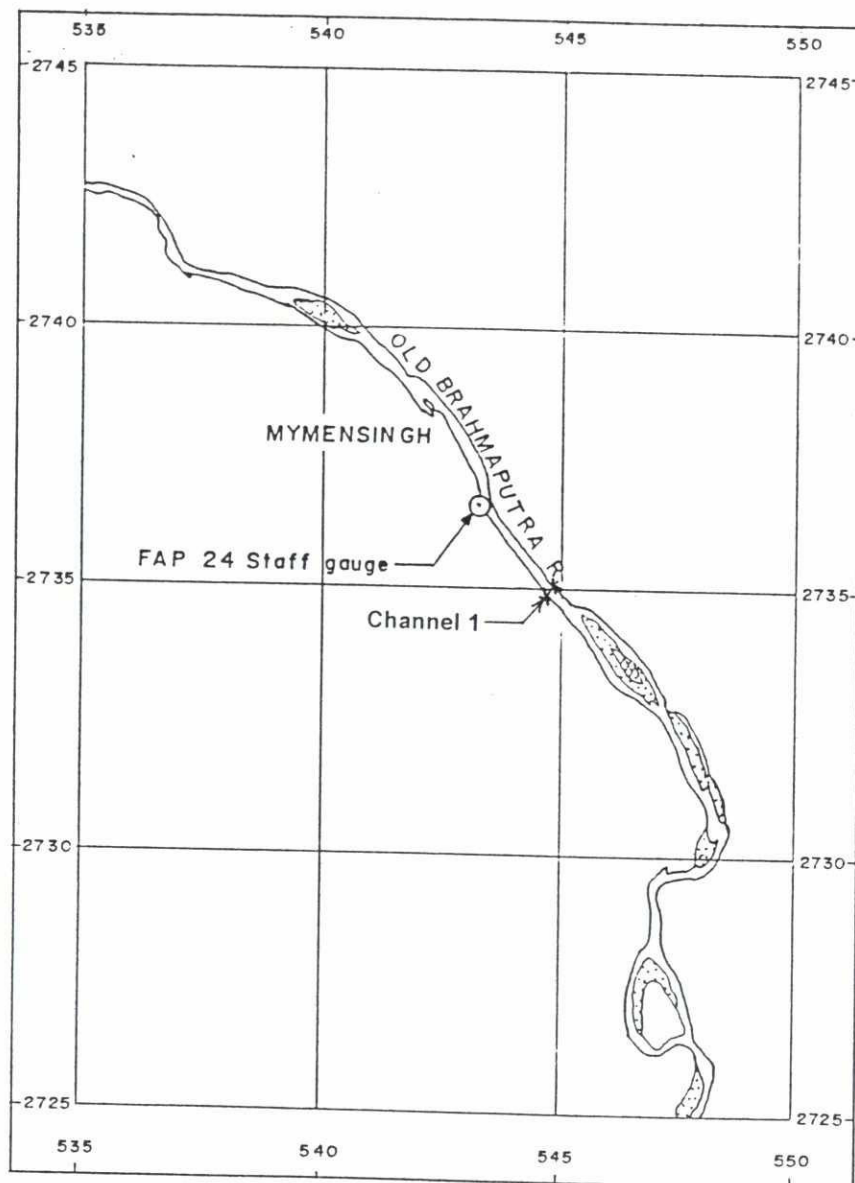
| Method | Channel | Vertical | No. of samples | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) |
|--------------------------------------|---------|----------|-------------------|---------------------------|----------------|-----------------|--------------|
| Suspended sediments (pump bottle) | 1 | 1 | 3 | 9505201417-1428 | 544884 | 734565 | 1.30 |
| | | 2 | 3 | 9505201401-1411 | 544858 | 734550 | 1.90 |
| | | 3 | 3 | 9505201344-1354 | 544829 | 734526 | 2.00 |
| | | 4 | 6 | 9505201309-1336 | 544806 | 734502 | 3.70 |

Table 6.3: Suspended sediment - point sampled

| | | | |
|---|---|--|------|
|  FAP 24 DELFT - DHI | RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities | Survey Bulletin 156 : 20 May, 1995 | |
| | | Location 07 : Old Brahmaputra, Mymensingh | |
| | Date : 26 Sep 1995 | Collected data and their storage (1) | page |
| | Init : mk | | 61 |

| Types of Data | Channel | Format | Filename |
|--|---------|---------|---------------|
| ADCP/S4/EMF data | 1 | QUATTRO | Y55K9T02 .ase |
| Echosounder data | 1 | QUATTRO | Y55K9T02 .ech |
| Sediment transport data | 1 | QUATTRO | Y55K9T02 .sed |
| Sus. sed. conc. analysis | 1 | QUATTRO | Y55K9T02 .ssc |
| Transect plot data | 1 | QUATTRO | Y55K9T02 .trs |
| Table 7.1 PSD 24 Database file description | | | |

| | | | |
|--|--|---|------|
|  <p>FAP 24 DELFT - DHI</p> | <p>RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities</p> | Survey Bulletin 156 : 20 May, 1995 | |
| | | Location 07 : Old Brahmaputra, Mymensingh | |
| | Date : 26 Sep 1995 | PSD 24 Database file description | page |
| | Init : mk | | 7.1 |



LEGEND:-

- ✕✕ Cross section
- ▨ High land
- Unstable/low char
- ⊙ FAP 24 Staff gauge



5000m 2500m 0

Map is based on satellite images of Nov. 1990

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT

Flood Plan Coordination Organization
Commission of the European Communities

Survey Bulletin 163 : 14 June, 1995

Location 7 : Old Brahmaputra River, Mymensingh

Date : 24 Oct 1995

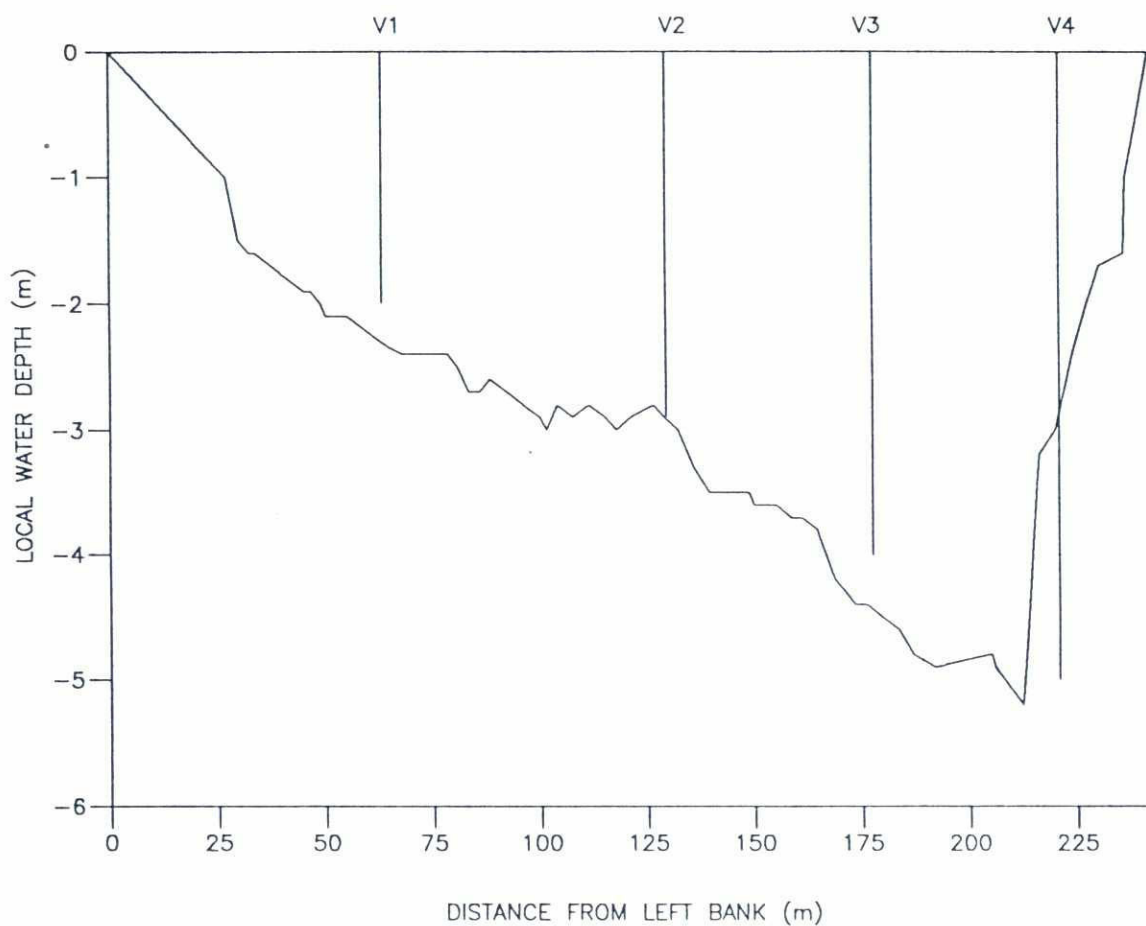
Init : ss

Location map


page

1.1

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Water level : 8.23 m + PWD measured at the station indicated on page 1.1

| | | | |
|---|--------------------|--|------|
| FAP 24  DELFT - DHI | | Survey Bulletin 163 : 14 June, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y56E0T01 | Date : 24 Oct 1995 | Cross-sections and measured verticals Channel 1 | page |
| | Init : ss | | 1.2 |

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| Type of measurement | Method | No. of measurements in channel | | | |
|---------------------------|-----------------------------|-----------------------------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| Discharge | ADCP transect | - | - | - | - |
| | EMF transect | - | - | - | - |
| | Echo-Sounding | 2 | - | - | - |
| Vertical current profile | No. of verticals in channel | 4 | - | - | - |
| | ADCP | - | - | - | - |
| | S4 current meter | 4 | - | - | - |
| | Ott current meter | - | - | - | - |
| Vertical sediment profile | Pump bottle sampling | 22 | - | - | - |
| | Andreasen settling tube | - | - | - | - |
| | MEX turbidity meter | - | - | - | - |
| | Integrated bottle sampling | - | - | - | - |
| | Collapsible bag | - | - | - | - |
| Bed load | Dune tracking | - | - | - | - |
| | Helley-Smith sampler | - | - | - | - |
| | Delft Bottle | - | - | - | - |
| Bed material | US BM-54 bed sampler | - | - | - | - |
| | Van Veen bed sampler | - | - | - | - |

Table 2.1: Survey programme as made

| Channel | Width (m) | Area (m ²) | Stage h (m+PWD) | Discharge Q (m ³ /s) | Bed load transport Sb (kg/s) | Suspended Sediment transport Ss total (kg/s) |
|-----------|--------------|---------------------------|--------------------|------------------------------------|------------------------------------|--|
| Channel 1 | 241 | 668 | 8.23 | 182 | - | 77 |

Table 2.2 : Key figures

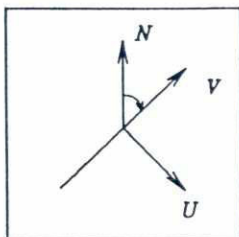
| Gauge Location | Channel | Date | Water level (Daily average) (m+PWD) | Gauge |
|----------------|-----------|-----------|---|--------|
| Mymensingh | Channel 1 | 14 Jun 95 | 8.23 | FAP 24 |

Table 2.3 : Water-levels



| | | | | | |
|---|--------------------|---|--|---|------|
| FAP 24 DELFT - DHI | | RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities | | Survey Bulletin 163 : 14 June, 1995 | |
| | | | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y56E0T01 | Date : 24 Oct 1995 | Survey programme as made and key figures | | | page |
| | Init : ss | | | | 2.1 |

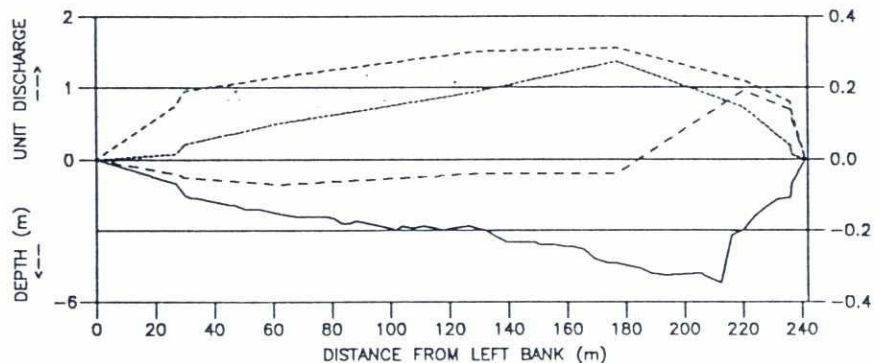
28

TRANSECT AZIMUTH = 46°

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



FLOW

LEGEND :

WATER DEPTH (m below STAGE)

UNIT DISCHARGE (m³/s.m)

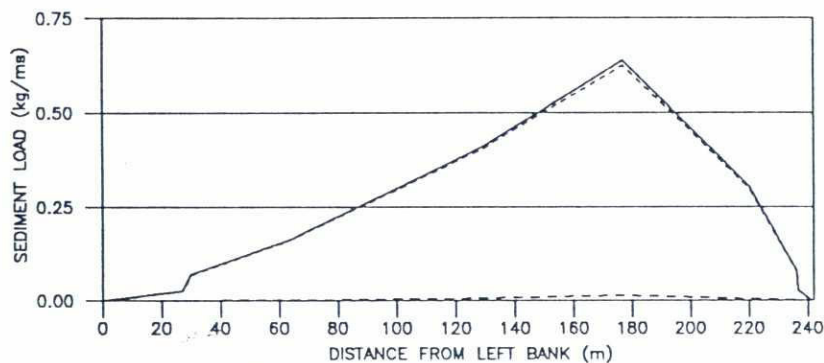
U - (m/s)

V - (m/s)

STAGE = 8.23 (m+PWD)

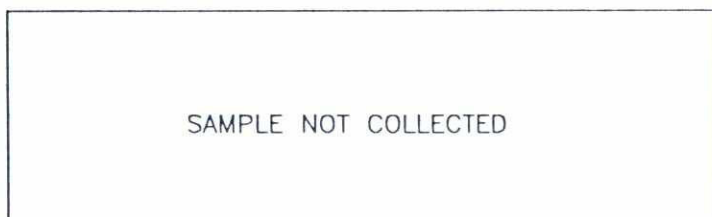
A = 668 (m²)

Q = 182 (m³/s)



SEDIMENT TRANSPORT

LEGEND :

S_{TOTAL} 77.0 (kg/s)S_{WASH LOAD} 75.5 (kg/s)S_{SUSP. BED} 1.5 (kg/s)S_{BED LOAD} - (kg/s)

GRAIN SIZE

LEGEND :

◇◇◇◇◇ D₅₀ SUSP. (mm)△△△△△ D₅₀ BED LOAD (mm)□□□□□ D₅₀ BED MAT. (mm)

FAP 24



RIVER SURVEY PROJECT

Flood Plan Coordination Organization

Commission of the European Communities

Survey Bulletin 163 : 14 June, 1995

Location 7 : Old Brahmaputra River, Mymensingh

File : Y56E0T01

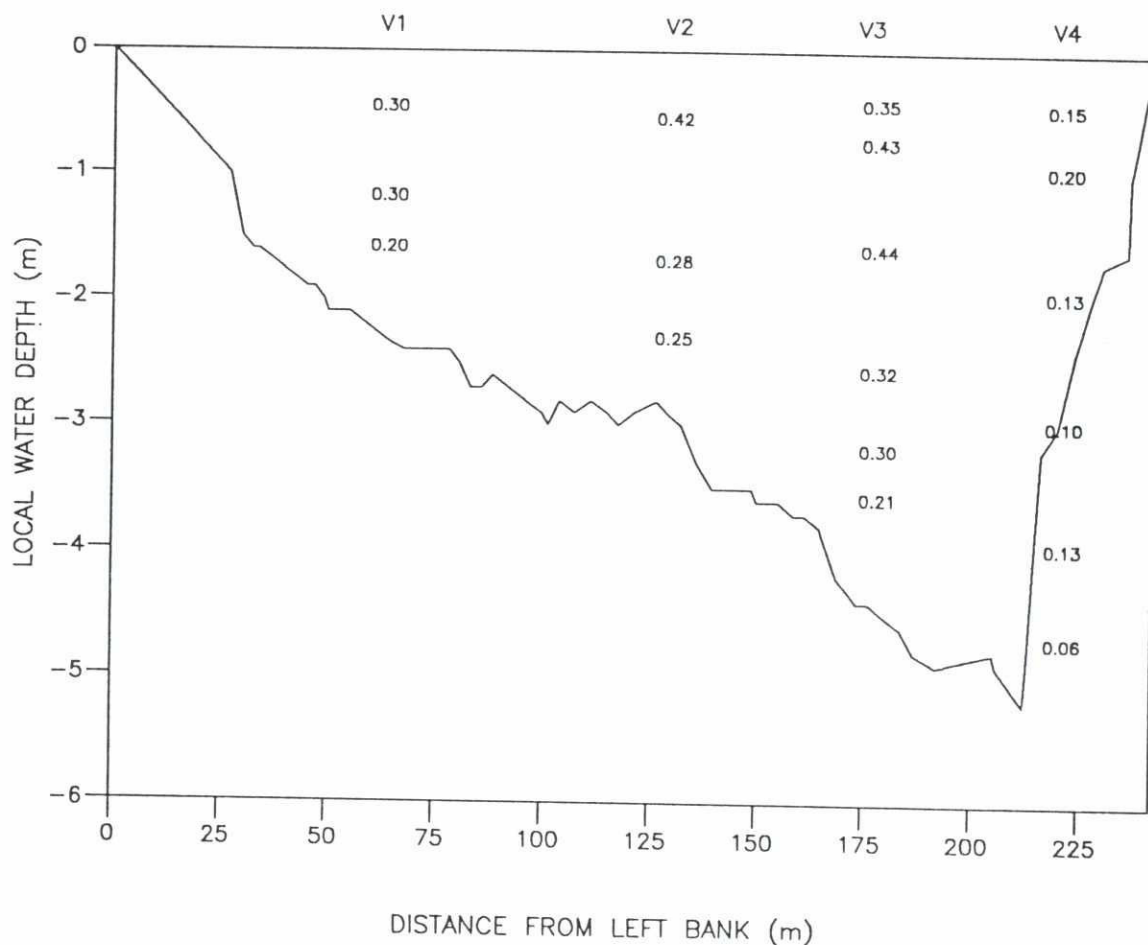
Date : 24 Oct 1995

Init : ss


Horizontal distribution of flow and sediments
Channel 1

page

3.1




Water level : 8.23 m + PWD measured at the station indicated on page 1.1

| | | | |
|---|--------------------|--|-------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 163 : 14 June, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y56E0T01 | Date : 24 Oct 1995 | Cross-sectional distribution of flow velocity Channel 1 | page 4.1 |
| | Init : ss | | |

7

| Point Sample - near bed | | | | | | | | |
|-------------------------|----------|---------------------------|--------------|----------------|-----------|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent | | D35 (mm) | D50 (mm) | D65 (mm) |
| | | | | < 0.06 mm | > 0.06 mm | | | |
| Channel 1 | 1 | 9506141526-1538 | 2.00 | 98.57 | 1.43 | 0.003 | 0.005 | 0.026 |
| | 2 | 9506141503-1515 | 2.90 | 96.84 | 3.16 | 0.006 | 0.011 | 0.050 |
| | 3 | 9506141430-1455 | 4.00 | 92.79 | 7.21 | 0.009 | 0.012 | 0.056 |
| | 4 | 9506141306-1331 | 5.00 | 96.84 | 3.16 | 0.005 | 0.010 | 0.040 |
| Table 5.1 : Grain sizes | | | | | | | | |

| | | | |
|---|---|--|-------------|
|  <p>FAP 24 DELFT - DHI</p> | <p>RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities</p> | Survey Bulletin 163 : 14 June, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 24 Oct 1995 | Grain size distributions | page 5.1 |
| | Init : ss | | |

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| Method | Channel | Time (YYMMDDHHMM-HHMM) | File name |
|---------------|---------|------------------------------------|------------------------|
| Echo-sounding | 1 | 9506141220-1223 9506141226-1229 | Y56E0T01 * Y56E0T02 |

Table 6.1: Echo-sounding * : echo-sounding in PSD 24 data base and presented in Sections 3 and 4

| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | File name |
|---|---------|----------|---------------------------|----------------|-----------------|--------------|------------|
| Vertical current & turbidity profiles (ADCP/S4/MEX) | 1 | 1 | 9506141526-1538 | 544909 | 734589 | 2.00 | Y56E0P04 * |
| | | 2 | 9506141503-1515 | 544860 | 734542 | 2.90 | Y56E0P03 * |
| | | 3 | 9506141430-1455 | 544826 | 734504 | 4.00 | Y56E0P02 * |
| | | 4 | 9506141306-1331 | 544793 | 734481 | 5.00 | Y56E0P01 * |


Table 6.2: Vertical profiles * ADCP & MEX not available

| Method | Channel | Vertical | No. of samples | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) |
|--------------------------------------|---------|----------|-------------------|---------------------------|----------------|-----------------|--------------|
| Suspended sediments (pump bottle) | 1 | 1 | 3 | 9506141526-1538 | 544909 | 734589 | 2.00 |
| | | 2 | 3 | 9506141503-1515 | 544860 | 734542 | 2.90 |
| | | 3 | 6 | 9506141430-1455 | 544826 | 734504 | 4.00 |
| | | 4 | 6 | 9506141306-1331 | 544793 | 734481 | 5.00 |

Table 6.3: Suspended sediment - point sample

| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | Sample No. |
|--------------|---------|----------|---------------------------|----------------|-----------------|--------------|---------------|
| Point Sample | 1 | 1 | 9506141526-1538 | 544909 | 734589 | 2.00 | B059 |
| | | 2 | 9506141503-1515 | 544860 | 734542 | 2.90 | B046 |
| | | 3 | 9506141430-1455 | 544826 | 734504 | 4.00 | B586 |
| | | 4 | 9506141306-1331 | 544793 | 734481 | 5.00 | B555 |


Table 6.4: Near bed

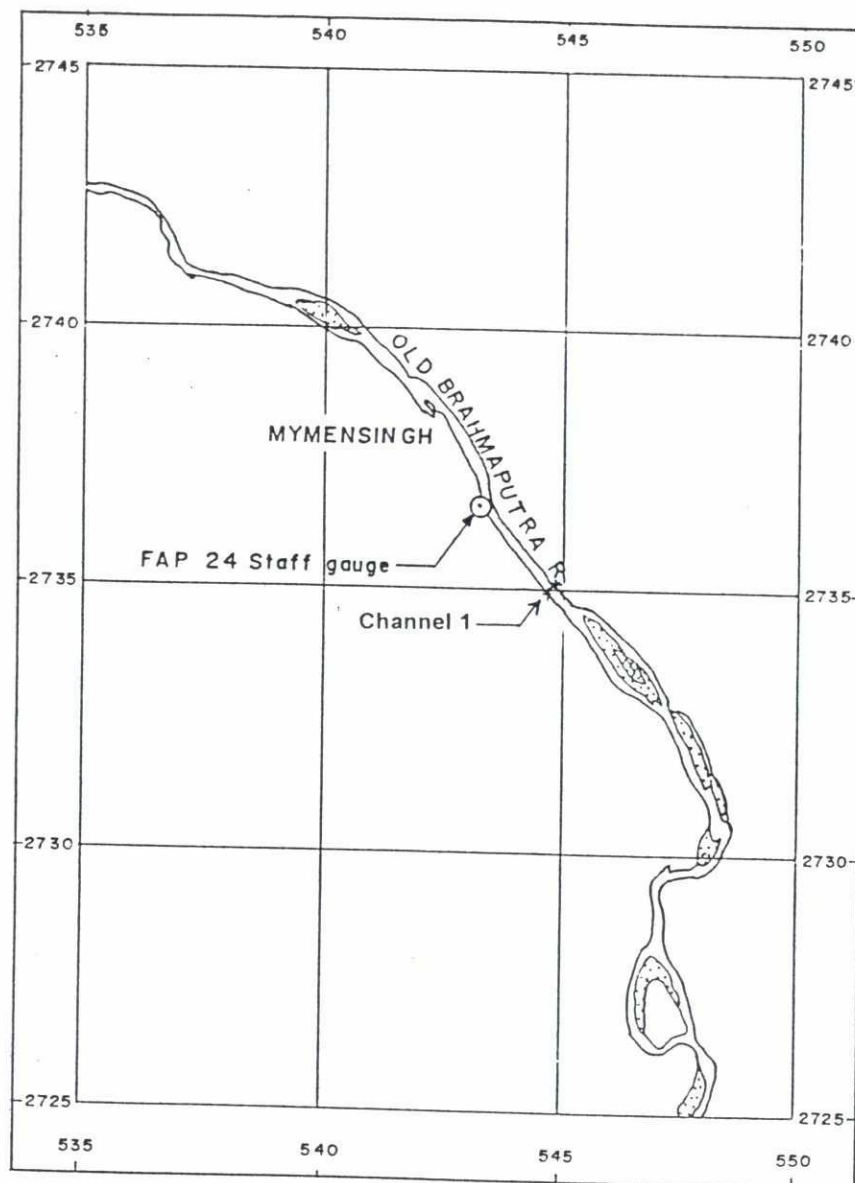
| | | | |
|--|--|--|-------------|
|  <p>FAP 24 DELFT - DHI</p> | <p>RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities</p> | Survey Bulletin 163 : 14 June, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 24 Oct 1995 | Collected data and their storage (1) | page 6.1 |
| | Init : ss | | |

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| Types of Data | Channel | Format | Filename |
|---------------------------|---------|---------|---------------|
| ADCP/S4/EMF data | 1 | QUATTRO | Y56E0T01 .ase |
| Echosounder data | 1 | QUATTRO | Y56E0T01 .ech |
| Sediment transport data | 1 | QUATTRO | Y56E0T01 .sed |
| Susp. sed. conc. analysis | 1 | QUATTRO | Y56E0T01 .ssc |
| Transect plot data | 1 | QUATTRO | Y56E0T01 .trs |

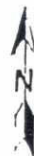
Table 7.1 PSD 24 Database file description

| | | | |
|---|--------------------|---|------|
| FAP 24  DELFT - DHI | | Survey Bulletin 163 : 14 June, 1995 | |
| RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 24 Oct 1995 | PSD 24 Database file description | page |
| | Init : ss | | 7.1 |



LEGEND:-

- ×—× Cross section
- High land
- Unstable/low char
- FAP 24 Staff gauge



5000m 2500m 0

Map is based on satellite images of Nov. 1990

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT

Flood Plan Coordination Organization
Commission of the European Communities

Survey Bulletin 177 : 31 July, 1995

Location 7 : Old Brahmaputra River, Mymensingh

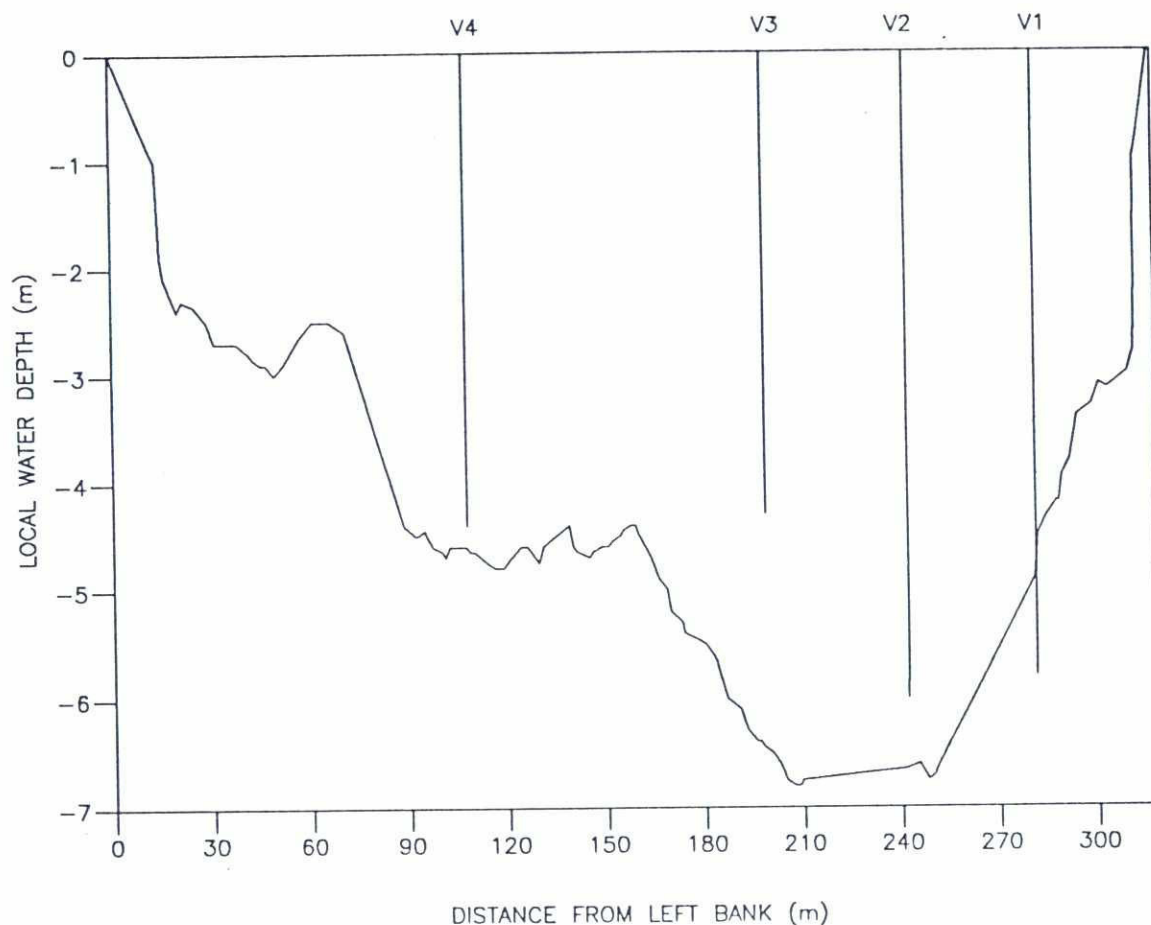
Date : 17 Dec 1995

Init : ss



Location map

page
1.1

60



Water level : 10.85 m + PWD measured at the station indicated on page 1.1

| | | | |
|---|--------------------|--|-------------|
| <div> <div>FAP 24</div> <div>   </div> <div>DELFT - DHI</div> </div> <div> <div>RIVER SURVEY PROJECT</div> <div>Flood Plan Coordination Organization</div> <div>Commission of the European Communities</div> </div> | | Survey Bulletin 177 : 31 July , 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y57V0T09 | Date : 17 Dec 1995 | Cross-sections and measured verticals Channel 1 | page 1.2 |
| | Init : ss | | |

| Type of measurement | Method | No. of measurements in channel | | | |
|---------------------------|-----------------------------|--------------------------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| Discharge | ADCP transect | - | - | - | - |
| | EMF transect | - | - | - | - |
| | Echo-Sounding | 2 | - | - | - |
| Vertical current profile | No. of verticals in channel | 4 | - | - | - |
| | ADCP | - | - | - | - |
| | S4 current meter | 4 | - | - | - |
| | Ott current meter | - | - | - | - |
| Vertical sediment profile | Pump bottle sampling | 28 | - | - | - |
| | Andreasen settling tube | - | - | - | - |
| | MEX turbidity meter | - | - | - | - |
| | Integrated bottle sampling | - | - | - | - |
| | Collapsible bag | - | - | - | - |
| Bed load | Dune tracking | - | - | - | - |
| | Helley-Smith sampler | 8 | - | - | - |
| | Delft Bottle | - | - | - | - |
| Bed material | US BM-54 bed sampler | - | - | - | - |
| | Van Veen bed sampler | - | - | - | - |


Table 2.1: Survey programme as made

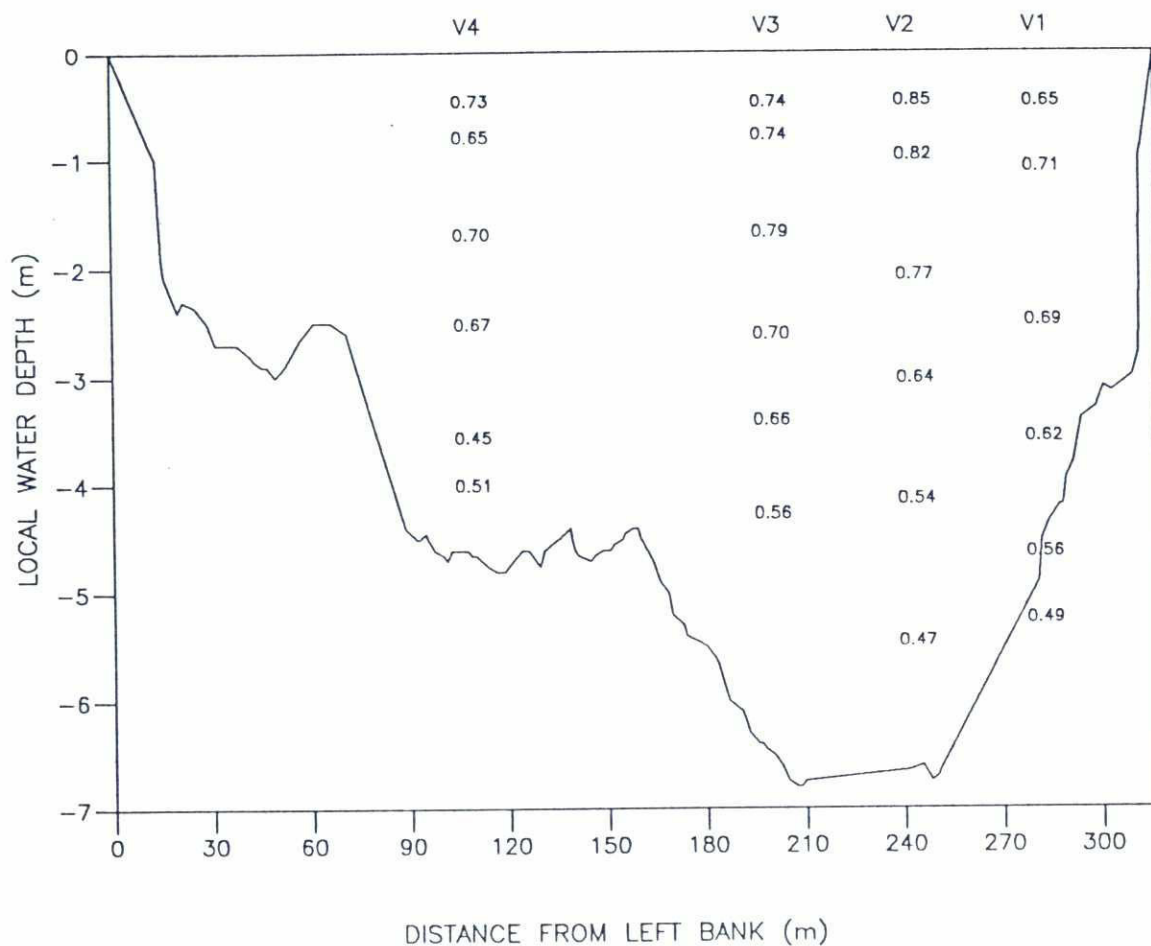
| Channel | Width (m) | Area (m ²) | Stage h (m+PWD) | Discharge Q (m ³ /s) | Bed load transport Sb (kg/s) | Suspended Sediment transport Ss total (kg/s) |
|-----------|--------------|---------------------------|--------------------|------------------------------------|---------------------------------|---|
| Channel 1 | 317 | 1395 | 10.85 | 891 | 5 | 455 |

Table 2.2: Key figures

| Gauge Location | Channel | Date | Water level (Daily average) (m+PWD) | Gauge |
|----------------|-----------|-----------|---|--------|
| Mymensingh | Channel 1 | 31 Jul 95 | 10.85 | FAP 24 |

Table 2.3: Water-levels

| | | | |
|---|--------------------|--|-------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 177 : 31 July , 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y57V0T09 | Date : 17 Dec 1995 | Survey programme as made and key figures | page 2.1 |
| | Init : ss | | |



Water level : 10.85 m + PWD measured at the station indicated on page 1.1



66

| Helley-Smith | | | | | | | | |
|--------------|----------|---------------------------|--------------|----------------|-----------|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent | | D35 (mm) | D50 (mm) | D65 (mm) |
| | | | | < 0.06 mm | > 0.06 mm | | | |
| 1 | 1 | 9507311454-1520 | 5.80 | 0.38 | 99.62 | 0.162 | 0.183 | 0.208 |
| | 2 | 9507311546-1614 | 6.00 | 0.29 | 99.71 | 0.265 | 0.312 | 0.367 |
| | 3 | 9507311644-1713 | 4.30 | 0.36 | 99.65 | 0.180 | 0.212 | 0.250 |
| | 4 | 9507311723-1800 | 4.40 | 0.28 | 99.72 | 0.193 | 0.235 | 0.295 |
| | 1 | 9507311454-1520 | 5.80 | 0.39 | 99.61 | 0.271 | 0.315 | 0.367 |
| | 2 | 9507311546-1614 | 6.00 | 0.42 | 99.58 | 0.156 | 0.176 | 0.200 |
| | 3 | 9507311644-1713 | 4.30 | 0.18 | 99.82 | 0.172 | 0.200 | 0.234 |
| | 4 | 9507311723-1800 | 4.40 | 6.69 | 93.31 | 0.155 | 0.190 | 0.232 |

Table 5.1 : Grain sizes of bed load

| Point Sample - near bed | | | | | | | | |
|-------------------------|----------|---------------------------|--------------|----------------|-----------|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent | | D35 (mm) | D50 (mm) | D65 (mm) |
| | | | | < 0.06 mm | > 0.06 mm | | | |
| 1 | 1 | 9507311454-1520 | 5.80 | 70.110 | 29.890 | 0.015 | 0.029 | 0.058 |
| | 2 | 9507311546-1614 | 6.00 | 65.340 | 34.660 | 0.015 | 0.032 | 0.063 |
| | 3 | 9507311644-1713 | 4.30 | 50.790 | 49.210 | 0.027 | 0.061 | 0.120 |
| | 4 | 9507311723-1800 | 4.40 | 61.440 | 38.560 | 0.016 | 0.038 | 0.074 |

Table 5.2 : Grain sizes

| | | | |
|---|---|---|-------------|
|  FAP 24  DELFT - DHI | RIVER SURVEY PROJECT <small>Flood Plan Coordination Organization</small> <small>Commission of the European Communities</small> | Survey Bulletin 177 : 31 July , 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 17 Dec 1995 | Grain size distributions | page 5.1 |
| | Init : ss | | |

| Method | Channel | Time (YYMMDDHHMM-HHMM) | File name |
|---------------|---------|------------------------------------|------------------------|
| Echo-sounding | 1 | 9507311813-1818 9507311823-1826 | Y57V0T07 Y57V0T09 * |

Table 6.1: Echo-sounding

* : echo-sounding in PSD 24 data base and presented in Sections 3 and 4

| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | File name |
|---|---------|----------|---------------------------|----------------|-----------------|--------------|------------|
| Vertical current & turbidity profiles (ADCP/S4/MEX) | 1 | 1 | 9507311454-1520 | 544801 | 734495 | 5.80 | Y57V0P01 * |
| | | 2 | 9507311546-1614 | 544821 | 734520 | 6.00 | Y57V0P02 * |
| | | 3 | 9507311644-1713 | 544855 | 734544 | 4.30 | Y57V0P03 * |
| | | 4 | 9507311723-1800 | 544021 | 734608 | 4.40 | Y57V0P04 * |

Table 6.2: Vertical profiles

* ADCP & MEX not available

| Method | Channel | Vertical | No. of samples | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) |
|--------------------------------------|---------|----------|-------------------|---------------------------|----------------|-----------------|--------------|
| Suspended sediments (pump bottle) | 1 | 1 | 6 | 9507311454-1520 | 544801 | 734495 | 5.80 |
| | | 2 | 6 | 9507311546-1614 | 544821 | 734520 | 6.00 |
| | | 3 | 6 | 9507311644-1713 | 544855 | 734544 | 4.30 |
| | | 4 | 6 | 9507311723-1800 | 544021 | 734608 | 4.40 |


Table 6.3: Suspended sediment - point sample

| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | Sample No. |
|---------------------|---------|----------|---------------------------|----------------|-----------------|--------------|---------------|
| Helley-Smith Sample | 1 | 1 | 9507311454-1520 | 544801 | 734495 | 5.80 | C147 |
| | | 2 | 9507311546-1614 | 544821 | 734520 | 6.00 | C125 |
| | | 3 | 9507311644-1713 | 544855 | 734544 | 4.30 | C794 |
| | | 4 | 9507311723-1800 | 544021 | 734608 | 4.40 | C122 |
| | | 1 | 9507311454-1520 | 544801 | 734495 | 5.80 | C127 |
| | | 2 | 9507311546-1614 | 544821 | 734520 | 6.00 | C171 |
| | | 3 | 9507311644-1713 | 544855 | 734544 | 4.30 | C536 |
| | | 4 | 9507311723-1800 | 544021 | 734608 | 4.40 | C159 |

Table 6.4: Bed load


| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | Sample No. |
|--------------|---------|----------|---------------------------|----------------|-----------------|--------------|---------------|
| Point sample | 1 | 1 | 9507311454-1520 | 544801 | 734495 | 5.80 | C783 |
| | | 2 | 9507311546-1614 | 544821 | 734520 | 6.00 | C145 |
| | | 3 | 9507311644-1713 | 544855 | 734544 | 4.30 | C173 |
| | | 4 | 9507311723-1800 | 544021 | 734608 | 4.40 | C709 |

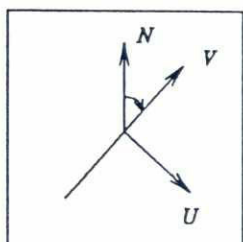
Table 6.5: Near bed

| | | | | |
|--|-------------------------------|---|--|-------------|
| <div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div> | | <div>RIVER SURVEY PROJECT</div> <div>Flood Plan Coordination Organization</div> <div>Commission of the European Communities</div> | Survey Bulletin 177 : 31 July , 1995 | |
| | | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | <div>Date : 17 Dec 1995</div> | Collected data and their storage (1) | | page 6.1 |
| | <div>Init : ss</div> | | | |

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| Types of Data | Channel | Format | Filename |
|--|---------|---------|---------------|
| ADCP/S4/EMF data | 1 | QUATTRO | Y57V0T09 .ase |
| Echosounder data | 1 | QUATTRO | Y57V0T09 .ech |
| Sediment transport data | 1 | QUATTRO | Y57V0T09 .sed |
| Susp. sed. conc. analysis | 1 | QUATTRO | Y57V0T09 .ssc |
| Bedload sediment analysis | 1 | QUATTRO | Y57V0T09 .bdl |
| Transect plot data | 1 | QUATTRO | Y57V0T09 .trs |
| Table 7.1 PSD 24 Database file description | | | |

| | | | |
|---|--------------------|--|------|
| FAP 24  DELFT - DHI | | Survey Bulletin 177 : 31 July , 1995 | |
| RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 17 Dec 1995 | PSD 24 Database file description | page |
| | Init : ss | | 7.1 |

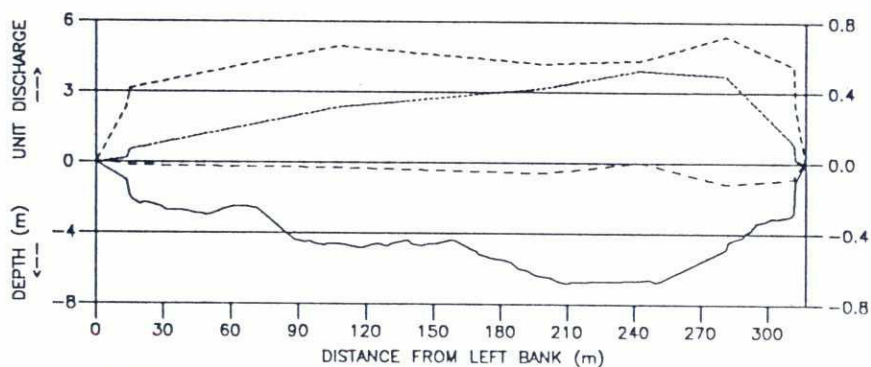


TRANSECT AZIMUTH = 42°

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



FLOW

LEGEND :

WATER DEPTH (m below STAGE)

UNIT DISCHARGE ($m^3/s.m$)

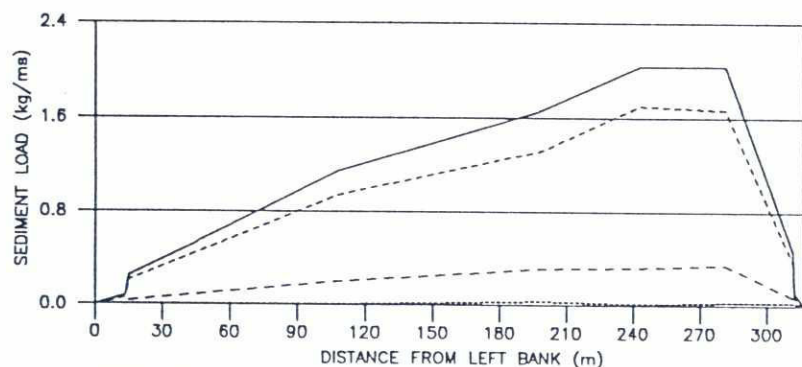
U - (m/s)

V - (m/s)

STAGE = 10.85 (m+PWD)

A = 1395 (m^2)

Q = 891 (m^3/s)



SEDIMENT TRANSPORT

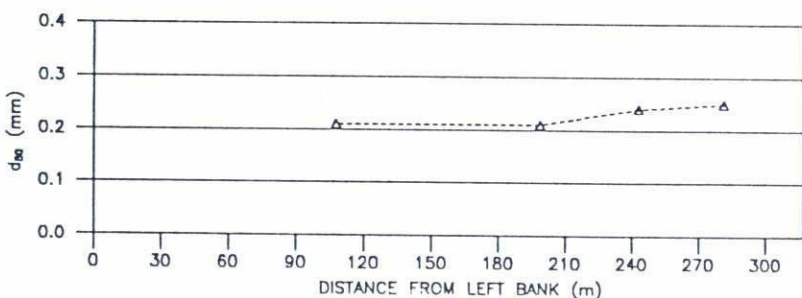
LEGEND :

S_{TOTAL} 460 (kg/s)

$S_{WASH LOAD}$ 376 (kg/s)

$S_{SUSP. BED}$ 79 (kg/s)

$S_{BED LOAD}$ 5 (kg/s)



GRAIN SIZE

LEGEND :

◇◇◇◇◇ $D_{50 SUSP.}$ (mm)

△△△△△ $D_{50 BED LOAD}$ (mm)

□□□□□ $D_{50 BED MAT.}$ (mm)

FAP 24



RIVER SURVEY PROJECT
Flood Plan Coordination Organization

Commission of the European Communities

Survey Bulletin 176 : 28 - 29 July, 1995

Location 6 : Padma River, Mawa

File : M57S3T02

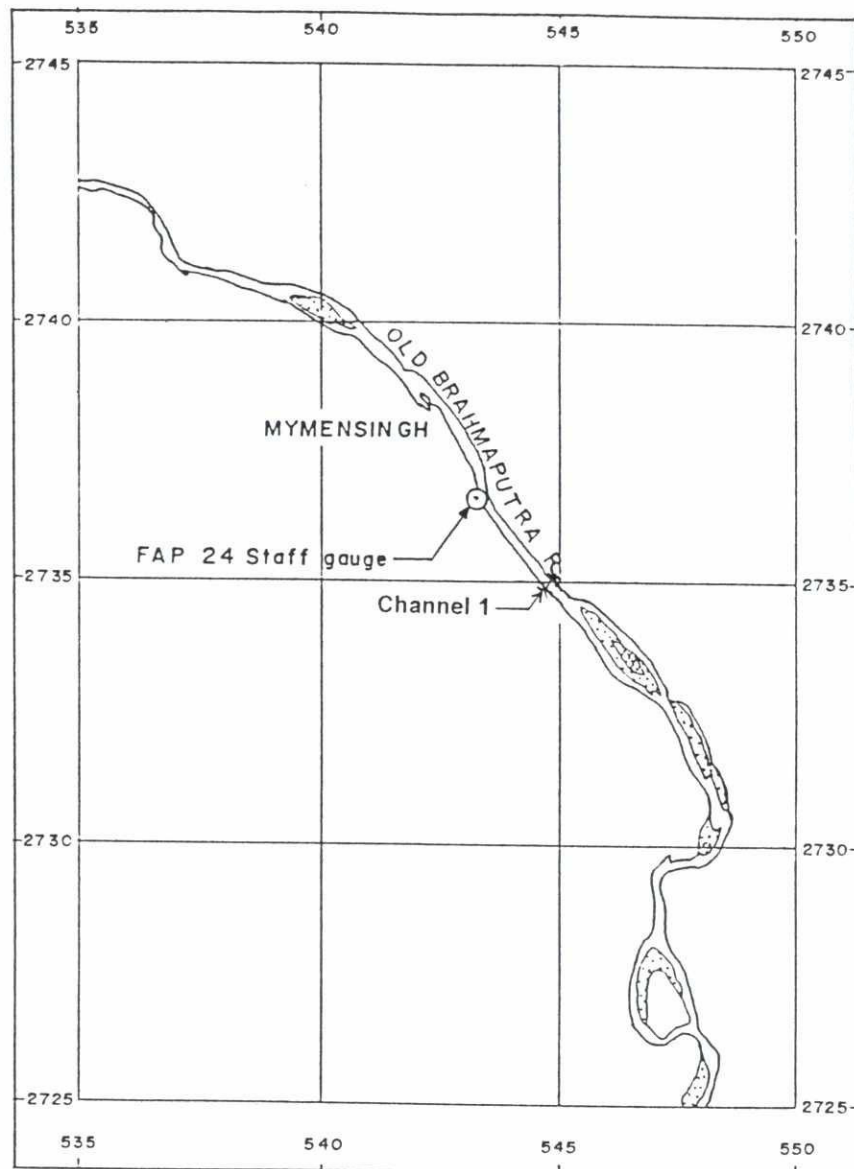
Date : 31 Dec 1995

Init : ss

Horizontal distribution of flow and sediments
Channel 1

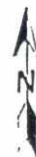
page

3.1



LEGEND:-

- ✕—✕ Cross section
- ▨ High land
- Unstable/low char
- ⊙ FAP 24 Staff gauge



5000m 2500m 0

Map is based on satellite images of Nov.1990



RIVER SURVEY PROJECT
Flood Plan Coordination Organization
Commission of the European Communities

Survey Bulletin 183 : 23 August, 1995

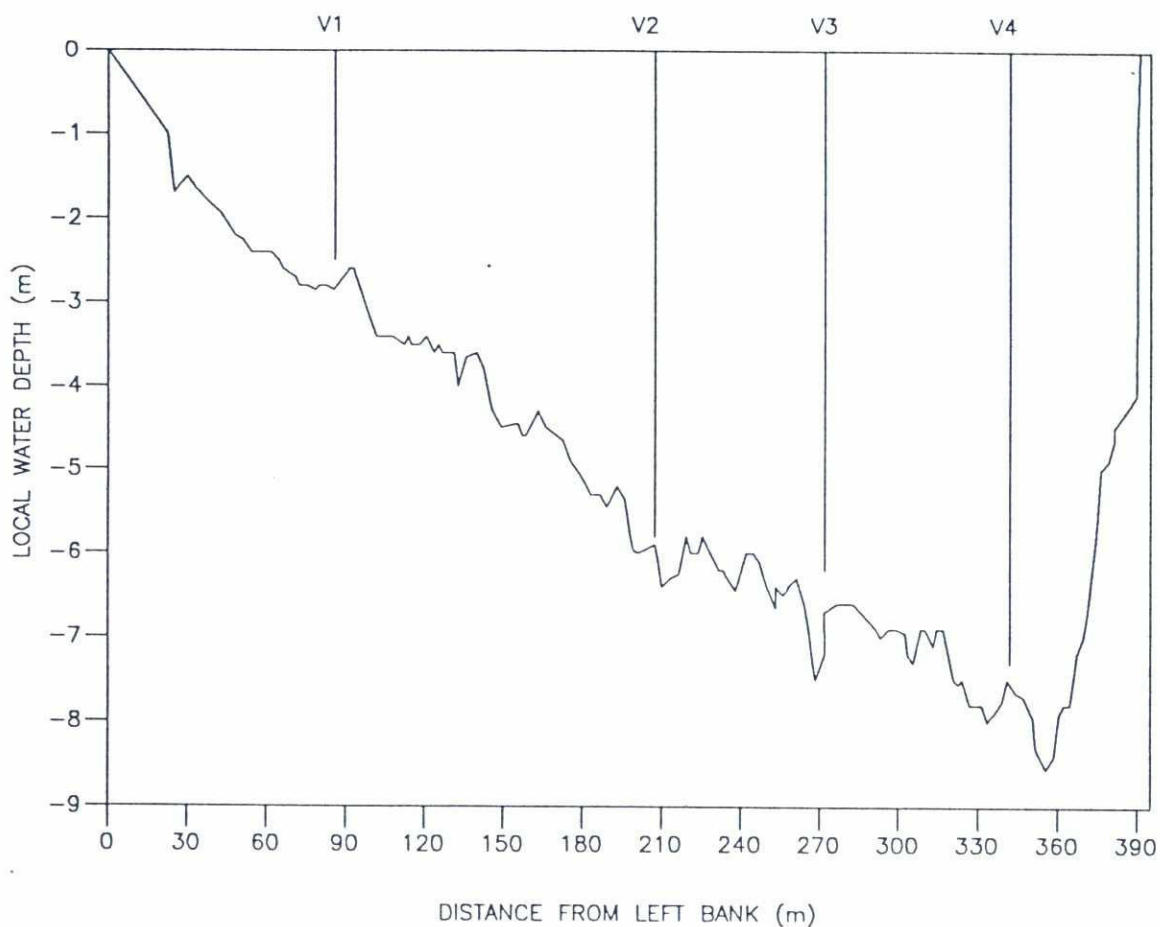
Location 7 : Old Brahmaputra River, Mymensingh

Date : 13 Dec 1995


Init : ss

Location map

page
1.1



Water level : 12.00 m + PWD measured at the station indicated on page 1.1

| | | | |
|---|--------------------|--|------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 183 : 23 August , 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y58N9T04 | Date : 13 Dec 1995 | Cross-sections and measured verticals Channel 1 | page |
| | Init : ss | | 1.2 |

| Type of measurement | Method | No. of measurements in channel | | | |
|---------------------------|-----------------------------|--------------------------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| Discharge | ADCP transect | - | - | - | - |
| | EMF transect | - | - | - | - |
| | Echo-Sounding | 2 | - | - | - |
| Vertical current profile | No. of verticals in channel | 4 | - | - | - |
| | ADCP | - | - | - | - |
| | S4 current meter | 4 | - | - | - |
| | Ott current meter | - | - | - | - |
| Vertical sediment profile | Pump bottle sampling | 16 | - | - | - |
| | Andreasen settling tube | - | - | - | - |
| | MEX turbidity meter | - | - | - | - |
| | Integrated bottle sampling | - | - | - | - |
| | Collapsible bag | - | - | - | - |
| Bed load | Dune tracking | - | - | - | - |
| | Helley-Smith sampler | 6 | - | - | - |
| | Delft Bottle | - | - | - | - |
| Bed material | US BM-54 bed sampler | - | - | - | - |
| | Van Veen bed sampler | - | - | - | - |


Table 2.1: Survey programme as made

| Channel | Width (m) | Area (m ²) | Stage h (m+PWD) | Discharge Q (m ³ /s) | Bed load transport Sb (kg/s) | Suspended Sediment transport Ss total (kg/s) |
|-----------|--------------|---------------------------|--------------------|------------------------------------|---------------------------------|---|
| Channel 1 | 391 | 1896 | 12.00 | 1251 | 7 | 355 |

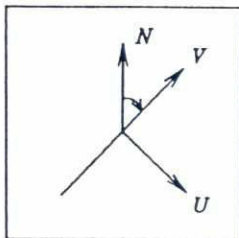
Table 2.2: Key figures

| Gauge Location | Channel | Date | Water level (Daily average) (m+PWD) | Gauge |
|----------------|-----------|-----------|---|--------|
| Mymensingh | Channel 1 | 23 Aug 95 | 12.00 | FAP 24 |

Table 2.3: Water-levels

| | | | |
|--|--------------------|--|-------------|
|  FAP 24 DELFT - DHI RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities | | Survey Bulletin 183 : 23 August , 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y58N9T04 | Date : 13 Dec 1995 | Survey programme as made and key figures | page 2.1 |
| | Init : ss | | |

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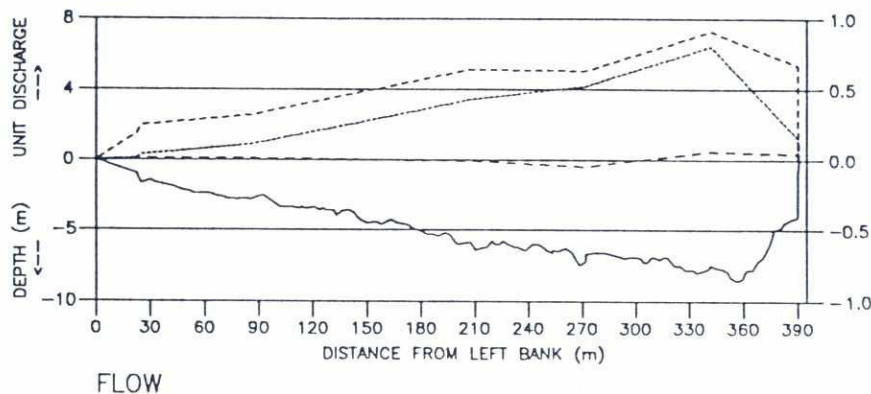


TRANSECT AZIMUTH = 43°

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



LEGEND :

WATER DEPTH (m below STAGE)

UNIT DISCHARGE (m³/s.m)

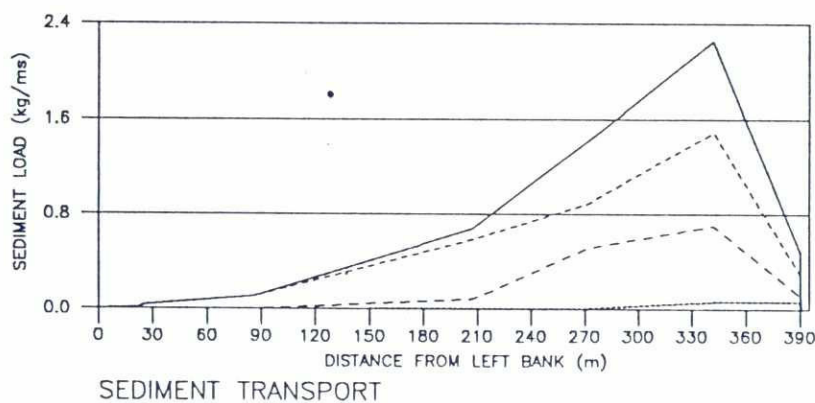
U - (m/s)

V - (m/s)

STAGE = 12.00 (m+PWD)

A = 1896 (m³)

Q = 1251 (m³/s)



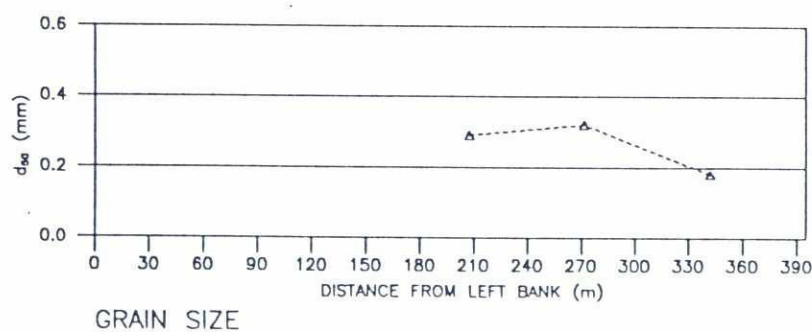
LEGEND :

S_{TOTAL} 362 (kg/s)

S_{WASH LOAD} 253 (kg/s)

S_{SUSP. BED} 102 (kg/s)

S_{BED LOAD} 7 (kg/s)



LEGEND :

d₆₀ SUSP. (mm)

d₆₀ BED LOAD (mm)

d₆₀ BED MAT. (mm)

FAP 24



RIVER SURVEY PROJECT
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Commission of the European Communities

Survey Bulletin 183 : 23 August , 1995

Location 7 : Old Brahmaputra River, Mymensingh

File : Y58N9T04

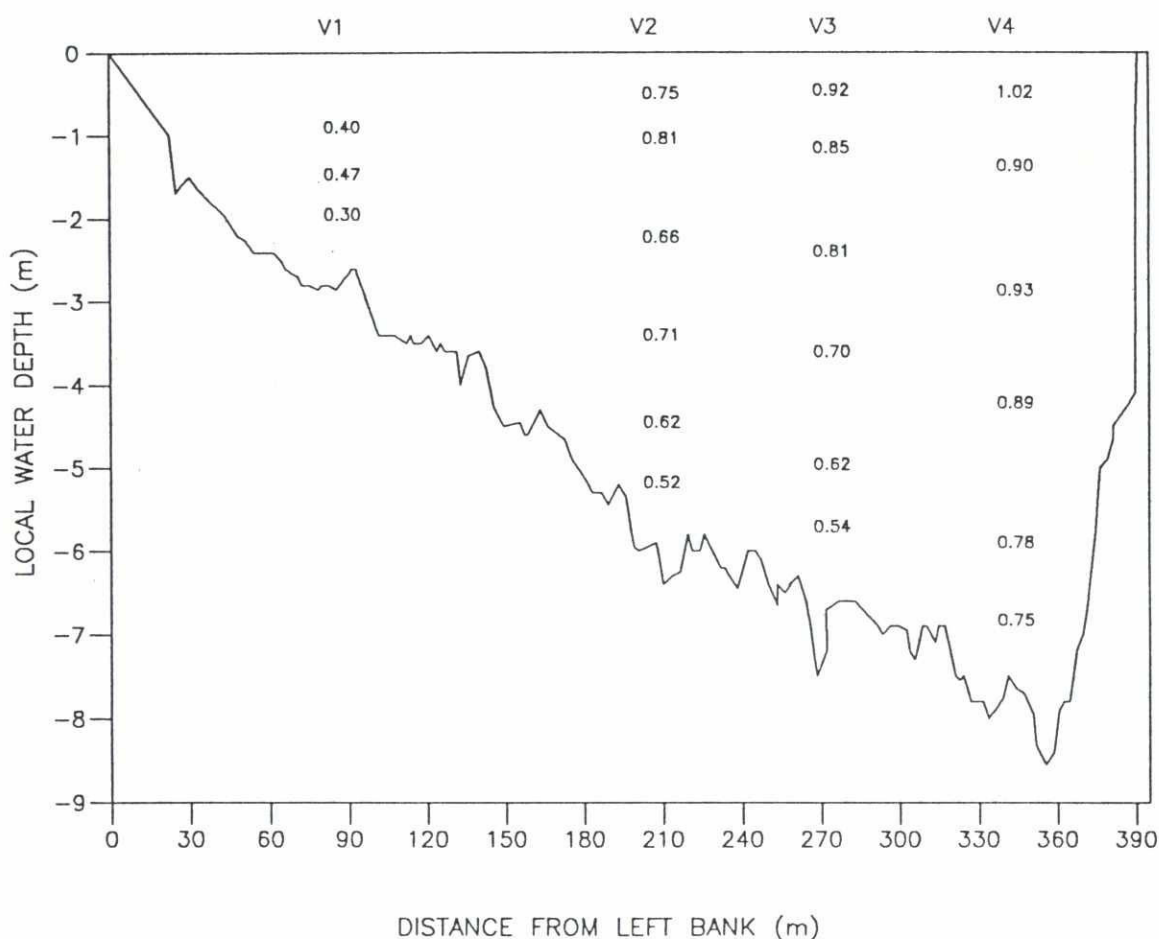
Date : 13 Dec 1995

Init : ss

Horizontal distribution of flow and sediment
Channel 1

page

3.1



Water level : 12.00 m + PWD measured at the station indicated on page 1.1

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT
Flood Plan Coordination Organization
Commission of the European Communities

Survey Bulletin 183 : 23 August , 1995

Location 7 : Old Brahmaputra River, Mymensingh

File : Y58N9T04

Date : 13 Dec 1995

Init : ss

Cross-sectional distribution of flow velocity
Channel 1

page

4.1

Helley-Smith


| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent | | D35 (mm) | D50 (mm) | D65 (mm) |
|---------|----------|---------------------------|--------------|----------------|-----------|-------------|-------------|-------------|
| | | | | < 0.06 mm | > 0.06 mm | | | |
| 1 | 2 | 9508231505-1530 | 5.80 | 1.91 | 98.09 | 0.249 | 0.295 | 0.349 |
| | 3 | 9508231412-1458 | 6.20 | 0.33 | 99.67 | 0.267 | 0.310 | 0.360 |
| | 4 | 9508231205-1253 | 7.30 | 0.43 | 99.57 | 0.159 | 0.180 | 0.205 |
| | 2 | 9508231505-1530 | 5.80 | 0.17 | 99.83 | 0.242 | 0.290 | 0.344 |
| | 3 | 9508231412-1458 | 6.20 | 0.13 | 99.87 | 0.284 | 0.325 | 0.371 |
| | 4 | 9508231205-1253 | 7.30 | 0.42 | 99.58 | 0.161 | 0.184 | 0.211 |
| | | | | | | | | |
| | | | | | | | | |

Table 5.1 : Grain sizes of bed load

Point Sample - near bed

| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent | | D35 (mm) | D50 (mm) | D65 (mm) |
|---------|----------|---------------------------|--------------|----------------|-----------|-------------|-------------|-------------|
| | | | | < 0.06 mm | > 0.06 mm | | | |
| 1 | 3 | 9508231412-1458 | 6.20 | 39.27 | 60.73 | 0.050 | 0.078 | 0.106 |
| | 4 | 9508231205-1253 | 7.30 | 32.84 | 67.16 | 0.066 | 0.095 | 0.134 |

Table 5.2 : Grain sizes

| | | | |
|---|--|--------------------------|------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | Survey Bulletin 183 : 23 August , 1995 | | |
| | Location 7 : Old Brahmaputra River, Mymensingh | | |
| | Date : 13 Dec 1995 | Grain size distributions | page |
| | Init : ss | | 5.1 |

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| Method | Channel | Time (YYMMDDHHMM-HHMM) | File name |
|---------------|---------|------------------------------------|------------------------|
| Echo-sounding | 1 | 9508231035-1039 9508231111-1115 | Y58N9T01 Y58N9T04 * |

Table 6.1: Echo-sounding * : echo-sounding in PSD 24 data base and presented in Sections 3 and 4

| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | File name |
|--|---------|----------|---------------------------|----------------|-----------------|--------------|------------|
| Vertical current & turbidity profiles (ADCP/S4/MEX) | 1 | 1 | 9508231650-1718 | 544982 | 734674 | 2.50 | Y58N9P01 * |
| | | 2 | 9508231505-1530 | 544901 | 734585 | 5.80 | Y58N9P02 * |
| | | 3 | 9508231412-1458 | 544854 | 734541 | 6.20 | Y58N9P03 * |
| | | 4 | 9508231205-1253 | 544801 | 734493 | 7.30 | Y58N9P04 * |

Table 6.2: Vertical profiles * ADCP & MEX not available

| Method | Channel | Vertical | No. of samples | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) |
|--------------------------------------|---------|----------|----------------|---------------------------|----------------|-----------------|--------------|
| Suspended sediments (pump bottle) | 1 | 1 | 1 | 9508231650-1718 | 544982 | 734674 | 2.50 |
| | | 2 | 1 | 9508231505-1530 | 544901 | 734585 | 5.80 |
| | | 3 | 6 | 9508231412-1458 | 544854 | 734541 | 6.20 |
| | | 4 | 6 | 9508231205-1253 | 544801 | 734493 | 7.30 |


Table 6.3: Suspended sediment - point sample

| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | Sample No. |
|---------------------|---------|----------|---------------------------|----------------|-----------------|--------------|------------|
| Helley-Smith Sample | 1 | 2 | 9508231505-1530 | 544901 | 734585 | 5.80 | C281 |
| | | 3 | 9508231412-1458 | 544854 | 734541 | 6.20 | C284 |
| | | 4 | 9508231205-1253 | 544801 | 734493 | 7.30 | C138 |
| | | 2 | 9508231505-1530 | 544901 | 734585 | 5.80 | C110 |
| | | 3 | 9508231412-1458 | 544854 | 734541 | 6.20 | C131 |
| | | 4 | 9508231205-1253 | 544801 | 734493 | 7.30 | C098 |
| | | | | | | | |
| | | | | | | | |


Table 6.4: Bed load

| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | Sample No. |
|--------------|---------|----------|---------------------------|----------------|-----------------|--------------|------------|
| Point Sample | 1 | 3 | 9508231412-1458 | 544854 | 734541 | 6.20 | C091 |
| | | 4 | 9508231205-1253 | 544801 | 734493 | 7.30 | C272 |

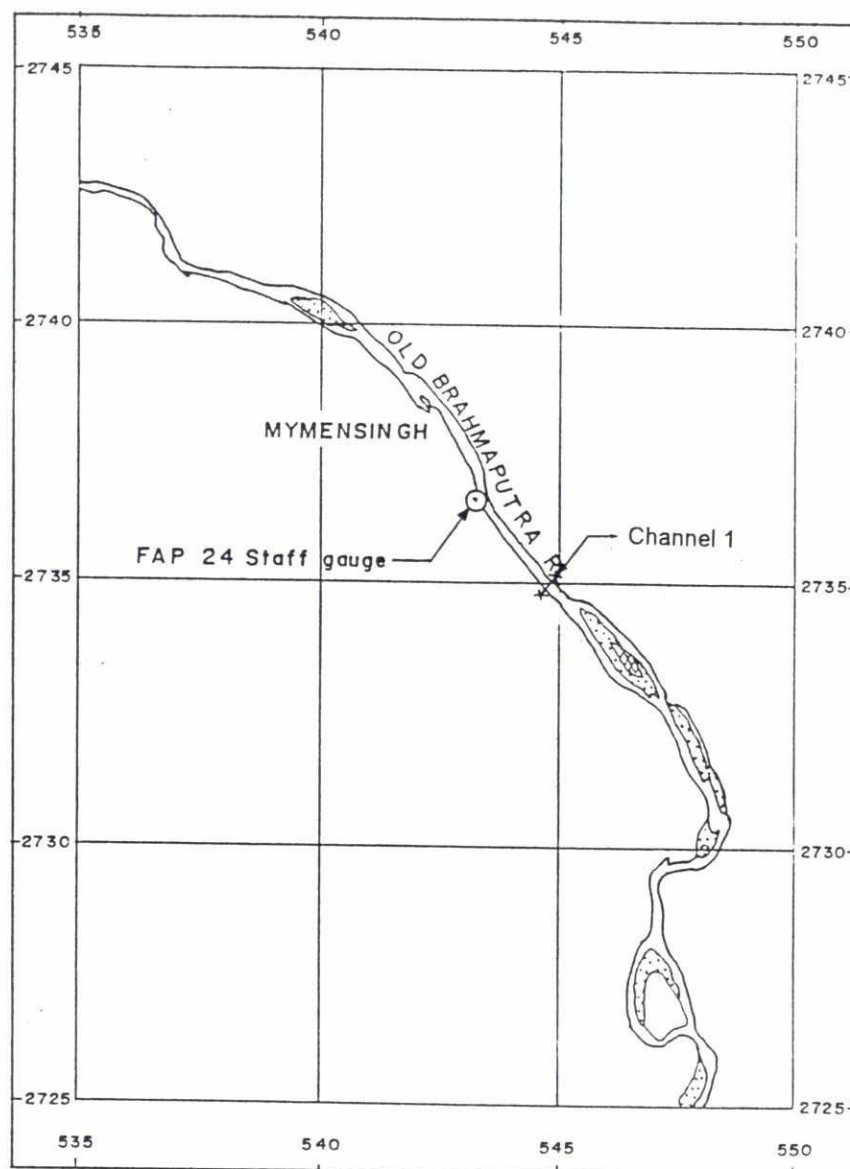
Table 6.5: Near bed

| | | | |
|---|--------------------|--|-------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 183 : 23 August , 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 13 Dec 1995 | Collected data and their storage (1) | page 6.1 |
| | Init : ss | | |

| Types of Data | Channel | Format | Filename |
|--|---------|---------|---------------|
| ADCP/S4/EMF data | 1 | QUATTRO | Y58N9T04 .ase |
| Echosounder data | 1 | QUATTRO | Y58N9T04 .ech |
| Sediment transport data | 1 | QUATTRO | Y58N9T04 .sed |
| Susp. sed. conc. analysis | 1 | QUATTRO | Y58N9T04 .ssc |
| Bedload sediment analysis | 1 | QUATTRO | Y58N9T04 .bdl |
| Transect plot data | 1 | QUATTRO | Y58N9T04 .trs |
| Table 7.1 PSD 24 Database file description | | | |

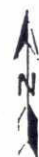
| | | | |
|---|--------------------|--|------|
|  <p>FAP 24 DELFT - DHI</p> | | Survey Bulletin 183 : 23 August , 1995 | |
| <p>RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities</p> | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 13 Dec 1995 | PSD 24 Database file description | page |
| | Init : ss | | 7.1 |

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LEGEND:-

- x-x Cross section
- High land
- Unstable/low char
- FAP 24 Staff gauge

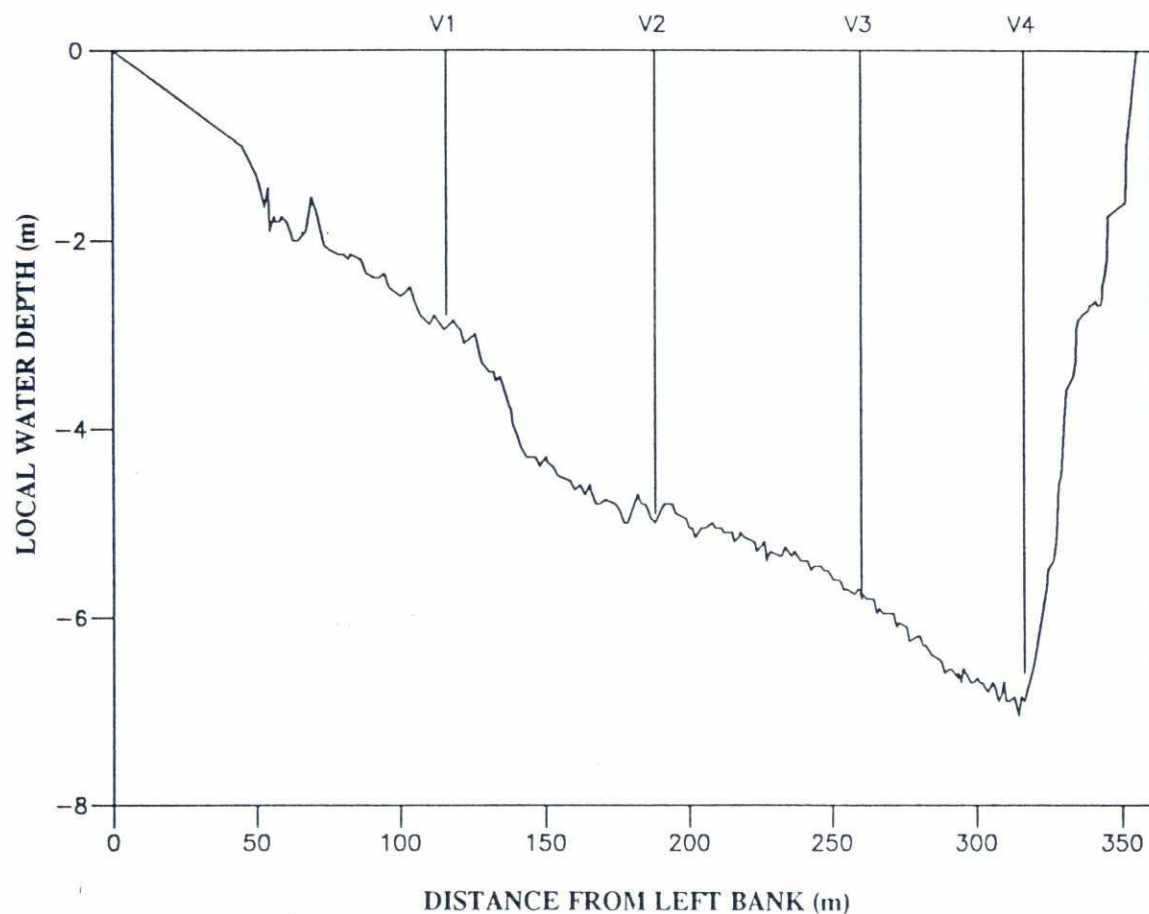


5000m 2500m 0


Map is based on satellite images of Nov. 1990

| | | | |
|---|---|--------------|--------------------------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | Survey Bulletin 199 : 26 September, 1995 | | |
| | Location 7 : Old Brahmaputra River, Mymensingh | | |
| | <div>Date : 25 Feb 1996</div> <div>Init : mk/ss</div> | Location map | <div>page</div> <div>1.1</div> |

CM



Water level : 10.30 m+PWD measured at the station indicated on page 1.1

| | | | |
|---|---|--|-------------|
| FAP 24  DELFT - DHI | RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities | Survey Bulletin 199 : 26 September, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y59Q0T01 | Date : 25 Feb 1996 | Cross-sections and measured verticals Channel 1 | page 1.2 |
| | Init : mk/ss | | |

| Type of measurement | Method | No. of measurements in channel | | | |
|---------------------------|-----------------------------|-----------------------------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| Discharge | ADCP transect | - | - | - | - |
| | EMF transect | - | - | - | - |
| | Echo-Sounding | 2 | - | - | - |
| Vertical current profile | No. of verticals in channel | 4 | - | - | - |
| | ADCP | - | - | - | - |
| | S4 current meter | 4 | - | - | - |
| | Ott current meter | - | - | - | - |
| Vertical sediment profile | Pump bottle sampling | 21 | - | - | - |
| | Andreasen settling tube | - | - | - | - |
| | MEX turbidity meter | - | - | - | - |
| | Integrated bottle sampling | - | - | - | - |
| | Collapsible bag | - | - | - | - |
| Bed load | Dune tracking | - | - | - | - |
| | Helley-Smith sampler | 8 | - | - | - |
| | Delft Bottle | - | - | - | - |
| Bed material | US BM-54 bed sampler | - | - | - | - |
| | Van Veen bed sampler | - | - | - | - |


Table 2.1: Survey programme as made

| Channel | Width (m) | Area (m ²) | Stage h (m+PWD) | Discharge Q (m ³ /s) | Bed load transport Sb (kg/s) | Suspended Sediment transport Ss total (kg/s) |
|-----------|--------------|---------------------------|--------------------|------------------------------------|------------------------------------|--|
| Channel 1 | 355 | 1354 | 10.30 | 808 | 7 | 644 |

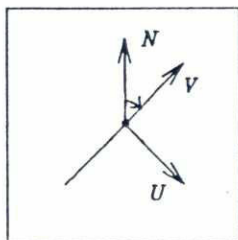
Table 2.2: Key figures

| Gauge Location | Channel | Date | Water level (Daily average) (m+PWD) | Gauge |
|----------------|-----------|-----------|---|--------|
| Mymensingh | Channel 1 | 26 Sep 95 | 10.30 | FAP 24 |

Table 2.3: Water-levels

| | | | | |
|--|---------------------------|---|--|-------------|
|  DELFT - DHI | | <p>RIVER SURVEY PROJECT</p> <p>Flood Plan Coordination Organization</p> <p>Commission of the European Communities</p> | <p>Survey Bulletin 199 : 26 September , 1995</p> | |
| | | <p>Location 7 : Old Brahmaputra River, Mymensingh</p> | | |
| <p>File : Y59Q0T01</p> | <p>Date : 25 Feb 1996</p> | <p>Survey programme as made and key figures</p> | | <p>page</p> |
| | <p>Init : mk/ss</p> | | | <p>21</p> |

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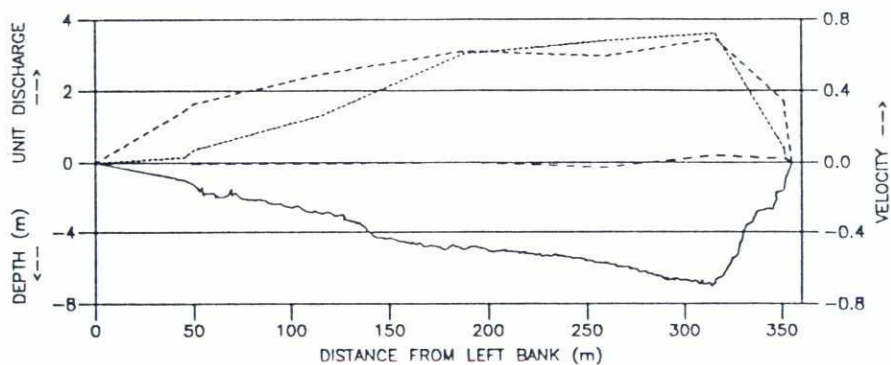


TRANSECT AZIMUTH = 45°

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



FLOW

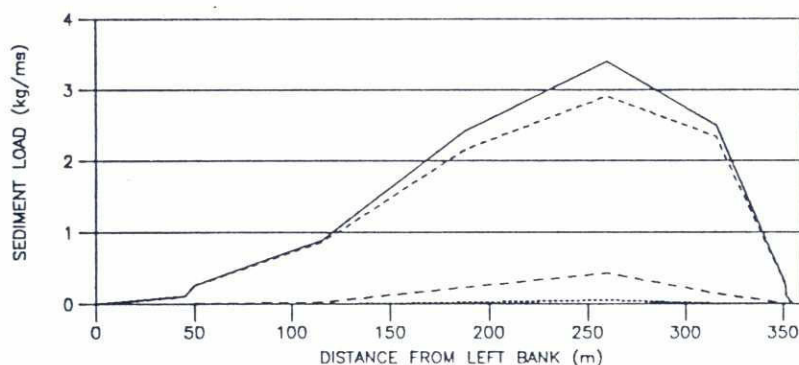
LEGEND :

— WATER DEPTH (m below STAGE)
 UNIT DISCHARGE (m³/s.m)
 --- U - (m/s)
 -.- V - (m/s)

STAGE = 10.30 (m+PWD)

A = 1354 (m²)

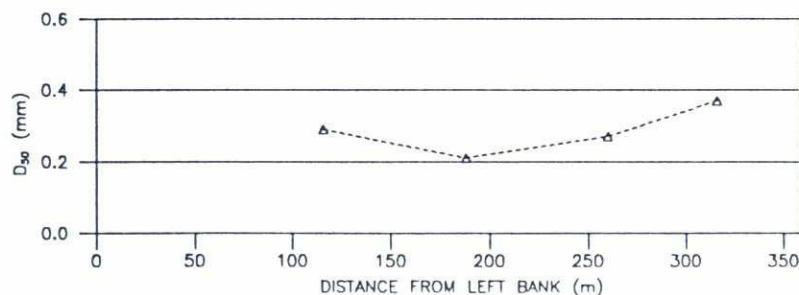
Q = 808 (m³/s)



SEDIMENT TRANSPORT

LEGEND :

— S_{TOTAL} 651 (kg/s)
 --- S_{WASH LOAD} 587 (kg/s)
 -.- S_{SUSP. BED} 57 (kg/s)
 S_{RED LOAD} 7 (kg/s)



GRAIN SIZE

LEGEND :

♦♦♦♦♦ D₅₀ SUSP. (mm)
 ▲▲▲▲▲ D₅₀ BED LOAD (mm)
 □□□□□ D₅₀ BED MAT. (mm)

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT

Flood Plan Coordination Organization
 Commission of the European Communities

Survey Bulletin 199 : 26 September, 1995

Location 7 : Old Brahmaputra River, Mymensingh

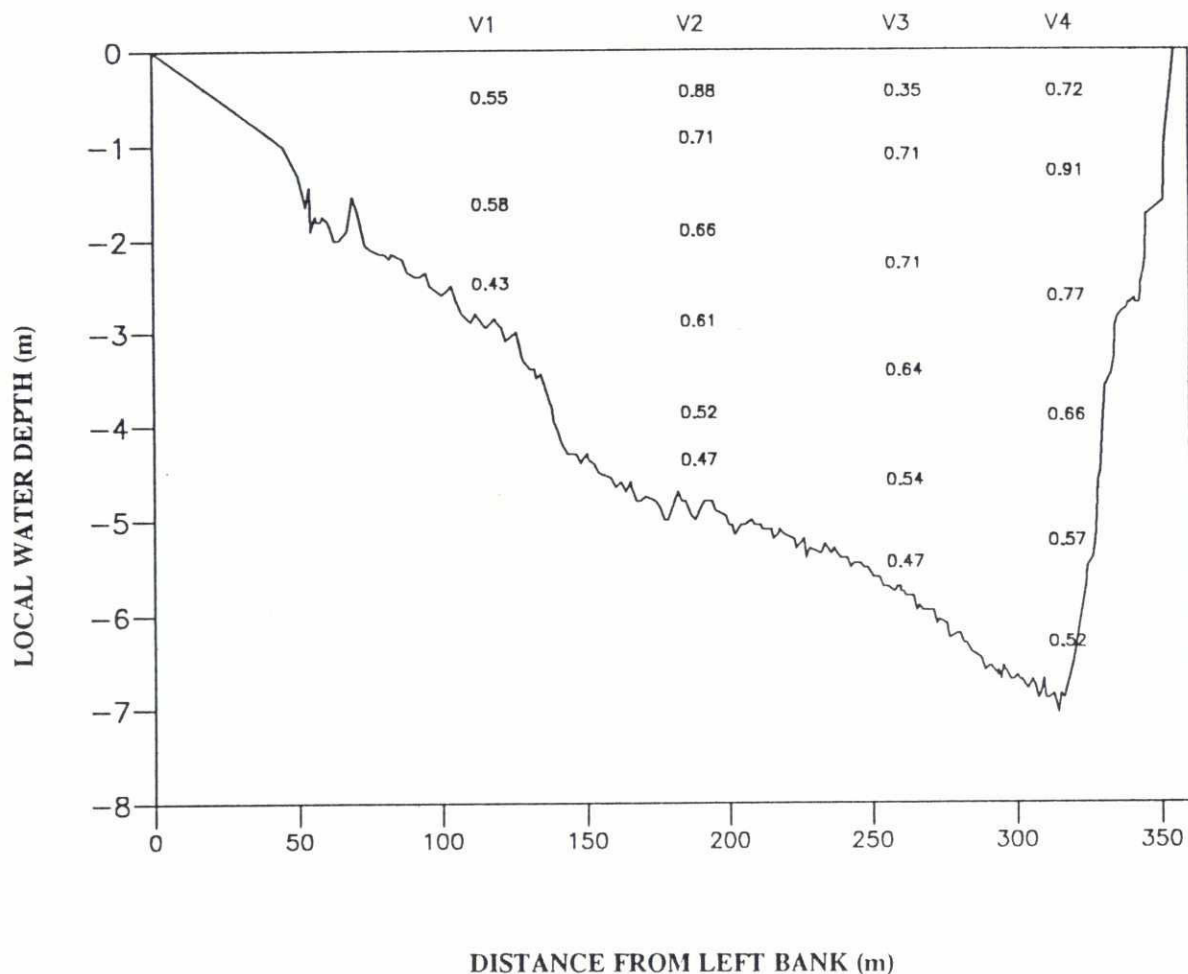
File : Y59Q0T01

Date : 25 Feb 1996


Init : mk/ss

Horizontal distribution of flow and sediments
 Channel 1


page
 3.1



Water level : 10.30 m+PWD measured at the station indicated on page 1.1

| | | | |
|---|--------------------|--|-------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 199 : 26 September, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y59Q0T01 | Date : 25 Feb 1996 | Cross-sectional distribution of flow velocity Channel 1 | page 4.1 |
| | Init : mk/ss | | |

| Helley-Smith | | | | | | | | |
|-------------------------------------|----------|---------------------------|--------------|----------------|-----------|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent | | D35 (mm) | D50 (mm) | D65 (mm) |
| | | | | < 0.06 mm | > 0.06 mm | | | |
| 1 | 1 | 9509261424-1458 | 2.80 | 5.06 | 94.94 | 0.225 | 0.283 | 0.339 |
| | 2 | 9509261507-1529 | 4.90 | 0.27 | 99.73 | 0.182 | 0.214 | 0.256 |
| | 3 | 9509261537-1558 | 5.80 | 0.35 | 99.65 | 0.214 | 0.269 | 0.328 |
| | 4 | 9509261142-1221 | 6.60 | 0.05 | 99.95 | 0.314 | 0.365 | 0.425 |
| | 1 | 9509261424-1458 | 2.80 | 3.01 | 96.99 | 0.235 | 0.288 | 0.343 |
| | 2 | 9509261507-1529 | 4.90 | 0.22 | 99.78 | 0.182 | 0.215 | 0.258 |
| | 3 | 9509261537-1558 | 5.80 | 0.17 | 99.83 | 0.223 | 0.278 | 0.335 |
| | 4 | 9509261142-1221 | 6.60 | 0.13 | 99.87 | 0.305 | 0.366 | 0.440 |
| Table 5.1 : Grain sizes of bed load | | | | | | | | |

| | | | |
|--|---|---|-------------|
| FAP 24  DELFT - DHI | RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities | Survey Bulletin 199 : 26 September , 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 25 Feb 1996 | Grain size distributions | page 5.1 |
| | Init : mk/ss | | |

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| Method | Channel | Time (YYMMDDHHMM-HHMM) | File name |
|---------------|---------|------------------------------------|------------------------|
| Echo-sounding | 1 | 9509261110-1114 9509261116-1119 | Y59Q0T01 * Y59Q0T02 |

Table 6.1: Echo-sounding * : echo-sounding in PSD 24 data base and presented in Sections 3 and 4

| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | File name |
|---|---------|----------|---------------------------|----------------|-----------------|--------------|------------|
| Vertical current & turbidity profiles (ADCP/S4/MEX) | 1 | 1 | 9509261424-1458 | 544938 | 734617 | 2.80 | Y59Q0P02 * |
| | | 2 | 9509261507-1529 | 544888 | 734569 | 4.90 | Y59Q0P03 * |
| | | 3 | 9509261537-1558 | 544834 | 734518 | 5.80 | Y59Q0P04 * |
| | | 4 | 9509261142-1221 | 544792 | 734489 | 6.60 | Y59Q0P01 * |


Table 6.2: Vertical profiles * ADCP & MEX not available

| Method | Channel | Vertical | No. of samples | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) |
|--------------------------------------|---------|----------|-------------------|---------------------------|----------------|-----------------|--------------|
| Suspended sediments (pump bottle) | 1 | 1 | 3 | 9509261424-1458 | 544938 | 734617 | 2.80 |
| | | 2 | 6 | 9509261507-1529 | 544888 | 734569 | 4.90 |
| | | 3 | 6 | 9509261537-1558 | 544834 | 734518 | 5.80 |
| | | 4 | 6 | 9509261142-1221 | 544792 | 734489 | 6.60 |


Table 6.3: Suspended sediment - point sample

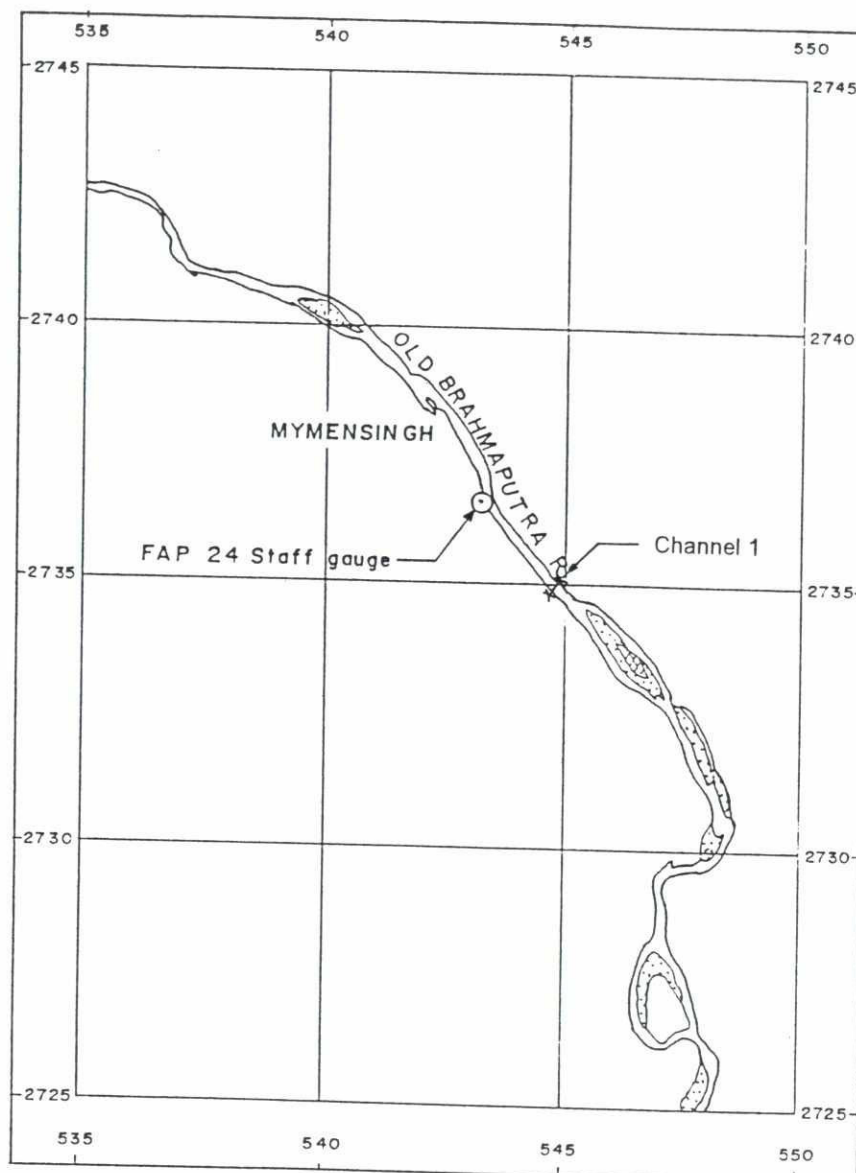
| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | Sample No. |
|---------------------|---------|----------|---------------------------|----------------|-----------------|--------------|---------------|
| Helley-Smith Sample | 1 | 1 | 9509261424-1458 | 544938 | 734617 | 2.80 | C627 |
| | | 2 | 9509261507-1529 | 544888 | 734569 | 4.90 | C488 |
| | | 3 | 9509261537-1558 | 544834 | 734518 | 5.80 | C619 |
| | | 4 | 9509261142-1221 | 544792 | 734489 | 6.60 | C572 |
| | | 1 | 9509261424-1458 | 544938 | 734617 | 2.80 | C592 |
| | | 2 | 9509261507-1529 | 544888 | 734569 | 4.90 | C467 |
| | | 3 | 9509261537-1558 | 544834 | 734518 | 5.80 | C742 |
| | | 4 | 9509261142-1221 | 544792 | 734489 | 6.60 | C489 |

Table 6.4: Bed load

| | | | |
|---|---|--|-------------|
|  <p>FAP 24 DELFT - DHI</p> | <p>RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities</p> | Survey Bulletin 199 : 26 September , 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 25 Feb 1996 | Collected data and their storage (1) | page 6.1 |
| | Init : mk/ss | | |

| Types of Data | Channel | Format | Filename |
|--|---------|---------|---------------|
| ADCP/S4/EMF data | 1 | QUATTRO | Y59Q0T01 .ase |
| Echosounder data | 1 | QUATTRO | Y59Q0T01 .ech |
| Sediment transport data | 1 | QUATTRO | Y59Q0T01 .sed |
| Susp. sed. conc. analysis | 1 | QUATTRO | Y59Q0T01 .ssc |
| Bedload sediment analysis | 1 | QUATTRO | Y59Q0T01 .bdl |
| Transect plot data | 1 | QUATTRO | Y59Q0T01 .trs |
| Table 7.1 PSD 24 Database file description | | | |

| | | | |
|---|--------------------|--|------|
| FAP 24  DELFT - DHI | | Survey Bulletin 199 : 26 September , 1995 | |
| RIVER SURVEY PROJECT <small>Flood Plan Coordination Organization</small> <small>Commission of the European Communities</small> | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 25 Feb 1996 | PSD 24 Database file description | page |
| | Init : mk/ss | | 7.1 |



LEGEND:-

- Cross section
- High land
- Unstable/low char
- FAP 24 Staff gauge



5000m 2500m 0

Map is based on satellite
images of Nov. 1990

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT

Flood Plan Coordination Organization
Commission of the European Communities

Survey Bulletin 215 : 27 October, 1995

Location 7 : Old Brahmaputra River, Mymensingh

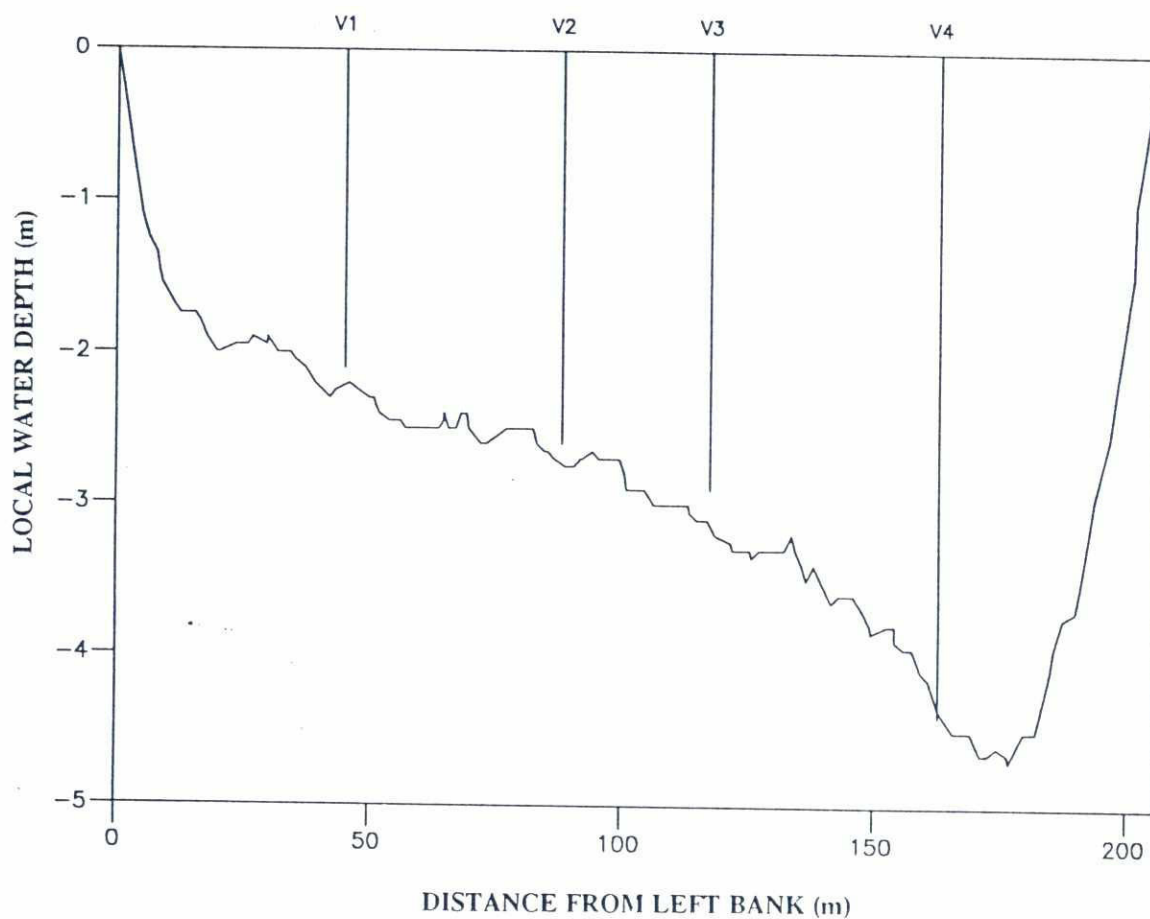
Date : 07 Mar 1996

Init : sjr


Location map

page
1.1

98



Water level : 7.78 m+PWD measured at the station indicated on page 1.1

| | | | |
|--|---|--|-------------|
| FAP 24  DELFT - DHI | RIVER SURVEY PROJECT <small>Flood Plan Coordination Organization Commission of the European Communities</small> | Survey Bulletin 215 : 27 October, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y5AR9T01 | Date : 07 Mar 1996 | Cross-sections and measured verticals Channel 1 | page 1.2 |
| | Init : sjr | | |

| Type of measurement | Method | No. of measurements in channel | | | |
|---------------------------|-----------------------------|--------------------------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| Discharge | ADCP transect | - | - | - | - |
| | EMF transect | - | - | - | - |
| | Echo-Sounding | 2 | - | - | - |
| Vertical current profile | No. of verticals in channel | 4 | - | - | - |
| | ADCP | - | - | - | - |
| | S4 current meter | 4 | - | - | - |
| | Ott current meter | - | - | - | - |
| Vertical sediment profile | Pump bottle sampling | 15 | - | - | - |
| | Andreasen settling tube | - | - | - | - |
| | MEX turbidity meter | - | - | - | - |
| | Integrated bottle sampling | - | - | - | - |
| | Collapsible bag | - | - | - | - |
| Bed load | Dune tracking | - | - | - | - |
| | Helley-Smith sampler | 3 | - | - | - |
| | Delft Bottle | - | - | - | - |
| Bed material | US BM-54 bed sampler | - | - | - | - |
| | Van Veen bed sampler | - | - | - | - |


Table 2.1: Survey programme as made

| Channel | Width (m) | Area (m ²) | Stage h(m + PWD) | Discharge Q(m ³ /s) | Bed load transport Sb(kg/s) | Suspended Sediment transport Ss total (kg/s) |
|-----------|--------------|---------------------------|---------------------|-----------------------------------|--------------------------------|--|
| Channel 1 | 206 | 584 | 7.78 | 130 | 0.02 | 6.86 |

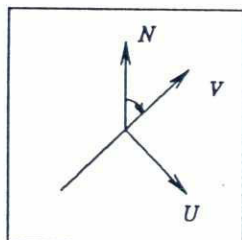
Table 2.2: Key figures

| Gauge Location | Channel | Date | Water level (Daily average) (m + PWD) | Gauge |
|----------------|-----------|-----------|---|-------|
| Mymensingh | Channel 1 | 27 Oct 95 | 7.78 | FAP24 |

Table 2.3: Water-levels

| | | | |
|---|--------------------|--|-------------|
|  FAP 24 RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities | | Survey Bulletin 215 : 27 October, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y5AR9T01 | Date : 07 Mar 1996 | Survey programme as made and key figures | page 2.1 |
| | Init : sjr | | |

09

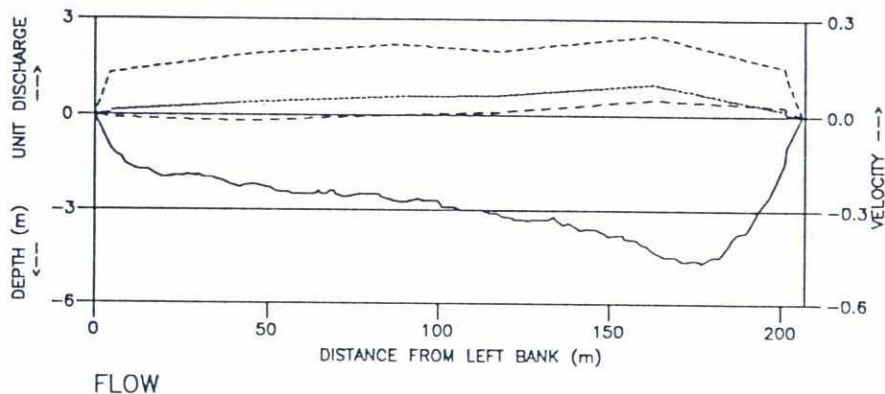


TRANSECT AZIMUTH = 46°

U - VELOCITY NORMAL TO TRANSECT (m/s)

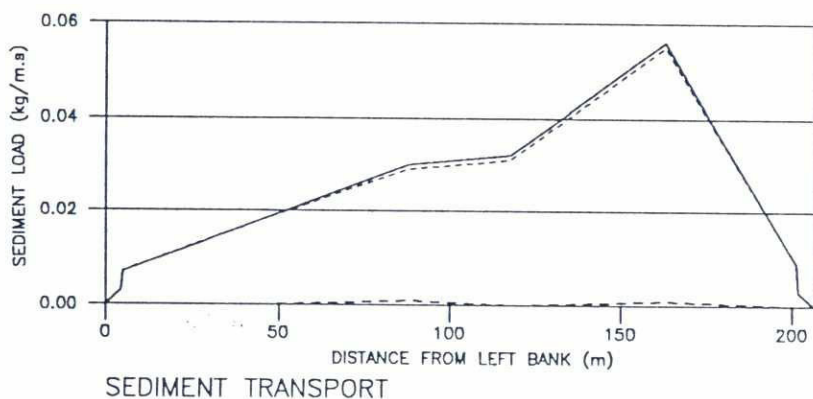
V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



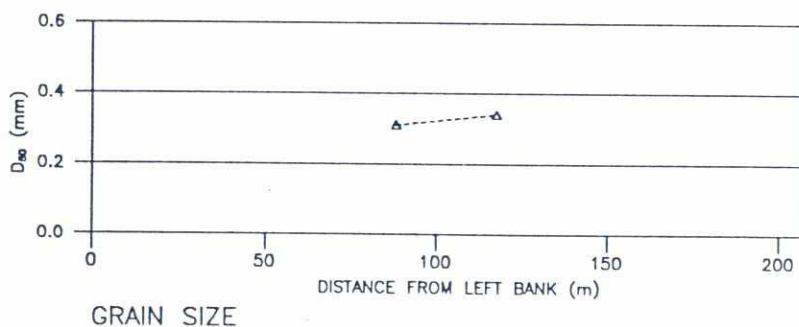
LEGEND :

— WATER DEPTH (m below STAGE)
 - - - UNIT DISCHARGE (m³/s.m)
 . . . U (m/s)
 - . - V (m/s)
 STAGE = 7.78 (m+PWD)
 A = 584 (m²)
 Q = 130 (m³/s)



LEGEND :

— S_{TOTAL} 6.88 (kg/s)
 - - - S_{WASH LOAD} 6.74 (kg/s)
 . . . S_{SUSP. BED} 0.12 (kg/s)
 - . - S_{BED LOAD} 0.02 (kg/s)



LEGEND :

◇◇◇◇◇ D₅₀ SUSP. (mm)
 ▲▲▲▲▲ D₅₀ BED LOAD (mm)
 □□□□□ D₅₀ BED MAT. (mm)

FAP 24



RIVER SURVEY PROJECT

Flood Plan Coordination Organization
Commission of the European Communities

Survey Bulletin 215 : 27 October, 1995

Location 7 : Old Brahmaputra River, Mymensingh

File : Y5AR9T01

Date : 07 Mar 1996

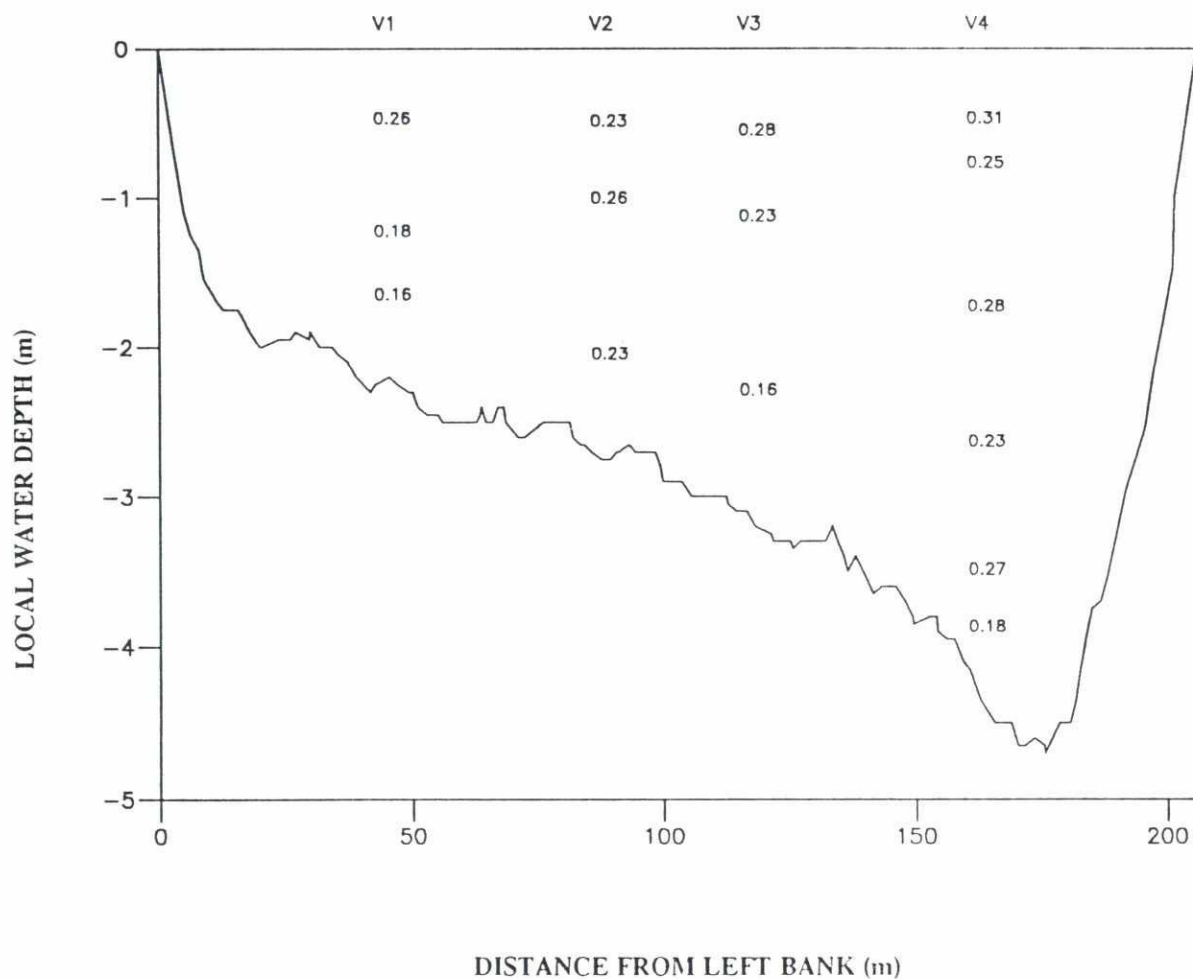
Init : sjr

Horizontal distribution of flow and sediments

Channel 1

page

3.1




Water level : 7.78 m+PWD measured at the station indicated on page 1.1

| | | | |
|---|--------------------|--|-------------|
| <div> <div> <div>FAP 24</div> <div> </div> </div> <div> <div>DELFT - DHI</div> </div> </div> <div> <div>RIVER SURVEY PROJECT</div> <div>Flood Plan Coordination Organization</div> <div>Commission of the European Communities</div> </div> | | Survey Bulletin 215 : 27 October, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y5AR9T01 | Date : 07 Mar 1996 | Cross-sectional distribution of flow velocity Channel 1 | page 4.1 |
| | Init : sjr | | |

Helley-Smith

| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent | | D35 (mm) | D50 (mm) | D65 (mm) |
|---------|----------|---------------------------|--------------|----------------|-----------|-------------|-------------|-------------|
| | | | | < 0.06 mm | > 0.06 mm | | | |
| 1 | 2 | 9510271120-1150 | 2.60 | 0.15 | 99.85 | 0.277 | 0.318 | 0.365 |
| | 2 | 9510271120-1150 | 2.60 | 0.06 | 99.94 | 0.250 | 0.294 | 0.345 |
| | 3 | 9510271158-1210 | 2.90 | 0.06 | 99.94 | 0.292 | 0.336 | 0.385 |

Table 5.1 : Grain sizes of bed load

| | | | |
|---|--|--|-------------|
|  <p>FAP 24 DELFT - DHI</p> | RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities | Survey Bulletin 215 : 27 October, 1995 | |
| | Location 7 : Old Brahmaputra River, Mymensingh | | |
| | Date : 07 Mar 1996 | Grain size distributions | page 5.1 |
| | Init : sjr | | |

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| Method | Channel | Time (YYMMDDHHMM-HHMM) | File name |
|---------------|---------|------------------------------------|------------------------|
| Echo-sounding | 1 | 9510271044-1046 9510271303-1305 | Y5AR9T01 * Y5AR9T02 |

Table 6.1: Echo-sounding * : echo-sounding in PSD 24 data base and presented in Sections 3 and 4

| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | File name |
|---|---------|------------------|--|--------------------------------------|--------------------------------------|------------------------------|--|
| Vertical current & turbidity profiles (ADCP/S4/MEX) | 1 | 1 2 3 4 | 9510271105-1116 9510271120-1150 9510271158-1210 9510271227-1253 | 544896 544862 544842 544804 | 734578 734554 734532 734498 | 2.10 2.60 2.90 4.40 | Y5AR9P01 * Y5AR9P02 * Y5AR9P03 * Y5AR9P04 * |


Table 6.2: Vertical profiles * ADCP & MEX not available

| Method | Channel | Vertical | No. of samples | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) |
|--------------------------------------|---------|------------------|-------------------|--|--------------------------------------|--------------------------------------|------------------------------|
| Suspended sediments (pump bottle) | 1 | 1 2 3 4 | 3 3 3 6 | 9510271105-1116 9510271120-1150 9510271158-1210 9510271227-1253 | 544896 544862 544842 544804 | 734578 734554 734532 734498 | 2.10 2.60 2.90 4.40 |


Table 6.3: Suspended sediment - point sample

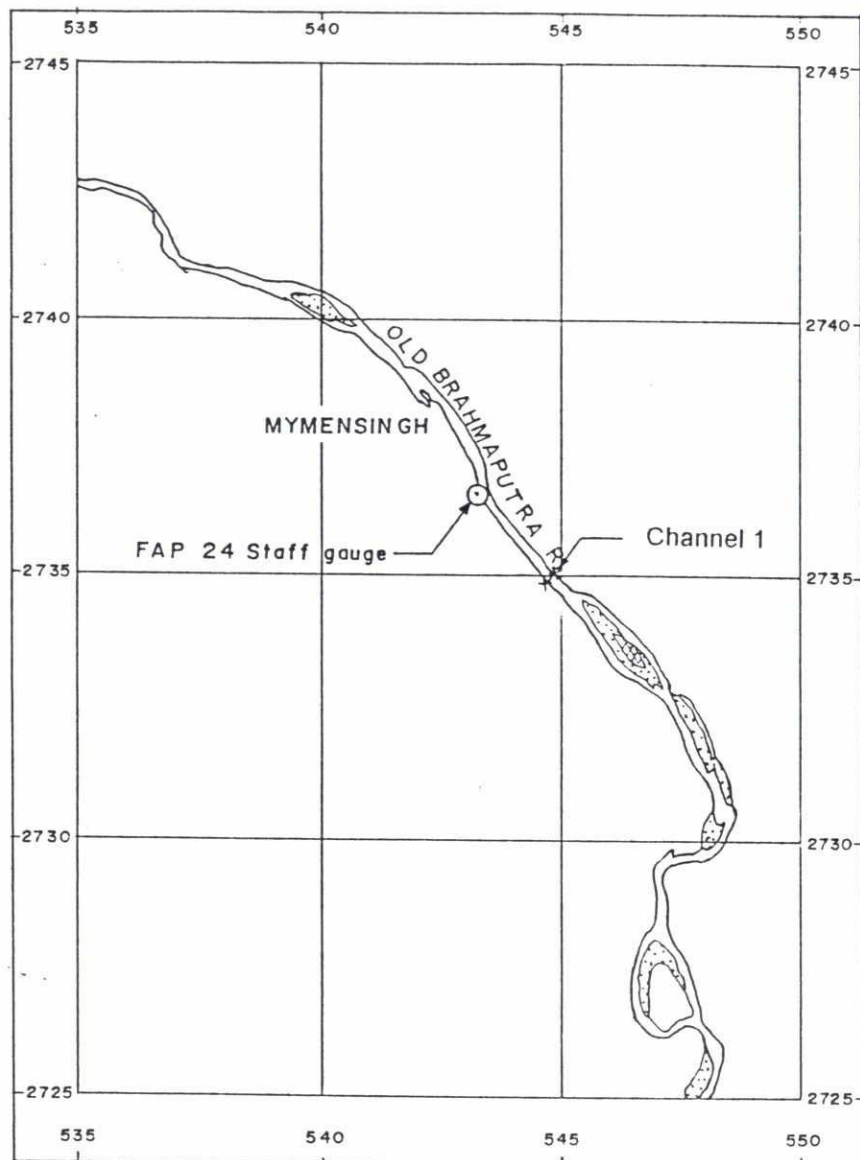
| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | Sample No. |
|---------------------|---------|-------------|---|----------------------------|----------------------------|----------------------|----------------------|
| Helley-Smith Sample | 1 | 2 2 3 | 9510271120-1150 9510271120-1150 9510271158-1210 | 544862 544862 544842 | 734554 734554 734532 | 2.60 2.60 2.90 | C411 C082 C302 |

Table 6.4 : Bed load

| | | | |
|---|--------------------|--|-------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 215 : 27 October, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 07 Mar 1996 | Collected data and their storage (1) | page 6.1 |
| | Init : sjr | | |

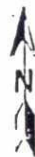
| Types of Data | Channel | Format | Filename |
|--|---------|---------|--------------|
| ADCP/S4/EMF data | 1 | QUATTRO | Y5AR9T01.ase |
| Echosounder data | 1 | QUATTRO | Y5AR9T01.ech |
| Sediment transport data | 1 | QUATTRO | Y5AR9T01.sed |
| Bed load sed. analysis | 1 | QUATTRO | Y5AR9T01.bdl |
| Susp. sed. conc. analysis | 1 | QUATTRO | Y5AR9T01.ssc |
| Transect plot data | 1 | QUATTRO | Y5AR9T01.trs |
| Table 7.1 PSD 24 Database file description | | | |

| | | | |
|---|--|--|------|
|  <p>FAP 24 DELFT - DHI</p> | <p>RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities</p> | Survey Bulletin 215 : 27 October, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 07 Mar 1996 | PSD 24 Database file description | page |
| | Init : sjr | | 7.1 |



LEGEND:-

- x-x Cross section
- High land
- Unstable/low char
- FAP 24 Staff gauge



5000m 2500m 0

Map is based on satellite images of Nov. 1990



RIVER SURVEY PROJECT
Flood Plan Coordination Organization
Commission of the European Communities

Survey Bulletin 232 : 22 November, 1995

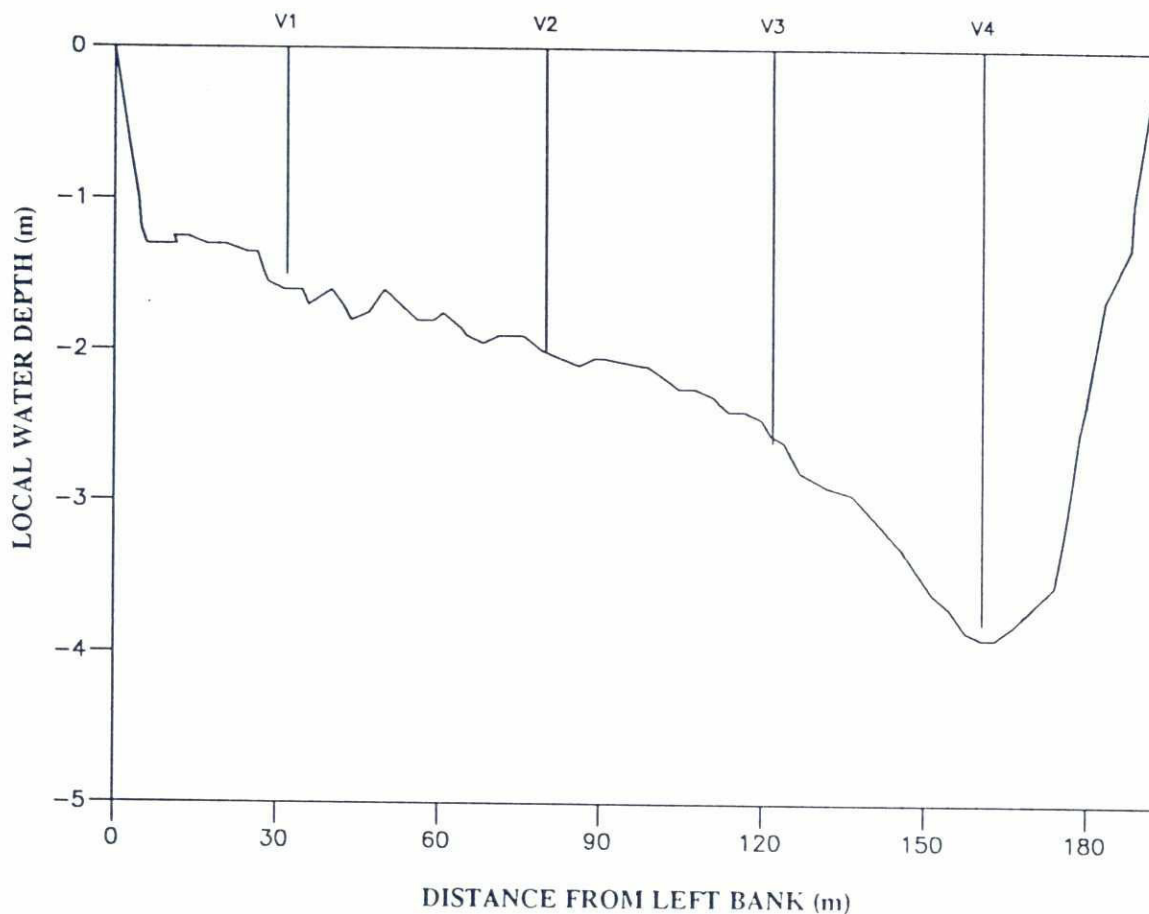
Location 7 : Old Bhramaputra River, Mymensingh

Date : 09 Mar 1996


Init : sjr

Location map

page
1.1




Water level : 7.03 m+ PWD measured at the station indicated on page 1.1

| | | | |
|--|---|--|-------------|
| <div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div> | <div>RIVER SURVEY PROJECT</div> <div>Flood Plan Coordination Organization</div> <div>Commission of the European Communities</div> | Survey Bulletin 232 : 22 November, 1995 | |
| | | Location 7 : Old Bhramaputra River, Mymensingh | |
| File : YSBM9T02 | Date : 09 Mar 1996 | Cross-sections and measured verticals Channel 1 | page 1.2 |
| | Init : sjr | | |

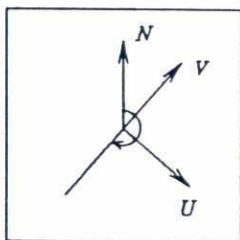
| Type of measurement | Method | No. of measurements in channel | | | |
|-------------------------------------|-----------------------------|--------------------------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| Discharge | ADCP transect | - | - | - | - |
| | EMF transect | - | - | - | - |
| | Echo-Sounding | 2 | - | - | - |
| Vertical current profile | No. of verticals in channel | 4 | - | - | - |
| | ADCP | - | - | - | - |
| | S4 current meter | 4 | - | - | - |
| | Ott current meter | - | - | - | - |
| Vertical sediment profile | Pump bottle sampling | 15 | - | - | - |
| | Andreasen settling tube | - | - | - | - |
| | MEX turbidity meter | - | - | - | - |
| | Integrated bottle sampling | - | - | - | - |
| | Collapsible bag | - | - | - | - |
| Bed load | Dune tracking | - | - | - | - |
| | Helley-Smith sampler | - | - | - | - |
| | Delft Bottle | - | - | - | - |
| Bed material | US BM-54 bed sampler | - | - | - | - |
| | Van Veen bed sampler | - | - | - | - |
| Table 2.1: Survey programme as made | | | | | |

| Channel | Width (m) | Area (m ²) | Stage h(m + PWD) | Discharge Q(m ³ /s) | Bed load transport Sb(kg/s) | Suspended Sediment transport Ss total (kg/s) |
|------------------------|--------------|---------------------------|---------------------|-----------------------------------|--------------------------------|--|
| Channel 1 | 193 | 426 | 7.03 | 49 | - | 1.17 |
| Table 2.2: Key figures | | | | | | |

| Gauge Location | Channel | Date | Water level (Daily average) (m + PWD) | Gauge |
|-------------------------|-----------|-----------|---|-------|
| Mymensingh | Channel 1 | 22 Nov 95 | 7.03 | FAP24 |
| Table 2.3: Water-levels | | | | |

| | | | |
|---|--------------------|--|-------------|
|  FAP 24 RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities | | Survey Bulletin 232 : 22 November, 1995 | |
| | | Location 7 : Old Bhramaputra River, Mymensingh | |
| File : Y5BM9T02 | Date : 09 Mar 1996 | Survey programme as made and key figures | page 2.1 |
| | Init : sjr | | |

y8

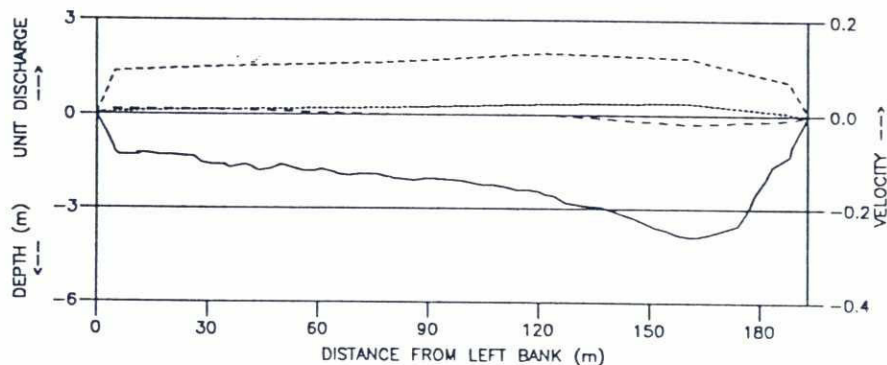


TRANSECT AZIMUTH = 221°

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



FLOW

LEGEND :

— WATER DEPTH (m below STAGE)

- - - UNIT DISCHARGE ($\text{m}^3/\text{s.m}$)

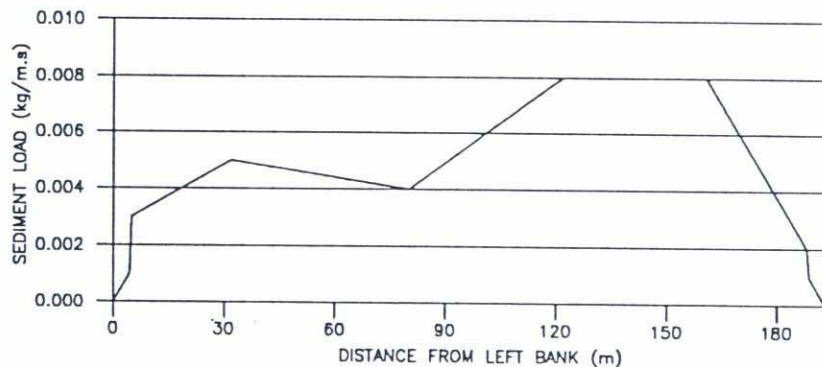
... U (m/s)

- . - V (m/s)

STAGE = 7.03 (m+PWD)

A = 426 (m^2)

Q = 49 (m^3/s)



SEDIMENT TRANSPORT

LEGEND :

— S_{TOTAL} 1.17 (kg/s)

- - - $S_{WASH LOAD}$ 1.14 (kg/s)

... $S_{SUSP. BED}$ 0.03 (kg/s)

- . - $S_{BED LOAD}$ - (kg/s)

SAMPLE NOT COLLECTED

GRAIN SIZE

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT

Flood Plan Coordination Organization
Commission of the European Communities

Survey Bulletin 232 : 22 November, 1995

Location 7 : Old Bhramaputra River, Mymensingh

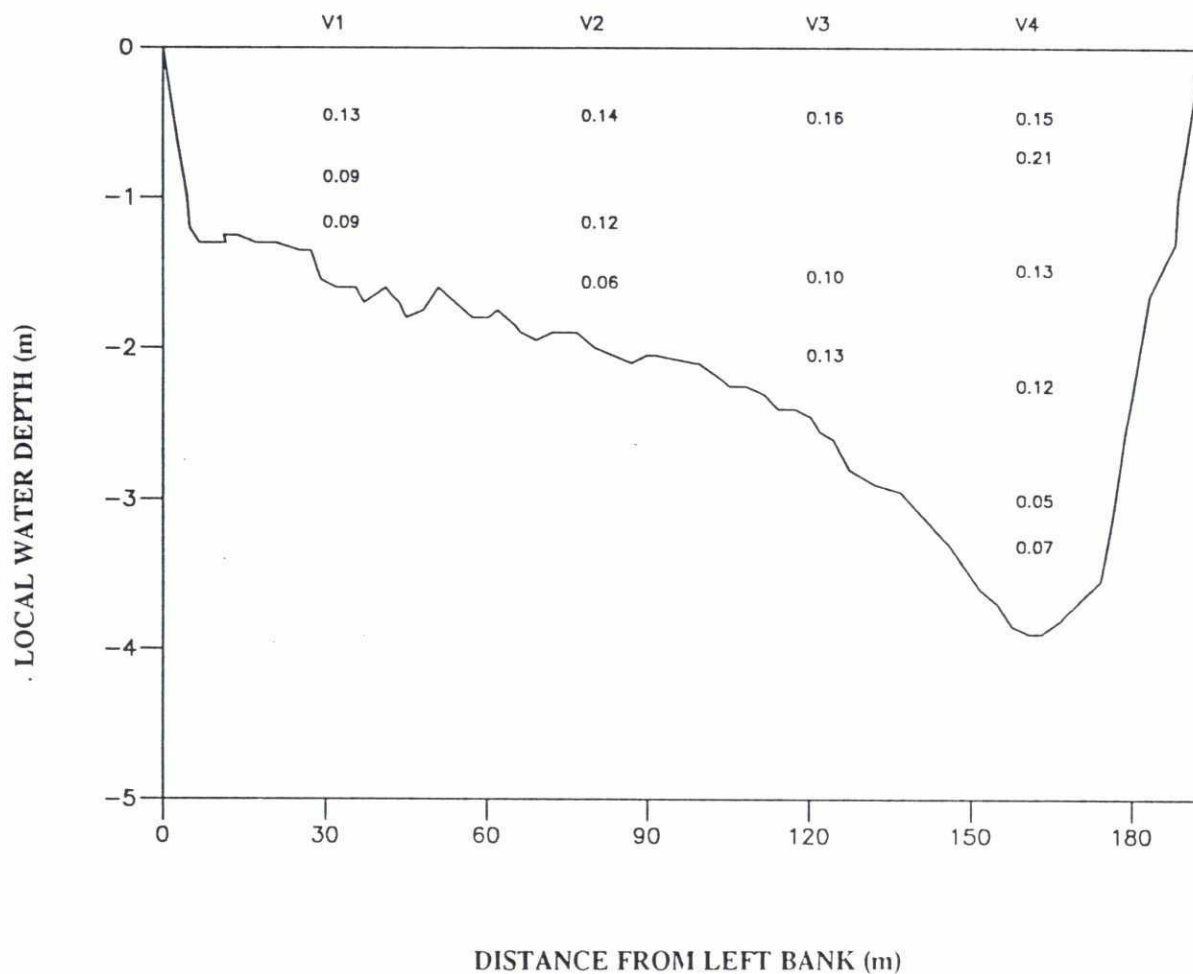
File : Y5BM9T02

Date : 09 Mar 1996


Init : sjr

Horizontal distribution of flow and sediments
Channel 1

page
3.1



Water level : 7.03 m + PWD measured at the station indicated on page 1.1


| | | | |
|---|--------------------|--|-------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 232 : 22 November, 1995 | |
| | | Location 7 : Old Bhramaputra River, Mymensingh | |
| File : Y5BM9T02 | Date : 09 Mar 1996 | Cross-sectional distribution of flow velocity Channel 1 | page 4.1 |
| | Init : sjr | | |

| Andreasen settling tube | | | | | | | | |
|--|----------|---------------------------|--------------|----------------|-----------|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent | | D10 (mm) | D50 (mm) | D90 (mm) |
| | | | | < 0.06 mm | > 0.06 mm | | | |
| Sample not collected | | | | | | | | |
| Table 5.1: Grain size of near bed suspended sediment (0.3 m above river bed) | | | | | | | | |

| US BM-54 bed samples | | | | | | | | |
|----------------------|----------|---------------------------|--------------|----------------|-----------|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent | | D10 (mm) | D50 (mm) | D90 (mm) |
| | | | | < 0.06 mm | > 0.06 mm | | | |
| Sample not collected | | | | | | | | |

Table 5.2 : Grain size of bed material

| Helley - Smith | | | | | | | | |
|------------------------------------|----------|---------------------------|--------------|----------------|-----------|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent | | D35 (mm) | D50 (mm) | D65 (mm) |
| | | | | < 0.06 mm | > 0.06 mm | | | |
| Sample not collected | | | | | | | | |
| Table 5.3 : Grain size of bed load | | | | | | | | |

| | | | |
|--|--|--------------------------|-----------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | Survey Bulletin 232 : 22 November, 1995 | | |
| | Location 7 : Old Brahmaputra River, Mymensingh | | |
| | Date : 09 Mar 1996 | Grain size distributions | page 5.1 |
| | Init : sjr | | |

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| Method | Channel | Time (YYMMDDHHMM-HHMM) | File name |
|---------------|---------|------------------------------------|------------------------|
| Echo-sounding | 1 | 9511221121-1124 9511221125-1127 | Y5BM9T01 Y5BM9T02 * |

Table 6.1: Echo-sounding

* : echo-sounding in PSD 24 data base and presented in Sections 3 and 4


| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | File name |
|---|---------|----------|---------------------------|----------------|-----------------|--------------|------------|
| Vertical current & turbidity profiles (ADCP/S4/MEX) | 1 | 1 | 9511221214-1226 | 544891 | 734587 | 1.50 | Y5BM9P01 * |
| | | 2 | 9511221232-1246 | 544860 | 734552 | 2.00 | Y5BM9P02 * |
| | | 3 | 9511221251-1304 | 544826 | 734526 | 2.60 | Y5BM9P03 * |
| | | 4 | 9511221312-1336 | 544802 | 734495 | 3.80 | Y5BM9P04 * |

Table 6.2: Vertical profiles


* ADCP & MEX not available

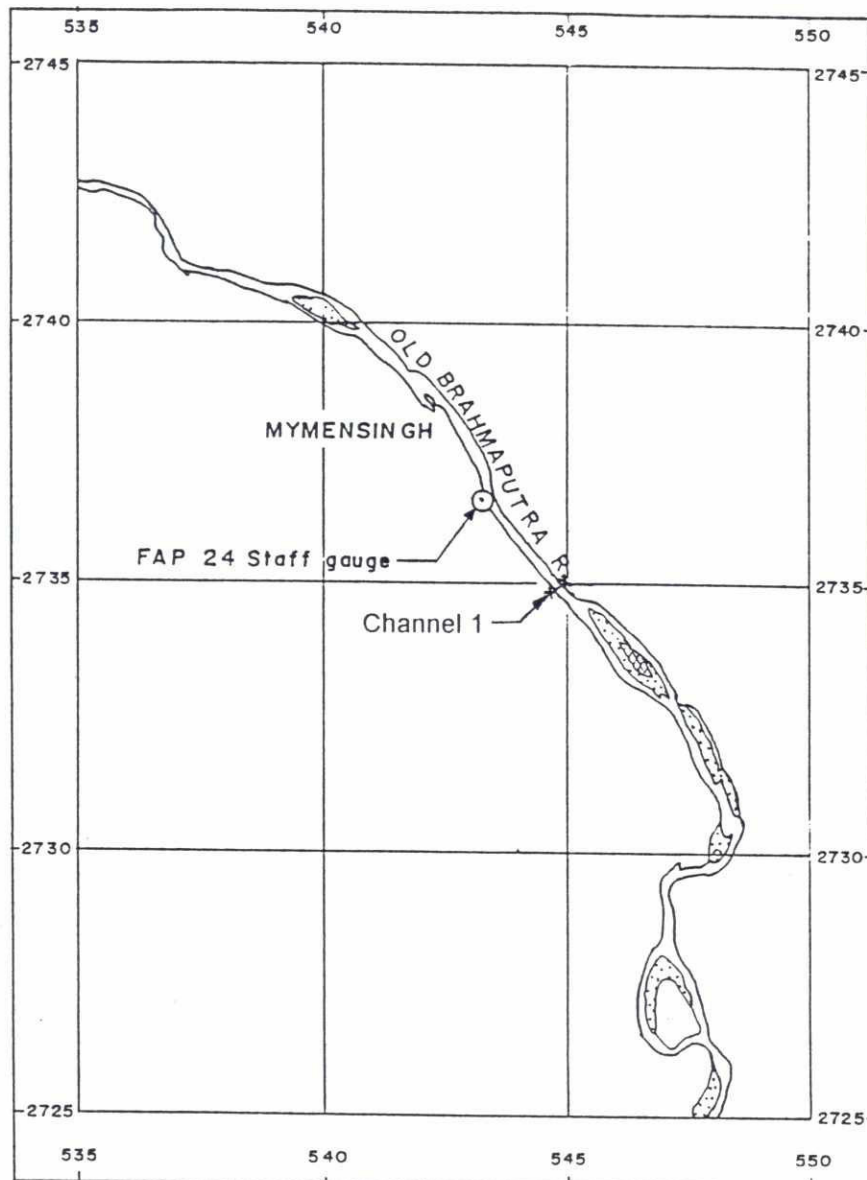
| Method | Channel | Vertical | No. of samples | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) |
|--------------------------------------|---------|----------|-------------------|---------------------------|----------------|-----------------|--------------|
| Suspended sediments (pump bottle) | 1 | 1 | 3 | 9511221214-1226 | 544891 | 734587 | 1.50 |
| | | 2 | 3 | 9511221232-1246 | 544860 | 734552 | 2.00 |
| | | 3 | 3 | 9511221251-1304 | 544826 | 734526 | 2.60 |
| | | 4 | 6 | 9511221312-1336 | 544802 | 734495 | 3.80 |

Table 6.3: Suspended sediment - point sample

| | | | |
|---|--------------------|--|-------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 232 : 22 November, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 09 Mar 1996 | Collected data and their storage (1) | page 6.1 |
| | Init : sjr | | |

| Types of Data | Channel | Format | Filename |
|--|---------|---------|--------------|
| ADCP/S4/EMF data | 1 | QUATTRO | Y5BM9T02.ase |
| Echosounder data | 1 | QUATTRO | Y5BM9T02.ech |
| Sediment transport data | 1 | QUATTRO | Y5BM9T02.sed |
| Susp. sed. conc. analysis | 1 | QUATTRO | Y5BM9T02.ssc |
| Transect plot data | 1 | QUATTRO | Y5BM9T02.trs |
| Table 7.1 PSD 24 Database file description | | | |

| | | | |
|--|--------------------|--|------|
| <div> <div> <div>FAP 24</div>  <div>DELFT - DHI</div> </div> <div> <div>RIVER SURVEY PROJECT</div> <div>Flood Plan Coordination Organization</div> <div>Commission of the European Communities</div> </div> </div> | | Survey Bulletin 232 : 22 November, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 09 Mar 1996 | PSD 24 Database file description | page |
| | Init : sjr | | 7.1 |



LEGEND:

- ✕✕ Cross section
- ▨ High land
- ░ Unstable/low char
- FAP 24 Staff gauge



5000m 2500m 0

Map is based on satellite images of Nov. 1990

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT

Flood Plan Coordination Organization
Commission of the European Communities

Survey Bulletin 240 : 21 December, 1995

Location 7 : Old Brahmaputra River, Mymensingh

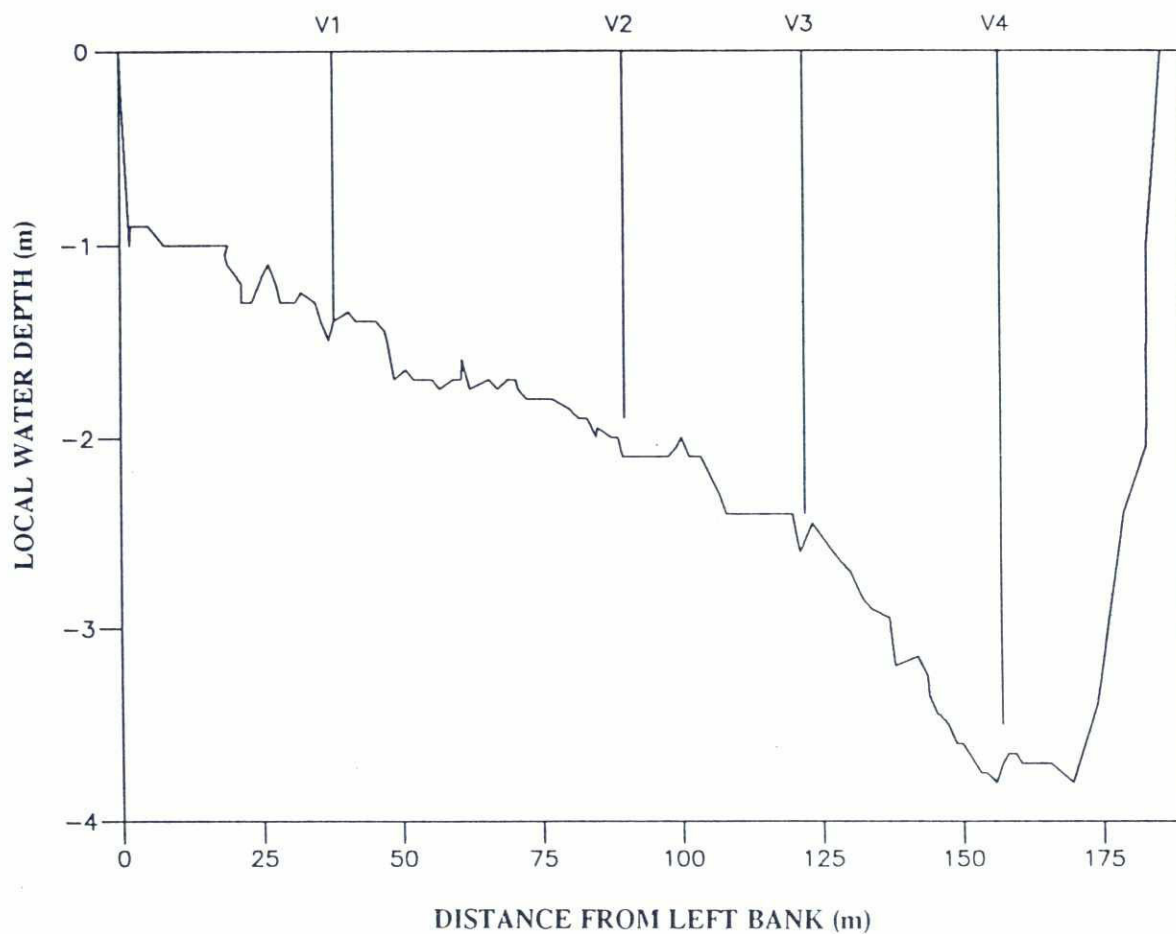
Date : 31 Mar 1996

Init : mk/ss


Location map

page
1.1

20



Water level : 6.76 m+PWD measured at the station indicated on page 1.1

| | | | |
|---|--------------------|--|-------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 240 : 21 December, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y5CL9T02 | Date : 31 Mar 1996 | Cross-sections and measured verticals Channel 1 | page 1.2 |
| | Init : mk/ss | | |


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| Type of measurement | Method | No. of measurements in channel | | | |
|-------------------------------------|-----------------------------|-----------------------------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| Discharge | ADCP transect | - | - | - | - |
| | EMF transect | - | - | - | - |
| | Echo-Sounding | 2 | - | - | - |
| Vertical current profile | No. of verticals in channel | 4 | - | - | - |
| | ADCP | - | - | - | - |
| | S4 current meter | 4 | - | - | - |
| | Ott current meter | - | - | - | - |
| Vertical sediment profile | Pump bottle sampling | 15 | - | - | - |
| | Andreasen settling tube | - | - | - | - |
| | MEX turbidity meter | - | - | - | - |
| | Integrated bottle sampling | - | - | - | - |
| | Collapsible bag | - | - | - | - |
| Bed load | Dune tracking | - | - | - | - |
| | Helley-Smith sampler | - | - | - | - |
| | Delft Bottle | - | - | - | - |
| Bed material | US BM-54 bed sampler | - | - | - | - |
| | Van Veen bed sampler | - | - | - | - |
| Table 2.1: Survey programme as made | | | | | |

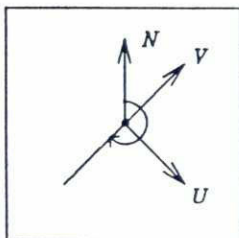
| Channel | Width (m) | Area (m ²) | Stage h (m+PWD) | Discharge Q (m ³ /s) | Bed load transport Sb (kg/s) | Suspended Sediment transport Ss total (kg/s) |
|-----------|--------------|---------------------------|--------------------|------------------------------------|------------------------------------|--|
| Channel 1 | 186 | 401 | 6.76 | 31 | - | 0.49 |

Table 2.2: Key figures

| Gauge Location | Channel | Date | Water level (Daily average) (m+PWD) | Gauge |
|-------------------------|-----------|-----------|---|--------|
| Mymensingh | Channel 1 | 21 Dec 95 | 6.76 | FAP 24 |
| Table 2.3: Water-levels | | | | |

| | | | |
|--|--------------------|--|------|
| <div><div><div>FAP 24</div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 240 : 21 December , 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y5CL9T02 | Date : 31 Mar 1996 | Survey programme as made and key figures | page |
| | Init : mk/ss | | 2.1 |

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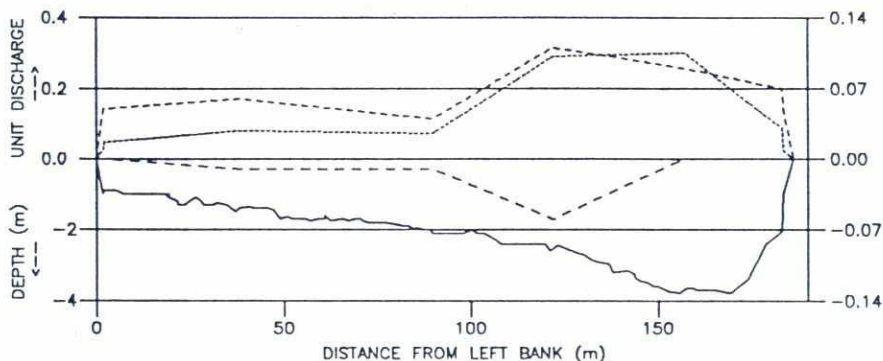


TRANSECT AZIMUTH = 225°

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



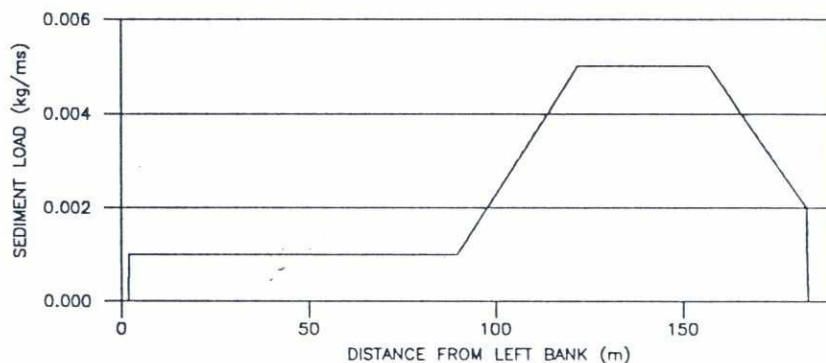
LEGEND :

— WATER DEPTH (m below STAGE)
 UNIT DISCHARGE (m³/s.m)
 --- U - (m/s)
 -.- V - (m/s)

STAGE = 6.76 (m+PWD)

A = 401 (m²)

Q = 31 (m³/s)



LEGEND :

— S_{TOTAL} 0.49 (kg/s)
 --- S_{WASH LOAD} 0.47 (kg/s)
 -.- S_{SUSP. BED} 0.02 (kg/s)
 S_{BED LOAD} - (kg/s)

SAMPLE NOT COLLECTED

GRAIN SIZE

FAP 24



DELFT - DHI

RIVER SURVEY PROJECT

Flood Plan Coordination Organization
 Commission of the European Communities

Survey Bulletin 240 : 21 December, 1995

Location 7 : Old Brahmaputra River, Mymensingh

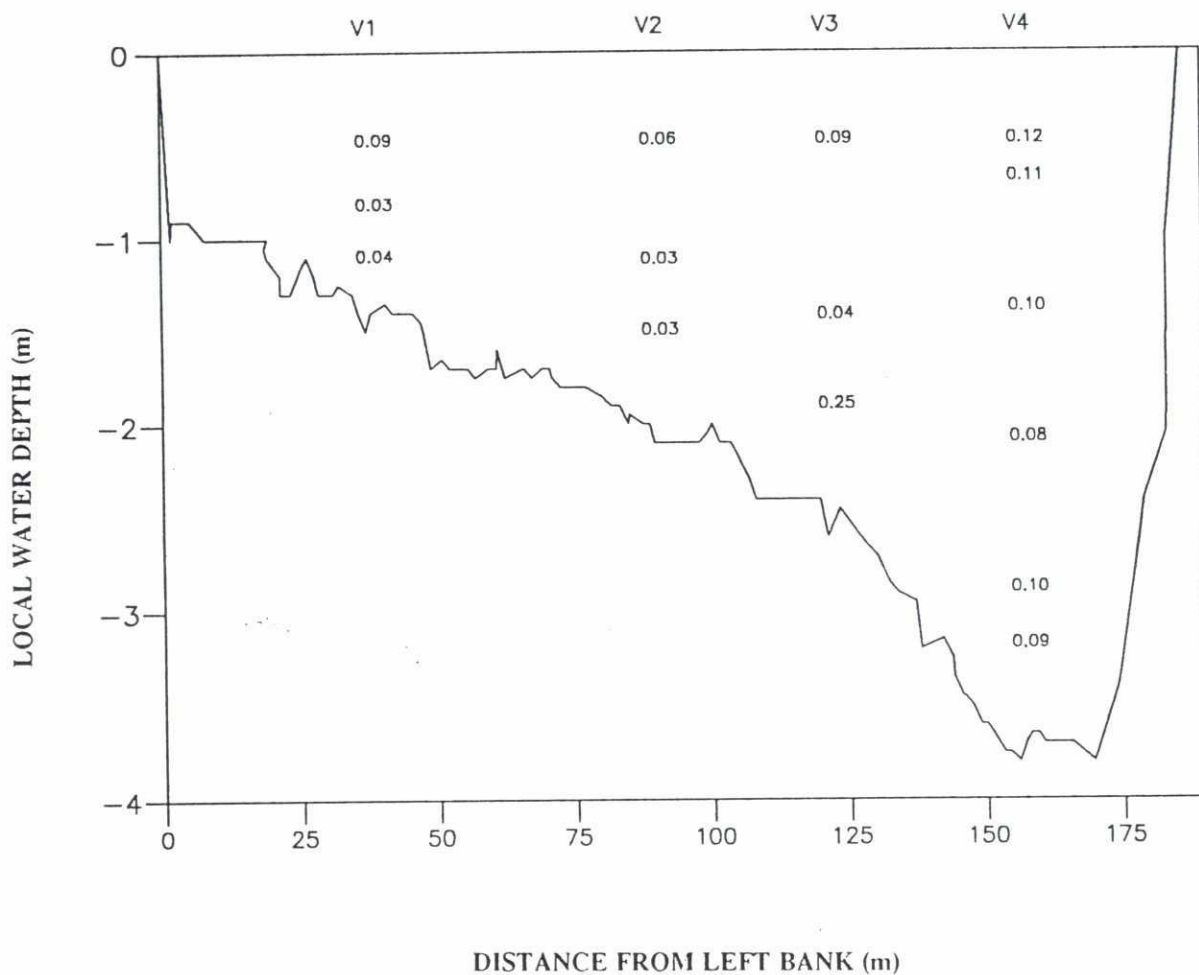
File : Y5CL9T02

Date : 31 Mar 1996


Init : mk/ss

Horizontal distribution of flow and sediments
 Channel 1

page
 3.1



Water level : 6.76 m+PWD measured at the station indicated on page 1.1


| | | | |
|---|--------------------|--|-------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 240 : 21 December, 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y5CL9T02 | Date : 31 Mar 1996 | Cross-sectional distribution of flow velocity Channel 1 | page 4.1 |
| | Init : mk/ss | | |

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| Andreasen settling tube | | | | | | | |
|--|----------|---------------------------|--------------|---------------------------------------|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent < 0.06 mm > 0.06 mm | D35 (mm) | D50 (mm) | D65 (mm) |
| Sample not collected | | | | | | | |
| Table 5.1: Grain size of near bed suspended sediment (0.3 m above river bed) | | | | | | | |

| US BM-54 bed samples | | | | | | | |
|--|----------|---------------------------|--------------|---------------------------------------|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent < 0.06 mm > 0.06 mm | D35 (mm) | D50 (mm) | D65 (mm) |
| Sample not collected | | | | | | | |
| Table 5.2 : Grain size of bed material | | | | | | | |

| Helley-Smith | | | | | | | |
|-------------------------------------|----------|---------------------------|--------------|---------------------------------------|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent < 0.06 mm > 0.06 mm | D35 (mm) | D50 (mm) | D65 (mm) |
| Sample not collected | | | | | | | |
| Table 5.3 : Grain sizes of bed load | | | | | | | |

| | | | |
|--|--------------------|--|-------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 240 : 21 December , 1995 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 31 Mar 1996 | Grain size distributions | page 5.1 |
| | Init : mk/ss | | |

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| Method | Channel | Time (YYMMDDHHMM-HHMM) | File name |
|---------------|---------|------------------------------------|------------------------|
| Echo-sounding | 1 | 9512211034-1037 9512211043-1045 | Y5CL9T01 Y5CL9T02 * |


Table 6.1: Echo-sounding * : echo-sounding in PSD 24 data base and presented in Sections 3 and 4

| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | File name |
|---|---------|----------|---------------------------|----------------|-----------------|--------------|------------|
| Vertical current & turbidity profiles (ADCP/S4/MEX) | 1 | 1 | 9512211156-1206 | 544893 | 734570 | 1.40 | Y5CL9P04 * |
| | | 2 | 9512211140-1150 | 544853 | 734538 | 1.90 | Y5CL9P03 * |
| | | 3 | 9512211124-1134 | 544829 | 734517 | 2.40 | Y5CL9P02 * |
| | | 4 | 9512211055-1118 | 544802 | 734493 | 3.50 | Y5CL9P01 * |


Table 6.2: Vertical profiles * ADCP & MEX not available

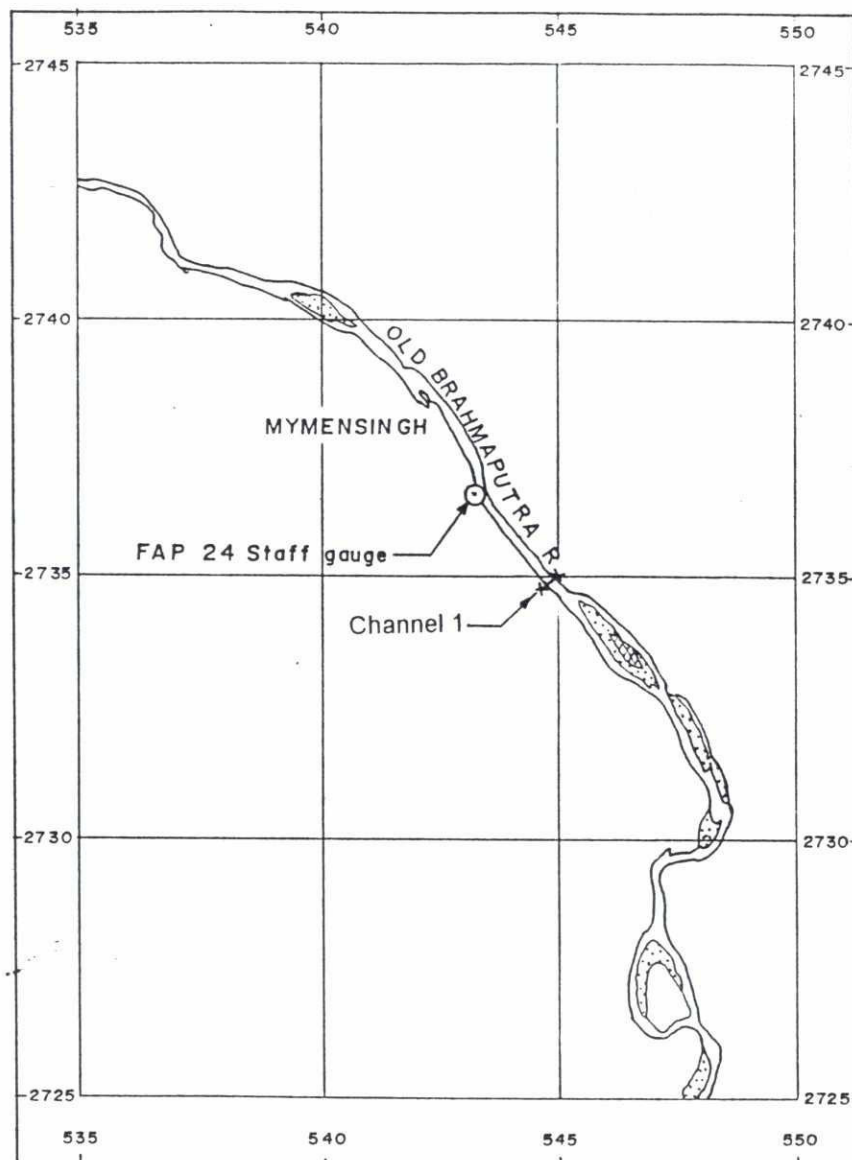
| Method | Channel | Vertical | No. of samples | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) |
|--------------------------------------|---------|----------|-------------------|---------------------------|----------------|-----------------|--------------|
| Suspended sediments (pump bottle) | 1 | 1 | 3 | 9512211156-1206 | 544893 | 734570 | 1.40 |
| | | 2 | 3 | 9512211140-1150 | 544853 | 734538 | 1.90 |
| | | 3 | 3 | 9512211124-1134 | 544829 | 734517 | 2.40 |
| | | 4 | 6 | 9512211055-1118 | 544802 | 734493 | 3.50 |

Table 6.3: Suspended sediment - point sample

| | | | |
|--|--|--------------------------------------|-------------|
| <div><div><div>FAP 24</div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | Survey Bulletin 240 : 21 December , 1995 | | |
| | Location 7 : Old Brahmaputra River, Mymensingh | | |
| | Date : 31 Mar 1996 | Collected data and their storage (1) | page 6.1 |
| | Init : mk/ss | | |

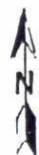
| Types of Data | Channel | Format | Filename |
|--|---------|---------|---------------|
| ADCP/S4/EMF data | 1 | QUATTRO | Y5CL9T02 .ase |
| Echosounder data | 1 | QUATTRO | Y5CL9T02 .ech |
| Sediment transport data | 1 | QUATTRO | Y5CL9T02 .sed |
| Susp. sed. conc. analysis | 1 | QUATTRO | Y5CL9T02 .ssc |
| Transect plot data | 1 | QUATTRO | Y5CL9T02 .trs |
| Table 7.1 PSD 24 Database file description | | | |

| | | | |
|--|---|--|------|
|  FAP 24 DELFT - DHI | RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities | Survey Bulletin 240 : 21 December , 1995 | |
| | Location 7 : Old Brahmaputra River, Mymensingh | | |
| | Date : 31 Mar 1996 | PSD 24 Database file description | page |
| | Init : mk/ss | | 7.1 |



LEGEND:-

- ✕—✕ Cross section
- ▨ High land
- ▤ Unstable/low char
- FAP 24 Staff gauge



5000m 2500m 0

Map is based on satellite images of Nov. 1990

FAP 24



DELFT - DHI

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Flood Plan Coordination Organization
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Survey Bulletin 248 : 14 January, 1996

Location 7 : Old Brahmaputra River, Mymensingh

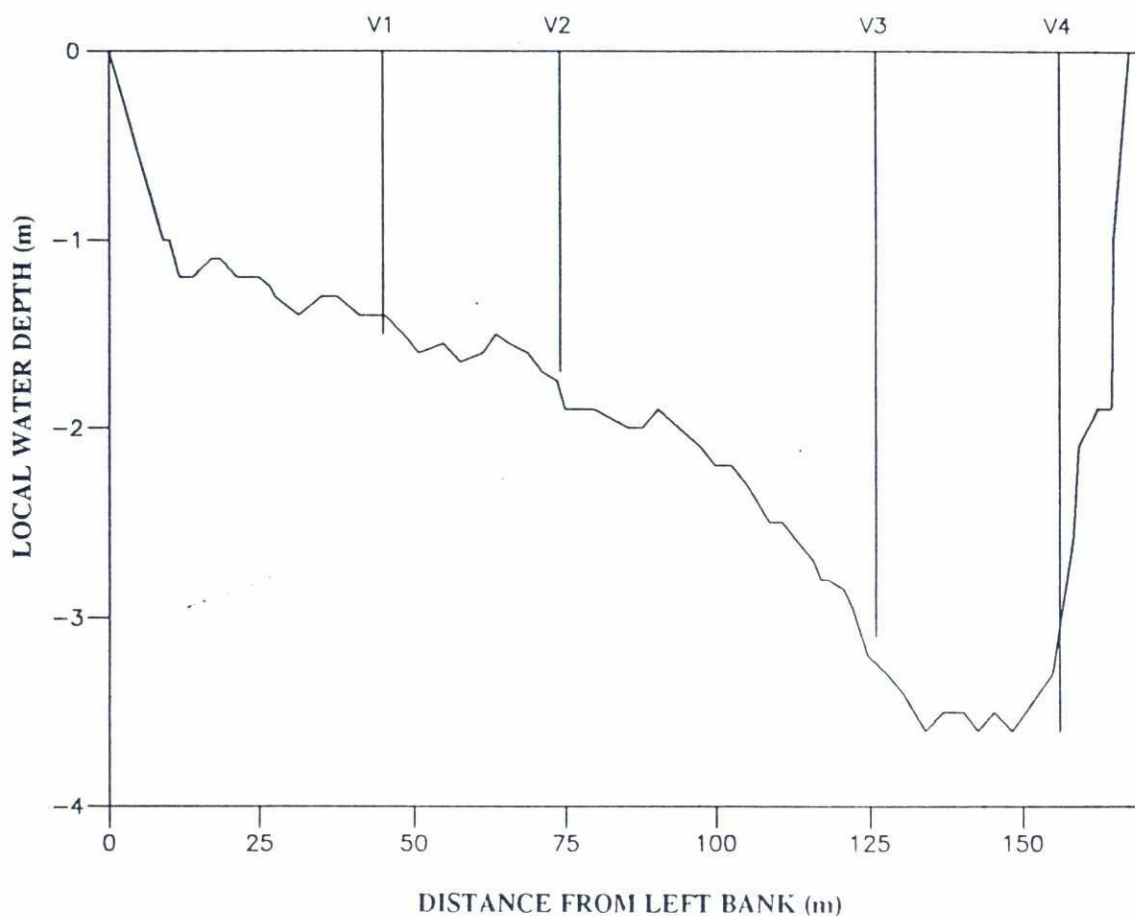
Date : 18 Apr 1996

Init : mk/ss


Location map

page
1.1

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Water level : 6.64 m+ PWD measured at the station indicated on page 1.1

| | | | |
|---|--------------------|--|------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 248 : 14 January, 1996 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y61E9T01 | Date : 18 Apr 1996 | Cross-sections and measured verticals Channel 1 | page |
| | Init : mk/ss | | 1.2 |

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| Type of measurement | Method | No. of measurements in channel | | | |
|---------------------------|-----------------------------|--------------------------------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| Discharge | ADCP transect | - | - | - | - |
| | EMF transect | - | - | - | - |
| | Echo-Sounding | 2 | - | - | - |
| Vertical current profile | No. of verticals in channel | 4 | - | - | - |
| | ADCP | - | - | - | - |
| | S4 current meter | 4 | - | - | - |
| | Ott current meter | - | - | - | - |
| Vertical sediment profile | Pump bottle sampling | 18 | - | - | - |
| | Andreasen settling tube | - | - | - | - |
| | MEX turbidity meter | - | - | - | - |
| | Integrated bottle sampling | - | - | - | - |
| | Collapsible bag | - | - | - | - |
| Bed load | Dune tracking | - | - | - | - |
| | Helley-Smith sampler | - | - | - | - |
| | Delft Bottle | - | - | - | - |
| Bed material | US BM-54 bed sampler | - | - | - | - |
| | Van Veen bed sampler | - | - | - | - |



Table 2.1: Survey programme as made

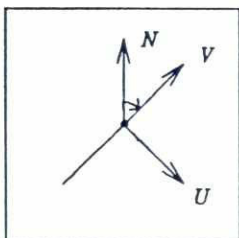
| Channel | Width (m) | Area (m ²) | Stage h (m+PWD) | Discharge Q (m ³ /s) | Bed load transport Sb (kg/s) | Suspended Sediment transport Ss total (kg/s) |
|-----------|--------------|---------------------------|--------------------|------------------------------------|---------------------------------|---|
| Channel 1 | 167 | 341 | 6.64 | 16 | - | 0.11 |

Table 2.2: Key figures

| Gauge Location | Channel | Date | Water level (Daily average) (m+PWD) | Gauge |
|----------------|-----------|-----------|---|--------|
| Mymensingh | Channel 1 | 14 Jan 96 | 6.64 | FAP 24 |

Table 2.3: Water-levels

| | | | |
|---|--------------------|--|------|
|   | | Survey Bulletin 248 : 14 January , 1996 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y61E9T01 | Date : 17 Mar 1996 | Survey programme as made and key figures | page |
| | Init : mk/ss | | 21 |

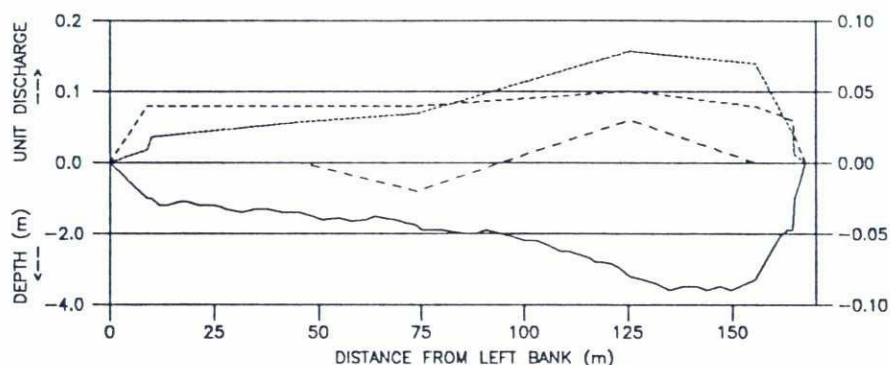


TRANSECT AZIMUTH = 45°

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



FLOW

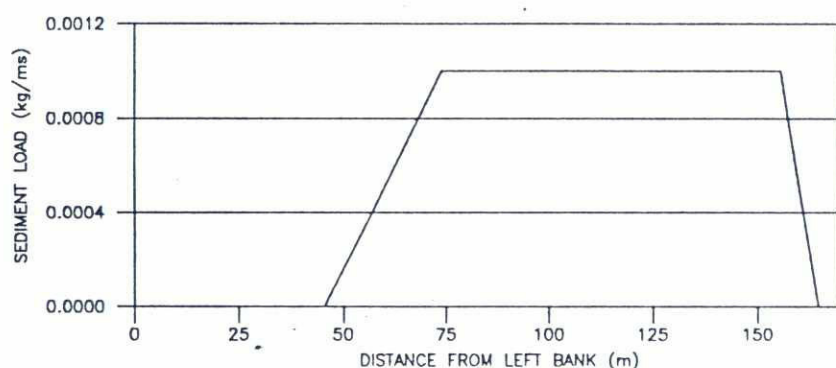
LEGEND :

— WATER DEPTH (m below STAGE)
 UNIT DISCHARGE ($m^3/s.m$)
 --- U - (m/s)
 -.- V - (m/s)

STAGE = 6.64 (m+PWD)

A = 341 (m^2)

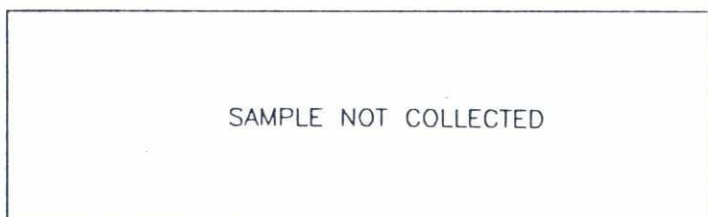
Q = 16 (m^3/s)



SEDIMENT TRANSPORT

LEGEND :

— S_{TOTAL} 0.11 (kg/s)
 --- $S_{WASH LOAD}$ 0.10 (kg/s)
 -.- $S_{SUSP. BED}$ 0.01 (kg/s)
 $S_{BED LOAD}$ - (kg/s)



GRAIN SIZE

FAP 24



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Location 7 : Old Brahmaputra River, Mymensingh

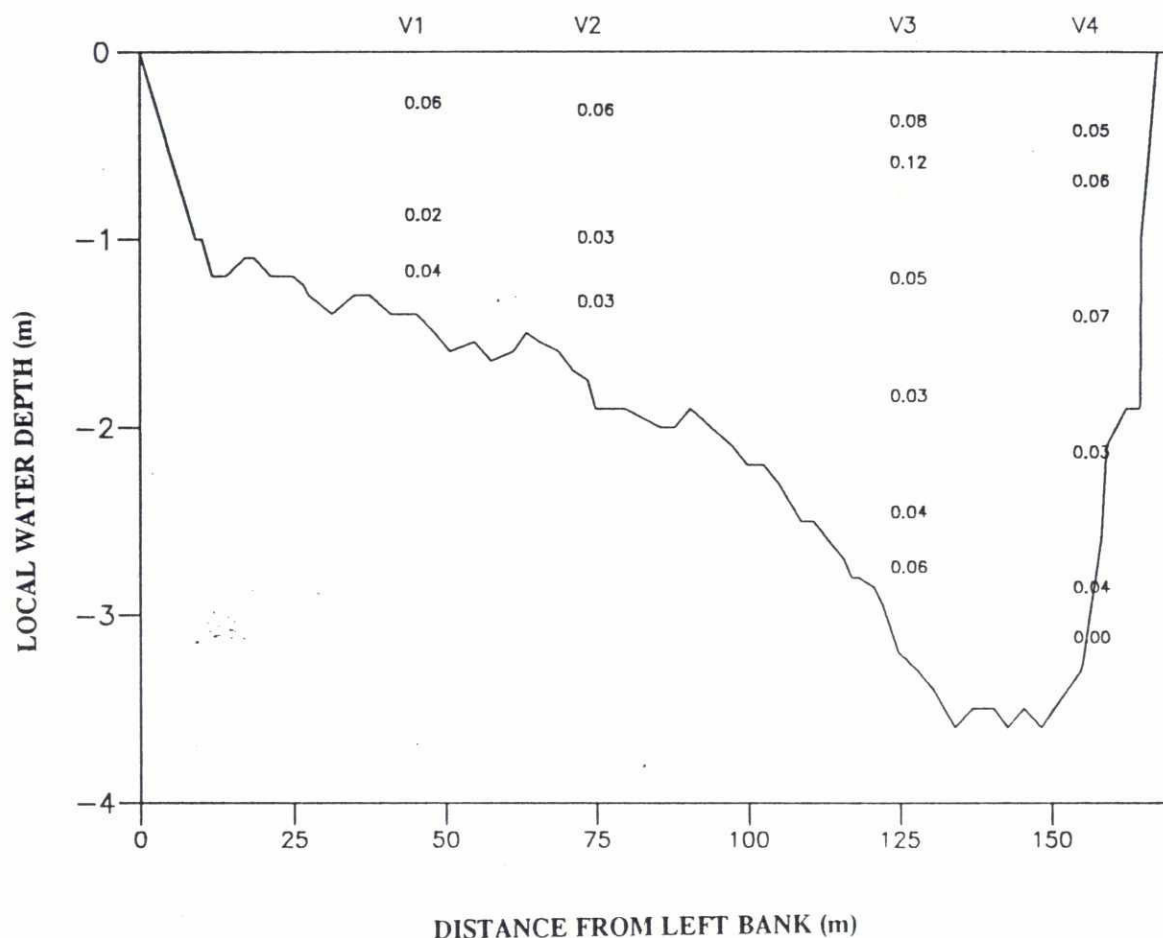
File : Y61E9T01

Date : 18 Apr 1996


Unit : m/s

Horizontal distribution of flow and sediments
 Channel 1

page
 3.1



Water level : 6.64 m+PWD measured at the station indicated on page 1.1

| | | | |
|---|--------------------|--|-----------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 248 : 14 January, 1996 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| File : Y61E9T01 | Date : 18 Apr 1996 | Cross-sectional distribution of flow velocity Channel 1 | page 4.1 |
| | Unit : m/s | | |

| Andreasen settling tube | | | | | | | |
|-------------------------|----------|---------------------------|--------------|--|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent < 0.06 mm > 0.06 mm | D35 (mm) | D50 (mm) | D65 (mm) |
| Sample not collected | | | | | | | |


Table 5.1: Grain size of near bed suspended sediment (0.3 m above river bed)

| US BM-54 bed samples | | | | | | | |
|----------------------|----------|---------------------------|--------------|--|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent < 0.06 mm > 0.06 mm | D35 (mm) | D50 (mm) | D65 (mm) |
| Sample not collected | | | | | | | |

Table 5.2 : Grain size of bed material

| Helley-Smith | | | | | | | |
|----------------------|----------|---------------------------|--------------|--|-------------|-------------|-------------|
| Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Depth (m) | Weight percent < 0.06 mm > 0.06 mm | D35 (mm) | D50 (mm) | D65 (mm) |
| Sample not collected | | | | | | | |

Table 5.3 : Grain sizes of bed load

| | | | |
|--|--------------------|--|-------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 248 : 14 January , 1996 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 17 Mar 1996 | Grain size distributions | page 5.1 |
| | Init : mk/ss | | |

| Method | Channel | Time (YYMMDDHHMM-HHMM) | File name |
|---------------|---------|------------------------------------|------------------------|
| Echo-sounding | 1 | 9601141111-1115 9601141116-1120 | Y61E9T01 * Y61E9T02 |

Table 6.1: Echo-sounding

* : echo-sounding in PSD 24 data base and presented in Sections 3 and 4

| Method | Channel | Vertical | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) | File name |
|---|---------|----------|---------------------------|----------------|-----------------|--------------|------------|
| Vertical current & turbidity profiles (ADCP/S4/MEX) | 1 | 1 | 9601141312-1322 | 544873 | 734557 | 1.50 | Y61E9P04 * |
| | | 2 | 9601141253-1303 | 544852 | 734531 | 1.70 | Y61E9P03 * |
| | | 3 | 9601141210-1231 | 544821 | 734498 | 3.10 | Y61E9P02 * |
| | | 4 | 9601141137-1200 | 544797 | 734489 | 3.60 | Y61E9P01 * |


Table 6.2: Vertical profiles

* ADCP & MEX not available


| Method | Channel | Vertical | No. of samples | Time (YYMMDDHHMM-HHMM) | Easting (m) | Northing (m) | Depth (m) |
|--------------------------------------|---------|----------|-------------------|---------------------------|----------------|-----------------|--------------|
| Suspended sediments (pump bottle) | 1 | 1 | 3 | 9601141312-1322 | 544873 | 734557 | 1.50 |
| | | 2 | 3 | 9601141253-1303 | 544852 | 734531 | 1.70 |
| | | 3 | 6 | 9601141210-1231 | 544821 | 734498 | 3.10 |
| | | 4 | 6 | 9601141137-1200 | 544797 | 734489 | 3.60 |

Table 6.3: Suspended sediment - point sample



| | | | |
|---|---|--|------------|
|  FAP 24 DELFT - DHI | RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities | Survey Bulletin 248 : 14 January , 1996 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 17 Mar 1996 | Collected data and their storage (1) | page 61 |
| | Init : mk/ss | | |

| Types of Data | Channel | Format | Filename |
|--|---------|---------|---------------|
| ADCP/S4/EMF data | 1 | QUATTRO | Y61E9T01 .ase |
| Echosounder data | 1 | QUATTRO | Y61E9T01 .ech |
| Sediment transport data | 1 | QUATTRO | Y61E9T01 .sed |
| Susp. sed. conc. analysis | 1 | QUATTRO | Y61E9T01 .ssc |
| Transect plot data | 1 | QUATTRO | Y61E9T01 .trs |
| Table 7.1 PSD 24 Database file description | | | |

| | | | |
|---|--------------------|--|----------------|
| <div><div><div>FAP 24</div><div></div><div>DELFT - DHI</div></div><div><div>RIVER SURVEY PROJECT</div><div>Flood Plan Coordination Organization</div><div>Commission of the European Communities</div></div></div> | | Survey Bulletin 248 : 14 January , 1996 | |
| | | Location 7 : Old Brahmaputra River, Mymensingh | |
| | Date : 17 Mar 1996 | PSD 24 Database file description | page 71 |
| | Init : mk/ss | | |

