

EXECUTIVE SUMMARY

This report presents the hydrological survey data obtained during the hydrological survey works conducted at Faridpur Sadar Upazila under Faridpur district. The task is a part of the project, “Preparation of Development Plan for Fourteen Upazilas”, Package-3. Bathymetric survey of Kumar River has been done. During rest of the survey works, information regarding any existing water control structure, river crossings, distributaries and tributaries were collected. It also presents the detailed survey data of the existing drains within the township. The existing drainage systems or drainage network data has been collected by the field survey. Cross sections were surveyed at the locations of the existing structures on the rivers, at junctions with and of other channels or rivers. For drains, sizes were charted at starting locations, junctions and end points. The reduced levels of the existing ground at those locations were measured too. To measure the reduced levels on the field, dumpy levels were used. The levels were measured with respect to nearby benchmarks or temporary benchmarks of authorized organizations like Bangladesh Water Development Board, Public Works Department, Roads and Highways Department, Local Government Engineering Department, etc. GPS locations at each BM/TBM location, at the point of start of each cross section, at any structure location and at all the control points of the drains were recorded. Other data include flow directions, depth, width, structure type have been collected by the field survey. The information will be incorporated with the DEM on GIS and if needed, adjusted according to the established GCPs. This will subsequently facilitate any sort of numerical watershed analysis and hence extrapolate a prediction for the future. This report also presents the analysed rainfall data.

1. PROJECT OVERVIEW

1.1 Background and Objective

The project, “Preparation of Development Plan for Fourteen Upazilas” was initiated by Urban Development Directorate, Ministry of Housing and Public Works, Government of Bangladesh. The main objective of the project is upgrading the living standard of the local people. The Kumar River is the main drainage channels in the vicinity. The whole system of rivers in and around the Upazila is essentially connected to Padma River on the north-east. The urban area has a lack of proper drainage system. Flood modeling software should be used to understand flooding conditions, identify the water logging areas and establish the drainage requirements. Models should also be used to assess the efficiency of the existing and proposed drainage system.

One aspect of this Hydrological Survey is the bathymetric survey of the main rivers within the project area. The purpose of bathymetric survey is to provide bathymetric information of the Kumar River with connected others river. The water level data of those rivers will be used as boundary conditions for model analysis. The information obtained in the field will be incorporated in the DEM through a process called “Burning”. This will be necessary for analyzing the surface water flow to assess flood through flood modeling software PCSWMM 2D. It is required to assess the flood conditions during different time period and season against different water levels and discharge (*Sample results shown in Fig: 1*). If the actual cross-section of the river or channel is not obtained, the analysis will be faulty and will overstate the flood. This type of analysis will be helpful for preparation of effective and long lasting development plans for this Upazila. Hence, accuracy of the analysis is of prime importance.

To run a flood model of the area, water level, discharge and rainfall data of the vicinity have been collected from secondary source and analyzed. Water level data of FFWC gauge stations Kumar river at Faridpur Sadar have been collected. The rainfall data of the stations Faridpur station has also been collected to obtain a rational rainfall data by interpolation. The data are to be analyzed to obtain water level, discharge and rainfall data for different return period. The water level and discharge data are needed to set the boundary condition in flood models. The rainfall data will be used to obtain runoffs to calculate discharge at pour points of the sub-catchments.

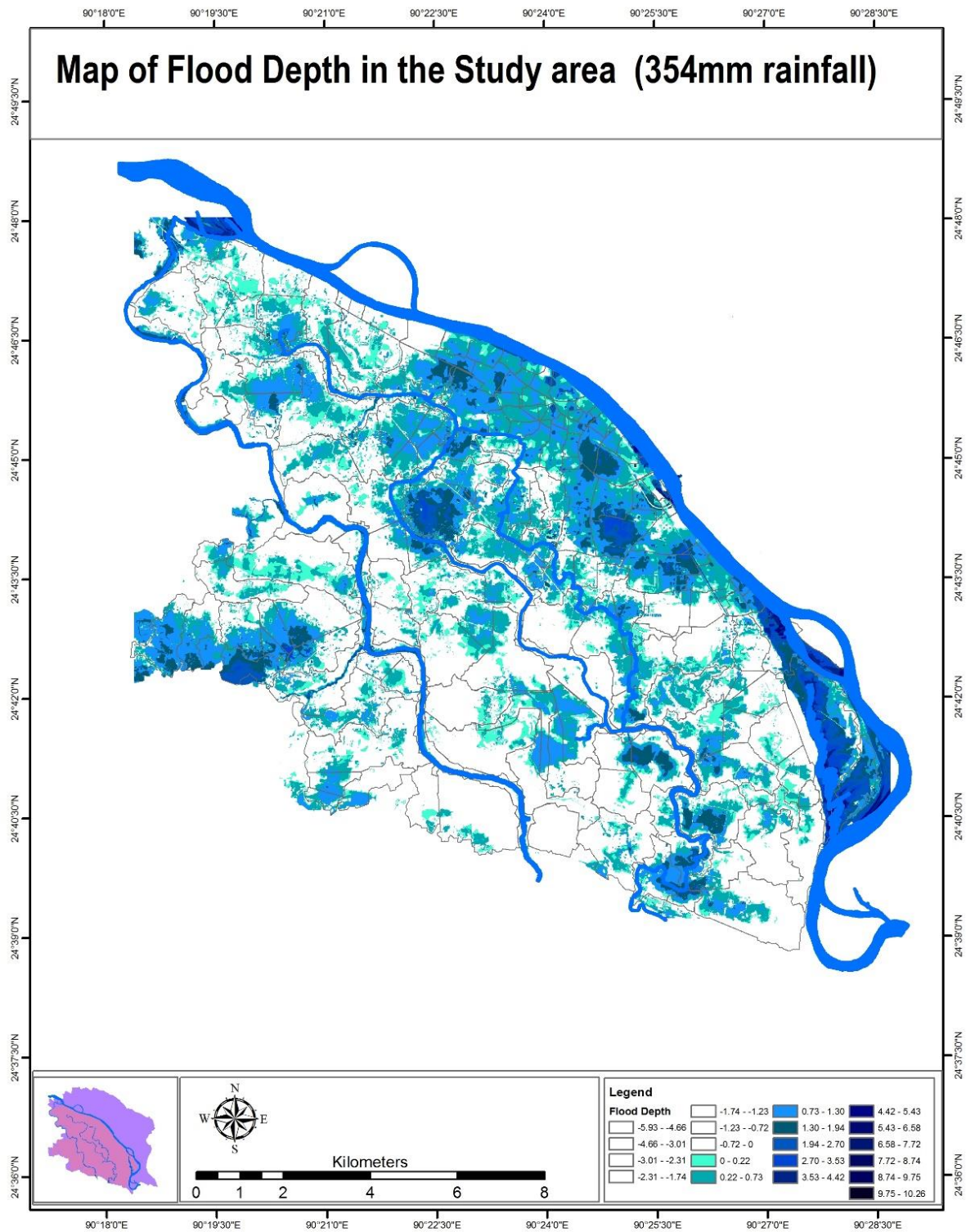


Figure 1: Flood Depth of 5 in 5 years rainfall derived by PCSWMM 2D

2. DETAILS OF SURVEY WORK

2.1 Project Boundary

According to the RFP, role and importance of the secondary towns of Bangladesh can be envisaged from the fact that the contribution of the urban sector to gross domestic product (GDP) is increasing day by day. Considering the importance of the growth of the secondary towns, fourteen Upazila are considered for the preparation of Development Plan. Faridpur Sadar Upazila of Faridpur district is also the concern area. It contains Faridpur Town near the banks of the Padma River.

Faridpur Sadar came into existence as a thana in 1894. Nothing is definitely known about the origin of the upazila name. It is learnt that, there lived a renowned religious leader and pious saint named **Shah Farid** in this locality. He was buried in the present place of Faridpur town after his death. It is generally believed that the upazila might have derived its name Faridpur Sadar from the name of that great saint Shah Farid.

The upazila occupies an area of 412.86 sq.km. It is located between 23° 29' and 23° 34' north latitudes and between 89° 43' and 89° 56' east longitudes. Faridpur Sadar Upazila consists of 11 Unions with an area of 407.02 sq. km under Faridpur Districts. Total population of the Upazila is about 4,89,017 (almost 50% are female) whereas rural population is about 3, 46,985 and urban population is about 1,42,032. That means about 29% people are living in the Urban area of and the rest are living rural area of Faridpur Sadar Upazilla. The no of total household of the Upazila is 103535 (BBS, 2011).

2.2 Survey Component

The current survey work comprises the following components

1. Pipe network
2. Open/ Covered drain
3. Khal/ Natural canal
4. Spot Level
5. Hydrological survey

2.3 Measuring Reduced Levels

To measure the reduced levels, dumpy levels and 5m staffs were used. In case of rivers, the levels were measured with respect to the nearest known benchmarks of Bangladesh Water Development Board or temporary benchmarks of any authorized government organizations viz., Roads and Highways Department or Local Government Engineering Department etc. After establishing a horizontal line of collimation / line of sight with respect to a BM/TBM, staff readings are taken within the range of visibility of the dumpy level. For any reading beyond the visibility range, the dumpy level needs a change of station. A temporary benchmark is established and further measurements are made with respect to that. In case of a change of level of more than the height of the staff (5m generally), the levelling machine needs to be shifted and setup again. Subtracting the level of line of sight from the staff readings provides

the reduced levels at the point concerned. In figure 4, a schematic diagram of survey method using Dumpy Levels is shown.

2.4 BM Used for the Survey

During the study of hydrological survey, a good number of BM has been used to carry out level and positions. Survey of Bangladesh also has BM 6181. Apart from around 20 number BM being establishment by ECAL has been used to carry out the level . The list of BM used during the survey work is presented in Table 1

Table 1: BM location with RL using During the hydrological survey

BM	Latitude	Longitude	RL	Location name
SOB 6181	23.552047	89.777757	7.673	BISC Shilpo, Kanaipur
BM01	23.589546	89.809134	8.968	Upazila Parishad Headquater, Rajbari raster more
BM02	23.615466	89.842921	8.6525	Bhati lokhipur primary school, bhatilokhipur
BM03	23.599571	89.827247	8.6287	Goalchamut primary school, бага more
BM04	23.58871	89.834487	7.8814	Alipur primary school, medical bazar
BM05	23.611482	89.818022	8.8785	Gobindopur primary school.
BM06	23.601201	89.839238	7.369	Jhiltoli primary school, jhiltoli
BM07	23.612044	89.856541	9.1191	Tapatola primary school, Tepakhola
BM08	23.595128	89.861653	7.9221	Rajendro University college, Bitul aman
BM09	23.586917	89.861455	8.0927	Aliyabad UP, Aliyabad
BM10	23.559565	89.814432	7.271	Koijuri Up, Koijuri bazar
BM11	23.547002	89.856976	7.338	Gerda Up,Bakunda Bazar
BM12	23.635816	89.779581	8.6057	Ishan Gopalpur Up,
BM13	23.607754	89.800826	8.087	Ambikapur Up, Ambikapur
BM14	23.569689	89.758778	9.3586	Krishnanagar Up, Krishnanagar
BM15	23.539804	89.774316	7.0817	Kanipur Up, Kanipur Bazar
BM16	23.631276	89.761807	9.6791	Machaar up, Dhaka-Faridpur highway
BM17	23.650899	89.817656	9.2435	Char Madhabdia Up, Char Madhabdia bazar
BM18	23.663447	89.840114	8.7167	Uttar channel Up, Boalmari

BM19	23.630535	89.85471	8.0463	Aizuddin Matubbar primary school, CNB Ghat
SOB 2903	23.612563	89.852886	8.1827	Kanaipur Primary school, SOB_BM_2903

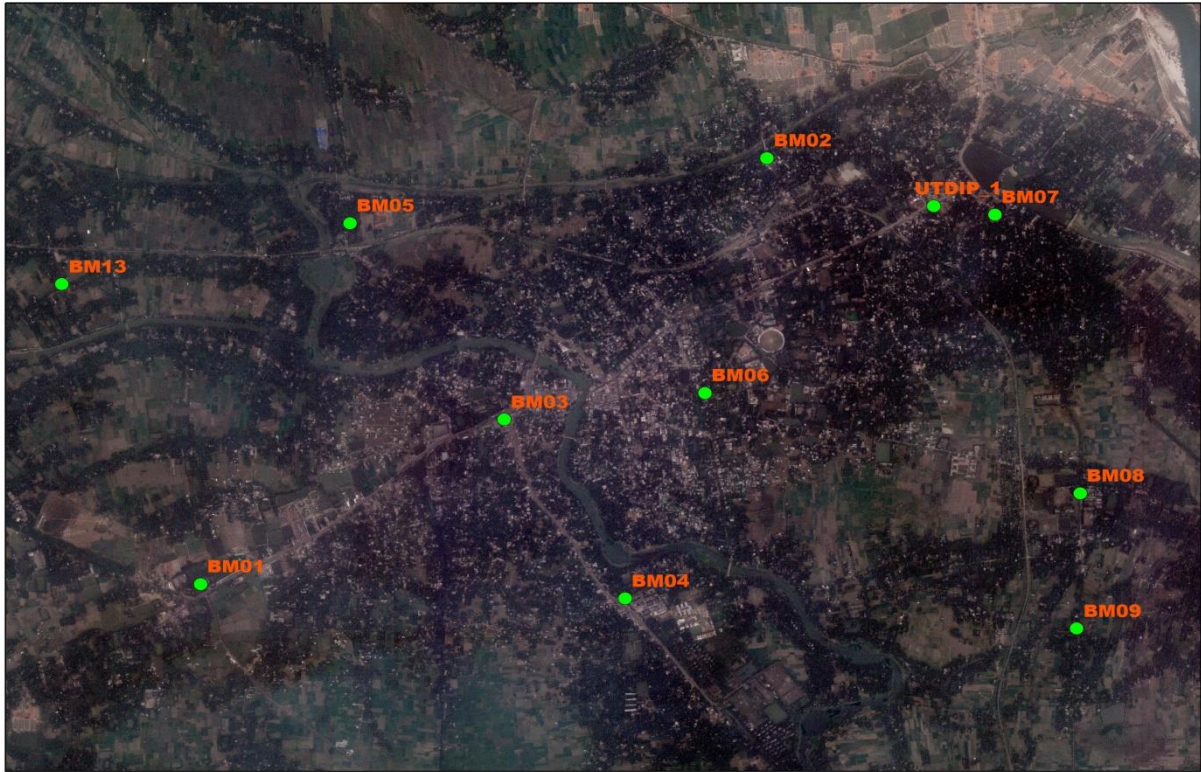


Figure 2: BM location of the Faridpur Sadar

2.5 Drainage Network Survey (pipe & open/covered drains)

The drainage network of the faridpur paurashava contained both of the pipe network and open/covered drains has been surveyed under current study. For pipe network the surveyed parameter was alignment with length, invert level with position, diameter, flow direction, outfall location, surface level and physical capacity condition. These parameters were recorded at every accessible point/manhole. For open drains open drains the measured parameter were alignment with length, top width, bottom width, top level, bottom level, depth, outfall location and capacity condition. These parameters were measured at not more than 250 meter interval but include all starting, ending and junctions.

2.6 Canal/Khal Survey

The main river of Faridpur Sadar is Kumar river. the cross sectional survey of kumar river has been done. The cross sectional survey of connected khal with kumar river and other khal of the area have been done by the field survey. The length of kumar khal is 10.75 km length. This river is the main arteries of drainage system of Faridpur sadar. To get the present condition of all these khals cross sectional survey has been conducted at an interval of 500 meter.

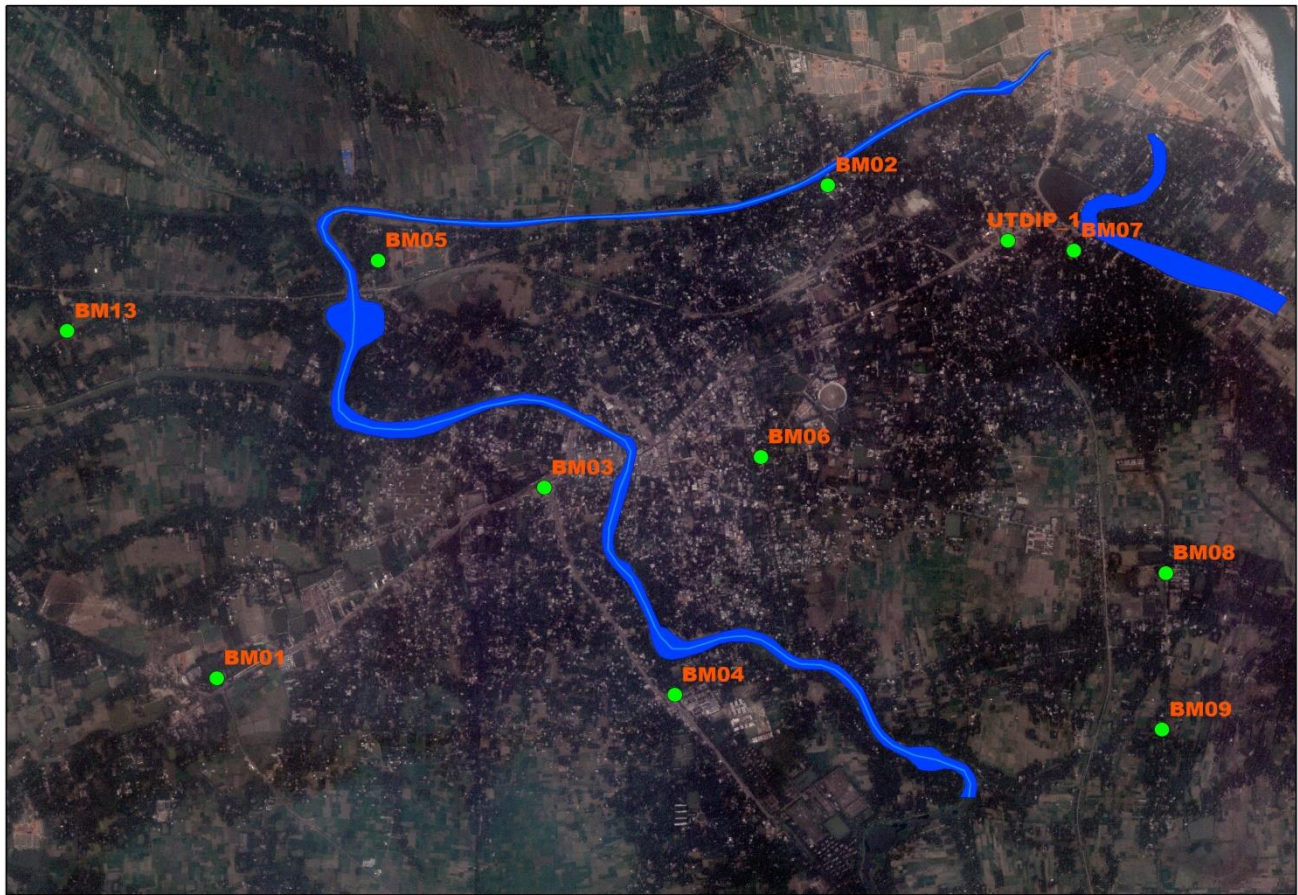


Figure 3: Kumar River and BM location of Faridpur Sadar

2.7 Methodology for Drainage Network Survey

The alignment of road has been collected from LGED and the road network has been divided into small grids. The survey team identified all the accessible point of subsurface pipeline inside a grid. Then from nearest BM level has been carried out with level machine to all the accessible point. For pipe line inner bottom level, inner top level and road surface level has been recorded with GPS position. The diameter of the pipe is calculated from difference of inner top and inner bottom level. The alignment of the pipe network has also been recorded with GPS tracking. The direction of flow along the drainage network was also recorded. Around 30 surveyors have worked for drainage data collection.



Figure 4: Data Collection of Drain network

2.8 Methodology for Canal/ Khal Survey

To get the present condition of the khals of Faridpur sadar, cross sectional survey was conducted at an interval of 500 meter. The khals mainly consist two parts – under water bed and above water land portion (on both bank). For land portion total station and level machine was used and echo-sounder was used to get the bed profile of khal. Position and level was carried out from nearest BM. Additional TBM was established as per requirement of field condition. The cross sectional data was recorded at an offset of not greater than 5 meter. Furthermore edge of bank, toe of slope and deepest point has been marked. From the edge of bank maximum 20 meter length has been covered towards country side. RL of water level and direction of flow was also recorded for every section. After collection the land data and under water data has been combined to get the cross section.



Figure 5 : Data Collection or River cross section with Total station survey of Faridpur Sadar.

3. HYDROLOGICAL ANALYSIS

3.1 Climate and Weather Data

The extreme rainfall in Faridpur sadar Upazila is 257mm in 20 July 2017. The climate data in Faridpur sadar Upazila in 2016 is given below table

Table 2.1: Climate Data Faridpur sadar Upazila in 2016

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Normal	0.82	.95	1.57	2.47	2.44	2.31	1.99	1.71	1.55	.94	.62	.66
Wind speed												
Normal maximum temperature	24.6	28.1	33.2	36.3	35.8	34.1	32.7	33.0	32.8	32.4	30.1	26.4
Normal minimum temperature	10.6	14.1	18.8	23.4	25.2	26.1	26.2	26.2	25.6	23.50	18.1	12.5
Monthly normal humidity(%)	70	72	65	68	74	83	86	86	86	83	78	78
Average monthly normal rainfall (mm)	14.8	26.6	20.2	39.8	142.8	235.4	351.7	232.8	297.1	101.3	21.0	13

3.2 Daily Rainfall Data of Faridpur sadar

Daily rainfall data of Faridpur for 62 (sixty-two) years ranging from 1948 to 2010 have been processed from Bangladesh Meteorological Department (BMD). BMD- 11505 (23.93 89.85) Faridpur rain gauge data has been used for Faridpur upazila. The yearly rainfall distribution of Faridpur sadar Upazilla has been shown in below figure

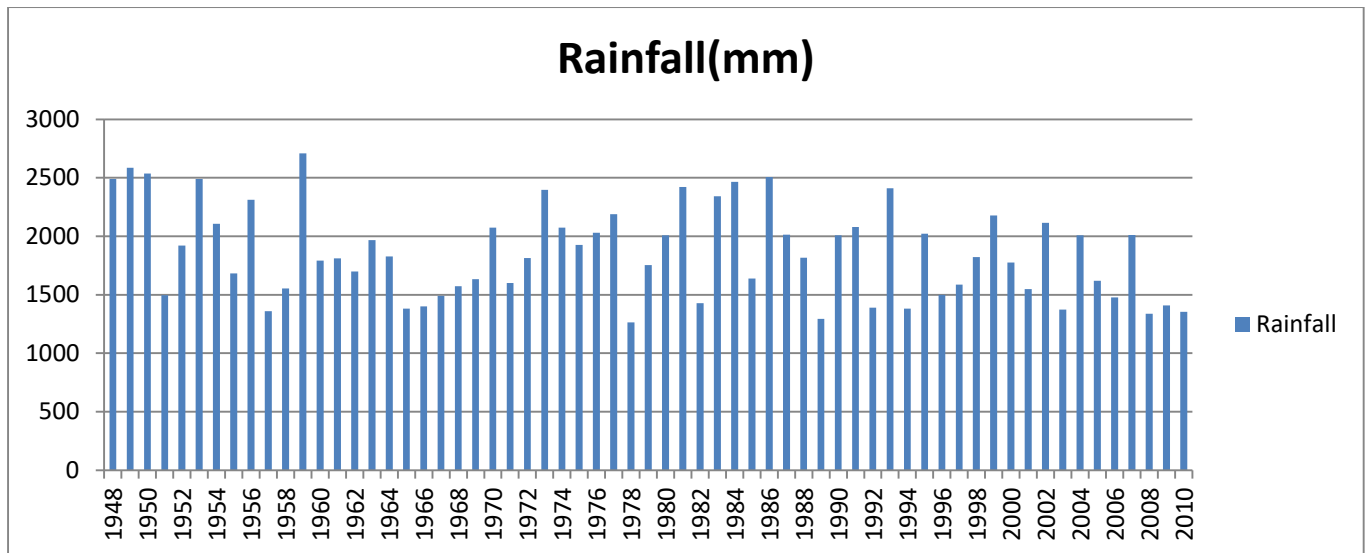


Figure 6: yearly rainfall data of Faridpur station

3.3 Calculation of Short Term Rainfall Intensity

Since there are no short duration rainfall records for Faridpur sadar, short duration rainfall data for Dhaka have been used for Faridpur sadar. The Gumbel distribution for estimating probability of occurrences will be used to develop the frequency analysis of rainfall intensities of Faridpur sadar for 2-year, 5-year, 10-year and 25-year recurrence intervals. Detailed calculations are presented below.

Table 2 Summary of Data used in the Hydrological Analysis.

No of years of Long-term for Dhaka	50
Average rainfall of Dhaka (Average 1) mm	2044
No of years of data of Faridpur sadar	62
Average rainfall of Faridpur sadar (Average 2) mm	1861

3.4 Preparation of Rainfall Intensity-Duration-Frequency Curve

3.5.1 Time of Concentration

➤ Entry Time

It is the time taken for runoff from the farthest point in the contributing area to flow over the ground and into the drain. Entry time has been calculated by the following Kirpich Equation.

$$T_e = 0.019621 L^{0.77} / S^{0.385} \quad (2.1)$$

where, L = Maximum Length of overland flow, and S = Average ground slope.

➤ **Travel Time**

It is the time taken for runoff to flow through the drain. It is calculated by dividing the length of the drain by the water velocity.

$$T_t = L/V \quad (2.2)$$

where, L = Length of Drain (m), and V = Design Velocity (m/s).

➤ **Time of Concentration**

It is the sum of entry time and travel time.

$$T_c = T_e + L/V \quad (2.3)$$

where, T_c = Time of Concentration (minutes).

Figure 2.1 shows these parameters.

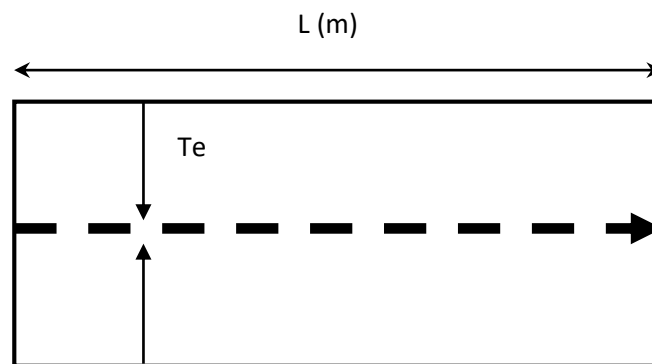


Figure 2.1: Illustration of Parameters of Time of Concentration.

3.5.1 Design Rainfall

➤ **Conversion Factor**

Data for individual storm events are scarce and inadequate for design, but relatively long term daily rainfall records are available for most areas. Rainfall data for durations less than one day is however available only for Dhaka. It is therefore practical to assume that the relationship observed between the Dhaka daily rainfall and the Dhaka rainfall of durations less than one day has the same relationship for the rainfalls in the other project towns. A procedure to estimate rainfall for durations less than one day for other locations can then be proposed.

Project town rainfall data are generally available for a shorter period (years) than the Dhaka rainfall data available. It is therefore necessary to calculate the adjustment of the Dhaka long term mean annual maximum daily rainfall corresponding to period of records of project towns. The ratio between the project town annual maximum daily rainfall and the Dhaka annual maximum rainfall data is then calculated.

The procedure to calculate the conversion factor is:

- The Dhaka long term mean annual maximum daily rainfall is 141.967mm = **Average 1.**
- Obtain annual maximum daily rainfall data from the rain gauge nearest to nearest to project town and calculate the mean annual maximum daily rainfall for period of record, to give **Average 2**
- From the mean annual maximum daily rainfalls measured at Dhaka, calculate the mean annual maximum daily rainfall of Dhaka for the same period of record in (b) above, to give **Average 3.** Note that years with missing data in the project towns must also be excluded from the calculation of the Dhaka average.
- Calculate the ratio (Ratio1) between Dhaka long term mean annual maximum daily rainfall to Dhaka shorter period rainfall, i.e. **Ratio1 = Average 1/Average 3**
- Calculate the rain ratio (Ratio 2) between the project town mean annual maximum daily rainfall and corresponding period Dhaka mean annual rainfall i.e. **Ratio2 = Average 2/Average 3**
- The adjustment factor is thus Ratio 1 multiplied by Ratio 2 i.e. **Conversion Factor = Ratio 1 * Ratio 2.**

Table 3: Annual Maximum Daily Rainfall Data (mm) for Dhaka and Faridpur sadar.

Year	Dhaka	Faridpur sadar
1989	118	108
1990	94	115
1991	123	86
1992	90	76
1993	140	143
1994	74	115
1995	83	193
1996	150	95
1997	121	86
1998	122	89
1999	141	125
2000	158	75
2001	71	109
2002	88	116

2003	93	86
2004	341	164
2005	128	209
2006	185	105
2007	152	198
2008	190	72
2009	333	108
2010	87	113

3.5.1 Rainfall Intensity Analysis

The rainfall data for Dhaka has been analyzed using the Gumbel Analysis method and the derived return period rainfalls for a range of storm durations are presented in Table 2.3. Note the values have been adjusted to take in account the frequency of maximum daily rainfalls occurring during the period of observation and the long term average values. For use in a specific project area, the rainfall intensity values must be multiplied by the rainfall conversion factor.

Short duration rainfall data are not available for Faridpur sadar Pourashava area. The daily (24 hours) rainfall records are available for the period from 1962-2016. To generate short duration rainfall data, the following approach has been adopted. Based on the ratio of 24 hours rainfall, the short duration rainfall for Faridpur sadar Pourashava has been converted from the short duration record for Dhaka City.

The Rainfall Intensity Duration Frequency (IDF) curves for a 12-hour storm with 2-year and 5-year recurrence intervals for Faridpur sadar Pourashava have been developed by using the following equation.

$$i = a / (T^b + c) \quad (2.4)$$

where, i = Rainfall Intensity (mm/hour), T = Duration (hour), and a, b, c = Constant

Table 4: Constant values for IDF curves.

Return Period (Years)	a	b	c
5	152.8	0.95	1.12

Since there are no short duration rainfall records for Faridpur sadar, short duration rainfall for Dhaka has been used for Faridpur sadar also. The Gumbel distribution for estimating probability of occurrences was used to develop the frequency analysis of rainfall intensities of

Faridpur sadar for 2-year, 5-year, 10-year and 25-year recurrence intervals. Detailed calculations are presented below.

Table 5: Short Duration Rainfall Data for Dhaka.

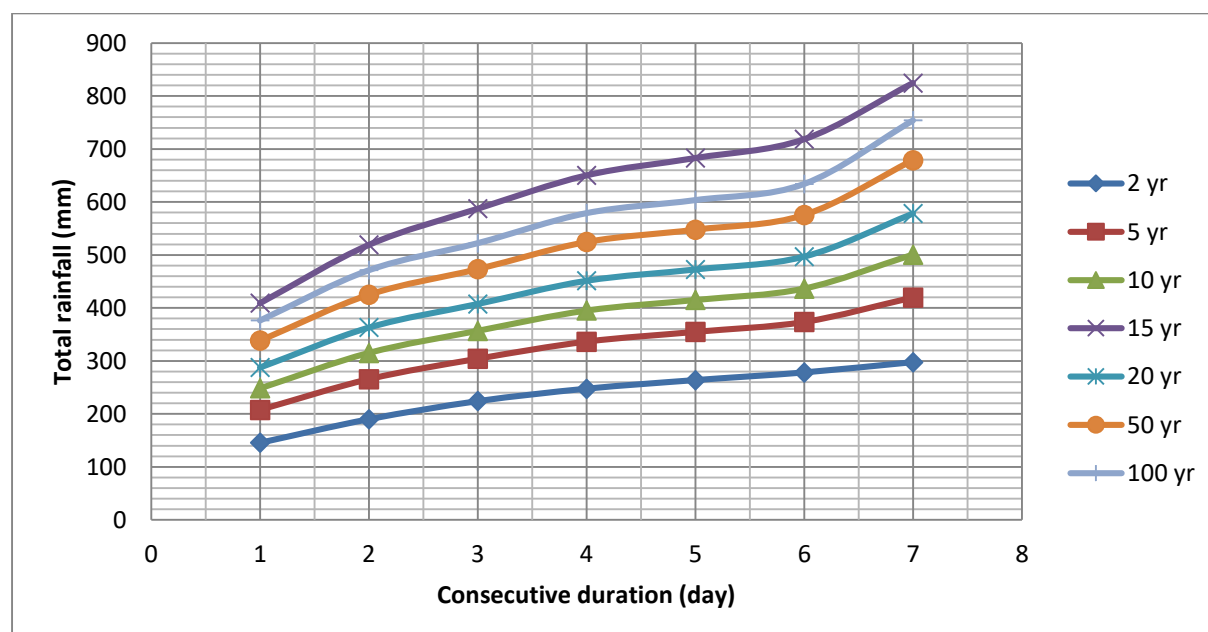
Return Period (Years)	T (hrs)	0.25	0.5	1	2	3	6	12
2	i	92.40	78.60	56.20	36.70	27.00	15.40	9.40
5	i	109.70	95.70	71.40	50.10	39.00	23.00	14.10
10	i	121.10	107.00	81.40	58.90	46.90	28.00	17.30
25	i	135.60	121.30	94.10	70.10	56.90	34.30	21.20
50	i	146.30	132.00	103.50	75.40	64.30	39.00	24.10

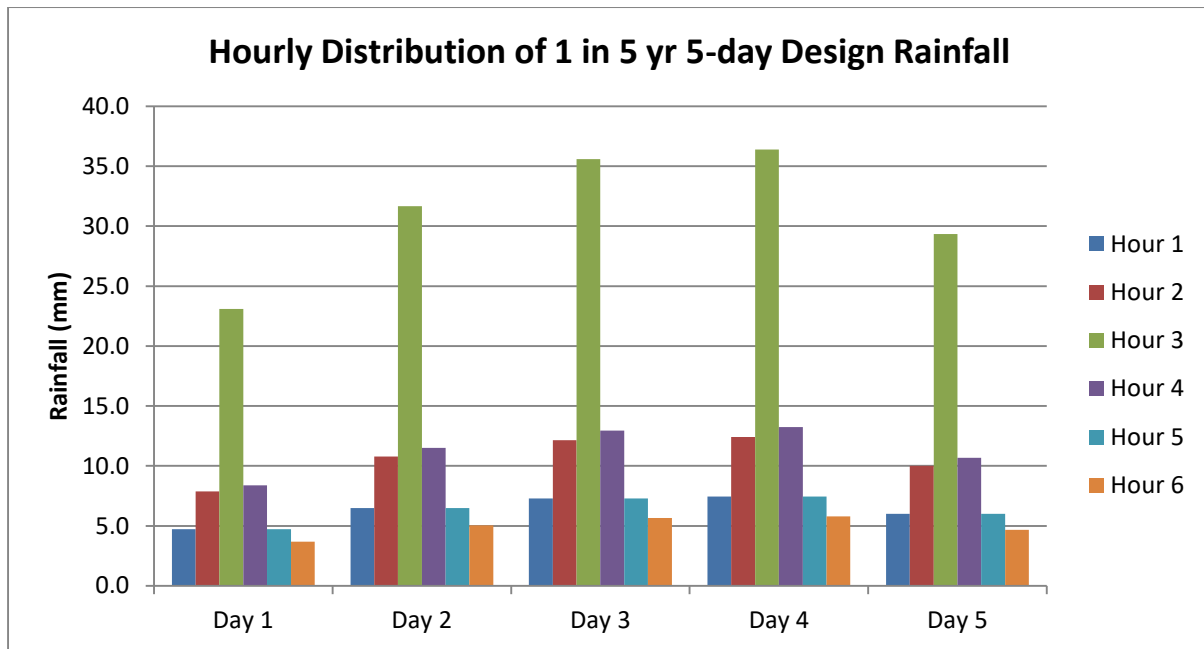
Table 6: Short Duration Rainfall Data for Faridpur sadar.

Conversion

Factor = 1.09

Return Period (Years)	T (min)	15	30	60	120	180	360	720
2	i							
5	i							
10	i							
25	i							
50	i							





3.5 Determination of Drainage Capacity

3.5.1 Peak Runoff

The Modified Rational design method presented in this report is for areas less than 60ha. For larger areas a hydrograph routing method should be used so that the attenuating effects of channel storage is included in the design. Failure to include this storage will result in over design of the drains.

The Rational Method was derived by considering the effect of a uniform intensity rainfall of a long duration on a catchment. The runoff rate starts at zero and reaches a maximum value when flow from the most remote part of the catchment reaches the outlet. The flow would then remain constant. The time for the flow to reach the peak value is called the time of concentration. The designed rainfall intensity is selected from a set of standard rainfall intensity duration curves by selecting the rainfall intensity for duration equal to the time of concentration. There is a rainfall intensity duration curve for each return period.

3.5.1 Modified Rational Method

The Modified Rational method calculates the peak runoff using the following formula:

$$Q_P = C_S C_R I A / 360 \quad (2.5)$$

where, Q_P = peak runoff (m³/sec), C_S = storage coefficient, C_R = runoff coefficient, I = rainfall intensity (mm/hr), A = area (hectares).

➤ **Storage Coefficient (Cs)**

Due to the very flat topography in many parts of Bangladesh, runoff is significantly slower than that would occur in many other countries. Rain first ponds on the ground and then runs off. To take this effect a storage coefficient is used. The value of the coefficient is based on the average ground slope and the nature of the ground surface. Coefficient of Storage is a factor to allow for the reduction in peak runoff due to the storage effects on the overland flows.

Table 7: Storage Coefficients.

Type of Area	Coefficient corresponding to ground slope		
	<1:1000	<1:500	>1:500
Paved areas – roads and markets	0.8	0.9	1.0
Densely built up areas	0.8	0.9	1.0
Central areas mixed commercial and housing	0.7	0.8	1.0
Residential areas with detached houses	0.7	0.8	0.9
Walled areas and gardens	0.6	0.7	0.8
Large permeable areas (e.g. dry paddy)	0.5	0.6	0.8
Paddy fields (flooded)	0.3	0.4	0.5

A storage coefficient is evaluated for each contributing area. The use of an average coefficient value for all drains is not correct. Use of an average coefficient will lead to under-sizing of drains in relatively impermeable and steeper areas and the over-sizing of drains in the more rural and flatter areas.

➤ **Runoff Coefficient (CR)**

A runoff coefficient is used in the Modified Rational method, as not all of the rainfall falling on the ground flows off into the drains. Some water infiltrates into the ground and some go into storage in ponds or tanks. The runoff coefficient represents the ratio between the volumes of rainfall. In Bangladesh taking into account the fact that at the time of intense rainfalls in the Monsoon period the ground is normally saturated, the following coefficients should be used:

Table 8: Runoff Coefficients.

Type of area	Coefficient
Paved areas – roads and markets	0.9
Areas of paddy (flooded)	0.8
Densely built up areas	0.7
Central areas mixed commercial and housing	0.6

Residential areas with detached houses	0.4
Walled areas and gardens	0.3
Large permeable areas (e.g. dry paddy)	0.3

➤ **Rainfall Intensity (I)**

Rainfall Intensity is the amount of rainfall falling in a unit time period. Conventionally this is quoted in millimeters per hour (mm/hr). The Rainfall Intensity will reduce in magnitude as the time of concentration increases.

➤ **Contributing Area (A)**

The Contributing Area is the total catchments area upstream of a drain that can contribute flow. This includes the total area contributing flows to upstream drains. Contributing / Catchment Area is the area of ground surface that can drain to a length of drain. For any one drain, this also includes area draining into upstream drains. The contributing area is measured in hectares.

4. Numerical Modelling

4.1 Model Boundary and Schematization

Three steps have been taken for implementation of this model:

- Preprocessing
- SWMM model
- Post processing

ArcGIS 10.1 software has been used in preprocessing and post processing step. That process has been discussed in section 3.3. PC SWMM 2D has been used to run this model. The friendly usable PC SWMM software is more comfortable and easier than EPA SWMM because this software is directly connected to the GIS software. However, the study area has been characterized by river network surrounded by the area, drainage network in urban part and overland flow in rural part. For that reason, The SWMM model has been combined with three different analysis such as Hydrological, hydraulics and hydrodynamic analysis. This analysis has been done by PC SWMM software.

For hydrological analysis, overland flow and sheet flow have been derived by DEM data. From the field survey, the Hydraulics information has been collected. On the other hand, by using PC SWMM software, the river cross section data has been derived from 10m DEM data of the study area. The rational formula and Manning equation have been used to run this model. Long term and short term rainfall frequency data has been used. 5 days 5 year rainfall frequency has been used for design condition to calculate both peak discharge and water volume which was ponded in ponding area for long time period. The 5day rainfall distribution has been followed by the report of Hallcrow. This distribution has described both hourly distribution and daily distribution. For hourly distribution, the peak intensity value has been considered to measure peak discharge. The 5 days rainfall has been considered to find out the volume of water which has been trapped by the ponded area.

The contour line and flow path has been followed to identify and calculate the ponded area. For extreme event 1 day 100 year and 50 year rain fall frequency has been used to calculate the peak discharge of this area. In a simulation option, Horton law has been used for infiltration model. Dry antecedent condition has been applied from start of simulation. Also for routing, dynamic wave method has been used where Hazen-Williams equation has been applied. The ponded area has been allowed. The boundary condition of river data has been derived from gage station.

4.2 Integration with GIS

In preprocessing step, the ArcGIS 10.1 software has been used to -

- Building the attribute table and data base which has been collected from field survey
- Create the flow accumulation, flow direction and natural flow path by 10m DEM data
- Delineate the subcatchment area
- Classification of land use of the area to calculate the percentage of pervious and impervious area for every subcatchment .
- Soil map has been merged to the land use data to find out infiltration characteristics of every subcatchment area.

In post processing step,

- Flood depth data derived by the swmm model has been used to create the water surface elevation
- Flood area has been created by minus water surface elevation data with DEM data
- Different thematic information derived by SWMM model has been shown in Map

4.3 Input and Output

In a SWMM model,

- To add the Gis shape file such as catchment and subcatchment boundary, flow path, drainage network, DEM , soil, river and land use which has before been done in arcgis
- To add the junction point and outfall point on the drainage network
- Digitizing the drainage network, river network and overland flow path.
- To connect the every subcatchment area with those junction point where the water of subcatchment area first reach
- To Input the junction attribute of urban drainage network. Such as rim and invert elevation data which has been collected from field survey.
- Input the attribute of conduit in urban drainage network. Such as width, height
- For open channel of these conduits, the cross section has been used. The cross section has been derived from DEM data. The height and width collected by the field survey have to be used in the main channel of these conduits. The roughness value has been used in these conduits.
- For the overland flow and river network of the area, the cross section has been used and which is also derived by DEM data. The deriving cross section has been input into the every section of the river and over land flow. The height value of the river data has been input to the junction point.
- The invert and rim elevation data has also been extracted from DEM data.
- To add the subcatchment attribute such as land use data, manning's number, infiltration value.
- Add the rainfall data and dry weather flow in every junction of urban catchment area
- To select the simulation start and end time of the model

- To add the boundary condition of the river and out fall point.
- To Run the simulation and check and solve the error if it has been found
- Flooded node, peak discharge, flooded volume, total inflow, runoff coefficient and surface runoff etc data have been obtained from this model. Later these data has been used in post processing step (arc gis) to prepare the flooded map.

4.4 Calibration and Validation

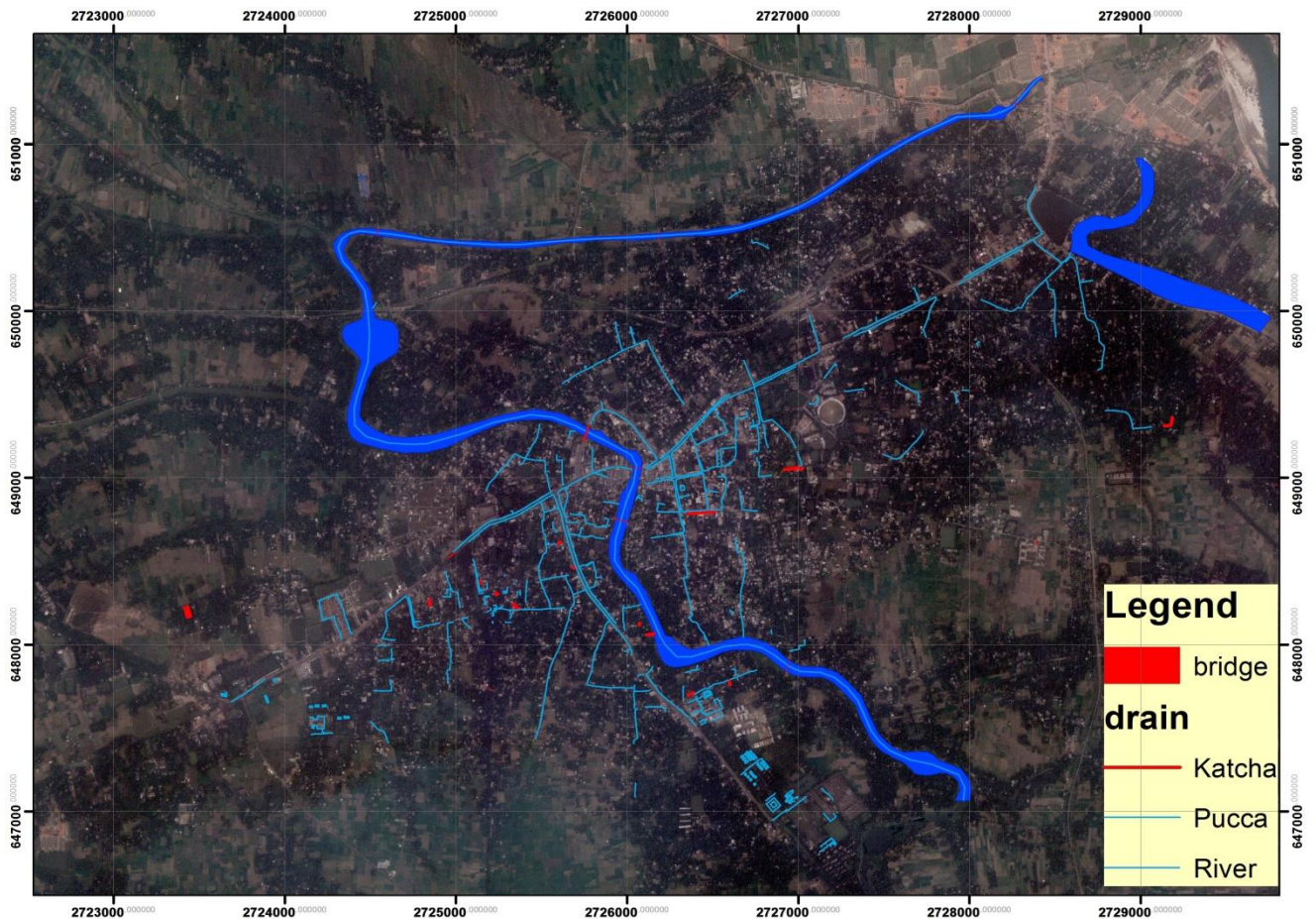
The following steps were followed:

- Collection of Rainfall data from Meteorological stations.
- Water level, velocity and flow data from known point on the canal systems.
- Comparison of observed data with model simulations
- Goodness of fit of the model
- Improve model performance during calibration
- Verification of model with another event.

5. Simulation of Baseline Condition

5.1 Drain inventory:

Two types of drain has been found in field survey. The total length of drain is 40.923km. Pucca drain is 40.173 km and katcha drain is .75 km. the figure shows the existing drainage network of Faridpur sadar.



5.2 Runoff calculation

Runoff is one of the most important hydrologic variables used in most of the water resources applications. Its occurrence and quantity are dependent on the characteristics of rainfall event, i.e. the intensity, duration and distribution. Apart from these rainfall characteristics, there are number of catchment specific factors, which have a direct effect on the occurrence and volume of runoff. This includes soil type, vegetation cover, slope and catchment type. SCS-CN provides an empirical relationship for estimating initial abstraction and runoff as a function of soil type and land-use. Curve Number (CN) is an index developed by the Natural Resource

Conservation Service (NRCS), to represent the potential for storm water runoff within a drainage area.

The runoff coefficient will be derived from the PCSWMM model. Also the runoff depth in different return period of each junction flow path will be derived from the PCSWMM model. The runoff depth will be used to findout the ponding area and to prepare flood hazard map in different return period

6. RECOMMENDATIONS

The following recommendations will be made based on the drainage analysis.

After getting the hydrological model of this area, providing the recommendation to improve the drainage system to alleviate water logging in areas identified in the study. Build and protect detention areas and flood buffer zones. Develop a contingency plan to allow limited flooding in designated areas in case of extreme rainfall events. Integrate the drainage plan with other cross-cutting plans such as the structure plan, ecological sustenance plan, etc. Prepare a plan for stormwater management and institutional arrangement involving key stakeholders, service providers and decision makers. Prepare a plan for priority activities and financing, to prepare a comprehensive plan for solid waste management

7. Annex A: Rainfall Data of Faridpur

Year	M o n t h	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1948	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
1948	2	0	0	0	11	1	49	1	0	0	0	0	0	0	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
1948	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9	1	0	0	0	2	0	0	0	0	0	0	0	12	0	12
1948	4	0	0	0	0	2	2	11	0	9	0	0	0	0	0	0	25	1	4	4	1	99	66	0	4	0	5	0	0	0	0
1948	5	1	16	12	102	0	11	4	0	0	0	0	3	0	3	59	0	30	0	0	0	0	41	1	0	0	39	0	2	0	3
1948	6	0	8	0	0	0	0	0	0	0	0	0	18	0	11	0	170	0	43	64	14	0	10	0	0	0	4	42	9	6	4
1948	7	2	0	1	0	0	0	3	4	12	1	8	22	51	45	8	79	4	2	16	7	31	3	0	0	0	1	1	5	48	3
1948	8	2	2	108	0	0	140	1	0	0	1	3	0	0	0	13	23	1	3	2	5	9	3	0	2	2	3	57	18	0	5
1948	9	2	22	1	1	11	0	3	1	0	0	1	6	8	12	0	0	0	0	0	4	0	0	0	3	1	0	0	24	3	0
1948	10	117	119	61	1	16	0	0	0	0	1	72	89	1	0	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0
1948	11	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	1	1	17	0
1948	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1949	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1949	2	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	53
1949	3	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	11	0	52	0	0	0	0	0	0	0	2	0

1949	4	0	0	0	0	50	4	0	92	0	0	0	0	0	1	0	0	0	0	0	0	32	61	0	0	10	12	10	7	17	0	4
1949	5	4			10										10																	
		3	0	10	4	22	0	54	36	1	0	0	0	1	5	0	0	0	0	0	1	20	0	1	0	11	0	1	7	0	2	
1949	6	7													14																	
		7	0	38	1	1	0	1	4	6	8	49	2	6	1	3	0	0	0	0	0	6	0	3	60	62	0	10	0	0	0	
1949	7	1																														
		9	4	0	3	16	9	12	2	0	9	0	0	0	8	2	11	27	11	38	25	0	15	8	30	19	0	0	2	1	0	2
1949	8	1																														
		0	10	23	19	15	9	47	0	1	4	3	2	2	1	4	30	7	6	2	36	0	0	25	1	2	0	2	0	9	0	
1949	9	8	45	5	9	14	0	1	1	11	0	0	0	29	16	11	19	10														
1949	1	5	0	6	0	0	0	1	7	4	0	0	2	3	0	0	1	0	31	0	32	0	0	0	0	0	0	0	0	1	0	0
1949	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1949	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1950	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
1950	2	0	0	9	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	
1950	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	
1950	4	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1950	5	0	6	4	11	9	0	0	0	51	47	0	0	15	0	24	47	0	34	0	0	9	2	98	0	4	0	0	11	0	1	
1950	6	0	0	10	0	0	0	0	3	2	38	68	50	58	58	0	37	52	18	10												
1950	7	4																														
		6	12	1	0	0	0	10	2	11	5	0	4	6	35	13	2	19														
1950	8	2	11																													
		5	1	21	39	1	0	1	6	30	30	12	13	5	0	15	4	0	1	14	16	6	8	57	0	4	0	0	12	9	0	
1950	9	1																														
		3	1	0	0	0	0	1	0	0	0	0	6	8	8	53	1	0	0	0	0	5	1	7	0	0	5	1	0	0	0	

1950	1 0	8	1	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	3	24	63	33	0	2	0	15	4	0	0
1950	1 1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	34	12 7	1	0	0	0	0	0	0	0	0	0	1
1950	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
1951	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
1951	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	4 8
1951	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9	0	22	0	0	9	0	0	16	2 4
1951	4	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2
1951	5	5	0	0	0	0	0	0	4	5	1	0	0	7	0	0	0	0	0	0	0	9	0	2	0	3	0	0	17	0	6
1951	6	0	0	1	61	18	3	23	1	0	0	0	0	0	0	67	4	0	3	0	0	22	0	9	0	0	1	3	11	0	1 7
1951	7	4 3	1	45	33	12	22	1	5	43	0	1	2	11	12	0	18	19	65	0	0	0	0	0	0	2	6	6	6	1	0
1951	8	5	0	1	0	0	1	5	2	2	0	31	4	10	2	1	1	6	1	0	1	0	71	80	3	3	2	4	0	0	0
1951	9	0	17	0	0	12	24	23	15	11	52	5	6	1	7	0	1	8	0	4	9	0	0	0	0	0	0	0	0	0	0
1951	1 0	3 0	10	8	48	0	10	0	0	0	0	4	9	3	1	0	25	1	0	0	0	0	0	0	0	0	0	2	0	0	0
1951	1 1	1 1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	22	0	0	0
1951	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1952	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4 0
1952	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1952	3	0	0	0	0	0	0	0	0	4	2	1	1	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	37	0
1952	4	5	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	68	0	11	41	2	10	74	3 4	

1952	5	1	26	0	41	3	6	0	6	1	7	2	21	0	25	40	0	0	0	0	0	0	25	16	76	0	0	0	0	21	0
1952	6	2 7	4	0	4	0	17	8	0	0	0	0	0	0	0	0	1	29	2	0	3	1	0	36	0	3	6	2	0	3	0
1952	7	1 2	0	32	2	10	9	2	45	29	4	99	16	14	7	21	10	4	0	2	2	3	3	5	5	8	17	9	20	0	0
1952	8	1	2	10	5	5	0	0	1	2	4	21	3	1	0	8	10	2	2	4	0	1	9	3	18 1	3	10	5	0	0	0
1952	9	1 6	4	0	0	4	26	0	1	6	38	16	6	0	0	0	9	1	11	1	0	7	59	24	3	4	6	11	0	0	0
1952	10	1	0	0	0	7	0	0	26	16	18	10	0	2	12	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
1952	11	1	0	2	3	0	0	0	0	0	3	6	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1952	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1953	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1953	2	1	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
1953	3	0	16	2	4	0	0	0	32	2	26	21	0	0	22	0	0	0	0	0	0	0	4	0	0	0	0	0	0	3	0
1953	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	4	0	10	5	0
1953	5	0	0	26	0	28	2	0	2	19	0	3	0	9	3	9	0	23	11	21	10	34	21	0	0	0	0	0	25	8	0
1953	6	0	9	46	6	11	0	28	0	32	10	3	12 4	34	0	27	0	10	9	1	6	10	4	15	20	35	36	10 4	8	0	0
1953	7	1	3	12	10 6	12	14	0	5	25	13	20	0	1	5	4	35	4	1	3	2	15	67	19	18	12 6	13 9	21	2	0	0
1953	8	8	16	22	4	10	0	0	1	0	0	0	1	3	14	10	0	0	2	62	25	24	0	6	28	11	18	7	20	0	0
1953	9	0	11	0	33	0	1	0	20	28	11	14	6	0	45	12	0	3	52	14	0	0	0	0	0	0	5	25	1	0	4 3
1953	10	0	0	1	0	24	21	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	3	0	0	0	0
1953	11	0	0	0	0	0	0	0	8	26	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1 3

1953	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1954	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	9	0	0	0	0	0	0	1 8
1954	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1954	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
1954	4	2 3	0	4	0	0	0	0	0	19	21	19	9	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	1	0
1954	5	3 2	1	0	0	0	38	16	0	16	3	0	0	2	0	11	0	5	0	21	11	27	8	4	3	0	0	0	0	0
1954	6	2	55	6	53	30	17	6	37	68	0	25	0	0	10 6	33	9	17	5	0	29	20	22	69	88	66	12	0	0	0
1954	7	4	35	9	0	0	2	18	5	1	6	0	1	95	22	25	13	0	0	0	0	1	0	0	0	7	0	13 3	37	0
1954	8	1	1	0	0	0	0	0	0	0	3	14	14	47	11	27	2	0	0	9	19	15	21	2	36	0	5	1	10	0
1954	9	9	9	6	0	0	0	27	8	6	16	0	0	0	0	0	0	5	1	2	0	0	1	5	6	0	0	0	1	0
1954	1 0	1	26	0	3	2	77	22	0	0	3	1	6	0	0	0	0	0	0	0	0	0	0	0	1	10	7	0	0	3
1954	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	1 5
1954	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
1955	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	4 2
1955	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
1955	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	4	0	0
1955	4	0	0	0	8	0	0	0	34	0	0	0	9	0	29	0	0	44	0	0	0	0	0	0	28	10	3	0	0	0
1955	5	1 7	20	12	0	0	0	0	0	0	0	0	0	24	3	0	0	0	0	0	0	29	29	26	0	0	5	0	0	1
1955	6	8	1	0	4	25	0	32	29	0	0	0	0	10	14	2	0	5	0	2	4	1	18	0	0	6	0	0	2	0

1955	7	4	1	4	5	3	4	6	6	1	0	3	9	22	5	26	44	19	32	10	0	3	35	0	0	0	0	1	30	3	0
1955	8	0	1	0	13	1	16	31	40	40	1	0	0	0	10	55	10	1	4	0	8	9	0	5	0	0	0	2	1	0	1
1955	9	3 1	2	4	7	4	18	0	18	1	1	5	22	22	11	63	5	2	28	14	0	0	8	0	0	0	0	23	0	0	4
1955	1 0	1 7	7	5	0	0	0	0	0	0	0	24	39	0	0	0	0	0	0	0	0	0	1	0	23	2	0	0	2	0	1
1955	1 1	0	0	0	0	0	0	12	23	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
1955	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
1956	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1956	2	0	0	1	9	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1956	3	0	0	0	0	0	1	0	0	0	15	1	9	0	0	0	0	36	2	0	0	0	0	8	0	0	0	0	0	0	2
1956	4	8	10	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	32	18	5	11	2	11	0	0
1956	5	0	0	0	0	0	6	5	8	0	86	0	0	0	3	0	18	8	4	2	0	1	0	1	0	3	0	46	0	0	1
1956	6	2 1	8	94	20	1	48	5	16	0	10	7	0	3	9	8	2	31	38	61	22	26	0	7	6	0	2	0	2	0	0
1956	7	1	2	2	2	10	1	2	3	0	2	32	20	16	7	4	10	0	0	2	60	4	14	11	50	10	23	13	1	0	1 2
1956	8	0	5	3	2	0	0	1	8	0	4	1	6	0	11	8	1	34	23 6	41	5	8	12	2	12	5	0	16	9	0	8 7
1956	9	0	0	0	55	9	0	0	0	30	5	18	18	2	0	3	0	0	0	0	37	0	0	3	28	64	38	1	0	0	0
1956	1 0	0	0	0	0	3	8	0	0	0	0	0	0	0	0	0	11	76	17	0	0	0	0	0	0	0	0	0	0	9	0
1956	1 1	1 6	46	7	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
1956	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1957	1	0	0	0	0	0	0	0	0	0	1	36	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1957	2	0	0	0	0	0	0	0	0	0	0	35	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
1957	3	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1957	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	11	0	0	0	0	
1957	5	0	0	15	1	8	25	0	0	0	0	0	14	18	0	0	0	0	0	0	22	36	1	0	1	0	0	0	0	1	
1957	6	7	27	0	0	2	0	0	17	7	7	0	15	0	5	16	30	0	6	0	0	0	8	2	0	11	6	1	36	0	0
1957	7	5 5	17	4	0	0	4	1	0	0	9	27	6	7	0	0	0	16	0	7	4	94	38	24	3	3	3	0	0	0	1 6
1957	8	2 0	3	1	0	0	64	56	0	2	3	34	5	0	2	0	0	0	2	0	0	7	1	3	1	1	8	7	25	0	
1957	9	1 4	6	0	8	15	1	0	0	0	16	0	0	9	0	0	0	0	0	0	0	25	14	2	7	30	1	7	12	0	
1957	10	0	0	0	4	31	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	1	
1957	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1957	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1958	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	
1958	2	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	10	17	0	0	1	0	0	0	1	
1958	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1958	4	1 5	0	0	0	0	0	0	0	34	0	0	0	14	0	0	0	0	0	4	24	0	24	39	0	0	0	0	3	0	0
1958	5	0	0	0	7	1	26	54	9	23	0	3	15	0	0	0	0	0	8	10	0	0	24	0	0	0	0	0	0	2	
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1958	10	3	1	2	4	1	0	0	0	73	1	73	17	13 0	43	0	0	0	1	0	0	13	0	0	2	0	0	0	14	4 9	

1958	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1958	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0
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1959	1 0	6 1	92	10 2	16 27	8	22	15	0	3	39	30	4	1	0	24	0	3	0	0	0	0	17	16	17	0	0	1	0	4
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1960	5	0	0	0	5	0	0	0	0	0	0	0	0	0	2	2	0	33	10	0	45	15 7	6	23	2	1	0	4	10	0
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1960	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1961	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	1
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1961	3	0	0	0	0	0	7	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1961	4	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	2
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1961	1	0	9	13	4	0	3	0	0	1	0	0	0	33	37	0	0	0	4	14	0	0	4	14	0	0	47	0	0	0	0
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1961	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1962	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1962	2	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	20	0	0	0			
1962	3	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
1962	4	0	0	0	0	0	0	0	0	0	25	0	2	0	0	0	0	49	0	15	4	0	2	0	0	0	45	0	0	1			
1962	5	0	0	7	0	16	0	0	28	55	10	0	42	0	0	0	0	35	0	0	0	0	0	0	0	19	0	0	2	3			
1962	6	4	6	0	0	22	4	0	1	13	10	26	1	0	0	17	0	14	0	2	0	0	0	1	0	9	51	3	0	0	3	0	
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1962	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	
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1963	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
1963	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3
1963	15	3	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1963	16	4	0	0	10	0	0	0	9	2	0	3	12	0	4	0	33	1	0	0	25	0	0	11	0	0	0	0	1	0	8	3	3
1963	17	5	0	22	0	0	29	0	11	0	18	11	0	0	0	1	0	0	0	17	13	0	0	0	0	23	0	0	5	0	0	0	
1963	18	5	9	0	0	0	3	0	88	33	0	22	7	35	97	16	0	13	19	27	93	11	0	0	0	4	0	0	0	0	30	0	
1963	19	7	1	0	0	19	0	0	3	43	28	3	23	17	36	10	57	0	0	0	5	25	20	10	0	3	18	11	2	0	6	0	
1963	20	8	0	0	8	20	0	0	1	10	6	6	4	8	0	0	0	0	8	4	1	0	0	0	0	0	0	21	0	10	26	0	
1963	21	9	0	3	0	0	0	0	0	0	6	15	5	0	55	4	0	4	4	0	0	1	27	0	0	0	10	3	0	0	0	0	
1963	22	10	2	5	15	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12	4	4	1	0	0	0	

1963	1 1	0	35	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1963	1 2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5 4	
1964	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3 1
1964	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1964	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1964	4	0	0	0	52	4	0	0	0	0	0	0	3	1	5	0	7	31	0	5	0	0	0	0	0	0	0	0	16 2	0	0
1964	5	0	0	0	0	0	0	0	11	0	0	1	0	2	0	8	0	1	12	27	0	0	0	0	0	1	0	0	0	28	0
1964	6	0	0	0	0	0	0	24	0	4	19	8	0	0	10	15 5	14	26	4	27	5	17	0	3	0	3	0	0	1	5	0
1964	7	0	20	0	0	5	35	25	8	2	5	9	4	1	0	17	40	78	15	3	22	65	3	13	19	9	0	0	0	0	0
1964	8	0	0	11	0	0	0	0	0	20	30	27	3	0	4	9	2	1	23	1	8	11	3	28	26	4	24	0	0	0	0
1964	9	5	17	22	19	5	19	0	2	2	0	1	0	0	0	0	0	0	0	26	0	3	4	4	6	7	0	0	0	0	0
1964	1 0	0	0	0	2	39	89	7	0	0	0	0	0	0	0	5	6	8	2	41	22	17	17	6	0	0	14	32	0	0	0
1964	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5
1964	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1965	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1965	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9	0	0	0	0	0	0	0	5	0
1965	3	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1965	4	0	0	0	0	0	0	0	10	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0
1965	5	0	0	0	0	12	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0
1965	6	2 0	1	18	33	17	0	0	0	0	2	0	0	0	0	0	0	1	0	18	0	0	0	0	23	2	43	68	13	0	0
1965	7	7 7	0	0	2	0	12	34	0	71	93	0	1	0	0	5	6	0	0	4	7	2	6	0	0	2	6	0	0	0	0

1965	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3 2		
1965	9	1 9	1	0	0	12	0	8	6	5	63	0	12	1	1	0	0	0	4	69	66	0	0	0	2	0	32	35	2	0	0
1965	1 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	1 7	
1965	1 1	1 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
1965	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5 8	
1966	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2 8	
1966	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1966	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	
1966	4	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	23	0	0	0	0	0	0	44	3	47	26	3	0	10	0
1966	5	0	0	0	0	0	0	7	1	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	1	0
1966	6	0	0	0	9	11	26	0	0	0	0	0	0	13	17	0	12	20	14	2	5	9	99	3	0	6	1	13	2	42	0
1966	7	1 4	7	10 0	0	28	8	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	17	0	0	
1966	8	1 3	0	2	0	0	12	15	20	7	3	2	22	0	1	5	14	6	7	0	9	0	0	60	13	39	2	0	0	0	0
1966	9	0	2	0	0	9	2	0	36	4	0	15	6	16	1	0	34	9	0	0	10	0	0	1	0	0	0	0	0	0	0
1966	1 0	4 9	18	0	0	0	0	0	0	0	0	0	0	22	23	0	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1966	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	** *	0
1966	1 2	0	1	1	0	0	0	0	0	0	0	0	9	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1967	1	0	0	0	0	0	0	0	34	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3 9	
1967	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0

1967	3	0	0	0	0	0	1	1	0	3	0	0	0	0	0	6	0	0	0	0	0	19	0	0	0	0	5	0	9	36	0
1967	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	40	1	0	0	0	0	8	10	0	1	3	0	
1967	5	0	0	0	0	0	16	8	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	39	0	0	0	0	0	
1967	6												13																		
	6	0	0	0	0	0	0	0	0	0	43	19	19	1	0	46	0	0	53	0	10	3	4	0	0	0	0	28	6	0	0
1967	7	4	3	6	9	24	7	13	34	41	3	6	5	0	0	0	17	1	3	1	5	0	0	0	3	1	1	1	8	1	0
1967	8	2																													
	8	5	0	4	2	3	15	51	24	1	20	2	6	0	0	1	0	0	0	14	7	2	1	1	1	22	30	0	0	0	0
1967	9	0	10	1	0	8	0	1	0	0	5	1	8	0	5	1	8	16	52	3	0	17	8	0	37	0	0	7	4	0	2
1967	10	0	0	0	18	15	0	0	0	4	10	7	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1967	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1967	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1968	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1968	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
1968	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0	35	0	4	0	0	0	0	0	1	0
1968	4	0	0	0	0	0	0	5	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	6	16	3	0	0	0	0	0
1968	5	0	0	3	0	23	5	0	0	0	0	0	0	14	13	16	1	0	0	24	8	32	9	23	7	0	0	0	0	3	0
1968	6	0	0	0	0	0	0	0	0	0	5	29	25	21	34	13	43	1	54	1	1	92	8	13	1	0	11	3	7	0	0
1968	7	0	0	0	0	4	5	0	0	59	70	63	0	28	0	1	0	0	0	1	0	0	0	0	0	1	2	0	0	0	0
1968	8	6	7	10	5	2	6	2	0	20	8	9	7	3	1	15	0	57	8	0	0	0	1	0	6	19	50	5	15	0	0
1968	9	0	0	0	0	0	0	0	25	38	0	0	0	5	6	0	37	12	26	1	0	0	0	31	4	0	6	3	0	0	1
1968	10	0	3	13	13	0	18	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
1968	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1968	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0								
1969	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
1969	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0								
1969	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	9	0	5	0	1	17	0	0	0	3	3	0							
1969	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0	35	0	23	0	0	0	0	0	0	60	0								
1969	5	0	16	0	1	8	0	0	4	0	25	0	0	4	0	0	0	0	0	0	2	0	0	0	0	17	0	23	0	0								
1969	6	0	2	1	8	5	4	1	7	0	0	0	0	32	1	26	0	17	8	6	0	80	5	0	41	9	0	6	0	0	0							
1969	7	2 9		2	15		5	14	14		0	1	48	36	13	3		0	1	1		0	33	5	4		0	1	1	26		0	1	0	1	0	0	4
1969	8	1 4	90	15		2		0	1	3		7	9	4	1	0	6	7	9	16		7	7	31	78	42	8	4		0	0	9	19	18	0	0	2	
1969	9	0	0	0	0	0	6	0	15		1	5	5	6	0	0	0	0	0	1	1	33	3	0	0	0	19	29	7	9	0	0	7	3				
1969	1 0	0	0	0	0	0	0	0	0	26	6	21	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
1969	1 1	0	0	0	0	0	0	0	0	0	0	0	34	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1969	1 2	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1970	1	0	0	0	0	0	0	0	0	0	0	1	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1970	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	21	2					
1970	3	0	0	0	2	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	19	0						
1970	4	0	1	5	0	0	0	0	0	0	0	1	1	0	29	0	0	10	3	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1970	5	0	4	28	0	0	0	0	0	34	0	0	0	0	1	0	19	27	12	47	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0			
1970	6	0	1	63	31	0	1	30	46	8	0	24	1	0	0	0	12	11	0	5	14	24	1	11	15	5	3	2	0	0	0	0	0	0	0			
1970	7	3 4		7	5		3		0	0	9	6	57	5	73	12	3		0	0	15		0		0	0	13	13	38	19		1	14		0	4	0	1
1970	8	1 0		0	0	0	4	1	5	25	0	3	0	4	67	0	0	14	2	1	0	0	3	8	59	42	11	0	3	6	0	0	2	4				

1970	9	1	23	12 0	34	6	0	0	1	2	25	18	0	0	38	9	0	17	38	25	0	0	1	0	0	0	0	0	0	0	0	0
1970	1 0	3	53	51	31	5	15	43	0	21	0	0	0	0	0	0	0	0	0	0	0	0	7	45	13 9	0	0	0	0	0	3	0
1970	1 1	0	0	0	0	0	0	0	0	0	0	8	11	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1970	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1971	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	
1971	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	1	3 2	
1971	3	*	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	*	*	
1971	4	*	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	*	*	
1971	5	*	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	*	*	
1971	6	*	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	*	*	
1971	7	1 3	4	70	11	5	1	14	0	0	0	0	14	3	0	0	20	5	2	1	0	46	13	18	16	3	0	0	0	0	7	
1971	8	5	32	46	4	6	5	0	10	12	0	0	38	31	26	6	54	4	23	10	14	1	0	0	3	0	94	49	9	0	0	
1971	9	1 5	0	0	64	1	16	51	5	0	0	7	6	0	0	0	0	0	0	0	0	10	6	4	0	0	0	9	6	0	0	
1971	1 0	7 1	4	0	3	0	0	0	0	0	6	0	0	0	0	0	0	16	0	0	11	3	0	0	0	0	0	0	0	0	0	
1971	1 1	5 8	0	0	0	7	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	14 8	0	

1971	1 2	0	0	0	0	0	0	0	0	0	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	12	6	
1972	1	* * *	** *	** *	** *	** *	** *	** *																						3 2	
1972	2	0	0	0	12	51	5	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1972	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1972	4	2 0																					** *								
1972	5	0	20	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	19	8	23	4	11	19	34	19	46	0	0	3 5
1972	6	0	0	0	0	0	0	3	9	0	0	0	0	5	51	7	36	67	17	0	15	0	1	15	8	3	9	0	0	0	3 2
1972	7	1	1	0	1	4	6	7	3	3	5	1	0	0	17	7	6	8	8	9	6	0	2	0	10 3	0	0	0	2	0	0
1972	8	8 9	0	43	0	7	92	0	0	0	0	0	13	6	4	10	54	8	6	17	0	0	0	6	1	0	0	5	3	3	0
1972	9	1 1	0	0	26	39	0	0	0	0	0	10	12	9	0	0	0	0	1	33	0	0	24	57	0	0	5	8	0	22	0
1972	10	0	0	0	0	0	0	9	14	6	17	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0
1972	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0
1972	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1973	1	2 3 9 8																													
1973	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	1 5
1973	3	0	13	0	0	0	0	0	24	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8

1973	4	0	0	0	0	0	0	0	0	0	0	0	0	11	65	0	0	0	0	0	0	15	58	4	4	3	0	1	57	0	1
1973	5	2 1	47	0	0	4	21	0	0	55	0	49	36	0	0	0	17	17	8	9	22	14	19	1	9	9	0	45	36	0	0
1973	6	1	0	0	1	0	0	0	32	0	0	5	0	0	27	3	41	4	0	0	28	3	1	0	0	0	34	97	0	0	0
1973	7	0	9	0	0	0	0	0	0	0	0	1	0	0	8	18	0	0	0	0	34	7	15	6	0	28	34	3	1	0	0
1973	8	1 1	18	0	0	0	70	6	32	17	0	37	61	0	0	0	3	0	22	6	8	80	0	0	1	15	0	7	25	0	0
1973	9	3	1	1	18	19	18	6	0	0	0	0	0	0	6	0	34	20	13 6	17	0	12	13	4	32	50	0	0	0	16	0
1973	1 0	2 8	1	0	0	0	0	0	0	0	0	52	8	11	72	0	0	0	0	0	0	0	0	0	1	34	0	0	0	60	0
1973	1 1	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	1	0
1973	1 2	0	0	0	0	0	0	0	0	18	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1974	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1974	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 7
1974	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	13	7	31	6	0	0	3
1974	4	0	0	0	0	0	0	0	0	0	2	0	4	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	2 0
1974	5	6	45	0	0	0	0	0	0	0	18	1	0	1	0	10	8	0	89	0	0	0	0	0	0	0	0	0	53	** *	0
1974	6	1 2 7	0	0	0	0	18	0	58	0	0	0	0	0	0	0	0	16	25	1	57	14	0	0	0	28	0	0	0	0	0
1974	7	3 4	60	14	2	50	74	6	11	3	0	3	2	2	1	37	22	72	48	20	18	0	0	27	53	39	39	17	4	42	0
1974	8	0	2	0	0	0	1	0	0	0	0	0	0	0	3	0	1	3	1	19	3	4	0	18	0	0	19	22	2	0	0
1974	9	1 1	32	0	0	0	0	0	0	0	0	11	2	10	0	10	4	0	0	3	2	49	0	42	23	0	0	0	29	0	0

1974	1 0	2 7	0	4	0	0	0	0	0	18	0	0	0	0	0	1	0	0	60	0	2	0	4	21	55	0	18	0	0	6	0
1974	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1974	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	
1975	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2 3	
1975	2	0	0	0	0	0	0	8	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1975	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1975	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	24	60	11	6	2	0
1975	5	2 4	0	0	18	17	0	0	0	0	1	6	9	3	0	13	0	0	0	27	0	0	0	14	0	15	60	0	9	0	0
1975	6	1 1	2	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	2	0	10	48	90	0	0	0	0	0	7	0	0
1975	7	1 9	11	2	5	0	3	56	0	0	0	10	13	0	20	79	86	71	19	35	21	10	7	11	4	14	10	5	2	2	0
1975	8	4	0	0	14	2	6	1	0	15	2	3	0	2	0	0	0	0	1	10 1	59	6	0	9	0	1	0	1	3	13	1 3
1975	9	2 1	2	0	15	1	2	2	24	4	14	0	0	0	10	74	4	20	17	0	0	0	0	0	27	47	9	0	0	2	0
1975	1 0	0	71	53	18	13	0	0	0	1	1	11	0	0	0	0	0	0	66	10	0	0	0	0	0	0	0	0	0	5	4
1975	1 1	0	0	0	0	0	0	0	0	0	12	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1975	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	* * *
1976	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1976	2	3	0	0	0	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5
1976	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1976	4	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	38	0	0	0	12	4	3	0	0	
1976	5	0	0	0	0	0	6	0	70	9	0	16	21	34	1	34	0	0	0	59	0	1	62	62	0	0	17	0	11	16	0
1976	6	1	11	0	1	0	86	0	17 5	4	3	13	1	0	0	12	0	5	0	0	0	0	0	0	0	0	0	0	3	9	
1976	7	0	10 8	12	33 5	0	0	0	17	0	11	5	8	10	11	1	0	4	0	0	0	0	0	0	16	9	18	1	0	0	0
1976	8	0	2	13	12	21	1	2	0	0	0	4	2	18	21	54	60	15	15	0	0	0	0	0	1	0	0	0	** *	0	
1976	9	1 9	1	4	0	8	0	0	0	0	12	0	0	0	6	20	11	0	0	0	1	0	0	0	11	0	17	6	10	2	0
1976	1 0	0	3	4	4	0	15	4	0	0	0	0	0	0	0	0	0	0	0	3	48	0	0	0	0	0	0	0	3	6 4	
1976	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1976	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1977	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	
1977	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	
1977	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3 6	
1977	4	0	0	9	12	3	30	0	0	11	18	27	5	10	0	13	35	2	0	1	0	1	22	17	28	9	10	0	0	0	0
1977	5	0	3	1	0	0	0	4	0	0	4	0	12	35	2	0	0	0	0	0	0	10	10	0	48	0	0	0	44	0	0
1977	6	0	0	22	33	33 0	13	0	1	44	0	1	0	1	0	1	5	7	5	30	89	6	69	33	12	2	10	3	32	62	0
1977	7	1	0	0	1	0	27	22	4	1	3	8	2	26	48	10	20	0	3	0	0	0	0	0	1	13	55	34	0	0	
1977	8	1 1	3	1	1	2	12	2	3	0	0	0	0	0	2	0	8	14	0	0	0	0	2	1	0	1	30	20	9	0	3 6
1977	9	7	5	1	1	0	0	0	0	40	32	0	0	1	0	0	5	5	41	41	0	0	9	0	0	0	0	2	0	44	0
1977	1 0	2 5	0	53	25	0	7	0	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5

1977	1 1	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
1977	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	** *	0	0
1978	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1978	2	0	0	0	3	0	0	0	0	5	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0
1978	3	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1978	4	0	0	15	0	0	0	0	0	0	0	0	** *	0	2	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0
1978	5	0	0	0	0	0	0	0	3	15	9	0	0	0	0	40	0	0	0	0	0	0	15	29	13	44	0	24	6	50	1 6
1978	6	7	0	0	0	17	3	0	2	0	64	16	0	28	0	0	0	22	1	53	0	9	13	2	0	31	12 3	9	1	6	4 4
1978	7	* * *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	** *	9	** *	** *	** *	** *	** *	** *	** *	0	4 9
1978	8	0	2	16	5	1	4	0	0	0	0	1	0	0	0	19	0	0	0	0	0	22	1	0	0	0	0	0	3	13	1
1978	9	1	17	0	15	13	0	8	28	0	55	0	0	0	13	0	0	0	0	0	5	0	1	0	0	32	1	6	0	1 8	
1978	1 0	0	2	3	11	3	0	0	0	0	0	9	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0
1978	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1978	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	2	0	15	9	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	3	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
1979	4	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	6	5	0	6	0	0	0	0	0	21	0
1979	5	0	6	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3

1979	6	0	0	0	0	0	0	0	0	37	77	19	9	0	11 1	28	0	2	1	0	0	0	0	0	9	25	6	2	15	20	1 1
1979	7	0	22	0	0	3	19	3	0	0	3	16	0	27	3	0	5	11	65	10	60	10	0	0	30	0	0	9	0	0	0
1979	8	0	7	2	3	0	13	8	16	5	7	0	0	0	18	62	12 1	0	13	0	68	9	0	0	2	5	18	0	0	0	7 6
1979	9	0	0	5	14 2	3	0	0	0	0	0	27	0	30	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1979	10	8	0	0	0	0	15 0	7	0	0	0	3	5	0	4	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
1979	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	12	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	13	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	14	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	9	64	0	0	0	0	0	0	0	0	0	0	0	3
1980	15	3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	3	0	9	0
1980	16	0	0	0	0	0	14	0	0	0	0	0	11	0	14	4	0	0	0	3	9	43	0	0	0	0	0	0	0	12	0
1980	17	2 5	0	0	0	6	50	2	0	50	0	28	37	1	0	0	1	2	31	0	0	20	0	3	0	0	23	0	19	1	0 3
1980	18	0	45	0	5	0	0	0	0	0	52	7	57	8	8	0	31	47	7	15	19	8	3	4	0	8	4	1	6	4	0
1980	19	2	5	11	0	6	0	0	20	10	0	0	0	0	0	22	64	9	3	40	1	55	0	1	0	1	43	1	13	6	0
1980	20	0	27	0	7	1	0	23	2	17	7	0	30	8	0	0	0	0	7	0	0	6	0	17	0	28	9	16	13	0	0
1980	21	1	0	0	34	0	0	19	0	0	0	26	0	2	0	0	0	60	16	0	0	0	0	24	2	0	0	28	1	0	0
1980	22	0	7	16	13	0	0	3	39	0	0	20	0	0	0	0	0	0	21	24	70	55	22	0	0	0	0	0	0	0	0
1980	23	0	1	2	1	0	0	0	0	4	0	2	0	0	0	0	0	0	2	2	0	6	2	0	0	0	0	0	0	0	0
1980	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
1981	25	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0

1981	2	1 1	11	0	0	0	0	0	0	11	6	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1981	3	1	0	0	0	0	0	0	0	0	0	0	0	52	2	0	0	0	0	0	0	0	6	0	30	0	18	0	15	6	3 0
1981	4	7	23	0	8	0	0	0	0	0	0	0	0	30	0	0	36	16	13 9	22	23	0	0	0	8	1	0	0	0	20	0
1981	5	0	0	0	0	0	5	0	0	0	7	0	0	4	0	19	3	55	56	0	0	17	2	0	0	13	0	2	3	0	4
1981	6	2 7	88	0	0	4	0	0	0	4	28	20	0	0	0	0	11	0	38	0	5	34	8	9	1	0	0	1	0	0	2 5
1981	7	2	74	** *	** *	** *	4	0	14	19	7	0	7	13	5	8	6	2	42	9	0	6	2	4	4	0	5	0	15	0	1
1981	8	2	0	2	0	4	5	4	8	85	0	2	0	37	0	10 0	15 0	40	0	14 0	60	0	28	4	13	1	50	1	4	0	0
1981	9	3	37	2	16	23	3	2	10	0	7	11	12	7	13	0	10	0	0	0	30	0	0	0	0	0	0	9	0	0	0
1981	1 0	1 1	0	0	0	19	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	1 2	0	0	0	0	0	0	0	0	0	2	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
1982	2	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1982	3	0	0	0	0	0	2	28	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	2	6	0	0	0
1982	4	0	0	0	0	0	13	3	0	0	0	0	0	6	16	10	4	4	0	16	0	0	0	0	0	0	24	5	22	39	3 3
1982	5	0	0	0	0	0	0	0	0	26	51	27	11	45	6	31	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2 2
1982	6	0	0	4	12	0	0	0	0	0	15	29	22	0	0	0	12	0	12	29	15	9	11	0	3	13	0	5	8	0	4
1982	7	1 0	0	23	0	0	1	0	0	0	0	0	28	5	5	0	0	0	0	0	0	19	0	18	11	0	0	0	2	0	7
1982	8	0	17	66	0	0	14	3	6	18	0	0	22	0	5	3	0	0	21	5	1	0	1	7	3	10	31	0	1	0	0

1982	9	1	0	0	0	36	0	0	1	0	7	11	25	18	0	0	15	0	4	5	0	0	0	0	0	0	18	0	0
1982	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0
1982	11	0	0	0	0	0	0	0	0	0	3	47	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0
1982	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
1983	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	7	0	0	8	33	0	0
1983	3	0	0	0	4	5	2	0	0	0	0	0	0	0	0	32	5	0	0	0	35	0	0	0	0	0	0	2	54
1983	4	0	0	0	0	0	0	0	0	0	4	5	0	21	2	0	0	0	0	0	0	0	0	0	0	41	0	78	0
1983	5	9	30	49	74	6	31	19	14	0	6	0	0	0	0	0	0	40	0	16	0	8	18	0	0	0	0	0	0
1983	6	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	45	0	0	24	0	0	15	0	10	22	23	21
1983	7	35	1	4	10	23	0	0	8	10	0	6	0	0	0	0	0	0	11	43	0	2	26	15	0	0	13	45	31
1983	8	2	3	48	73	39	40	10	0	0	6	0	10	0	0	0	0	8	0	14	8	0	0	109	81	43	0	0	0
1983	9	0	0	0	0	25	7	3	14	6	4	3	0	0	4	25	15	8	0	1	41	0	0	0	0	0	3	14	0
1983	10	0	0	0	0	0	60	30	37	4	28	95	47	10	4	25	12	0	0	0	0	17	0	0	0	6	0	0	0
1983	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0
1983	12	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0
1984	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	2	0	0	0	0	3
1984	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0	26	1
1984	4	0	0	0	0	0	0	0	3	0	33	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	7	52

1984	5	3 0	13	0	0	10	0	0	0	8	45	39	27	4	12 6	66	35	0	0	0	0	0	0	0	0	40	0	30	0	0	0
1984	6	0	0	14	14 8	14 8	11 8	9	0	0	0	0	2	12	7	13	9	1	5	6	0	49	43	69	7	2	13	3	0	0	0
1984	7	1	0	0	2	1	5	4	0	10	12	12	10	4	12	27	3	2	1	4	0	2	23	42	33	12	7	0	0	2	0
1984	8	9	5	39	4	0	5	0	5	3	23	3	2	3	8	9	2	49	6	6	2	3	3	8	19	1	44	4	12	0	0
1984	9	0	21	7	10	39	7	1	23	0	0	10	18	1	0	0	54	63	46	0	11	2	0	0	0	0	0	0	0	0	0
1984	1 0	0	0	0	0	0	5	0	0	76	0	2	0	0	19	1	0	0	0	0	0	0	0	36	0	0	0	0	0	1	0
1984	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0	1	5	
1984	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1985	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	
1985	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1
1985	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	48	43	0	0	34	1
1985	4	4 5	0	0	49	0	0	2	3	0	0	0	0	0	0	0	17	0	0	0	35	0	1	0	0	0	0	9	13	0	0
1985	5	6	0	62	1	19	11	2	1	0	0	0	0	20	0	20	0	8	0	0	0	0	0	0	2	1	1	33	1	0	0
1985	6	0	16	1	39	11	0	0	0	0	25	3	2	0	0	2	32	21	0	0	2	0	0	0	14	4	2	1	10	0	1
1985	7	7	0	1	1	5	5	11	2	48	5	17	3	0	0	1	8	2	10	5	1	0	6	4	0	42	2	7	0	0	0
1985	8	1 6	2	0	3	6	3	41	1	0	0	0	0	6	3	4	5	4	0	5	2	1	26	29	1	6	29	17	0	1	0
1985	9	1	17	3	89	1	1	0	60	0	1	4	0	0	0	6	1	0	0	0	0	7	0	0	45	8	1	3	0	0	1
1985	1 0	1 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15	22	0	0	0	0	0	0	0	0	0	0	48	6 9
1985	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1985	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	
1986	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4 6	
1986	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	0	
1986	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
1986	4	1 1	0	4	0	0	39	0	12	4	0	4	0	16	40	6	0	0	0	0	0	14	0	0	0	27	12	11	5	0	0
1986	5	1 3	0	3	0	5	16	3	0	0	0	0	0	0	3	0	15	0	33	6	45	0	0	0	0	39	8	0	46	0	
1986	6	0	0	48	0	0	0	0	0	0	0	0	0	0	14	24	0	2	27	8	4	13	2	0	0	4	25	0	0	0	
1986	7	6 5	12	0	0	59	3	2	10	1	6	37	19	1	0	2	0	0	0	0	13	1	30	7	14	14	55	6	0	0	
1986	8	0	37	47	15	15	2	6	0	0	0	11	2	4	11	9	0	1	0	0	0	2	8	12	17	10	0	0	0	1 0	
1986	9	3 0	2	0	8	0	0	50	2	1	6	13	29	2	25	0	0	36	47	0	0	0	1	20	1	4	47	37 0	11 1	0	0
1986	1 0	4	5	2	0	20	3	16	12	43	0	0	0	0	1	1	20	0	0	0	0	0	0	0	0	0	0	0	49	3 4	
1986	1 1	0	0	0	0	0	15	5	0	97	31	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	
1986	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	1	
1987	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1987	2	0	0	0	0	3	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2 0	
1987	3	0	0	0	0	8	0	0	0	0	4	0	0	4	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	
1987	4	7	0	0	0	0	0	0	0	0	0	28	0	0	0	3	0	0	0	0	5	0	0	2	18	27	13	0	1	0	
1987	5	4 9	0	61	1	0	2	0	10	0	0	6	0	0	0	0	0	0	0	0	0	0	11	0	16	0	0	0	0	0	

1987	6	0	0	7	0	62	10	0	0	1	7	0	14	0	1	0	0	0	0	14	23	14 1	22	29	53	0	0	0	0	0	
1987	7	0	2	44	0	3	8	15	49	9	2	20	0	4	3	21	7	0	6	7	1	13	5	21	22	35	27	8	1	2	5
1987	8	1 0 2																									10 0				
1987	9	6	6	6	0	3	4	0	2	5	23	9	10	0	2	1	1	0	0	0	0	53	0	58	39	19 1	2	1	0	2	1
1987	1 0	0	0	0	0	0	0	0	0	8	15	0	0	0	0	0	0	6	0	0	0	18	0	0	0	0	0	0	0	0	2
1987	1 1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	11	0	0	0	0	0	0	0	0	0	0	0	0	16	2
1987	1 2	0	0	0	0	0	0	0	0	0	0	0	0	6	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1988	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	1 4
1988	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	32	0	0	0	0	0	0	3 8
1988	3	0	9	0	0	0	0	0	24	0	0	0	21	0	0	4	0	0	0	32	8	0	0	0	0	0	0	0	0	0	0
1988	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	4	0	0	0	31	28	0	0	0	6	0	0	0	0	
1988	5	0	0	0	2	0	0	5	52	0	6	0	0	11	28	0	26	20	0	1	2	50	81	1	1	4	13	0	0	0	0
1988	6	4	0	10	0	0	0	0	1	2	10	22	22	65	67	10 5	13	17	16	0	0	0	7	9	43	30	1	15	4	1	0
1988	7	0	12	4	13	13	23	11	12	37	0	2	12	1	0	0	0	1	23	1	0	0	0	2	17	16	0	39	1	0	0
1988	8	5	18	14	8	0	0	4	0	0	10	0	16	10	20	51	0	0	1	2	0	0	1	32	0	3	0	0	0	16	1
1988	9	0	0	0	0	0	6	1	0	16	11	21	18	0	4	0	2	32	0	0	14	0	0	0	0	0	3	0	0	0	0
1988	1 0	0	8	9	2	11	5	4	0	0	0	0	0	18	6	0	0	0	0	34	72	0	0	0	0	0	0	0	0	1	0
1988	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10	0

1988	1 2	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
1989	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
1989	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	48	0
1989	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	0	2	0	0	3	0	6	1	2	44	10 8	0
1989	6	0	55	0	54	0	1	0	0	0	0	0	17	1	20	32	21	0	0	0	0	11	2	12	0	0	0	0	0	0
1989	7	0	26	17	3	0	6	0	1	25	0	0	3	12	25	4	0	0	2	8	0	4	0	0	0	0	0	0	16	0
1989	8	1	15	9	0	1	1	0	0	0	0	0	3	2	0	0	4	0	11	2	2	0	11	2	0	7	7	0	1	4 9
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1989	1 0	5	0	0	0	0	0	14	0	13	4	48	0	0	0	0	0	0	50	42	0	0	0	1	1	0	0	0	0	0
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1989	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	8
1990	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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1990	4	1 3	13	0	0	4	0	0	36	1	0	0	0	0	0	24	0	0	0	0	28	0	0	0	0	3	8	16	0	7
1990	5	0	0	6	0	33	0	0	14	0	0	11	1	4	9	19	4	0	0	0	81	20	0	12	0	18	47	0	0	0
1990	6	0	73	26	0	0	61	0	0	18	0	0	0	32	4	1	0	2	2	7	10	2	1	2	1	41	0	2	4	64
1990	7	1 4	2	6	60	11 5	26	5	0	14	23	0	0	0	0	13	13	9	2	1	0	10	2	3	2	5	6	33	24	1 6
1990	8	1	14	0	15	18	7	11	0	7	0	0	0	0	0	2	8	8	3	0	37	0	0	6	0	3	1	3	1	6

1990	9	0	2	2	1	0	4	0	0	1	12	42	0	0	3	9	0	0	7	6	0	0	1	0	0	2	5	27	33	0	0
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1990	11	0	0	0	9	16	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0
1990	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
1991	1	0	0	6	18	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	2	0	0	0	41	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
1991	3	14	0	0	0	0	0	0	0	0	0	0	0	9	15	0	0	0	0	0	0	0	0	0	0	7	0	0	8	0	0
1991	4	0	0	0	0	0	0	0	0	2	3	14	0	0	21	0	1	0	0	0	0	0	0	6	29	0	21	0	0	0	0
1991	5	2	0	0	7	0	3	0	0	0	2	0	0	7	21	0	27	1	22	43	0	0	15	22	10	0	0	27	22	0	0
1991	6	0	47	4	18	6	35	11	0	0	5	12	26	39	6	17	30	1	38	19	18	0	0	0	0	0	3	0	0	0	0
1991	7	7	27	6	0	22	39	7	0	3	11	1	3	1	0	1	0	3	12	14	30	12	14	55	20	0	0	0	0	20	1
1991	8	0	13	25	10	0	0	0	0	0	7	0	1	0	1	0	5	34	2	10	0	17	1	6	3	0	2	26	11	1	0
1991	9	8	3	23	34	30	23	40	25	5	8	16	0	6	8	9	2	0	0	0	1	0	9	5	5	34	20	32	0	0	3
1991	10	0	0	0	26	1	60	86	3	4	0	9	0	31	53	28	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1991	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	39	49	14	0	0	0
1992	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0
1992	2	9	0	0	0	0	0	0	46	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	2	1	0	0	0	0	0
1992	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1992	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	4

1992	5	2 3	15	4	0	1	0	0	0	0	0	0	0	0	0	11	0	1	0	0	14	19	3	0	0	0	62	57	4	0	4	
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1992	7	2 6	0	74	7	8	52	3	1	7	0	14	18	2	0	0	0	5	19	2	44	9	6	2	6	0	40	13	25	6	0	
1992	8	2 1	0	2	17	2	0	54	6	22	1	3	0	0	0	1	4	0	3	7	2	0	6	0	17	0	2	0	39	0	1	
1992	9	0	0	12	5	0	0	0	0	0	0	8	6	13	0	0	0	0	0	0	0	0	0	0	11	0	16	0	16	8	0	
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1992	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1993	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
1993	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	37	0	7	0	0	0	0	0	0	0	8	
1993	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	37	8	0	0	6	
1993	16	0	0	0	0	0	0	0	0	23	0	0	8	13	0	0	0	10	0	0	0	1	0	2	56	0	0	1	1	62	2	3
1993	17	0	17	2	8	0	0	12	13	0	6	0	3	1	11	0	0	53	1	20	0	4	0	0	0	0	0	0	0	19	0	0
1993	18	0	49	53	10	0	0	10	1	92	0	0	12	15	0	0	0	11	30	99	1	1	47	8	0	1	13	12	0	3	5	2
1993	19	1 8	4	2	0	4	3	4	4	0	15	22	2	0	1	9	7	9	11	0	19	24	12	23	16	5	9	0	0	1	2	
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1993	21	7	75	21	78	3	0	6	3	4	0	0	1	26	9	7	0	0	0	0	32	6	0	0	41	19	8	5	3	0	0	0
1993	22	1 0	0	53	50	46	0	0	11	0	0	0	0	0	18	8	73	21	37	0	3	0	0	0	0	0	0	0	0	14 6	0	0
1993	23	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1993	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1994	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
1994	2	2	2	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	4		
1994	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	8	0		
1994	4	0	0	15	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	43	72	0	0	0	0	23	7		
1994	5	0	0	0	0	7	12	2	8	23	0	0	0	0	0	17	0	34	19	8	0	13	0	0	39	1	14	0	58	0		
1994	6	0	0	0	10	14	9	0	14	3	0	29	21	3	1	2	6	11	18	6	10	4	1	0	12	2	31	0	15	5	6	
1994	7	1	2	0	3	4	0	28	11 5	2	0	1	16	4	0	6	1	0	1	5	0	11	1	21	3	0	3	0	16	0		
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1994	9	4	1	1	0	4	1	1	0	0	0	17	2	0	4	0	23	1	14	7	25	0	0	0	0	2	0	0	0	0	0	
1994	1 0	0	0	3	1	2	0	8	46	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1994	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	
1994	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	
1995	1	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2 6	
1995	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	2	0	0	0	17	8	0	
1995	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
1995	4	0	0	0	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	11	0	0	
1995	5	0	0	0	25	0	0	0	0	2	0	0	0	3	2	9	20	19 3	21	0	0	0	6	0	0	0	0	0	6	0	0	0
1995	6	0	0	7	0	0	0	0	0	0	0	6	3	95	22	0	0	2	12 0	9	10 8	2	0	5	10	0	5	0	1	0	0	0
1995	7	2	52	19	14	36	92	13	0	0	56	9	19	2	0	4	12	19	4	1	0	1	2	2	13	4	0	12	78	3	0	0
1995	8	1	0	2	7	14	8	0	0	2	11	3	16	11 2	28	19	0	6	2	10	10 9	3	2	7	0	0	1	3	0	0	0	0

1995	9	0	3	36	10	0	3	4	0	0	0	25	0	11	0	0	0	26	10	12	1	0	0	0	0	27	18	11	20	0	2
1995	1 0	1 1							2	7	0	0	7	0	0	0	0	0	0	1	0	0	8	0	0	0	0	0	0	0	0
1995	1 1										89	3	0	0	0	0	0	0	1	0	0	0	0	0	0	2	2	0	0	0	2 7
1995	1 2																														
1996	1																	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	2																	0	0	0	0	0	0	0	0	0	0	5	10	0	6
1996	3																	0	0	0	0	0	0	0	21	0	0	0	7	0	1 0
1996	4																	0	0	0	0	0	0	5	27	21	30	4	0	3	0
1996	5		15										46	3	0	56	2	0	17	0	0	0	0	0	0	0	6	0	0	0	2
1996	6		27	25		23			11				24					2	0	0	27	88	15	17	1	17	2	28	2	0	0
1996	7	2 9																													
1996	8	4 5																													
1996	9		25		8	11				1		1		1				0	0	1	0	24	6	0	0	3	12	1	16	0	0
1996	1 0																														2 7
1996	1 1																														0
1996	1 2																														2 1
1997	1																	8	0	0	0	1	2	0	0	0	0	0	0	5	4 8
1997	2	5	0		1	0						1	0	0	0	0	0	0	0	0	17	1	0	0	0	0	1	0	80	5	
1997	3	1	0													3	0	0	0	0	0	0	2	0	6	0	0	0	0	0	0
1997	4	0	0	41			3						5	3	0	0	14	0	0	0	0	0	0	5	0	12	4	53	1	0	
1997	5	2	0			34			2							0	0	3	0	0	1	8	0	0	4	11	8	21	14	1	0

1997	6	0	0	0	0	4	0	34	14	22	14	0	0	29	0	0	0	0	0	0	15	20	0	5	0	3	20	1	4	0	0
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1997	1 1	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 2
1997	1 2	0	0	0	0	0	0	0	0	0	7	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	17	27	0	0	0	0	1	0	0	0
1998	2	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9	1	0	3	1
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1998	4	0	0	0	0	0	0	6	0	27	0	0	0	0	0	0	0	0	14	0	2	16	0	14	20	4	2	0	0	9	0
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1998	6	0	0	0	25	0	0	0	0	0	0	32	0	0	0	10	0	0	0	18	0	0	2	31	15	19	29	10	0	0	0
1998	7	0	0	19	9	10	0	19	28	0	3	3	12	36	43	17	13	0	10	7	40	0	7	20	3	43	0	0	0	0	0
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1998	1 0	1 3	0	0	0	13	0	0	0	0	0	0	0	18	0	0	0	0	4	0	1	15	0	4	0	0	0	0	0	0	1 0
1998	1 1	0	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	6	71	12	0	0	0	0	0	0	3 9
1998	1 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
1999	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	9
1999	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0

1999	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	
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