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## GOVERNMENT OF MALAYSIA

# NATIONAL WATER RESOURCES STUDY, MALAYSIA REGIONAL WATER RESOURCES STUDY OF SOUTH JOHOR

# VOL. 7 ANNEX

- J. REGIONAL WATER DEMAND AND SUPPLY SYSTEM
- K. DESIGN AND COST ESTIMATE OF PROPOSED DEVELOPMENT PLAN
- L ECONOMIC EVALUATION OF PROPOSED DEVELOPMENT PLAN

DECEMBER 1985

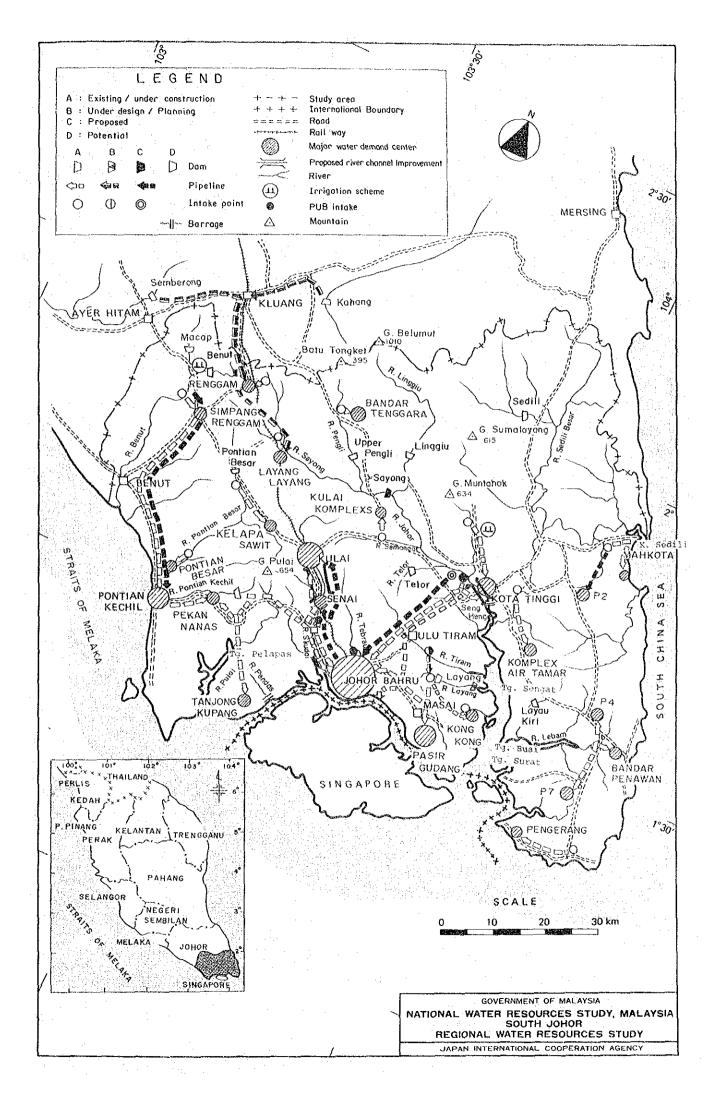
JAPAN INTERNATIONAL COOPERATION AGENCY

# NATIONAL WATER RESOURCES STUDY, MALAYSIA

# REGIONAL WATER RESOURCES STUDY OF SOUTH JOHOR

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#### ABBREVIATIONS

#### (1) Oreganization/Plan

4MP (5MP) : Fourth (Fifth) Malaysia Plan

DID (JPT): Drainage and Irrigation Department

DOA : Department of Agriculture
DOE : Department of Environment
EPU : Economic Planning Unit

FELCRA : Federal Land Consolidation and Rehabilitation Authority

FELDA : Federal Land Development Authority

GSD : Geological Survey Department

JICA : Japan International Cooperation Agency

KEJORA : Lembaga Kemajuan Johor Tenggara

MOA : Ministry of Agriculture
MOH : Ministry of Health
MTR : Mid=Term Review of 4MP
NEB : National Electricity Board

NWRS : National Water Resources Study PUB : Public Utility Board (Singapore)

PWD (JKR) : Public Works Department

RESP : Rural Environmental Sanitation Program

RISDA : Rubber Industry Smallholders Development Authority

WHO : World Health Organization

#### (2) Others

B : Benefit

BOD : Biochemical Oxygen Demand

C : Cost

COD : Chemical Oxygen Demand
D & I : Domestic and Industrial

dia. : Diameter

DRC : Dry Rubber Content

EIRR : Economic Internal Rate of Return EL. : Elevation Above Mean Sea Level

Eq. : Equation

FFB : Fresh Fruit Bunch

Fig. : Figure

GDP: Gross Domestic Project
GNP: Gross National Product
GRP: Gross Regional Project
HWL: Normal High Water Level
O & M: Operation and Maintenance

Q : Discharge Ref: : Reference

SS : Suspended Solid

VA : Value Added

## ABBREVIATIONS OF MEASUREMENT

#### Length

= millimeter = centimeter = meter km = kilometer ft = foot

#### Time

= second min = minute = hour = day d = year

 $cm^2 = square centimeter$ m<sup>2</sup> = square meter
ha = hectare
km<sup>2</sup> = square kilometer

= percent = degree = minute = second

Other Measures

= degree in centigrade

 $10^3$  = thousand  $10^6 = million$ 

#### Volume

 $cm^3 = cubic centimeter$ 1 = lit = liter kl = kiloliter m<sup>3</sup> = cubic meter

#### Derived Measures

 $m^3/s = cubic meter per second$ Mgd = million gallon per day Mld = million litre per day

#### Weight

mg = milligram = gram kg = kilogram ton = metric ton

#### Money

= Malaysian Ringgit M\$ = Malaysian Cent

# CONVERSION FACTORS

	From Metric System	To Metric System
Length	1  cm = 0.394  inch	1  inch = 2.54  cm
	1 m = 3.28  ft = 1.094  yd	1  ft = 30.48  cm
	1  km = 0.621  mile	1  yd = 91.44  cm
		1  mile = 1.609  km
Area	$1 \text{ cm}^2 = 0.155 \text{ sq.in}$	1 sq.ft = $0.0929 \text{ m}^2$
	$1 m^2 = 10.76 \text{ sq.ft}$	$1 \text{ sq.yd} = 0.835 \text{ m}^2$
	1 ha = 2.471 acres	1 acre = $0.4047$ ha
	$1 \text{ km}^2 = 0.386 \text{ sq.mile}$	$1 \text{ sq.mile} = 2.59 \text{ km}^2$
Volume	$1 \text{ cm}^3 = 0.0610 \text{ cu.in}$	1 cu.ft = 28.32 lit
	1  lit = 0.220  gal.(imp.)	1 cu.yd = $0.765 \text{ m}^3$
	1 kl = 6.29 barrels	1 gal.(imp.) = 4.55 lit
	$1 \text{ m}^3 = 35.3 \text{ cu.ft}$	1 gal.(US) = 3.79 lit 1.acre-ft = 1,233.5 m <sup>3</sup>
	$10^6 \text{ m}^3 = 811 \text{ acre-ft}$	$1.acre-ft = 1,233.5 m^3$
Weight	1 g = 0.0353  ounce	1 ounce = 28.35 g
	1  kg = 2.20  1b	1 1b = $0.4536 \text{ kg}$
	1 ton = 0.984 long ton	1 long ton $= 1.016$ ton
	= 1.102 short ton	1 short ton = $0.907$ ton
	表示的 医双氯磺胺胺 电自动放射	
Energy	1  kWh = 3,413  BTU	1  BTU = 0.293  Wh
		00 1 000 1 33
Temperature	$^{\circ}C = (^{\circ}F - 32) \cdot 5/9$	$^{\circ}F = 1.8^{\circ}C + 32$
		1 cusec = $0.0283 \text{ m}^3/\text{s}$
Derived	$1 \text{ m}^3/\text{s} = 35.3 \text{ cusec}$ $1 \text{ kg/cm}^2 = 14.2 \text{ psi}$	
Measures	$1 \text{ kg/cm}^2 = 14.2 \text{ psi}$	
이 물로를 가고 있다.	1 ton/ha = 891 lb/acre	1 1b/acre = 1.12 kg/ha
	$10^6  \text{m}^3 = 810.7  \text{acre-ft}$	1 acre-ft = $1,233.5 \text{ m}^3$ 1 mgd = $0.0526 \text{ m}^3/\text{s}$
	$1 \text{ m}^3/\text{s} = 19.0 \text{ mgd}$	1 mgd = 0.0326 m-/s
		I gantang = 4.55 lit
Local	1 lit = 0.220 gantang	
Measures	1 kg = 1.65 kati	1 kati = 0.606 kg
	1 ton = 16.5 pikul	1  pikul = 60.6  kg
		Exchange Rate
		(1985)
		US\$1 = M\$2.41
		2100 - MCO 000

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1. Water Demand and Supply System

#### 1. INTRODUCTION

This ANNEX report describes the result of the regional water demand and supply balance study carried out for the water demand and supply balance plan.

The objectives of the study are:

- (1) To project the water deficits by year and river at the intake points and to evaluate the total deficit at the points in the Region on the basis of 5-day.
- (2) To carry out the reservoir operation simulation to determine the necessary storage capacity to supplement the deficit.

#### 2. INPUT DATA FOR BALANCE SIMULATION

#### 2.1 Runoff

#### 2.1.1 Runoff simulation

Tank model is constructed at six hydrological stations to estimate runoff for interrupted period. After caribration in the viewpoints of annual loss, monthly runoff and duration curve, runoff data at four key stations was completed for 22 years from 1963 to 1984 through the simulation study. 5-day natural runoff data is finally compiled at the key stations. Then 5-day runoff in the sub-basin is estimated by assuming that the rainfall loss of the key stations during the period of 1963-1984 evenly distributes in the river basin. Division of sub-basins is shown in Fig. 1. Further, the natural runoff is assumed as the generated runoff data because water abstraction in the catchment area is presently deemed insignificant.

Detail of method applied to estimate runoff is described in the ANNEX D.

#### 2.1.2 Available runoff

Mean annual runoff volume between 1963 to 1984 at proposed damsites in the Region are summarized in Table 1. The total available water resources of the major rivers are approximately 2,760 x  $10^6$  m<sup>3</sup> in the Johor river, 510 x  $10^6$  m<sup>3</sup> in the Benut river, 400 x  $10^6$  m<sup>3</sup> in the Pontian Besar river, 340 x  $10^6$  m<sup>3</sup> in the Pulai river, 310 x  $10^6$  m<sup>3</sup> in the Skudai river, 270 x  $10^6$  m<sup>3</sup> in the Tebrau river, 1,830 x  $10^6$  m<sup>3</sup> in the Sedili Besar river and 400 x  $10^6$  m<sup>3</sup> in the Sedili Kechil river. The figures show the mean annual runoff at the estuary of the mainstream.

#### 2.1.3 Return flow

The ratio of return flow of 20% for irrigation water and 40% of domestic and industrial water are assumed.

#### 2.2 Water Demand

#### 2.2.1 Demand projection of the Region

In order to examine water supply and demand balance at the point of intakes and source facilities, it is necessary to formulate water demand at the points. The target year of the demand projection are set in 1983 (present condition), 1985, 1990, 1995, 2000 and 2005. As for irrigation water supply, the demand is projected on 10-day basis.

The domestic and industrial water demand in the Region is discussed in ANNEX B "DOMESTIC AND INDUSTRIAL WATER SUPPLY". The projected D&I water demand in the Region is tabulated by district in Tables 2 and 3. Based on this table, the water demand at each intake point is estimated for the target years as shown in Table 4. In order to estimate the water demand at each intake point the following assumptions were applied:

- (1) PUB intakes Res 8 (Gunong Pulai), R31 (Skudai) and R32 (Tebrau) draw off water in the same volume as the present abstraction in 1983.
- (2) A new intake R42 of PWD will be constructed by 1990 near Kg. Tai Hong a little upstream of PUB Kota Tinggi intake (R41) to abstract the water which exceeds the prsent intake capacity of 160 Mgd.
- (3) PWD tapps 5.8 Mld of water from the Gunong Pulai System and 104 Mld of water from the system of PUB Kota Tinggi (R41) except for 115 Mld in 1983.

#### 2.2.2 Water supply to Singapore

The abstraction by the PUB is assumed two different cases. One is the case that it will reach 250 Mgd in 1995 and it will be kept constrant thereafter. The other is the case that it will reach 160 Mgd in 1990 and it is kept constant thereafter. The demand for the years between 1985 and 1990 for both cases and ones for the years between 1990 and 1995 were interporated by the figures estimated in proportion to the whole water demand of Singapore. The amount of supply to Singapore from 1983 to 2005 is summarized in Table 5.

#### 2.2.3 Case study for water supply and demand balance

As mentioned in Section 2.2.2, the water abstraction from the Johor river by Singapore is assumed by two cases. In addition, two types of development of water facilities are contemplated. One is joint development. The other is solo development. The alternative cases for water balance and resources development study are summarized as below:

- Case 1: The abstraction by the PUB will reach  $266 \times 10^6 \text{ m}^3/\text{y}$  or 160 Mgd in 1990 and  $415 \times 10^6 \text{ m}^3/\text{y}$  or 250 Mgd in 1995. After 1995, the abstraction is kept constant of 250 Mgd up to 2005. The water resources and supply facilities are to meet water demand in both the State and Singapore.
- Case la: The abstraction amount is the same as that in Case 1.

  However, water resources facilities are developed only to secure the water supply to the State of Johor but water deficit of Singapore is not looked after.
- Case 2: The abstraction by the PUB will reach 160 Mgd in 1990. After 1990, the abstraction is kept constant of 160 Mgd. The water resources and supply facilities are developed to meet the water deficits of both the State and Singapore.
- Case 2a: The abstraction by the PUB is the same as that in case 2.

  However, water resources and supply facilities are developed only to secure the water supply to the State of Johor but water deficit in Singapore is not looked after.

#### 2.2.4 River maintenance flow

The river maintenance flow is the minimum discharge which is required to maintain water depth, flow velocity, water quality, channel stability, aquatic eco-system and scenery to the extent necessary for navigation, fish catch, operation and maintenance of intakes, maintenance of river facilities, sea water repulsion, prevention of estuary clogging, conservation of groundwater, preservation of reparian land and people's amenity.

The river maintenance flow is the indicator of the allowable limit of water withdrawal from the river, to be considered in allocating and developing water resources.

No special environmental problem due to drought has been recorded in the Region except for the Johor river. A simulation study on the water quality was performed for each river assuming a low flow of 99% in probability of exceedance and the projected future BOD concentration load to the river (See ANNEX F). If the result of the simulation study entails a BOD concentration less than 5 mg/l at an intake point for water supply or less than 10 mg/l in the river flow, the low flow of 99% in probability of exceedance was adopted as the river maintenance flow of the river.

For the Benut river, the river water quality is considered to be the decisive item to the river maintenance flow of this river. The river water quality is herein represented by the concentration of BOD. In 2005, the BOD load is estimated at 0.92 ton/d in the downstream reach which is the most critical in terms of water quality along the river. Hydrological data shows that flow of 99% in probability of exceedance is 2.3 m<sup>3</sup>/s in the same reach. A result of a simulation study on BOD concentration attested that the BOD concentration at the Simpang Renggam intake was 2.1 mg/l and one in the downstream reach was 7.6 mg/l in the case that river is 99% in probability of exceedance. In this respect, the specific discharge of 0.4 m<sup>3</sup>/s/100 km<sup>2</sup> or flow of 99% probability of exceedance is proposed as the river maintenance flow.

A similar simulation study entailed that the concentration of BOD is 9.7 mg/l for the Pontian Besar river and 5.6 mg/l for the Pulai river at the most critical site of each river in 2005 if the flow with 99% dependability is adopted as the river maintenance flow. The adopted are 0.51 m $^3/s/100$  km $^2$  for the Pontian Besar river and 0.33 m $^3/s/100$  km $^2$  for the Pulai river.

The BOD concentration of 16.4 mg/l is derived by means of the same simulation for the Pontian Kechil river in its river mouth in

2005 in case the flow with 99% dependability is adopted as the river maintenance flow assuming that whole effluent is drained into the river. However at least a half of the effluent of Pontian Kechil town would be discharged directly to the sea. And thereby the concentration is expected to be decreased to 9.2 mg/l.

The land use in the Sedili Besar and the Sedili Kechil river basins are not intensive at present. The BOD concentration of 2 mg/l and 0.3 mg/l are estimated for the Sedili Besar river and the Sedili Kechil river against the river maintenance flow with dependability of 99%. The flow equivalent to the flow with 99% exceedance probability is adopted as the river maintenance flow of both rivers considering future development in the river basins.

It is reported that the pumps in the PUB's intake located near Kota Tinggi shut down once on April 21th, 1983 for the first time due to high salinity caused by sea water intrusion. The water quality has been monitored at the highway bridge site a little downstream from the intake point. On that occasion the runoff at the intake site is estimated at 4.1 m<sup>3</sup>/s and the withdrawal at the PUB's intake was 60 Mgd or  $3.2 \text{ m}^3/\text{s}$ . The eventual runoff at the highway bridge is estimated at 0.9 m<sup>3</sup>/s. Another minimum flow series was observed on January 2, 1981. The minimum runoff at the intake point was estimated at 5.6 m<sup>3</sup>/s and the withdrawal at the PUB's intake was 60 Mgd or 3.2 The eventual runoff at the highway bridge is estimated at 2.4  $m^3/s$ . Pumping was not disturbed by saline water on this occasion. Considering these facts, the runoff of 2.4 m3/s or specific discharge of 0.15  $m^3/s/100$  km<sup>2</sup> is contemplated as the safe discharge against saline water intrusion.

Though the conditions of water withdrawal at the pump station is not known, another minimum flow of 2.4 m $^3$ /s is assumably occurred in 1976. And no distinctive effect on the river nor the environment has been recorded. The simulation sutdy on the BOD concentration resulted in 9 mg/l in 2005 assuming the discharge of 2.4 m $^3$ /s. In consequence, the specific discharge of 0.15 m $^3$ /s/100 km $^2$  is adopted as the river maintenance flow of the Johor river.

The BOD concentration of 10 mg/l is derived at the upper reach of Skudai river by the simulation study in case that  $0.33 \, \text{m}^3/\text{s}/100 \, \text{km}^2$  or the runoff with dependability of 99% is adopted as the river maintenance flow in 2005. While that in the Tebrau river is less than 1 mg/l. The results of the simulation imply that sewerage system is necessary in the Skudai river basin.

#### 3. SOURCE FACILITIES

#### 3.1 Existing Source Facilities

There are five dams and 16 intakes in the Region. The Layang river, a tributary of the Johor river, Layang dam is under construction and is expected to be completed in 1985. In the South Johor region, eight dams are comtemplated in the South Johor Regional Water Resources Study. locations of existing and proposed damsites, intake and pipeline route are illustrated in Fig. 2. The Macap is one of them and constructed by DID Lebam dam is operated by PWD. The Macap dam is located in the Macap river, a tributary of the Benut river. The catchment area is 78 km2 and the active storage capacity is  $31 \times 10^6 \text{ m}^3$ . The primary purpose of the However it is also utilized to impound Macap dam is flood detention. water for domestic and industrial water supply. The supply capacity thereof is  $16.6 \times 10^6 \text{ m}^3$  or 10 Mgd. Dam is used also to power generation of a mini-hydroelectric scheme (approximately 50 KW) by NEB. dam located in the Lebam river is operated for the purpose of domestic and industrial water supply. The catchment area thereof is 18 km2.

PWD has 14 intakes in the Region. In 1983, PWD supplied the treated water of 72.5 x  $10^6$  m<sup>3</sup> (198.6 Mld) to the Region. Among them,  $44 \times 10^6$  m<sup>3</sup> (120.5 Mld) is water tapped from PUB system.

The three dams in the Gunong Pulai area are owned and are operated by PUB of Singapore. One of the three dams is located in the Pontian Kechil river and the other two dams are located in the Pulai river with intakes. Those intakes are connected by pipelines and called Gunong Pulai dam system. The purpose of the Gunong Pulai dam system is to supply domestic and industrial water to Singapore. PUB possesses four intakes located in the Gunong Pulai damsite, in the Skudai, Tebrau and Johor river near Kota Tinggi. PUB abstracted raw water totalling 145 x 106 m<sup>3</sup> (397 Mld) from the Gunong Pulai, Skudai and Tebrau intakes and 99 x 106 m<sup>3</sup> (271 Mld) from the Johor intake in 1983. An abstraction record of raw water by PUB is shown in Table 6.

All these facilities were incorporated in the demand and supply balance study.

### 3.2 On-Going Source Development Plan

In addition to the existing water source or intake facilities, there are several development schemes which are either committed for implementation thereof or under construction. A source development project of Layang Scheme (Ia) is under construction. Further source development projects of the Layang Scheme (Ib), Kluang Scheme State I, and Simpang Renggam Scheme Stage I are under planning and the implementation thereof is committed by PWD.

#### (1) Layang Scheme (Ia)

The first phase of the Johor Bahru New Water Supply Scheme undertaken by PWD is called the Layang Scheme Ia. Upper Layang dam together with experimental estuary barrage are scheduled to be completed in the upstream of the Layang river by 1985 (Ref. 1). The furnished supply capacity is 104 Mld or 23 Mgd. A treatment plant with a capacity of 180.8 Mld (40 Mgd) will also be constructed.

#### (2) Layang Scheme (Ib)

The second phase of the Johor Bahru New Water Scheme undertaken by PWD is called the Layang Scheme (1b).

Under the Layang scheme (Ib), a pump station in the upstream reach of Chabang Tiram river, a tributary of the Johor river, low lift pumps at the estuary barrage and water way between the pump station and the Layang dam will be constructed by 1986. Thereby the increased supply capacity of Layang dam by 76.7 Mld (17 Mgd) is envisaged. Consequently the water supply capacity of the Layang scheme will be 180.8 Mld (40 Mgd).

Main supply areas of Layang scheme are Johor Bahru, Ulu Tiram, Senai and Pasir Gudang.

#### (3) Kluang Scheme Stage I

The main purpose of the Kluang Scheme Stage I is to supply water to Kluang district up to year 1995. Renggam, Sayong and Layang Layang in the Region form the southernmost part of the district and are included in the target area of water supply by the scheme. A treatment plant with a capacity of 80 Mld will be withdrawn from the Semberong dam to supply the impounded water. At the same time, a ground water project with an estimated yield of 10 Mld will be developed at the Kahang river flood plain. The scheme will supply 0.27 Mld to Sayong, 4.1 Mld to Renggam and 3.0 Mld to Layang Layang by 1987 (Ref. 2).

#### (4) Simpang Renggam Scheme Stage I

In the Simpang Renggam Scheme Stage I a treatment plant with a capacity of 25 Mld will be constructed in the upstream reach of the Benut river by 1990, in order to abstract released water from Macap dam for the water supply in the Pontian district and a part of Kluang district.

All these on-going schemes were incorporated in this demand and supply balance study.

#### 3.3 Proposed Dam Project

Various suitable damsites were identified in the Region and eight of them were envisaged in the this Study. They are the Benut, Pontian Besar, Linggiu, Upper Pengli, Sayong, Telor, Sedili and Layau Kiri dams. Table 7 shows the principal features of these dams.

In addition to dams three estuary barrages were also implicated in the candidates of source facilities. They are the extension of Layang barrage, Sg. Pendas and Seng Heng barrages. The Benut damsite is located in the main stream of the Benut river, 4 km upstream from Kg. Ulu Benut. The catchment area is  $37~\rm km^2$  and the annual inflow is estimated to be  $33 \times 10^6~\rm m^3$  on an average based on the generated data for 22 years from 1963 to 1984. The effective storage capacity is  $10 \times 10^6~\rm m^3$  in case that the normal HWL of the reservoir is assumed at EL.  $26.7~\rm m$ .

The pontian Besar damsite is located in the main stream of the Pontian Besar river, 2.5 km northwest of Kg. Bukit Batu. Annual inflow discharge from catchment area of  $40~\rm km^2$  is estimated to be  $41~\rm x~10^6~m^3$ . The effective storage capacity is  $8~\rm x~10^6~m^3$ , in case that the normal HWL is set at EL.  $18.6~\rm m$ .

The Linggiu damsite is located in the Linggiu river, 15 km upstream from the confluence of the Johor river and the Linggiu river. The average annual inflow from the catchment area of 206 km $^2$  is estimated to be 216 x  $10^6$  m $^3$ . The effective storage capacity is  $58 \times 10^6$  m $^3$  under the condition of EL 31.0 m of the normal HWL of the reservoir.

The Upper Pengli damsite is located in the Pengli river, about 10 km upstream from the confluence of the Sayong and the Pengli rivers. The catchment area is 127 km<sup>2</sup> and the annual average inflow is estimated to be 126 x  $10^6$  m<sup>3</sup>. The effective storage capacity is  $36 \times 10^6$  m<sup>3</sup> for the normal HWL of EL. 36.0 m.

The Sayong damsite is located in the Sayong river, 0.5 km upstream from the confluence of the Sayong and Linggiu rivers. The average annual inflow from the catchment area of  $662 \text{ km}^2$  is estimated to be  $655 \times 10^6 \text{ m}^3$ . The effective storage capacity is  $128 \times 10^6 \text{ m}^3$  in case that the normal HWL is EL. 18.0 m.

The Telor damsite is located in the Telor river, approximately 6 km upstream from the confluence of the Johor and the Telor rivers. The catchment area is  $38~\rm{km^2}$  collecting the average annual runoff of  $43~\rm{x}~10^6~\rm{m^3}$ . The effective storage capacity is set at  $30~\rm{x}~10^6~\rm{m^3}$  if the normal HWL is EL. 26.0 m.

The Sedili damsite is located in the main stream of the Sedili Besar river, 3 km upstream from the bridge over the river on the national highway connecting Kota Tinggi and Mersing. The catchment area is 224 km<sup>2</sup> and the average annual inflow from catchment area is estimated to be 290 x  $10^6$  m<sup>3</sup>. The effective storage capacity is  $61 \times 10^6$  m<sup>3</sup> if the normal HWL is set at EL. 20.0 m.

The Layau Kiri damsite is located in the Layau Kiri river, a tributary of the Lebam river, 10 km upstream of the confluence of the Layau Kiri river and the Lebam river. The average annual inflow from the catchment of 31 km $^2$  is estimated to be 38 x  $10^6$  m $^3$ . The effective storage capacity is 11 x  $10^6$  m $^3$  in case that the normal HWL is EL. 16.5 m.

#### 4. RIVER BASIN MODEL

#### 4.1 General

The water demand and supply balance study on the basis of the 5-day natural runoff was carried out for each river system located water resources facility. The river flow was expressed mathematically establishing a model at each intake point, damsite and confluence. Thereby the balance of inflow, outflow and withdrawal were calculated. The model established are nine for tributaries and six for mainstreams in the Region. The schematic river models utilized for water demand and supply balance study is shown in Fig. 3.

Inflow data for mainstream model the discharge are tributaries, natural flow from the remaining catchment area (See ANNEX D) and return flow of once withdrawn water in the upstream reach. point where the model is established, river maintenance flow was discharged to the downstream reach. ANNEX D discussed the river maintenance flow. Withdrawal is the water demand projected in ANNEX B. In case that high BOD concentration is presumed at certain stretch, treatment facilities for sewerage water is proposed. Detailed criteria of BOD and treatment method is explained in detail in ANNEX F.

The balance at a point where a model is established is basically expressed by the equation shown below:

#### B = (O1+O2+R+T)-(W+D)

where, B: Balance at the point

O1: Outflow from the upstream reach

02: Outflow from the upstream tributary

R: Runoff from the remnant catchment area

T: Return flow

W: Withdrawal

D: Discharge to the downstream reach

first and then the balance in the mainstream was calculated applying the balances in the tributaries thus obtained. The models for a mainstream and a tributaries are depicted in Fig. 4 and Fig. 5.

#### 4.2 Benut-Pontian River Basin

The Benut-Pontian Basin is located in the western part of the Region. This basin was represented by three main stream models which are Benut, Pontian Besar and Pontian Kechil river model. This basin has three intake points for D&I water supply and an intake point for Ulu Benut irrigation scheme. The Benut river is divided into five stretches. The Pontian Besar river is divided into three stretches. The Benut river model has six balance points which are Macap and Benut damsites, two intake points (for irrigation and D&I water supply), confluence of Macap river and estuary of the river. Pontian Besar river model has four balance points which are Pontian Besar damsite, two intake points (for D&I water supply) and estuary. Pontian Kechil river model has only one balance point at estuary because no intake exists along this river.

#### 4.3 Skudai-Tebrau River Basin

This basin was expressed by three main stream models which are Pulai, Skudai and Tebrau river model. This basin has two intake points for D&I water supply by PUB. The Tebrau river and Skudai river models has each two balance points which are an intake point for D&I water supply for Singapore (PUB) and estuary. The Pulai river model has only one balance point at estuary. This river model was constructed only for water quality control study such as Pontian Kechil river model.

#### 4.4 Johor River Basin

This basin was expressed by one main stream model, eight tributary models and one tributary model (Rengit river model) which directly flows into South China Sea. This basin has ten intake points for D&I water

supply, of which one intake point is owned by PUB to Singapore, and an intake point for Lukut irrigation scheme. The mainstream model of the Johor river has three intake points (including PUB intake R41). Further new intake is recommended to abstract water at Kg. Tai Hong (R42) nearly 1.5 km upstream from the PUB intake in order to abstract water if the demand exceeds the existing 160 Mgd. In the water deficit calculation, total abstraction volume of Malaysia and Singapore is loaded on R41 and R42. The balance point consists of three hydrological stations and five proposed damsites (Sayong, Upper Pengli, Linggiu, Telor and Layau Kiri), two existing dams (Layang and Lebam), 10 intakes (nine for D&I water supply and one for irrigation water use) and confluences of nine tributary models.

#### 4.5 Sedili River Basin

This basin model consists of two main stream models which are Sedili Besar and Sedili Kechil river models. The basin has only one intake point in the Gembot river for D&I water supply. The Sedili Besar river is divided into five stretches. Balance points in the Sedili Besar River Model are Sedili damsite, an intake point in R. Gembot (R36), major confluences and estuary. Sedili Kechil river model has only one balance point at estuary.

#### 5. WATER DEFICIT

## 5.1 Basic Concept

The objective of the water deficit calculation is to examine the capability of the natural runoff to supply water for D&I and irrigation water demand in the Region by means of a simulation method. Water demand and supply system in the Region is illustrated in Plate 1.

As stated in Chapter 4, the simulation model consists of a tributary and a main model. The tributary model computes deficit at intakes along the tributary and surplus runoff running into the main stream. The main model computes water supply and demand balance at arbitrary location of the mainstream. The available runoff is the discharge from tributaries, the natural flow from own catchment area of along the mainstream and return flow from outlets along the mainstream. The mechanism of tributary and mainstream models are illustrated in Figs. 4 and 5.

The water deficit calculation is carried out for the target years of 1983, 1985, 1990, 1995, 2000 and 2005. While the estimated river runoff for the period of 1963 to 1984 were used as the natural runoff.

### 5.2 Water Balance at Intake

### (1) Benut-Pontian river basin

Natural runoff at Simpang Renggam intake (R24) showing with water demand in 1983, 1995 and 2005 is illustrated in Figs. 6 and 7. Water deficit at the intake is estimated at 3 x 10<sup>6</sup> m<sup>3</sup>/y in 1990 and 17 x 10<sup>6</sup> m<sup>3</sup>/y in 2005 under the hydrological condition of 1971. This deficit is mainly caused by rapid increase in domestic and industrial water demand in urban areas in the west coast of the Region. However PWD's Simpang Renggam Scheme Stage I and II augments the natural flow and the deficit becomes zero up to 2005.

# (2) Skudai-Tebrau river basin

It is considered that the abstraction at PUB intakes in the Skudai and Tebrau rivers will not extend beyond the present capacity because the present abstraction is already reached to the potentials of both rivers. Further according to the present agreement concluded between Malaysia and Singapore in 1961, water resources development by Malaysia is restricted. Thus, future abstraction at the intakes is assumed same value of the one in 1985 up to 2005. Based on this assumption, water deficit is calculated  $16 \times 106 \, \text{m}^3/\text{y}$  and  $33 \times 106 \, \text{m}^3/\text{y}$  at the Skudai and Tebrau rivers respectively.

## (3) Johor River Basin

Water deficit at intake, R25, located at the upstream of the Sayong river is projected at 0.4 against the water demand in 1995 and 1.6 x  $10^6$  m<sup>3</sup>/y against the demand in 2005. At intake R26 in Layang Layang, the deficit is estimated 0.1 x  $10^6$  m<sup>3</sup>/y and 0.2 x  $10^6$  m<sup>3</sup>/y against water demand in 1995 and 2005. The main demand center of these intakes are urbanized area of Renggam and Layang Layang. These deficits were well supplemented by the water to be transferred from Kuluang Scheme. And consequent deficit becomes zero upto 2005. Water deficit at two intakes, R39 and R40, along the Pengli and Linggiu rivers are 1.8 x  $10^6$  m<sup>3</sup>/y and  $0.2 \times 10^6$  m<sup>3</sup>/y against water demand in 2005 respectively. The estimated water deficit at these two intakes are small in comparison with the value at R41 in Kota Tinggi.

Water demand in Towns of Johor Bahru, Senai, Kulai, Tebrau and Masai incurs the largest water deficit in the Johor river at R41 and hypothetical intake R42 together with abstraction by Singapore.

5-day natural runoff at Kota Tinggi (R41) for the period of 22 years from 1963 to 1984 is illustrated in Figs. 8 to 10 against water demand of 1983, 1995 and 2005. In these figures water deficit is expressed in the enclosed area of the histogram below the demand line. Although a new intake is recommended at Kg. Tai Hong located at 1.5 km upstream from PUB intake, the water balance based on the total water

abstraction of Malaysia and Singapore is calculated integrated at Kota Tinggi.

The estimated total deficit is 5 x  $10^6$  m<sup>3</sup>/y in 1985 for both Cases 1 and 2 assuming that the hydrological condition experienced in 1971 would recur. In year 1995, the deficit will increase to  $74 \times 10^6$  m<sup>3</sup>/y for Case 1,  $28 \times 10^6$  m<sup>3</sup>/y for Case 2,  $19 \times 10^6$  m<sup>3</sup>/y for Case 1-A and  $10 \times 10^6$  m<sup>3</sup>/y for Case 2-A. In year 2005, they will increase to  $144 \times 10^6$  m<sup>3</sup>/y for Case 1,  $69 \times 10^6$  m<sup>3</sup>/y for Case 2,  $86 \times 10^6$  m<sup>3</sup>/y for Case 1-A and  $52 \times 10^6$  m<sup>3</sup>/y for Case 2-A. The monthly water deficit at Kota Tinggi (R41 & R42) estimated based on the accumulated water abstraction against water demand of target year 1983, 1985, 1990, 1995, 2000 and 2005 are tabulated in Table 8 to 10.

### (4) Sedili river basin

The water deficit at the intake of Telok Mahkota located at a tributary of the Sedili Besar river is estimated to be 0.9 against the demand of 2005.

### 5.3 Summary of Water Deficit

Water deficit at Kota Tinggi in hydrological year 1971-1972 and 1976-1977 are illustrated for Case 1 and 2 in the top and middle figures in Fig. 11. Two hydrographs without dam and with Sayong and Linggiu dams in the figures are drawn assuming that runoff from upper reach of the dams is completely shut at the damsites. As for determination of scale of dam, an effective storage volume shall be set to supply water against the water deficit identified by the hydrograph with dams.

Further, in case of water resources development by Malaysia alone, water deficit due to the abstraction by Malaysia and Singapore can be separately estimated. The bottom figure of Fig. 11 shows the water deficit to be sufficed by both Governments against hydrological condition of 1971-1972. In the figure water deficit of Singapore is identified as the enclosed area by the hydrograph of natural flow and Singapore's own demand line. On the other hand water deficit caused by the construction

of dam by Malaysia is identified as the remaining area of the deficit by the total water abstraction of Malaysia and Singapore.

Trend of the demand of Case 1 and Case 2 and calculated water deficit for four study cases of Case 1, 2 and Case 1-A, 2-A is illustrated in Fig. 12. The maximum and mean water deficit during the period from 1963 to 1984 at all intake points is summarized in Table 11 by each target year.

#### 6. RESERVOIR OPERATION

### 6.1 Basic Concept

The objective of reservoir operation study is to evaluate net water output of the proposed dams to supplement water deficit calculated based on 22 years hydrological data from 1963 to 1984. Net water output is defined as regulated outflow from a dam to supplement water deficit downstream of the dam. It is assumed that the dam releases impounded water to the downstream in accordance with the deficit in the contemplated demand area.

As mentioned in previous chapter, it is clarified that the largest water deficit will recur in Johor river basin. Among other river basins, a comparatively large water deficit is estimated in the Benut river basin if Simpang Renggam Scheme Stage I and II are not realized. Thus, reservoir operation study was carried out at the Johor and the Benut river basin.

### 6.2 Procedure of Reservoir Water Balance

Basic flow of the reservoir operation is schematically shown in Fig. 13.

(1) The water balance of reservoir during a 5-day period is given by the following equation:

Send = Sbig + Qin - Qout - Sp - Ep

where, Send: Reservoir storage at the end of the 5-day period

Sbig: Reservoir storage at the beginning of the period

Qin: Inflow to the reservoir during the period

Oout: Outflow from the reservoir during the period

Sp: Spillout discharge during the period, if any

Ep: Evaporation from the reservoir water surface during the period

- (2) Inflow to the reservoir consists of two sources. One is the surface runoff from the catchment area of the damsite except the reservoir surface area and the other is rainfall on the reservoir surface. Evaporation rate was referred to the potential open water evaporation rate summarized in DID study report (Ref. 4). Table 11 shows the monthly rate of open water evaporation of Benut-Pontian and Johor river basins.
- (3) The release from the reservoir coincides with the water deficit in the contemplated downstream demand area. Conveyance loss of surface runoff from existing and proposed reservoirs to intakes is assumed 10% of water released from the reservoir.
- River maintenance flow in each major river is set in ANNEX D. Based on the analysis of low flow data at Kg. Rantau Panjang, the volume at R41 intake site was set 2.4 m<sup>3</sup>/s at the Johor river and 99% dependable discharge at the Benut river. In the reservoir operation procedure, maintenance flow is firstly deducted from inflow discharge. In case that total inflow discharge is insufficient to secure the river maintenance flow, water stored in reservoir is the released if the water level is above Low Water Level.
- (5) The excess water is discharged through the spillway if the water level becomes higher than HWL.

# 6.3 Reservoir Operation of Existing Dam in Benut River Basin

Through the water balance study, water deficit at intake R24 near Simpang Renggam is estimated at  $17 \times 10^6 \text{ m}^3$  in hydrological year 1976 against demand in 2005. In this conformity the reservoir operation of the Macap dam is examined. Schematic diagram for reservoir operation in the Benut river is shown in Fig. 14.

The Macap dam located along the Macap river, a tributary of the Benut river, is operated as a multipurpose dam project controlled under the Johor State DID. The function of the dam is flood control, water

supply and hydropower generation. The catchment area is  $78 \text{ km}^2$  and its effective storage volume for water supply is  $13 \times 10^6 \text{ m}^3$ . A river outlet with capacity  $0.52 \text{ m}^3/\text{s}$  is provided. A hydropower generating facility with generating capacity of 50 kw is installed. Though plant discharge for power generation is not specified in a hydrological report of the Macap Dam (Ref. 5), the intake capacity for power generation is considered to be  $1.0 \text{ m}^3/\text{s}$  on the basis of the drawing attached. Accordingly total outflow capacity is accounted  $1.52 \text{ m}^3/\text{s}$ . The principal feature of the Macap dam is given in Table 13.

Because no observed runoff record is available in the Benut river basin, the tank model developed at Kg. Rantau Panjang (R. Johor) was utilized for generating runoff in this basin. Average daily rainfall in the catchment area from 1963 to 1984 were applied in the Tank Model. The natural 5-day runoff at the Macap dam for simulation period of 22 years is thus obtained and tabulated in Tables 14 to 16.

The impounded water in the reservoir is released to supplement the deficit at Simpang Renggam up to  $1.52~\text{m}^3/\text{s}$  without condition if the reservoir water could afford it. In other words, it is assumed to put first priority on water supply to utilize the reservoir water.

Tables 17 and 18 show the result of the reservoir operation of the Macap dam under the hydrological condition from January to December in 1971 against demand in 2005. Remaining deficit at Simpang Renggam occurs once between Jul. 16 to Aug. 10 in the whole simulation period though the reservoir water is released. Water deficit of  $1.2 \times 10^6$  m<sup>3</sup> was entailed during the period between Jul. 21-25 against the demand in 2005. However this amount is considered to be negligible in the light of the accuracy of the Study.

# 6.4 Reservoir Operation of Dams in Johor River Basin

The operation procedure shown in Fig. 13 was applied to the assumed reservoir which is provided by the first dam in simulation study on the demand and supply balance. Natural runoff at the dam was generated for 22 years by the Tank Model working out at Kg. Rantau Panjang, Jam. Johor

Tenggara and Ran. Tanah Jengeli hydrological stations. Annual supply capacity of a dam was obtained for each assumed effective storage volume. If a significant deficit is entailed by the simulation study, the second dam is introduced to supplement the deficit. In this case some operation rules were testified against the projected demand at the intakes R41 and R42 (Kg. Tai Hong). The operation procedure in the Johor river is schematically shown in Fig. 15. The operation rule testified are:

- (1) Release water from a dam first until the stored water in the reservoir becomes nil and then the second dam starts to release water.
- (2) Both dams release water at the same time in proportion to the remaining water in the reservoir.

Through the several trials, it was clarified that second rule had an advantage compared with first one for effective utilization of storage of the reservoir. According to the first rule, second dam will function as for emergency use in drought year. Except severe drought condition, spill-out from second dam will continue. Thus, second rule was applied for examining combination of two dams.

The generated 5-day runoff for 22 years at the proposed damsites, Sayong and Linggiu, are presented in Tables 18 to 23. Tables 24 to 26 shows the result of operation with Sayong and Linggiu dams against estimated water deficit of Case I during hydrological condition from Jan. 1971 to Jun. 1972.

The lowest water level simultaneously occurs when the period of Aug. 6-10, 1971 and then the water levels of both reservoirs recovered upto the High Water Levels at the beginning of 1972.

As the result of the simulation, several comvination of dam listed in Table 27 was testified. The storage of dams can meet the demand up to 2005 without causing deficit.

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# TABLES

Table 1 ANNUAL NATURAL RUNOFF AT MAJOR WATER SOURCE FACILITIES

Kg. Rantau Panjang       Johor       1,130       2,299       1,092       —         Jam. Johor Tenggara       Sayong       624       2,246       576       —         Ran. Tanah Jengeli       Linggiu       209       2,418       216       —         Saleng       Skudai       91       2,354       93       —         Benut       37       2,193       33       Kg. Rantau Panjang         Pontian Besar       Pontain       40       2,350       41       "         Sayong       662       2,312       655       Jam. Johor Tenggara         Upper Pengli       Pengli       127       2,312       126       "         Linggiu       Linggiu       206       2,435       216       Ran Tanah Jengeli       Ran Tanah Jengeli       Rg. Rantau Panjang         Layau Kiri       Lebam       31       2,546       38       "         Sedili       Sedili       224       2,613       290       "         Macap       Benut       78       2,193       70       Kg. Rantau Panjang         Res 9 (Layang)       Layang       31       2,321       31       "         Res 10 (Lebam)       Lebam       18
Ran. Tanah Jengeli       Linggiu       209       2,418       216       —         Saleng       Skudai       91       2,354       93       —         Benut       37       2,193       33       Kg. Rantau Panjang         Pontian Besar       Pontain       40       2,350       41       "         Besar       Besar       "       "       "       "         Sayong       662       2,312       655       Jam. Johor Tenggara       "       "       "       "       "       "       "       "       "       Linggiu       2,435       216       Ran Tanah Jengeli       Ran Tanah Jengeli       Tenggara       Telor       38       2,294       37       Kg. Rantau Panjang       "       Sedili       Sedili       2,546       38       "       "       "       Sedili       Sedili       2,613       290       "       "       "       Besar       "       Res 8 (G.Pulai,PUB)       Pontian       12       2,490       14       "       "       Besar       Res 9 (Layang)       Layang       31       2,321       31       "       "       Res 10 (Lebam)       Lebam       18       2,546       22       "       "       Res 2
Saleng       Skudai       91       2,354       93       —         Benut       37       2,193       33       Kg. Rantau Panjang         Pontian Besar       Pontain       40       2,350       41       "         Sayong       662       2,312       655       Jam. Johor Tenggara         Upper Pengli       Pengli       127       2,312       126       "         Linggiu       Linggiu       206       2,435       216       Ran Tanah Jengeli         Telor       38       2,294       37       Kg. Rantau Panjang         Layau Kiri       Lebam       31       2,546       38       "         Sedili       Sedili       224       2,613       290       "         Macap       Benut       78       2,193       70       Kg. Rantau Panjang         Res 8 (G.Pulai, PUB)       Pontian       12       2,490       14       "         Res 9 (Layang)       Layang       31       2,321       31       "         Res 10 (Lebam)       Lebam       18       2,546       22       "         R24       Benut       170       2,193       152       Kg. Rantau Panjang         R25
Benut Benut 37 2,193 33 Kg. Rantau Panjang Pontian Besar Pontain 40 2,350 41 "  Sayong Sayong 662 2,312 655 Jam. Johor Tenggara Upper Pengli Pengli 127 2,312 126 " Linggiu Linggiu 206 2,435 216 Ran Tanah Jengeli Telor 38 2,294 37 Kg. Rantau Panjang Layau Kiri Lebam 31 2,546 38 " Sedili Sedili 224 2,613 290 "  Macap Benut 78 2,193 70 Kg. Rantau Panjang Res 8 (G.Pulai,PUB) Pontian 12 2,490 14 "  Res 9 (Layang) Layang 31 2,321 31 " Res 10 (Lebam) Lebam 18 2,546 22 "  R24 Benut 170 2,193 152 Kg. Rantau Panjang R25 Sayong 8 2,312 8 Jam. Johor Tenggara
Pontian Besar         Pontain Besar         40         2,350         41         "           Sayong         Sayong         662         2,312         655         Jam. Johor Tenggara           Upper Pengli         Pengli         127         2,312         126         "           Linggiu         Linggiu         206         2,435         216         Ran Tanah Jengeli           Telor         Telor         38         2,294         37         Kg. Rantau Panjang           Layau Kiri         Lebam         31         2,546         38         "           Sedili         Sedili         224         2,613         290         "           Macap         Benut         78         2,193         70         Kg. Rantau Panjang           Res 8 (G.Pulai, PUB)         Pontian         12         2,490         14         "           Besar         Besar         "         "         "           Res 9 (Layang)         Layang         31         2,321         31         "           Res 10 (Lebam)         Lebam         18         2,546         22         "           R24         Benut         170         2,193         152         Kg. Rantau Panjang
Pontian Besar         Pontain Besar         40         2,350         41         "           Sayong         Sayong         662         2,312         655         Jam. Johor Tenggara           Upper Pengli         Pengli         127         2,312         126         "           Linggiu         Linggiu         206         2,435         216         Ran Tanah Jengeli           Telor         Telor         38         2,294         37         Kg. Rantau Panjang           Layau Kiri         Lebam         31         2,546         38         "           Sedili         Sedili         224         2,613         290         "           Macap         Benut         78         2,193         70         Kg. Rantau Panjang           Res 8 (G.Pulai, PUB)         Pontian         12         2,490         14         "           Besar         Besar         "         "         "           Res 9 (Layang)         Layang         31         2,321         31         "           Res 10 (Lebam)         Lebam         18         2,546         22         "           R24         Benut         170         2,193         152         Kg. Rantau Panjang
Besar         Sayong       Sayong       662       2,312       655       Jam. Johor Tenggara         Upper Pengli       Pengli       127       2,312       126       "         Linggiu       Linggiu       206       2,435       216       Ran Tanah Jengeli         Telor       38       2,294       37       Kg. Rantau Panjang         Layau Kiri       Lebam       31       2,546       38       "         Sedili       Sedili       224       2,613       290       "         Macap       Besar       Benut       78       2,193       70       Kg. Rantau Panjang         Res 8 (G.Pulai, PUB)       Pontian       12       2,490       14       "         Besar       Besar       "       "         Res 9 (Layang)       Layang       31       2,321       31       "         Res 10 (Lebam)       Lebam       18       2,546       22       "         R24       Benut       170       2,193       152       Kg. Rantau Panjang         R25       Sayong       8       2,312       8       Jam. Johor Tenggara
Upper Pengli Pengli 127 2,312 126 " Linggiu Linggiu 206 2,435 216 Ran Tanah Jengeli Telor Telor 38 2,294 37 Kg. Rantau Panjang Layau Kiri Lebam 31 2,546 38 " Sedili Sedili 224 2,613 290 "  Macap Benut 78 2,193 70 Kg. Rantau Panjang Res 8 (G.Pulai,PUB) Pontian 12 2,490 14 "  Besar  Res 9 (Layang) Layang 31 2,321 31 " Res 10 (Lebam) Lebam 18 2,546 22 "  R24 Benut 170 2,193 152 Kg. Rantau Panjang R25 Sayong 8 2,312 8 Jam. Johor Tenggara
Linggiu Linggiu 206 2,435 216 Ran Tanah Jengeli Telor 38 2,294 37 Kg. Rantau Panjang Layau Kiri Lebam 31 2,546 38 " Sedili Sedili 224 2,613 290 "  Macap Benut 78 2,193 70 Kg. Rantau Panjang Res 8 (G.Pulai,PUB) Pontian 12 2,490 14 "  Besar Res 9 (Layang) Layang 31 2,321 31 " Res 10 (Lebam) Lebam 18 2,546 22 "  R24 Benut 170 2,193 152 Kg. Rantau Panjang R25 Sayong 8 2,312 8 Jam. Johor Tenggara
Telor Telor 38 2,294 37 Kg. Rantau Panjang Layau Kiri Lebam 31 2,546 38 " Sedili Sedili 224 2,613 290 "  Macap Benut 78 2,193 70 Kg. Rantau Panjang Res 8 (G.Pulai,PUB) Pontian 12 2,490 14 "  Besar  Res 9 (Layang) Layang 31 2,321 31 " Res 10 (Lebam) Lebam 18 2,546 22 "  R24 Benut 170 2,193 152 Kg. Rantau Panjang R25 Sayong 8 2,312 8 Jam. Johor Tenggara
Layau Kiri Lebam 31 2,546 38 " Sedili Sedili 224 2,613 290 "  Macap Benut 78 2,193 70 Kg. Rantau Panjang Res 8 (G.Pulai,PUB) Pontian 12 2,490 14 "  Besar Res 9 (Layang) Layang 31 2,321 31 " Res 10 (Lebam) Lebam 18 2,546 22 "  R24 Benut 170 2,193 152 Kg. Rantau Panjang R25 Sayong 8 2,312 8 Jam. Johor Tenggara
Sedili       224       2,613       290       "         Macap       Benut       78       2,193       70       Kg. Rantau Panjang         Res 8 (G.Pulai, PUB)       Pontian       12       2,490       14       "         Besar       Besar       "       "         Res 9 (Layang)       Layang       31       2,321       31       "         Res 10 (Lebam)       Lebam       18       2,546       22       "         R24       Benut       170       2,193       152       Kg. Rantau Panjang         R25       Sayong       8       2,312       8       Jam. Johor Tenggara
Macap Benut 78 2,193 70 Kg. Rantau Panjang Res 8 (G.Pulai,PUB) Pontian 12 2,490 14 "  Res 9 (Layang) Layang 31 2,321 31 "  Res 10 (Lebam) Lebam 18 2,546 22 "  R24 Benut 170 2,193 152 Kg. Rantau Panjang R25 Sayong 8 2,312 8 Jam. Johor Tenggara
Macap Benut 78 2,193 70 Kg. Rantau Panjang Res 8 (G.Pulai,PUB) Pontian 12 2,490 14 "  Res 9 (Layang) Layang 31 2,321 31 "  Res 10 (Lebam) Lebam 18 2,546 22 "  R24 Benut 170 2,193 152 Kg. Rantau Panjang R25 Sayong 8 2,312 8 Jam. Johor Tenggara
Res 8 (G.Pulai, PUB) Pontian 12 2,490 14 "  Besar  Res 9 (Layang) Layang 31 2,321 31 "  Res 10 (Lebam) Lebam 18 2,546 22 "  R24 Benut 170 2,193 152 Kg. Rantau Panjang R25 Sayong 8 2,312 8 Jam. Johor Tenggara
Res 8 (G.Pulai, PUB) Pontian 12 2,490 14 "  Besar  Res 9 (Layang) Layang 31 2,321 31 "  Res 10 (Lebam) Lebam 18 2,546 22 "  R24 Benut 170 2,193 152 Kg. Rantau Panjang R25 Sayong 8 2,312 8 Jam. Johor Tenggara
Besar         Res 9 (Layang)       Layang 31 2,321 31 "         Res 10 (Lebam)       Lebam 18 2,546 22 "         R24       Benut 170 2,193 152 Kg. Rantau Panjang R25 Sayong 8 2,312 8 Jam. Johor Tenggara
Res 10 (Lebam) Lebam 18 2,546 22 "  R24 Benut 170 2,193 152 Kg. Rantau Panjang R25 Sayong 8 2,312 8 Jam. Johor Tenggara
Res 10 (Lebam)       Lebam       18       2,546       22       "         R24       Benut       170       2,193       152       Kg. Rantau Panjang         R25       Sayong       8       2,312       8       Jam. Johor Tenggara
R24 Benut 170 2,193 152 Kg. Rantau Panjang R25 Sayong 8 2,312 8 Jam. Johor Tenggara
R25 Sayong 8 2,312 8 Jam. Johor Tenggara
The state of the s
P26 Sayong 98 2 212 97 "
nzo bayong so 2/stz si
Pontian 160 2,350 163 Kg. Rantau Panjang Besar
R30 Pontian 53 2,350 54 "  Besar
R31 (PUB) Skudai 187 2,379 196 Saleng
R32 (PUB) Tebrau 118 2,383 124
R33 Serai 12 2,321 12 Kg. Rantau Panjang
R34 Panti 8 2,496 9 "
R35 Semangar 46 2,294 45 "
R36 Sedili 78 2,721 109 "  Besar
R37 Seluyut 7 2,496 8 "
R38 Rengit 4 2,546 5 "
R39 Pengli 55 2,312 54 Jam. Johor Tenggara
R40 Linggiu 387 2,435 406 Ran. Tanah Jengeli
R41 (PUB) Johor 1,550 2,496 1,826 Kg. Rantau Panjang

Table 2 PROJECTED D&I WATER DEMAND IN THE REGION BY DISTRICT OF SUPPLY FOR 1983 - 2005 (1/2)

Unit: Mid DISTRICT TOWN/RURAL 2000 2005 1990 1995 1985 INTAKE POINT 1983 NAME MUNTH NAME NAME 287.4 472.9 191.0 96.7 131.9 R41/R42 1 Johor Bahru Johor Bahru Johor Bahru. 108,2 90.1 124.7 139.7 61.6 Pelentong, Res9 Tebrau Masai & R33 (1983) 29.3 52.6 64.4 74.2 32.1 40.8 Pasir Gudang Res9(1985~) 460.0 637.2 264.9 368.3 190.4 TOWN TOTAL 161.2 4.7 R33(1983) Rural 6.3 6.6 6.7 6.0 5.5 Res9(1985-) 466.6 643.9 374.6 270.9 195.9 165.9 MUKIMS TOTAL Pulai, 4.7 4.9 5.2 3.3 4.1 2.5 Tg.Kupang Rural R42/Res8 4.7 5-2 4.9 4.1 2.5 3.3 MUKIMS TOTAL 82.8 48.7 25.4 37.4 15.8 R41/R42/Res9 13.0 Senai Kulai, Kulai 6.8 9.0 13.2 4.7 Senai R41/R42/Res9 Sedenak 7.3 10.5 5.8 Kelapa Sawit 830 106.5 65.0 15.8 30.1 50.0 13.0 TOWN YOTAL R30/R41/R42/ Rural 9.7 10.2 10.1 11.2 11.8 12.3 RES9 116.6 59.7 75.2 25.3 27.6 41,3 MUKIMS TOTAL Sq.Tiram Ulu Tiram R33(1983) 12.4 20.0 8.2 Res9(1985~) 5.6 Rural R33(1983) 3.2 2.1 2.1 2.1 Res9(1985-) 4.1 1.8 22.1 7.4 10.3 14.5 4.1 MUKIM TOTAL 3.2 537.4 763.7 174.2 300.6 426.5 206.2 DISTRICT URBAN 22.7 23.8 24.1 23.1 RURAL 22.7 24.7 787.3 DISTRICT TOTAL 196.9 230.9 323.7 449.2 561.2 9.0 9.5 2.Kota Tinggi Johor Lama, Ba.Penawan Res10 6.7 Pa.Timur, P4 Res10 ₽7 5.8 10.5 Pengerang, Res10 7.6 Tg.Surat 14.3 29.0 TOWN TOTAL 5.8 7.6 Rural R37/R38/Res10 11.6 16.1 16.4 16.4 15.6 HUKIMS TOTAL 7.6 30.7 44.6 11.6 16.1 22.2 Kota Tinggi Kota Tinggi R34/R41/R42 7.4 9.3 18.3 34.9 13.1 24.6 Rural R34/R41/R42 1.9 2.2 4.6 6.8 6.0 3.6 MUKIM TOTAL 9.3 11.5 16.7 22.9 30.6 41.7 Sedili Kechil, P2 R36 6.7 1.9 9.5 Sedili Besar Rural R36 8.0 3.1 3.6 5.7 1.9 MUKIMS TOTAL 0.8 3.1 3.6 5.7 8.6 11.4 Ulu Sq.Sedili Besar. Sedili Kambau Rural P36 1.1 1.4 2.2 2.7 4.9 4.1 MUKIUS TOTAL 1.1 1.4 2.2 2.7 4.1 4.9 Ulu Sg.Johor R39 Ba.Tenggara 3.6 5.9 9.0 14.2 21.2 Rural R35/R39/R40 4.7 4.1 4.9 6.6 7.7 8.5 MUKIM TOTAL 4.7 7.7 10.8 15.6 29.7 21.9 DISTRICT URBAN 12.9 19.0 33.2 59.8 94.5 RURAL 16.1 22.4 30.4 36.0 36.1 37.8 DISTRICT TOTAL 23.5 35.3 49.4 69.2 132.3 95.9

Remarks : R42, Hypothetical intake to be provided at Kg. Tai Hong by PWD.

Table 3 PROJECTED D&T WATER DEMAND IN THE REGION BY DISTRICT OF SUPPLY FOR 1983 - 2005 (2/2)

3.Pontian	Api-Api, Ayer Baloi,Ber	···+							
	Sg.Pinggan	Rural	R24/Res8	4.7	5.2	6.0	7.1	7.9	7.9
	MUKIMS TOTAL		<b></b>	4.7	5.2	6.0	7.1	7.9	7.9
	Pontian, Rimba Terjum	Pontian Kechil Rural	R24/Res8 R29/Res8	12.8	15.6 2.8	19.8 3.0	34.3 3.8	45.1 4.1	68.3 4.4
•	MUKIMS TOTAL		-	15.5	18.4	22.8	38.1	49.2	72.7
	Jeram Batu Pengkalan-	Pekan Nanas	R24/Res8	4.6	4.9	5.3	7.3	7.9	9.6
	Raja	Rural	R24/Res8	0.8	0.8	0.9	1.4	1.9	1.9
	MUKIMS TOTAL		_	5.4	5.7	6.2	8.7	9.8	11.5
	Ayer Masin, Ser Sg. Karang	kat, Rural	R24/Res8	1.4	1.9	2:2	2.5	2.3	2.8
	MUKIMS TOTAL			1.4	1.9	2.2	2.5	2.3	2.9
DI	STRICT URBAN RURAL			17.4 9.6	20.5 10.7	25.1 12.1	41.6 14.8	53.0 16.2	77.9 17.0
ISTRICT TOT	'AL		<b></b>	27.0	31.2	37.2	56.4	69.2	94.9
.Kluang & Mersing	Ulu Benut, Maca	np Rural	R24	1.1	1.4	2.2	3.3	4.4	6.3
Merarid	MUKIMS TOTAL		<b>-</b> .	1.1	1.4	2.2	3.3	4.4	6.3
•	Layang-Layang	Layang-Layang Rural	R26 R26	2.7	3.5	4.5	5.7	7.5	8.9 3.3
•	HUKIH TOTAL			2.7	3.5	4.5	5.7	7.5	12.2
	Renggam	Renggam Simpang-	R25	•			·		8.9
		Renggam	R24						9.0
		TOWN TOTAL Rural	R24/R25	5.6	7.0	8.6	11.8	14.1	17.9 7.4
	HUKIN TOTAL		<del>-</del>	5.6	7.0	8.6	11.8	14.1	25.3
	Mersing	Rural	R36	1.5	1.9	1.9	2.8	2.5	2.5
	MUKIM TOTAL		<del>-</del> .	1.5	1.9	1.9	2.8	2.5	2.5
DI	STRICT URBAN RURAL			10.9	13.8	17.2	23.6	28.5	26.8 19.5
ISTRICT TOI	AL		<del></del>	10.9	13.8	17.2	23.6	28.5	46.3
HE REGION	URBAN TOTAL RURAL TOTAL	*		199.0 59.3	239.6 71.6	344.7 82.8	501.4 97.0	650.2 104.7	963.0 98.3
THE REGION T				258.3	311.2	427.5	598.4	754.8	1,061.3

PROJECTED WATER DEMAND BY INTAKE Table 4

Unit:  $10^6 \text{ m}^3/\text{y}$ 

	•							
Intake No.	RIVER NAME	1983	1985	1990	1995	2000	2005	REMARKS
	هفيا ومنو للقباد كنداء علك علت وجد وجوء تلك إلفنا أبدي غلقه عدد ودو							
R24	Benut	6.1	7.7	11.7	17.6	22.9		
R25	Sayong	0.7	0.9	1.4	2.1	2.9	4.4	
R26	Sayong	0.4	0.6	1.0	1.4		4.0	
R29	Pontian Besar	0.7	0.7	0.9	1.1	1.2		
R29	Pontian Besar	0.9	0.8	1.0	2.7	3.4	4.6	#
R31*	· ·	53.0	53.0	_	53.0	53.0	53.0	PUB intake
	Skudai	70.0	70.0	70.0	70.0		70.0	PUB intake
R32*	Tebrau	9.2	70.0	7080				
R33	Serai	0.4	0.7	1.1	1.3	1.5	1.6	
R34	Panti	0.4	0.3	0.4	0.6		1.0	
R35	Semangar		1.2	1.8	2.7	· _		
R36	Sedili Besar	0.4	0.8	1.2	1.3	1.3		
R37	Seluyut	0.4		0.7	0.8		1.0	
R38	Rengit	0.5	0.6		3.6	5.6	8.4	
	Pengli	0.2	1.4	2.3	0.4			
R40_	Linggiu	0.2	0.2	0.2				PUB intake
R41*	Johor	65.7	114.9		227.8			
R41**	Johor	41.9	37.9	37.9	37.9		37.9	
R42	Johor			3.3	49.4	92.4	178.3	Kg.Tai Hong
Res 8*	G.Pulai	19.9	19.9	19.9	19.9	19.9	19.9	PUB intake
Res 8**	G.Pulai	2.1	2.1	2.1	2.1	2.1	2.1	PUB intake
Res 9	Layang		34.1			66.4	66.4	40MGD supply
	Lebam	0.3	1.2		4,5	7.4		
Private	intakes***	21.2	21.9	20.8	21.5	20.9	20.3	
					ब्बा कर्ज कर रूप कर्ज पत्र स्था		-4 red c-4 and and may mak into	يستر ويو من هند الله من الله الله الله الله الله الله الله الل
Total	+	294.5	370.9	527.1	588.1	645.0	757.1	

Hypothetical intake to be provided at Kg. Tai Hong by PWD Remarks ;

Water supply from PUB's intake to Singapore Water supply from PUB's intake to Johor

excluding RESP water demand

Table 5 ASSUMED VOLUME OF ABSTRACTION
BY SINGAPORE FROM THE JOHOR RIVER

Unit: MGD

المستحديد		CASE 1	CASE 2	
	1983	60	60	
	1985	92	92	
	1990	160	160	
	1995	250	160	
	2000	250	160	
	2005	250	160	

Table 6 WATER ABSTRACTION RECORD OF RAW WATER BY PUD

Unit: Mld

### Source

		the second second	· .		
Year	Pulai River	Skudai River	Tebrau River	Johor River	Total
1980	71	153	203	219	646
1981	.66	140	159	249	614
1982	66	137	200	274	677
1983	60	145	192	271	668

Source: State PWD (Unpublished)

SITE CONDITIONS	BENUT	PONTIAL BESA		UPPER PENGLI	0.110110	TELOR	SEDILI	LAYAU	*
River System	Benut River	Pontian Besa River	r Johor river	Johor River	Johor River	Johor River	Sedili Besar	Main Johor River	Sub Johor Rive
Location of Damsite	1°52'53"N 103°19'44"E	1°44'28"N 103°25'49"E	1°54'27"N 103°41'38"E	1°51'31"N 103°35'34"E	1°48'59"N	1°43'00"N	River 2°02'21"N	1°35'54"N	1°35'30"1
Catchment Area	37 Km <sup>2</sup>	40 Km <sup>2</sup>	206 Km <sup>2</sup>	127 Km <sup>2</sup>	103°41'24"E 662 Km <sup>2</sup>	103°47'08"E	103°50'42"E 224 Km <sup>2</sup>	104°04'24"E 31 Km <sup>2</sup>	104°06'12"I
	Flat and	Flat and	Steep left	Flat and	Gentle				·
Damsite Topography	wide valley	wide valley		wide valley	slope valley	Gentle slope valley	Rather steep slope on both abutment	Flat and wid	e valley
Valley Bottom Width	1.1 Km	1.7 Km	0.4 Km	1.3 Km	0.4 Km	0.6 Km	0 1 Vm	1.0	Ven
Geology & 1) Geology Construction Materials	Shale and sandstone of Mesozoic	Shale and sandstone of Mesozoic	Mainly sand- stone of Paleozoic, fractured by	Semi-con- solidated clayey silt of Pleistoce to Pliocene	Flesh tight granite partly weath	Weathered granite	0.4 Km Phyllite of Paleozoic, moderarely weathered	Weathered granite	KIN
2) Soils	Mostly sandy silt	Silty sand	Clayey to sandy silt	Silty sand	Mainly sandy silt	Sandy silt to silty sand	Sandy silt	Sandy silt to clay	
Scale of Dam and Reservoir			• 4						
1) Gross Storage				•					
at H.W.L. (m <sup>3</sup> ) 2) Effective Storage	$20 \times 10^6$	51 x 10 <sup>6</sup>	123 x 10 <sup>6</sup>	130 x 10 <sup>6</sup>	179 x 10 <sup>6</sup>	49 x 10 <sup>6</sup>	85 x 10 <sup>6</sup>	41 x 1	o <sup>6</sup>
at H.W.L. (m <sup>3</sup> )  3) High water Level (m)  4) Flood Water Level (m)  5) Dam Height (m)  6) Crest Length (m)	18 x 10 <sup>6</sup> 29.0 31.1 30 2,000	48 x 10 <sup>6</sup> 25.5 27.3 29 2,400 3.1 x 10 <sup>6</sup>	34.0 35.2 32 560	120 x 10 <sup>6</sup> 41.0 43.1 33 2,200 6	128 × 10 <sup>6</sup> 18.0 20.1 31 1,140	46 x 10 <sup>6</sup> 28.0 29.6 29 2,200 6	61 x 10 <sup>6</sup> 20.0 21.1 32 490 6	38 x 1 22.0 23.8 29 1,600	27
7) Dam Volume (m <sup>3</sup> ) Land Use in	1.9 x 10 <sup>6</sup>	3.1 x 10	$0.9 \times 10^6$	$2.8 \times 10^6$	$0.8 \times 10^6$	0.9 x 10 <sup>6</sup>	0.7 x 10 <sup>6</sup>	1.3 x 10 <sup>6</sup>	0.6 x 10 <sup>6</sup>
Reservoir Area EL.(m)	31.1	27.3	35.2	43.1	20.1	29.6	21.1	23.8	•
1. Rubber (ha) 2. Oil Palm (ha) 3. Other Agricultural	322 379	675 316	- -	1,060	203 1,853	53		- 658	•
Land (ha) 4. Residential Land (ha)	<u>-</u>	38	<u>.</u>	•••	502		_	<b>-</b> . 48	
5. Factory Area (ha)	- -	64		••••	_	~. <del>-</del>		-	
6. Forest (ha) 7. Mine (ha)		254 -	2,027 73	1,850	1,747	1,087	2,140	4 -	
Total Area (ha)	701	1,347	2,100	2,910	4,305	1,140	2,140	710	
8. Houses (nos)	<del>.</del>	89		13	33	-	<del>-</del> '	66	
9. Road (main) (km)	-	8.2	<b>-</b>	3.6	5.0	· <del>-</del>	<b></b> .	7.6	
lO. Transmission Line (km)	••••••••••••••••••••••••••••••••••••••	<del>-</del>	<del>-</del>	-	2.7			-	
ll. Pumping Station (nos)			<b></b>	1.	_		***	<del></del> .	
Investment Cost of Dam (M\$	10 <sup>6</sup> )			**************************************					
Total Cost	99	163	132	181	132	65	61	117	
(Compensation)	(13)	(35)	( - )	( 35 )	( 55 )	(7)	( - )	( 19 )	·
Special Problems		Submerge highway	Permeable foundation		Land acquistion			Lebam dam i enough	5

Table 8 MONTHLY WATER DEFICIT AT KOTA TINGGI (R41 & R42) (1/3)

AR	MAL	. ren	MAR	118	PAY	3111)	100	AUG	SEF	OCT	NOV	DEC	ANNUAL
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71	0	9.	0.	U.	ų.	G.	0.	٥.	Ú.	0.	0.	0.	0.
72	0.	0.	U •	9.	J.	0.	0.	0.	0.	0.	0.	0.	u.
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YEAR	146	FER	HAR	AFR	PAY	1011	<b>1</b> 0¢	AUG	SEP	130	NOV	DEC	ANNUAL
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1957	0.	0.	Ü.	j.	9,	0.	0.	0.	.0∙	D.	0	0.	0.
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1769	9.	o,	0.07	ņ.	O	0.	0.	0.	U.	0.	0.	0.	0.07
1270	0	U,	U.	9	5.	0.	0.	0.	0.	0.	0.	0.	0
1771	Ū.	. 0.	U.	Đ.	1.14	0.	ů,	0.	9.	0.	0.	0.	1.14
1972	0.	U.	D. D7	Э.	9.	0.	0.	0.	Ģ.	0.	0.	0.	0.07
1973	C.	Üι	0.	2.	9.	Ü.	9,	0.	0.	0.	0	.0.	0
1974	Ü .	Ū.	0.	3.	0.	0.	0.	e.	0.	0.	0.	0.	0
1975	0.	0.	ย.	9.	v.	0.	0.	0.	o.	0.	0.	٥.	0.
1975	0.03*	4.49	0.30*	9	U•	0.	0.	0.	មួ	ō•	0.	0.	4 - 83
1977	9 -	fi .	0	9.	٥.	0.	0.	0.	g.	0.	0.	0.	ŭ,
1978	0	U.	0.	э.	U.	0.	0.	0.	0.	0.	Ç.	0.	0.
1979	0.	e.	Û.	n,	3.	G.	0.	o.	0.	ū.	0.	0.	Ğ.
1780	0.	0.	ο.	0.	0.	C.	o.	0.	0.	0.	.0.	0.	Ü.
1981	ç.	c •	U ·	9.	G.	υ.	9.	0.	0.	0.	0.	0.	
1982	0.	0	U.	η.	0.	0.	ç.	0.	0.	ŭ.	0.	0	0.
1783	0	0.	9	2.	. 9.	Ç.	o.	0.	٥.	0.	0.	0.	0.
1784	0	0.	v.	2.	u.	0.	0.	0.	0.	0.	0	0.	Q.

AR	HAL	FER	n A R	AFR	PAY	3UH	JUL	AUG	SEP	007	NOV	BEC	JAUKKA
							0.264	0.	0.	0.	0,	0.	0.26
63	е.	0.	υ.	0.	U.	D.	0.20-	1.45*	ŏ.	0.45*	3.42	ŧ.43	9.75
64	0.	0.	0.	9.	U.	٥. 0.	0.944	0.	ŭ.	0	0.	Û.	2.93
65	с.	Q.	2.68	0.		0.	0.94-	0.	ű.	o.	ů.	0.	0.
66	0.	0.	0	ű.	0.	ů.	Ů.	Ď.	ů.	ō.	o,	0.	0.
67	0.	С.	0.	9.	0. 9.	0.	0.	0.	0,36*	Ğ.	o.	0.	0.36
66	9.	ē.	0.	0	U.	0.	0.	ŭ.	0.	Ö.	0	0.	6.76
69	0	e.	6.76	0.	ð.		õ.	ő.	0.	0.	0.	0.	1.0
70	0.	0.	1.00	0.	9,27	0. 4.38•	2.52*	ŏ,	Ü,	0.22	0.	0.	16.3
71	0.	0.	<u>.</u> .	0.		9.30-	4.34*	2.16*	O.	0	0.	0.	13.8
72	0.	0.05	7.26	0.	ι.	0.	Q.	0.	0.	Ď.	0.	Û.	0.
73	G • :	0	U.	3.	9.	6	o.	ŏ.	Ü.	0.	0.04 *	0.	3.3
74	2.57	Ů,	<b>6.7</b> 9	2.	ű.	ě.	Ğ.	ō.	0.	0.	0.	0.	1.6
75	0.	1.664	U	0.			ŏ.	0.	U.	0.	0.	Đ.	20.0
76	3.99	13.65	2.41	6.44	U.95*	ň.	0.	ō.	Ü.	0.	0.	0.	5.6
77	0.	Ų.	0.20	4444	Ü.	ů.	ő.	ō.	0.	0.	0.	θ.	0.
78	0.	U.	U.	0.	Ú.	ñ.	Ů.	0.	0.	0.	0.	0.	0.
79	Ū.	e.	σ,	Ϋ,	Ü.	y.	0.	o.	0.	0	ō.	0.	0.
30	0.	O.	σ,	9.	Ü.	0	õ.	0.88*	o.	o.	0.	0.	5.3
81	0.	3.54	u.97+	9.		0.	Ŏ.	0.	0.	0	0.	0.	0.
85	.0.	0.	6.	0.000	U.	0.	ő.	Ö.	Ü.	0.	0,	0.	0.9
83	0.	0.	0.04° 9.	0.90*	Ç.	ů.	ň.	0.	Ü.	Ü.	0.	o.	0.

Table 9 MONTHLY WATER DEFICIT AT KOTA TINGGI (R41 & R42) (2/3)

Tare	get yea	ar: 199	95 (Cas	se 1)			•	*.	·.	Un	it; 1	$0^6 \text{ m}^3$	⁄у
7889	JAN	FEH	NAR	APR		JUX	315L	AUG	. 5€P	001	· Nu V	DEC	ANNUAL
1963 1964 1965 1966 1967 1969 1970 1971 1972 1973 1975 1977 1978 1979 1981 1982 1983	0.5d* 0.95* 0. 0. 0. 0. 0. 1.547* 4.66* 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	0. 1.89* 0. 1.25* 5.02* 3.07x 5.14* 4.57* 0.49* 3.22* 11.50* 29.25x 0.02* 8.89* 0.14* 0.07* 17.39*	0. 0. 18.55. 0. 4.19. 20.37. 9.10. 0. 24.14. 0. 10.38. 0. 10.38. 0. 10.36. 0. 10.36. 0. 10.26.	0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	0. d.	0.04* 4.25* 1.12* 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	11.52* 0. 9.52* 0. 9.51* 0. 10. 14.53* 18.92* 0. 1.144* 0.05* 0. 1.29* 0. 1.29* 0. 0.553*	0. 18.592 0. 1.74. 1.57. 0.03. 11.05. 3.61. 0.22. 0.414. 0.36. 0.3	3,35 0,45 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,	0.5.88. 0.0. 0.0. 0.7.70. 0.72. 0.72. 0.79. 0.0. 0.97. 0.6.	0. 14.19* 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	0. 13.50. 1. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	14.70. 49.36. 0.39. 5.26. 12.82. 12.82. 12.37. 74.35. 67.81. 40.12. 67.81. 0.07. 40.98. 4.39. 2.39. 2.39.
BEAR	1.90	3.99	5.59	1.76	1.45	1.15	2,74	2,31	0.81	0,75	1.16	0.61	24.18

Target year: 1995 (Case 2)

Unit:  $10^6 \text{ m}^3/\text{y}$ 

TEAR	JAN	/ EB	PAR	APR	*AY	ĴUR	100	<b>≜</b> ህG	SEP	oct :	νσν	9£t	ANNUAL
					0.	0.	1.82	U.	0.	c.	0.	0.	1.82+
1963	0.	G.	0.	Ç.		0.39	0.	2.494	ů.	1.76	6.00*	6.35=	17.01*
1964	0.	0	0.	0.	G.	6.	0.50	0.	0.10*	υ.	U.	0.	7.08*
1965	0.	0.	5.99.	ú.	0.	0.	0	Ö.	ů.	c.	Ü.	0.	0.
1966	0.	0.	0.	0.			o.	Ŭ.29×	Ü.	ē.	U.	0.	0.29*
1967	0.	0 -	0.	o.	V •	0.	G.	3.	1.13	ď.	G.	o.	1.46=
1908	0.	5.	0.33	0.	0.	0.		ð.	ė.	č.	Ü.	ō.	10.59*
1969	0.	0.46*	10,13+	G.	o.	υ.	o.		o.	j.	ō.	ů.	3.17*
1970	. 0.	6.22*	2.95*	ο.	.0.	0.	0.	3.	υ. Γ.	6.97*	ű.	ð.	25.964
1971	0.	0.01	G	6.	13.44*	6.97	4.57	6.	_	0.	Ú.	ű.	23.81*
1972	0.	0.70	11.44*	0.	Q.	0.	7.52+	4.15	0.		V.	o.	0.
1973	0.	0	o.	ű.	ű.	Ģ.	0.	3.	<b>₽•</b>	Ð.	0.72=	0.	8.09
1974	5.124	0	2.25	0.	G.	0,	Q.	o.	0.	Q.		ů.	4.63*
1975	0.68*	3.95*	0	0.	.0.	0.	0.	J.	0.	û.	0.	0.	27.87*
1976	6.40=	17.37	3.73*	0.	0.	0.	<u>0</u> .	G.	0.	٥.	0.36*		11.604
1977	0.	0.	2,16	7.80*	1.63*	0.		ũ.	0.	o.	0.	0.	
1978	o.	ο.	9.	0.	0.	0.	0.	0.	0.	٥.	٥.	0.	0.
1979	0.	0.	Q.	0.	. 0.	0	G.	9 a	0.	9.	0.	ō.	0,
1980	. 0.	0.	0	0.	. 0.	0	0.	0.	0.	0.	0-	0.	0.
1981	0.	6.56	2.72	G.	0.	0.	₽.	c . +0*	θ.	0.	0.	0.	11.674
1982	0.	c.	0.	0.	0.	0.	0.	0.	0,	0.	0.	0,	0.
1983	G.	U,	1,41*	2.72*	<b>5.</b>	r.	0.	D.	0.	0.	0.	0.	4.13+
1984	c.	Ġ.	4.	0.	ÿ.	Ċ.	0	o.	o.	0.	0.	0,	0.
HEAN	0.55	1,33	1.96	9,45	9,40	0.34	9.68	0.42	0.06	0.13	0.32	0.29	7.23

Target year: 2000 (Case 1)

Unit:  $10^6 \text{ m}^3/\text{y}$ 

YEAR	HÀL	f€ti	MAR	APP	PAY	JUN	JUL	AUG	SEP	ect	NOV	DEC	ANNUAL
1963	0.	0.47=	0.	0.	6,51+	0.734	14.53*	0.54=	5.17*	0.	ú.	ů.	21.95*
1964	1.21+	0.	0.	a.	0.52	5.90*	0.	13.78*	1.01.	7.16.	10.76*	15.99+	62.330
1965	7.65.	3.34.	22.40.	0.10-	0.	3.03*	12.832	0.	3.70+	0.	0.	0.	47.09*
1966	0.	0.16=	0.01*	1.00*	0.	0.	0.	J.	0.	v.	υ.	0.	1.17*
1967	0.	0.	0.	Û.	0.	0.	1.29*	7.87*	0.	э.	O.	0.	9.17*
1968	0.	2.420	5.44.	0.	0.	0.	0.	4.16*	7.65*	ű.	0.	ø.	19.45=
1969	0.	8.78	23.45	0.	Ö.	Ú.	0.	3.84*	0.	0.	6.	0.	33.06*
1970	0.	4.61=	11.024	0.	e.	0.	0	0.	0.27+	G.	O.	٥.	15.91*
1971	Ó.	7.60 *	0.	3.52	29,94+	17.69*	17.78.	0.84*	0.11*	10.16*	7.25	0.75	95.45*
1972	2.694	7.164	27.93+	0.	0.	0.	22.82*	14.85 -	0.18*	1.91*	0.	0.	77.55*
1973	0.	1.78+		O.	0.	a.	0.	0.790	0.	0.	. 0.	0.	2.58
1974	19,46+	4.52+	10.21+	2.04	0.	0.	0.52*	8.86*	0.	2.14*	6.72	0.	54.47
1975	6.97*	14,46=	0.	0.	0.	0.	0.	0.624	0.	0.52	. 0.	0.	22.57*
1976	18.774	32.73*	9.07*	O.	0.24	5.19.	2.384	7.344	8.51*	. 0.50+	3.65*	O.	87.27
1977	Ü.	0.62=	13.04*	23.51+	5.11	1.19.	2.47=	0.83*	0.60+	-0-	Ů.	0.	147.28
1978	0.	1.49.	0.	0.	0.	1.33*	0.	1.68*	1.89	5.55*	0.	0.	8.60*
1979	0.	1.47=	0.	0.	3.470	0.50*	2.50+	2.13*	0.	0.49*	0.	0.	10.57
1980	0.	0.67*	0.23*	0	0.	0.	0.	0.	0.	. 0.	ů.	0.	0.90*
1981	4-420	21.320	14.76-	ο.	o.	1.00+	3.27*	12.914	o.	0.	ò.	o.	57.08*
1962	0.40*	3.56.	2.02*	. O .	0.	0.	0.	Ŭ <b>.39</b> *	9.	G.	Ó.	ė.	6.38
1983	9.	1.39+	11.974	18 12 .	s	1.004	1.144	0.	0.	0.	Ö.	0	33.64
1984	o.	0.	0.	9	ŭ.	0.	0.	ŏ.	0.17*	0.994	ŏ.	٥.	1.16*
HEAM	2,5?	5.39	0.87	2.10	1.81	1,70	3,72	3.58	1.32	1,18	1,56	0.77	32.54

Table 10 MONTHLY WATER DEFICIT AT KOTA TINGGI (R41 & R42) (3/3)

EAR	IAN	FEB	MAR	APP	MAY	JUR	JUL	AUG	SEP	OCT	467	DEC	ANNUAL
963	0.	0.	0.	0.	0.	0	4.36	0.	0.	0,	0.	υ.	4.36
964	0.	0	0	6.	0	1.41	0.	4.71+	Ú.	3.67*	5.57 *	8.23*	25,99
965	0.	0.	9.70	6.	0.	0.	3.23.	0.	U . 74 ·	G.	0.	ð.	13.73
966	O.	0.	0.	0.	0.	0	0.	ū.	0.	0.	U.	٥.	0.
967	0.	0.	0.	0.	0.	0.	O .	1.24*	0.	0.	0.	. 0.	1.24
968	0.	0.	1.34	ō.	ō.	<u>o</u> •	0.	y.	2.37	0.	Ú.	5.	3+71
969	0.	1.52*	13+21+	€.	0	G .	0.	0.	0.	0.	0.	0	14,73
970	0.	0.80*	4.884	€.	٥.	0	_O •	o.	6.	ં, ઇ.•	0.	ů.	5.68
971	0	1.03*	0	0.50*	17.24*	9.50	7.22	0.	0.	2.214	ġ.	o.	37.70 33.47
972	0.	1.34*	15.244	G .	0.	0.	10.824	6.(8.	0.	G.	ů.	0.	
973	0.	0.	0.	G.	0.	0.	0.	0.	0.	0.	٥.	0.	0.
974	8.16*	0.43	3.65	Û,	G.	0.	0.	1.13*	o.	0.	1.32*	0.	14.69 7.71
975	1.40*	6.31=	0.	0.	0.	0	٥.	ů.	٥.	0.	e.	0.	
976	8.974	20.85	4.09.7.	0.	0	0.	-0.	0.	.0.	0.	1.40.	0.	35.80 17.93
977	0.	0	4.43*	11,22*	2.27*				0.	0.	G.	. 0.	
978	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	. 0.	0.
979	0.	0.	0.	0.	o.	0.	0.	٥.	0.	0.	0.	0.	9.
980	0.	0.	0	0.	0	0.	0.	0.	0.	0.	0.	o.	20.00
981	0.74.	9.85*	4.70*	0	0.	0.	G .	4.72	0.	0.	0.	0.	
982	0.	0.	0.	O.	٥,	0.	<u>0</u> .	ũ.	0.	0.	G.	0.	0.
983	D.	i e	3,484	5 . 5 4 4	( .	υ.		0.	υ.	9.	0.	0.	7.5
984	0.	0.	U.	ij.	e.	0.	0.	0.	U.	о.	0.	0.	0.

		ren	r'AR	APR	MAY	JUN	JUL	AUG	SEP	0CT	HOV	DEC	ANNUAL
YEAR	MAL		*****										
1963	Ů.	1.90	0.43	Û.	3.00+	2.76	20.67*	2.83.	9.264	. 0.	0.	ο.	40.84
1964	2.46*	1.05	0	û.	2.03*	11.62*	0.85*	26.26*	2.26*	9.61=	22.67=	20.97*	93.76
1965	3.86	7.57*	30.12	1.35	0.	6.81	19.30*	ů.	6.67	Ð.	0.	Q.	75.67
1966	0.	0.98	1.75	2.24	0.	J.51*	0.93	0.	0.	0.	e.	0.	6.46
1967	0.	0	0.	0.	0.	0.	2.79-	14.39*	0.	1.04*	<b>6</b> •	9.	18.21
1968	Ö.	5.51*	7.93	0.	0.	0.	2.25	11.53+	11.38*	0.	0.	0.	38.60
1969	0.	15.77*	30.02 -	0.	0.	0.	0.15*	3.34*	0.	0.	. 0.	0.	49.28
1970	0.	€.00•	14,80	0.	0.	0.	ů.	Ú	2.44*	O.	U.	J.,.	52.52
1971	0.	12.63	1,15	5.22	37.66*	23.65+	24.16+	3.37*	1.31+	16.16*	16.63	3,23*	143.87
1972	6.304	13.104	15.61	o.	0.	0.	30.45*	21.03*	2.33*	5.72*	0.45	0.	114.59
1973	0.	4.27*	0.29	0.	0.	0.	0.58*	2.92.	Q.,	1.02*	. 0 .	0.	9.07
1974	27.09*	7.01.	14.19	3.28	0.	0.89*	2.04*	14.94*	0.	4.17:	10.62*	1.72*	88 55
1975	12.24	20.55+	0	0.	0	0.	0.	1.87*	. 0.48*	3.74*	0.	0.	38.88
1976	25.45*	39.61	11,512	1.28	1.73	12.09	5.474	13.560	15.82*	1.55*	4.29	٠.	132.37
1977	1.08	1.87	18,95	30.80*	8.19	2.76	8.04*	2.07*	2.07*	0.	ů.	0.	76.03
1978	0	3.96*	0	0.	0	2.80	0.	6.62	3.74.	5.08*	. 0.	0.	22.13
1979	0.	5.25*	0.	0.	7.41.	1.83	5.93*	4.58*	0.	1.72*	0.	0 ·	26.72
1980	0.	3.08.	1.67*	ú.	0.	0.	0.	0.	0.	0.	0.	0.	4.76
1981	7.934	28.13.	21.664	ο.	0.	2.24+	6.96.	18.86*	0.65*	1.03*	o.	0.	87.47
1982	1.92*	7.26.	4.51*	U.	0.	G.	0.	2.88*	0.93*	9.	0.	0.	17.50
1983	9.	4,45+	17,23	25.464	0.59	4.48+	2.38	0.	0.	0.	0.	0.	55.40
1984	ő,	ė.	o.	9	0.	0.	ο,	0.72	c.00+	3.79	0.	0.	7.11

Targ	et yea	r: 200	)5 (Cas	e 2)		ŧ				Un	it: 1	0 <sup>6</sup> m <sup>3</sup> /	/у
 YEAR	IAN	FEB	MAR	APR	НАУ	אטנ	Juf	AUG	SEP	001	40.4	DEC	ANNUAL
1963 1964 1965 1966 1967 1968 1970 1971 1972 1973 1974 1976 1977 1980 1981 1982 1983	0. 0.41* 0.72* 0. 0. 0. 0. 0. 1.42* 0. 14.55* 14.35* 0. 0. 0.	0. 0. 1.55. 0. 0. 1.01. 5.35. 2.82. 4.68. 0.34. 2.92. 10.72. 27.73. 0.69. 0.18. 0.50.	0, 0, 17,42, 0, 0, 19,43, 8,57, 0, 22,91, 0, 7,63, 0, 7,42, 9,48, 0, 0, 0, 0, 0, 1,43, 1,4	0. 0. 0. 0. 0. 0. 0. 1.70* 0. 1.24* 0. 18.52* 0. 0. 18.52*	0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0	0. 3.90* 0.72* 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	10.43* 0. 8.65* 0. 0.33* 0. 0. 13.52* 17.75* 0. 0. 0.77* 0.34* 0. 1.12* 0. 0.54* 0.	0- 9-94* 0- 0- 0- 1-32* 0- 10-79* 0- 10-79* 0- 10-79* 0- 10-79* 0-12* 0-	2.7f. G.21s. 2.05s. U. S.24s. O. O. O. O. O. O. O. O. O. O	5.51. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3	9. 15.50. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	0. 12.78* 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	15.19 66.25 31.11 0.20 4.54 11.47 68.88 57.63 36.71 14.78 3.11 3.18 0.12 40.13
HEAH	1.74	3.66	5,23	1,58	1,35	1.02	2.50	2.06	0.68	0.66	1,04	0,58	22.1

WATER DEFICIT AT INTAKE POINT Table 11

	,		1983			1985			1990	
	Disan	HEAN -	MAX	No. of Deficit	MEAN	MAX	No. of Deficit	MEAN	ках (10 <sup>6</sup> m <sup>3</sup> )	No. of Defici Year
intake 10.	River	(106m3)	(106 <sub>3</sub> 3)		(10 <sup>6</sup> m <sup>3</sup> )	(106 <sub>m</sub> 3)	Year			
	BENUT *	0.4	1.1	15	0.5	1.4	17	0.0	0.0	0 12
24	SAYONG * A	0.0	0.1	6	0.0	0.1	7	0.0	0.1	2
125 126	SAYONG * *	0.0	0.0	2	0.0	0,0	2	0.0	0.6	7
	PONTIAN B.	0.1	0.5	6	0.1	0.5	6	0.1		10
29		0.0	0,3	10	0.0	0.2	9	0.0	0.3	21
30	PONTIAN B.	5.6	16.1	21	5.6	16.1	21	5.6	16.1	
31	SKUDAI	16.4	33.0	22	16.4	33.0	22	16.3	32.9	22
32	TEBRAU	2,3	4.3	20						
33	SERAI	0.0	0.0	0	6.0	0.0	0	0.0	0.0	2
34	PANTI		0.0	2	0.0	0.0	2	0.0	0.0	2
35	SEMANGAR	0.0		4	0.0	0.4	7	0.0	0.5	8
36	SEDILI	0.0	0.3	2	0.0	0.0	3	0,0	0,1	. 11
37	SELUYUT	0.0	0.0		0.0	0.0	9	0,0	0.0	11
38	RENGIT	0.0	0.0	6		0.1	2	0.0	0.1	3
39	PENGLI	0.0	0.0	2	0.0		i	0.0	0,2	1
40	LINGGIU	0.0	0.2	1	0.0	0.2			-,-	
41	JOHOR						_	4.0	20,1	14
	CASE 1	0.1	1.6	3	0.4	4.6	6	4.0	20.1	
	CASE 2	0,1	1.6	3	0.4	4.8	6	4.0	0.7	14
	CASE 1-A	-	-		-		-	0,2		14
	CASE 2-A	-	-	-	***	-	-	0,2	0.7	14
RS 8	G. PULAI	-		-	-	_	-	-	-	-
		_	_	_	_			-	·	~
ES 9	LAYANG	_			-		~	-	-	
33 10	LEBAM		<u>-</u> .							
	ои аснене		0.5	- 20	0.2	0.5	20	0.5	0.8	20
UKUT		0.2	0.5	20	0.2	1,0	15	0.4	1.4	19
U BENU	T	0.3	1.0	15		110				
								38.9	75.9	
JATC	CASE 1	26.0	59.0		24.1	58.3			75.9	
	CASE 2	26.0	59.0		24.1	58.3		28.9		
	CASE 1-A	-	_		**	-		24.7	56.5	
	CASE 2-A	-	-		-	-		24.7	56.5	
					2574	0000			2005	
			1995		1.0	2000			2003	
ntake o.	River	MEAN (106m3)	MAX	No. of Deficit Year	меан (106m3)	MAX (106m3)	No. of Deficit Year	MEAN (10 <sup>6</sup> m <sup>3</sup> )	MAX (105m³)	No. of Defici
	River	меан (106m3)		Deficit	$(106m^3)$		Deficit Year	(10 <sup>6</sup> m <sup>3</sup> )	(106m³)	Defic Year
o. 		(105m3)	MAX (106m3)	Deficit Year	$(106m^3)$	(106 <sub>m</sub> 3)	Deficit Year O			Defic
24	BENUT*	(105m3) 0.0	MAX (106m3)	Deficit Year O	(10 <sup>6</sup> m <sup>3</sup> )	(106m3)	Deficit Year O	(10 <sup>6</sup> m <sup>3</sup> )	(106m3) 0.0	Defic Year
24 25	BENUT* SAYONG**	0.0 0.0	MAX (106m3)	Deficit Year 0	(106m3) 0.0 0.0	(106m3) 0.0 0.0	Deficit Year 0	(10 <sup>6</sup> m <sup>3</sup> ) 0.0 0.0	(106m3) 0.0	Defic Year O
24 25 26	BENUT* SAYONG** SAYONG**	(106m3) 0.0 0.0 0.0	MAX (106m3) 0.0 0.0	Deficit Year 0 0	0.0 0.0 0.0	0.0 0.0 0.0 0.0	Deficit Year 0 0	(10 <sup>6</sup> m <sup>3</sup> ) 0.0 0.0 0.0	(106m3) 0.0 0.0	Defic Year 0
24 25 26 29	BENUT* SAYONG** SAYONG** PONTIAN B.	0.0 0.0 0.0 0.0 0.1	MAX (106m3) 0.0 0.0 0.0 0.0	Deficit Year 0 0 0	0.0 0.0 0.0 0.0 0.1	0.0 0.0 0.0 0.0 0.0	Deficit Year 0 0 0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.6	Defic Year O O O
24 25 26 29	BENUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B.	0.0 0.0 0.0 0.0 0.1	MAX (106m3) 0.0 0.0 0.0 0.0	Deficit Year 0 0 0 0	0.0 0.0 0.0 0.0 0.0 0.1	0.0 0.0 0.0 0.0 0.6 0.6	Deficit Year 0 0 0 0 8	(10 <sup>6</sup> m <sup>3</sup> ) 0.0 0.0 0.0 0.1 0.2	0.0 0.0 0.0 0.0 0.6 0.7	Defic Year 0 0 0 0
24 25 26 29 30	BENUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B.	0.0 0.0 0.0 0.0 0.1 0.1 5.7	MAX (106m3) 0.0 0.0 0.0 0.6 0.5 16.2	Deficit Year 0 0 0 0 12 21	0.0 0.0 0.0 0.0 0.1 0.1 5.7	0.0 0.0 0.0 0.0 0.6 0.6 16.2	Deficit Year 0 0 0 8 12 21	0.0 0.0 0.0 0.0 0.1 0.2 5.7	0.0 0.0 0.0 0.0 0.6 0.7 16.2	Defic Year 0 0 0 0 8 14 21
24 25 26 29 30 31	BENUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU	0.0 0.0 0.0 0.0 0.1	MAX (106m3) 0.0 0.0 0.0 0.0	Deficit Year 0 0 0 0	0.0 0.0 0.0 0.0 0.0 0.1	0.0 0.0 0.0 0.0 0.6 0.6	Deficit Year 0 0 0 0 8	(10 <sup>6</sup> m <sup>3</sup> ) 0.0 0.0 0.0 0.1 0.2	0.0 0.0 0.0 0.0 0.6 0.7	Defic Year 0 0 0 0
24 25 26 29 30 31 32	BENUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B. TEBRAU SERAI	0.0 0.0 0.0 0.1 0.1 5.7 16.4	MAX (106m3) 0.0 0.0 0.0 0.6 0.5 16.2 33,1	Deficit Year 0 0 0 0 12 21 22	0.0 0.0 0.0 0.1 0.1 5.7 16.4	0.0 0.0 0.0 0.6 0.6 16.2 33.1	Deficit Year 0 0 0 8 12 21 22	(10 <sup>6</sup> m <sup>3</sup> ) 0.0 0.0 0.0 0.1 0.2 5.7 16,4	0.0 0.0 0.0 0.0 0.6 0.7 16.2 33.1	Defic Year 0 0 0 0 8 14 21 22
24 25 26 29 30 31 32	BENUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU	0.0 0.0 0.0 0.0 0.1 0.1 5.7	MAX (106m3) 0.0 0.0 0.0 0.6 0.5 16.2 33.1	Deficit Year 0 0 0 0 8 12 21 22	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4	0.0 0.0 0.0 0.6 0.6 16.2 33.1	Deficit Year 0 0 0 8 12 21 22	(10 <sup>6</sup> m <sup>3</sup> ) 0.0 0.0 0.0 0.1 0.2 5.7 16,4	0.0 0.0 0.0 0.0 0.6 0.7 16.2 33.1	Defic Year 0 0 0 0 0 8 14 21 22 2
24 25 26 29 30 31 32 33	BENUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B. TEBRAU SERAI	0.0 0.0 0.0 0.1 0.1 5.7 16.4	MAX (106m3) 0.0 0.0 0.0 0.6 0.5 16.2 33,1	Deficit Year 0 0 0 0 12 21 22	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0	(106m3) 0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0	Deficit Year  0 0 0 8 12 21 22 2	(10 <sup>6</sup> m <sup>3</sup> ) 0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.0	(106m3) 0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0	Defic Year 0 0 0 0 8 14 21 22
24 25 26 29 30 31 32 33 34	BENUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI	0.0 0.0 0.0 0.1 0.1 5.7 16.4	MAX (106m3) 0.0 0.0 0.0 0.6 0.5 16.2 33.1	Deficit Year 0 0 0 0 8 12 21 22	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4	0.0 0.0 0.0 0.6 0.6 16.2 33.1	Deficit Year 0 0 0 8 12 21 22 2	(10 <sup>6</sup> m <sup>3</sup> ) 0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.0	(106m3) 0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.0	Defic Year 0 0 0 0 8 14 21 22 2
24 25 26 29 30 31 32 33 34	BENUT* SAYONG** SAYONG** PONTIAN B. SKUDAI TEBRAU SERAI PANTI SEMANGAR	(106m3)  0.0  0.0  0.0  0.1  0.1  5.7  16.4  0.0  0.0	MAX (106m3) 0.0 0.0 0.0 0.0 0.6 0.5 16.2 33,1	Deficit Year 0 0 0 0 8 12 21 22 2	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0	(106m3) 0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0	Deficit Year  0 0 0 8 12 21 22 2	(10 <sup>6</sup> m <sup>3</sup> ) 0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.0	(106m3) 0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0	Defic Year  0 0 0 8 14 21 22 2 11
24 25 26 29 30 31 32 33 34 35 36 37	BENUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SEMANGAR BEDILI	(106m3)  0.0  0.0  0.0  0.1  0.1  5.7  16.4  0.0  0.0  0.1	MAX (106m3)  0.0 0.0 0.0 0.6 0.5 16.2 33.1 0.0 0.0	Deficit Year 0 0 0 0 8 12 21 22 2 2	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0	(106m3) 0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.0	Deficit Year 0 0 0 8 12 21 22 2	(10 <sup>6</sup> m <sup>3</sup> ) 0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.0	(105m3) 0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.0 0.9	Defic Year 0 0 0 0 8 14 21 22 2
24 225 226 229 330 331 332 333 334 335 336 337 338	BENUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SENANGAR SEOILI SELUYUT RENGIT	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.1 0.1 0.0 0.0	MAX (106m3) 0.0 0.0 0.0 0.6 0.5 16.2 33,1 0.0 0.6 0.6 0.1	Deficit Year  0 0 0 12 21 22 2 2 9 11 13	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0	(106m3)  0.0  0.0  0.0  0.6  0.6  16.2  33.1  0.0  0.7  0.1  0.1	Deficit Year  0 0 8 12 21 22 2 2 1	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16.4 0.0 0.0 0.1 0.0	(105m3) 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.0 0.9 0.1	Defic Year  0 0 0 8 14 21 22 2 11
24 225 26 29 30 31 32 33 34 44 35 36 37 38	BENUT* SAYONG** SAYONG** PONTIAN B. SKUDAI TEBRAU SERAI PANTI SEMANGAR SEDILI SELUYUT RENGIT PENGLI	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1	MAX (106m3)  0.0 0.0 0.0 0.6 0.5 16.2 33.1 0.0 0.6 0.1 0.1	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 13 4	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1	0.0 0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1	Deficit Year  0 0 0 8 12 21 22 2 9 11 14 7	(106m3)  0.0 0.0 9.0 0.1 0.2 5.7 16,4 0.0 0.0 0.1 0.0 0.0 0.2	(105m3)  0.0 0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.0 0.9 0.1 1.8	Defic Year  0 0 0 8 14 21 22 2 11 11
24 225 226 229 330 31 332 333 34 355 36 37 38 38 39	BENUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SEMANGAR SEOILI SELUYUT RENGIT LINGGIU	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.1 0.1 0.0 0.0	MAX (106m3) 0.0 0.0 0.0 0.6 0.5 16.2 33,1 0.0 0.6 0.6 0.1	Deficit Year  0 0 0 12 21 22 2 2 9 11 13	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0	(106m3)  0.0  0.0  0.0  0.6  0.6  16.2  33.1  0.0  0.7  0.1  0.1	Deficit Year  0 0 0 8 12 21 22 2 9 11 14	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16.4  0.0 0.0 0.1	(105m3) 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.0 0.9 0.1	Defic Year 0 0 0 0 8 14 21 22 2 2 2 11 11 15
24 225 226 229 30 31 33 34 35 36 37 38 39	BENUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SENANGAR SEDILI SELUYUT RENGIT PERGLI LINGGIU JOHOR	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.1 0.1 0.0 0.0	MAX (106m3)  0.0 0.0 0.0 0.0 0.6 0.5 16.2 33.1 0.0 0.6 0.1 0.1 0.3 0.2	Deficit Year  0 0 0 12 21 22 2 2 2 3 11 13 4 1	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0	0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.1	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 14 7 1	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.1 0.0 0.1 0.0 0.0 0.1 0.0	(105m3)  0.0 0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.0 0.9 0.1 1.8 0.2	Defic Year 0 0 0 8 14 21 22 2 2 2 11 11 15 12
24 225 226 229 330 31 332 333 34 355 36 37 38 38 39	BENUT* SAYONG** SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SEMANGAR SEDILI SELUYUT RENGIT PENGLI LINGGIU JOHOR CASE 1	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0 24.1	MAX (106m3)  0.0 0.0 0.0 0.6 0.5 16.2 33.1  0.0 0.6 0.1 0.1 0.3 0.2	Deficit Year  0 0 0 12 21 22 2 2 9 11 13 4 1	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.0 0.1 0.0	0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.1 0.5 0.2	Deficit Year  0 0 0 8 12 21 22 2 9 11 14 7 1	(106m3)  0.0 0.0 0.0 0.0 0.1 0.2 5.7 16.4 0.0 0.0 0.1 0.0 0.2 0.0 53.3	(105m3)  0.0 0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.0 0.9 0.1 1.8 0.2 143.9	Defic Year 0 0 0 8 14 21 22 2 11 11 15 12 1
24 225 226 229 30 31 33 34 34 35 36 37 38 39	BENUT* SAYONG** SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SEMANGAR SEOLLI SELUYUT RENGIT LINGGIU JOHOR CASE 1 CASE 2	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.1 0.0 0.0 0.1 7.3	MAX (106m3)  0.0 0.0 0.0 0.6 0.5 16.2 33.1  0.0 0.6 0.1 0.1 0.3 0.2	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 13 4 1	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0	0.0 0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.5 0.2	Deficit Year  0 0 8 12 21 22 2 2 11 14 7 1	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16.4 0.0 0.1 0.0 0.1 0.0 0.2 0.0 53.3 22.7	(105m3)  0.0 0.0 0.0 0.0 0.6 0.7 16.2 33.1  0.0 0.9 0.1 1.8 0.2 143.9 68.9	Defic Year 0 0 0 8 14 21 22 2 11 11 15 12 1
24 25 25 26 29 30 31 32 33 34 44 35 36 37 77 88 89	BENUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SENANGAR SEOILI SELUYUT RENGIT PENGIT LINGGIU JOHOR CASE 1 CASE 2 CASE 1-A	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0 24.1 7.3 7.0	MAX (106m3)  0.0 0.0 0.0 0.0 0.6 0.5 16.2 33,1 0.0 0.6 0.1 0.1 0.3 0.2 74.4 27.9 18.8	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 13 4 1 22 15 22	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1 1.0 0.0 1.1 0.0 1.1 0.0	0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.1 0.5 0.2	Deficit Year  0 0 8 12 21 22 2 2 9 11 14 7 1	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.2 0.0 3.3 22.7 34.9	(105m3)  0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.9 0.1 1.8 0.2 143.9 68.9 86.0	Defic Year  0 0 0 8 14 21 22 2 11 15 12 1
24 225 226 229 30 31 33 34 34 35 36 37 38 39	BENUT* SAYONG** SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SEMANGAR SEOLLI SELUYUT RENGIT LINGGIU JOHOR CASE 1 CASE 2	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.1 0.0 0.0 0.1 7.3	MAX (106m3)  0.0 0.0 0.0 0.6 0.5 16.2 33.1  0.0 0.6 0.1 0.1 0.3 0.2	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 13 4 1	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0	0.0 0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.5 0.2	Deficit Year  0 0 8 12 21 22 2 2 11 14 7 1	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16.4 0.0 0.1 0.0 0.1 0.0 0.2 0.0 53.3 22.7	(105m3)  0.0 0.0 0.0 0.0 0.6 0.7 16.2 33.1  0.0 0.9 0.1 1.8 0.2 143.9 68.9	Defic Year 0 0 0 8 14 21 22 2 11 11 15 12 1
24 225 26 30 31 32 33 34 35 36 37 38 39 30	BENUT* SAYONG** SAYONG** PONTIAN B. SKUDAI TEBRAU SENAI PANTI SEMANGAR SEDILI SEMANGAR SEDILI SENAIT PENGLI LINGGIU JOHOR CASE 1 CASE 2 CASE 1-A CASE 2-A	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0 24.1 7.3 7.0	MAX (106m3)  0.0 0.0 0.0 0.0 0.6 0.5 16.2 33,1 0.0 0.6 0.1 0.1 0.3 0.2 74.4 27.9 18.8	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 13 4 1 22 15 22	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1 1.0 0.0 1.1 0.0 1.1 0.0	0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.1 0.5 0.2	Deficit Year  0 0 8 12 21 22 2 2 9 11 14 7 1	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.2 0.0 3.3 22.7 34.9	(105m3)  0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.9 0.1 1.8 0.2 143.9 68.9 86.0	Defic Year  0 0 0 8 14 21 22 2 11 15 12 1
24 25 26 29 30 31 32 33 34 36 37 38 38 39 30 31	BENUT* SAYONG** SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SEMANGAR SEDILI SELUYUT RENGIT PENGIT LINGGIU JOHOR CASE 1 CASE 2 CASE 1-A CASE 2-A	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0 24.1 7.3 7.0	MAX (106m3)  0.0 0.0 0.0 0.0 0.6 0.5 16.2 33,1 0.0 0.6 0.1 0.1 0.3 0.2 74.4 27.9 18.8	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 13 4 1 22 15 22	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1 1.0 0.0 1.1 0.0 1.1 0.0	0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.1 0.5 0.2	Deficit Year  0 0 8 12 21 22 2 2 9 11 14 7 1	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.2 0.0 3.3 22.7 34.9	(105m3)  0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.9 0.1 1.8 0.2 143.9 68.9 86.0	Defic Year  0 0 0 8 14 21 22 2 11 15 12 1
24 224 225 26 30 31 31 32 33 34 35 36 37 38 38 39 41 10	BENUT* SAYONG** SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SENANGAR SEDILI SELUYUT RENGIT LINGGIU JOHOR CASE 1 CASE 2 CASE 2-A G. PÜLAI LAYANG	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0 24.1 7.3 7.0	MAX (106m3)  0.0 0.0 0.0 0.0 0.6 0.5 16.2 33,1 0.0 0.6 0.1 0.1 0.3 0.2 74.4 27.9 18.8	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 13 4 1 22 15 22	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1 1.0 0.0 1.1 0.0 1.1 0.0	0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.1 0.5 0.2	Deficit Year  0 0 8 12 21 22 2 2 9 11 14 7 1	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.2 0.0 3.3 22.7 34.9	(105m3)  0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.9 0.1 1.8 0.2 143.9 68.9 86.0	Defic Year  0 0 0 8 14 21 22 2 11 15 12 1
0	BENUT* SAYONG** SEMAN B. SKUDAI TEBRAU SERAN SERAI PARTI SEMANGAR SEDILI SELUYUT RENGIT PENGIT LINGGIU JOHOR CASE 1 CASE 2 CASE 1-A CASE 2-A G.PULAI LAYANG LEBAM	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0 24.1 7.3 7.0	MAX (106m3)  0.0 0.0 0.0 0.0 0.6 0.5 16.2 33,1 0.0 0.6 0.1 0.1 0.3 0.2 74.4 27.9 18.8	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 13 4 1 22 15 22	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1 1.0 0.0 1.1 0.0 1.1 0.0	0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.1 0.5 0.2	Deficit Year  0 0 8 12 21 22 2 2 9 11 14 7 1	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.2 0.0 3.3 22.7 34.9	(105m3)  0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.9 0.1 1.8 0.2 143.9 68.9 86.0	Defic Year  0 0 0 8 14 21 22 2 11 15 12 1
0	BENUT* SAYONG** SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SENANGAR SEDILI SELUYUT RENGIT LINGGIU JOHOR CASE 1 CASE 2 CASE 2-A G. PÜLAI LAYANG	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0 24.1 7.3 7.0 3.3	MAX (106m3)  0.0 0.0 0.0 0.0 0.6 0.5 16.2 33.1  0.0 0.6 0.1 0.1 0.3 0.2 74.4 27.9 18.8 10.2	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 13 4 1 22 15 22 15	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1 7.0	0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.1 0.5 0.2 95.5 37.7 39.1 21.1	Deficit Year  0 0 8 12 21 22 2 2 9 11 14 7 1 22 15 22 15	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.2 0.0 53.3 22.7 34.9 17.6	(105m3)  0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.9 0.1 0.1 1.8 0.2 143.9 68.9 86.0 51.6	Defic Year  0 0 0 8 14 21 22 2 11 15 12 2 21 22 21
24 25 26 29 30 31 32 33 34 35 36 37 38 39 40 41	BENUT* SAYONG** SEMAN B. SKUDAI TEBRAU SERAN SERAI PARTI SEMANGAR SEDILI SELUYUT RENGIT PENGIT LINGGIU JOHOR CASE 1 CASE 2 CASE 1-A CASE 2-A G.PULAI LAYANG LEBAM	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0 24.1 7.3 7.0	MAX (106m3)  0.0 0.0 0.0 0.0 0.6 0.5 16.2 33,1 0.0 0.6 0.1 0.1 0.3 0.2 74.4 27.9 18.8	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 13 4 1 22 15 22	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1 1.0 0.0 1.1 0.0 1.1 0.0	0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.1 0.5 0.2	Deficit Year  0 0 8 12 21 22 2 2 9 11 14 7 1	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.2 0.0 3.3 22.7 34.9	(105m3)  0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.9 0.1 1.8 0.2 143.9 68.9 86.0	Defic Year  0 0 0 8 14 21 22 2 11 15 12 1 22 21 21 20 20
24 225 225 26 30 31 32 33 34 35 36 37 38 38 39 31 31 31 31 32 31 31 31 31 31 31 31 31 31 31 31 31 31	BERUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SEMANGAR SEDILI SEMANGAR SEDILI SELUYUT RENGIT PERGLI LINGGIU JOHOR CASE 1 CASE 2 CASE 2-A G.PÜLAI LAYANG LEBAM ON SCHEME	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0 24.1 7.3 7.0 3.3	MAX (106m3)  0.0 0.0 0.0 0.0 0.6 0.5 16.2 33.1  0.0 0.6 0.1 0.1 0.3 0.2 74.4 27.9 18.8 10.2	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 13 4 1 22 15 22 15	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1 7.0	0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.1 0.5 0.2 95.5 37.7 39.1 21.1	Deficit Year  0 0 8 12 21 22 2 2 9 11 14 7 1 22 15 22 15	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.2 0.0 53.3 22.7 34.9 17.6	(105m3)  0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.9 0.1 0.1 1.8 0.2 143.9 68.9 86.0 51.6	Defic Year  0 0 0 0 8 14 21 22 21 11 15 12 1 22 21 22 21
24 25 26 29 30 31 32 33 34 35 36 37 38 39 40 41 ES 8 ES 9 ES 10 ERIGATIONULU BENUT	BENUT* SAYONG** SERAI TEBRAU TEBRAU TEBRAU TASE 2 CASE 1-A CASE 2 CASE 1-A CASE 2-A G.PÜLAI LAYANG LEBAU ON SCHEME	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0 24.1 7.3 7.0 3.3	MAX (106m3)  0.0 0.0 0.0 0.0 0.6 0.5 16.2 33.1 0.0 0.6 0.1 0.1 0.3 0.2 74.4 27.9 18.8 10.2	Deficit Year  0 0 0 8 12 21 22 2 2 2 3 11 13 4 1 22 15 22 15	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0	(106m3)  0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.1 0.5 0.2 95.5 37.7 39.1 21.1	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 14 7 1 22 15 22 15	(106m3)  0.0 0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.0 0.1 0.0 0.2 0.0 53.3 22.7 34.9 17.6	(105m3)  0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.9 0.1 0.1 1.8 0.2 143.9 68.9 96.0 51.6	Defic Year 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
24 25 26 29 30 31 32 33 34 35 36 37 38 39 40 41 ES 8 ES 9 ES 10 ERIGATIONULU BENUT	BERUT* SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SEMANGAR SEDILI SEMANGAR SEDILI SELUYUT RENGIT PERGLI LINGGIU JOHOR CASE 1 CASE 2 CASE 2-A G.PÜLAI LAYANG LEBAM ON SCHEME	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0 0.3 7.0 3.3	MAX (106m3)  0.0 0.0 0.0 0.0 0.6 0.5 16.2 33,1 0.0 0.6 0.1 0.1 0.3 0.2 74.4 27.9 18.8 10.2	Deficit Year  0 0 0 8 12 21 22 2 2 2 3 11 13 4 1 22 15 22 15	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.0 0.1 0.0 0.0	(106m3)  0.0 0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.1 0.5 0.2 95.5 37.7 39.1 21.1	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 14 7 1 22 15 22 15	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.2 0.0 53.3 22.7 34.9 17.6	(105m3)  0.0 0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.9 0.1 0.1 1.8 0.2 143.9 68.9 86.0 51.6	Defic Year 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0	BERUT* SAYONG** SAYONG** SAYONG** PONTIAN B. PONTIAN B. SKUDAI TEBRAU SERAI PANTI SENANGAR BEDILI SELUYUT RENGIT PERGLI LINGGIU JOHOR CASE 1 CASE 2 CASE 1-A CASE 2-A G.PÜLAI LAYANG LEBAM ON SCHEME T CASE 1 CASE 2 CASE 1 CASE 2 CASE 1 CASE 2	(106m3) 0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.1 0.1 0.0 0.0 0.1 7.3 7.0 3.3 0.5 0.4	MAX (106m3)  0.0 0.0 0.0 0.6 0.5 16.2 33.1  0.0 0.6 0.1 0.1 0.3 0.2 74.4 27.9 18.8 10.2	Deficit Year  0 0 0 8 12 21 22 2 2 2 3 11 13 4 1 22 15 22 15	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0	(106m3)  0.0 0.0 0.0 0.0 0.6 16.2 33.1 0.0 0.7 0.1 0.1 0.5 0.2 95.5 37.7 39.1 21.1	Deficit Year  0 0 0 8 12 21 22 2 2 9 11 14 7 1 22 15 22 15	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16.4  0.0 0.0 0.1 0.0 0.2 0.0 53.3 22.7 34.9 17.6	(105m3)  0.0 0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.0 0.9 0.1 1.8 0.2 143.9 68.9 86.0 51.6	Defic Year  0 0 0 8 14 21 22 2 11 15 12 1 22 21 21 20 20
24 25 26 29 30 31 32 33 34 35 36 37 38 39 40 41  RRIGATIONUT LU BERUU	BENUT* SAYONG** SENDAI TEBRAU SERMI TEBRAU SERMI TEBRAU SERMI SELUYUT RENGIT SELUYUT RENGIT LINGGIU JOHOR CASE 1 CASE 1 CASE 2 CASE 1-A CASE 2-A G.PÜLAI LAYANG LEBAM ON SCHEME T CASE 1	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.0 0.3 7.0 3.3	MAX (106m3)  0.0 0.0 0.0 0.0 0.6 0.5 16.2 33,1 0.0 0.6 0.1 0.1 0.3 0.2 74.4 27.9 18.8 10.2	Deficit Year  0 0 0 8 12 21 22 2 2 2 3 11 13 4 1 22 15 22 15	(106m3)  0.0 0.0 0.0 0.1 0.1 5.7 16.4 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.0 0.1 0.0 0.0	(106m3)  0.0 0.0 0.0 0.0 0.6 0.6 16.2 33.1 0.0 0.7 0.1 0.1 0.5 0.2 95.5 37.7 39.1 21.1	Deficit Year  0 0 8 12 21 22 2 9 11 14 7 1 22 15 22 15	(106m3)  0.0 0.0 0.0 0.1 0.2 5.7 16,4 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.2 0.0 53.3 22.7 34.9 17.6	(105m3)  0.0 0.0 0.0 0.0 0.6 0.7 16.2 33.1 0.0 0.9 0.1 0.1 1.8 0.2 143.9 68.9 86.0 51.6	Defic Year  0 0 0 8 14 21 22 2 11 15 12 1 22 21 21 20 20

Remarks: Case 1: Joint Development to meet the assumed water abstraction of Singapore of 250 MGD in 1995

Case 2: Joint Development to meet the assumed water abstraction of Singapore of 160 MGD in 1990

Case 1-A: Development by Malaysia alone to meet the same volume of Case 1

Case 2-A: Development by Malaysia alone to meet the same volume of Case 2

\* : Water deficit at R24 after 1990 will be supplemented by Siompang Renggam Scheme Stage I.

\*\* : Water deficit at R25 and R26 after 1995 will be supplemented by Kluang Scheme Stage I.

# Table 12 MONTHLY EVAPORATION RATE FOR RESERVOIR OPERATION STUDY

Unit: mm

Basin	Jan	Feb	Mar	Apr	May	Jun_	Jul	Aug	Sep	Oct	Nov	Dec	Total
Benut - Pontian	141	139	160	148	145	137	146.	138	143	152	139	134	1722
Johor, Sedili	140	132	153	139	138	128	138	141	138	149	136	129	1661

# Table 13 PRINCIPAL FEATURE OF MACAP DAM

## 1. Reservoir

77.7  $km^2$ Catchment area  $9.1 \text{ km}^2$ Reservoir area at EL 18.3 m EL 15.8 m Normal operating level EL 18.4 m Maximum operating level 24,800 ac-ft Total reservoir storage capacity 1,600 ac-ft Storage capacity for sedimentation : 8,400 ac-ft Storage capacity for water supply 8,400 ac-ft Storage capacity for flood detention: 6,400 ac-ft Storage capacity for surcharge

#### 2. Dam

Type : Zoned earthfill

Core material : Impervious inorganic clay of

high plasticity and elastic

silty soil

Shell material : Semi-impervious clayey sand,

silty sand and silty gravel

Foundation treatment: Cutoff trench refilled with

impervious material

Slope : u/s 1:3 to 8

d/s 1:3 to 8 to 20

Embankment Volume : 344,000 m<sup>3</sup>

Maximum Height : EL 9.2 m

Crest level ; EL 19.8 m

Crest length : 570 m

	YEAR : 1963		ARNUAL KEAR :	Ç.9								
	JAK	FER		APR		30%	JUL	AU6	SEP	007	NOV	DEC
1 - 5 6~10	3.6 2.8	1.1	1.6	1.2 1.0	0.7	5.5	0.9 0.8	1.0 0.8	0.8 0.δ	2.8	2.6 2.1	5.6 4.2
11-15 16-26 21-25	2.2 1.7 1.2	0.9 C.1 1.C	1.3 1.1 0.8	1.0 1.4 1.1	0+9 1+4 3+2	1.7 1.5 1.2	0.6 0.5 0.4	0.8 0.5 0.5	0.7 0.6	2.8	2.5	4±0 3±1 342
26-EHD	1.1	5.C	1.4	6.9	3.2	1 a C	0.6	0.7	0.8 2.3	2.1 2.5	. 3u7	3.6
REAN	2,1	1.4	1.6	1.1	1.7	1.6	0.6	6.8	1.0	2.5	3.2	4.3
			ANNUAL MEAN									
ESIOD	YEAR : 1964 JAN	FEE		APR	MAY	JUN	JUE"	AUG	\$EP	oct	NOV -	DEC
1 - 5	3.7	2.5	14.9	2.9	5 e Ū	1.5	1.7	3.3	5.0	1.5	3.4	159
6+15 1-15 6-20	2.9 2.3 2.9	2,2 1,6 1,7	7-1 9-6 6-1	3.6 5.5 5.2	4.9 4.2 3.2	1.2 1.7 1.5	1.7 1.5 2.0	2.5 2.1 2.0	3.1 2.7 2.6	1+2 1+5 3+7	2.9 2.6 2.2	1.7 1.7 1.8
1-25 6-END	4.2 3.3	15.6	3.2	5.8	5.0	1.7	2.2 3.4	1.7 1.5	2.1 1.8	5.7	129 127	7 <b>.</b> 7 7 . 0
IEAN	3.2	4.0		4.8	3.6	1.5	2.1	5 +5	5-3	3.0	2,5	3.7
:											• •	
	YEAR : 1965	٠.	ANNUAL MEAN	0.9								•
ER10D	*********				MAY		JUL	AUG	SEP	130	NOV	
1- 5 6-16 1-15	5.4 3.7 2.8	0.8 0.6 0.7		1.0 1.0 1.1	1 • 3 1 • 5 1 • 6	1.8 1.4 1.0	1.0 1.0 1.0	0.7 0.8 1.0	2.0 2.1 1.8	1.0 0.8 1.7	4.2 345 3.2	451 451 4.9
6-26 1-25	2.1	0.8 0.8	0.5		3.5	0.8 1.0	1.0	1.2	1.5	1.6 2.3	4.0	3°7 3°0
5-EHP	*******	8.0 3.0		1.2		1.C 1.2		1.9	1.1		5.0 4.4	2=7 3'-7
MEAN	2.7		0.6		₹•3	1 6 2	150	1.6		2,54	***	361
	YEAR : 1966		ANNUAL MEAN	0.9								
ER 100	JAN		MAR	APR	YAR	JUN	JUL	AUG	SEP	6¢1	HOV	DEC
1- 5 6-10	2.5	1.5	0.7 3+0	1.9	2.5 2.1	2.5 2.0	0.9	0.9 1.0	1.5	0 + 6 0 + 6	1 • 8 2 • 2	3.2 267
6-20	1.5	1.2 1.0	2.6	3-1	1.7	1.8 1.6	1+0 1+1	0.9 1.1	1.2	2,5	3.1 2.5	4.6 311
1-25 6-END	1.8	6.8	2.7 2.3	2.8	1,3 1,2 1,0	1.4	1.1 1.0	1.3 1.5	0.9 0.7	2.7 2.0	5÷0 4×0	214 215
HEAR	1.9			2.7	1,6	1.7	1.0	1.1	1.1	1 4 6	3.1	3'-1
	YEAR : 1967		ANNUAL MEAN	; 1.3								e.
ERIOD		921	MAR	APR	УДИ	7ux	1UL	AUG	SEP	oct	HOV	DEC
1- 5 6-10	4.6	1.8 1.5	4.8	1.3 1.2	1,9 2,5	2+2 1+7 1+4	1.5	1.1	0.4	0.6 0.6	3.6 3.1	3.2
1-15 6-20	4.6 7.8 5.2	12.0	- Z e U	1.3	2.8 2.3 3.0	1.0	1.5 1.6 1.5	0.7 0.5 0.4	0.4 0.2 0.2	0±6 0±4 : 0±4	3+3 3+6 4+3	521 1640 746
1-25 6-END	3,4	7.5 5.2	1.6 1.7	1.7	2,9	1.7	1,3	0.4	0.6	1.4	4.1	762
MEAN	4.5	5+2	2.6	1.5	5.6	1.7	1.5	0.7	G * 4	0.7	3.7	750
	4 to 1											
		12.							4.5			
	YEAP : 1968		ANNUAL MEAN		HAY	JUN	10L	AUG	SEP	DET	NOV	DEC
ERIOD	JAN	FEB	BAR	APR	7.0	2.3	1.4	0.4	0.9	2,4	3.0	3.1
ER100	JAN	FEB	BAR	APR		2.3	1.4	0.4	0.9	2,4	3.0	3.1
ER100	JAN	FEB	BAR	APR		2.3	1.4	0.4 0.4 2.1 2.1 1.5	0.9 0.7 0.7 1.2 1.8 1.3	244 342 441 344 3,5 3,3	3.0 3.7 3.5 6.8 4.2 3.2	3.1 2.9 3.1 4.7 3.1 2.4
1- 5 6-10 1-15 6-20 1-25 6-END	JAN 16.2 7.7 4.4 2.9 2.2 1.6	FEB 1.1 1.3 0.8 0.7 0.6 C.6	MAR	APR 3.3 3.1 2.7 2.2 2.0 2.4	3.0 2.3 3.6 3.3 3.1	2+3 2+1 2+2 2+6 2+0 1+7	1.4 1.1 0.8 0.7 0.6 0.5	0.4	0.9 0.7 0.7 1.2 1.8 1.3	2.4 3.2 4.1 3.4 3.5 3.3	3.0 3.7 3.5 6.8 4.2 3.2	3 = 1 2 = 9 3 = 1 4 = ? 3 = 1
ERIOD 1- 5 6-10 1-15 6-20 1-25 6-END	JAN 16.2 7.7 4.4 2.9 2.2 1.6	FEB 1.1 1.3 0.8 0.7 0.6 C.6	0.4 0.4 0.8 2.0 4.5 5.6	APR 3.3 3.1 2.7 2.2 2.0 2.4	3.0 2.3 3.6 3.3 3.1	2+3 2+1 2+2 2+6 2+0 1+7	1.4 1.1 0.8 0.7 0.6 0.5	0.4 0.4 2.1 2.1 1.5	0.9 0.7 0.7 1.2 1.8 1.3	2.4 3.2 4.1 3.4 3.5 3.3	3.0 3.7 3.5 6.8 4.2 3.2	3:1 2:0 3:1 4:7 3:1 2:4
ERIOD 1-5 6-30 6-20 1-25 6-END MEAN	JAN 16.2 7.7 4.4 2.9 2.2 1.6	FEB  1.1 1.0 0.8 0.7 0.6 C.6	0.4 0.4 0.8 2.0 4.5 5.6	APR 3.3 3.1 2.7 2.2 2.0 2.4	3.0 2.3 3.6 3.3 3.1 3.0	2+3 2+1 2+2 2+6 2+0 1+7	1.4 1.1 0.8 0.7 0.6 0.5	0.4 0.4 2.1 2.1 1.5	0.9 0.7 0.7 1.2 1.8 1.3	2.4 3.2 4.1 3.4 3.5 3.3	3.0 3.7 3.5 6.8 4.2 3.2	3:1 2:0 3:1 4:7 3:1 2:4
ERIOD 1-56-10 1-156-20 1-256-END MEAN	JAH 16.2 7-7 4-4 2-9 2.2 1.6 5-7 YEAR : 7965	FEB 1.1 1.0 0.8 0.7 0.6 C.6	MAR  0.4  0.8  2.0 4.5 5.6  2.4  ANNUAL MEAN	APR 3.3 3.1 2.7 2.0 2.4 2.6	3.0 2.3 3.6 3.3 3.1 3.0 3.0	2-3 2-1 2-2 2-6 2-0 1-7 2-2	1.4 1.1 0.8 0.7 0.6 0.5	0.4 0.4 2.1 1.5 1.1	0.9 0.7 0.7 0.7 1.2 1.8 1.3	2.4 3.2 4.1 3.4 3.5 3.3	3.0 3.7 3.5 6.8 4.2 3.2	3-1 2-9 3-1 4-7 3-1 2-4 3-7
ERIOD 1-5 5-1C 1-15 5-2G 1-25 6-END MEAN	JAH 16.2 7-7 4-4 2-9 2.2 1.6 5-7 YEAR : 7965	FEB 1.1 1.3 0.8 0.7 0.6 C.6 C.5	MAR  0.4  0.8  2.0 4.5 5.6  2.4  ANNUAL MEAN	APR 3.3 3.1 2.7 2.0 2.4 2.6	3.0 2.3 3.6 3.3 3.1 3.0 3.0	2-3 2-1 2-2 2-6 2-0 1-7 2-2	1.4 1.1 0.8 0.7 0.6 0.5	0.4 0.4 2.1 1.5 1.1	0.9 0.7 0.7 0.7 1.2 1.8 1.3	2.4 3.2 4.1 3.4 3.5 3.3	3.0 3.7 3.5 6.8 4.2 3.2	3-1 2-9 3-1 4-7 3-1 2-4 3-7
ERIOD 1-3C 1-15C 1-2C 1-25 6-2C 1-25 MEAN ERIOD 1-5-1C 1-1C 1-1C 1-1C 1-1C 1-1C 1-1C 1-	JAH  76.2 7.7 4.4 2.9 2.2 1.6 5.7  YEAR : 7965 JAN 2.0 1.7 1.6	FEB 1.1 1.3 0.8 0.7 0.6 C.6 C.5  FEB 1.5 1.2 1.1 C.6	MAR  0.4  0.8  2.0 4.5 5.6  2.4  ANNUAL MEAN	APR 3.3 3.1 2.7 2.0 2.4 2.6	3.0 2.3 3.6 3.3 3.1 3.0 3.0	2-3 2-1 2-2 2-6 2-0 1-7 2-2	1.4 1.1 0.8 0.7 0.6 0.5	0.4 0.4 2.1 1.5 1.1	0.9 0.7 0.7 0.7 1.2 1.8 1.3	2.4 3.2 4.1 3.4 3.5 3.3	3.0 3.7 3.5 6.8 4.2 3.2	3-1 2-9 3-1 4-7 3-1 2-4 3-7
ERIOD	JAH  16.2 7-7 4-4 2-9 2-2 1-6 5-7  YEAR : 7965 JAN 2-0 1-7 1-6 1-7 1-7 1-7	FEB 1-1 1-0 0-8 0-7 0-6 C-6 C-5 1-5 1-2 1-1 C-6 C-7 G-6	MAR  0.4  0.8  2.0  4.5  5.6  2.4  ANNUAL MEAN  MAR  1.0  1.0  0.5  C.7  0.6	APR 3.3 3.1 2.7 2.2 2.0 2.4 2.6 APR 1.2 1.5 1.5 1.7 2.6 2.0	3.0 2.3 3.6 3.3 3.1 3.0 3.0	2.3 2.1 2.2 2.6 2.0 1.7	1.4 1.1 0.8 0.7 0.6 0.5	0.4 0.4 2.1 1.5 1.1	0.9 0.7 0.7 0.7 1.2 1.8 1.3	2-4 3-2 4-1 3-4 3-5 3-3 3-3 3-3 3-3 3-3 3-3 3-3 3-3	3.0 3.7 3.5 6.8 4.2 3.2	3-1 2-9 3-1 4-7 3-1 2-4 3-7 3-7 3-7 12-6 23-1 15-2 8-6 4-8
ERIOD 1- 5 6-3C 1-15 6-2C 1-25 6-END MEAN ERIOD 1- 5 6-1C 1-15 6-2C	JAH  16.2 7-7 4.4 2-9 2-2 1-6 5-7  YEAR : 7967 JAN 2-0 1-7 1-6 1-7 1-7	FEB 1.1 1.3 0.8 0.7 0.6 C.6 C.5  FEB 1.5 1.2 1.1 C.6 C.7 G.6	MAR  0.4  0.4  0.8  2.0  4.5  5.6  2.4  ANNUAL MEAN  MAR  1.0  1.0  0.5  C.7  0.6	APR 3.3 3.1 2.7 2.0 2.4 2.6	3.0 2.3 3.6 3.3 3.1 3.0 3.0	2-3 2-1 2-2 2-6 2-0 1-7 2-2	1.4 1.1 0.8 0.7 0.6 0.5 0.5 0.5	0.4 0.4 2.1 2.1 1.5 1.1 1.3 AUG	0-9 0-7 1-2 1-8 1-5 1-1	2-4 3-2 4-1 3-4 3-5 3-3 3-3 3-3 3-3 3-3 3-3 3-3 3-3	340 367 365 648 442 3-2 4-1 NOV 3.7 2.9 2.6 3.1 2.5 2.4	3-1 2-9 3-1 4-7 3-1 2-4 3-7 3-7 3-7 12-6 23-1 15-2 8-6
ERIOD - 1 - 5 C - 1 - 2 C - 2	JAH  16.2 7-7 4.4 2-9 2-2 1-6 5-7  YEAR : 7967 JAN 2-0 1-7 1-6 1-7 1-7	FEB 1.1 1.3 0.8 0.7 0.6 C.6 C.5  FEB 1.5 1.2 1.1 C.6 C.7 G.6	MAR  0.4  0.4  0.8  2.0  4.5  5.6  2.4  ANNUAL MEAN  MAR  1.0  1.0  0.5  C.7  0.6  1.2	APR 3.3 3.1 2.7 2.2 2.0 2.4 2.6  APR 1.2 1.5 1.7 2.6 2.0	3,0 2,3 3,6 3,3 3,1 3,0 3,0 3,0 4,0 2,5 2,6 2,3 2,3 1,9	2.3 2.1 2.2 2.6 2.0 1.7 2.2 3.0 2.7 2.3 2.1 1.9	1.4 1.1 0.8 0.7 0.6 0.5 0.5	0.4 0.4 2.1 1.5 1.1 1.3 AUG	0-9 0-7 0-7 1-2 1-8 1-5 1-1	2-4 3-2 4-1 3-4 3-5 3-3 3-3 3-3 3-3 4-2	340 367 365 648 442 3-2 4-1 NOV 3.7 2.9 2.6 3.1 2.5 2.4	3 1 2 0 3 0 1 4 1 7 3 1 1 2 1 4 1 2 1 4 1 2 1 4 1 1 2 1 4 1 1 1 1
ERIOD 1-15 6-10 1-15 6-10 1-25 6-END MEAN 1- 5 6-10 1-15 6-10 1-25 6-10 1-25 6-10 1-25 6-10 1-25 6-10 1-25 6-10 1-25	JAH  16.2 7-7 4.4 2-9 2-2 1-6 5-7  YEAR : 1965 JAN 2-0 1-7 1-6 1-7 1-7 1-7	FEB 1.1 1.3 0.8 0.7 0.6 C.6 C.5  FEB 1.5 1.2 1.1 C.6 C.7 G.6	MAR  0.4  0.4  0.8  2.0  4.5  5.6  2.4  ANNUAL MEAN  MAR  1.0  1.0  0.5  C.7  0.6  1.2	APR 3.3 3.1 2.7 2.2 2.0 2.4 2.6 4 2.6 APR 1.2 1.5 1.7 2.6 2.0	3.0 2.3 3.6 3.3 3.1 3.0 3.0 3.0 2.5 2.6 2.3 2.0 1.9 1.8	2.3 2.1 2.2 2.6 2.0 1.7 2.2 3.0 2.7 2.3 2.1 1.9 2.0	1.4 1.1 0.8 0.7 0.6 0.5 0.5 0.5	0.4 0.4 2.1 1.5 1.1 1.3 AUG	0-9 0-7 1-2 1-3 1-5 1-1	2.4 3.2 4.1 3.4 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5	340 367 368 442 3-2 4-1 NOV 3.7 2-9 2-6 3-1 2-5 2-9	3-1 2-9 3-1 4-7 3-1 2-4 3-2 3-2 5-3 12-6 23-1 15-2 8-6 4-8 11-4
ERIOD 1-15 1-15 1-25 6-END MEAN ERIOD 1-15 6-16 1-15 6-16 1-15 6-16 MEAN	JAH  16.2 7-7 4.4 2-9 2-2 1.6 5-7  YEAR : 1965 JAN 2-0 1.7 1.6 1.7 1.7 1.7 1.7	FEB 1.1 1.3 0.8 0.7 0.6 C.6 C.5  FEB 1.5 1.2 1.1 C.6 C.7 G.6	#AR  0.4  0.4  0.8  2.0  4.5  5.6  2.4  ANNUAL MEAN  MAR  1.0  0.5  C.7  0.6  1.2  G.9	APR 3.3 3.1 2.7 2.2 2.0 2.4 2.6 4 2.6 4 APR 1.2 1.5 1.7 2.6 2.0 1.7	3.0 2.3 3.6 3.3 3.1 3.0 3.0 3.0 2.5 2.6 2.3 2.0 1.9 1.6	2.3 2.1 2.2 2.6 2.0 1.7 2.2 3.0 2.7 2.3 2.1 1.9 2.0	1.4 1.1 0.8 0.7 0.6 0.5 0.5 0.5 0.5 0.5 0.5	0.4 0.4 2.1 1.5 1.1 1.3 AUG	0-9 0-7 1-2 1-3 1-5 1-1 5 FP 4-5 3-4 2-7 2-1 1-6 1-4	2.4 3.2 4.1 3.4 3.5 3.3 3.5 3.5 3.5 3.6 3.6 3.6 3.6	340 347 368 442 3-2 4-1 NOV	3-1 2-9 3-1 4-7 3-1 2-4 3-2 5-3 12-6 23-1 15-2 8-6 4-8 11-4
ERIOD 1-15 1-15 1-25 6-END MEAN ERIOD 1-15 6-16 1-15 6-16 1-15 6-16 MEAN	JAH  16.2 7-7 4.4 2-9 2-2 1.6 5-7  YEAR : 1965 JAN 2-0 1.7 1.6 1.7 1.7 1.7 1.7	FEB  1.1 1.3 0.8 0.7 0.6 C.6 C.5  FEB  1.5 1.2 1.1 C.6 G.7 G.6 1.0	#AR  0.4  0.4  0.8  2.0  4.5  5.6  2.4  ANNUAL MEAN  MAR  1.0  0.5  C.7  0.6  1.2  G.9	APR 3.3 3.1 2.7 2.2 2.0 2.4 2.6 4 2.6 4 APR 1.2 1.5 1.7 2.6 2.0 1.7	3.0 2.3 3.6 3.3 3.1 3.0 3.0 3.0 2.5 2.6 2.3 2.0 1.9 1.6	2.3 2.1 2.2 2.6 2.0 1.7 2.2 3.0 2.7 2.3 2.1 1.9 2.0	1.4 1.1 0.8 0.7 0.6 0.5 0.5 0.5 0.5 0.5 0.5	0.4 0.4 2.1 2.1 1.5 1.1 1.3 AUG	0-9 0-7 1-2 1-8 1-5 1-1 5EP 4-5 3-4 2-7 2-1 1-6 1-4 2-6	2-4 3-2 4-1 3-4 3-5 3-3 3-3 3-3 3-3 3-6 3-6 3-6 3-8 4-2 3-0	3.0 3.7 3.5 6.8 4.2 3.2 4.1 NOV	3-1 2-9 3-1 4-7 3-1 2-4 3-2 5-3 12-6 23-1 15-2 8-6 4-8
ERIOD 1-5 6-1C 1-15 6-2C 1-25 6-END 1-5 6-1C 1-15 6-1C 1-15 6-1C 1-15 6-1C 1-15 6-1C 1-16 1-16 1-16 1-16	JAH  16.2 7.7 4.4 2.9 2.2 1.6 5.7  YEAR : 1965 JAN 2.0 1.7 1.6 1.7 1.7 2.7  YEAR : 1970 JAN 3.3 2.5 2.2 2.1	FEB 1.1 1.3 0.8 0.7 0.6 C.6 C.5  FEB 1.5 1.2 1.1 C.6 C.7 G.6 1.0	#AR  0.4  0.4  0.8  2.0  4.5  5.6  2.4  ANNUAL MEAN  MAR  1.0  0.5  C.7  0.6  1.2  G.9	APR 3.3 3.1 2.7 2.2 2.0 2.4 2.6 4 2.6 4 APR 1.2 1.5 1.7 2.6 2.0 1.7	3.0 2.3 3.6 3.3 3.1 3.0 3.0 3.0 2.5 2.6 2.3 2.0 1.9 1.6	2.3 2.1 2.2 2.6 2.0 1.7 2.2 3.0 2.7 2.3 2.1 1.9 2.0	1.4 1.1 0.8 0.7 0.6 0.5 0.5 0.5 0.5 0.5 0.5	0.4 0.4 2.1 2.1 1.5 1.1 1.3 AUG	0-9 0-7 1-2 1-8 1-5 1-1 5EP 4-5 3-4 2-7 2-1 1-6 1-4 2-6	2-4 3-2 4-1 3-4 3-5 3-3 3-3 3-3 3-3 3-6 3-6 3-6 3-8 4-2 3-0	3.0 3.7 3.5 6.8 4.2 3.2 4.1 NOV	3-1 2-9 3-1 4-7 3-1 2-4 3-2 3-2 5-3 12-6 23-1 15-2 8-6 6-8 11-4
ERIOD  1-15 6-20 1-25 6-20 1-25 6-20 1-25 6-10 1-15 6-10 1-15 6-10 6-10 6-10 6-10 6-10 6-10 6-10 6-10	JAH  76.2 7.7 4.4 2.9 2.2 1.6 5.7  YEAR: 1965 1.7 1.6 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	FEB  1.1 1.3 0.8 0.7 0.6 C.6 C.5  FEB  1.5 1.2 1.1 C.6 G.7 G.6 1.0	### 0.4 0.4 0.4 0.8 2.0 4.5 5.6 2.4  ##################################	APR 3.3 3.1 2.7 2.2 2.0 2.4 2.6  APR 1.2 1.5 1.7 2.6 2.0 1.7  APR 2.7 3.1 4.4 5.7 5.7	3.0 2.3 3.6 3.3 3.1 3.0 3.0 3.0 2.6 2.3 2.0 1.9 1.6 2.2	2-3 2-1 2-2 2-6 2-0 1-7 2-2 3-1 1-9 2-7 2-3 2-1 1-9 2-7 2-3 2-1 1-9 2-7 2-3 2-1 1-9 2-7 2-3 2-1 1-9 2-7 2-1 2-1 2-1 2-1 2-1 2-1 2-1 2-1 2-1 2-1	1.4 1.1 0.8 0.7 0.6 0.5 0.8 0.6 0.5 0.8 0.5 4.7 3.0 2.2 1.7 3.0 4.5 4.7 3.0 2.2 1.7	0.4 0.4 2.1 1.5 1.1 1.3 AUG 1.2 0.9 1.0 5.1 5.1 2.9	0-9 0-7 1-2 1-3 1-5 1-1 1-1 SEP 4-5 3-4 2-7 2-1 1-6 1-4 2-6	2.4 3.2 4.1 3.4 3.5 3.3 3.5 3.5 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	340 347 368 442 3-2 4-1 NOV 2-9 2-6 3-1 2-5 2-4 2-9 8-0 5-5	3-1 2-9 3-1 4-7 3-1 2-4 3-2 3-2 12-6 23-1 15-2 8-6 4-8 11-4
ERIOD 1-35 6-26 6-END 1-35 6-26 6-END 1-35 6-26 6-END 1-35 6-26 6-26 6-26 6-26 6-26 6-26 6-26 6-2	JAH  16.2 7-7 7-7 4.4 2-9 2-2 1.6 5-7  YEAR: 1967 JAN 2-0 1-7 1-7 1-7 1-7 1-7 1-7 1-7 1-7 1-7 1-7	FEB 1.1 1.3 0.8 0.7 0.6 C.6 C.5  1.5 1.2 1.1 C.6 C.7 G.6 1.0	#AR  0.4  0.4  0.8  2.0  4.5  5.6  2.4  ANNUAL MEAN  MAR  1.0  0.5  C.7  0.6  1.2  G.9	APR 3.3 3.1 2.7 2.2 2.0 2.4 2.6  APR 1.2 1.5 1.7 2.6 2.0 1.7  APR 2.7 3.1 4.4 5.7 5.7	3.0 2.3 3.6 3.3 3.1 3.0 3.0 3.0 2.6 2.3 2.0 1.9 1.6 2.2	2-3 2-1 2-2 2-6 2-0 1-7 2-2 3-1 1-9 2-7 2-3 2-1 1-9 2-7 2-3 2-1 1-9 2-7 2-3 2-1 1-9 2-7 2-3 2-1 1-9 2-7 2-1 2-1 2-1 2-1 2-1 2-1 2-1 2-1 2-1 2-1	1.4 1.1 0.8 0.7 0.6 0.5 0.8 0.6 0.5 0.8 0.5 4.7 3.0 2.2 1.7 3.0 4.5 4.7 3.0 2.2 1.7	0.4 0.4 2.1 1.5 1.1 1.3 AUG 1.2 0.9 1.0 5.1 5.1 2.9	0-9 0-7 1-2 1-8 1-5 1-1 5EP 4-5 3-4 2-7 2-1 1-6 1-4 2-6	2.4 3.2 4.1 3.4 3.5 3.3 3.5 3.5 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	3.0 3.7 3.5 6.8 4.2 3.2 4.1 NOV	3-1 2-9 3-1 4-7 3-1 2-4 3-7 3-7 3-7 12-6 23-1 15-2 8-6 4-8 11-4
ERIOD 1-15 6-3C 1-15 6-2C 1-25 6-END	JAH  76.2 7.7 4.4 2.9 2.2 1.6 5.7  YEAR: 1965 1.7 1.6 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	FEB  1.1 1.3 0.8 0.7 0.6 C.6 C.5  FEB  1.5 1.2 1.1 C.6 C.7 0.6 1.0 1.0	### 0.4 0.4 0.4 0.8 2.0 4.5 5.6 2.4  ##################################	APR 3.3 3.1 2.7 2.2 2.0 2.4 2.6  APR 1.2 1.5 1.7 2.6 2.0 1.7  APR 2.7 3.1 4.4 5.7 5.7	3.0 2.3 3.6 3.3 3.1 3.0 3.0 3.0 2.6 2.3 2.0 1.9 1.6 2.2	2-3 2-1 2-2 2-6 2-0 1-7 2-2 3-1 1-9 2-7 2-3 2-1 1-9 2-7 2-3 2-1 1-9 2-7 2-3 2-1 1-9 2-7 2-3 2-1 1-9 2-7 2-1 2-1 2-1 2-1 2-1 2-1 2-1 2-1 2-1 2-1	1.4 1.1 0.8 0.7 0.6 0.5 0.8 0.6 0.5 0.8 0.5 4.7 3.0 2.2 1.7 3.0 4.5 4.7 3.0 2.2 1.7	0.4 0.4 2.1 1.5 1.1 1.3 AUG 1.2 0.9 1.0 5.1 5.1 2.9	0-9 0-7 1-2 1-3 1-5 1-1 1-1 SEP 4-5 3-4 2-7 2-1 1-6 1-4 2-6	2.4 3.2 4.1 3.4 3.5 3.3 3.5 3.5 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	340 347 368 442 3-2 4-1 NOV 2-9 2-6 3-1 2-5 2-4 2-9 8-0 5-5	3-1 2-9 3-1 4-7 3-1 2-4 3-7 3-7 3-7 3-7 8-6 4-8 11-4

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	YEAR : 1971	FER	ANNUAL-REAN :			10%	JUL	AUG			HOV	
PER 100						0.8	1.2	0.7	2.1	8.0	048 140 142 162 142	3.2
8-1E 11-15	11.6	1.1	1.0 1.0 2.6 1.0	1.3	3.6 3.5	€.0 G.6	0.0 1.3 1.2	1.0 1.6 2.5 2.6	1+7 1+5	0.5 0.4 1.0	1 · 2 1 · 2 1 · 2	518 7.6 515
16-20 21-25 26-END	4.0	5.3 7.0	ε.δ 1.3 1.3	1.3	3.3	6.4	3.9	2.3	1.0	0.8	1.5	4:4
ZO-END	2+2 2+3	1.0	1,0	1.5	3.7	0.6	1.1	1.8		0.7	1,2	4+8
ii Enii	343										÷	
	YEAR : 1972		tabutat Mean -	1.1							•	
			***	404	HAY	'nи	JUL .		SEP	001	N () V	316
****	3.3	0.6	1.9 1.5 1.1 0.9 9.8	1 = 5	5.5	2.1	1.7	0.4 0.5	1,0 1,2	2 45 1 49	1.7	4.0 3.7
8-16 11-15	2.6	1+2 2.0	1.5 1.1 0.0	2.8	5.6	1.5	1.1	0.6 0.6	3.7 4.2	1.5 1.0 2.0	3.7 4.6	3 4 3 3 4 5
16-20 21-25 26-END	1.0 0.8	3.2	9.8 9.8	8.4	1+5 1+5	2.0	0.0	0.8	2°6 3°2	2.5	4.5	5.5
HEAN	1.8	1.8	1.1	3.7	2.7	1.0	1.0	0.6	2.8		3.5	4.1
												,
	YEAR : 1973		ANNUAL MEAN :	1.3						•		
	JAN	FE8	RAR	APR	YAK		100	AUG	SEP		*04	
1- 5	5.0	1.9	3 -4	2.4	4.0	2.9	2.4		1.5 1.8		* •	1.6 126 210
11-15 16-20		1.2	2.1	3.1 3.4	3.3 2.8	2.3 1.9 1.5 1.2 1.2	1.9	4 » 4 3 « 0	1.8 1.7	1.2	218	217
26-END	2.5	5.8	1.5 1.6	5.3	5.2		1.0 4.8	7-5 4-4 5-0 2-2 1-8	2,5	2.7	2.0	1.8
HEAR	4.C	3.3	2.1	3.7	3.1	1.8	2,4	3.8	2.0	1.9	J.2	220
									•			
	YEAR : 1974		ANNUAL MEAN :									
	NAL		MAR				JUL	AUG			Nov	330
1+ 5 6-10	1,4 1+1 0.8 0.6 0.5	0.9 1.1	1.4	3.3	1.7	1.4 1.1	0.4	1.5 1.2 1.1	1.2	3.8 2.6	0.7 0.6	167 163
11-15	0.8 0.6	5.0 G.8	1.0 0.7	5 - 1 4 - 5	2.0	0.9 0.6 0.5	0.4 0.4	1 • 1 0 • 9 0 • 6	7.6 2.5	1.5	0.6 0.8 2.6 3.0 2.0	1.2 1.2 2.0
COLFUN	0.4	1.0		3.0	2.1	0.5	1.2	1.2	4,4 	0.9	2.0	1.5
MEAN			0.8		1.8	0.8		1.1	5-3	5*0	1.6	135
				1.1								
	YEAR : 1975		ANNUAL MEAR :	f.đ								
PERIOD	134	FER	MAR	AFR	MAY	in ii	1UL	Aug	\$EP		ноч	
PERIOD	134	FER	MAR	AFR	MAY							
PERIOD	134	FER	MAR	AFR	MAY			\$.5 1.4 1.2 1.0	1.5 2.4 2.2 1.8 1.5	1.2 1.0 1.0 1.0	2.5 2.3 2.5 3.1 2.6	2.2 167 165 1.2 0.9
PERIOD 1- 5 6-10 11-15 16-20 21-25 26-END	1.2 1.6 2.1 1.7 1.5	FEB 1.0 2.0 3.7 2.3 2.0 1.9	1.7 2.1 1.4 1.4 2.2	AFR 2.1 2.6 5.5 5.8 4.3 3.2	RAT 2.6 2.0 1.7 1.4 1.2 3.6	4.6 2.9 2.4 4.3 3.1 2.3	1.9 1.5 1.2 0.9 1.2 1.7	3.5 1.4 f.2 1.0 1.0	1.5 2.4 2.2 1.6 1.5 1.2	1.2 1.0 1.0 1.0 1.0 0.8	2.5 2.3 2.5 3.1 2.6 2.4	2.2 147 145 1.2 0.9 0.7
PERIOD 1- 5 6-10 11-15 16-20 21-25	JAN 1.2 1.6 2.1 1.7 1.5	FEB 1.0 2.0 3.7 2.3 2.0 1.9	1.7 2.1 1.4 1.4 2.2	AFR 2.1 2.6 5.5 5.8 4.3	RAT 2.6 2.0 1.7 1.4 1.2 3.6	4.6 2.9 2.4 4.3 3.1	1.9 1.5 1.2 0.9	1.5 1.4 1.2 1.0 1.0	1.5 2.4 2.2 1.6 1.5 1.2	1.2 1.0 1.0 1.0	2.5 2.3 2.5 3.1 2.6 2.4	2.2 167 165 1.2 0.9
PERIOD 1- 5 6-10 11-15 16-20 21-25 26-END	JAK 1.2 1.0 2.1 1.7 1.5 1.2	FEB 1.0 2.0 3.7 2.5 2.0 1.9	NAR 1.7 2.1 1.6 1.6 2.2 1.9	2 - 1 2 - 6 5 - 5 5 - 8 4 - 4 - 3 3 - 2 3 - 9	2.6 2.0 1.7 1.4 1.2 3.6	4.6 2.9 2.4 4.3 3.1 2.3	1.9 1.5 1.2 0.9 1.2 1.7	3.5 1.4 f.2 1.0 1.0	1.5 2.4 2.2 1.6 1.5 1.2	1.2 1.0 1.0 1.0 1.0 0.8	2.5 2.3 2.5 3.1 2.6 2.4	2.2 147 145 1.2 0.9 0.7
PERIOD 1- S 6-10 11-15 16-20 21-25 26-END REAN	JAM  1.2 1.0 2.1 1.7 1.5 1.2 1.5 1.5	FEB 1-0 2-0 3-7 2-5 2-9 1-9 2-2	1.7 2.1 1.8 1.6 2.2 1.9 1.9	AFR 2 - 1 2 - 6 5 - 5 5 - 8 4 - 3 3 - 2 3 - 9	2.6 2.0 1.7 1.4 1.2 3.6	4.6 2.9 2.4 4.3 3.1 2.3	1.9 1.5 1.2 0.9 1.2 1.7	1.5 1.4 1.2 1.0 1.0 0.8	1.5 Z=4 2.2 1.6 1.5 1.2	1.2 1.0 1.0 1.0 1.0 0.8	2.5 2.3 2.5 3.1 2.6 2.4	2.2 167 165 162 069 067
PERIOD  1- S 6-10 11-15 16-20 21-25 26-END MEAN	JAM 1.2 1.0 2.1 1.7 1.5 1.2 1.5 1.4 1.5	FEB 1.0 2.0 3.7 2.3 2.0 1.9 2.2	1.7 2.1 1.6 2.2 1.9 1.9	APR  2 + 6 5 - 5 5 + 8 4 + 4 3 3 + 2 3 + 9  4 PR	2.6 2.0 1.7 1.4 1.2 3.6	4.6 2.9 2.4 4.3 3.1 2.3	1.9 1.5 1.2 0.9 1.2 1.7	1.5 1.4 1.2 1.0 1.0 0.8	1.5 Z=4 Z=2 1.6 1.5 1.2	1.2 1.0 1.0 1.0 1.0 0.8	2.5 2.3 2.5 3.1 2.6 2.4	2.2 167 165 1.2 0.9 0.7
PERIOD  1- S 6-10 11-15 16-20 21-25 26-END MEAN	JAM 1.2 1.0 2.1 1.7 1.5 1.2 1.5 1.4 1.5	FEB 1.0 2.0 3.7 2.3 2.0 1.9 2.2	1.7 2.1 1.6 2.2 1.9 1.9	APR  2 + 6 5 - 5 5 + 8 4 + 4 3 3 + 2 3 + 9  4 PR	2.6 2.0 1.7 1.4 1.2 3.6	4.6 2.9 2.4 4.3 3.1 2.3	1.9 1.5 1.2 0.9 1.2 1.7	1.5 1.4 1.2 1.0 1.0 0.8	1.5 Z=4 Z=2 1.6 1.5 1.2	1.2 1.0 1.0 1.0 1.0 0.8	2.5 2.3 2.5 3.1 2.6 2.4	2.2 167 165 1.2 0.9 0.7
PERIOD  1- S 6-10 11-15 16-20 21-25 26-END MEAN	JAM 1.2 1.0 2.1 1.7 1.5 1.2 1.5 1.4 1.5	FEB 1.0 2.0 3.7 2.3 2.0 1.9 2.2	1.7 2.1 1.6 2.2 1.9 1.9	APR  2 + 6 5 - 5 5 + 8 4 + 4 3 3 + 2 3 + 9  4 PR	2.6 2.0 1.7 1.4 1.2 3.6	4.6 2.9 2.4 4.3 3.1 2.3	1.9 1.5 1.2 0.9 1.2 1.7	1.5 1.4 1.2 1.0 1.0 0.8	1.5 Z=4 Z=2 1.6 1.5 1.2	1.2 1.0 1.0 1.0 1.0 0.8	2.5 2.3 2.5 3.1 2.6 2.4	2.2 167 165 1.2 0.9 0.7
PERIOD 1-15 6-10 11-15 16-20 21-25 26-END REAN PERIOD 1-5 6-10 11-15 16-20 21-25 26-END	JAM  1.2 1.0 2.1 1.7 1.5 1.5 1.5 1.5  TEAR: 1976 JAH  0.6 0.6 0.6 0.6 0.6 0.6 0.6	FEB 1 - 0 2 - 0 3 - 7 2 - 3 2 - 0 1 - 9 2 - 2 FEB 0 - 2 G - 2 G - 2 G - 2 C - 2	HAR 1.7 2.1 1.8 1.0 2.2 1.9 1.9 ANNUAL REAN: HAR 0.2 0.7 2.0 3.0 3.0 3.1	APR  2.6 5.5 5.8 4.3 3.2 3.9  APR  1.9 2.0 1.8 1.8 1.8 2.4	HAY  2.0 2.0 1.7 1.4 1.2 3.0 2.1  HAY  2.0 1.7 1.4 1.2 3.0	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 4 0.7 0.5 0.4 0.4 0.4 0.4 0.4	1.9 1.5 1.2 0.9 1.2 1.7 1.4 JUL 0.6 0.9 2.5 2.7 2.9 4.2	1.5 1.4 1.2 1.0 0.8 1.2 Aug	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.5 1.2 1.8	1.2 1.0 1.0 1.0 0.8 1.0 0.8 1.0	2.5 2.3 2.5 3.1 2.6 2.6 2.6 4.3 6.2 3.8 3.5 2.9	2.2 167 162 0.9 0.7 123 bec
PERIOD 1-15 6-10 11-15 16-20 21-25 26-END REAN PERIOD 1-5 6-10 11-15 16-20 21-25 26-END	JAM  1.2 1.6 2.1 1.7 1.5 1.2 1.5 1.2 1.5  YEAR: 1976 JAH  0.6 0.4 0.4 0.4 0.6 0.6 0.6	FEB 1 - 0 2 - 0 3 - 7 2 - 3 2 - 0 1 - 9 2 - 2 FEB 0 - 2 G - 2 G - 2 G - 2 C - 2	HAR 1.7 2.1 1.8 1.0 2.2 1.9 1.9 ANNUAL REAN: HAR 0.2 0.7 2.0 3.0 3.0 3.1	APR  2.6 5.5 5.8 4.3 3.2 3.9  APR  1.9 2.0 1.8 1.8 1.8 2.4	HAY  2.0 2.0 1.7 1.4 1.2 3.0 2.1  HAY  2.0 1.7 1.4 1.2 3.0	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 4 0.7 0.5 0.4 0.4 0.4 0.4 0.4	1.9 1.5 1.2 0.9 1.2 1.7 1.4 JUL 0.6 0.9 2.5 2.7 2.9 4.2	1.5 1.4 1.2 1.0 0.8 1.2 Aug	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.5 1.2 1.8	1.2 1.0 1.0 1.0 0.8 1.0 0.8 1.0	2.5 2.3 2.5 3.1 2.6 2.6 2.6 4.3 6.2 3.8 3.5 2.9	2.2 167 162 0.9 0.7 123 bec
PERIOD 1-5 6-10 11-15 16-26 21-25 26-END 7EAN PERIOD 1-5 6-10 11-15 16-26 21-25 21-26 7EAN	JAM  1.2 1.0 2.1 1.7 1.5 1.2 1.5 1.5  TEAR: 1976 JAH  0.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4	FEB 1.0 2.0 3.7 2.3 2.0 1.9 2.2 2.2 5.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6	HAR  1.7 2.1 1.6 2.2 1.9 1.9 1.9 2.0 3.0 2.0 1.9	AFR  2.1 2.6 5.5 5.8 4.3 3.2 3.9  4.9 2.0 1.8 1.9 2.4 1.9	HAY  2.6 2.0 1.7 1.4 1.2 3.6 2.1  HAY  2.0 1.7 1.6 3.4 1.2 0.9	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 4 0.7 0.5 0.4 0.4 0.4 0.4 0.4	1.9 1.5 1.2 0.9 1.2 1.7 1.4 JUL 0.6 0.9 2.5 2.7 2.9 4.2	1.5 1.4 1.2 1.0 0.8 1.2 Aug	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.5 1.2 1.8	1.2 1.0 1.0 1.0 0.8 1.0 0.8 1.0	2.5 2.3 2.5 3.1 2.6 2.6 2.6 4.3 6.2 3.8 3.5 2.9	2.2 167 162 0.9 0.7 123 bec
PERIOD 1-5 6-10 11-15 16-20 21-25 26-END FEAN PERIOD 1-5 6-10 11-15 16-20 21-25 21-25 REAN	JAM  1.2 1.6 2.1 1.7 1.5 1.2 1.5 1.5  TEAR: 1976 JAH  0.6 0.6 0.6 0.6 0.6 0.4 VEAR: 1977	FEB 1.0 2.0 3.7 2.3 2.0 1.9 2.2 2.2 5.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6	HAR  1.7 2.1 1.6 2.2 1.9 1.9 1.9 ANNUAL REAN: HAR 0.2 0.7 2.0 3.0 2.0 1.9	AFR  2.1 2.6 5.5 5.8 4.3 3.2 3.9  4.8 1.9 2.0 1.8 3.5 1.8 2.4 1.9	HAY  2.6 2.0 1.7 1.4 1.2 3.6 2.1  HAY  2.0 1.7 1.6 1.4 1.2 0.9 1.5	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 3.3 0.7 0.5 0.4 0.4 0.6 0.6	1.0 1.5 1.2 0.9 1.2 1.7 1.4	1.5 1.4 1.2 1.0 0.8 1.2 Aug 3.5 2.6 1.3 1.3 2.6	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.2 1.8 3EP	1.2 1.0 1.0 1.0 0.8 1.0	2.5 2.3 2.5 3.1 2.6 2.6 2.6 2.6 2.6 2.6 3.8 3.5 2.9 2.4	2.2 147 143 142 0.9 027 123 2.0 2.0 2.0 2.0 2.0 2.1 4.3 3.4 4.6
PERIOD 1- 5 6-10 11-15 16-20 21-25 26-END MEAN  PERIOD 1- 5 6-10 11-15 16-20 21-26 21-26 PERIOD	JAM  1.2 1.6 2.1 1.7 1.5 1.2 1.5 1.2 1.5  TEAR: 1976 JAH  0.6 0.4 0.4 0.6 0.4 0.6 0.4 0.6 0.7 JAM  0.8	FEB 1.0 2.0 3.7 2.3 2.0 1.9 2.2 2.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2	HAR  1.7 2.1 1.6 2.2 1.9 1.9 1.9 ANNUAL REAN: HAR 0.2 0.7 2.0 3.0 2.0 1.9 1.0	AFR  2.1 2.6 5.5 5.8 4.3 3.2 3.9  G.9  APR  1.9 2.0 1.8 7.5 1.8 2.4 1.9	HAY  2.6 2.0 1.7 1.4 1.2 3.6 2.1  HAY  2.0 1.7 1.6 1.4 1.2 0.9 1.5	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 3.3	1.0 1.5 1.2 0.9 1.2 1.7 1.4	1.5 1.4 1.2 1.0 0.8 1.2 Aug	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.2 1.8 1.4	1.2 1.0 1.0 1.0 0.8 1.0	2.5 2.3 2.5 3.1 2.6 2.6 2.6 NOV	2.2 147 142 0.9 007 123 DEC 2.0 126 2.1 4.3 3.0
PERIOD 1- 5 6-10 11-15 16-20 21-25 26-END MEAN  PERIOD 1- 5 6-10 11-15 16-20 21-26 21-26 PERIOD	JAM  1.2 1.6 2.1 1.7 1.5 1.2 1.5 1.2 1.5  TEAR: 1976 JAH  0.6 0.4 0.4 0.6 0.4 0.6 0.4 0.6 0.7 JAM  0.8	FEB 1.0 2.0 3.7 2.3 2.0 1.9 2.2 2.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2	HAR  1.7 2.1 1.6 2.2 1.9 1.9 1.9 ANNUAL REAN: HAR 0.2 0.7 2.0 3.0 2.0 1.9 1.0	AFR  2.1 2.6 5.5 5.8 4.3 3.2 3.9  G.9  APR  1.9 2.0 1.8 7.5 1.8 2.4 1.9	HAY  2.6 2.0 1.7 1.4 1.2 3.6 2.1  HAY  2.0 1.7 1.6 1.4 1.2 0.9 1.5	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 3.3	1.0 1.5 1.2 0.9 1.2 1.7 1.4	1.5 1.4 1.2 1.0 0.8 1.2 Aug	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.2 1.8 1.4	1.2 1.0 1.0 1.0 0.8 1.0	2.5 2.3 2.5 3.1 2.6 2.6 2.6 NOV	2.2 147 142 0.9 007 123 DEC 2.0 126 2.1 4.3 3.0
PERIOD 1- 5 6-10 11-15 16-20 21-25 26-END MEAN  PERIOD 1- 5 6-10 11-15 16-20 21-26 21-26 PERIOD	JAM  1.2 1.6 2.1 1.7 1.5 1.2 1.5 1.2 1.5  TEAR: 1976 JAH  0.6 0.4 0.4 0.6 0.4 0.6 0.4 0.6 0.7 JAM  0.8	FEB 1.0 2.0 3.7 2.3 2.0 1.9 2.2 2.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2	HAR  1.7 2.1 1.6 2.2 1.9 1.9 1.9 ANNUAL REAN: HAR 0.2 0.7 2.0 3.0 2.0 1.9 1.0	AFR  2.1 2.6 5.5 5.8 4.3 3.2 3.9  G.9  APR  1.9 2.0 1.8 7.5 1.8 2.4 1.9	HAY  2.6 2.0 1.7 1.4 1.2 3.6 2.1  HAY  2.0 1.7 1.6 1.4 1.2 0.9 1.5	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 3.3	1.0 1.5 1.2 0.9 1.2 1.7 1.4	1.5 1.4 1.2 1.0 0.8 1.2 Aug	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.2 1.8 1.4	1.2 1.0 1.0 1.0 0.8 1.0	2.5 2.3 2.5 3.1 2.6 2.6 2.6 NOV	2.2 147 142 0.9 007 123 DEC 2.0 126 2.1 4.3 3.0
PERIOD 1- 5 6-10 11-15 16-20 21-25 26-END 7EAN PERIOD 1- 5 6-10 11-15 26-20 21-25 26-END 7EAN	JAM  1.2 1.6 2.1 1.7 1.5 1.5 1.5  TEAR: 1976  JAH  0.6 0.4 0.4 0.4 0.4 0.4 0.4 1.5  TEAR: 1977  JAN  5.5 4.1 2.5 1.8 1.4	FEB 1-0 2-0 3-7 2-3 2-0 1-9 2-2 0-2 0-2 0-2 0-2 0-2 0-2 0-2 0-2 0-2	HAR  1.7 2.1 1.6 2.2 1.9 1.9 1.9 2.0 3.0 2.0 2.0 3.0 1.9 1.6 ANHU4L MEAN: MAR 1.2 1.1 0.9 0.7 0.6 0.4	APR  2.1 2.6 5.5 5.8 4.3 3.2 3.9  APR  1.9 2.0 1.8 1.5 1.8 2.4  1.9  0.4 0.4 0.4 0.4 0.4	HAY  2.6 2.0 1.7 1.4 1.2 3.6 2.1  HAY  2.0 1.7 1.6 1.6 1.7 1.6 1.7 1.6 1.7 1.6 1.7 1.6 1.7 1.7 1.6 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3	1.0 1.5 1.2 0.9 1.2 1.7 1.4 JUL 0.6 0.9 2.5 2.7 2.7 2.7 2.7 2.7 4.2 2.4	\$.5 1.4 1.2 1.0 0.8 1.2 Aug 3.5 2.6 1.5 2.6 1.5 2.6 2.2	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.2 1.8 1.4 1.4 1.4 1.4	1.2 1.0 1.0 1.0 0.8 1.0 0.8 1.0 0.7 1.5 1.0 0.7 1.5 1.0 0.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1	2.5 2.5 2.5 3.1 2.6 2.6 2.6 2.6 3.8 3.5 2.9 2.4 3.5 3.5 3.5 3.5 3.5 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	2.2 147 142 0.9 0.7 123 2.0 2.0 2.0 2.0 2.1 4.3 3.4 4.6 3.9
PERIOD 1- 5 6-10 11-15 16-20 21-25 26-END 7EAN PERIOD 1- 5 6-10 11-15 26-20 21-25 26-END 7EAN	JAM  1.2 1.6 2.1 1.7 1.5 1.2 1.5 1.5  YEAR: 1976 JAH  0.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 1.5 1.5 1.8 1.6 0.4	FEB 1-0 2-0 3-7 2-3 2-0 1-9 2-2 0-2 0-2 0-2 0-2 0-2 0-2 0-2 0-2 0-2	HAR  1.7 2.1 1.6 2.2 1.9 1.9 1.9 2.0 3.0 2.0 2.0 3.0 1.9 1.6 ANHU4L MEAN: MAR 1.2 1.1 0.9 0.7 0.6 0.4	APR  2.1 2.6 5.5 5.8 4.3 3.2 3.9  APR  1.9 2.0 1.8 1.5 1.8 2.4  1.9  0.4 0.4 0.4 0.4 0.4	HAY  2.6 2.0 1.7 1.4 1.2 3.6 2.1  HAY  2.0 1.7 1.6 1.6 1.7 1.6 1.7 1.6 1.7 1.6 1.7 1.6 1.7 1.7 1.6 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3	1.0 1.5 1.2 0.9 1.2 1.7 1.4 JUL 0.6 0.9 2.5 2.7 2.7 2.7 2.7 2.7 4.2 2.4	\$.5 1.4 1.2 1.0 0.8 1.2 4.2 Aug 2.5 2.6 1.5 2.6 1.5 2.6 2.2	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.2 1.8 1.4 1.4 1.4 1.4	1.2 1.0 1.0 1.0 0.8 1.0 0.8 1.0 0.7 1.5 1.0 0.7 1.5 1.0 0.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1	2.5 2.5 2.5 3.1 2.6 2.6 2.6 2.6 3.8 3.5 2.9 2.4 3.5 3.5 3.5 3.5 3.5 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	2.2 147 142 0.9 0.7 123 2.0 2.0 2.0 2.0 2.1 4.3 3.4 4.6 3.9
PERIOD 1-5 6-10 11-15 16-20 21-25 26-END 7EAN PERIOD 1-5 6-10 11-15 16-20 21-25 26-END 7EAN	JAM  1.2 1.0 2.1 1.7 1.5 1.5 1.5  1.5  TEAR: 1976  JAH  0.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 1.7 1.5 1.5  TEAR: 1977  JAN  5.5 4.1 2.5 1.8 1.4	FEB 1.0 2.0 3.7 2.3 2.0 1.9 2.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2	HAR  1.7 2.1 1.6 2.2 1.9 1.9 1.9 2.0 3.0 2.0 3.0 2.0 1.9 1.6 ANMUAL MEAN: MAR 1.2 1.1 0.9 0.7 0.6 0.4	AFR  2-1 2-6 5-5 5-8 4-3 3-2 3-9  APR  1.9 2-0 1.8 2-4 1.9 2-4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.	HAY  2.6 2.0 1.7 1.4 1.2 3.6 2.1  HAY  2.0 1.7 1.6 1.2 1.6 1.6 1.7 1.6 1.7 1.0 1.7 1.0 1.7 1.0 1.7 1.0 1.7 1.0 1.7 1.0 1.7 1.0 1.7 1.0 1.7 1.0 1.7 1.0 1.7 1.0 1.7 1.0 1.7 1.0 1.0 1.7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3	1.0 1.5 1.2 0.9 1.2 1.7 1.4 JUL 0.6 0.9 2.5 2.7 2.7 2.7 2.7 2.7 4.2 2.4	\$.5 1.4 1.2 1.0 0.8 1.2 4.2 Aug 2.5 2.6 1.5 2.6 1.5 2.6 2.2	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.2 1.8 1.4 1.4 1.4 1.4	1.2 1.0 1.0 1.0 0.8 1.0 0.8 1.0 0.7 1.5 1.0 0.7 1.5 1.0 0.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1	2.5 2.5 2.5 3.1 2.6 2.6 2.6 2.6 3.8 3.5 2.9 2.4 3.5 3.5 3.5 3.5 3.5 3.5 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6	2.2 147 142 0.9 0.7 123 2.0 2.0 2.0 2.0 2.1 4.3 3.4 4.6 3.9
PERIOD  PERIOD  PERIOD  1-5 6-10 71-15 76-20 71-15 76-20 71-25 76-10 71-25 76-10 71-25 76-10 71-25 76-10 71-25 76-10 71-25 76-10 71-25 76-10 71-25 76-10 71-25	JAM  1.2 1.6 2.1 1.7 1.5 1.2 1.5 1.5  YEAR: 1976 JAH  0.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 3.1 3.1 3.1 3.1 3.6  YEAR: 1978 JAM	FEB 1.0 2.C 3.7 2.3 2.0 1.9 2.2 6.2 6.2 6.2 6.2 6.2 6.5 6.7 6.8 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9	HAR  1.7 2.1 1.6 2.2 1.9 1.9 1.9 2.0 7 2.0 3.0 3.0 2.0 1.9 1.6 ANNUAL MEAN: MAR 1.2 1.1 0.9 0.7 0.6 0.6 ANNUAL MEAN:	AFR  2.1 2.6 5.5 5.8 4.3 3.2 3.9  G.9  APR  1.9 2.0 1.8 2.4 1.9 2.0 6.4 G.4 G.4 G.4 G.4 G.4 G.4 G.4 G.4 G.4 G	HAY  2.6 2.0 1.7 1.4 1.2 3.6 2.1  HAY  2.0 1.7 1.6 1.4 1.2 0.9 1.5  MAY	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3	1.9 1.5 1.5 1.2 0.9 1.2 1.7 1.4 JUL 0.6 0.9 2.7 2.7 2.7 2.7 4.2 7.4	1.5 1.4 1.2 1.0 0.8 1.2 Au6 3.5 2.4 1.3 1.5 1.5 2.6 2.2	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.2 1.6 1.3 1.2 1.4 1.4 1.4 1.4 1.4 1.6 1.7 1.6 1.7 1.7 1.6 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	1.2 1.0 1.0 1.0 0.8 1.0 0.8 1.0 0.7 5.1 5.0 4.7 5.1 5.0 4.7 5.1 5.0 4.7 5.1 5.0 4.2	2.5 2.3 2.5 3.1 2.6 2.6 2.6 2.6 3.5 2.9 2.9 2.9 2.9 1.7 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6	2.2 147 143 152 0.9 0.7 123 0.9 124 4.3 3.4 4.6 3.0 0.7 1.7 1.2 0.9 0.7 1.9
РЕRIOD	JAM  1.2 1.6 2.1 1.7 1.5 1.2 1.5 1.5  YEAR: 1976  JAH  0.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.5 1.5  YEAR: 1977  JAN  5.5 4.1 3.1 2.5 1.8 3.6  YEAR: 1978  JAN	FEB 1.0 2.C 3.7 2.3 2.0 1.9 2.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2	HAR  1.7 2.1 1.6 2.2 1.9 1.9 1.9 ANNUAL REAN: HAR  0.2 0.7 2.0 3.0 2.0 1.9 1.0 4 ANNUAL HEAN: MAR 1.2 1.1 0.9 0.7 0.6 G.4 0.6	APR  2.1 2.6 5.5 5.8 3.2 3.9  G.9  APR  1.9 2.0 1.8 2.4 1.9  J.6 APR  C.4 G.4 G.4 G.4 G.4 G.4 G.4 G.4 G.4 G.4 G	HAY  2.6 2.0 1.7 1.4 1.2 3.6 2.1  HAY  2.0 1.7 1.6 1.4 1.2 0.9 1.5  MAY  0.2 0.4 1.6 1.7 1.0  MAY	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3	1.0 1.5 1.5 1.2 0.9 1.2 1.7 1.4 JUL 0.6 0.9 2.5 2.7 2.9 4.2 2.4 4.2 2.4	1.5 1.4 1.2 1.0 0.8 1.2 Aug 1.2 Aug 0.2 1.5 2.6 2.2	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.2 1.6 1.3 1.2 1.4 1.4 1.4 1.4 1.4 1.4 1.6 1.7 1.7 1.6 1.7 1.7 1.7 1.7 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	1.2 1.0 1.0 1.0 0.8 1.0 0.8 1.0 0.7 5.1 5.0 4.7 5.1 5.0 4.2	2.5 2.3 2.5 3.1 2.6 2.6 2.6 2.6 3.5 2.9 2.4 3.5 2.9 2.4 3.5 1.7 2.0 2.0	2.2 167 162 0.9 007 123 DEC 2.0 166 2.1 4.3 3.4 4.6 3.0 DEC
РЕRIOD	JAM  1.2 1.6 2.1 1.7 1.5 1.2 1.5 1.5  YEAR: 1976  JAH  0.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.5 1.5  YEAR: 1977  JAN  5.5 4.1 3.1 2.5 1.8 3.6  YEAR: 1978  JAN	FEB 1.0 2.C 3.7 2.3 2.0 1.9 2.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2	HAR  1.7 2.1 1.6 2.2 1.9 1.9 1.9 ANNUAL REAN: HAR  0.2 0.7 2.0 3.0 2.0 1.9 1.0 4 ANNUAL HEAN: MAR 1.2 1.1 0.9 0.7 0.6 G.4 0.6	APR  2.1 2.6 5.5 5.8 3.2 3.9  G.9  APR  1.9 2.0 1.8 2.4 1.9  J.6 APR  C.4 G.4 G.4 G.4 G.4 G.4 G.4 G.4 G.4 G.4 G	HAY  2.6 2.0 1.7 1.4 1.2 3.6 2.1  HAY  2.0 1.7 1.6 1.4 1.2 0.9 1.5  MAY  0.2 0.4 1.6 1.7 1.0  MAY	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3	1.0 1.5 1.5 1.2 0.9 1.2 1.7 1.4 JUL 0.6 0.9 2.5 2.7 2.9 4.2 2.4 4.2 2.4	1.5 1.4 1.2 1.0 0.8 1.2 Aug 1.2 Aug 0.2 1.5 2.6 2.2	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.2 1.6 1.3 1.2 1.4 1.4 1.4 1.4 1.4 1.4 1.6 1.7 1.7 1.6 1.7 1.7 1.7 1.7 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	1.2 1.0 1.0 1.0 0.8 1.0 0.8 1.0 0.7 5.1 5.0 4.7 5.1 5.0 4.2	2.5 2.3 2.5 3.1 2.6 2.6 2.6 2.6 3.5 2.9 2.4 3.5 2.9 2.4 3.5 1.7 2.0 2.0	2.2 167 162 0.9 007 123 DEC 2.0 166 2.1 4.3 3.4 4.6 3.0 DEC
РЕRIOD	JAM  1.2 1.6 2.1 1.7 1.5 1.2 1.5 1.5  YEAR: 1976  JAH  0.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.5 1.5  YEAR: 1977  JAN  5.5 4.1 3.1 2.5 1.8 3.6  YEAR: 1978  JAN	FEB 1.0 2.C 3.7 2.3 2.0 1.9 2.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2	HAR  1.7 2.1 1.6 2.2 1.9 1.9 1.9 ANNUAL REAN: HAR  0.2 0.7 2.0 3.0 2.0 1.9 1.0 4 ANNUAL HEAN: MAR 1.2 1.1 0.9 0.7 0.6 G.4 0.6	APR  2.1 2.6 5.5 5.8 3.2 3.9  G.9  APR  1.9 2.0 1.8 2.4 1.9  J.6 APR  C.4 G.4 G.4 G.4 G.4 G.4 G.4 G.4 G.4 G.4 G	HAY  2.6 2.0 1.7 1.4 1.2 3.6 2.1  HAY  2.0 1.7 1.6 1.4 1.2 0.9 1.5  MAY  0.2 0.4 1.6 1.7 1.0  MAY	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3	1.0 1.5 1.5 1.2 0.9 1.2 1.7 1.4 JUL 0.6 0.9 2.5 2.7 2.9 4.2 2.4 4.2 2.4	1.5 1.4 1.2 1.0 0.8 1.2 Aug 1.2 Aug 0.2 1.5 2.6 2.2	1.5 2.4 2.2 1.6 1.5 1.2 1.8 1.2 1.6 1.3 1.2 1.4 1.4 1.4 1.4 1.4 1.4 1.6 1.7 1.7 1.6 1.7 1.7 1.7 1.7 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	1.2 1.0 1.0 1.0 0.8 1.0 0.8 1.0 0.7 5.1 5.0 4.7 5.1 5.0 4.2	2.5 2.3 2.5 3.1 2.6 2.6 2.6 2.6 3.5 2.9 2.4 3.5 2.9 2.4 3.5 1.7 2.0 2.0	2.2 167 162 0.9 007 123 DEC 2.0 166 2.1 4.3 3.4 4.6 3.0 DEC
PERIOD  1- 5 6-10 11-15 16-20 21-25 26-END  PERIOD  PERIOD  1- 5 6-10 11-15 16-20 21-25 26-END  PERIOD  1- 5 6-10 11-15 16-20 21-25 26-END	JAM  1.2 1.6 2.1 1.7 1.5 1.2 1.5 1.5  YEAR: 1976 JAH  0.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 3.1 3.1 3.1 3.1 3.6  YEAR: 1978 JAM	FEB 1.0 2.7 2.3 2.0 1.9 2.2 2.2 4 4 6 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	HAR  1.7 2.1 1.6 2.2 1.9 1.9 1.9 2.0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 0.7 2.0 3.0 0.7 0.6 0.9 0.7 0.6 0.8  ANNUAL MEAN : MAR  1.2 1.1 0.9 0.7 0.6 0.6  ANNUAL MEAN :	APR  2-1 2-6 5-5 5-8 4-3 3-2 3-9  APR  1-9 2-0 1-8 7-8 7-8 7-8 APR  C-4 C-4 C-4 C-4 C-4 C-4 C-4 C-4 C-4 C-	HAY  2.6 2.0 1.7 1.4 1.2 3.6 2.1  HAY  2.0 1.7 1.6 1.4 1.2 0.9 1.5  NAY  0.2 0.4 1.6 1.6 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	4.6 2.9 2.4 4.3 3.1 2.3 3.3 3.3 3.3 3.0 3.0 3.0 3.0 3.0 3.0 3	1.0 1.5 1.2 0.9 1.2 1.7 1.4 JUL 0.6 0.9 2.5 2.7 2.9 4.2 2.4 3.4 3.1 1.0 1.0	1.5 1.4 1.2 1.0 0.8 1.2 1.0 0.8 1.2 2.6 1.5 2.6 2.6 2.6 2.5 1.5 2.5 1.5 2.5 1.8	1.5 2.4 2.2 1.6 1.5 1.5 1.6 1.5 1.6 1.5 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6	1.2 1.0 1.0 1.0 1.0 0.8 1.0 0.8 1.0 0.7 1.6 3.2 5.0 4.7 5.1 5.0 4.2 4.7 5.1 5.0 4.2 4.7 5.1 5.0 4.2 4.7 5.1 5.0 4.2 4.7 5.0 4.2 4.7 5.0 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3	2.5 2.3 2.5 3.1 2.6 2.6 2.6 2.6 3.5 2.9 2.4 3.5 2.9 2.4 3.5 1.5 1.6 1.7 2.0 1.8 1.9 1.9 1.9 1.9 1.9	2.2 167 162 0.7 123 0.7 123 0.6 2.0 1.0 2.1 4.3 3.0 0.7 1.2 0.9 0.7 1.7 1.2 0.9 0.7 1.2 0.9 0.7

Table 16 5-DAY INFLOW DISCHARGE AT MACAP DAM (3/3)

<del>▗</del> ▗▄▄▄▘▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗▗				
1-5 2.8 0.7 0.4 2.4 2.5 3.6 1.3 2.2 6-10 2.9 0.6 0.6 3.1 2.0 C.6 1.1 1.7 19-15 2.2 0.5 0.6 4.5 1.6 0.8 0.8 1.4	SEP	0.00	HOY	DEC
14-15 2.2 0.5 0.8 4.5 1.6 0.8 0.8 1.6	2.4	1.4 1.1 0.8 0.9	5.5	567
	5.3	0.8	2.7	3.6
16-25 1.7 6.4 9.7 3.0 1.3 2.2 0.6 1.1 21-25 1.3 0.4 0.9 2.4 1.0 2.2 1.0 0.8	2.0	0.9 1.7	3.0 6.7	2.0 1.4
26-END 1.C C.4 1.2 2.6 1.7 1.6 2.7 2.6	1.9 1.6	2.5	6.7 10.6	1.0
		1.4		
and the state of the				
YEAR : 1980 ANNUAL MEAN : 1.0 Period jan feb mar apr may jun jul aug	***	aer.	MAV	NEC
<sub>○──</sub>		*****		
1-5 0.7 1.0 0.6 1.2 2.8 2.9 1.0 0.6 6-10 0.6 0.5 0.6 1.2 3.2 3.2 0.7 0.9	1.7	3 • 3 3 • 2	3.1 3.5	4 a 6 5 a 7
6-90	2.3 2.1 1.8	3.0	3.0	4 2 3 5
	3.8	5*9	3 . 4 5 . 5	2.9
21-25 2.5 0.6 1.0 Se2 1.5 1.7 0.6 2.4 26-EHD 1.4 C.6 1.C 2.9 2.6 1.3 0.6 1.9	4.2	2.7		2.3
MEAN 1.2 0.7 0.6 2.2 2.4 2.3 0.7 2.0	2.7	3,0	4.0	3,8
ANNUAL NEW 2				
D <sub>o</sub> l : 1881 ANNUAL MEAN : D <sub>o</sub> l : 1887 Period Jan feb mar Apr you jul Jul Aug	<b>5</b> EP	OCT	NOV	9EC
1+5 2.0 0.7 0.6 1.5 4.6 1.7 0.6 1.3 6-10 1.7 0.6 1.3 1.15 1.5 0.6 0.7 3.1 4.2 1.4 0.4 1.2 11+15 1.5 0.6 0.8 6.2 3.5 1.1 0.4 1.0 1.2 1.5 0.6 0.8 6.2 3.5 1.1 0.4 1.0 1.2 1.2 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	0.6	1.2	3.6	2.5
91-15 1.5 0.6 0.6 6.2 3.5 1.1 0.4 1.0 96-26 3.3 6.6 0.6 5.1 3.0 0.9 0.7 0.7	2.0	1.6	2.6	4.0 13.1
1+5 2.0 0.7 0.6 1.5 4.6 1.7 0.6 1.3 6-10 1.7 0.6 0.7 3.1 4.2 1.4 0.4 1.2 11.15 1.5 0.6 0.8 6.2 3.5 1.1 0.4 1.0 16-2C 1.3 6.6 0.6 5.1 3.0 0.9 0.7 0.7 27-25 1.1 0.4 0.6 5.0 2.6 0.7 1.4 0.6 26-ENO 0.9 0.5 1.0 5.2 2.2 G.6 1.5 0.4	1.9	1.6	5 . 5	4.9
MEAN 1.4 0.6 0.7 4.5 3.3 1.1 0.9 0.8	1.5	1.0	235	5.3
YEAR: 1982 ANNUAL MEAN: 1.0 PERIOD JAN FEB MAR APR MAY JUN JUL AUG	SEP	061	NOV	PEC
1-5 2.4 0.5 1.0 1.7 2.9 3.8 1.0 1.2 6-10 1.7 0.4 0.9 3.6 2.3 3.2 0.8 0.9 11015 1.3 0.4 1.2 2.6 1.9 2.5 0.7 2.2	1.5 1.3 1.0	0.4	3.7	
6-10 1-7 0.4 0.9 3.6 2.3 3-2 0.8 0.9 11015 1,3 0.4 1.2 2.6 1.9 2.5 0.7 2.2 16-20 1.9 0.4 1.7 3.0 1.5 2.8 1.3 4.5	1.3	0.4 0.4 0.5	2.9 2.5	2 5 3 0
21-025 Ua/ Uay 3ef 3ef 1a6 lef lef 3ef	V.	140	2.5 4.1	7.04
2 6 4 6 5 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5	0=6 1=2		5.2	5 8 4 • 7
MEAN 1.3 0.6 1.3 3.0 2.2 2.5 1.1 2.4	102		3 8 8	7.
	_	-		-
YEAR : 1983 ANNUAL MEAN : C.B PERIOD JAN FEB MAR APR MAY JUN JUL AUG	SEP	. ост	*04	966
6-10 2-6 0-7 0-4 0-2 0-6 0-8 1-0 1-0	5.5	1.9	5.2	192 290
1\$015 \ ZeO Oe6 Vo4 Vo2 Te3 Vo9 Ko4 Fe3	4.8	1.1	2.8	1.0
14-20 1-7 0-5 0-4 0-2 1-2 0-7 1-9 1-3	5.2 4.8 3.8 2.9	2.5 1.9 1.5 1.1 1.7 2.4	2.2 1.8	3 0 9 7
1-5 3.4 0.9 0.4 0.2 0.2 1.0 0.4 1.2 6-10 2.6 0.7 0.4 0.2 0.6 0.8 1.0 1.0 1.0 1.1 1.1 1.1 1.1 1.2 1.3 1.4 1.2 1.5 0.8 1.0 1.0 1.0 1.0 1.0 1.0 1.5 2.0 0.5 0.4 0.2 1.5 0.8 2.2 1.3 1.4 0.5 0.4 0.2 1.2 0.7 1.9 1.3 21-25 1.4 0.4 0.2 0.2 1.2 0.6 1.8 3.5 1.5 2.4		1.9	5.5	3.4
SOURCE (8) USA OTE SET AND THE				
REAN 2.0 0.6 0.3 0.2 1.0 0.8 1.5 1.8				
REAN 2.0 Q.6 Q.3 Q.2 1.0 Q.8 1.5 1.8  YEAR : 1984 ANNUAL MEAN : 1.4  PERIOD JAN FEB MAR APR MAY JUN JUL AUG	SEP	oct		ÞEC
#EAM 2.0 0.6 0.3 0.2 1.0 0.8 1.5 1.8  YEAR: 1984 ANNUAL MEAN: 1.4  PERIOD JAN FEB MAR APR MAY JUN JUL AUG				
#EAM 2.0 0.6 0.3 0.2 1.0 0.8 1.5 1.8  YEAR: 1984 ANNUAL MEAN: 1.4  PERIOD JAN FEB MAR APR MAY JUN JUL AUG				
MEAM 2.0 0.6 0.3 0.2 1.0 0.8 1.5 1.8  YEAR : 1984 ANNUAL MEAN : 1.4  PERZOD JAN FEB MAR APR MAY JUN JUL AUG				
REAM 2.0 0.6 0.3 0.2 1.0 0.8 1.5 1.8  YEAR : 1984 ANNUAL MEAN : 1.4  PERIOD JAN FEG MAR APR MAY JUN JUL AUG	1.0 0.8 0.8 0.8 0.8	2+5 2+5 2+1 1+7 1+3 1+5	2.1 2.6 2.6 3.2 5.5 4.7	3v3 325 2v8 2v2 2v7 3v8

Table 17 RESULT OF RESERVOIR OPERATION OF MACAP DAM (HYDROLOGICAL CONDITION OF 1971)

		i livi.	12, 13		LUL	12 \ C	, u	, µ, ∧ n z · , ⇒	2005 CASE tofunt bar RESERVOII	STORAG	e voluil	E ,2611	. t - OU 1	Γ				OYHS ====== Illon		1   3   1   1   1   1   1   1   1   1
1971 (411)	. 911	1 K R .	1444	7-#-	PAHS	DANI	.H.J.	(#40 	bani Lacat	[HCH].		0.41	((85)_		1158	31		ichs)		_(CH3) <sub>%</sub>
12 2 1 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2	0 , 5 _ D ,	û,	15,8 15,8. 15,8	-0,-		15.6 15.8	0	0,1	10,40	0, 0, 0, 0,	0, 0, 0, 0,	11,4 11,9 3:4 0,8 0,2 0,2	 0 	o,		0, 0,	0, 0, 0,	0, 0, 0,	0, 0, 0, 0, 0,	0 0 0 0 0
1 - 5 6 = 16 1 - 15	0.5	0, 0, 0, 0,	15,8 15,8 15,7 15,5	0. 0. 0. 0.	0. _0. _0. _0.	15.8 15.7 15.5 15.4 15.3	0. 0. 0. 0.	0, 0, 0,	10.7( 9.1) 9.1) 8.48 8.17	0. 6, 0, 0,	0. 0. 0. 0. 0. 0.	0,1	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, 0, 0, 0, 0	0; 0, 0, 0.	0,
HAR 1 = 1 1 = 15 10 = 25 21 = 25 20 = ENS BON INL	0.1 0.1 0.4 0.6 0.2	0, 0, 0,	15,7 15,8. 15,7 15,7 15,8	 0 0	0, 0, 0,	15.2 15.7	0  0 0		2.86 10,16 10:16 10:06 10:40 10:40	0 0 0 0	0. 0. 0. 0. 0.	0. 0. 0. 0.	0 0 0 0 0	_ 0, 0	0,1 0,1 0,7 0,7 0,8 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; 0; 0; 0;	0, 0, 0, 0, 0,
6 = 10	0,1 0,2 0,2 0,7 0,7	0, 0, 0,	15.A. 15.5 15.6. 15.8		û	.15.8. 15.6		0,	10.40 -10.50 -10,40 -10.32 -2.97 -9.16	0. 0. 	0. 0. 0. 0. 0.	0. 	0, 0, 0, 0,	0, 0, 0, 0,	1,0 0,4 0,4 0,4 1,0	ο,	0, 0, 0, 0, 0,	0. 0. 0. 0. 0.	0, 0, 0, 0, 0,	0, 0, 0, 0, 0,
11=-15 10- 26 	1,1	Q	15,5	0,	ō.	35,3	0.	Ď.,	7,80 -0,95 -0,15 -5,20 -4,36	0, 0, 0, 0,	0, 0, 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	01 	0, 1 0, 2 0, 1	0, 0, 0, 0, 0,	0, 0, 0, 0, 0,	0, 0, 0, 0, 0,
104 11-15 11-15 11-25 24-26 26-26 20-111-110	0.7	0, 0,	13.19 13.16. 13.16.	10.	:0.L	13.9	.o.	_0:_		0,	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. 0. 0.	0, 0, 0, 0,	01
11 <u></u> 11 25 - 61 2125	1.0	0. 0. 0. 0.	13.8 13.4. 12.9 12.8. 12.8	0. 0. _0. _0. _	0, _0, _0,	13.4 12.9. 12.8 12.6.	0. _0. _0.	0. 0.	1.44 6.97 6.19 0.	a,	0. 0. 0. 0.	0. 0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0.5	0. 0. 0. 0.	0.1 0.2 0.0 0.0	0. 0. 0. 0. 0.	0. 0. 0.	0. 0. 0. 0. 1.2 0.B
4 = 10 11 = 15 _]4 = 20 21 = 25 _24 = END HOW THILT	0.8 2_0.1 5 0.3 1_0 0.4 1.0	0 0 0 0	12.6 12.6 13.9 13.9 13.1	0. 0. 0. 0.	0 0 0 0	13.0 13.2 14.1	0. 0. 0. 0.	0. 0. 0,	2.99 2.99	0	0, 0	υ,	0, 0, 0,	0. 0. 0,	0 0. 0.4. 0.9	0, 0, 6, 0,		 0 0	0, 0, 0, 0, 0,	16.1 0.1 0.1 0.1
21 = 25 24 <b>-</b> END	0.2 0. 0. 0.3	0. 0.	14.3 14.3 14.6 14.6 14.9	0. 0. 0.	0 0 0 0	14.6 14.6 14.9 14.9	0    	0. 0. 0. 0.	4.02	0. 0. 0.	0. 0	0. 0. 0. 0.	0 0 0 0 0	0. 0. 0. 0.	O,	0. 0. 0. 0.		0. 0. 0.	0, 0, 0, 0,	0 0 0 0
11- 15 11- 15 142-20 11- 25	0,7 - 0,9 - 0,8 - 0.8 - 0,	0. 0. 0.	14.7 14.5 14.5 14.5	0. 	0, 	16.5 16.5 16.7 15.7	0, 0, 0.	0. _0. _0.	4,51 4,51 	0. 0. 0. 0.		0. 0. 0. 0.	0 _0 _0 _u	0, 0,	0.8 1.0 0.9 0.9	0. 0. 0.	0, 0,	0, 0, 0,	0. 0. 0. 0.	0, 0,
HOV 1=_5 4-10 -11=-15	0.4 0.7 0.7 0.7 0.7	0 0 0	16.2 16.6 16.5 16.5	0.	 0, 	14.6 14.6 14.6 14.6 14.6	0, 0, 0,			0, 0, 0, 0,	û,	0,	ú	<u>ū</u> ,	0, 2 0, 8 0, 2 0, 8					0,
14 - 20	0.8	0	1 6	6.	0,	14.2 14.1 14.6	0. 0.	0. 0, 0.	3,23	0 . 4 ,	0. 6. 0.	0, 0, 0, 0.4_	0. a.  0.,	0, 0, 0,	0,9 0.8. 0.	0, -0,-	û. û. û. û.		0.	0 0 0

	YEAR : 1963		ANNUAL MEAN :	: 13.6								
PERSOD			MAR	APR	427	JUN	JUL	3114	\$EP	710	NOV	986
	*****	12.6*	21.24	19,34	*****	13.8*	6.44	*****	7.6±	19.34	*****	*****
6-10 11-15	16.74	9.24	14.0*	13.54	3.2. 7.9.	44 7.	5.8* 5.2*	10.3*	8.04 9.34	16.3* 13.6	35.2» 24.2	27-0*
16-20 21-25	13.5*	7.9. 9.3*	11.0* 9.0* 11.0* 23.3*	20.14 14.7*	9.34	9.5* 8.3*	4.7*	9,30 8,26 7,84	7.3 17.8*	19.64	31.9± 23.5*	16.6*
50-END	1143		****	******			5.0* 10.9*	13.14	21.94	25.14	2714*	30.8*
REAN	15.9	12.1	17.1	15.5	11.9	10.2	6.5	10.2	12.0	18.7		
	TEAR : 1964	1	ANNUAL MEAN	19.9								
	JAN		HAR	APR	HAY	JUN	10.	AUG			HOV	336
1- 5	25.8+	13.6*	130.3*	17.2*	46.6*	11-6*	9,44	15.5	14.9+	5.3=	10.4*	6.0*
11-15	21.8+ 14.0+ 9.1+ 22.4+	14.34	88.5* 62.8*	42.8*	43.1*	10.0	12.50 11.8* 16.3*	7.24 7.24 7.34 6.54	23.2*	12.0* 6.2*	6.6* 5.7*	2.6* 4,9* 8.1*
21-25	33.6*	10.3* 11.6* 75.4*	32.14 .22.14	75.4.	16.54	7.2* 8.9* 6.4*	20 04	A-54	20.7* 14.9* 9.4*	18 54	3.5+	70.04
HEAR		*==<====	62.2		~~~~~~	9.1	,,		*******	13.2*	549* 7-2	82.7°
	-		*****	:		•••		•••		,		30,40
												÷
	YEAR : 1965		ANNUAL MEAN :									
46100			MAR									
6-10	70.7* 33.2*	7.8. 7.5	5.7.* 3.0.≠	6.7* 8.4*	12.6*	13.8* 10.7*	6.9* 5.0*		7.1°		35.8	3919* 31-64
11-15 16-20	21.6*	10.9* 9.5*	4.6* 3.9*	9=6* 10=5*	15 .0 * 32 .6 *	8.1. 10.1.	7.6* 5.1*	6:5: 7:1: 7:6: 8:3: 8:1:	8.8	25 - 9 ± 23 - 5 +	28;3+ 35:8+	3567* 3974*
21-25 26+END	10.8* 8.5*	7.8* 8.1*	5.5* 4.8*	12.1+	39,5€	7.2*	4.9	8.1±	8,52 6,22 8,80 9,44 9,30	25.8= 48.5=	3725* 4527*	3141# 3442#
	26.0	8.6		9.7			5.7			25.4		
· · · · ·												
	YEAR : 1966		ANRUAL MEAN :	16.4								
PERIOD	HAL	###	nlr	APR	HAY	มบห	. 101	AUG	ZEP	0£T	HOV	DEC
1= 5	28-9*	14.7*	8.64	8,5=	25,2*	19.9*	9.3+	15.84	50 <b>-</b> 0+	44 0.	15.90	
	28.9* 21.2* 24.8*	10.3*	8.6* 17.9* 11.30 10.3* 13.7* 10.1*	12.6* 23.9*	15.9*	20.2* 16.4*	14.4*	19.4+ 17.2+	14.9° 17.0°	16.2	22.24 39.0±	27.1* 39.1*
16-20 21-25		10.94 11.04 8.5	10.3± 13.7±	18.4*	11.44	13.8*	21.4.	19.8	11.9* 13.8*	27'.9* 27.7°	74 74	30.40
26+EHD											33.0+	F4084454
MEAN	23.0	11.4	11.9	17.7	14.6	13.3	17.0	18.8	14.7	19.1	27.49	30.6
					•							
						•						
	TEAR : 1967		ANRUAL MEAN					-				
PER100	JAN	₹E8	NAR	APR	RAT			Aug		: OCT	NOV	
PER100 1- 5 6-10	JAN 34,1*	₹E8	NAR	APR	RAT				6.94	6.8a 6.9*	19.0+	31.14 26.7*
PERIOD 1-5 4-10 11-15 16-20	JAN 34,1* 32,6* 84,7* 65,3*	₹E8	NAR	APR	RAT				6.9± 7.5± 7.0± 5.8±	6.89 6.9* 7'2* 6.6*	19.0+ 19.7± 25.5+ 30.2+	31414 26474 5344 15500
PERIOD 1- 5 6-10 11-15	JAN J4,1± 32,6± 84,7± 65,3*	₹E8	NAR	APR	RAT			6.3* 5.6* 6.8* 7.1* 6.0*	6.9* 7.5* 7.0* 5.8* 6.2*	6.89 6.99 7.24 6.64 9.54 10.24	19.0+ 19.7+ 25.5+	3141* 2647* 5344* 15560* 7949* 8546*
9- 5 6-10 11-15 16-20 21-25	JAH 34,1* 32,6* 84,7* 65,3* 31,3*	#E8 23.2* 14.8* 30.4* 118.9* 84.9*	NAR 54.1* 32.4* 26.2* 20.6* 18.8* 14.3*	APR 15.6* 15.2* 15.0* 16.1* 26.4* 31.7*	27.50 26.10 35.90 33.20 28.30 21.90	16:3* 12:8* 12:1* 23:3* 18:3*	11.0* 11.4* 13.4* 13.1* 10.7*	0.34 5.0= 0.8= 7.1= 0.0= 0.1=	6.9* 7.5* 7.0* 5.8* 6.2*	6.89 6.99 7.24 6.64 9.54 10.24	19.0+ 19.7+ 25.5+ 30.2+ 36.8+ 39.5+	3141* 2647* 5344* 15560* 7949* 8546*
PER100 14-15 4-10 11-15 16-20 21-25 26-END	34.1* 32.6* 84.7* 65.3* 31.3* 22.8*	fEB 23.2* 14.8* 30.4* 118.9* 84.9*	NAR 54.1* 32.4* 26.2* 20.6* 18.8* 14.3*	APR 15.6* 15.2* 15.0* 16.1* 26.4* 31.7*	27.50 26.10 35.90 33.20 28.30 21.90	16:3* 12:8* 12:1* 23:3* 18:3*	11.0* 11.4* 13.4* 13.1* 10.7* 7.4*	0.34 5.0= 0.8= 7.1= 0.0= 0.1=	6.9* 7.5* 7.0* 5.8* 6.2* 7.30	6.89 6.99 7.24 6.60 9.54	19.0+ 19.7± 25.5+ 30.2+ 36.28+ 39.5±	31.1° 26.7° 53.4° 155.0° 79.9° 85.6°
PER100 14-15 4-10 11-15 16-20 21-25 26-END	34.1* 32.6* 84.7* 65.3* 31.3* 22.8*	FEB 23.2* 14.8* 30.4* 118.9* 84.9* 43.7*	NAR 54.1* 32.4* 26.2* 20.6* 18.8* 14.3*	APR 15.64 18.24 15.04 16.14 20.44 21.73	27.50 26.10 35.90 33.20 28.30 21.90	16:3* 12:8* 12:1* 23:3* 18:3*	11.0* 11.4* 13.4* 13.1* 10.7* 7.4*	0.34 5.0= 0.8= 7.1= 0.0= 0.1=	6.9* 7.5* 7.0* 5.8* 6.2* 7.30	6.89 6.99 7.24 6.60 9.54	19.0+ 19.7± 25.5+ 30.2+ 36.28+ 39.5±	31.1° 26.7° 53.4° 155.0° 79.9° 85.6°
PERIOD  1-3 4-10 11-15 16-20 21-25 26-END  MEAN	JAN 34.1* 32.6* 84.7* 65.3* 31.3* 22.8*  44.4  YEAR: 1968	FEB  23.2* 14.8* 30.4* 118.9* 84.9* 33.7*	NAR  54-1* 32-4* 26-2* 20-0* 18-8* 27-6	APR 15.6* 15.2* 15.0* 16.1* 26.4* 31.7*  19.5	27.50 24.10 35.90 33.20 28.30 21.90 28.3	16.3* 12.8* 12.1* 23.3* 18.3* 14.2*	11.04 11.44 13.44 13.14 10.74 7.44	0.3° 5.6° 6.8° 7.1° 6.1° 6.1°	6.9* 7.5* 7.0* 5.8* 6.2* 7.30	6.83 6.95 7.22 6.66 9.54 10.22 7.9	19.0+ 19.7+ 25.2+ 30.2+ 36.8+ 39.3= 28.5	31.14 26.74 53.44 135.00 79.99 85.64
PERIOD  1-3 4-10 11-15 16-20 21-25 26-END  MEAN	JAN 34.1* 32.6* 84.7* 65.3* 31.3* 22.8*  44.4  YEAR: 1968	FEB  23.2* 14.8* 30.4* 118.9* 84.9* 33.7*	NAR  54-1* 32-4* 26-2* 20-0* 18-8* 27-6	APR 15.6* 15.2* 15.0* 16.1* 26.4* 31.7*  19.5	27.50 24.10 35.90 33.20 28.30 21.90 28.3	16.3* 12.8* 12.1* 23.3* 18.3* 14.2*	11.04 11.44 13.44 13.14 10.74 7.44	0.3° 5.6° 6.8° 7.1° 6.1° 6.1°	6.9* 7.5* 7.0* 5.8* 6.2* 7.30	6.83 6.95 7.22 6.66 9.54 10.22 7.9	19.0+ 19.7+ 25.2+ 30.2+ 36.8+ 39.3= 28.5	31.14 26.74 53.44 135.00 79.99 85.64
PERIOD  1-3 4-10 11-15 16-20 21-25 26-END MEAN	JAN 34.1* 32.6* 84.7* 65.3* 31.3* 22.8*  44.4  YEAR: 1968	FEB  23.2* 14.8* 30.4* 118.9* 84.9* 33.7*	NAR  54-1* 32-4* 26-2* 20-0* 18-8* 27-6	APR 15.6* 15.2* 15.0* 16.1* 26.4* 31.7*  19.5	27.50 24.10 35.90 33.20 28.30 21.90 28.3	16.3* 12.8* 12.1* 23.3* 18.3* 14.2*	11.04 11.44 13.44 13.14 10.74 7.44	0.3° 5.6° 6.8° 7.1° 6.1° 6.1°	6.9* 7.5* 7.0* 5.8* 6.2* 7.30	6.83 6.93 7.22 6.66 9.54 10.22 7.9	19.0+ 19.7+ 25.2+ 30.2+ 36.8+ 39.3= 28.5	31.14 26.74 53.44 135.00 79.99 85.64
PERIOD 21-25 26-END MEAN PERIOD 11-15 16-20 21-25 26-10 11-15 16-20 21-25 24-2	JAN  34.1* 32.6* 84.7* 65.3* 31.5* 22.8*  44.4  VEAR: 1968  JAN  206.9* 105.6* 55.5* 34.7* 25.3*	FEB 23.2* 14.8* 30.4* 118.9* 84.9* 43.7* 53.3	NAR  54-1* 32-4* 26-2* 20-6* 18-8* 27-6  ANNUAL MEAN  MAR  6-6* 16-7* 34-8* 39-8*	APR  15.6* 18.2* 18.2* 15.0* 16.1* 20.4* 31.7*  19.5  21.4  APR  41.7* 25.3* 21.5* 16.8* 17.6*	#AY  27.5+ 24.1+ 35.0+ 33.2+ 28.3+ 21.9+ 28.3  MAY  25.1+ 21.6+ 22.3+ 51.5+ 23.4+ 27.6+	16.3* 12.8* 12.1* 23.3* 18.3* 14.2* 16.2	11.04 11.44 13.44 13.14 10.74 7.44 11.1 15.04 12.44 10.34 9.64 9.84 9.14	0.30 5.00 6.30 7.10 6.11 6.11 6.3 406 8.22 7.40 8.37 8.30 7.11	6.94 7.52 7.08 5.68 6.28 7.30 6.3 SEP 0.02 5.02 7.28 30.02 21.22	6 - 8 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	19=0+ 19=7+ 25=3+ 30=2+ 30=2+ 30=2+ 30=5+ 26=5+ 26=5+ 47=7+ 32=0+ 29=3+	21-1- 26-7- 33-4- 33-60- 79-9- 85-6- 72-4- PEC 21-4- 20-7- 26-5- 38-10- 27-2-2
PERIOD 21-25 26-END MEAN PERIOD 11-15 16-20 21-25 26-10 11-15 16-20 21-25 24-2	JAN  34.1* 32.6* 84.7* 65.3* 31.5* 22.8*  44.4  VEAR: 1968  JAN  206.9* 105.6* 55.5* 34.7* 25.3*	FEB 23.2* 14.8* 30.4* 118.9* 84.9* 43.7* 53.3	NAR  54-1* 32-4* 26-2* 20-6* 18-8* 27-6  ANNUAL MEAN  MAR  6-6* 16-7* 34-8* 39-8*	APR  15.6* 18.2* 18.2* 15.0* 16.1* 20.4* 31.7*  19.5  21.4  APR  41.7* 25.3* 21.5* 16.8* 17.6*	#AY  27.5+ 24.1+ 35.0+ 33.2+ 28.3+ 21.9+ 28.3  MAY  25.1+ 21.6+ 22.3+ 51.5+ 23.4+ 27.6+	16.3* 12.8* 12.1* 23.3* 18.3* 14.2* 16.2	11.04 11.44 13.44 13.14 10.74 7.44 11.1 15.04 12.44 10.34 9.64 9.84 9.14	0.30 5.00 6.30 7.10 6.14 6.14 6.3 8.22 7.40 8.37 8.30 7.11	6.94 7.52 7.08 5.68 6.28 7.30 6.3 SEP 0.02 5.02 7.28 30.02 21.22	6 6 8 9 6 9 9 7 10 2 0 6 16 0 9 9 7 10 2 0 7 19 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	19=0+ 19=7+ 25=3+ 30=2+ 30=2+ 30=2+ 30=5+ 26=5+ 26=5+ 47=7+ 32=0+ 29=3+	21-1- 26-7- 33-4- 33-60- 79-9- 85-6- 72-4- PEC 21-4- 20-7- 26-5- 38-10- 27-2-2
PERIOD 21-25 26-END MEAN PERIOD 11-15 16-20 21-25 26-10 11-15 16-20 21-25 24-2	JAN 34.1* 32.6* 84.7* 65.3* 31.3* 22.8*  44.4  YEAR: 1968	FEB 23.2* 14.8* 30.4* 118.9* 84.9* 43.7* 53.3	NAR  54-1* 32-4* 26-2* 20-6* 18-8* 27-6  ANNUAL MEAN  MAR  6-6* 16-7* 34-8* 39-8*	APR  15.6* 18.2* 18.2* 15.0* 16.1* 20.4* 31.7*  19.5  21.4  APR  41.7* 25.3* 21.5* 16.8* 17.6*	#AY  27.5+ 24.1+ 35.0+ 33.2+ 28.3+ 21.9+ 28.3  MAY  25.1+ 21.6+ 22.3+ 51.5+ 23.4+ 27.6+	16.3* 12.8* 12.1* 23.3* 18.3* 14.2* 16.2	11.04 11.44 13.44 13.14 10.74 7.44 11.1 15.04 12.44 10.34 9.64 9.84 9.14	0.30 5.00 6.30 7.10 6.14 6.14 6.3 8.22 7.40 8.37 8.30 7.11	6.94 7.52 7.08 5.68 6.28 7.30 6.3 SEP 0.02 5.02 7.28 30.02 21.22	6 6 8 9 6 9 9 7 10 2 0 6 16 0 9 9 7 10 2 0 7 19 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	19=0+ 19=7+ 25=3+ 30=2+ 30=2+ 30=2+ 30=5+ 26=5+ 26=5+ 47=7+ 32=0+ 29=3+	21-1- 26-7- 33-4- 33-60- 79-9- 85-6- 72-4- PEC 21-4- 20-7- 26-5- 38-10- 27-2-2
PERIOD 1-15 6-10 11-15 16-20 21-25 26-END MEAN PERIOD 1-5 6-10 11-15 16-22 26-END MEAN	JAN  34.1* 32.6* 84.7* 65.3* 31.3* 22.8*  44.4  YEAR: 1968  JAN  206.9* 105.6* 55.5* 34.7* 25.3* 16.7*	FEB  23.24 14.89 30.41 118.99 84.99 43.79 53.3	NAR  54.1* 32.4* 26.2* 20.6* 18.8* 14.3* 27.6  ANNUAL MEAN  MAR  6.6* 0.8* 16.7* 34.8* 64.2*	APR  15.6* 15.2* 15.0* 16.1* 26.4* 31.7*  19.5  21.4  APR  41.7* 25.3* 21.5* 16.1* 16.8* 17.6*	#AY  27,5+ 26,1+ 35,9+ 33,2+ 26,3+ 21,9+ 28,3  #AY  25,1+ 21,6+ 22,3+ 51,5+ 23,44	16.3* 12.8* 12.1* 23.3* 18.3* 14.2* 16.2	11.04 11.44 13.44 13.14 10.74 7.44 11.1 15.04 12.44 10.34 9.64 9.84 9.14	0.30 5.00 6.30 7.10 6.14 6.14 6.3 8.22 7.40 8.37 8.30 7.11	6.94 7.52 7.08 5.68 6.28 7.30 6.3 SEP 0.02 5.02 7.28 30.02 21.22	6 6 8 9 6 9 9 7 10 2 0 6 16 0 9 9 7 10 2 0 7 19 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	19=0+ 19=7+ 25=3+ 30=2+ 30=2+ 30=2+ 30=5+ 26=5+ 26=5+ 47=7+ 32=0+ 29=3+	21-1- 26-7- 33-4- 33-60- 79-9- 85-6- 72-4- PEC 21-4- 20-7- 26-5- 38-10- 27-2-2
PERIOD 1-15 16-20 21-25 26-END MEAN PERIOD 1-5 6-10 11-15 16-22 26-END	JAN  34.1* 32.6* 84.7* 65.3* 31.3* 22.8*  44.4  YEAR: 1968  JAN  206.9* 105.6* 55.5* 34.7* 25.3* 18.7*  YEAR: 1969	FEB  23-2-14-0-30-4-118-0-84-0-84-0-84-0-84-0-85-3-3  FEB  16-5-13-7-11-6-7-3-1-1-4-11-4	NAR  54-1* 32-4* 26.2* 20.0* 18.8* 27.6  ANNUAL MEAN  MAR  6.6* 6.6* 37.8* 37.8* 27.2	APR  15.64 15.24 15.24 15.24 16.11 20.44 31.74 19.5  21.4  APR  41.74 25.38 21.52 16.18 10.08 17.48  23.1	#AY  27.5+ 24.1+ 35.2+ 35.2+ 28.3+ 21.9+ 28.3  MAY  25.1+ 21.6+ 22.6+ 21.5+ 21.5+ 23.4+ 23.4+	16.3* 12.8* 12.1* 23.3* 18.3* 14.2*  16.2  JUN  10.6* 18.6* 20.2* 20.4* 14.1* 17.1	11.0+ 11.4+ 13.4+ 13.1+ 10.7+ 7.4+ 11.1 11.1 3UL 15.0+ 12.4+ 10.3+ 9.6+ 9.1+	0.30 5.00 6.50 7.11 6.02 6.14 6.14 6.3 7.44 8.20 7.44 8.30 7.90 7.10	6.9* 7.3* 7.0* 5.8* 6.2* 7.30 6.8  SEP  6.0* 5.0* 7.2* 310,1* 30,0* 21,2*	6.89 6.99 7.22 6.66 9.55 10.20 7.99 0CT 17.00 26.19 33.40 19.60 15.44 24.60	19=0+ 19=7+ 25=7+ 30=2+ 30=2+ 30=2+ 30=2+ 30=2+ 28=5 28=5 HOV 29=3+ 26=8+ 47=7+ 32=0+ 29=3+ 33=5	21-1- 26-7- 53-7- 53-7- 53-7- 55-6- 72-4 72-4 72-4 72-4 72-4 20-7- 20-7- 38-10- 20-7
PERIOD 1-15 16-20 21-25 26-END MEAN PERIOD 1-5 6-10 11-15 16-22 21-25 26-END MEAN	JAN  34.1* 32.6* 84.7* 65.3* 31.3* 22.8*  44.4  YEAR: 1968  JAN  206.9* 105.6* 55.5* 34.7* 25.3* 18.7*  YEAR: 1969	FEB  23-2-14-0-30-4-118-0-84-0-84-0-84-0-84-0-8-15-	NAR  54-1* 32-4* 26.2* 20.0* 18.8* 27.6  ANNUAL MEAN  MAR  6.6* 6.0* 34.8* 37.8* 27.2  29.2	APR  15.64 18.24 18.24 16.14 20.44 31.74 19.5  21.4  APR  41.74 25.38 21.52 16.14 10.88 17.48  23.1	#AY  27.5+ 24.1+ 35.2+ 35.2+ 35.2+ 28.3+ 21.9+ 28.3  MAY  25.1+ 21.6+ 21.6+ 22.6+ 21.5+ 23.4+  KAY	16.3s 12.8s 12.8s 12.1s 23.3s 18.3s 14.2s 16.2	11.0+ 11.4+ 13.4+ 13.1+ 10.7+ 7.4+ 11.1 11.1 3UL 15.0+ 12.4+ 10.3+ 9.6+ 9.8+ 9.10	0.30 5.00 6.00 6.10 6.11 6.11 6.13 8.22 7.40 8.32 8.32 7.47 7.79	6.94 7.52 7.52 5.03 6.22 7.35 6.3 5.00 7.26 31.53 30.04 21.22	6.89 6.99 7.22 6.66 9.57 10.22 7.99 0CT 17.00 2G.19 33.44 19.84 15.44 24.60 21.65	19 a 0 + 19 a 7 + 25 + 25 + 25 + 25 + 25 + 25 + 25 +	21-1- 26-7- 53-00- 79-9- 85-06- 72-4 72-4 72-4 72-4 72-4 72-4 72-4 72-
PERIOD 1-15 16-20 21-25 26-END MEAN PERIOD 1-5 6-10 11-15 16-22 21-25 26-END MEAN	JAN  34.1* 32.6* 84.7* 65.3* 31.3* 22.8*  44.4  YEAR: 1968  JAN  206.9* 105.6* 55.5* 34.7* 25.3* 18.7*  YEAR: 1969	FEB  23-2-14-0-30-4-118-0-84-0-84-0-84-0-84-0-8-15-	NAR  54-1* 32-4* 26.2* 20.0* 18.8* 27.6  ANNUAL MEAN  MAR  6.6* 6.0* 34.8* 37.8* 27.2  29.2	APR  15.64 18.24 18.24 16.14 20.44 31.74 19.5  21.4  APR  41.74 25.38 21.52 16.14 10.88 17.48  23.1	#AY  27.5+ 24.1+ 35.2+ 35.2+ 35.2+ 28.3+ 21.9+ 28.3  MAY  25.1+ 21.6+ 21.6+ 22.6+ 21.5+ 23.4+  KAY	16.3s 12.8s 12.8s 12.1s 23.3s 18.3s 14.2s 16.2	11.0+ 11.4+ 13.4+ 13.1+ 10.7+ 7.4+ 11.1 11.1 3UL 15.0+ 12.4+ 10.3+ 9.6+ 9.8+ 9.10	0.30 5.00 6.00 6.10 6.11 6.11 6.13 8.22 7.40 8.32 8.32 7.47 7.79	6.94 7.52 7.52 5.03 6.22 7.35 6.3 5.00 7.26 31.53 30.04 21.22	6.89 6.99 7.22 6.66 9.57 10.22 7.99 0CT 17.00 2G.19 33.44 19.84 15.44 24.60 21.65	19 a 0 + 19 a 7 + 25 + 25 + 25 + 25 + 25 + 25 + 25 +	21-1- 26-7- 53-00- 79-9- 85-06- 72-4 72-4 72-4 72-4 72-4 72-4 72-4 72-
PERIOD 1-15 16-20 21-25 26-END MEAN PERIOD 1-5 6-10 11-15 16-22 21-25 26-END MEAN	JAN  34.1* 32.6* 84.7* 65.3* 31.3* 22.8*  44.4  YEAR: 1968  JAN  206.9* 105.6* 55.5* 34.7* 25.3* 18.7*  YEAR: 1969	FEB  23-2-14-0-30-4-118-0-84-0-84-0-84-0-84-0-8-15-	NAR  54-1* 32-4* 26.2* 20.0* 18.8* 27.6  ANNUAL MEAN  MAR  6.6* 6.0* 34.8* 37.8* 27.2  29.2	APR  15.64 18.24 18.24 16.14 20.44 31.74 19.5  21.4  APR  41.74 25.38 21.52 16.14 10.88 17.48  23.1	#AY  27.5+ 24.1+ 35.2+ 35.2+ 35.2+ 28.3+ 21.9+ 28.3  MAY  25.1+ 21.6+ 21.6+ 22.6+ 21.5+ 23.4+  KAY	16.3s 12.8s 12.8s 12.1s 23.3s 18.3s 14.2s 16.2	11.0+ 11.4+ 13.4+ 13.1+ 10.7+ 7.4+ 11.1 11.1 3UL 15.0+ 12.4+ 10.3+ 9.6+ 9.8+ 9.10	0.30 5.00 6.00 6.10 6.11 6.11 6.13 8.22 7.40 8.32 8.32 7.47 7.79	6.94 7.52 7.52 5.03 6.22 7.35 6.3 5.00 7.26 31.53 30.04 21.22	6.89 6.99 7.22 6.66 9.57 10.22 7.99 0CT 17.00 2G.19 33.44 19.84 15.44 24.60 21.65	19 a 0 + 19 a 7 + 25 + 25 + 25 + 25 + 25 + 25 + 25 +	21-1- 26-7- 53-00- 79-9- 85-06- 72-4 72-4 72-4 72-4 72-4 72-4 72-4 72-
PERIOD 11-13 16-10 11-13 16-12 26-END MEAN  PERIOD 11-15 16-12 21-25 26-END MEAN  PERIOD 11-15 16-20 21-25 26-END 21-25 26-END	JAN  34.1* 32.6* 84.7* 65.3* 31.3* 22.8*  44.4  YEAR: 1968  JAN  206.9* 105.6* 55.5* 34.7* 25.3* 18.7*  YEAR: 1969  JAN  25.1* 24.9* 17.4* 16.7* 13.0*	FEB  23-2-14-2-30-4-118-9-8-4-9-8-43-7-53-3  FEB  16-5-13-7-11-6-	NAR  54-1* 32-4* 26.2* 20.0* 18.8* 27.6  ANNUAL MEAN  MAR  6.6* 6.6* 37.8* 29.2  ANNUAL MEAN  HAR  5.5* 4.2* 4.3*	APR  15.6* 15.6* 15.2* 15.2* 16.1* 20.4* 31.7*  19.5  21.4  APR  41.7* 25.3* 21.5* 16.0* 17.6* 23.1  21.2* 18.2* 21.2* 18.2* 21.2* 21.2*	#AY  27.5+ 24.1+ 35.2+ 35.2+ 35.2+ 28.3+ 21.9+ 28.3  #AY  25.1+ 21.6+ 22.6+ 22.3+ 31.5+ 23.4  #AY  24.7+ 28.4+ 29.1+ 16.5+ 26.0+ 28.5+	16.3* 12.8* 12.8* 12.1* 23.3* 18.3* 14.2*  16.2  16.2  JUN  10.6* 18.6* 20.2* 20.4* 14.1* 17.1  JUN  26.1* 28.6* 25.8* 26.1* 24.6* 16.7*	11.0+ 11.4+ 13.4+ 13.1+ 10.7+ 7.4+ 11.1 11.1 11.1 11.1 11.1 11.1 11.1 1	0.30 5.00 6.00 7.10 6.11 6.11 6.13 7.44 8.32 7.44 8.32 7.47 7.17 7.97 7.97	6.9° 7.3° 7.0° 5.8° 6.2° 7.3° 6.2° 7.3° 6.3° 5.0° 7.2° 31.5° 30.0° 21.2° 16.8° SEP	6 - 8 a 6 a 9 a 7 t 2 a 6 a 6 a 9 a 7 t 2 a 6 a 6 a 9 a 7 t 2 a 6 a 6 a 9 a 7 t 2 a 6 a 6 a 6 a 6 a 6 a 6 a 6 a 6 a 6 a	19=0+ 19=7+ 25=7+ 25=7+ 30=2+ 30=2+ 30=8+ 39=5= 28=5  NOV 29=3+ 26=8+ 47=7+ 32=0+ 29=3+ 33=5  NOV 24=4+ 15=7+ 26=2+ 23=1+ 18=5+	21-1- 26-7- 53-7- 53-7- 53-7- 55-0- 79-9- 55-0- 72-4 72-4 72-4 72-4 72-1- 72-
PERIOD 11-13 16-10 11-13 16-12 26-END MEAN  PERIOD 11-15 16-12 21-25 26-END MEAN  PERIOD 11-15 16-20 21-25 26-END 21-25 26-END	JAN  34.1* 32.6* 84.7* 65.3* 31.3* 22.8*  44.4  YEAR: 1968  JAN  206.9* 105.6* 55.5* 34.7* 25.3* 18.7*  YEAR: 1969	FEB  23-2-14-2-30-4-118-9-8-4-9-8-43-7-53-3  FEB  16-5-13-7-11-6-	NAR  54-1* 32-4* 26.2* 20.0* 18.8* 27.6  ANNUAL MEAN  MAR  6.6* 6.6* 37.8* 29.2  ANNUAL MEAN  HAR  5.5* 4.2* 4.3*	APR  15.6* 15.6* 15.2* 15.2* 16.1* 20.4* 31.7*  19.5  21.4  APR  41.7* 25.3* 21.5* 16.0* 17.6* 23.1  21.2* 18.2* 21.2* 18.2* 21.2* 21.2*	#AY  27.5+ 24.1+ 35.2+ 35.2+ 35.2+ 28.3+ 21.9+ 28.3  #AY  25.1+ 21.6+ 22.6+ 22.3+ 31.5+ 23.4  #AY  24.7+ 28.4+ 29.1+ 16.5+ 26.0+ 28.5+	16.3* 12.8* 12.8* 12.1* 23.3* 18.3* 14.2*  16.2  16.2  JUN  10.6* 18.6* 20.2* 20.4* 14.1* 17.1  JUN  26.1* 28.6* 25.8* 26.1* 24.6* 16.7*	11.0+ 11.4+ 13.4+ 13.1+ 10.7+ 7.4+ 11.1 11.1 11.1 11.1 11.1 11.1 11.1 1	0.30 5.00 6.00 7.10 6.11 6.11 6.13 7.44 8.32 7.44 8.32 7.47 7.17 7.97 7.97	6.9° 7.3° 7.0° 5.8° 6.2° 7.3° 6.2° 7.3° 6.3° 5.0° 7.2° 31.5° 30.0° 21.2° 16.8° SEP	6 - 8 a 6 a 9 a 7 t 2 a 6 a 6 a 9 a 7 t 2 a 6 a 6 a 9 a 7 t 2 a 6 a 6 a 9 a 7 t 2 a 6 a 6 a 6 a 6 a 6 a 6 a 6 a 6 a 6 a	19=0+ 19=7+ 25=7+ 25=7+ 30=2+ 30=2+ 30=8+ 39=5= 28=5  NOV 29=3+ 26=8+ 47=7+ 32=0+ 29=3+ 33=5  NOV 24=4+ 15=7+ 26=2+ 23=1+ 18=5+	21-1- 26-7- 53-7- 53-7- 53-7- 55-0- 79-9- 55-0- 72-4 72-4 72-4 72-4 72-1- 72-
PERIOD 11-13 16-10 11-13 16-12 26-END MEAN  PERIOD 11-15 16-12 21-25 26-END MEAN  PERIOD 11-15 16-20 21-25 26-END 21-25 26-END	JAM  34.1* 32.6* 84.7* 65.3* 31.5* 22.8*  44.4  VEAR: 1968  JAM  206.9* 105.6* 55.5* 34.7* 25.3* 18.7*  72.7  VEAR: 1969  JAM  24.9* 17.4* 16.6* 18.9*	FEB  23-2-14-2-30-4-118-9-8-4-9-8-43-7-53-3  FEB  16-5-13-7-11-6-	NAR  54-1* 32-4* 26.2* 20.0* 18.8* 27.6  ANNUAL MEAN  MAR  6.6* 6.6* 37.8* 29.2  ANNUAL MEAN  HAR  5.5* 4.2* 4.3*	APR  15.6* 15.6* 15.2* 15.2* 16.1* 20.4* 31.7*  19.5  21.4  APR  41.7* 25.3* 21.5* 16.0* 17.6* 23.1  21.2* 18.2* 21.2* 18.2* 21.2* 21.2*	#AY  27.5+ 24.1+ 35.2+ 35.2+ 35.2+ 28.3+ 21.9+ 28.3  #AY  25.1+ 21.6+ 22.6+ 22.3+ 31.5+ 23.4  #AY  24.7+ 28.4+ 29.1+ 16.5+ 26.0+ 28.5+	16.3* 12.8* 12.8* 12.1* 23.3* 18.3* 14.2*  16.2  16.2  JUN  10.6* 18.6* 20.2* 20.4* 14.1* 17.1  JUN  26.1* 28.6* 25.8* 26.1* 24.6* 16.7*	11.0+ 11.4+ 13.4+ 13.1+ 10.7+ 7.4+ 11.1 11.1 11.1 11.1 11.1 11.1 11.1 1	0.30 5.00 6.00 7.10 6.11 6.11 6.13 7.44 8.32 7.44 8.32 7.47 7.17 7.97 7.97	6.9° 7.3° 7.0° 5.8° 6.2° 7.3° 6.2° 7.3° 6.3° 5.0° 7.2° 31.5° 30.0° 21.2° 16.8° SEP	6 - 8 a 6 a 9 a 7 t 2 a 6 a 6 a 9 a 7 t 2 a 6 a 6 a 9 a 7 t 2 a 6 a 6 a 9 a 7 t 2 a 6 a 6 a 6 a 6 a 6 a 6 a 6 a 6 a 6 a	19=0+ 19=7+ 25=7+ 25=7+ 30=2+ 30=2+ 30=8+ 39=5= 28=5  NOV 29=3+ 26=8+ 47=7+ 32=0+ 29=3+ 33=5  NOV 24=4+ 15=7+ 26=2+ 23=1+ 18=5+	21-1- 26-7- 53-7- 53-7- 53-7- 55-0- 79-9- 55-0- 72-4 72-4 72-4 72-4 72-1- 72-
PERIOD 21-25 26-END MEAN	JAM  34.1° 32.6° 84.7° 65.3° 31.5° 22.8°  44.4  YEAR: 1968  JAM  206.9° 105.6° 55.5° 34.7° 25.3° 16.7° 72.7  YEAR: 1969  4AK 25.1° 17.4° 16.6° 18.9°  YEAF: 1970	FEB  23.2° 14.0° 30.4° 118.0° 84.0° 43.7° 53.3  FEB  16.5° 13.7° 11.6° 9.9° 8.4° 7.3° 11.4  FEB  10.0° 9.0° 8.7° 7.5° 6.7° 8.5°	NAR  54-1* 32-4* 26-2* 20-6* 18-8* 14-3*  27-6  ANNUAL MEAN  HAR  6-6* 6-10* 16-7* 34-8* 39-8* 64-2* 29-2  ANNUAL MEAN  MAR  5-5* 4-1* 3-9* 1-3-5* 5-5	APR  15.6* 18.2* 18.2* 16.1* 20.4* 31.7*  19.5  21.4  APR  61.7* 25.3* 21.5* 16.1* 17.6*  23.1  21.2* 18.2* 21.2* 18.2* 20.6* 31.7* 22.3	MAY  27.5+ 24.1+ 35.0+ 35.2+ 28.3+ 21.9+ 28.3  MAY  25.1+ 21.6+ 21.6+ 21.6+ 23.4+  77.6+ 23.4  KAY  24.7+ 28.6+ 29.1+ 16.5+ 27.3+ 28.6+ 29.1+ 16.5+ 27.6+ 28.6+ 29.1+ 18.5+	16.3* 12.8* 12.8* 12.1* 23.3* 18.3* 14.2* 16.2  3UN  10.6* 18.6* 20.2* 20.4* 14.1* 17.1  3UN  26.1* 28.6* 26.1* 24.6*	11.00 11.40 11.40 13.44 13.13 10.70 7.44  11.1  11.1  JUL  15.04 12.44 10.36 9.86 9.86 9.81 10.99  JUL  17.60 26.30 23.76 17.50 17.50 17.80 10.99  18.7	0.30 5.00 6.00 6.10 6.11 6.13 6.3 7.44 8.30 7.47 8.30 7.17 7.99 7.17 7.99	6.94 7.52 7.00 5.00 6.22 7.30 6.3  SEP 6.00 5.00 7.20 30.00 21.22 16.8 15.40 16.50 12.80 17.21 24.47 20.6	6 - 8 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	19 a 0 + 19 a 7 + 25 + 25 + 25 + 26 a 8 + 26 a 5	21-1- 20-7- 33-00- 79-9- 85-04- 72-4- 72-4- 72-4- 72-4- 72-4- 72-2- 20-7- 20-7- 20-7- 20-7- 20-1
PERIOD 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-20 21-25 26-END	JAM  34.1° 32.6° 84.7° 65.3° 31.5° 22.8°  44.4  VEAR: 1968  JAM  206.9° 105.6° 55.5° 34.7° 25.3° 16.7° 72.7  YEAR: 1969  4AK 23.1° 74.7° 17.4° 16.6° 12.9	FEB  23.2° 14.0° 30.4° 118.0° 84.0° 43.7° 53.3  FEB  16.5° 13.7° 11.6° 9.9° 8.4° 7.3° 11.6° 9.8° 6.7° 6.5° 6.7° 6.5° 8.5	NAR  54-1* 32-4* 26-2* 20-6* 18-8* 14-3*  27-6  ANNUAL MEAN  HAR  6-6* 6-10* 16-7* 34-8* 39-8* 64-2* 29-2  ANNUAL MEAN:  *** *** *** *** *** *** *** *** ***	APR  15.6* 18.2* 18.2* 19.0* 16.1* 20.4* 31.7*  19.5  21.4  APR  41.7* 25.3* 21.5* 16.1* 16.8* 17.6* 23.1  21.2* 18.2* 21.2* 18.2* 21.2* 21.2* 21.2* 22.3	MAY  27.5+ 24.1+ 35.0+ 35.2+ 28.3+ 21.9+ 28.3  MAY  25.1+ 21.6+ 22.3+ 31.5+ 23.4+ 17.6+ 23.4  KAY  24.7+ 28.5+ 20.0+ 18.5+ 22.3	16.3* 12.8* 12.8* 13.3* 18.3* 14.2* 16.2  3UN  10.6* 18.6* 20.4* 14.1* 17.1  3UN  26.1* 28.6* 25.8* 26.1* 24.6*	11.00 11.40 11.40 13.44 13.13 10.70 7.44  11.1  11.1  10.9  10.9  10.9  10.9  10.9  10.9	0.30 5.00 6.00 6.00 6.11 6.11 6.13 7.44 8.50 7.44 8.50 7.11 7.97 7.97 7.97 7.97	6.94 7.52 7.00 5.04 6.24 7.35 6.3  SEP  6.07 7.24 30.00 21.24 16.8  SEP  37.14 25.44 16.50 12.84 17.24 20.6	6 - 8 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	19 a 0 + 19 a 7 + 25 a 2 + 36 a 8 + 39 a 5 = 26 a 5 HOV 29 3 a 4 7 a 7 b 3 2 a 0 a 2 9 a 3 5 a 9 a 4 7 a 7 b 3 2 a 0 a 2 9 a 3 a 5 NOV 24 a 4 a 4 7 a 2 4 a 2 3 a 1 a 2 a 2 a 2 a 2 a 2 a 2 a 2 a 2 a 2	21.10 20.70 33.00 79.99 85.06 72.4 72.4 72.4 72.4 20.77 20.77 20.50 27.2
PERIOD 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-20 21-25 26-END	JAM  34.1° 32.6° 84.7° 65.3° 31.5° 22.8°  44.4  VEAR: 1968  JAM  206.9° 105.6° 55.5° 34.7° 25.3° 16.7° 72.7  YEAR: 1969  4AK 23.1° 74.7° 17.4° 16.6° 12.9	FEB  23.2° 14.0° 30.4° 118.0° 84.0° 43.7° 53.3  FEB  16.5° 13.7° 11.6° 9.9° 8.4° 7.3° 11.6° 9.8° 6.7° 6.5° 6.7° 6.5° 8.5	NAR  54-1* 32-4* 26-2* 20-6* 18-8* 14-3*  27-6  ANNUAL MEAN  HAR  6-6* 6-10* 16-7* 34-8* 39-8* 64-2* 29-2  ANNUAL MEAN:  *** *** *** *** *** *** *** *** ***	APR  15.6* 18.2* 18.2* 19.0* 16.1* 20.4* 31.7*  19.5  21.4  APR  41.7* 25.3* 21.5* 16.1* 16.8* 17.6* 23.1  21.2* 18.2* 21.2* 18.2* 21.2* 21.2* 21.2* 22.3	MAY  27.5+ 24.1+ 35.0+ 35.2+ 28.3+ 21.9+ 28.3  MAY  25.1+ 21.6+ 22.3+ 31.5+ 23.4+ 17.6+ 23.4  KAY  24.7+ 28.5+ 20.0+ 18.5+ 22.3	16.3* 12.8* 12.8* 13.3* 18.3* 14.2* 16.2  3UN  10.6* 18.6* 20.4* 14.1* 17.1  3UN  26.1* 28.6* 25.8* 26.1* 24.6*	11.00 11.40 11.40 13.44 13.13 10.70 7.44  11.1  11.1  10.9  10.9  10.9  10.9  10.9  10.9	0.30 5.00 6.00 6.10 6.11 6.11 6.3 AU6 8.20 7.40 8.30 7.11 7.99 AU6 8.90 8.90 11.50 29.00 47.22 47.25 26.2	6.94 7.52 7.00 5.04 6.24 7.35 6.3  SEP  6.07 7.24 30.00 21.24 16.8  SEP  37.14 25.44 16.50 12.84 17.24 20.6	6 - 8 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	19 a 0 + 19 a 7 + 25 a 2 + 36 a 8 + 39 a 5 = 26 a 5 HOV 29 3 a 4 7 a 7 b 3 2 a 0 a 2 9 a 3 5 a 9 a 4 7 a 7 b 3 2 a 0 a 2 9 a 3 a 5 NOV 24 a 4 a 4 7 a 2 4 a 2 3 a 1 a 2 a 2 a 2 a 2 a 2 a 2 a 2 a 2 a 2	21.10 20.70 33.00 79.99 85.06 72.4 72.4 72.4 72.4 20.77 20.77 20.50 27.2
PERIOD 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-20 21-25 26-END	JAM  34.1° 32.6° 84.7° 65.3° 31.5° 22.8°  44.4  VEAR: 1968  JAM  206.9° 105.6° 55.5° 34.7° 25.3° 16.7° 72.7  YEAR: 1969  4AK 23.1° 74.7° 17.4° 16.6° 12.9	FEB  23.2° 14.0° 30.4° 118.0° 84.0° 43.7° 53.3  FEB  16.5° 13.7° 11.6° 9.9° 8.4° 7.3° 11.6° 9.8° 6.7° 6.5° 6.7° 6.5° 8.5	NAR  54-1* 32-4* 26-2* 20-6* 18-8* 14-3*  27-6  ANNUAL MEAN  HAR  6-6* 6-10* 16-7* 34-8* 39-8* 64-2* 29-2  ANNUAL MEAN:  *** *** *** *** *** *** *** *** ***	APR  15.6* 18.2* 18.2* 19.0* 16.1* 20.4* 31.7*  19.5  21.4  APR  41.7* 25.3* 21.5* 16.1* 16.8* 17.6* 23.1  21.2* 18.2* 21.2* 18.2* 21.2* 21.2* 21.2* 22.3	MAY  27.5+ 24.1+ 35.0+ 35.2+ 28.3+ 21.9+ 28.3  MAY  25.1+ 21.6+ 22.3+ 31.5+ 23.4+ 17.6+ 23.4  KAY  24.7+ 28.5+ 20.0+ 18.5+ 22.3	16.3* 12.8* 12.8* 13.3* 18.3* 14.2* 16.2  3UN  10.6* 18.6* 20.4* 14.1* 17.1  3UN  26.1* 28.6* 25.8* 26.1* 24.6*	11.00 11.40 11.40 13.44 13.13 10.70 7.44  11.1  11.1  10.9  10.9  10.9  10.9  10.9  10.9	0.30 5.00 6.00 6.10 6.11 6.11 6.3 AU6 8.20 7.40 8.30 7.11 7.99 AU6 8.90 8.90 11.50 29.00 47.22 47.25 26.2	6.94 7.52 7.00 5.04 6.24 7.35 6.3  SEP  6.07 7.24 30.00 21.24 16.8  SEP  37.14 25.44 16.50 12.84 17.24 20.6	6 - 8 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	19 a 0 + 19 a 7 + 25 a 2 + 36 a 8 + 39 a 5 = 26 a 5 HOV 29 3 a 4 7 a 7 b 3 2 a 0 a 2 9 a 3 5 a 9 a 4 7 a 7 b 3 2 a 0 a 2 9 a 3 a 5 NOV 24 a 4 a 4 7 a 2 4 a 2 3 a 1 a 2 a 2 a 2 a 2 a 2 a 2 a 2 a 2 a 2	21.10 20.70 33.00 79.99 85.06 72.4 72.4 72.4 72.4 20.77 20.77 20.50 27.2
PERIOD 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-20 21-25 26-END	JAM  34.1° 32.6° 84.7° 65.3° 31.5° 22.8°  44.4  VEAR: 1968  JAM  206.9° 105.6° 55.5° 34.7° 25.3° 16.7° 72.7  YEAR: 1969  4AK 23.1° 74.7° 17.4° 16.6° 12.9	FEB  23.2° 14.0° 30.4° 118.0° 84.0° 43.7° 53.3  FEB  16.5° 13.7° 11.6° 9.9° 8.4° 7.3° 11.6° 9.8° 6.7° 6.5° 6.7° 6.5° 8.5	NAR  54-1* 32-4* 26-2* 20-6* 18-8* 14-3*  27-6  ANNUAL MEAN  HAR  6-6* 6-10* 16-7* 34-8* 39-8* 64-2* 29-2  ANNUAL MEAN:  *** *** *** *** *** *** *** *** ***	APR  15.6* 18.2* 18.2* 19.0* 16.1* 20.4* 31.7*  19.5  21.4  APR  41.7* 25.3* 21.5* 16.1* 16.8* 17.6* 23.1  21.2* 18.2* 21.2* 18.2* 21.2* 21.2* 21.2* 22.3	MAY  27.5+ 24.1+ 35.0+ 35.2+ 28.3+ 21.9+ 28.3  MAY  25.1+ 21.6+ 22.3+ 31.5+ 23.4+ 17.6+ 23.4  KAY  24.7+ 28.5+ 20.0+ 18.5+ 22.3	16.3* 12.8* 12.8* 13.3* 18.3* 14.2* 16.2  3UN  10.6* 18.6* 20.4* 14.1* 17.1  3UN  26.1* 28.6* 25.8* 26.1* 24.6*	11.00 11.40 11.40 13.44 13.13 10.70 7.44  11.1  11.1  10.9  10.9  10.9  10.9  10.9  10.9	0.30 5.00 6.00 6.10 6.11 6.11 6.3 AU6 8.20 7.40 8.30 7.11 7.99 AU6 8.90 8.90 11.50 29.00 47.22 47.25 26.2	6.94 7.52 7.00 5.04 6.24 7.35 6.3  SEP  6.07 7.24 30.00 21.24 16.8  SEP  37.14 25.44 16.50 12.84 17.24 20.6	6 - 8 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	19 a 0 + 19 a 7 + 25 a 2 + 36 a 8 + 39 a 5 = 26 a 5 HOV 29 3 a 4 7 a 7 b 3 2 a 0 a 2 9 a 3 5 a 9 a 4 7 a 7 b 3 2 a 0 a 2 9 a 3 a 5 NOV 24 a 4 a 4 7 a 2 4 a 2 3 a 1 a 2 a 2 a 2 a 2 a 2 a 2 a 2 a 2 a 2	21.10 20.70 33.00 79.99 85.06 72.4 72.4 72.4 72.4 20.77 20.77 20.50 27.2
PERIOD 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-10 11-15 16-20 21-25 26-END	JAM  34.1* 32.6* 84.7* 65.3* 31.5* 22.8*  44.4  VEAR: 1968  JAM  206.9* 105.6* 55.5* 34.7* 25.3* 18.7*  72.7  VEAR: 1969  4AK  25.1* 24.9* 17.4* 16.6* 12.9  YEAR: 1970	FEB  23.2° 14.0° 30.4° 118.0° 84.0° 43.7° 53.3  FEB  16.5° 13.7° 11.6° 9.9° 8.4° 7.3° 11.6° 9.8° 6.7° 6.5° 6.7° 6.5° 8.5	NAR  54-1* 32-4* 26-2* 20-6* 18-8* 14-3*  27-6  ANNUAL MEAN  HAR  6-6* 6-10* 16-7* 34-8* 39-8* 64-2* 29-2  ANNUAL MEAN:  *** *** *** *** *** *** *** *** ***	APR  15.6* 18.2* 18.2* 15.0* 16.1* 20.4* 31.7*  19.5  21.4  APR  41.7* 25.3* 21.5* 16.1* 16.8* 17.6* 23.1  21.2* 18.2* 21.2* 18.2* 21.2* 21.2* 21.2* 22.3	MAY  27.5+ 24.1+ 35.0+ 35.2+ 28.3+ 21.9+ 28.3  MAY  25.1+ 21.6+ 22.3+ 31.5+ 23.4+ 17.6+ 23.4  KAY  24.7+ 28.5+ 20.0+ 18.5+ 22.3	16.3* 12.8* 12.8* 13.3* 18.3* 14.2* 16.2  3UN  10.6* 18.6* 20.4* 14.1* 17.1  3UN  26.1* 28.6* 25.8* 26.1* 24.6*	11.00 11.40 11.40 13.44 13.13 10.70 7.44  11.1  11.1  10.9  10.9  10.9  10.9  10.9  10.9	0.30 5.00 6.00 6.10 6.11 6.11 6.3 AU6 8.20 7.40 8.30 7.11 7.99 AU6 8.90 8.90 11.50 29.00 47.22 47.25 26.2	6.94 7.52 7.00 5.04 6.24 7.35 6.3  SEP  6.07 7.24 30.00 21.24 16.8  SEP  37.14 25.44 16.50 12.84 17.24 20.6	6 - 8 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	19 a 0 + 19 a 7 + 25 a 2 + 36 a 8 + 39 a 5 = 26 a 5 HOV 29 3 a 4 7 a 7 b 3 2 a 0 a 2 9 a 3 5 a 9 a 4 7 a 7 b 3 2 a 0 a 2 9 a 3 a 5 NOV 24 a 4 a 4 7 a 2 4 a 2 3 a 1 a 2 a 2 a 2 a 2 a 2 a 2 a 2 a 2 a 2	21.10 20.70 33.00 79.99 85.06 72.4 72.4 72.4 72.4 20.77 20.77 20.50 27.2

Table 19 5-DAY INFLOW DISCHARGE AT SAYONG DAM (2/3)

											•	
	YEAR : 1971		ANNUAL HEAR	11,3		* .				oct	HOV	BEC
PERIOD	14k	FEB	HAR	APR		168	JUL	AUG	SEP			
1- 5	84.9	11,6*	14.5*	12.54	4 + 0 *	4 <b>. 1</b> 3 . 8 *	4.5	6.8	15.90	4.9*	4.89	5-1+ 20-14
6-1C 11-15	100.4* 47.1*	7.6+	10-1*	11.3*	3.7*	3.34 2.3*	3.6	9,24 15.44	11.5*		7 04	67.64 46.70
16~20 21-25	20.7* 19.7*	6.64	11.94	10.3*	3.20	5.3	3.34	12.54 9.7=	8.4= 9.Je			34.30
26-END	15.4*	15.6*				0.04		9.6	1145	5.7	4.5	3144
MEAN		9.1	11.7	16.3	3.4	4.3						
	YEAR : 1972		ARRUAL MEAN	2 12.7	,			•		•	٠.	4
						108	JUL	AUG		0CY	**************************************	DEC
****		5.79		6.3*	21.7*	13.8	6.7	3.94	5.7± 7.3*	20.9* 10.5*	10=3+	36.4* 29.4*
6-16 11-15	11,6* 7.8*	8.6*	5.4+ 3.9+ 4.9+	0.9* 12.3*	14.7*	3.3* 10.4*	4.1*	3,3*	13.0*	10-1* 8-6*	29.20 49.0*	22,80
16-26 21-25	9.1. 8.6	5.7* 10.4*	4.04 6.6*	14.4*	10.1* 25.1*	17.6* 18.8*	3.5+ 3.7+ 3.4+	5.6°	32,4*	12.6*	41.7+	29°9¢ 26è2¢
24-END		11.5*	3.60	25.92	25.6*							28.3
	10.2	9.0	4.4	14.1	18.4	13.5	4,4	3 40	10+7	1322		
	-											
	YEAR : 1973		ANNUAL MEAN	19.8								
	1AN.					1 NM	JUL	AUG	SEP	SCT	NOA	SEC
			#AR 23.7*				42.80	30.50	1483-			
6-10	30.6	6.5÷ 7.0±	10.2*	23.14	33.44	37.3 22.1	22.9* 17.7*	27.2* 23.5*	7.3*	8.8*	25.00	15.6*
11-13	21.4	.53.14	17.5*	*3.04	22.9	14.2	13.04	12.7*	8.3* 21.2*	27.1+	25.80	20.30
21-25 26-END	20.14 30.6* 28.2* 21.4* 18.6* 10.4*	29.7*	16.4° 14.3=	53.3*	34,2+	~ .	22 04	7 64	9,42	32,9+	20-1-	: 10-7+
REAN			14.8	34.5	58*8	25.7	21.8	18.1	12.2	21+1	28.3	19.8
*									•			
	YEAR : 1976		ANRUAL HEAR					4115	SEP		HOY	DEC
		168		APR			JUL			32,44		
1- 5 6-10	8.2±	16.3*	9.0* 14.1* 8.8*	4.7* 17.9*	7.7* 11.3*	9.1. 6.4*	4.0* 2.4*	7.9* 5.2*	4.9*	17.1*	3.24	8.60
11-15	4.8	7,84	. 3.8≄	13.29	13.3*	7.4*	4.94	3.54		8 . B = 6 . 3 =	4 · 3 · 9 · 8 ·	5"8*
21-25 24-680	3.44 3.6*	28.24	3.5*	11.0*	7.1* 19.0*	9.0+ 7.1+	13.5* 13.9*	3.5*	26.9* 29.1*	5.34 6.0+	16.6± 7.3±	7.5
	5.4			13,1		7.4	7.1		26.2	12.4	747	
	***		117									
					•							
:										-		
	YEAR : 1975		ANNUAL MEAN	14.3								
PERIOD	444	# E &	MAR	APR	HAY	JUK	JUL	AUG	SEP	OCT		980
1- 5	3.9+	3.0.	9.8+	27.6*	22.6*	*9•55	17.6	6.9*	19.8*	7.04	22 61 e 15 42 e	10.8* 7.8*
6-10 11-15		9.1*	17.3*	17.7*	35.10	17.1	14.0	9.1 9.5	15.5*	5,14	12.14	12,3* ***
16-20 21-25	7.3* 5.2*	4,5	9.8* 18.1* 17.3* 18.8* 22.5*	61.1#	26.8*	23.7*	25.4	10.8*	12,1± 8.0±	5'+ <b>0</b> +	21.0* 14.7*	3294
26-END	3.8*			54.7=	****	2107" *********	1691-	12.12	12,2*	5.74		545*
REAN	5.4	5.4	18.1	8,61	31.2	24.8	17.2	10.1	1345	6.1	18.3	745
									÷			
	YEAF : 1976		ANNUAL MEAN	: 11.1								
	MAL					108	100	AUG	SEP	130	*ov	DEC
6-1C 11-15	3.1*	1,4+	3.6*	10.6*	20,2*	6.5*	5.50 7.60	6.7*	7.74 6-5+	17:30	19.80	13189
16-2G	2.C*	f.f.	17.9*	10.0*	12.94	5-3-	10.6	7.34	6.9*	31.4.	4.5*	2996*
26-END	3.6* 3.1* 2.4* 2.6* 1.7* 1.6*	2.1.	11.2*	44.9*	8.2+	6.14	10.7	11.44	7.14	25.6*	23,4*	65.94
MEAN	2,4	1.4	10.0	19.8	15.2	6.0	8,6	8.1	7.1	24.8	16.6	3165
											:	
	YEAR : 1977		KASK JAUNNA									
	JAN											
1	JAN	, £8	AAR	APR	421 	70M	JUL	AU6	SEP	0CT	HOV	9EC
6-10	45.4*	9.3	7.7*	3.2	7.8	19.8	7.8	7 1 10 8	15.3 16.0	60.2 51.7	16.4 16.6	1959 1657
11-15 16-20	21.8* 14.3*	18.9 6.7	5+3* . 2+7	3.3 5.2	18.2 11.3	13.1 19.6	6.7	11.9 12.5	11.0 6.1	36.4 27.5	40.9 34.7	9.7 10.2
23-25 26-EHD	92.64 45.64 21.84 14.32 10.32 7.64	8.3 72.5	.2.7 3.5*	5.5	5.5 9.0	7.7 5.2	6.3 9.0	19.8 23.0	7.9	21.1	47.6	16.6
SEAN.	31.2	16.7	6.3	3.2	9.3	12.3	7_0	14.4	14.0	74 -A	U+14 	1944
							, 40		1947	26.9	20.9	14%5
٠.	YEAF : 1978		ANNUAL MEAN	: 17 .8								
PERTOD	JAN 17.8	FEB	MAR	APR	HAY	TUN	10L	AUG	SEP	ocy	Nov	DEC
1- 5	17.8	3.8	12.3	16-1	19.5	13.5	19.6	9,3	12.9	7.9	14.1	11024
11-15	94.2	4.5	8 . Z 7 . 3	13.6	41.7 54.2	7.5	19.8 20.5	7.0	10.0	8.1	21.3	90.8
21-25	38 1 28 9	9.7 7.8	7.5 24.9	24.6 28.6	31.7 16.1	5 • 1 7 • 9	19.0	10.3	6.1	5.5	70.5	50-1
40-END	17.8 38.7 94.2 58.1 28.9 14.2	5.3	18,6	24.9	11.5	7.9	10,6	7.1	10.5	20.7	29.4	30.49
HEAN	41.1	7.1	13.3	20.5	28.6	8.6	17.0	8.5	10.0	10.1	25.5	32.G

Table 20 5-DAY INFLOW DISCHARGE AT SAYONG DAM (3/3)

	YEAR : 1979		ANNUAL MEAN	4 20.	.5							
PERIOD		FEB	HAR	APR		งบท	JUL	****	4			
	24.2							****			NOV	*****
4-16	87.5	17.9	14.6*	58.6		6.7 12.6	7.7 5.7	19.7 10.9	19.0 19.3	8.4	20-4 27-8	39.9.
11-15 16+20	- 25 - 5 - 12 - 6	5-4 6-0	15.1 13.1	13.1	13.4 13.4 7.3 5.8	22-5 18.3	8.5 11.2	7.1 7.0	16.9 19.1	10.3 8.8	53±8 38•9	22.1* 17.3*
21+25 26-END	10.6 8.2	8 6 7 5	26.1 18.2	16.0	5 . 8 6 . 3	18.6 9.7	17.9 29.1	11.3	23.5 16.1	18 4 13 8	87.9* 254.0*	9.2 5.7
NEAN		8.5		~~~~~~~	11.1		13.9		19.0	11.9		~~~~
HEAM		••,	.,,,,		****	1	13.7	11.4	. 17.0	11.7	80.5	58*3
	YEAR : 1980		ANNUAL MEAN									
		FE8	RAR	APR	MAY .			AU6	SEP	067	NOV	DEC
1- 5 6-10	5.0 15.3	9.9 16.8	14.2 14.3 8.9 5.0 10.8 6.2	10.2 8.5	24.3	25.9 22.3	14.8	25.6 14.7	31.1 41.5	26.8 18.5	30-8 31-9	68.2 64.2
11-15 16-20	8.C	8 . 1 5 . 9	8.9	19.0	13.8	17.0	8.9	54.6	21.2	12.4	31.9 26.2 21.6 46.7 75.1	61.3
21-25	63.6	6.2	10.8	29.5	8.9	18.0	17.8	45.7	45.5	32.2	46±7	29'.7 19.5
26-END	17.2								50.2	24.7	75.1	22.9
MEAN	19.4	10.3	10.3	20.5	13.7	20.8	12.4	34.4	34.3	52.5	38.7	43.6
			•				-					
	YEAR : 1981		ANNUAL REAM	: 15,								
PER 100	****						JUL	AUG	\$ E P		NOA	DEC
1- 5 6-10	12.9 19.2	5 C	6.4	3.3 24.9	40.5	18.5 16.0	6.4 8.9	11.2 5.4	9.9 9.4	8.1 13.5	22.5	16.9 17.4
11-15	12.8	3.3	2.0	27.9 16.1	43.7	9.9	9.2	4.3	17.6	95=9	11.5	27'46
16-20 21-25	7.3 5.7	3.6 2.7	0.9	24.4	56.3 38.9	10.9	6.9 12.4	3.7 5.1	14.2 10.0	19.7 21.0	15.5 23.0	15274+ 9797=
26-END	4.9	3.6	1.1	25.2	24.8	10.4	13.4	7.9			26.4	28,1=
MEAN	10.3	3.7	2.5	20.3	36.3	12-1	9.7	6.3	11.8	16=6	2152	55'48
										-		
	YEAR : 1982		ANNUAL REAM	: 25,	.1					•		
PERIOD	JAN	FEB	MAR	APR	MAY	JUX	JUL	. AUG	SEP	007	NOV	DEC
1- 5	JAN 29.5	6.7	HAR 7-1	APR 15.8	MAY 48.6	:,40.5	11.6	7-7	28.3	21,3	28.3	5253
	JAN 29.5 47.2		MAR	APR	MAY 48.6	:,40.5		7.7 8.2	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	21,3	28.3 37.6	***
1- 5 6-10 11-15 16-20	29.5 47.2 23.5 11.9	6.7 16.5 16.2 6.6	7.1 6.2 18.1 19.2	APR 15.8 57.0 27.2 25.2	48.6 22.3 20.4 49.8	40.5 41.0 32.1 53.2	11.6 11.1 15.7 15.6	7=7 8+2 39-5 36+6	28.3 12.4 8.8 9.9	21,3 12,6 11,6 13,6	28.3 37.6 47.7 39.6	5253 27±5 28±7 37±0
1- 5 6-10 11-15 16-20 21-25 26-END	29.5 47.2 23.5 11.9 8.2 6.9	6.7 16.5 16.2 6.6 8.2 13.1	7 • 1 6 • 2 18 • 1 19 • 2 33 • 1 19 • 6	APR 15.8 57.0 27.2 25.2 64.2 82.8	48.6 22.3 20.4 49.8 27.6 32.9	: 40.5 41.0 32.1 53.2 22.3	11.6 11.1 15.7 15.6 25.1	7.7 8.2 39.5 36.6 23.9 16.1	28.3 12.4 8.8 9.9 17.2 10.8	21.3 12.6 11.6	28.3 37.6 47.7 39.6 58.4 62.2	5293 27#5 28#7 37#0 144;4# 113:9#
1- 5 6-10 11-15 16-20 21-25 26-END	29.5 47.2 23.5 11.9 6.2	6.7 16.5 16.2 6.6 8.2 13.1	7 • 1 6 • 2 18 • 1 19 • 2 33 • 1 19 • 6	APR 15.8 57.0 27.2 25.2 64.2 82.8	48.6 22.3 20.4 49.8 27.6 32.9	: 40.5 41.0 32.1 53.2 22.3	11.6 11.1 15.7 15.6 25.1	7.7 8.2 39.5 36.6 23.9 16.1	28.3 12.4 8.8 9.9 17.2 10.8	21,3 12,6 91,6 13,6 12,0 18,6	28.3 37.6 47.7 39.6 58.4 62.2	5293 27#5 28#7 37#0 144;4# 113:9#
1- 5 6-10 11-15 16-20 21-25 26-END	29.5 47.2 23.5 11.9 8.2 6.9	6.7 16.5 16.2 4.6 8.2 13.1	7 1 6 2 18 1 19 2 33 1 19 6	15.8 57.0 27.2 25.2 64.2 82.8	48.6 22.3 20.4 49.8 27.6 32.9	40.5 41.0 32.1 53.2 22.3 14.1	11.6 11.1 15.7 15.6 25.1 10.4	7=7 8=2 39=5 36=6 23=9 16=1	28.3 12.4 8.8 9.9 17.2 10.8	21,3 12,6 11,6 13,6 12,0 18,6	28.3 37.6 47.7 39.6 58.4 62.2	5253 27±5 28±7 37±0 164±4± 113±9+
1- 5 6-10 11-15 16-20 21-25 26-END	29.5 47.2 23.5 11.9 8.2 6.9	6.7 16.5 16.2 4.6 8.2 13.1	7 1 6 2 18 1 19 2 33 1 19 6	15.8 57.0 27.2 25.2 64.2 82.8	48.6 22.3 20.4 49.8 27.6 32.9	40.5 41.0 32.1 53.2 22.3 14.1	11.6 11.1 15.7 15.6 25.1 10.4	7=7 8=2 39=5 36=6 23=9 16=1	28.3 12.4 8.8 9.9 17.2 10.8	21,3 12,6 11,6 13,6 12,0 18,6	28.3 37.6 47.7 39.6 58.4 62.2	5253 27±5 28±7 37±0 164±4± 113±9+
1- 5 6-10 11-15 16-20 21-25 26-END	29.5 47.2 23.5 11.9 8.2 6.9	6.7 16.5 16.2 4.6 8.2 13.1	7 1 6 2 18 1 19 2 33 1 19 6	APR 15.8 57.8 27.2 25.2 64.2 82.8	#AY  48.6 22.3 20.4 49.8 27.6 32.9	40.5 41.0 32.1 53.2 22.3 14.1	11.6 11.1 15.7 15.6 25.1 10.4	7=7 8=2 39=5 36=6 23=9 16=1	28.3 12.4 8.8 9.9 17.2 10.8	21,3 12,6 11,6 13,6 12,0 18,6	28.3 37.6 47.7 39.6 58.4 62.2	5253 27±5 28±7 37±0 164±4± 113±9+
1- 5 8-10 11-15 16-20 21-23 26-END MEAN	JAN 29.5 47.2 23.5 11.9 6.2 6.9 20.7	6.7 16.5 16.2 4.6 8.2 13.5 11.1	7.1 6.2 18.1 19.2 33.1 19.6 \$7.3	APR 15.8 57.0 27.2 25.2 64.2 82.8	#AY  48.6 22.3 20.4 49.8 27.6 32.9 33.6	40.5 41.0 32.1 53.2 22.3 14.1	11.6 11.1 15.7 15.6 25.1 10.4	7=7 8=2 39=5 36=6 23=9 16=1	28.3 12.4 8.8 9.9 17.2 10.8	21,3 12,6 11,6 13,6 12,0 18,6 12,0 18,6	28.3 37.6 47.7 39.6 58.4 62.2	52-3 27-5 26-7 37-0 164-4- 113-9- 68-8
1- 5 8-10 11-15 16-20 21-23 26-END MEAN	JAN 29.5 47.2 23.5 11.9 6.2 6.9 20.7	6.7 16.5 16.2 4.6 8.2 13.5 11.1	7.1 6.2 18.1 19.2 33.1 19.6 \$7.3	APR 15.8 57.0 27.2 25.2 44.2 82.8 45.4	#AY  48.6 22.3 20.4 49.8 27.6 32.9 33.0	40.5 41.0 32.1 53.2 22.3 14.1 33.9	11.6 11.1 15.7 15.6 25.1 10.4	7.7 8.2 39.5 36.6 23.9 16.1 21.8	28.3 12.4 8.8 9.9 17.2 10.8 14.6	21,3 12,6 11,6 13,6 12,0 18,6 12,0 18,6 12,0 18,6	28.3 37.6 47.7 39.6 58.4 62.2 45.6	52-3 27-5 26-7 37-0 164-4- 113-9- 68-8
1- 5 8-10 11-15 16-20 21-23 26-END MEAN	JAN 29.5 47.2 23.5 11.9 6.2 6.9 20.7	6.7 16.5 16.2 6.6 8.2 13.1 11.1	7.1 6.2 18.1 19.2 33.1 19.6 17.3	APR 15.8 57.0 27.2 25.2 64.2 82.8 45.4	MAY  48.6 22.3 20.4 49.8 27.6 32.9  33.0  MAY  6.5 13.6	40-5 41-0 32-1 53-2 22-3 14-1 33-9	11.6 11.1 15.7 15.6 25.1 10.4 14.8	77 82 395 366 239 161 218 Aug	28.3 12.4 8.8 9.9 17.2 10.8 14.6	21,3 12,6 11,6 12,0 12,0 18,6 12,0 18,6 12,0 18,6 14,6	28.3 37.6 47.7 39.6 58.4 62.2 45.6	52-3 27-5 26-7 37-0 144-4- 113-9- 68-8
1- 5 8-10 11-15 16-20 21-23 26-END MEAN	29.5 47.2 23.5 11.9 6.2 6.9 20.7 YEAR: 1983 JAN 44.74 27.84 31.44 46.86 27.44	6.7 16.5 16.2 4.6 8.2 13.5 11.1	7.1 6.2 18.1 19.2 33.1 19.6 17.3	APR 15.8 57.0 27.2 25.2 64.2 82.8 45.4	#AY  48.6 22.3 20.4 49.8 27.6 32.9  33.0  #AY	40-5 41-0 32-1 53-2 22-3 14-1 33-9	11.6 11.1 15.7 15.6 25.1 10.4 14.8	7 = 7 8 • 2 39 • 5 36 • 6 23 • 9 16 • 1 21 • 8 Aug 22 • 9 20 • 5 16 • 9 25 • 4	28.3 12.4 8.8 9.9 17.2 10.8 14.6 SEP 25.3 52.0 64.8 53.6	21.3 12.6 11.6 13.6 12.0 18.6 15.1	28.3 37.6 47.7 39.6 58.4 62.2 45.6 NOV	5233 27=5 28=7 37=0 144=44= 1135=9 6858
1- 5 8-10 11-15 16-20 21-23 26-END MEAN	29.5 47.2 23.5 11.9 8.2 6.9 20.7 YEAR: 1983 JAN 44.74 27.89 31.44 46.89 27.49	6.7 16.5 16.2 4.6 8.2 13.1 11.1	7.1 6.2 18.1 19.2 33.1 19.6 \$7.3	APR 15.8 57.0 27.2 25.2 64.2 82.8 45.4	MAY  48.6 22.3 20.4 49.8 27.6 32.9  33.0  MAY  6.5 13.6	40-5 41-0 32-1 53-2 22-3 14-1 33-9	11.6 11.1 15.7 15.6 25.1 10.4 14.8	77 82 395 366 239 161 218 Aug	28.3 12.4 8.8 9.9 17.2 10.8 14.6 SEP 25.3 52.0 64.8 53.6	21,3 12,6 11,6 12,0 12,0 18,6 12,0 18,6 12,0 18,6 14,6	28.3 37.6 47.7 39.6 58.4 62.2 45.6 NOV	52-3 27-5 26-7 37-0 144-4- 113-9- 68-8
1-5 6-10 11-15 16-2C 21-25 26-END MEAN PERIOD 1-5 6-10 91-15 16-20 21-25	29.5 47.2 23.5 11.9 6.2 6.9 20.7 20.7 44.74 27.84 46.86 27.44	6.7 16.5 16.2 4.6 8.2 13.5 11.1	7.1 6.2 18.1 19.2 33.1 19.6 17.3	APR 15.8 57.0 27.2 25.2 64.2 82.8 45.4	MAY  48.6 22.3 20.4 49.8 27.6 32.9  33.0  MAY  6.5 13.6 14.6 24.2 13.3	40-5 41-0 32-1 53-2 22-3 14-1 53-9	11.6 11.1 15.7 15.6 25.1 10.4 14.8 JUL 8.5 10.8 17.0 13.7 19.0	7=7 8.2 39.5 36.6 23.9 16.1 21.8 AUG	28.3 12.4 8.8 9.9 17.2 10.8 14.6 SEP 25.3 52.0 64.8 53.6	21,3 12,6 11,6 12,0 12,0 12,0 12,0 12,0 12,0 12,0 12,0	28.3 37.6 47.7 39.6 58.4 62.2 45.6 804 804 804 804 804 804 804 804 804 804	52-3 27-5 26-7 37-0 144-4- 113-9+ 68-8
1- 5 6-10 11-15 16-2C 21-23 26-END MEAN PERIOD 1- 5 6-10 91-15 16-25 26-END	29.5 47.2 23.5 11.9 8.2 6.9 20.7 YEAR: 1983 JAN 44.74 27.80 31.44 46.80 27.40	6.7 16.5 16.2 4.6 8.2 13.5 11.1 11.1	7.1 6.2 18.1 19.2 33.1 19.6 17.3 ANNUAL MEAN MAR 15.9 10.6 6.4 5.1 5.3 6.5	APR 15.8 57.0 27.2 25.2 64.2 82.8 45.4  APR 6.2 6.9 5.7 4.0 5.8	MAY  48.6 22.3 20.4 49.8 27.6 32.9  33.0  MAY  6.5 11.6 14.6 14.2 13.3 10.3	40-5 41-0 32-1 53-2 22-3 14-1 33-9 JUN 8-4 6-1 13-0 16-3 16-3	11.6 11.1 15.7 15.6 25.1 10.4 14.8 14.8	7 = 7 8 • 2 39 • 5 36 • 6 23 • 9 16 • 1 21 • 8 Aug 22 • 9 20 • 5 16 • 9 25 • 4 34 • 5 25 • 6	28.3 12.4 8.8 9.9 17.2 10.8 14.6 52.0 64.8 52.0 64.8 33.6 51.8 19.8	21,3 12,6 11,6 13,6 12,0 18,6 18,6 15,1 001 14,8 14,2 11,4 11,3 17,0 20,3	28.3 37.6 47.7 39.6 58.4 62.2 45.6 80.4 40.8 30.1 20.1 20.1 15.3	52-3 27-5 28-7 37-0 144-4- 113-9+ 68-8 58-8 58-8
1-5 6-10 11-15 16-2C 21-25 26-END MEAN PERIOD 1-5 6-10 91-15 16-25 26-END	29.5 47.2 23.5 11.9 8.2 6.9 20.7 YEAR: 1983 JAN 44.74 27.80 31.44 46.80 27.40	6.7 16.5 16.2 4.6 8.2 13.5 11.1 11.1	7.1 6.2 18.1 19.2 33.1 19.6 17.3 ANNUAL MEAN MAR 15.9 10.6 6.4 5.1 5.3 6.5	APR 15.8 57.0 27.2 25.2 64.2 82.8 45.4	MAY  48.6 22.3 20.4 49.8 27.6 32.9 33.0  MAY  6.5 13.6 14.6 14.2 13.3 10.3	40-5 41-0 32-1 53-2 22-3 14-1 33-9 JUN 8-4 6-1 13-0 16-3 16-3	11.6 11.1 15.7 15.6 25.1 10.4 14.8 14.8	7=7 8.2 39.5 36.6 23.9 16.1 21.8 Aug 22.9 20.5 16.9 25.4 34.5 29.5	28.3 12.4 8.8 9.9 17.2 10.8 14.6 52.0 64.8 33.6 33.6 19.8	21,3 12,6 11,6 13,6 12,0 18,6 18,6 15,1 001 14,8 14,2 11,4 11,3 17,0 20,3	28.3 37.6 47.7 39.6 58.4 62.2 45.6 80.4 40.8 30.1 20.1 20.1 15.3	52-3 27-5 28-7 37-0 144-4- 113-9+ 68-8 58-8 58-8
1-5 6-10 11-15 16-2C 21-25 26-END MEAN PERIOD 1-5 6-10 91-15 16-25 26-END	JAN  29.5 47.2 23.5 11.9 6.2 6.9 20.7  YEAR: 1983  JAN  44.74 27.84 46.86 27.64 18.0  32.2  YEAR: 1984  JAN	6.7 16.5 16.2 4.6 8.2 13.5 11.1 11.1 FEB	7.1 6.2 18.1 19.2 33.1 19.6 17.3	APR 15.8 57.0 27.2 25.2 64.2 82.8 45.4	MAY  48.6 22.3 20.4 49.8 27.6 32.9 33.0  MAY  6.5 13.6 14.6 14.2 13.3 10.3	40-5 41-0 32-1 53-2 22-3 14-1 53-9 JUN 8-4 6-1 13-0 16-5 16-5 11-8	11.6 11.1 15.7 15.6 25.1 10.4 14.8 14.8	7 = 7 8 • 2 39 • 5 36 • 6 23 • 9 16 • 1 21 • 8 Aug 22 • 9 20 • 5 16 • 9 25 • 4 34 • 5 25 • 6	28.3 12.4 8.8 9.9 17.2 10.8 14.6 52.0 64.8 52.0 64.8 33.6 51.8 19.8	21,3 12,6 11,6 13,6 12,0 18,6 18,6 15,1 001 14,8 14,2 11,4 11,3 17,0 20,3	28.3 37.6 47.7 39.6 58.4 62.2 45.6 45.6 80.1 20.1 20.1 20.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 3	5233 27.5 28.7 37.0 144.4 113.9 68.8 68.8 DEC 1223 15.5 177.2 44.0 24.9 20221
1- 5 6-10 11-15 16-2C 21-25 26-2ND MEAN PERIOD 1- 5 6-15 21-25 26-2ND MEAN	JAN  29.5 47.2 23.5 11.9 6.2 6.9 20.7  YEAR: 1983  JAN  44.74 27.84 31.44 46.84 27.44 18.0 32.2  YEAR: 1984  JAN  74.5	6.7 16.5 16.2 4.6 8.2 13.5 11.1 11.1 FEB 13.3 10.0 8.5 9.1 8.0 9.5	7.1 6.2 18.1 19.2 33.1 19.6 17.3 ANNUAL MEAN MAR 15.9 10.6 6.4 5.1 5.3 6.5 9.2	APR 15.8 57.0 27.2 25.2 64.2 82.8 45.4  20. APR 6.2 6.9 5.7 4.0 5.8 5.6	#AY  48.6 22.3 20.4 49.8 27.6 32.9  33.0  #AY  6.3 13.6 14.2 15.3 10.3  12.0  #AY	40.5 41.0 32.1 53.2 22.3 14.1 53.9	11.6 11.1 15.7 15.6 25.1 10.4 14.8 14.8 JUL 8.5 10.8 17.0 13.7 11.1	7 = 7 8 = 2 39 = 5 36 = 6 23 = 9 16 = 1 21 = 8 Aug 25 = 9 20 = 5 16 = 9 25 = 4 34 = 5 29 = 5 25 = 6	28.3 12.4 8.8 9.9 17.2 10.8 14.6 5EP 25.3 52.0 64.8 53.6 53.6 19.8 37.9	21,3 12,6 11,6 13,6 12,0 18,6 12,0 18,6 15,1 14,2 11,4 11,3 17,0 20,3 15,0	28-3 37-6 47-7 39-6 58-4 62-2 45-6 MOV 36-1 40-4 40-8 30-1 22-8 30-9 80-9	\$2.3 27.5 26.7 37.0 144.4 113.9 68.8 BEC 12.3 15.5 175.2 44.0 24.9 202.1 83.0
1- 5 6-10 11-15 16-2C 21-2ND MEAN PERIOD 1- 5 6-15 21-25 26-END MEAN PERIOD 1- 15 11-15 16-15	JAN  29.5 47.2 23.5 11.9 6.2 6.9 20.7  FEAR: 1983  JAN 44.74 27.8+ 51.4+ 46.8* 27.4+ 18.0  32.2  FEAR: 1984  JAN 74.5 39.9 40.2	6.7 16.5 16.2 4.6 8.2 13.5 11.1 11.1 4.0 9.5 9.1 4.0 6.8 9.5	7.1 6.2 18.1 19.2 33.1 19.6 17.3 ANNUAL MEAN MAR 15.9 10.6 6.4 5.1 5.3 6.5 9.2	APR 15.8 57.0 27.2 25.2 64.2 82.8 45.4 45.4	MAY  48.6 22.3 20.4 49.8 27.6 52.9 33.0  MAY  6.5 13.6 14.6 14.2 13.3 10.3 12.0	40-5 41-0 32-1 53-2 22-3 14-1 33-9 33-9 34-4 13-0 16-5 16-5 11-8	11.6 11.1 15.7 15.6 25.1 10.4 14.8 14.8 14.8 14.8 17.0 13.7 11.1 13.3	7 - 7 8 - 2 39 - 5 36 - 6 23 - 9 16 - 1 21 - 8 AUG 22 - 9 20 - 5 16 - 9 22 - 5 25 - 6 AUG	28.3 12.4 8.8 9.9 17.2 10.8 14.6 14.6 55.3 52.0 64.8 53.6 53.6 53.6 73.9	21,3 12,6 11,6 13,6 12,0 18,6 12,0 18,6 15,1 10,0 10,0 11,4 11,4 11,4 11,4 11,4 11	28.3 37.6 47.7 39.6 58.4 62.2 45.6 40.8 30.1 40.8 30.1 50.3 30.9 80.9	\$233 27-5 28-7 37-0 144-4-1 113-9+ 68-8 68-8 BEC 12-3 15-5 175-2 44-0 24-9 20221 83-0
1-5 6-10 11-15 16-2C 21-23 26-2N MEAN PERIOD 1-5 21-25	JAN  29.5 47.2 23.5 11.9 6.2 6.9 20.7  VEAR: 1983  JAN  44.74 27.89 31.44 46.89 27.64 18.0 32.2  VEAR: 1984 JAN  74.5 39.9 40.2 19.4	6.7 16.5 16.2 4.6 8.2 13.1 11.1 11.1 11.1 9.1 10.0 8.5 9.1 149.5 153.2 107.4 61.6	7.1 6.2 18.1 19.2 33.1 19.6 17.3 ANNUAL MEAN MAR 15.9 10.6 6.4 5.1 5.3 6.4 5.1 5.3 6.5	APR 15.8 57.0 27.2 25.2 64.2 82.8 45.4 45.4	***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **	40.5 41.0 32.1 53.2 22.3 14.1 33.9 33.9 JUN 8.4 6.1 13.0 16.5 16.3 10.5	11.6 11.1 15.7 15.6 25.1 10.4 14.8 14.8 14.8 14.8 17.0 13.7 19.0 11.1 13.3	7 = 7 8 • 2 39 • 5 36 • 6 23 • 9 16 • 1 21 • 8 Aug 22 • 5 16 • 9 22 • 5 16 • 9 25 • 6 Aug 29 • 5	28.3 12.4 8.8 9.9 17.2 10.8 14.6 14.6 52.0 64.8 33.6 31.8 19.8 37.9	21,3 12,6 11,6 13,6 12,0 18,6 18,6 15,1 14,6 14,2 11,4 11,4 11,3 17,0 20,5 15,0	28.3 37.6 47.7 39.6 58.4 62.2 45.6 80.4 40.8 30.1 20.1 30.1	\$2:3 27:5 28:7 37:0 144:4 113:9* 68:8 BEC 12:3 15:5 175:2 44:0 24:9 20:21 83:0 BEC 18:5 20:7 17:5
7-10 11-15 16-2C 21-2S 26-END HEAN PERIOD 1-50 16-2C 26-END MEAN PERIOD 1-15 16-2C 26-END	JAN  29.5 47.2 23.5 11.9 8.2 0.9 20.7  YEAR: 1983  JAN 44.74 27.80 31.44 46.80 27.40 18.0 32.2  YEAR: 1984 JAN 74.5 39.9 40.2 19.4 31.4	6.7 16.5 16.2 4.6 8.2 13.5 11.1 11.1 11.1 12.3 10.0 8.5 9.1 8.0 9.5 149.5 153.2 107.4 161.0 453.3	7.1 6.2 18.1 19.2 33.1 19.6 17.3 ANNUAL MEAN MAR 15.9 10.6 6.4 5.1 5.3 6.5 9.2	APR 15.8 57.0 27.2 25.2 64.2 82.8 45.4 45.4	**************************************	40-5 41-0 32-1 53-2 22-3 14-1 33-9 JUN 8-4 6-1 13-0 16-5 16-5 16-5 16-5 16-5 16-5 17-8	11.6 11.1 15.7 15.6 25.1 10.4 14.8 17.0 13.7 19.0 13.7 19.0 13.7 19.0 29.7 29.7	7 = 7 8 = 2 39 = 5 36 = 6 23 = 9 16 = 1 21 = 8 AUG 25 = 9 20 = 5 16 = 9 25 = 6 AUG 29 = 5 25 = 6 AUG 29 = 2 25 = 8 20 = 1 14 = 2 11 = 7 10 = 2	28.3 12.4 8.8 9.9 17.2 10.8 14.6 14.6 52.0 64.8 33.6 31.8 37.9 52.0 64.8 31.8 37.9	21.3 12.6 13.6 13.6 12.0 18.6 15.1  OCT  14.3 14.2 11.4 11.3 17.0 20.3 15.0  OCT  49.5 27.9 4.1 2.8	28.3 37.6 47.7 39.6 58.4 62.2 45.6 45.6 40.4 40.4 40.4 50.1 22.8 30.1 22.8 30.1 22.8 30.1 22.8 30.1 22.8 30.1 23.6 30.1 24.6 30.1 25.6 30.1 26.6 30.1 26.6 30.1 26.6 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1	5233 27.5 26.7 37.0 144.4 113.9 68.8 68.8 68.8 68.8 68.8 68.8 68.8 68

Table 21 5-DAY INFLOW DISCHARGE AT LINGGIU DAM (1/3)

	JAN		HAUAL PEAN	400	W.A.Y	JUN .	JUL	AUG	SEP	QCT		8fC
PER 100		5.7+	14.4*	6.3	3.24	8.64	1.94 1.7*	5.8* 4.6*	1.3	5 . 5 4 . 0	941 1144	1272 878 1211
6-10 11-15	6.7± 5.0±	3,9* 3.1*	7.1	4.6*	2.6* 2.6* 4.7*	ó=1* 449* 440*	1.54	3.74. 2.84	2.8	2.6 6.3	10 i 5 6 i 5	3'4 14.2
16~20 21~25	2.5	2.4*	2.94 4.3	9.4. 6.3. 4.3.	15.34	3.C*	1.8*	2.34 3.9*	15.6	11.2	9.4	12,2
26-E#D	3.5±	27.2° 6.3	13.6* 5.0	********			2.4	3.9	4.9		8,6	10.5
n L n n		7.5				,					•	4
	1EAR : 1964		NADAL BEAN	: 7.0	5		•					
PERIOD	JAN	ffB	MAR	APR	MAY	JUN	JUL	AUG	SEP	067		DEC
1- 5		2.5	54.4 9.6 32.2	3.7	20.8	1.9	2.6 4.9	6 • 2 1 • 7	4.0 6.8	2.7	2.2	017 041 045
6-10 11-15	2.7	• 12	3 8 6	1G 6	22.3 20.1 8.0	2.0 1.0	9.6	1.1 1.2	4.8	0+7 11-2 6-2	0.5	3446
16-20 21-25 26-END	8.8 11.5 5.5	2.3 24.0	8.8 5.3	11.0	5 • 9	2.0	17.6 14.9	1.0	3.42	5.9	0.7	46.4
REAH		5.9	21.8	5.8	12.2	1.0	9.1	1.9	3.9	4.0	1.0	15-0
•								-				
Y	FEAR : 1965	A	NHUAL MEAN	: 7.1	ſ							
PERIOD	#AL	FEB	AAR	APR	RAY	JUN	JUL			730	*****	DEC 16.6
1- 5 6-10	49.5 13.0	1.4	1.3	3 ± 2 5 ± 6	10.4 11.9	4 . 2 2 . 6	1.4	6 •8 7 •8	2.5 3.1	6.7 5.1	19. R	10:3 10:5
11-15 16-20	6.1 3.1	6.0 4.3	0.9	7.9	17.3 9.0	1.6 3.4	5+6 2+0	8.5 8.1	1.3 3.3 4.2	6.8 7.1 9.2	15.0 8.7	17.6 1033
21-25 26-END	1.8	2.7 3.1	1.9	106	7.1	2.2	1.8 2.2	4.9	3.5	16.3	17.4	13.1
MEAN	12.1	3.2	1.3	7+1		2.7	5*9	7.3	2.0	8.8		13.1
Y	FEAR : 1966	A	HRUAL MEAN	: 8.1	1							
PERIOD	HAL						JUL	AUG	`\$ <i>EP</i>	007	HOY	0EC 10-3
15 6-10	10.8 5.8	3.0 3.5	7 4	2.9	12.5	3.9 7.3	2.3 6.0	6.0 11.8	10.9 5.2	5.6 8.1 26.0		12.1 11.7
5-10 11-15 16-20	10.5 5.9	2.6 3.5	3.1 2.7 5.2 2.4	7.4	2.8	6.8 5.1	11.0 13.2	8 . 8 14 . 1 12 . 9		9 . 8 7 . 3	19°7 21°7	11.3
21-25 26-EHD	13.3 13.6	3.0 3.5 2.6 3.5 6.0 2.2	2.4	10.8	3.3	3.5 2.5	11.7 7.5	10.7	4.1	6.0	17.3	16.0
REAX	10+0	3.6	3.8	7.2	4.6	4.8	8.6	10.7	0.5	10.3		12.6
-	,			*								
	٠	e.			-	•						
	TEAR : 1967		HNUAL MEAN		•							
PERIOD	HAL	, FEB	MAR	APR	HAY	JUN	JUL				#6¥	
PERIOD 1- 5 6-10	MAL	FEB .	MAR	APR 4 • 5 7 • 5	#AY 26.3 14.2	4.8	2.6 3.2	1.7 1.5	5:6 9:2	7.47 6.7	1644* 1544*	1975 <i>•</i> 1445
7	JAN 11.4 10.0 54.9 38.5	FEB 8.4 3.3 9.9 81.2	#AR 3548 14±0 12±6 6±2	APR 4.5 7.5 4.7 4.8	#AY 26.3 14.2 26.1 24.2	4.8 3.1 3.2 9.7	2.6 3.2 5.7 6.5	1.7 1.5 2.8 4.0	5:6 9:2 7:9 4:7	7.7 6.7 6.0 3.5	1644 1524 16614 2384	9935+ 1435+ 3124+ 7549+
1= 5 6-10 11-15 14-26	MAL	8.4 3.3 9.9	#AR 3548 1440 1246 642 548	APR 4.5 7.5 4.7 4.8	74.2 26.1	4.8 3.1 3.2	2.6 3.2 5.7	1.7 1.5 2.8	5.6 9.2 7.9	7.7 6.7 6.0 3.5 12.6 10.8	1644 1544 16314 2344 27634	1935+ 1635+ 3124+ 7549+ 3066+ 46+00
FERIOD 1-5 6-10 11-15 16-20 21-25	JAN 11.4 10.0 54.9 38.5 9.8	8.4 3.3 9.9 81.2 48.0	#AR 3548 1440 1246 642 548	APR 4 + 5 7 + 5 4 + 7 4 + 8 9 + 7	#AY 26.3 14.2 26.1 24.2	4.8 3.1 3.2 9.7 6.6	2.6 3.2 5.7 6.5 4.5	7.7 1.5 2.8 4.0 2.6	5:6 9:2 7:9 4:7 6.9	7.7 6.7 6.0 3.5 12.6	1644 1544 16314 2344 27634	1925+ 1645+ 3124+ 7549+ 3046+
PERIOD  1-5 6-16 11-15 16-20 21-25 26-END	144 10.0 54.9 38.5 9.8 6.3	FEB  6.4 3.3 9.9 81.2 48.0 15.5	35.8 14.0 12.6 6.2 5.8 3.1	APR 4.5 7.5 4.7 4.8 9.7 50.7	26.3 14.2 26.1 24.2 17.8 9.2	4.8 3.1 3.2 9.7 6.6 4.4	2.6 3.2 5.7 6.5 4.5 2.1	1 = 7 1 = 5 2 = 8 4 = 0 2 = 6 3 = 2	5±6 9±2 7±9 4±7 6•9 14±2	7.7 6.7 6.0 3.5 12.6 10.8	1644+ 1544+ 16114- 2344+ 2743+ 2846+	1935 1635+ 3124+ 7549+ 3046+ 46+04
FERIOD  1+5 6-10 11-15 16-20 21-25 26-END  MEAN	JAN 11.4 10.0 54.9 38.5 9.8 6.3 21.3	FEB  6.4 3.3 9.9 81.2 48.0 15.5 28.6	#AR  35 46 14 40 12 46 6 42 5 48 3 41  12 46	APR 4.5 7.5 4.7 4.8 9.7 50.7	74.2 26.1 14.2 26.1 24.2 17.8 9.2	4.8 3.1 3.2 9.7 6.6 4.4	2.6 3.2 5.7 6.5 4.5 2.1	1.7 1.5 2.8 4.0 2.6 3.2	5.6 9.2 7.9 4.7 6.9 14.2	7.7 6.7 6.0 3.5 12.6 10.8	10249 15240 16314 23340 27230 28260	1935- 1845- 3124- 7549- 306- 44-00
7 - S - S - S - S - S - S - S - S - S -	JAM 11.4 10.0 54.9 38.5 9.8 6.3 21.3	6.4 3.3 9.9 81.2 48.0 15.5 28.6	MAR  35 & 6 14 & 0 12 & 6 6 & 2 5 & 3 3 & 1  12 & 6	APR 4.5 7.5 4.7 4.8 9.7 50.7 13.7	RAY  26.3 14.2 26.1 24.2 17.8 9.2 19.3	4.8 3.1 3.2 9.7 6.6 4.4 5.3	2=6 3=2 5=7 6=5 4=5 2=1 4=0	1.7 1.5 2.8 4.0 2.6 3.2 2.6	5.6 9.2 7.9 4.7 6.9 14.2 8.1	7.7 6.7 6.0 3.5 12.6 10.8 8:0	10.49 15.40 16.14 23.40 27.30 28.60 21.22	7935- 1435- 3124- 7539- 306- 44-0- 36-2
7 - S - S - S - S - S - S - S - S - S -	JAM 11.4 10.0 54.9 38.5 9.8 6.3 21.3	6.4 3.3 9.9 81.2 48.0 15.5 28.6	MAR  35 & 6 14 & 0 12 & 6 6 & 2 5 & 3 3 & 1  12 & 6	APR 4.5 7.5 4.7 4.8 9.7 50.7 13.7	RAY  26.3 14.2 26.1 24.2 17.8 9.2 19.3	4.8 3.1 3.2 9.7 6.6 4.4 5.3	2=6 3=2 5=7 6=5 4=5 2=1 4=0	1.7 1.5 2.8 4.0 2.6 3.2 2.6	5.6 9.2 7.9 4.7 6.9 14.2 8.1	7.7 6.7 6.0 3.5 12.6 10.8 8:0	10.49 15.40 16.14 23.40 27.30 28.60 21.22	7935- 1435- 3124- 7539- 306- 44-0- 36-2
7 - S - S - S - S - S - S - S - S - S -	JAM 11.4 10.0 54.9 38.5 9.8 6.3 21.3	6.4 3.3 9.9 81.2 48.0 15.5 28.6	MAR  35 & 6 14 & 0 12 & 6 6 & 2 5 & 3 3 & 1  12 & 6	APR 4.5 7.5 4.7 4.8 9.7 50.7 13.7	RAY  26.3 14.2 26.1 24.2 17.8 9.2 19.3	4.8 3.1 3.2 9.7 6.6 4.4 5.3	2=6 3=2 5=7 6=5 4=5 2=1 4=0	1.7 1.5 2.8 4.0 2.6 3.2 2.6	5.6 9.2 7.9 4.7 6.9 14.2 8.1	7.7 6.7 6.0 3.5 12.6 10.8 8:0	10.49 15.40 16.14 23.40 27.30 28.60 21.22	7935- 1435- 3124- 7539- 306- 44-0- 36-2
PERIOD 1-5 6-16 11-15 16-20 21-25 26-END NEAN PERIOD 1-5 6-10 11-15 16-20 21-25 26-END	JAN  11.4 10.0 54.9 38.5 9.8 6.3 21.3  21.3  IEAR : 1968  JAN 91.64 33.8* 17.2* 10.7* 7.29 4.7*	FEB  6.4 3.3 9.9 81.2 48.0 15.5 28.6  FEB  3.7* 3.0* 2.0* 2.2* 1.5*	MAR  35.8 14.0 12.6 6.2 5.8 3.1 12.6  MNUAL MEAN MAR 1.64 1.24 5.50 11.77 26.14	APR 4.5 7.5 4.7 4.8 9.7 50.7 13.7 : 7.6 APR 17.3* 7.3 6.3 3.6 5.1	#AY  26-3 14-2 26-1 24-2 17-8 9-2 19-3  HAY  7-3 7-8 4-7 12-9 7-8 4-1	4.8 3.1 3.2 9.7 6.6 4.4 5.3 JUM 4.1 3.9 5.2 5.8 2.8 2.5	2=6 3=2 5=7 6=5 4=5 2=1 4=0 JUL 4=1* 3=0a 2=3* 2=3* 2=3* 2=6*	1.7 1.5 2.8 4.0 2.6 3.2 2.6 3.2 2.6 4.0 2.5 2.6 2.7 2.7 2.7 2.7 2.4 2.7 2.4 2.0	5=6 9=2 7=9 4=7 6=9 14=2 8=1 1=5= 1=1* 2=10 15=12 12=3= 8=7*	7.7 6.0 3.5 12.6 10.8 8.0 000 000 4.44 4.3 11.3 4.4 2.9 8.8	10-49-15-24-15-24-15-24-15-2-28-26-21-22  MOV 15-26 21-2 15-2 15-2 15-2 15-2 15-2 15-2 15-2	9925- 1845- 3124- 75-9- 3066- 46-00 36-2 080 625 424 822 1362 593 563
PERIOD 1-5 6-16 11-15 16-20 21-25 26-END NEAN PERIOD 1-5 6-10 11-15 16-20 21-25 26-END	JAN  11.4 10.0 54.9 38.5 9.8 6.3 21.3  21.3  JAN  91.64 33.68 17.28 10.78 7.28	FEB  6.4 3.3 9.9 81.2 48.0 15.5 28.6  FEB  3.7* 3.0* 2.0* 2.2* 1.5*	MAR  35.8 14.0 12.6 6.2 5.8 3.1 12.6  MNUAL MEAN MAR 1.64 1.24 5.50 11.77 26.14	APR 4.5 7.5 4.7 4.8 9.7 50.7 13.7 : 7.6 APR 17.3* 7.3 6.3 3.6 5.1	#AY  26-3 14-2 26-1 24-2 17-8 9-2 19-3  HAY  7-3 7-8 4-7 12-9 7-8 4-1	4.8 3.1 3.2 9.7 6.6 4.4 5.3 JUM 4.1 3.9 5.2 5.8 2.8 2.5	2=6 3=2 5=7 6=5 4=5 2=1 4=0 JUL 4=1* 3=0a 2=3* 2=3* 2=3* 2=6*	1.7 1.5 2.8 4.0 2.6 3.2 2.6 3.2 2.6 4.0 2.5 2.6 2.7 2.7 2.7 2.7 2.4 2.7 2.4 2.0	5=6 9=2 7=9 4=7 6=9 14=2 8=1 1=5= 1=1* 2=10 15=12 12=3= 8=7*	7.7 6.0 3.5 12.6 10.8 8.0 000 000 4.44 4.3 11.3 4.4 2.9 8.8	10-49-15-24-15-24-15-24-15-2-28-26-21-22  MOV 15-26 21-2 15-2 15-2 15-2 15-2 15-2 15-2 15-2	9925- 1845- 3124- 75-9- 3066- 46-00 36-2 080 625 424 822 1362 593 563
PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAH  PERIOD  1-5 6-10 11-15 14-25 26-END  NEAH	JAN  11.4 10.0 54.9 38.5 9.8 6.3 21.3  21.3  21.3  IEAR : 1968  JAN 91.64 33.54 17.24 10.7* 26.8	FEB  6.4 3.3 9.9 81.2 48.0 15.5 28.6 28.6  A FEB 3.7* 3.00 2.66 2.20 1.59 1.65	NAR  35.8 14.0 12.6 6.2 5.8 3.1  12.6  MNUAL HEAN NAR 1.4 1.2 5.5 11.7 26.1	APR 4.5 7.5 4.7 4.6 9.7 13.7 13.7  APR 17.38 7.3 6.3 3.6 4.6 5.1	7.3 7.8 7.8 9.2 19.3 19.3	4.8 3.1 3.2 9.7 6.6 4.4 5.3 JUM 4.1 3.9 5.2 5.8 2.8 2.5	2=6 3=2 5=7 6=5 4=5 2=1 4=0 JUL 4=1* 3=0a 2=3* 2=3* 2=3* 2=6*	1.7 1.5 2.8 4.0 2.6 3.2 2.6 3.2 2.6 4.0 2.5 2.6 2.7 2.7 2.7 2.7 2.4 2.7 2.4 2.0	5=6 9=2 7=9 4=7 6=9 14=2 8=1 1=5= 1=1* 2=10 15=12 12=3= 8=7*	7.7 6.0 3.5 12.6 10.8 8.0 000 000 4.44 4.3 11.3 4.4 2.9 8.8	10-49-15-24-15-24-15-24-15-2-28-26-21-22  MOV 15-26 21-2 15-2 15-2 15-2 15-2 15-2 15-2 15-2	9935- 1445- 3124- 75-9+ 3046- 44-00- 36-2 080 645- 442- 445- 444- 872- 1362- 1
PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAH  PERIOD  1-5 6-10 11-15 12-25 21-25	JAN  11.4 10.0 54.9 38.5 9.8 6.3 21.3  21.3  /EAR: 1968  JAN 91.64 33.84 17.24 10.74 7.27 26.8  /EAR: 1969	FEB  6.4 3.3 9.9 97:2 48.0 15.5 28.6  A  FEB  3.7* 3.0* 2.0* 2.1 7.5 2.5	NAR  35.88 14.0 12.6 6.2 5.8 3.1 12.6  MNUAL MEAN NAR 1.4 5.5 11.7 17.3 26.1 11.0	APR  4.5 7.5 4.7 4.8 9.7 50.7 13.7  : 7.8 APR  17.3* 6.3 3.46 4.6 5.1 7.3	7.3 7.8 9.2 19.3 19.3 19.3 19.3 19.3 19.3	4.8 3.1 3.2 9.7 6.6 4.4 5.3 JUM 4.1 3.9 5.2 5.8 2.8 2.5 4.1	2-6 3-2 5-7 6-5 4-5 2-1 4-0 JUL 4-1+ 3-0a 2-3+ 2-3+ 2-3+ 2-6* 2-8	1.7 1.5 2.8 4.0 2.6 3.2 2.6 AU6 2.2* 1.00 2.53 2.7* 2.4* 2.0*	5=6 9=2 7=9 4=7 6=9 14=7 8=1 15=1 15=1 15=1 12=1 12=1 8=7* 6=8	7.7 6.0 3.5 12.6 10.8 8.0 007 4.4 4.3 11.3 4.4 2.9 8.8	10-40-15-40-15-40-15-40-15-40-27-33-40-28-40-21-52-21-52-21-52-21-52-21-52-53-52-52-52-52-52-52-52-52-52-52-52-52-52-	9939 14459 31249 75599 30569 4460 3652 986 454 832 1352 593 593
PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAH  PERIOD  1-5 6-10 11-15 12-25 21-25	JAN  11.4 10.0 54.9 38.5 9.8 6.3 21.3  21.3  /EAR: 1968  JAN 91.64 33.84 17.24 10.74 7.27 26.8  /EAR: 1969	FEB  6.4 3.3 9.9 97:2 48.0 15.5 28.6  A  FEB  3.7* 3.0* 2.0* 2.1 7.5 2.5	NAR  35.88 14.0 12.6 6.2 5.8 3.1 12.6  MNUAL MEAN NAR 1.4 5.5 11.7 17.3 26.1 11.0	APR  4.5 7.5 4.7 4.8 9.7 50.7 13.7  : 7.8 APR  17.3* 6.3 3.46 4.6 5.1 7.3	7.3 7.8 9.2 19.3 19.3 19.3 19.3 19.3 19.3	4.8 3.1 3.2 9.7 6.6 4.4 5.3 JUM 4.1 3.9 5.2 5.8 2.8 2.5 4.1	2-6 3-2 5-7 6-5 4-5 2-1 4-0 JUL 4-1+ 3-0a 2-3+ 2-3+ 2-3+ 2-6* 2-8	1.7 1.5 2.8 4.0 2.6 3.2 2.6 AU6 2.2* 1.00 2.53 2.7* 2.4* 2.0*	5=6 9=2 7=9 4=7 6=9 14=7 8=1 15=1 15=1 15=1 12=1 12=1 8=7* 6=8	7.7 6.0 3.5 12.6 10.8 8.0 007 4.4 4.3 11.3 4.4 2.9 8.8	10-40-15-40-15-40-15-40-15-40-27-33-40-28-40-21-52-21-52-21-52-21-52-21-52-53-52-52-52-52-52-52-52-52-52-52-52-52-52-	9939 14459 31249 75599 30569 4460 3652 986 454 832 1352 593 593
PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAH  PERIOD  1-5 6-10 11-15 12-25 21-25	JAN  11.4 10.0 54.9 38.5 9.8 6.3 21.3  21.3  /EAR: 1968  JAN 91.64 33.84 17.24 10.74 7.27 26.8  /EAR: 1969	FEB  6.4 3.3 9.9 97:2 48.0 15.5 28.6  A  FEB  3.7* 3.0* 2.0* 2.1 7.5 2.5	NAR  35.88 14.0 12.6 6.2 5.8 3.1 12.6  MNUAL MEAN NAR 1.4 5.5 11.7 17.3 26.1 11.0	APR  4.5 7.5 4.7 4.8 9.7 50.7 13.7  : 7.8 APR  17.3* 6.3 3.46 4.6 5.1 7.3	7.3 7.8 9.2 19.3 19.3 19.3 19.3 19.3 19.3	4.8 3.1 3.2 9.7 6.6 4.4 5.3 JUM 4.1 3.9 5.2 5.8 2.8 2.5 4.1	2-6 3-2 5-7 6-5 4-5 2-1 4-0 JUL 4-1+ 3-0a 2-3+ 2-3+ 2-3+ 2-6* 2-8	1.7 1.5 2.8 4.0 2.6 3.2 2.6 AU6 2.2* 1.00 2.53 2.7* 2.4* 2.0*	5=6 9=2 7=9 4=7 6=9 14=7 8=1 15=1 15=1 15=1 12=1 12=1 8=7* 6=8	7.7 6.0 3.5 12.6 10.8 8.0 007 4.4 4.3 11.3 4.4 2.9 8.8	10-40-15-40-15-40-15-40-15-40-27-33-40-28-40-21-52-21-52-21-52-21-52-21-52-53-52-52-52-52-52-52-52-52-52-52-52-52-52-	9935- 1445- 3124- 7509- 3066- 44-0- 36-2 56-2 1562- 593- 593- 593- 593- 593- 593- 593- 593
PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAH  PERIOD  1-5 6-10 15-15 16-20 21-25 26-END  NEAH	JAN  11.4 10.0 54.9 38.5 9.8 6.3 21.3  21.3  /EAR: 1968  JAN 91.64 33.84 17.24 10.74 7.27 26.8  /EAR: 1969	FEB  6.4 3.3 9.9 97:2 48.0 15.5 28.6  A  FEB  3.7* 3.0* 2.0* 2.1 7.5 2.5	NAR  35.88 14.0 12.6 6.2 5.8 3.1 12.6  MNUAL MEAN NAR 1.4 5.5 11.7 17.3 26.1 11.0	APR  4.5 7.5 4.7 4.8 9.7 50.7 13.7  : 7.8 APR  17.3* 6.3 3.46 4.6 5.1 7.3	7.3 7.8 9.2 19.3 19.3 19.3 19.3 19.3 19.3	4.8 3.1 3.2 9.7 6.6 4.4 5.3 JUM 4.1 3.9 5.2 5.8 2.8 2.5 4.1	2-6 3-2 5-7 6-5 4-5 2-1 4-0 JUL 4-1+ 3-0a 2-3+ 2-3+ 2-3+ 2-6* 2-8	1.7 1.5 2.8 4.0 2.6 3.2 2.6 AU6 2.2* 1.00 2.53 2.7* 2.4* 2.0*	5=6 9=2 7=9 4=7 6=9 14=7 8=1 15=1 15=1 15=1 12=1 12=1 8=7* 6=8	7.7 6.0 3.5 12.6 10.8 8.0 007 4.4 4.3 11.3 4.4 2.9 8.8	10-40-15-40-15-40-15-40-15-40-27-33-40-28-40-21-52-21-52-21-52-21-52-21-52-53-52-52-52-52-52-52-52-52-52-52-52-52-52-	9935- 1445- 3124- 7509- 3066- 44-0- 36-2 56-2 1562- 593- 593- 593- 593- 593- 593- 593- 593
PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAN  PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAN	JAN  11.4 10.0 54.9 38.5 9.8 6.3  21.3  21.3  21.3  IEAR: 1968  JAN  91.64 33.54 17.24 10.74 7.27 4.74 26.8  IEAR: 1969  JAN  9.0 10.6 4.6 4.5 2.4 3.6	FEB  6.4 3.3 9.9 81.2 48.0 15.5 28.6 28.6 2.6 2.6 2.2 3.6 2.6 2.2 3.6 2.6 2.2 3.6 2.6 2.1 3.7 1.8 3.1 1.1 1.1 1.2 1.1 1.2 1.1	NAR  35.8 14.0 12.6 6.2 5.8 3.1 12.6  MNUAL MEAN  MAR  1.46 1.24 5.56 11.7* 17.3+ 26.1*  11.0  NNUAL MEAN  AAR  0.8 0.5 0.5 0.6 2.6	APR 4.5 7.5 4.7 4.8 9.7 13.7 13.7  APR 17.34 7.3 6.3 3.6 4.6 5.1 7.3 4.6 4.6 9.7 15.7 10.44	7.3 7.8 4.7 12.9 7.3 7.8 4.7 12.9 7.8 4.7 12.9 7.8 4.1 11.2 5.5	4.8 3.1 3.2 9.7 6.6 4.4 5.3  JUN 4.1 3.9 5.2 5.8 2.3 4.1  JUN 11.7 17.7 7.7 8.3 8.9 4.1	2-6 3-2 5-7 6-5 4-5 2-1 4-0  JUL  4-1+ 3-0 2-3+ 2-3+ 2-3+ 2-8+ 2-6* 2-8  7-5-1 6-4 2-2	1.7 1.5 2.8 4.0 2.6 3.2 2.6 2.6 2.2 1.9 2.5 2.7 2.4 2.7 2.4 2.7 2.4 2.7 2.1 3.5 7.6 14.2 19.5	5=6 9-2 7-9 4-7 6-9 14-2 8-7 1-5-1- 2-1- 15-1- 2-1- 15-1- 2-1- 15-1- 2-1- 15-1- 3-7 4-8 8-7 4-8	7.7 6.0 3.5 12.6 10.8 8.0 0ct 4.4 4.3 11.3 4.4 2.9 8.8 6.1	10-4-15-16-15-16-15-16-15-16-15-16-15-16-15-16-15-16-15-16-15-16-16-16-16-16-16-16-16-16-16-16-16-16-	9935- 1845- 3124- 7509- 3066- 44-00- 36-2 44-872- 424-872- 1352- 503- 503- 508- 608- 608- 608- 608- 608- 608- 608- 6
PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAN  PERIOD  1-5 6-10 11-15 16-20 27-25 26-END  NEAN	JAN  11.4 10.0 54.9 38.5 9.8 6.3 21.3  21.3  JAN  91.64 33.84 17.24 10.74 7.29 4.77 26.8  (EAR: 1969 JAN 9.0 10.6 4.5 2.6	FEB  6.4 3.3 9.9 81.2 48.0 15.5 28.6 28.6 2.6 2.6 2.2 3.6 2.6 2.2 3.6 2.6 2.2 3.6 2.6 2.1 3.7 1.8 3.1 1.1 1.1 1.2 1.1 1.2 1.1	NAR  35.8 14.0 12.6 6.2 5.8 3.1 12.6  MNUAL MEAN  MAR  1.46 1.24 5.56 11.7* 17.3+ 26.1*  11.0  NNUAL MEAN  AAR  0.8 0.5 0.5 0.6 2.6	APR 4.5 7.5 4.7 4.8 9.7 13.7 13.7  APR 17.34 7.3 6.3 3.6 4.6 5.1 7.3 4.6 4.6 9.7 15.7 10.44	7.3 7.8 4.7 12.9 7.3 7.8 4.7 12.9 7.8 4.7 12.9 7.8 4.1 11.2 5.5	4.8 3.1 3.2 9.7 6.6 4.4 5.3  JUN 4.1 3.9 5.2 5.8 2.3 4.1  JUN 11.7 17.7 7.7 8.3 8.9 4.1	2-6 3-2 5-7 6-5 4-5 2-1 4-0  JUL  4-1+ 3-0 2-3+ 2-3+ 2-3+ 2-8+ 2-6* 2-8  7-5-1 6-4 2-2	1.7 1.5 2.8 4.0 2.6 3.2 2.6 2.6 2.2 1.9 2.5 2.7 2.4 2.7 2.4 2.7 2.4 2.7 2.1 3.5 7.6 14.2 19.5	5=6 9-2 7-9 4-7 6-9 14-2 8-7 1-5-1- 2-1- 15-1- 2-1- 15-1- 2-1- 15-1- 2-1- 15-1- 3-7 4-8 8-7 4-8	7.7 6.0 3.5 12.6 10.8 8.0 0CT 4.44 4.3 11.3 4.4 2.9 8.8 6.1	10-4-15-16-16-15-16-16-15-16-16-16-16-16-16-16-16-16-16-16-16-16-	9925- 1845- 3124- 7529- 3046- 44-00- 36-2 44-8 822- 13-2 13-2 13-2 13-2 13-3 13-6 121-3 13-6 121-3 13-6
PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAN  PERIOD  1-5 6-10 11-15 16-20 27-25 26-END  NEAN  NEAN	JAN  11.4 10.0 54.9 38.5 9.8 6.3  21.3  21.3  21.3  IEAR: 1968  JAN  91.64 33.84 17.24 10.72 7.27 4.74 26.8  IEAR: 1969 JAN  9.0 10.6 4.6 4.5 2.4 3.6	FEB  6.4 3.3 9.9 91.2 48.0 15.5 28.6  28.6  FEB  3.7* 3.00 2.66 2.2* 7.85 1.6* 2.5  A  FEB  1.4 1.2 1.1 0.9 1.0 1.2	NAR  35.8 14.0 12.6 6.2 5.8 3.1 12.6  MNUAL MEAN MAR 1.44 1.24 5.55 11.7* 17.35 26.1* 11.0  NNUAL MEAN MAR 0.8 0.5 0.5 0.6 2.4	APR  4.5 7.5 4.7 4.8 9.7 50.7 13.7  : 7.8 APR  17.3* 6.3 3.6 4.6 5.1 7.3  : 8.6 APR  11.3* 11.3* 11.3* 11.4 11.2	7.3 7.8 9.2 19.3 HAY 7.3 7.8 4.7 12.9 7.8 4.7 12.9 7.8 4.1 11.2 5.5	4.8 3.1 3.2 9.7 6.6 4.4 5.3  JUN 4.1 3.9 5.2 5.8 2.3 4.1  JUN 11.7 17.7 7.7 8.3 8.9 4.1	2=6 3=2 5=7 6=5 4=5 2=1 4=0  JUL 4=1+ 3=0a 2=3+ 2=3+ 2=3+ 2=3+ 2=3+ 2=3+ 2=3+ 2=3+	1.7 1.5 2.8 4.0 2.6 3.2 2.6 2.6 2.2 1.9 2.5 2.7 2.4 2.7 2.4 2.7 2.4 2.7 2.1 3.5 7.6 14.2 19.5	5=6 9-2 7-9 4-7 6-9 14-2 8-7 1-5-1- 2-1- 15-1- 2-1- 15-1- 2-1- 15-1- 2-1- 15-1- 3-7 4-8 8-7 4-8	7.7 6.0 3.5 12.6 10.8 8.0 0ct 4.4 4.3 11.3 4.4 2.9 8.8 6.1	10-4-15-16-15-16-15-16-15-16-15-16-15-16-15-16-15-16-15-16-15-16-16-16-16-16-16-16-16-16-16-16-16-16-	9935- 1845- 3124- 7509- 3066- 44-00- 36-2 44-872- 424-872- 1352- 503- 503- 508- 608- 608- 608- 608- 608- 608- 608- 6
PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAH  PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAH	JAN  11.4 10.0 54.9 38.5 9.8 6.3 21.3  21.3  /EAR: 1968  JAN  91.64 33.68 17.28 10.78 7.29 4.79  26.8  /EAR: 1969 JAN 9.0 10.6 4.6 4.5 2.6 3.0 5.6	FEB  6.4 3.3 9.9 91.2 48.0 15.5 28.6  A  FEB  3.7* 3.00 2.00 2.22* 7.32 1.65* 2.5  A  FEB	NAR  35.48 14.0 12.6 6.2 5.8 3.1 12.6  MNUAL MEAN NAR 1.44 1.24 5.55 11.7 17.35 26.1 11.0  NNUAL MEAN AAR 0.8 0.5 0.5 0.5 0.5 0.5 0.6 0.6 0.6 1.0	APR  4.5 7.5 4.7 4.8 9.7 50.7 13.7  : 7.8 APR  17.3 6.3 3.6 4.6 5.1 7.3 : 8.6 APR  11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 8.6 9.7 15.7 15.7 10.4 11.2	ВАУ  26.3 34.2 26.1 24.2 17.8 9.2 19.3  НАУ  7.3 7.8 4.7 12.9 7.8 4.7 12.9 7.8 4.1 1.2 5.5 7.3	4.8 3.1 3.2 9.7 6.6 4.4 5.3  JUM 4.1 3.9 5.2 5.8 2.8 2.5 4.1 JUN 11.7 7.7 8.3 8.9 4.1	2-6 3-2 5-7 6-5 4-5 2-1 4-0  JUL 4-1+ 3-04 2-3+ 2-3+ 2-3+ 2-5+ 2-5+ 2-6+ 2-8  JUL 5-0 11-1 8-7 5-1 6-4 2-2 6-3	1 - 7 1 - 5 2 - 8 4 - 0 2 - 6 3 - 2 2 - 6 AUG 2 - 2 - 6 2 - 3 - 2 2 - 3 - 2 2 - 3 - 2 2 - 4 - 2 2 - 2 - 3 - 2 2 - 3 - 3 3 - 3 7 - 6 14 - 2 19 - 5 7 - 6 14 - 2 19 - 5 7 - 6 14 - 2 19 - 5 8 - 4 8 - 4 9 - 6 19 - 7 19 - 7 2 - 6 19 - 7 2 - 7 2 - 8 2 - 7 2 - 7 2 - 8 3 - 7 2 - 8 3 - 7 3 - 7 4 - 7 5 - 7 6 - 7 7 - 6 14 - 7 7 - 6 14 - 7 7 - 6 14 - 7 8 - 7	5=6 9,2 7-9 4+7 6-9 14-7 6-9 14-7 6-12 8-1 15-14 12-14 12-15-15-14 12-15-15-15-15 12-15-15-15-15 12-15-15-15 12-15-15-15 12-15-15-15 12-15-15-15 12-15-15-15	7.7 6.0 3.5 12.6 10.8 8.0 0ct 4.4 4.3 11.3 4.4 2.9 8.8 6.1	10-4-15-4-15-4-15-4-15-4-15-4-15-4-15-4-	9935- 1845- 3124- 7509- 3046- 44-00- 36-2  DEC
PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAH  PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAH	JAN  11.4 10.0 54.9 38.5 9.8 6.3 21.3  21.3  /EAR: 1968  JAN  91.64 33.68 17.28 10.78 7.29 4.79  26.8  /EAR: 1969 JAN 9.0 10.6 4.6 4.5 2.6 3.0 5.6	FEB  6.4 3.3 9.9 91.2 48.0 15.5 28.6  A  FEB  3.7* 3.00 2.00 2.22* 7.32 1.65* 2.5  A  FEB	NAR  35.48 14.0 12.6 6.2 5.8 3.1 12.6  MNUAL MEAN NAR 1.44 1.24 5.55 11.7 17.35 26.1 11.0  NNUAL MEAN AR 0.8 0.5 0.5 0.6 0.6 0.6 1.0	APR  4.5 7.5 4.7 4.8 9.7 50.7 13.7  : 7.8 APR  17.3 6.3 3.6 4.6 5.1 7.3 : 8.6 APR  11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 8.6 9.7 15.7 15.7 10.4 11.2	ВАУ  26.3 34.2 26.1 24.2 17.8 9.2 19.3  НАУ  7.3 7.8 4.7 12.9 7.8 4.7 12.9 7.8 4.1 1.2 5.5 7.3	4.8 3.1 3.2 9.7 6.6 4.4 5.3  JUM 4.1 3.9 5.2 5.8 2.8 2.5 4.1 JUN 11.7 7.7 8.3 8.9 4.1	2-6 3-2 5-7 6-5 4-5 2-1 4-0  JUL 4-1+ 3-04 2-3+ 2-3+ 2-3+ 2-5+ 2-5+ 2-6+ 2-8  JUL 5-0 11-1 8-7 5-1 6-4 2-2 6-3	1 - 7 1 - 5 2 - 8 4 - 0 2 - 6 3 - 2 2 - 6 AUG 2 - 2 - 6 2 - 3 - 2 2 - 3 - 2 2 - 3 - 2 2 - 4 - 2 2 - 2 - 3 - 2 2 - 3 - 3 3 - 3 7 - 6 14 - 2 19 - 5 7 - 6 14 - 2 19 - 5 7 - 6 14 - 2 19 - 5 8 - 4 8 - 4 9 - 6 19 - 7 19 - 7 2 - 6 19 - 7 2 - 7 2 - 8 2 - 7 2 - 7 2 - 8 3 - 7 2 - 8 3 - 7 3 - 7 4 - 7 5 - 7 6 - 7 7 - 6 14 - 7 7 - 6 14 - 7 7 - 6 14 - 7 8 - 7	5=6 9,2 7-9 4+7 6-9 14-7 6-9 14-7 6-12 8-1 15-14 12-14 12-15-15-14 12-15-15-15-15 12-15-15-15-15 12-15-15-15 12-15-15-15 12-15-15-15 12-15-15-15 12-15-15-15	7.7 6.0 3.5 12.6 10.8 8.0 0ct 4.4 4.3 11.3 4.4 2.9 8.8 6.1	10-4-15-4-15-4-15-4-15-4-15-4-15-4-15-4-	9939 14659 31249 75599 30669 44609 3652 4562 553 563 668
PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAH  PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAH	JAN  11.4 10.0 54.9 38.5 9.8 6.3 21.3  21.3  /EAR: 1968  JAN  91.64 33.68 17.28 10.78 7.29 4.79  26.8  /EAR: 1969 JAN 9.0 10.6 4.6 4.5 2.6 3.0 5.6	FEB  6.4 3.3 9.9 91.2 48.0 15.5 28.6  A  FEB  3.7* 3.00 2.00 2.22* 7.32 1.65* 2.5  A  FEB	NAR  35.48 14.0 12.6 6.2 5.8 3.1 12.6  MNUAL MEAN NAR 1.44 1.24 5.55 11.7 17.35 26.1 11.0  NNUAL MEAN AR 0.8 0.5 0.5 0.6 0.6 0.6 1.0	APR  4.5 7.5 4.7 4.8 9.7 50.7 13.7  : 7.8 APR  17.3 6.3 3.6 4.6 5.1 7.3 : 8.6 APR  11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 11.3 8.6 8.6 9.7 15.7 15.7 10.4 11.2	ВАУ  26.3 34.2 26.1 24.2 17.8 9.2 19.3  НАУ  7.3 7.8 4.7 12.9 7.8 4.7 12.9 7.8 4.1 1.2 5.5 7.3	4.8 3.1 3.2 9.7 6.6 4.4 5.3  JUM 4.1 3.9 5.2 5.8 2.8 2.5 4.1 JUN 11.7 7.7 8.3 8.9 4.1	2-6 3-2 5-7 6-5 4-5 2-1 4-0  JUL 4-1+ 3-04 2-3+ 2-3+ 2-3+ 2-5+ 2-5+ 2-6+ 2-8  JUL 5-0 11-1 8-7 5-1 6-4 2-2 6-3	1 - 7 1 - 5 2 - 8 4 - 0 2 - 6 3 - 2 2 - 6 AUG 2 - 2 - 6 2 - 3 - 2 2 - 3 - 2 2 - 3 - 2 2 - 4 - 2 2 - 2 - 3 - 2 2 - 3 - 3 3 - 3 - 3 7 - 6 14 - 2 19 - 5 7 - 6 14 - 2 19 - 5 8 - 4	5=6 9,2 7-9 4+7 6-9 14-7 6-9 14-7 6-12 8-1 15-14 12-14 12-15-15-14 12-15-15-15-15 12-15-15-15-15 12-15-15-15 12-15-15-15 12-15-15-15 12-15-15-15 12-15-15-15	7.7 6.0 3.5 12.6 10.8 8.0 0ct 4.4 4.3 11.3 4.4 2.9 8.8 6.1	10-4-15-4-15-4-15-4-15-4-15-4-15-4-15-4-	9939 14659 31249 75599 30669 44609 3652 4562 553 563 668
7 PERIOD 1-15 16-20 21-25 26-END 15-15 16-20 21-25 26-END 15-15 16-10 11-15 16-10 11-15 11	JAN  11.4 10.0 54.9 38.5 9.8 6.3 21.3  21.3  21.3  JAN 91.64 33.8* 17.2* 10.7* 7.2* 4.7* 26.8  EAR: 1969 JAN 9.0 10.6 4.5 2.4 3.0 5.6	FEB  6.4 3.3 9.9 91.2 48.0 15.5 28.6  28.6  28.6  A FEB  1.4 1.2 1.1 G.9 1.0 1.2  2.6 2.6 2.6 2.7 4.8 4 1.4 1.2 1.1 1.1 1.1 1.2 1.1 1.1	NAR  35 48 14 10 12 16 6 12 5 18 3 1 12 16  NAR  14 10  NAR  14 10  NAR  14 10  NAR  14 10  NAR  11 10  NAR  11 10  NAR  NAR  11 10  NAR  NAR  11 10  NAR  NAR  11 10  NAR  11 10	APR  4.5 7.5 4.7 4.8 9.7 50.7 13.7  17.3 6.3 3.6 4.6 5.1 7.3 6.3 3.6 4.6 5.1 7.3 11.3 11.3 11.3 8.6 9.7 11.3 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 8.6 9.7 11.3 11.3 11.3 11.3 11.3 11.3 11.3 11	#AY  26.3 34.2 26.1 24.2 17.8 9.2 19.3  #AY  7.3 7.8 4.7 12.9 7.8 4.1 11.2 5.5 7.3	4.8 3.1 3.2 9.7 6.6 4.4 5.3  JUN 4.1 3.9 5.2 3.8 2.8 2.8 2.8 2.8 4.1  JUN 11.7 7.7 7.7 8.3 8.9 4.1 9.7	2-6 3-2 5-7 6-5 4-5 2-1 4-9 3-0 4-1 3-0 2-3 2-3 2-3 2-3 2-3 2-3 2-3 3-1 3-4 3-1 3-1 3-1 3-1 3-1 3-1 3-1 3-1 3-1 3-1	1.7 1.5 2.8 4.0 2.6 3.2 2.6 3.2 2.6 4.0 2.5 2.7 2.6 2.5 2.7 2.6 2.5 2.7 2.6 4.2 1.9 2.5 2.7 2.6 3.5 3.5 7.6 14.2 19.5 3.5 7.6 14.2 19.5 3.5 4.0 4.0 19.5 5.0 19.5 5.0 19.5 19.5 19.5 19.5 19.5 19.5 19.5 19.5	5=6 9-2 7-9 4-7 6-9 14-7 6-9 14-2 8-1 15-12 15-1	7.7 6.0 3.5 12.6 10.8 8.0 0ct 4.4 4.3 11.3 4.4 2.9 8.8 6.1 0ct 7.7 7.7 12.9 12.8 10.5	10-4-15-4-15-4-15-4-15-4-15-4-15-4-15-2-15-2	9939 16459 31249 75499 30469 44-80 3652 44-83 533 503 648 822 1352 503 503 648 754 754 3050 754 754 754
PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAM  PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAM  PERIOD  1-5 6-10 11-15 16-20 21-25 26-END  NEAM	JAN  11.4 10.0 11.4 10.0 54.9 38.5 9.8 6.3 21.3  21.3	FEB  6.4 3.3 9.9 97:2 48.0 15.5 28.6   FEB  3.7* 3.6* 2.2* 7.8* 1.6* 2.5   A  FEB  1.4 1.4 1.2 1.1 0.9 1.0 1.2  A  FEE	NAR  35.88 14.0 12.6 6.2 5.8 3.1 12.6  MNUAL MEAN  MAR 1.4 1.7 17.3 26.1 11.0  NNUAL MEAN  MAR 0.8 0.5 0.6 0.6 1.0 0.8 1.0 0.8 1.0 0.8 1.0 0.8 1.0 0.8 1.0 0.8 1.0 0.8 1.0 0.8 1.0 0.8 1.0	APR  4.5 7.5 4.7 4.8 9.7 50.7 13.7  : 7.8 APR  17.3* 6.3 3.6 4.6 5.1 7.3 : 8.6 APR  11.3*	#AY  26.3  34.2  26.1  24.2  17.8  9.2  19.3  HAY  7.3  7.8  4.7  12.9  7.8  4.7  7.3  7.8  4.7  7.3  7.8  4.7  7.3  7.8  4.7  7.8  4.7  7.8  5.1  7.3  **AY  **AY	4.8 3.1 3.2 9.7 6.6 4.4 5.3  JUM 4-1 3.9 5.2 5.8 2.8 2.8 2.5 4.1  JUM 5.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6	2-6 3-2 5-7 6-5 4-5 2-1 4-0  JUL 4-1+ 3-0 2-3+ 2-3+ 2-3+ 2-3+ 2-3+ 2-6+ 2-8  JUL 5-0 11-1 6-7 5-1 6-4 2-2 6-3  JUL 7-3 8-2 4-6-1 3-4-1 3-4-1 3-4-1 3-4-1	1.7 1.5 2.8 4.0 2.6 3.2 2.6 3.2 2.6 4.0 2.5 2.7 2.4 2.7 2.4 2.0 2.3 2.7 2.4 2.0 2.3 2.7 2.4 2.0 2.4 2.6 3.2 2.7 2.4 2.6 3.2 3.2 3.3 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5	5=6 9,2 7-9 4+7 6-9 14-7 6-9 14-7 8-1 1-2 1-3 1-3 1-3 1-3 1-3 1-3 1-3 1-3 1-3 1-3	7.7 6.7 6.0 3.5 12.6 10.8 8.0 0ct 4.4 4.3 11.3 4.4 2.9 8.8 6.1	10-4-15-16-15-16-15-16-15-16-15-16-15-16-15-16-15-16-15-16-15-16-16-16-16-16-16-16-16-16-16-16-16-16-	9939 14459 31249 75599 30569 44-80 44-80 45-4 832 1352 593 638 1352 593 638 1213 1213 1213 1316 1213 1316 1213 1316 1213 1316 1213 1316 1213 1316 1316

PERIOD			INUAL MEAN . MAR	t 6.3	HAY	46111						
1- 3	****	2.3		3.2.	2.7*	JUN 1.4	16r	AUG 4.0	SEP		NOV	0 E C
å-10 11-15	65.5 19.6	1.7	3.4*	3.5.	3.5	1.3	1.9	3.1 4.1	4.2 10.3 7.5	2.0 1.3 1.9	3.3 3.2 3.8	3.84 3.94 14.7+
16-20 21-25	7.8 4.9	1.4.	2.5* 3.7*	1.9.	7.9 7.6	1.1	2 . 8 1 . 3	15.5 7.8	5.2	2.5 11.7*	3.4.	38.8
29-EHD		6.9.	3.5*	1 43 4	1.3	5.2	2.5	3.4	3.7	4.1	3.34	16.3
MEAN	25.2	2.1	4.1	2.6	0.3	2.3		6.2	5.6	3.9	3.3	15.6
	•											
	YEAR : 1972	Ah	INGAL MEAN	: 4.3	<b>.</b>		•					
PERIOD		FEB	MAR	APR	PAY	JUN	JUE	AUG	\$ <b>E</b> P	oct	HOV	DEC
. 1+ 5	6.14	2.3*	0.74	5.3*	10.0*	0.4=	2.3*	1.64	3.34	2,5+	2.24	61.6
6-10 11-15	2.6*	1.5	0.6≠ 0.8≠	42.6	7.2* 5.5*	3.9* 4.5*	1.7* 1.3*	1.54	3.3. 2.6.	1.4*	5.04 6.14	6.14 5.5*
16-20 21-25	3.0* 3.0* 2.2*	1.0* 0.9* 1.0*	0.9*	10.5*	11.5	5.6*	1.2*	3.3* 3.2*	3.04 4.1+	1.2 1.8*	7 • 1 • 7 • 7 •	9.5± 9.0±
				;u.a.	1140*		7.5= 			2.6 <del>*</del>	9.6	
MEAN	3.4	1,4	8.0	A 7.3	8.5	5.1	1.5	2.8	3.3	1 . 8	6+3	714
				•						•		
	YEAR : 1973	AN	INVAL MEAN	: 5.6	•							
DER100	JAN	FEB		APR		NUL	JUL	AUG		0¢1	MOA	DEC
1- 5 6-10		3.6± 2.5±	2.54	4.2*	5.8° 5.1°	7.4x 7.0*	3.3e	5.3¢ 5.8±	5,3± 9,6±	5.94 3.7*	5.94	3474
11-15 16-20	21.C* 13.9*	2.7.* 9.9*	3.2. 3.2.	4.1* 6.1*	12.0± 7.3±	4.1. 2.7.	2.3*	5.7* 3.3*	5.5* 5.8*	3 6 ·	4.6	363 • 561 •
21+25 26-END	9.5	7.6± 5.9*	3.9* 3.5*	8.0*	6.5*	2.3*	1.6*	2.6*	14.1+	9.5	526* 521*	31.7+ 265+
MEAN		5,3	3.5	5.7	7.7	4.5		4.3	7.7	6.1	5.6	378
				- • •						• • •	320	
	YEAR : 1974	1.1		ž . 5±3								
							10L				VOK	
1- 5 6-10	1.7*	1.9*	3.6* 6.8*	3.8*	5.9*	7.5* 5.1*	10.0* 5.8*	6.5* 4.5*	6,14 5,94	12.7* 8.2*	3,2	5 . 8 . 3 . 4 .
11-15	1.2*	1.1.	5.6* 2.7*	2.5* 3.2*	8-1* 6-8*	6.4*	5.1e	3.5* 2.8*	9.7±	3.3*	3 i 1 * 5 i 8 *	4.64
21-25 26-6NO	1.2*	6+8+ 7+3±	5.0*	3.74 6.1*	3+7*. 10+3*	10.9± 11.2±	13-1± 9-7*	2.9. 3.5±	10.2	3.64	8,2 4.0+	7.7
HEAN	1.5	2.9	3.7	3,7	7+4	7.6	8.9	3.9	8.7	5.8	4,4	5.6
											÷*	
							•					
	YEAR : 1975		CHURI MERK	z. 6.9	•			1 21				•
PERIOD		FEB ·	MAR	APR	HAY	AU L	101	AU6	SEP	0.00	NOV	DEC
****	3.6+		3,2*		5.6±	5.70	5.8*	2,8*	5,á+	3.5*	17.9	11544
6-10 11-15	4.14	1.9* 2.9*	7.3± 6.7±	9 4 5 A 5 4 5 A	11.1*	4.9= 5.8=		4.2. 5.5*	5=8*	4.8	12.64 6.31	12:50
16-20 21-25	4a6* 3.2*	1.5*	7.6* 9.9*	9.6° 12.1*	7.6± 7.4±	5.7*	5-1= 7-4=	6.7* 8.0*	3.40	4.7 3.9	6.44	11.1 7.50
26-ER0		1.5+		7.64			4,7*	8.1*	5.5*	5.9*	14.4*	5 g 5
MEAN	3.7	2.0	7.7	8.6	3.7	6.3	5.9	2*8	5+7	4.9	10.7	12.4
	YEAR : 1976	A?	HUAL MEAR	1 4.3								
	HAL (	FEA					JUL				#GV	_
1+ 5 6-10	5.6* 6.3*	1.6*	1.3*	2.5*	3.9* 3.2*	3.5*	3.1± 3.0+	2.0* 1.7*	2,1* 2,1*	2.3* 4.8*	5.1* 4.8*	817* 502*
11-15	3,1±	1.2.	3.0* 3.9*	2.6*	2.0*	2.7. 2.7.	3.5*	1.7± 1.8±	1.8± 2.0+	9.2* 8.7*	5.74 2.14	16.14
21-25 26-ENO	5.6* 4.3* 3.1* 2.4* 2.0* 1.8*	1.0*	3.4* 3.0*	5.1* 4.7*	2.7*	Z.8* 3.8*	2.7* 2.4*	1 9 * 2 8 *	2.0 <del>0</del>	8.5* 7.1*	5.7* 10.5*	18+64 27+2#
REAN	3.2	1.3	2.7	3.3	2.9	3.1	3,0	5 *0	2.0	6.8	5 67	16.7
÷.												
										•		
:	7EAR : 1977			. 6.2		100	JUL	A446	\$FP	961	*0+	866
PERIOD												
6-10	24.7	6.3	3.2*	2.24	2.1*	5.4*	4.2*	2.64	4.6	10-6*	8.6* 15.5*	9.80
10-20	40.5* 24.70 11.35 4.70 4.5* 3.24	4.5	2.74	2.14	5.0±	5.2*	3.10	2.44	3.24	9.5# 10.1*	13324	5.9 e 7.2 e
26-END	4,5± 3,2+	12,4+	2.3*	1.6*	5.0*	3.2+	2.9=	5.1+	6.9*	8.50	10,20	5.5
					4.0	4.3	3.3	3.1	4.5	9.,7	11.6	7'05
KAJN	14.8	6.3										
RAJR		6.3										
	14.8		INBAİ METM	: 6- <sup>3</sup>	I							
:	14.8 YEAR : 1978	A.		: 6.3	21 E Y	1nH	10 <b>୮</b>	AUG	SEP	ÖCT	KOV	DES
PERIOD	14.8 YEAR : 1978 JAM	A) Feb	MAR	APR	TAR	JUN 4,8	30L 7-7	AUG				
PERIOD	14.8 YEAR : 1978 JAM	A) Feb	MAR	APR	TAR	JUN 4 , 8 3 , 7 4 , 6	7.7 7.2 13.5	AUG 2.9 2.7 2.5				
PERIOD	14.8 YEAR : 1978 JAM	A) Feb	MAR	APR	TAR	JUN 4.8 3.7 4.6 3.1 4.2	7.7 7.2 13.5 7.7 5.4	2.9 2.7 2.8 4.0 2.5				
PERIOD 1-5 6-10 11-15 10-20 21-25 26-END	14.6 YEAR : 1978 JAH 5.8 12.8 17.0 9.8 6.9	FE8 4-1 3-8 3-3 7-0 5-7 5-4	7.2 4.5 5.7 4.3 5.0 4.9	3.9 5.0 4.1 6.5 5.6 7.8	6.8 10.5 13.2 7.8 6.7 6.0	4.8 3.7 4.6 3.1 4.2 3.7	7.7 7.2 13.5 7.7 5.4 3.7	2.9 2.7 2.8 4.0 2.5 2.4	3,1 2,7 2,5 2,1 2,5 2,1	1.8 3.2 3.4 3.1 6.3	8.8 15.2 18.6 9.1 5.9 6.0	15±0 31±3 10±8 7±9 10¥2

Table 23 5-DAY INFLOW DISCHARGE AT LINGGIU DAM (3/3)

	•								· •			
	YEAR : 1979		AMRUAL MEAR	7.	0					oct	uhu	DEC
PERIOD		FEB	MAR	APR	YAP -	JUN	JUL	AUG	~~~~~~~		*****	
1= 5	9.7	3.5	5.9	6.6	9,3	3.C	2.4	3.7	7.7	2.8 2.1	10.6 13.6	1144
6-10	18.6	10.1	10.3	12.3	6.2 4.5	2.5 4.0	2.3	2,4	7.3 8.5	3.4	.15.0 13.5	7•7 9•1
11-15 16-20	3.3	3.8	2.8	6.3	2.9	5.2 4.3	3.3	2.3 3.1	5.8	9.7	26.4 46.0	7.7 6.0
21-25 26-END	5.5 4.7	4.3	4.4	9.3	2.4	2.9	5,2	5.0	4,1	8.7	*****	U0404040
		5.0	5.2	8.5	4.0	3.7	3.5	5.3	6.8	5+0	20.9	9.4
HEAN	0.0	74.0									:	
	YEAR : 1980		ANNUAL REAR	: 8.	0	•				,		
PERION	JAN	f E B		APR	MAY	108	1UL	AU6	SEP	0ET		960
1- 5	*****	4.3	4.4	4.0	12.7		5.5	8.3*	5.94	20.0	12.2 11.8	13e2 1666
6-10	6.4 13.6	5.3	3.9	3.6	7.03	5 . O 5 . 6	3.9 4.2	6.6° 5.2°	6.5*	9.8	11.2	1623
11-15 16-20	7.6 5.4	3.6 3.2	3.9	7.0	7,0 6.2	6.1	5.5	6±3* 6±3*	15.4* 18.1	8.6 12.6	8.5 13.0	2.7
21-25	12.2	3.8	5.8 3.5	3.6 6.3 7.0 8.7 9.3	6.5	4.8	6.1 6.0	6.2*	21.0	14.9	13.5	945
		9 <b>4 5 7 8 8 8 9</b>				5.3	5.2	6.5	12.0	14.2	11.7	10.8
HEAM	8.5	4,1	4.3	0.5	7.40	,,,	,		٠			
		•		•				•				
	ws.m 4004		ARNUAL MEAN	5 -	٠,							
1	YEAR : 1981	*			YAF	JUK	10L	AVG	SEP	OCT	YOK .	960
PERIOD		FEB						2.5	2.3	2.8	7 <sub>0</sub> 5	3'46
1- 5	3.9	2 . 1 1 . 8	3.0 4.1	7.9 18.8	7.1 6.9	7.5 4.2	2.3 3.0	1.8	2.9	4.1	8.7	4.8 943
6-10 11-15	6.7 4.8	1.5	4.5	15.8	8.9 14.3	3.1	2.5 1.8	1.6	3.9 3.0	6 5 8 4 8	5.9	3625
16-20 21-25	3.3 2.9	1,5	3.2 3.0	12.3 10.1	8.1	2.6	2.7	2.1	3+0 3+9	8.7 3.6	3.6 4.3	1065 465
Z6-END	2.1	2.2	3.6	7.7	5,9	3.0		3.1				10.9
HEAH	3.9	3.7	3.6	12.1	8.4	3.9	2.7	2.2	3.2	5.5	5,8	.017
				_	. *							
	YEAR : 1982		ANNUAL REAN					****	***	OCT	MOV	256
PERIOD	HAL	FEB .	HAR	APR	YAY	108	#VL	AUG				
PERIOD	JAN 11.1	₽EB . 2_8	PAR 2,2	APR 7.7	7AY 24.7	9,4	4.7	2,4	6.6	4.1		3.9
PERIOD	JAH	FEB 2.8 2.1 1.9	### 2.2 2.9 4.4	APR 7.7 8.4 5.3	#AY 7.2 8.6 7.9	9.4 6.8 5.1	5.7 3.8 3.8	2 54 2 5 4 4 5	6×6 3•3 2•5	4.1 3.4 2.6	347 342 344	329 278 225
7ERIOD 1- 5 8-10 11-15 16-20	JAN 11.1 17.9 8.2 4.9	FEB	HAR 2.2 2.9 4.4 5.8 6.3	APR 7.7 8.4 5.3 7.7 5.6	#AY 7.2 8.6 7.9 17.9*	9,4 6.8	\$.7 3.8	2 54 2 5 4 5 4 6 3 6	6.6 3.3 2.5 2.8 3.0	4.1 3.4 2.6 3.9 2.6	347 342 344 346 346	3'29 2'48 2'25 8'3 27'10
7	11.1 17.9 8.2 4.9 3.5 3.0	FEB. 2.8 2.1 1.9 1.8 1.8	### 2.2 2.9 4.4 5.8 6.3 5.0	APR 7.7 8.6 5.3 7.7 5.6 12.0	7.2 8.6 7.9 17.9* 12.0*	9.4 6.8 5.1 5.0 3.7 2.7	4.7 3.8 3.8 4.1 4.1 3.0	2 54 2 5 4 5 4 3 3 6 4 1	6.6 3.3 2.5 2.8 3.0 2.7	4.1 3.4 2.6 3.9	347 342 344 346 341 346	349 248 245 843 2710 11464
75 8-10 1-5 8-10 11-15 16-20 21-25	11.1 17.9 8.2 4.9 3.5 3.0	FEB. 2.8 2.1 1.9 1.8 1.8	### 2.2 2.9 4.4 5.8 6.3 5.0	APR 7.7 8.6 5.3 7.7 5.6 12.0	7.2 8.6 7.9 17.9* 12.0*	9.4 6.8 5.1 5.0 3.7 2.7	\$.7 3.8 3.8 4.1	2 54 2 5 4 5 4 3 3 6 4 1	6.6 3.3 2.5 2.8 3.0 2.7	4.1 3.4 2.6 3.9 2.6 2.6	347 342 344 346 341 346	349 248 245 843 2710 11464
7 FR 1 0 b 1 - 5 8 - 1 0 11 - 15 16 - 2 0 21 - 25 26 - Ex 0	11.1 17.9 8.2 4.9 3.5 3.0	#EB 2.8 2.1 1.9 1.8 1.8 1.9	7.2 2.2 2.9 4.4 5.8 6.3 5.0	APR 7.7 8.4 5.3 7.7 5.6 12.0	7,2 3,6 7,9 17,9* 12,0* 10,4	9.4 6.8 5.1 5.0 3.7 2.7	4.7 3.8 3.8 4.1 4.1 3.0	2 54 2 5 4 5 4 3 3 6 4 6	6.6 3.3 2.5 2.8 3.0 2.9	4.1 3.4 2.6 3.9 2.6 2.6	347 342 344 346 341 346	349 248 245 843 2710 11464
7 FR 1 0 b 1 - 5 8 - 1 0 11 - 15 16 - 2 0 21 - 25 26 - Ex 0	11.1 17.9 8.2 4.9 3.5 3.0	#EB 2.8 2.1 1.9 1.8 1.8 1.9	7.2 2.2 2.9 4.4 5.8 6.3 5.0	APR 7.7 8.4 5.3 7.7 5.6 12.0	7,2 3,6 7,9 17,9* 12,0* 10,4	9.4 6.8 5.1 5.0 3.7 2.7	4.7 3.8 3.8 4.1 4.1 3.0	2 54 2 5 4 5 4 3 3 6 4 6	6.6 3.3 2.5 2.8 3.0 2.9	4.1 3.4 2.6 3.9 2.6 2.6	347 342 344 346 341 346	349 248 245 843 2710 11464
7ERIOD 1-5 8-10 11-15 16-20 21-25 26-END	11.1 17.9 8.2 4.9 3.5 3.0	#EB 2.8 2.1 1.9 1.8 1.8 1.9	7.2 2.2 2.9 4.4 5.8 6.3 5.0	APR 7.7 8.4 5.3 7.7 5.6 12.0	7,2 3,6 7,9 17,9* 12,0* 10,4	9.4 6.8 5.1 5.0 3.7 2.7	4.7 3.8 3.8 4.1 4.1 3.0	2 54 2 5 4 5 4 3 3 6 4 6	6.6 3.3 2.5 2.8 3.0 2.9	4.1 3.4 2.6 3.9 2.6 2.6	347 342 344 346 341 346	349 248 245 843 2710 11464
PERIOD 1-5 4-10 11-15 16-20 21-25 26-END	11.1 17.9 8.2 4.9 3.5 3.0	FEB	7.2 2.2 2.9 4.4 5.8 6.3 5.0	APR 7 - 7 - 8 - 6 - 6 - 5 - 3 - 7 - 7 - 7 - 9 - 6 - 6 - 7 - 8	7.2 9.6 7.9 17.9* 12.0* 10.4	9.4 6.8 5.1 5.0 3.7 2.7	4.7 3.8 3.8 4.1 4.1 3.0	2 54 2 5 4 5 4 3 3 6 4 6	6.6 3.3 2.5 2.8 3.0 2.9	4.1 3.4 2.6 3.9 2.6 2.6	347 342 344 346 341 346	349 248 245 843 2710 11464
7-5 3-10 11-15 16-20 21-25 26-END	JAH  11.1 17.9 6.2 4.9 3.5 3.0 7.9  VEAR: 1983	2.8 2.1 1.9 1.8 1.9 2.1	RAR 2.2 2.9 4.4 5.8 6.3 5.0 4.5	7 - 7 - 8 - 4 5 - 3 7 - 7 7 5 - 6 12 - 0 7 - 3 : 8 - APR	#AY 7 = 2 3 = 6 7 = 9 17 = 9 12 = 10 10 = 6 10 = 6	9.4 6.8 5.1 5.0 3.7 2.7	6.7 3.8 5.8 5.1 4.1 3.0 3.9	2 54 2 5 4 5 4 3 3 6 4 6	6x6 3x3 2x5 2x8 3x0 2x9 3x5	4.4 3.4 2.6 3.9 2.6 2.6 3.2	347 342 344 36 36 36 36 36 36 36	3.9 248 245 3.5 3.7 11.6 9.4
PERIOD 1 1 5 16 16 16 20 26 REAN PERIOD	JAH 11.1 17.9 8.2 4.9 3.5 3.0 7.9  VEAR: 1983	7 FEB	#AR 2	APR 7.7 8.4 5.3 7.7 5.6 12.0 7.3	7.2 3.6 7.9 17.9* 12.0* 10.4	9.4 6.8 5.1 5.0 3.7 2.7 5.4	5.7 3.8 3.8 5.1 4.1 3.0 3.9	2 54 2 65 4 65 4 63 3 66	6.6 3.3 2.5 2.8 3.0 2.7 3.5	4.1 3.4 2.6 3.9 2.6 2.6 3.2	347 342 344 36 36 36 36 36 36 36 36 36 36 36 36 36	3.9 248 245 3.5 3.7 11.6 9.4
PERIOD 1-5 6-10 11-15 16-20 21-25 26-End REAN PERIOD	JAH  11.1  17.9  8.2  4.9  3.5  3.0  7.9  TEAR: 1983  JAK  17.94	FEB  2.8 2.1 1.9 1.8 1.8 1.7 2.1	NAR 2.2 2.9 4.4 5.8 6.3 5.0 4.5 ANNUAL MEAH MAR 7.0 4.5	APR 7.7 8.4 5.3 7.7 5.6 12.0 7.3 4 4 8. APR 1.7 1.9	#AY  7 *2 3 *6 7 *9 17 *9* 12 *10* 10 *6  1	9.4 6.8 5.5 5.0 3.7 2.7 5.4	5.7 3.8 3.8 5.1 4.1 3.0 3.9	2.4 2.5 4.5 4.3 3.0 4.1 3.6	6.6 3.3 2.5 3.0 2.7 3.5 5.6 6.0	4.1 3.4 2.6 3.9 2.6 3.2 0ct	347 342 344 346 341 340 344 344 344	3.9 248 248 3.3 27.0 11.6 9.4
PERIOD 11-15 16-20 21-25 26-END REAN PERIOD	1AH 11.1 17.9 3.2 4.9 3.5 3.0 7.9	FEB 2.1 1.9 1.8 1.8 1.9 2.1	#AR 2.2 2.9 4.4 5.8 6.3 5.0 4.5	APR 7.7 8.4 5.3 7.7 5.6 12.0 7.8 : 8. APR 1.7 1.9	TAY  7 = 2 3 = 6 7 = 9 17 = 9 = 12 = 0 = 10 = 4  10 = 6  1	9.4 6.8 5.1 5.0 3.7 2.7 5.4 JUH 3.2 3.7 4.5	5.7 3.8 3.8 4.1 3.0 3.9	2.4 2.5 4.5 4.3 3.6 4.1 3.6 Aug	6.6 3.3 2.5 3.0 2.7 3.5 5.5 5.6 0.0 10.4 9.7 7:4	4.1 3.4 2.6 3.9 2.6 3.2 0CT 5.8 7.3 6.1	347 342 344 346 341 340 344 NOV	3.9 249 245 8.3 27.0 11.6 9.4 9.4 0EC
PERIOD 11-15 16-20 21-25 26-END REAN PERIOD 1-5 6-10 11-5 16-20 21-22	11.1 17.9 8.2 4.9 3.5 3.0 7.9 YEAR: 1983 JAK 17.94 11.46 12.79 21.74	FEB 2.1 1.9 1.8 1.9 2.1 FEB 6.2* 4.9 4.0 3.9 3.3	#AR  2 . 2 2 . 9 4 . 4 5 . 8 6 . 3 5 . 0 4 . 5  ANNUAL MEAH MAR  7 . 0 4 . 5 2 . 6 2 . 0 2 . 1	APR 7.7 8.4 5.3 7.7 5.6 12.0 7.3 : 8. APR 1.7 1.9 2.5 1.9	7 2 3 6 7 9 9 17 9 9 12 0 4 10 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9.4 6.8 5.1 5.0 3.7 2.7 5.4 JUH 3.2 3.7 4.5 2.9 2.6	4.7 3.8 3.8 4.1 4.1 3.0 3.9	2.5 4.5 4.3 3.6 4.1 3.6 AUG 7.8 5.6 3.9 6.4 9.3	6.6 3.3 2.5 2.2 3.0 2.7 3.5 5EP 6.0 10.4 9.7	4.1 3.4 2.6 3.9 2.6 3.2 0CT 5.8 7.3 6.1 6.4	347 342 344 366 341 366 340 340 340 400 400 400 400 400 400 400	329 248 245 245 2720 1126* 9.4
PERIOD 11-15 16-20 21-25 26-END PERIOD 11-15 16-20 21-25 26-END	11.1 17.9 8.2 4.9 3.5 3.0 7.9 YEAR: 1983 JAK 17.94 11.46 12.79 21.74 12.55 9.14	FEB 2.1 1.9 1.8 1.8 1.9 2.1 FEB 6.2* 4.9 3.3 2.8	#AR  2 . 2 2 . 9 4 . 4 5 . 8 6 . 3 5 . 0 4 . 5  ANAUAL MEAH  MAR  7 . 0 4 . 5 2 . 6 2 . 0 2 . 1 1 . 7	APR 7.7 8.4 5.3 7.7 5.6 12.0 7.3 : 8. APR 1.7 1.9 2.5 1.9 2.7	TAY  7 * 2	9.4 6.8 5.1 5.0 3.7 2.7 5.4 JUH 3.2 3.7 4.5 2.9 2.5	4.7 3.8 5.8 4.1 3.0 3.9 4.1 3.0 2.1 3.0 2.9 3.9 3.4 5.5	2.4 2.5 4.3 3.6 4.1 3.6 Auf 7.8 5.6 3.9 6.4 9.3	6.6 3.3 2.5 3.0 2.7 3.5 3.0 2.7 3.5 5EP 6.0 10.4 9.7 7.4 8.2	4.1 3.4 2.6 3.9 2.6 3.2 0CT 5.8 7.3 641 6.6 7.3 7.6	347 342 344 346 341 346 346 346 346 346 347 1746 1347 1142 843 744	3-9 2-18 2-25 3-3 27-10 11-6-4 9-4 9-4 5-3 15-9 3-4-3 21-3-5 59-99
PERIOD 11-15 16-20 21-25 26-EAD  PERIOD 11-15 16-20 11-15 16-20 21-25 26-EAD	11.1 17.9 8.2 4.9 3.5 3.0 7.9 YEAR: 1983 JAK 17.94 11.46 12.79 21.74 12.55 9.14	FEB 2.1 1.9 1.8 1.8 1.9 2.1 FEB 6.2* 4.9 3.3 2.8	#AR  2 . 2 2 . 9 4 . 4 5 . 8 6 . 3 5 . 0 4 . 5  ANNUAL MEAH MAR  7 . 0 4 . 5 2 . 6 2 . 0 2 . 1	APR 7.7 8.4 5.3 7.7 5.6 12.0 7.3 : 8. APR 1.7 1.9 2.5 1.9 2.7	TAY  7 * 2	9.4 6.8 5.1 5.0 3.7 2.7 5.4 JUH 3.2 3.7 4.5 2.9 2.6	4.7 3.8 5.8 4.1 3.0 3.9 4.1 3.0 2.1 3.0 2.9 3.9 3.4 5.5	2.5 4.5 4.3 3.6 4.1 3.6 AUG 7.8 5.6 3.9 6.4 9.3	6.6 3.3 2.5 3.0 2.7 3.5 3.0 2.7 3.5 5EP 6.0 10.4 9.7 7.4 8.2	4.1 3.4 2.6 3.9 2.6 3.2 0CT 5.8 7.3 6.1 6.4	347 342 344 366 341 366 340 340 340 400 400 400 400 400 400 400	349 248 248 245 2710 11166 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4
PERIOD 11-15 16-20 21-25 26-END 1-15 16-20 11-15 16-20 11-15 16-20 21-25 26-ERD	11.1 17.9 8.2 4.9 3.5 3.0 7.9 YEAR: 1983 JAK 17.94 11.46 12.79 21.74 12.55 9.14	FEB 2.1 1.9 1.8 1.8 1.9 2.1 FEB 6.2* 4.9 3.3 2.8	#AR  2 . 2 2 . 9 4 . 4 5 . 8 6 . 3 5 . 0 4 . 5  ANAUAL MEAH  MAR  7 . 0 4 . 5 2 . 6 2 . 0 2 . 1 1 . 7	APR 7.7 8.4 5.3 7.7 5.6 12.0 7.3 : 8. APR 1.7 1.9 2.5 1.9 2.7	TAY  7 * 2	9.4 6.8 5.1 5.0 3.7 2.7 5.4 JUH 3.2 3.7 4.5 2.9 2.5	4.7 3.8 5.8 4.1 3.0 3.9 4.1 3.0 2.1 3.0 2.9 3.9 3.4 5.5	2.4 2.5 4.3 3.6 4.1 3.6 Auf 7.8 5.6 3.9 6.4 9.3	6.6 3.3 2.5 3.0 2.7 3.5 3.0 2.7 3.5 5EP 6.0 10.4 9.7 7.4 8.2	4.1 3.4 2.6 3.9 2.6 3.2 0CT 5.8 7.3 641 6.6 7.3 7.6	347 342 344 346 341 346 346 346 346 346 347 1746 1347 1142 843 744	3-9 2-18 2-25 3-3 27-10 11-6-4 9-4 9-4 5-3 15-9 3-4-3 21-3-5 59-99
PERIOD 1-5 6-10 11-15 16-20 21-25 26-End REAN PERIOD 21-15 16-20 21-25 26-End REAN	JAH  11.1 17.9 8.2 4.9 3.5 3.0 7.9  YEAR: 1983  JAK 17.94 11.46 12.74 21.76 12.50 14.1	FEB 2.1 1.9 1.8 1.8 1.9 2.1 FEB 6.2+ 4.9 3.3 2.8	#AR  2 - 2	APR 7.7 8.4 5.3 7.7 5.6 12.0 7.8 : 8. APR 1.7 1.9 2.5 1.9 2.7	7 2 3 6 7 9 9 12 0 0 4 10 . 6	9.4 6.8 5.1 5.0 3.7 2.7 5.4 JUH 3.2 3.7 4.5 2.9 2.5	4.7 3.8 5.8 4.1 3.0 3.9 4.1 3.0 2.1 3.0 2.9 3.9 3.4 5.5	2.4 2.5 4.3 3.6 4.1 3.6 Auf 7.8 5.6 3.9 6.4 9.3	6.6 3.3 2.5 3.0 2.7 3.5 3.0 2.7 3.5 5EP 6.0 10.4 9.7 7.4 8.2	4.1 3.4 2.6 3.9 2.6 3.2 0CT 5.8 7.3 641 6.6 7.3 7.6	347 342 344 346 341 346 346 346 346 346 347 1746 1347 1142 843 744	3-9 2-18 2-25 3-3 27-10 11-6-4 9-4 9-4 5-3 15-9 3-4-3 21-3-5 59-99
PERIOD 1-5 6-10 11-15 10-20 21-25 26-End REAN PERIOD 21-15 16-20 21-25 26-End REAN	11.1 17.9 8.2 4.9 3.5 3.0 7.9 YEAR: 1983 JAK 17.94 11.40 12.7* 21.7* 12.5* 21.7* 12.5* 14.1	FEB 2.1 1.9 1.8 1.8 1.9 2.1 FEB 6.2+ 4.0 3.9 2.3 4.3	#AR  2.2 2.9 4.4 5.8 6.3 5.0 4.5  ANNUAL MEAH  MAR  7.0 4.5 2.6 2.0 2.1 1.7 3.3	APR 7.7 8.4 5.3 7.7 5.6 12.0 7.3 : 8. APR 1.7 1.9 2.5 1.9 2.7 2.1	7 2 3 6 7 9 9 17 9 9 12 0 0 10 4 10 4 10 4 10 4 10 10 10 10 10 10 10 10 10 10 10 10 10	9.4 6.8 5.1 5.0 3.7 2.7 5.4 JUH 3.2 3.7 4.5 2.6 2.5	4.7 3.8 3.8 4.1 4.1 3.0 3.9 40 2.1 3.0 2.9 3.9 3.9 3.5	2.4 2.5 4.3 3.6 4.1 3.6 4.1 3.6 5.6 3.9 6.4 9.3 5.9	\$ 6.0 \$ 2.5 \$ 2.5 \$ 3.0 \$ 2.7 \$ 3.5 \$ 5 P \$ 6.0 \$ 10.4 \$ 9.7 \$ 7.4 \$ 8.2 \$ 6.1 \$ 8.0	4.1 3.4 2.6 3.9 2.6 3.2 0CT 5.8 7.3 6.1 6.4 7.3 7.6	347 342 344 366 341 346 346 346 346 346 347 1146 1347 1146 1347 1146	349 248 248 245 27:00 11:60 9.4 9.4 9.4 15:09 34:11 59:99
PERIOD 1-5 6-10 11-15 16-20 21-25 26-End REAN PERIOD 1-5 6-10 11-15 16-20 21-25 26-End PERIOD	11.1 17.9 8.2 4.9 3.5 3.0 7.9 YEAR: 1983 JAK 17.94 11.46 12.74 21.76 12.50 9.14	FEB 2.8 2.1 1.9 1.8 1.9 1.8 1.9 2.1 FEB 6.2* 4.9 4.0 3.9 3.3 2.3 4.3	### ##################################	APR 7.7 8.6 5.3 7.7 5.6 12.0 7.3 : 8. APR 1.7 1.9 2.5 1.9 2.7 2.1	TAY  7 = 2 3 = 6 7 = 9 17 = 9 = 12 = 0 10 = 6  10 = 6  1	9.4 6.8 5.1 5.0 3.7 2.7 5.4 3UH 3.2 3.7 4.5 2.6 2.5 3.2	4.7 3.8 3.8 4.1 4.1 3.0 3.9 4.1 3.0 2.1 3.0 2.1 3.9 3.9 3.4 5.5	2.4 2.5 4.5 4.3 3.6 4.1 3.6 7.8 5.6 3.9 6.4 9.3 5.9	6.6 3.3 2.5 2.8 3.0 2.9 3.5 5EP 6.0 10.4 9.7 7.4.4 8.2 6.1	0ct 5-8 7-3 0ct 5-8 7-3 6-1 6-4 7-3 7-6	347 342 346 346 341 366 341 366 344 346 1346 13	349 248 248 2750 1166 9.4 9.4 9.4 1569 34.3 2141 5949 2566
PERIOD 1-5 6-10 11-15 16-20 21-25 26-End REAN PERIOD 1-5 6-10 11-15 16-20 21-25 26-End PERIOD	11.1 17.9 8.2 4.9 3.5 3.0 7.9 YEAR: 1983 JAK 17.94 11.46 12.74 21.76 12.50 9.14	FEB 2.8 2.1 1.9 1.8 1.9 1.8 1.9 2.1 FEB 6.2* 4.9 4.0 3.9 3.3 2.3 4.3	### ##################################	APR 7.7 8.6 5.3 7.7 5.6 12.0 7.3 : 8. APR 1.7 1.9 2.5 1.9 2.7 2.1	TAY  7 = 2 3 = 6 7 = 9 17 = 9 = 12 = 0 10 = 6  10 = 6  1	9.4 6.8 5.1 5.0 3.7 2.7 5.4 3UH 3.2 3.7 4.5 2.6 2.5 3.2	4.7 3.8 3.8 4.1 4.1 3.0 3.9 4.1 3.0 2.1 3.0 2.1 3.9 3.9 3.4 5.5	2.4 2.5 4.5 4.3 3.6 4.1 3.6 7.8 5.6 3.9 6.4 9.3 5.9	6.6 3.3 2.5 2.8 3.0 2.9 3.5 5EP 6.0 10.4 9.7 7.4.4 8.2 6.1	0ct 5-8 7-3 0ct 5-8 7-3 6-1 6-4 7-3 7-6	347 342 346 346 341 366 341 366 344 346 1346 13	349 248 248 2750 1166 9.4 9.4 9.4 1569 34.3 2141 5949 2566
PERIOD 1-5 6-10 11-15 16-20 21-25 26-End REAN PERIOD 1-5 6-10 11-15 16-20 21-25 26-End PERIOD	11.1 17.9 8.2 4.9 3.5 3.0 7.9 YEAR: 1983 JAK 17.94 11.46 12.74 21.76 12.50 9.14	FEB 2.8 2.1 1.9 1.8 1.9 1.8 1.9 2.1 FEB 6.2* 4.9 4.0 3.9 3.3 2.3 4.3	### ##################################	APR 7.7 8.6 5.3 7.7 5.6 12.0 7.3 : 8. APR 1.7 1.9 2.5 1.9 2.7 2.1	TAY  7 = 2 3 = 6 7 = 9 17 = 9 = 12 = 0 10 = 6  10 = 6  1	9.4 6.8 5.1 5.0 3.7 2.7 5.4 3UH 3.2 3.7 4.5 2.6 2.5 3.2	4.7 3.8 3.8 4.1 4.1 3.0 3.9 4.1 3.0 2.1 3.0 2.1 3.9 3.9 3.4 5.5	2.4 2.5 4.5 4.3 3.6 4.1 3.6 7.8 5.6 3.9 6.4 9.3 5.9	6.6 3.3 2.5 2.8 3.0 2.9 3.5 5EP 6.0 10.4 9.7 7.4.4 8.2 6.1	0ct 5-8 7-3 0ct 5-8 7-3 6-1 6-4 7-3 7-6	347 342 346 346 341 366 341 366 344 346 1346 13	349 248 248 2750 1166 9.4 9.4 9.4 1569 34.3 2141 5949 2566
PERIOD 1-5 6-10 11-15 16-20 21-25 26-End REAN PERIOD 1-5 6-10 11-15 16-20 21-25 26-End PERIOD	11.1 17.9 8.2 4.9 3.5 3.0 7.9 YEAR: 1983 JAK 17.94 11.46 12.74 21.76 12.50 9.14	FEB 2.8 2.1 1.9 1.8 1.9 1.8 1.9 2.1 FEB 6.2* 4.9 4.0 3.9 3.3 2.3 4.3	### ##################################	APR 7.7 8.6 5.3 7.7 5.6 12.0 7.3 : 8. APR 1.7 1.9 2.5 1.9 2.7 2.1	TAY  7 = 2 3 = 6 7 = 9 17 = 9 = 12 = 0 10 = 6  10 = 6  1	9.4 6.8 5.1 5.0 3.7 2.7 5.4 3UH 3.2 3.7 4.5 2.6 2.5 3.2	4.7 3.8 3.8 4.1 4.1 3.0 3.9 4.1 3.0 2.1 3.0 2.1 3.9 3.9 3.4 5.5	2.4 2.5 4.5 4.3 3.6 4.1 3.6 7.8 5.6 3.9 6.4 9.3 5.9	6.6 3.3 2.5 2.8 3.0 2.9 3.5 5EP 6.0 10.4 9.7 7.4.4 8.2 6.1	0ct 5-8 7-3 0ct 5-8 7-3 6-1 6-4 7-3 7-6	347 342 346 346 341 366 341 366 344 346 1346 13	349 248 248 2750 1166 9.4 9.4 9.4 1569 34.3 2141 5949 2566
PERIOD 1-5 6-10 11-15 16-20 21-25 26-END PERIOD 21-25 26-END PERIOD 21-25 26-END 21-25 26-END	JAH  11.1 17.9 8.2 4.9 3.5 3.0 7.9  YEAR: 1983  JAK  17.94 11.40 12.74 21.76 12.50 14.1  VEAR: 1986  JAK  30.14 18.77 22.0 11.4 9.1	FEB 2.8 2.1 1.9 1.8 1.8 1.9 2.1  FEB 6.2+ 4.9 3.3 2.8 4.3	#AR  2 . 2 2 . 9 4 . 4 5 . 8 6 . 3 5 . 0 4 . 5  ANAUAL MEAH  MAR  7 . 0 4 . 5 2 . 6 2 . 0 2 . 1 1 . 7 3 . 3  ANNUAL MEAH  MAR  13 . 2 16 . 4 8 . 2 11 . 0 13 . 0 13 . 0 14 . 1	APR 7.7 8.4 5.3 7.7 5.6 12.0 7.3 : 8. APR 1.7 1.9 2.5 1.9 2.7 2.1 : 13. APR 6.0 10.7 7.4 6.7	7 2 3.6 7.9 12.0 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	9.4 6.8 5.1 5.0 3.7 5.4 3.2 3.7 4.5 2.9 2.5 3.2 3.2	3.8 3.8 4.1 3.0 3.9 3.9 3.9 3.9 3.9 3.5 3.5	2.4 2.5 4.3 3.6 4.1 3.6 7.8 3.6 3.9 6.4 9.3 5.9 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0 CT	34? 342 344 366 341 366 341 346 344 344 344 344 344 344 344 344 344	329 248 248 245 27:00 71:60 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4
PERIOD 1-5 6-10 11-15 16-20 21-25 26-END PERIOD 21-25 26-END PERIOD 21-25 26-END 21-25 26-END	JAH  11.1 17.9 6.2 4.9 3.5 3.0 7.9  YEAR: 1983  JAK 17.99 10.40 12.7* 21.7* 12.5* 9.1*  14.1  YEAR: 1984  JAK 30.1* 18.7* 22.0 11.1 9.1	FEB 2.8 2.1 1.9 1.8 1.8 1.9 2.1  FEB 6.2+ 4.9 3.3 2.8 4.3	#AR  2 . 2 2 . 9 4 . 4 5 . 8 6 . 3 5 . 0 4 . 5  ANAUAL MEAH  MAR  7 . 0 4 . 5 2 . 6 2 . 0 2 . 1 1 . 7 3 . 3  ANNUAL MEAH  MAR  13 . 2 16 . 4 8 . 2 11 . 0 13 . 0 13 . 0 14 . 1	APR 7.7 8.4 5.3 7.7 5.6 12.0 7.3 : 8. APR 1.7 1.9 2.5 1.9 2.7 2.1 : 13. APR 6.0 10.7 7.4 6.7	7 2 3.6 7.9 12.0 10.4 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	9.4 6.8 5.1 5.0 3.7 5.4 3.2 3.7 4.5 2.9 2.5 3.2 3.2	3.8 3.8 4.1 3.0 3.9 3.9 3.9 3.9 3.9 3.5 3.5	2.4 2.5 4.3 3.6 4.1 3.6 7.8 3.6 3.9 6.4 9.3 5.9 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0 CT	34? 342 344 366 341 366 341 346 344 344 344 344 344 344 344 344 344	329 248 248 245 27:00 71:60 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4 9.4

Table 24 RESULT OF RESERVOIR OPERATION OF SAYONG AND LINGGIU DAMS (HYDROLOGICAL CONDITION FROM JANUARY 1971 TO JUNE 1972) (1/3)

JOHOR RIVER OPERATION MODEL SYSTEM TERGET YEAR 2005
DAM1=SAYONG DAM; HWL= 18.0(M) LWL= 12.0(M).DAM2=LINGGIU DAM; HWL= 31.0(M) LWL= 25.0(M).DAM3=SEBILI DAM; HWL= 0. (M) LWL= 0. (M) PERIOD DEFICIT INITIAL W.L. FINAL W.L. RESERVOIR SIDRAGE VOLUME SPILL-OUT PIPELINE OUTFLOW REMAINING

1971 DRI IRR, DAM' DAM'S 
(UNIT) (CMS) ( M ) ( MCM) (MCM) (MCM) (CMS) (CMS) (CMS) JAN
1-5 0. 0. 18.0 31.0 0. 18.0 31.0 0.
6-10 0. 0. 18.0 31.0 0. 18.0 31.0 0.
11-15 0. 0. 18.0 31.0 0. 18.0 31.0 0.
16-20 0. 0. 18.0 31.0 0. 18.0 31.0 0.
21-25 3.9 0. 18.0 31.0 0. 18.0 31.0 0.
26-END 7.9 0. 18.0 31.0 0. 18.0 31.0 0.
KONTILY 5.8 0. 92.0 96.2 42.7 22.8 12.1 3.0 128.00 0. 128.00 128.00 128.00 128.00 128.00 58.00 58.00 58.00 58.00 58.00 63.3 17.9 6.5 4.0 2.4 0, 0, 0, 4,3, 0.0 0. 0. 0. FEB . 1-5 11.5 0. 6-10 13.5 0. 11-15 14.7 0. 16-20 15.3 0. 21-25 14.9 0. 26-END 1.9 0. 18.0. 31.0 0.
17.9 30.9 0.
17.8 30.7 0.
17.7 30.5 0.
17.7 30.5 0.
17.4 30.1 0. 17,9 30.9 17.8 30.7 17.7 30.5 17.5 30.2 17.4 30.1 17.6 30.3 126.31 123.13 118.69 112.95 109.59 0. 0. 0. 0. 54.71 51.79 48.61 46.58 49.73 0.0.0. 0. 0. 0. 0. 0. 10.4 11.4 11.9 11.6 1.5 24.5 0. 0.0.0. 0. 0. 5.0 5.1 0. 1-5 1.7 0. 17.6 30.3 0. 17.9 30.6 6-10 7.6 0. 17.9 30.6 0. 17.9 30.7 11-15 10.1 0. 17.9 30.6 0. 17.9 30.5 16-20 12.2 0. 17.9 30.6 0. 17.9 30.5 21-25 9.0 0. 17.9 30.5 0. 18.0 30.7 26-END 9.7 0. 18.0 30.7 0. 17.9 30.7 80NIMLY 22.6 0. 1.3 6.3 8.1 9.5 8.6 9.0 0. 0. 0. 0. 124.45 125.85 124.82 123.57 126.61 53.15 53.82 53.31 52.25 53.97 0.6 2.1 3.1 4.0 1.4 1.8 0. 1- 5 9.5 0. 6- 10 9.0 0. 11- 15 9.8 0. 16- 20 11.5 0. 21- 25 33.6 0. 26-610 15.0 0. 17.9 30.7 0. 18.0 30.9 0. 18.0 31.0 0. 18.0 31.0 0. 17.9 30.9 0. 17.8 30.7 0. 18.0 30.9 18.0 31.0 18.0 31.0 17.9 30.9 17.6 30.7 17.7 30.5 128.00 128.00 127.54 125.63 122.19 118.14 10.6 9.9 8.4 9.8 10.3 0. 0. 0. 1.5 0. 0. 0. 0. 0. 0. 58.00 57.79 56.93 54.70 0.1 2.4 3.0 4.6 5.1 0. 0. 0. 0. 0. 0. 0. 0 0. 0. 0. 110.95 102.75 93.23 87.94 79.57 1-5 17.0 0. 6-10 17.7 0. 11- 15 17.6 0. 16- 20 16.9 0. 21- 25 17.8 0. 26-640 16.0 0. 17.7 30.5 0. 17.4 30.2 0. 17.2 29.9 0. 16.9 29.6 0. 16.6 29.3 0. 16.3 28.9 0. 17.4 30.2 17.2 20.9 16.9 20.6 16.6 20.3 16.3 28.9 15.9 28.6 0. 0. 0. 13.2 13.7 13.7 13.2 13.9 12.5 0. 0. 0. 0. 0. 0. 0. 0. 48.27 44.51 40.84 5.6 5.9 5.3 0. 0. 0. 0. 0. 0 o. 0. ٥. 1011 JUN
1-5 15.9 U. 15.9 28.6 U.
6-10 16.1 U. 15.6 28.3 C.
11-15 16.8 O. 15.3 28.0 9.
16-20 16.7 U. 14.9 27.6 O.
21-25 10.5 U. 14.6 27.3 O.
26-END 8.2 U. 14.5 27.3 O.
HORTHLY 58.4 U. 15.6 28.3 15.3 28.0 14.9 27.6 14.6 27.3 14.5 27.3 5.3 5.3 5.5 5.5 3.7 3.0 64.06 57.64 49.98 42.41 40.51 39.04 0. 0. 27.09 24.33 21.02 17.94 18.52 0. 0. 0. Ŏ. O. 0 0. 0. 0. 12.6 0. 0. 0. 0. U. 0. 13.0 8.0 6.1 0.

Table 25 RESULT OF RESERVOIR OPERATION OF SAYONG AND LINGGIU DAMS (HYDROLOGICAL CONDITION FROM JANUARY 1971 TO JUNE 1972) (2/3)

JOHOR	13V[R 10V42=	R OPER	(4) 10 (4) 10							111461U VA	H; HPL=			25.0(K) 1LL-0U	, D A M 3	≈SEDIL: PIPE	I DANJ. Line	HNT. 2	D. (H) Ittlov	. נאנ≖	
PERIO 19	71	0 F F 1 C	IRR.		DAM2	DAHS	FINA DAH1		.L. DAM3 )	DAMI	OAP2	DAH3 (HCM)	pàhi		DANS	DAH1 (CI	HS) DAHS	DAHI	DAM2	DAM3	(CHS)
	JUL								-,				0.	. 0.	0.	.0.	. 0.	5.2	2.9	0.	0.
1 2 2	1- 5 6- 10 1- 15 6- 20 1- 25 6-END NTHLY	16.7 13.3 16.5 14.0	0 0 0 0	14.4 14.1 13.7 13.5	27.5 27.6 27.3 26.9 26.5 26.1	0. 0. 0.	14.1 13.7 13.5 13.1	27.6 27.3 26.0 26.6 26.1 25.7	0. 0. 0.	38.46 32.82 26.25 22.25 15.28 9.17	23.23 18.10 14.33 12.48 8.56 5.61	0. 0. 0. 0.	0.	0.	0 0 0	0. 0. 0. 0.	0.0.0.0.0	10.7 12.0 9.5 11.8 9.7 26.3	5.9 6.6 5.3 6.6 5.9 14.8	0.	0. 0. 0. 0.
1 2 2	AUG 1- 5 6- 10 1- 15 6- 20 1- 25 6-END HTHLY	11.9 9.2 0. 1.1 10.3	0. 0. 0. 0.	12.5 12.4 12.5 13.1	25.7 25.7 25.5 25.5 26.8 27.3	0. 0. 0.	12.4 12.5 13.1 13.5	25.7 25.5 25.5 26.8 27.3 27.2	0. 0. 0.	6.83 5.98 7.22 16.34 23.09 23.89	4,91 3,85 4,12 14,15 18,50 17,08	0. 0. 0. 0.	0. 0.	0.	0.	0. 0. 0. 0.	0.	7.2 8.0 6.5 0.7 6.7 13.2	5.2 5.2 3.7 0.5 4.8 8.8	0.0.0.0.	0. 0. 0. 0. 0.
1 1 2 2	\$EP 1- 5 6- 10 1- 15 6- 20 1- 25 6-END NTHLY	10.0	0 0 0 0	13.7 14.3 14.6 14.8	27.2 27.2 28.0 28.4 28.5 28.3	0. 0. 0.	14.6	27.2 28.0 28.4 28.5 28.3 28.2	0.	26,44, 36.09 43.04 46.40 44.63 44.51	17.37 24.06 28.16 29.29 27.17 26.44	0. 0. 0. 0.	0.	0. 0. 0. 0.	0.	0. 0. 0.	0. 0. 0. 0.	5.8 0.7 4.4 8.6 7.0	0.4 2.8	0. 0. 0. 0.	0. 0. 0. 0.
1 1 2 2	0CT 1- 5 6- 10 1- 15 6- 20 1- 25 6-END HTHLY	15.7 14.6 13.5 0.	0 0 0 0	14.5 14.2 14.0	28.2 27.9 27.5 27.2 27.0 27.8	0 • 0 •	14.0 14.0 13.8	27.9 27.5 27.2 27.0 27.8 27.7	0. 0.	40.95 35.63 30.95 27.40 30.92 28.71	23.58 19.98 17.17 15.57 23.04 21.91	0. 0. 0. 0.	0.0.0.0.0	0. 0. 0. 0. 0.	0.	0.0.0.0.	0. 0. 0. 0.	9.9 11.2 10.4 9.6 0. 6.5	6.3 5.8 5.4 0. 5.0	0. 0.	0. 0. 0. 0.
1 1 2 2	NOV 1- 5 6- 10 1- 15 6- 20 1- 25 6-END NTHLY	12.2 11.2 12.0 12.9	0.	13.7 13.5 13.4 13.2	27.7 27.5 27.3 27.1 26.9 26.6	0. 0. 0.	13.5 13.4 13.2 13.0	27.5 27.3 27.1 26.9 26.6 26.3	0. 0. 0.	25.90 23.12 20.48 17.20 14.15	19.85 18.23 16.75 14.54 12.17 10.08	0. 0. 0. 0.	0.0.0.0.0.0	0. 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0.	0.	7 . 3	6.0 5.6 6.1	0. 0. 0. 0.	
11 16 21 26	DEC 1- 5 6- 10 1- 15 6- 20 1- 25 6-END NTHLY	0. 0. 0.	0.0.0.0.0.0	12.7 12.5 13.8 15.9	26.3 26.1 75.9 27.2 29.7 30.9	0. 0. 0.	12.5 13.8 15.9 17.1	26.1 25.9 27.2 29.7 30.9 31.0	0. 0. 0.	9.20 7.53 27.85 70.97 101.25 126.16	8.49 7.09 17.36 42.35 56.63 58.00	0. 0. 0. 0. 0.	0.00	0. 0. 0. 0. 14.2	0	0. 0. 0. 0.	0. 0. 0. 0.	6.5 6.2 0. 0. 0. 5.5	5.9 0. 0. 0.	0. 0. 0. 0.	0. 0. 0. 0. 0.
YE.	ARLY 3	15.6	0.						•				116.9	73,4	0.	0.	0.	236.9	113.8	.0.	0.

Table 26 RESULT OF RESERVOIR OPERATION OF SAYONG AND LINGGIU DAMS (HYDROLOGICAL CONDITION FROM JANUARY 1971 TO JUNE 1972) (3/3)

JOHOR RIVE											31.0(A)	1,41,=	25 . O'(M)	. PAH3	- 1032 <b>-</b>	. L DAM;	HVL=	а. <i>(</i> я	) լալ≖	0, (n)
PERIOD	0 E f 1	11	LHIT	IAL V	٠.	FIRA	L U	.L.		DAROTZ R						LINE		UTFLOW		BEHAINING
1972 (UHLT)			. DAH1					DAMS	(HCH)	SHEU)		DAHI			PART				DANS	(283)
20-END 10- 20 11- 25 16- 20 6- 10 10- 20	9.7	0 0 0	18.0 18.0 17.9	31.0 31.0 30.9 30.8	0. 0.	18.0 17.9 17.9	31.0 30.9 30.8 30.7	0. 0. 0.	128.00 127.76 124.24 124.30 122.11 115.90	58.00 57.89 56.29 56.00 54.68 51.90	0. 0. 0.	0.	0. 0.	0. 0. 0. 0.			8.1 9.9 8.6 8.8 10.7	2.7 3.9 3.9 4.0 4.8	0. 3. 0.	0. 0. 0. 0.
1- 5 5- 10 11- 15 16- 20 21- 25 26-END HONTHLY	13.8 14.0 12.5 15.9 14.2 13.5	0 0 0 0		30.0	0.	17.5 17.5 17.3	30.0	0 0 0	112.22 112.79 112.04 105.64 107.49 106.20	50.12 47.99 45.69 42.55 40.13 38.93	0.0.0.0.0.0.0	0.	0. 0. 0. 0.	0. 0. 0. 0. 0.	0. 0. 0. 0.	0.	10.6 10.9 9.9 12.6 11.5 11.0 27.8	4.0 5.1 4.3 4.0	0. 0. 0. 0.	0.
	17.0 16.5 17.0	0 0 0 0	17.0 16.7 16.4 16.1	29.1 28.8 28.5 28.2	0. 0. 0.	16.7 16.4 16.1 15.8	28.8 26.5 28.2 27.9	0. 0. 0.	98.83 90.06 83.55 75.46 68.85 59.50	35.75 32.39 29.59 26.41 23.54 20.40	0.	0.00	0. 0. 0.	0 0 0 0	0. 0. 0. 0.	0.	13.5 14.2 13.6 14.0 13.7 14.1	5.1 4.8 4.9 4.7 4.8	0. 0. 0.	0. 0. 0. 0.
APR 1-5 6-10 11-15 16-20 21-25 26-END MONTHLY	3,0 0. 0. 0.	0.0.0	15.4 15.4 15.6 15.9 16.3	0.85 6.85 2.95 2.95	0. 0. 0.	15.0 15.9 16.3 16.8	28.6 29.2 29.9 30.6	0 0 0	60.22 63.88 71.37 81.03 94.15	24,47 30,13 36,54 44,61 52,57 58,00	0. 0. 0. 0.	0.0.0	0. 0. 0. 6.6 6.6	0.0.0.0.0	0.	0. 0. 0. 0.	4.9 2.3 0. 0. 0.	2,8 1.1 0. 0. 0.	0. 0. 0.	0. 0. 0. 0.
HAY 1-5 6-10 11-15 16-20 21-25 26-END HONTHLY	5.6 0. 0.	0.0	18.0	31.0 31.0 31.0 31.0	0.	18.0 18.0 18.0 18.0	31.0 31.0 31.0 31.0	0 0 0	124.67 128.00 128.00 128.00 128.00 128.00	58.00 58.00 58.00 58.00 58.00 58.00	0.0.0.0	0. 6.4 2.8 0. 24.3 23.2 26.5	7.4 4.4 2.8 11.4 11.3	0.0.0.0.0	0. 0. 0. 0.	0.	0. 2.3 6.7 7.6  0.	0. 2.0	0.	0. 0. 0. 0.
11- 15 16- 20 21- 25	10.1 8.1 1.9 2.9	0 0 0 0	18.0	31.0 31.0 31.0 31.0	0. 0.	18.0 16.0 18.0 18.0		0 0 0	128.00 126.91 128.00 128.00 128.00 128.00	58.00 57.51 58.00 58.00 58.00 58.00	0. 0. 0. 0.	8.2 0.7 16.1 13.9 0.	0. 4.4 8.3 4.9	0.	0. 0. 0. 0.	٥.	4.0 7.4 9.0 2.1 3.2 9.0	3.9 0. 0. 0.5	0. 0. 0.	0. 0. 0. 0.

Table 27 LIST OF ALTERNATIVE DEVELOPMENT PLANS

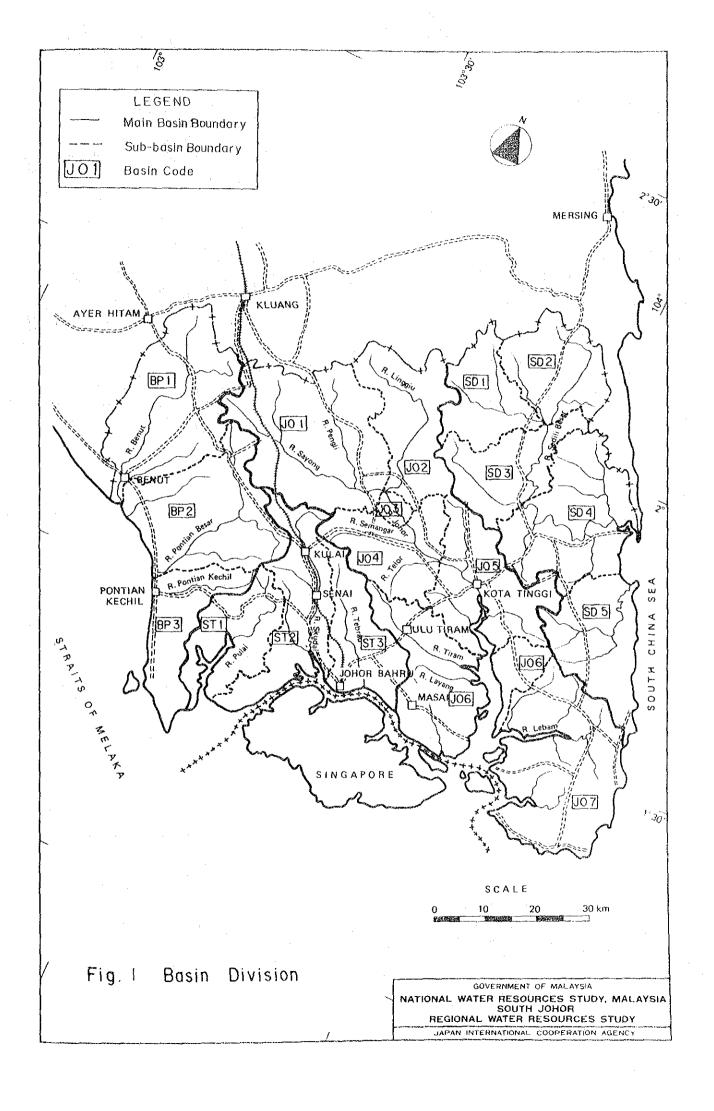
	Present Value/	1 <u>F</u>	irst			<u>S</u> e	conc	l Dam	<u>/</u> 4		
Case	of Dam Cost in 1986 (M\$10 <sup>6</sup> )	Dam	<u>/</u> 2 HWL	<u>/</u> 3 S	/4 Year	Dam	HWL	S	Year 	Ran	king
1	132.6	Sayong	17	98	1991	Linggiu	33	89	1995	;	5
	113.9	Sayong	18	128	H .	Linggiu	31	58	2001		1
	122,7	Sayong	21	247	11	, m		**	<b></b>		2
	158.3	Linggiu	33	89	. H	Sayong	18	128	1992		7
	136.6	Linggiu		107	fi	Sayong	17	98	1995		6
•	118.5	Linggiu		126		Sayong	16	73	1999		3
	122.6	Linggiu		253	H,						4
	•					•					
2	85.2	Sayong	16	73	u	Telor	24	18	2000		3
	75.6	Sayong	17	98	n n	Mass <sub>.</sub>		<b>-</b>		4	1
	96.6	Linggiu	33	89	ri	Telor	24	18	2002		4
	85.0	Linggiu		107	18			-			2
					٠						4
1-A	86.5	Sayong	17	98	Ħ	Telor	22	10	2003		3
4	82.3	Sayong	18	128	12		•	-	· _	-	1
	96.0	Linggiu	34	107	15	Telor	22	10	2003		4
	86.3	Linggiu	35	126	u	. <u>-</u>	٠.	<u> </u>	. <b>-</b>		2
									in the second	i.	
2-A	99,6	Sayong	15	25	Ħ	Linggiu	31	58	2000		5
· .	69.3	Sayong	16	73	13	-		-			1
	95.4	Linggiu	31	- 58	11	Telor	24	18	2001		4
	82.3	Linggiu	32	73	Ħ	· <b>-</b>	4		-		2
	83.5	Linggiu	33	89	11	PALE.				. :	3
		**.						. •			

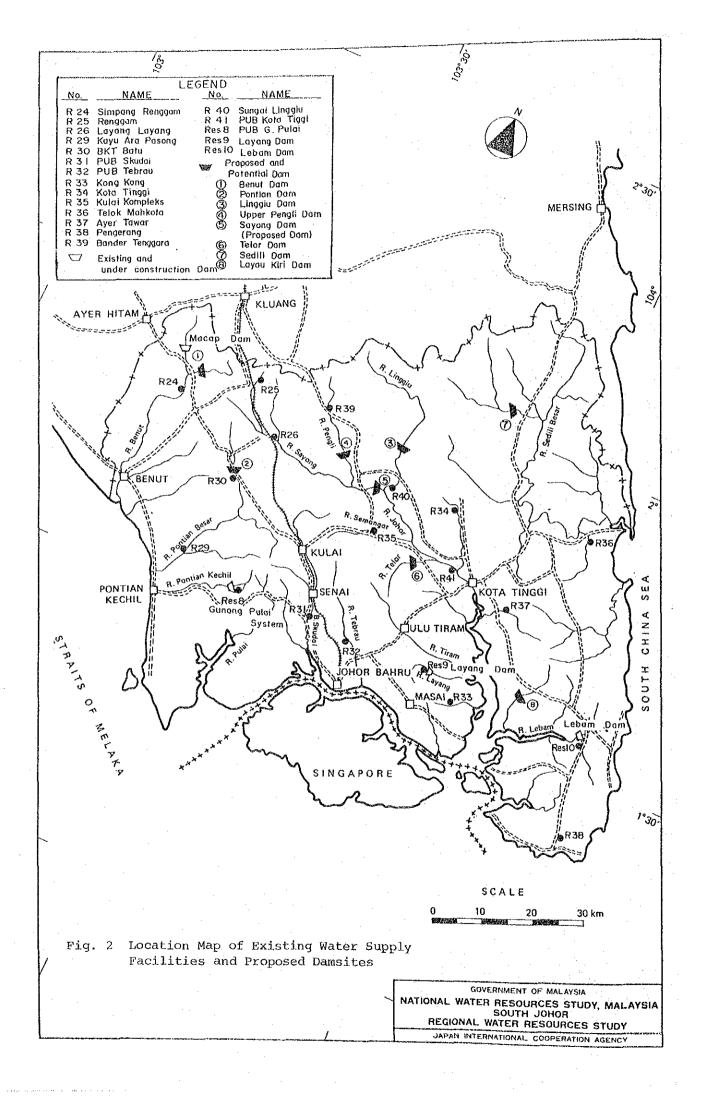
/2: High water level

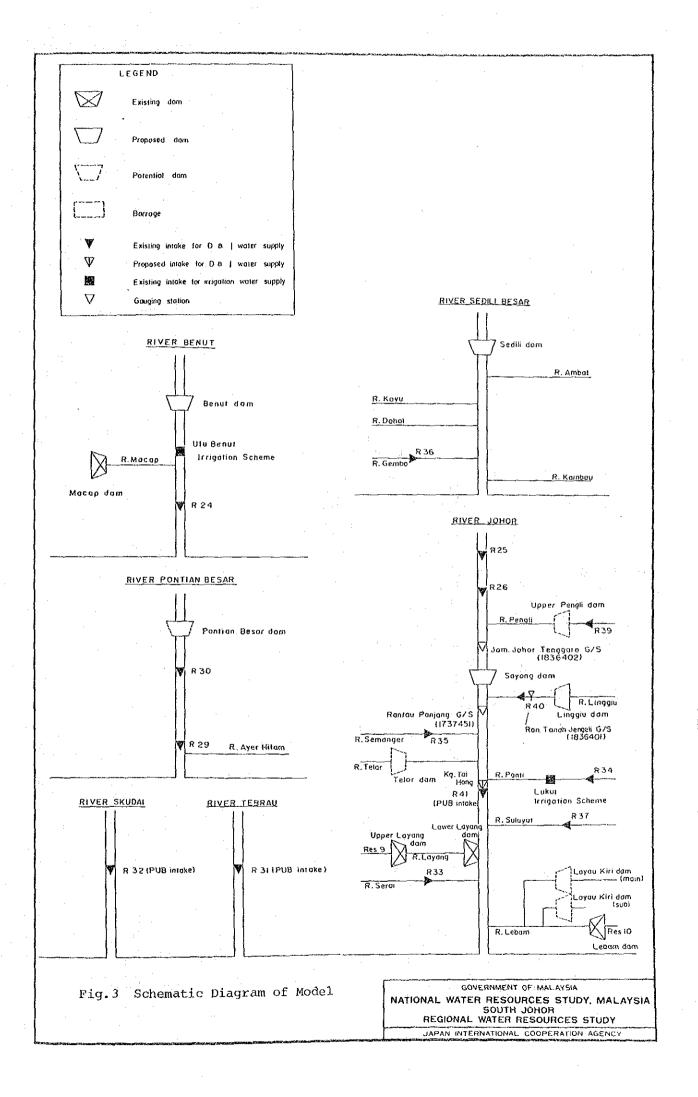
∠3: Active storage

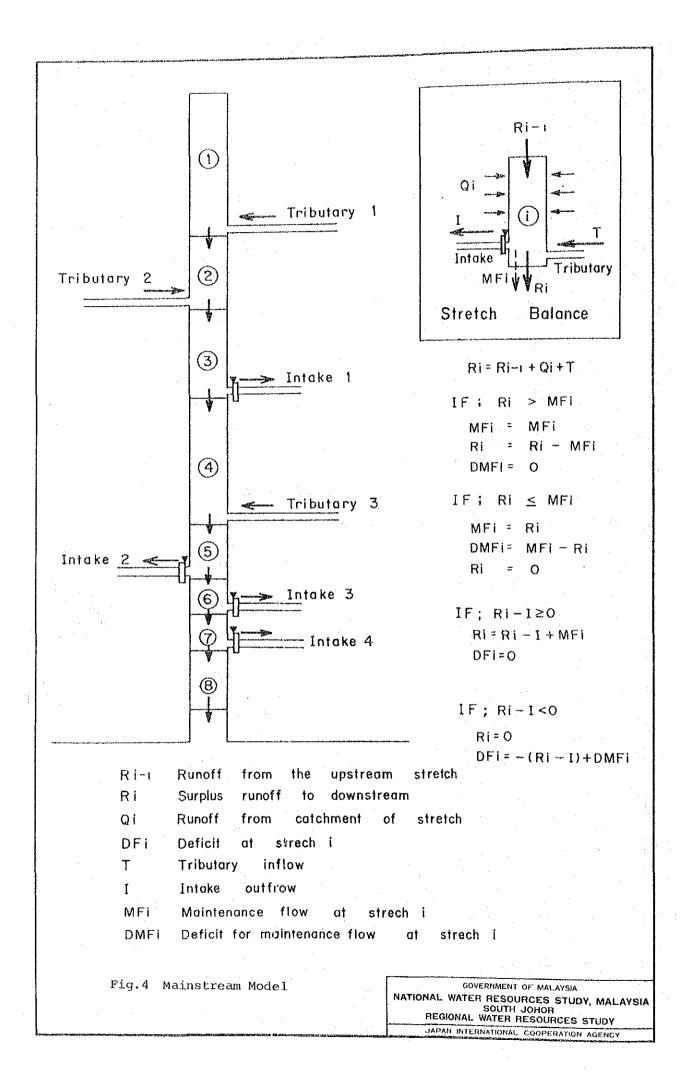
\_/4: Completion of dam construction

# FIGURES









Sub - basin 1 RI = QI Sub - basin 2 R2 = Q2 R3 = Q3 + S1 + S2 + RF3R4 = Q4 + S3 + RF4Ri ME IF; Ri > Mfi Sι MFI = MFI R2 Ri = Ri - MFi DMFi= 0 RF<sub>3</sub> IF; Ri < MFi **4** D2 Sz MFi = Ri DMFi= MFi - Ri Ri = 0 IF; Ri > Di Sub - basin 3 Rз DFI = 0 MF31 Si = Ri - Di + MFI \$3 Sub-basin 4 RF4 IF; Ri ≤ Di DFi = Di - Ri + DMFI Si = 0 Main Stream Available runoff at intake  $i (i = 1 \sim 3)$ Ri Di Water demand at Si Excess runoff at 🗀 DFi Water deficit at in Sub - basin i ( $i = 1 \sim 4$ ) Qi Natural runoff RFI Return flow in Ri Runoff into the main stream MFI Maintenance flow at intake i (i = 1 ~ 4) Deficit for maintenance flow DMFL GOVERNMENT OF MALAYSIA Fig. 5 Tributary Model NATIONAL WATER RESOURCES STUDY, MALAYSIA SOUTH JOHOR

REGIONAL WATER RESOURCES STUDY
JAPAN INTERNATIONAL COOPERATION AGENCY