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PERFORMANCE MONITORING SYSTEM: SUMMARY OF LOCK
STATISTICS FOR JULY-SEPTEMBER 1984(U) CORPS OF
ENGINEERS FORT BELVOIR VA WATER RESOURCES SUPPORT CE.
M V FLEMING ET AL. FEB 85 WRSC-85-SR-1 F/G 13/2

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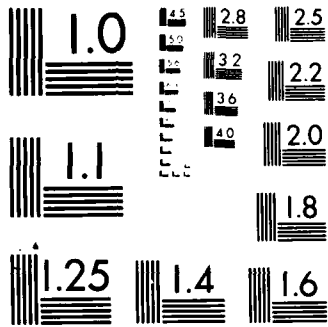
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US Army Corps
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Engineer Institute for
Water Resources

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Performance Monitoring System:
**Summary of
Lock Statistics for
July - September 1984**

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February 1985

Summary Report 85-SR-1

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number) lock Performance Monitoring System PMS statistics		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Lock Performance Monitoring data are collected at Corps locks by lock operators from observation and information provided by waterway operator. This quarterly summary is an overview of the collected statistics.		

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PERFORMANCE MONITORING SYSTEM
SUMMARY OF LOCK STATISTICS
JULY 1984 - SEPTEMBER 1984

PREFACE

This report is a product of the Navigation Data Management and Applications Branch of the U. S. Army Engineer Institute for Water Resources (WRSC-IWR). The information is compiled from statistics collected at the Corps locks in support of the lock Performance Monitoring System (PMS).

The study is managed by Mrs. Marilyn V. Fleming under the supervision of Mr. Francis M. Sharp, Chief of the WRSC-IWR Navigation Data Management and Applications Branch, and Dr. Lloyd G. Antle, Chief of the WRSC-IWR Navigation Division. The Office of the Chief of Engineers (OCE) sponsors are Mr. Henry W. Campbell Jr., DAEN-CWO-M, and Mr. Robert M. Daniel, DAEN-CWP-G.

Requests to update or change the distribution, comments and questions can be directed to Frank Sharp (202-355-2240 or FTS 385-2240) or Marilyn Fleming at the same telephone number. The information is produced and distributed quarterly.

James R. Hanchey
JAMES R. HANCHEY
Director, WRSC-IWR

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Introduction

The lock Performance Monitoring System (PMS) is a part of the Inland Navigation Systems Analysis (INSA) program and encompasses the collection, editing, maintenance and analysis of data collected at all Corps-owned and operated locks. The data have been collected since March of 1975 and consist of information describing the traffic through the locks as well as the physical aspects of lockages. The quarterly summary of selected statistics presented in the appendix provides an overview of the traffic and operation at each lock. The quarterly report is presented as a set of three tables for each Corps District. Information reported for each lock and chamber includes:

TABLE 1. A listing providing the name of the lock, the river on which the lock is and its dimensions. In those cases where there is no quarterly information, this table will be the only display for the district.

TABLE 2. A table providing, by direction and total, the number of tows, commercial vessels other than tows, recreational vessels, barges (empty and loaded), commercial lockages, recreational lockages and tonnage.

TABLE 3. A summary of approach, entry, chambering and exit times (maximum, minimum and average) and the number of delays, total delay time, maximum delay time and average delay time.

Although the summary information will be computed and displayed for chambers at which there is data for only one or two months of the quarter, the fact is noted on the report.

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC EC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
	NEW ORLEANS	LOWER MISS VALLEY	7/84 8/84 9/84

RIVER	LCODE-LOCK NAME	LEN/WID./DRAFT (FT/FT/FT)
ATCHAFALAYA RIVER	11-BERNICK LOCK	0307/0045/11.0
BAYOU TACHE	31-KEYSTONE LOCK	0162/0036/12.0
FRESHWATER BAYOU	41-FRESHWATER BAYOU LOCK	0600/0084/15.0
GULF INTRACOASTAL	1-PORT ALLEN LOCK	1198/0084/15.0
	2-BAYOU SORREL LOCK	0800/0056/16.0
	3-INNER HRBP NAVIGATION CANL LK	0646/0075/40.0
	4-ALGIERS LOCK	0797/0075/15.0
	5-HARVEY LOCK	0425/0075/14.0
	6-BAYOU BOEUF LOCK	1158/0075/15.0
	7-VERMILLION LOCK	1200/0056/14.0
	8-CALCASIEU LOCK	1205/0075/15.0
	21-SCHOONER BAYOU CONTROL STRUCT	9999/0075/14.0
	22-CATFISH POINT CONTROL STRUCT	9999/0056/16.0
	23-CALCASIEU SALT WATER BARRIER	9999/0056/15.0
OLD RIVER	51-OLD RIVER LOCK	1200/0075/15.0
RED RIVER	1-RED RIVER LOCK & DAM #1	0685/0084/ 9.0

NO DATA RECORDED ON SUNNY FILE FOR THIS PERIOD

NO DATA RECORDED ON LCKAGE FILE FOR THIS PERIOD

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EDGE	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
93	ST. LOUIS	LOWER MISS VALLEY	7/84	8/84	9/84

RIVER	CODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
KASKASKIA RIVER	1-KASKASKIA RIVER NAVIGATION LK	0610/0084/12.0
MISSISSIPPI RIVER	24-LOCK & DAM 24	0610/0110/12.0
	25-LOCK & DAM 25	0610/0110/12.0
	26-LOCK & DAM 26	0610/0110/12.0
	26-LOCK & DAM 26 AUX 1	0380/0110/12.0
	27-CHAIN OF ROCKS LOCK & DAM 27	1210/0110/12.0
	27-CHAIN OF ROCKS LK & DM 27 AX1	0610/0110/12.0

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

EAGLE BT	DISTRICT NAME ST. LOUIS	DIVISION NAME LOWER MISS VALLEY	MONTHS REPORTED										
			7/84	8/84	9/84								
RIVER/LOCK NAME		TONS	VESSEL RECRTN	VESSEL OTHER	VESSEL TOTAL	BARGS EMPTY	BARGS FULL	BARGS TOTAL	LOCKS COMMER	LOCKS RECRTN	LOCKS OTHER	LOCKS TOTAL	TONNAGE (ATONS)
(NAV, OPN, ETC)													
KANSAS RIVER													
KANSAS RIVER NAVIGATION LN ***													
UPBOUND STATISTICS		197	422	46	665	631	125	756	245	193	6	444	117
DOWNBOUND STATISTICS		182	431	81	694	107	633	740	263	213	8	484	947
TOTALS		379	853	127	1359	738	758	1496	508	406	14	928	1064
MISSISSIPPI RIVER													
LOCK & DAM 24 ***													
UPBOUND STATISTICS		443	349	30	822	3078	2364	5442	719	232	19	961	3481
DOWNBOUND STATISTICS		453	379	24	856	281	5024	5305	735	236	12	983	7072
TOTALS		896	728	54	1678	3359	7388	10747	1454	468	22	1944	10554
LOCK & DAM 25 ***													
UPBOUND STATISTICS		443	630	56	1129	3065	2383	5448	709	321	53	1083	3527
DOWNBOUND STATISTICS		452	652	49	1154	286	5017	5303	709	328	55	1092	7064
TOTALS		896	1282	105	2283	3351	7400	10751	1418	649	108	2175	10591
LOCK & DAM 26 ***													
UPBOUND STATISTICS		691	2	17	710	4662	3580	8242	1219	0	0	1219	6359
DOWNBOUND STATISTICS		654	5	12	671	499	7093	7592	1147	1	1	1149	10041
TOTALS		1345	7	29	1381	5161	10673	15834	2366	1	1	2368	15401
LOCK & DAM 26 AUX 1 ***													
UPBOUND STATISTICS		227	252	89	568	283	300	583	364	120	12	496	530
DOWNBOUND STATISTICS		237	277	127	641	288	386	674	437	144	9	590	567
TOTALS		464	529	216	1209	571	686	1257	801	264	21	1086	1100
LOCK OF ROCKS LOCK & DAM 27 ***													
UPBOUND STATISTICS		909	30	97	1036	5026	4039	9065	932	12	14	958	6205
DOWNBOUND STATISTICS		874	45	78	957	708	7651	8359	861	19	5	887	10945
TOTALS		1783	75	175	1993	5734	11690	17424	1793	31	19	1845	17200

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
83	ST. LOUIS	LOWER MISS VALLEY	7/84	8/84	9/84

RIVER/CDR NAME	TOWS	VESSEL			BARGES			LOCKGS			TONNAGE (KTONS)
		RECRTN	OTHER	TOTAL	EMPTY	FULL	TOTAL	COMMER	RECRTN	OTHER	

MISSISSIPPI RIVER

CHAIN OF ROCKS LA & DM 07 A+1	***											
UPBOUND STATISTICS	316	176	162	654	484	316	800	461	76	17	554	484
DOWNBOUND STATISTICS	356	185	201	742	351	676	1027	534	83	24	641	991
TOTALS	672	361	363	1396	835	992	1827	995	159	41	1195	1475

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

BRDC DISTRICT NAME DIVISION NAME MONTHS REPORTED
 83 ST. LOUIS LOWER MISS VALLEY 7/84 8/84 9/84

ALL TIMES EXPRESSED IN MINUTES
 LOCK PROCESSING TIME : DELAYED DELAY DELAY DELAY
 APPROACH ENTRY CHAMBER EXIT : TOWS TIME AVG MAX
 MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : (TOWS) (TOWS) (HOURS)

WASKASKIA RIVER

WASKASKIA RIVER NAVIGATION L 1 4 104 1 3 25 4 9 26 1 3 22 : 46 711 1.9 47

MISSISSIPPI RIVER

LOCK & DAM 24 1 7 83 1 7 35 4 9 42 1 15 60 : 672 17737 8.0 2374

LOCK & DAM 25 1 7 96 1 7 38 4 8 31 1 12 48 : 885 144048 16.0 1485

LOCK & DAM 26 1 5 54 1 9 45 4 12 29 1 11 74 : 1340 350447 260.6 2804

LOCK & DAM 26 AX 1 6 93 1 4 48 4 11 31 1 6 65 : 459 24570 53.0 1461

LOCK OF ROCKS LOCK & DAM 27 1 10 52 1 7 30 2 11 34 1 7 27 : 1328 86981 51.1 1505

LOCK OF ROCKS LOCK & DAM 27 AX 1 6 79 1 3 60 5 10 32 1 3 48 : 319 18802 28.0 988

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PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

BRD	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
84	WICSBURG	LOWER MISS VALLEY	7/84	8/84	9/84

BRD	LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
84	1-DOONESVILLE LOCK & DAM	0600/0084/23.4
	2-COLUMBIA LOCK & DAM	0600/0084/27.4
	3-BOONVILLE DAM	0268/0055/17.4
	4-BOONVILLE DAM	0268/0055/19.0

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ROD	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
4	ROCK ISLAND	NORTH CENTRAL	7/84	8/84	9/84

RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
ILLINOIS	1-THOMAS J O'BRIEN	1000/0110/12.0
	2-LOCKPORT LOCK	0600/0110/12.0
	3-BRANDON ROAD LOCK & DAM	0600/0110/12.0
	4-DRESDEN ISLAND LOCK & DAM	0600/0110/12.0
	5-MARSELLES LOCK & DAM	0600/0110/12.0
	6-STAPVED ROCK LOCK & DAM	0600/0110/12.0
	7-PEORIA LOCK & DAM	0600/0110/12.0
	8-LAGRANGE LOCK & DAM	0600/0110/12.0
MISSISSIPPI RIVER	11-LOCK & DAM 11	0600/0110/10.0
	12-LOCK & DAM 12	0600/0110/10.0
	13-LOCK & DAM 13	0600/0110/10.0
	14-LOCK & DAM 14	0600/0110/10.0
	14-LOCK & DAM 14 AUXILIARY 1	0320.0080/10.0
	15-LOCK & DAM 15	0600/0110/10.0
	15-LOCK & DAM 15 AUXILIARY 1	0360/0110/10.0
	16-LOCK & DAM 16	0600/0110/10.0
	17-LOCK & DAM 17	0600/0110/10.0
	18-LOCK & DAM 18	0600/0110/10.0
	19-LOCK & DAM 19	1200/0110/10.0
	19-LOCK & DAM 19 AUXILIARY 1	1350/0110/10.0
	20-LOCK & DAM 20	0600/0110/10.0
	21-LOCK & DAM 21	0600/0110/10.0
22-LOCK & DAM 22	0600/0110/10.0	

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC FS	DISTRICT NAME DETROIT	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED		
			7/84	8/84	9/84
RIVER	LCODE-LOCK NAME		LEN/WID/DRAFT (FT/FT/FT)		
FOX RIVER	11-DE PERE LOCK & DAM		0146/0036/	6.0	
	12-LITTLE KAUKAUNA LOCK & DAM		0146/0036/	6.0	
	13-RAPIDE CROCHE LOCK & DAM		0146/0036/	6.0	
	21-KAUKAUNA LOCK 1		0144/0035/	6.0	
	22-KAUKAUNA LOCK 2		0144/0035/	6.0	
	23-KAUKAUNA LOCK 3		0144/0031/	6.0	
	24-KAUKAUNA LOCK 4		0144/0037/	6.0	
	25-KAUKAUNA LOCK 5		0144/0036/	6.0	
	32-LITTLE CHUTE LOCK 2		0147/0035/	6.0	
	33-LITTLE CHUTE COMB LOCKS UPPER		0144/0036/	6.0	
	34-LITTLE CHUTE COMB LOCKS LOWER		0147/0035/	6.0	
	35-CEDARS LOCK & DAM		0144/0035/	6.0	
	41-APPLETON LOCK 1		0145/0034/	6.0	
	42-APPLETON LOCK 2		0145/0035/	6.0	
	43-APPLETON LOCK 3		0144/0035/	6.0	
	44-APPLETON LOCK 4		0144/0035/	6.0	
51-MENASHA LOCK & DAM		0144/0034/	6.0		
THE INLAND ROUTE	11-ALANSON LOCK		0066/0018/	7.0	
ST MARYS RIVER	1-MACARTHUR LOCK		0800/0080/	31.0	
	2-NEW POE LOCK		1200/0110/	32.0	
	3-DAVIS LOCK00		1350/0080/	31.0	
	4-SABIN LOCK00		1350/0080/	31.0	

NO DATA RECORDED ON SUMMRY FILE FOR THIS PERIOD

NO DATA RECORDED ON LCKAGE FILE FOR THIS PERIOD

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
			7/84	8/84	9/84
F2	CHICAGO	NORTH CENTRAL			

RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)

NO DATA RECORDED ON SUMMRY FILE FOR THIS PERIOD

NO DATA RECORDED ON LCKAGE FILE FOR THIS PERIOD

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
F1	BUFFALO	NORTH CENTRAL	7/84	8/84	9/84

ALL TIMES EXPRESSED IN MINUTES

APPROACH		LOCK PROCESSING TIME				EXIT		DELATED	DELAY	DELAY	DELAY
MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TOWS)	(TOWS)	(ALL VSSLS)

BLK ROCK CH/TONAWANDA

BLACK ROCK LOCK	1	1	13	1	1	15	2	10	20	1	1	15	:	0	0	,0	48
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TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

RIVER-LOCK NAME	TONS	VESSEL			BARGES			LOCKS			TONNAGE (KTONS)	
		RECRTN	OTHER	TOTAL	EMPTY	FULL	TOTAL	COMMER	RECRTN	OTHER		TOTAL

BL. ROCK CH/TONAWANDA												
BL. ROCK LOCK	***											
UPBOUND STATISTICS	2	3935	29	3966	0	2	2	370	730	18	1118	15
DOWNBOUND STATISTICS	24	3603	9	3636	0	25	25	44	969	22	1035	205
TOTALS	26	7538	38	7602	0	27	27	414	1699	40	2153	221

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
F1	BUFFALO	NORTH CENTRAL	7/84	8/84	9/84

RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
BLK ROCK CH/TONAWANDA	1-BLACK ROCK LOCK	0650/0070/21.7

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED			
E4	NORFOLK	NORTH ATLANTIC	7/84	8/84	9/84	

ALL TIMES EXPRESSED IN MINUTES

APPROACH		LOCK PROCESSING TIME			EXIT		:	DELAYED	DELAY	DELAY	DELAY	
MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	TOWS	TIME	AVG	MAX
: (TOWS) (TOWS) (ALL VSSLS)												

ATLANT INTRACOASTAL

GREAT BRIDGE GUARD LOCK	1	3	13	1	3	15	2	5	35	1	4	55 :	401	1617	4.0	32
-------------------------	---	---	----	---	---	----	---	---	----	---	---	------	-----	------	-----	----

DISMAL SWAMP

DEEP CREEK LOCK	2	4	6	2	5	8	10	10	25	4	5	50 :	0	0	.0	5
-----------------	---	---	---	---	---	---	----	----	----	---	---	------	---	---	----	---

SOUTH MILLS LOCK	2	4	5	3	3	6	10	10	12	3	4	5 :	0	0	.0	210
------------------	---	---	---	---	---	---	----	----	----	---	---	-----	---	---	----	-----

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC E4	DISTRICT NAME NORFOLK	DIVISION NAME NORTH ATLANTIC	MONTHS REPORTED									
			7/84	8/84	9/84							

RIVER/LOCK NAME	TONS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)

ATLANT INTRCOASTAL												
GREAT BRIDGE GUARD LOCK ***												
UPBOUND STATISTICS	204	1346	74	1624	90	154	244	267	592	29	888	175
DOWNBOUND STATISTICS	197	1475	67	1739	143	89	232	253	619	33	905	95
TOTALS	401	2821	141	3363	233	243	476	520	1211	62	1793	271
DISMAL SWAMP												
DEEP CREEK LOCK ***												
UPBOUND STATISTICS	0	249	1	250	0	0	0	1	112	1	114	0
DOWNBOUND STATISTICS	0	165	0	165	0	0	0	1	79	1	81	0
TOTALS	0	414	1	415	0	0	0	2	191	2	195	0
SOUTH MILLS LOCK ***												
UPBOUND STATISTICS	0	159	0	159	0	0	0	3	79	0	82	0
DOWNBOUND STATISTICS	0	227	0	227	0	0	0	1	104	1	106	0
TOTALS	0	386	0	386	0	0	0	4	183	1	188	0

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
E4	NORFOLK	NORTH ATLANTIC	7/84	8/84	9/84

RIVER	LCODE-LOCK NAME	LEN/MID/DRAFT (FT/FT/FT)
ATLANT INTRCOASTAL	11-GREAT BRIDGE GUARD LOCK	0600/0075/16.0
DISMAL SWAMP	1-DEEP CREEK LOCK	0300/0052/12.0
	2-SOUTH MILLS LOCK	0300/0052/12.0

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC ED	DISTRICT NAME NEW YORK	DIVISION NAME NORTH ATLANTIC	MONTHS REPORTED														
			7/84	8/84	9/84												

ALL TIMES EXPRESSED IN MINUTES																	
		LOCK PROCESSING TIME		:	DELAYED DELAY	DELAY	DELAY										
APPROACH		ENTRY	CHAMBER	EXIT	:	TOWS	TIME	AVG	MAX								
MIN	AVG	MAX	:	MIN	AVG	MAX	:	MIN	AVG	MAX							
				:			:	(TOWS)	(TOWS)	(ALL VSSLS)							

HUDSON RIVER																	
TROY LOCK & DAM	2	6	20	2	5	20	5	10	20	2	5	15	:	76	680	3.9	55

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

RIVER LOCK NAME	TOWS	VESSEL			BARGES			LOCKGS			TONNAGE (KTONS)	
		VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER		LCKGES TOTAL
HUDSON RIVER												
PROY LOCK & DAM	***											
UPBOUND STATISTICS	57	1193	10	1287	0	91	91	116	644	20	780	196
DOWNRDNG STATISTICS	66	1388	4	1478	85	1	86	109	721	22	852	0
TOTAL	123	2578	14	2765	85	92	177	225	1365	42	1632	196

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC CT	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
	NEW YORK	NORTH ATLANTIC	7/84	8/84	9/84

RIVER	LECODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
HUDSON RIVER	1-TROY LOCK & DAM	0493/0044/15.0

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC DISTRICT NAME DIVISION NAME MONTHS REPORTED
 B4 VICKSBURG LOWER MISS VALLEY 7/84 8/84 9/84

ALL TIMES EXPRESSED IN MINUTES

LOCK PROCESSING TIME : DELAYED DELAY DELAY DELAY
 APPROACH ENTRY CHAMBER EXIT : TOWS TIME AVG MAX
 MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : (TOWS) (TOWS) (ALL VSSLS)

OUCHITA/BLACK RIV

	APPROACH			ENTRY			CHAMBER			EXIT			TOWS	TIME	AVG	MAX
	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX				
JONESVILLE LOCK & DAM	2	6	17	1	5	47	4	13	34	2	7	40	6	21	.4	15
COLUMBIA LOCK & DAM	3	5	14	3	6	62	5	14	27	3	6	30	2	25	1.2	15
LOCK & DAM 6	2	4	10	2	4	9	5	6	13	2	6	25	8	31	2.8	10
LOCK & DAM 8	1	5	12	1	4	10	5	6	18	4	5	12	9	24	2.7	15

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

BRDC 84	DISTRICT NAME VICKSBURG	DIVISION NAME LOWER MISS VALLEY	MONTHS REPORTED									
			7/84	8/84	9/84							

RIVER-LOCK NAME	TONS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGS TOTAL	LOCKES CORNER	LOCKES RECRTN	LOCKES OTHER	LOCKES TOTAL	TONNAGE (TONS) (NAV, OPN, ETC)

OUCHITA-BLACK RIV												
*** ONLY FIRST AND SECOND MONTHS REPORTED												
ADAMSVILLE LOCK & DAM	26	7	4	37	27	37	64	11	4	7	42	68
UPBOUND STATISTICS	24	19	5	48	32	25	57	32	6	11	49	33
DOWNBOUND STATISTICS	50	26	9	85	59	62	121	63	10	18	91	102
TOTALS												
*** ONLY FIRST AND SECOND MONTHS REPORTED												
COLUMBIA LOCK & DAM	9	14	4	27	5	11	16	14	9	2	25	21
UPBOUND STATISTICS	12	18	1	31	14	9	23	13	14	1	28	13
DOWNBOUND STATISTICS	21	32	5	58	19	20	39	27	23	3	53	34
TOTALS												
*** ONLY SECOND MONTH REPORTED												
LOCK & DAM 6	6	19	2	27	0	11	11	7	14	3	24	5
UPBOUND STATISTICS	5	24	2	31	10	0	10	6	14	3	23	0
DOWNBOUND STATISTICS	11	43	4	58	10	11	21	13	28	6	47	5
TOTALS												
*** ONLY SECOND MONTH REPORTED												
LOCK & DAM 8	5	17	1	23	0	10	10		14	10	31	6
UPBOUND STATISTICS	4	19	2	25	8	0	8	8	15	11	34	1
DOWNBOUND STATISTICS	9	36	3	48	8	10	18	15	29	21	65	7
TOTALS												

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

LOCK NAME	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED									
			7/84	8/84	9/84	7/84	8/84	9/84	7/84	8/84	9/84	7/84
LOCK NAME	TOWS	VESSEL RECRTN	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKER COMMER	LOCKER RECRTN	LOCKER OTHER	LOCKER TOTAL	TONNAGE KTONS
ILLINOIS												
TREMONT LOCK												

UPBOUND STATISTICS	102	4297	46	4475	170	47	217	173	1269	9	1542	57
DOWNBOUND STATISTICS	122	4320	33	4475	66	138	204	160	1248	8	1416	123
TOTALS	254	8617	79	8950	236	185	421	333	2608	17	2958	180
TUCKER LOCK												
*** ONLY FIRST AND THIRD MONTHS REPORTED												
UPBOUND STATISTICS	21	18	19	49	7	117	124	26	6	1	33	57
DOWNBOUND STATISTICS	43	35	2	80	122	78	200	42	6	0	42	118
TOTALS	64	53	12	129	129	195	324	68	6	1	75	266
WAGON RIDGE LOCK & DAM												
*** ONLY FIRST AND THIRD MONTHS REPORTED												
UPBOUND STATISTICS	24	21	8	53	9	165	174	75	6	0	43	232
DOWNBOUND STATISTICS	37	30	3	70	126	48	174	40	5	1	46	87
TOTALS	61	51	11	123	135	213	348	75	13	1	89	316
WESSER ISLAND LOCK & DAM												

UPBOUND STATISTICS	194	782	30	1006	276	471	747	108	321	4	555	755
DOWNBOUND STATISTICS	184	789	33	1006	278	393	671	216	330	6	552	659
TOTALS	378	1571	63	2012	554	864	1418	444	653	10	1107	1415
WHEELERS LOCK & DAM												

UPBOUND STATISTICS	241	802	25	1068	525	617	1142	182	345	7	534	1045
DOWNBOUND STATISTICS	234	802	25	1061	342	722	1064	271	341	7	619	1154
TOTALS	475	1604	50	2129	867	1339	2206	453	686	14	1253	2200
WHEELER LOCK & DAM												

UPBOUND STATISTICS	260	874	23	1157	699	653	1352	265	328	3	637	1113
DOWNBOUND STATISTICS	252	865	28	1145	345	918	1263	293	364	6	683	1405
TOTALS	512	1739	51	2302	1044	1571	2615	559	712	9	1320	2518
WHEELER LOCK & DAM												

UPBOUND STATISTICS	323	644	46	1013	1191	1166	2357	427	314	21	754	1866
DOWNBOUND STATISTICS	323	654	44	1021	468	1730	2198	416	336	20	766	2509
TOTALS	646	1298	90	2034	1659	2896	4555	843	650	41	1520	4375

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

RIVER LOCK NAME	TOWS	VESSEL		VESSEL TOTAL	BARGE			LOCKGS COMMER	LOCKGS			TONNAGE (K TONS) (NAV, OPN, ETC)
		RECRTN	OTHER		EMPTY	FULL	TOTAL		RECRTN	OTHER	TOTAL	
DISTRICT HURON LOCK & DAM ***												
UPBOUND STATISTICS	767	16	14	633	1478	1270	2748	426	153	31	610	2195
DOWNBOUND STATISTICS	305	361	12	681	439	2130	2569	375	186	57	618	3071
TOTALS	511	677	26	1314	1917	3400	5317	801	339	88	1228	5266
MISSISSIPPI RIVER LOCK & DAM #1 ***												
UPBOUND STATISTICS	286	1353	59	1689	196	1436	3416	393	717	10	1120	2074
DOWNBOUND STATISTICS	287	1478	23	1716	118	3212	3330	382	741	15	1138	4576
TOTALS	573	2761	83	3387	2098	4648	6746	775	1458	25	2258	6651
LOCK & DAM #2 ***												
UPBOUND STATISTICS	304	1171	22	1356	2086	1584	3670	431	634	14	1079	2271
DOWNBOUND STATISTICS	296	1495	14	1756	113	3401	3514	412	647	20	1079	4793
TOTALS	600	2666	36	2712	2199	4985	7184	843	1281	34	2158	7064
LOCK & DAM #3 ***												
UPBOUND STATISTICS	303	1176	24	1603	2049	1597	3646	436	588	6	1030	2190
DOWNBOUND STATISTICS	302	1294	14	1610	136	3405	3541	425	604	17	1046	4802
TOTALS	605	2570	38	3213	2185	5002	7187	861	1192	23	2076	7092
LOCK & DAM #4 ***												
UPBOUND STATISTICS	415	501	0	952	2439	1848	4287	636	336	4	976	2657
DOWNBOUND STATISTICS	418	481	29	931	171	4004	4175	627	338	12	977	5414
TOTALS	833	982	29	1883	2610	5852	8462	1263	674	16	1953	8071
LOCK & DAM #14 ALBUQUERQUE ***												
UPBOUND STATISTICS	0	0	0	2559	0	0	0	0	565	0	565	0
DOWNBOUND STATISTICS	0	0	0	2455	0	0	0	0	584	0	584	0
TOTALS	0	0	0	5014	0	0	0	0	1149	0	1149	0

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

LOCK NAME	DISTRICT NAME	DIVISION NAME	MONTHLY REPORT									
			JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR
LOCK NAME	TOWS	VESSEL		VESSEL TOTAL	BARGES		BARGES TOTAL	LOCKGS COMMER	LOCKGS			TONNAGE
		RECRTN	OTHER		EMPTY	FULL			RECRTN	OTHER	TOTAL	
MISSISSIPPI RIVER												
LOCK # DAM 15 ***												
UPBOUND STATISTICS	417	31	42	490	2039	1935	4174	116	21	3	49	1196
DOWNBOUND STATISTICS	420	7	35	462	287	3817	4104	111	7	7	725	5371
TOTALS	837	38	77	952	2526	5752	8278	227	27	10	1474	6567
LOCK # DAM 15 AUXILIARY 1 ***												
UPBOUND STATISTICS	66	2180	39	2285	40	54	94	109	801	5	915	68
DOWNBOUND STATISTICS	58	2167	58	2283	66	15	81	117	796	5	920	21
TOTALS	124	4347	97	4568	106	69	175	226	1597	10	1835	89
LOCK # DAM 16 ***												
UPBOUND STATISTICS	450	418	47	915	2408	2134	4542	690	258	10	986	3117
DOWNBOUND STATISTICS	452	416	42	910	333	4063	4396	671	313	14	999	5695
TOTALS	902	834	89	1825	2741	6197	8938	1361	571	24	1985	8812
LOCK # DAM 17 ***												
UPBOUND STATISTICS	379	241	23	643	2332	2255	4587	621	218	15	854	3280
DOWNBOUND STATISTICS	390	241	11	642	252	4196	4448	695	246	27	878	5680
TOTALS	769	482	34	1285	2584	6451	9035	1316	464	42	1732	8960
LOCK # DAM 18 ***												
UPBOUND STATISTICS	398	458	34	890	2435	2237	4672	624	261	5	940	3260
DOWNBOUND STATISTICS	397	418	32	847	283	4313	4596	613	355	16	984	6050
TOTALS	795	876	66	1737	2718	6550	9268	1237	616	21	1924	9310
LOCK # DAM 19 ***												
UPBOUND STATISTICS	383	294	51	728	2639	2233	4871	416	136	5	557	3298
DOWNBOUND STATISTICS	399	322	41	762	293	4470	4763	416	146	9	571	6260
TOTALS	782	616	92	1490	2932	6703	9635	832	282	14	1128	9558
LOCK # DAM 19 AUXILIARY 1 NO DATA RECORDED FOR THIS LOCK												
LOCK # DAM 20 ***												
UPBOUND STATISTICS	384	274	62	720	2688	2178	4866	659	191	17	838	3215
DOWNBOUND STATISTICS	400	308	37	761	269	4540	4809	667	222	18	917	6173
TOTALS	784	582	99	1481	2957	6718	9675	1326	413	35	1615	9388

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
ROCK ISLAND	NORTH CENTRAL	7/84	8/84	9/84

RIVER LOCK NAME	TONS	VESSEL		VESSEL TOTAL	BARGES		BARGES TOTAL	LOCKGS COMMER	LOCKGS			TONNAGE (KTONS)
		RECRTN	OTHER		EMPTY	FULL			RECRTN	OTHER	TOTAL	

(NAV, OPN, ETC)

MUSKIEGEE RIVER

LOCK # DAM #1	***											
RECREATION BARGE	400	287	51	760	2810	2272	5082	700	222	20	942	3359
RECREATION BARGE	409	205	39	783	302	4710	5012	709	233	26	968	6615
TOTAL	809	492	90	1543	3112	6982	10094	1409	455	46	1910	9975
LOCK # DAM #2	***											
RECREATION BARGE	427	402	11	860	2949	2297	5246	701	215	32	948	3385
RECREATION BARGE	436	440	29	907	308	4612	5120	705	245	29	979	6776
TOTAL	863	842	40	1767	3257	7109	10366	1406	460	61	1927	10161

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

LOCK #	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		ALL TIMES EXPRESSED IN MINUTES														
			7/84	8/84	APPROACH			LOCK PROCESSING TIME			EXIT			DELATED TOWS		DELATED TIME		DELATED TOWS	
MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MIN	AVG	
ILLINOIS																			
THOMAS J. O'BRIEN			1	1	19	1	1	16	1	15	74	1	1	15	:	86	977	10.3	41
LOCKPORT LOCK			1	9	93	1	11	28	15	23	52	1	12	64	:	60	22763	358.1	355
BRANDON ROAD LOCK & DAM			1	9	40	1	16	399	8	21	67	1	12	66	:	56	119225	1934.5	1165
BRESDEN ISLAND LOCK & DAM			1	3	34	1	4	416	6	17	134	1	4	59	:	148	7101	19.8	135
MARTELLES LOCK & DAM			1	5	78	1	4	53	3	21	79	1	7	340	:	200	15309	32.2	1206
SHARVED ROCK LOCK & DAM			1	3	41	1	4	42	7	17	75	1	6	75	:	160	11565	22.6	1440
PEORIA LOCK & DAM			1	5	51	1	7	62	1	9	37	1	9	74	:	626	25120	38.9	286
LABRANCE LOCK & DAM			1	7	70	1	8	60	1	7	90	1	17	85	:	566	26654	43.6	325
MISSISSIPPI RIVER																			
LOCK & DAM 11			1	4	65	1	4	30	1	10	70	1	8	47	:	769	34784	60.1	500
LOCK & DAM 12			1	5	86	1	5	36	1	7	131	1	9	51	:	336	35223	58.7	554
LOCK & DAM 13			1	3	62	1	5	31	1	8	55	1	9	133	:	291	27005	44.6	442
LOCK & DAM 14			1	5	88	1	6	429	1	8	140	1	11	299	:	453	61393	101.4	1494
LOCK & DAM 14 (AUXILIARY 1)			1	1	1	1	1	2	1	12	73	1	1	2	:	0	0	1.0	0
LOCK & DAM 15			1	9	126	1	8	65	2	10	402	1	16	142	:	448	64421	77.0	1644
LOCK & DAM 15 (AUXILIARY 1)			1	1	17	1	1	13	1	10	142	1	1	22	:	19	1711	13.9	1440

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

ERCD FA	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED																			
			7/84	8/84	9/84																	
	ROCK ISLAND	NORTH CENTRAL																				

ALL TIMES EXPRESSED IN MINUTES																						
			LOCK PROCESSING TIME									: DELAYED		DELAY		DELAY		DELAY				
			APPROACH			ENTRY			CHAMBER			EXIT			: TOWS		TIME		AVG		MAX	
			MIN	AVG	MAX	: MIN	AVG	MAX	: MIN	AVG	MAX	: MIN	AVG	MAX	:			(TOWS)	(TOWS)	(ALL VSSLS)		

MISSISSIPPI RIVER																						
LOCK & DAM 01	1	7	72	1	6	36	1	8	68	1	13	59	:	577	69622	77.2	760					
LOCK & DAM 02	1	9	101	1	7	365	5	9	437	1	13	164	:	484	59013	76.7	1537					
LOCK & DAM 03	1	6	89	1	7	38	1	7	64	1	13	49	:	496	55072	69.3	1486					
LOCK & DAM 04	1	15	106	1	7	40	3	17	57	1	9	67	:	372	28020	35.8	788					
LOCK & DAM 09 (AUXILIARY 1)	NO DATA RECORDED FOR THIS LOCK																					
LOCK & DAM 08	1	6	87	1	7	41	1	6	66	1	14	87	:	438	45736	58.3	771					
LOCK & DAM 07	1	3	138	1	7	73	1	6	83	1	14	89	:	535	61900	71.9	612					
LOCK & DAM 05	1	10	120	1	8	37	1	6	63	1	17	531	:	623	155606	179.9	1631					

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

PROJECT NAME	DIVISION NAME	MONTHS REPORTED
	NORTH CENTRAL	7/84 8/84 9/84

CODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
1-LOCK & DAM 1 MAIN CHBR 1	0400/0056/11.0
1-LOCK & DAM 1 MAIN CHBR 2	0400/0056/11.0
2-LOCK & DAM 2	0600/0110/11.0
2-LOCK & DAM 2 AUXILIARY 1	0500/0110/11.0
3-LOCK & DAM 3	0600/0110/11.0
4-LOCK & DAM 4	0600/0110/11.0
5-LOCK & DAM 5	0600/0110/11.0
6-LOCK & DAM 6	0600/0110/11.0
7-LOCK & DAM 7	0600/0110/11.0
8-LOCK & DAM 8	0600/0110/11.0
9-LOCK & DAM 9	0600/0110/11.0
10-LOCK & DAM 10	0600/0110/11.0
51-ST ANTHONY FALLS UPPER L & D	0400/0056/11.0
52-ST ANTHONY FALLS LOWER L & D	0400/0056/11.0
55-LOCK & DAM 5A	0600/0110/11.0

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC FS	DISTRICT NAME DIVISION	DIVISION NAME NORTH CENTRAL	MONTHS REPORTED									
			7/84		8/84		9/84		TOTAL		TONNAGE	
RIVER/LOCK NAME	ROWS	VESSL RECREA	VESSL OTHER	VESSL TOTAL	BARGE EMPTY	BARGE FULL	BARGE TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (TONS) (NAV, OPN, ETC)
MISSISSIPPI RIVER												
LOCK & DAM 1 - THBR 1	***											
UPBOUND STATISTICS	250	1087	20	1967	237	254	491	294	706	10	1010	320
DOWNBOUND STATISTICS	261	1854	6	2122	229	266	495	289	740	11	1040	297
TOTALS	502	3541	26	4089	466	520	986	583	1446	21	2050	717
LOCK & DAM 1 - THBR 2	NO DATA RECORDED FOR THIS LOCK											
LOCK & DAM 2	***											
UPBOUND STATISTICS	345	2012	21	2478	274	557	3331	443	788	16	1247	793
DOWNBOUND STATISTICS	343	2167	6	2516	46	3268	3316	441	783	20	1244	4626
TOTALS	688	4279	27	4994	2822	3825	6647	884	1571	36	2491	5420
LOCK & DAM 1 - AUXILIARY 1	NO DATA RECORDED FOR THIS LOCK											
LOCK & DAM 3	***											
UPBOUND STATISTICS	275	3697	17	3990	2430	560	2990	350	1110	37	1497	808
DOWNBOUND STATISTICS	214	3740	10	4024	40	2946	2986	348	1135	34	1517	4195
TOTALS	509	7437	27	8014	2470	3506	5976	698	2245	71	3014	5008
LOCK & DAM 4	***											
UPBOUND STATISTICS	276	2424	20	2720	2463	577	3040	355	952	89	1396	832
DOWNBOUND STATISTICS	275	2520	13	2808	42	2995	3037	346	995	82	1423	4278
TOTALS	551	4944	33	5528	2505	3572	6077	701	1947	171	2819	5110
LOCK & DAM 5	***											
UPBOUND STATISTICS	275	1904	12	2191	2371	625	2996	348	810	158	1316	897
DOWNBOUND STATISTICS	272	1960	6	2241	60	2955	3015	344	825	156	1325	4211
TOTALS	547	3864	18	4432	2431	3580	6011	692	1635	314	2641	5107
LOCK & DAM 6	***											
UPBOUND STATISTICS	236	21	6	249	2489	680	3169	360	969	37	1366	877
DOWNBOUND STATISTICS	277	1188	7	2498	66	3113	3179	347	1101	55	1487	4427
TOTALS	513	1209	13	4997	2555	3793	6348	707	2070	92	2853	5304

PAGE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC DIVISION NAME MONTHS REPORTED
 ST. PAUL NORTH CENTRAL 7/84 8/84 9/84

RIVER/LOCK NAME TOWS VESSL VESSL VESSL BARGS BARGS BARGES LOCKBS LOCKBS LOCKBS LOCKBS
 RECRIN OTHER TOTAL EMPTY FULL TOTAL COMMER RECRTN OTHER TOTAL (NAV, OPN, ETC)

MISSISSIPPI RIVER

LOCK & DAM 7 ***
 UPBOUND STATISTICS 285 3396 18 3699 2488 682 3170 427 1114 71 1612 587
 DOWNBOUND STATISTICS 275 3433 112 3820 52 3112 3164 404 1181 79 1664 447
 TOTALS 560 6829 130 7519 2540 3794 6334 831 2295 150 3276 1034

LOCK & DAM 8 ***
 UPBOUND STATISTICS 286 1422 11 1719 2425 803 3228 363 743 33 1139 1171
 DOWNBOUND STATISTICS 273 1486 8 1767 70 3149 3219 352 757 37 1146 4478
 TOTALS 559 2908 19 3486 2495 3952 6447 715 1500 70 2285 5649

LOCK & DAM 9 ***
 UPBOUND STATISTICS 271 1423 5 1699 2043 1186 3229 344 750 72 1166 1419
 DOWNBOUND STATISTICS 262 1465 5 1732 97 3065 3162 333 759 77 1169 4362
 TOTALS 533 2888 10 3431 2140 4251 6391 677 1509 149 2335 5781

LOCK & DAM 10 ***
 UPBOUND STATISTICS 303 1619 20 1942 2224 1239 3463 391 825 22 1208 1771
 DOWNBOUND STATISTICS 288 1587 13 1888 199 3243 3343 370 963 27 1306 4593
 TOTALS 591 3206 33 3830 2324 4482 6806 761 1728 49 2538 6364

ST ANTHONY FALLS UPPER L & D ***
 UPBOUND STATISTICS 182 816 124 1122 198 98 296 206 405 6 617 140
 DOWNBOUND STATISTICS 192 910 22 1124 82 226 308 210 417 8 635 389
 TOTALS 374 1726 146 2246 280 324 604 416 822 14 1252 529

ST ANTHONY FALLS LOWER L & D ***
 UPBOUND STATISTICS 261 826 11 1098 239 252 491 273 396 10 679 379
 DOWNBOUND STATISTICS 266 948 7 1221 233 269 502 272 406 7 685 397
 TOTALS 527 1774 18 2319 472 521 993 545 802 17 1364 776

LOCK & DAM 59 ***
 UPBOUND STATISTICS 278 2627 39 2944 2383 628 3011 472 987 149 1610 112
 DOWNBOUND STATISTICS 274 2619 42 2935 51 2987 3038 448 1062 140 1650 4164
 TOTALS 552 5246 81 5879 2434 3615 6049 920 2051 289 3260 5276

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

LOCK	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED														
			7/84	8/84	9/84	TOTAL											

ALL TIMES EXPRESSED IN MINUTES																	
	APPROACH	LOCK PROCESSING TIME			:	DELAYED DELAY	DELAY	DELAY									
		ENTRY	CHAMBER		:	TOWS	TIME	AVE									
	MIN	AVG	MAX	MIN	AVG	MAX	MIN	MAX									
								(TOWS)									
								(TOWS)									
								(ALL VESLS)									

MICHIGAN RIVER																	
LOCK 4-1	MAIN CHBR 1	1	2	50	1	4	30	3	11	45	1	3	22	109	2222	4.3	88
LOCK 4-1	MAIN CHBR 2	NO DATA RECORDED FOR THIS LOCK															
LOCK 4-1	CHBR 1	1	4	76	1	6	35	4	9	23	1	7	72	447	47533	65.1	710
LOCK 4-1	CHBR 2	NO DATA RECORDED FOR THIS LOCK															
LOCK 4-1	CHBR 3	1	4	73	1	5	57	1	6	26	1	7	61	366	36969	57.0	849
LOCK 4-1	CHBR 4	1	4	62	1	5	38	2	5	59	1	7	73	342	28241	51.3	603
LOCK 4-1	CHBR 5	1	4	90	1	5	63	4	8	38	1	7	170	317	23474	42.9	563
LOCK 4-1	CHBR 6	1	4	76	1	4	34	2	5	26	1	7	84	336	28269	50.2	644
LOCK 4-1	CHBR 7	1	7	74	1	5	29	4	5	56	1	6	90	359	22201	39.6	611
LOCK 4-1	CHBR 8	1	4	70	1	5	30	4	7	55	1	9	57	322	26404	47.2	508
LOCK 4-1	CHBR 9	1	4	118	1	5	46	3	6	26	1	9	78	201	27246	51.1	1106
LOCK 4-1	CHBR 10	1	4	84	1	5	56	4	6	36	1	8	90	312	25591	43.3	540
LOCK 4-1	CHBR 11	1	2	78	1	3	24	4	9	31	1	2	27	31	478	1.0	73
LOCK 4-1	CHBR 12	1	2	78	1	4	31	4	11	52	1	2	15	115	2314	4.4	153
LOCK 4-1	CHBR 13	1	7	71	1	4	44	2	6	17	1	6	63	335	27965	54.7	889

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

Page 1 of 1

ERDC	PROJECT NAME	DIVISION NAME	MONTHS REPORTED		
01	OREGON	NORTH PACIFIC	7/84	8/84	9/84

REVER	CODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
COLUMBIA RIVER	1-BONNEVILLE LOCK & DAM	0500/0075/15.0
	2-THE DALLES DAM	0675/0086/15.0
	3-JOHN DAY LOCK & DAM	0675/0086/15.0
WILLAMETTE RIVER	11-WILLAMETTE FALLS LOCKS 1 - 4	0210/0040/ 6.5
	15-WILLAMETTE FALLS GUARD LOCK	0210/0040/ 6.5

AREA

PERFORMANCE MONITORING SYSTEM (FMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

AREA	DISTRICT NAME WATERLAND	DIVISION NAME NORTH PACIFIC	MONTHS REPORTED											
			7/84	8/84	9/84	7/84	8/84	9/84	7/84	8/84	9/84	7/84	8/84	9/84
REVENUE			TOWL	VESSEL RECRTN	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)
(NAV, OPN, ETC)														

YUKON RIVER														

BONNEVILLE DAM														
UPBOUND STATISTICS			301	162	34	497	736	279	1015	627	55	47	729	519
DOWNBOUND STATISTICS			311	182	11	514	59	1042	1101	693	68	54	815	2294
TOTALS			612	344	45	1011	795	1321	2116	1320	123	101	1544	2813

THE DALY DAM														

UPBOUND STATISTICS			237	86	6	331	567	263	830	258	47	27	332	405
DOWNBOUND STATISTICS			24	97	9	346	57	795	852	260	57	22	339	1987
TOTALS			477	183	17	677	624	1058	1682	518	104	49	671	2392

JOHN DAY DAM														

UPBOUND STATISTICS			237	103	9	349	547	271	818	256	42	32	330	470
DOWNBOUND STATISTICS			237	116	16	365	60	767	827	254	45	32	331	1915
TOTALS			474	219	25	714	607	1038	1645	510	87	64	661	2386

W. WARETT RIVER														

UPBOUND STATISTICS			132	279	45	456	14	183	217	211	243	1	459	44
DOWNBOUND STATISTICS			106	103	61	477	4	135	139	115	228	2	405	40
TOTALS			244	382	106	933	18	318	356	386	475	3	864	85

W. LAUREL RIVER														

UPBOUND STATISTICS			97	108	118	319	16	123	149	34	33	396	463	23
DOWNBOUND STATISTICS			72	129	141	342	4	68	72	16	30	363	409	23
TOTALS			165	237	259	661	20	191	221	50	63	759	872	46

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PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

PROJECT NAME: OREGON DIVISION NAME: NORTH PACIFIC MONTHS REPORTED: 7/84 6/84 14

ALL TIMES EXPRESSED IN MINUTES

APPROACH LOCK PROCESSING TIME : DELAYED DELAY DELAY TOTAL
 ENTRY CHAMBER EXIT : TOWS TIME AVG MAX
 MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : (TOWS) (TOWS) (SLS)

COLUMBIA RIVER

BONNEVILLE LOCK & DAM	1	7	65	1	6	65	1	23	110	1	4	67	609	60126	96.7	457
THE DALLES DAM	1	5	30	1	5	24	10	22	96	1	5	18	384	3796	8.	1
JOHN DAY LOCK & DAM	1	4	20	1	6	24	2	23	85	1	4	12	468	2520	5.4	110

WILLAMETTE RIVER

WILLAMETTE FALLS LOCKS 1 - 4	1	1	61	1	1	8	2	33	117	1	1	24	234	281	1.1	18
WILLAMETTE FALLS GUARD LOCK	1	1	6	1	1	8	1	1	61	1	1	61	161	165	1.0	3

TABLE

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
31	TEATTLE	NORTH PACIFIC	7/84	8/84	9/84

RIVER	LOCK-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
LAKE WASHINGTON SHIP CANAL	1-HIRAM M CHITTENDEN LOCKS	0760/0080/30.0
	1-HIRAM M CHITTENDEN LOCKS AUX1	0150/0028/25.0

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

PROJECT NAME DIVISION	PROJECT NAME DIVISION	DIVISION NAME OHIO RIVER	MONTHS REPORTED											
			7/84	8/84	9/84	7/84	8/84	9/84	7/84	8/84	9/84	7/84		
			TOWS	VESSEL RECEIV	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKS COMMER	LOCKS RECREA	LOCKS OTHER	LOCKS TOTAL	TONNAGE (TONS)
			(NAV, OPN, ETC)											

...	75	388	2	433	124	12	136	50	170	3	223	16
...	47	468	9	524	56	98	154	56	213	2	271	127
...	84	854	17	957	180	110	290	106	383	5	494	143

...	727	757	54	1538	3006	3709	6715	744	224	5	973	5915
...	899	798	59	1556	1697	4557	6254	720	240	5	965	6481
...	1426	1555	113	3094	4702	8266	12969	1464	464	10	1538	12397
*** ONLY FIRST AND THIRD MONTHS REPORTED														
...	8	584	19	621	49	45	94	56	160	1	217	64
...	31	351	71	673	78	54	132	74	157	2	233	68
...	34	1115	50	1254	127	99	226	130	317	3	451	132

...	611	44	18	753	4627	7003	7630	699	7	2	708	4824
...	704	21	10	736	1144	6361	7505	706	7	1	714	9521
...	1315	66	28	1489	5771	9364	15135	1405	14	3	1422	14746

...	45	677	27	945	98	78	126	63	563	2	628	61
...	77	944	71	1010	50	51	101	60	602	5	667	81
...	84	1817	54	1955	148	79	227	123	1165	7	1291	142

...	177	61	15	234	813	401	1214	150	48	2	200	629
...	654	145	30	873	972	6138	7210	710	73	6	789	9377
...	871	177	47	1107	1785	6639	8424	860	121	8	981	10006

...	177	121	70	378	5163	1644	7697	740	60	6	800	4206
...	187	94	18	275	181	1320	1501	177	59	6	241	1867
...	187	15	46	1197	5744	7964	9708	919	119	14	1038	6275

TABLE 1
 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

RIVER-LOCK NAME	TONS	VESSEL			BARGES		BARGES TOTAL	LOCKS				AVERAGE TONAGE
		RECRTN	OTHER	TOTAL	EMPTY	FULL		COMMER	SECRTN	OTHER	TOTAL	
OHIO RIVER												
SPEEDWARREN RIVER												
LOCK A DAM 1	***											
UPBOUND STATISTICS	566	314	21	841	1718	219	1937	525	165	3	693	328
DOWNBOUND STATISTICS	589	321	14	844	116	1819	1929	523	159	2	684	324
TOTALS	1015	635	35	1685	1828	2038	3866	1048	324	5	1377	351
LOCK B DAM 1	***											
UPBOUND STATISTICS	365	84	15	464	1380	33	1413	378	53	4	435	49
DOWNBOUND STATISTICS	366	76	6	448	25	1389	1414	374	51	3	429	50
TOTALS	731	160	21	912	1405	1422	2827	752	104	7	864	119
LOCK C DAM	NO DATA RECORDED FOR THIS LOCK											
MARKLAND RIVER												
MARKLAND LOCKS DAM	***											
UPBOUND STATISTICS	523	1025	17	1565	2311	2652	4963	532	331	11	874	100
DOWNBOUND STATISTICS	507	1031	9	1547	932	3739	4671	514	352	17	883	99
TOTALS	1030	2056	26	3112	3243	6391	9634	1046	683	28	1757	199
MARKLAND LOCKS DAM AUX 1	NO DATA RECORDED FOR THIS LOCK											
MEALPINE LOCKS DAM	***											
UPBOUND STATISTICS	586	288	109	974	1819	3582	5401	663	114	17	794	64
DOWNBOUND STATISTICS	590	341	84	1015	1396	3719	5115	645	142	19	806	65
TOTALS	1176	629	184	1989	3215	7301	10516	1308	256	36	1600	129
MEALPINE LOCKS DAM AUX 1	NO DATA RECORDED FOR THIS LOCK											
CANNELTON LOCKS DAM	***											
UPBOUND STATISTICS	546	30	6	590	2008	3734	5742	551	11	0	562	18
DOWNBOUND STATISTICS	521	33	11	565	1345	4064	5409	524	14	3	541	17
TOTALS	1067	71	17	1155	3353	7798	11151	1075	25	3	1103	35

TABLE

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC RL	PROJECT NAME SUBTITLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED		
			7/84	8/84	9/84

RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
GREEN RIVER	21-LOCK & DAM 1	0600/0084/12.0
	22-LOCK & DAM 2	0600/0084/12.0
	23-LOCK & DAM 7	0138/0036/12.0
OHIO RIVER	41-MARKLAND LOCKS & DAM	1200/0110/12.0
	41-MARKLAND LOCKS & DAM AUX 1	0600/0110/12.0
	42-MCALPINE LOCKS & DAM	1200/0110/12.0
	42-MCALPINE LOCKS & DAM AUX 1	0600/0110/12.0
	75-CANNELTON LOCK & DAM	1200/0110/12.0
	75-CANNELTON LOCK & DAM AUX	0600/0110/12.0
	76-NEWBURGH LOCK & DAM	1200/0110/12.0
	76-NEWBURGH LOCK & DAM AUX 1	0600/0110/12.0
	77-UNIONTOWN LOCK & DAM	1200/0110/12.0
	77-UNIONTOWN LOCK & DAM AUX 1	0600/0110/12.0
	78-SMITHLAND LOCK & DAM	1200/0110/12.0
	78-SMITHLAND LOCK & DAM AUX 1	1200/0110/12.0
	52-LOCK & DAM 52	1200/0110/12.0
52-LOCK & DAM 52 AUX 1	0600/0110/12.0	

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC DISTRICT NAME DIVISION NAME MONTHS REPORTED
 H1 HUNTINGTON OHIO RIVER 7/84 8/84

ALL TIMES EXPRESSED IN MINUTES
 LOCK PROCESSING TIME : DELAYED DELAY DELAY DELAY
 APPROACH ENTRY CHAMBER EXIT : TONS TIME AVG MAX
 MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : (TONS) (TONS) (TONS)

OHIO RIVER

	APPROACH			ENTRY			CHAMBER			EXIT			TOWS		DELAYS	
	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TONS)	TIME	AVG	MAX
CAPT ANT MELDAH L&DAM AUX	1	4	38	1	2	26	6	12	28	1	2	25	3	80	1.2	50
WILLOW ISLAND LOCKS & DAM	1	15	48	1	8	28	5	13	50	2	9	30	325	14113	15.7	136
WILLOW ISLAND LOCKS & DAM AU	1	10	49	1	3	27	5	13	27	1	5	15	17	414	2.2	54

TABLE PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

BRIDGE NO.	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED																	
			7/84			8/84			9/84											
ALL TIMES EXPRESSED IN MINUTES																				
APPROACH			LOCK PROCESSING TIME						DELAIED DELAY			DELAY								
			ENTRY		CHAMBER				EXIT			TOWS		TIME		AVG		MAX		
MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TOWS)	(TOWS)	(HRS)	(HRS)	(VSSLS)	(VSSLS)
MAJOR RIVER																				
WINFIELD LOCK & DAM MAIN 1	1	9	98	1	5	45	5	10	32	4	13	490	413	101138	165.2	1310				
WINFIELD LOCK & DAM MAIN 2	1	8	105	1	4	19	5	9	42	3	11	103	422	97404	164.6	940				
MARMEC LOCK & DAM MAIN 1	1	9	93	1	4	40	5	8	28	1	9	50	188	92688	207.8	2180				
MARMEC LOCK & DAM MAIN 2	1	8	71	1	4	28	5	8	20	1	8	53	90	10633	29.2	640				
LONDON LOCK & DAM MAIN 1	1	7	57	1	4	19	5	9	24	2	8	65	80	9901	45.0	486				
LONDON LOCK & DAM MAIN 2	1	7	38	1	4	21	5	9	25	2	7	38	56	11156	50.3	801				
MINOR RIVER																				
BELLEVILLE LOCKS & DAM	1	17	50	1	9	30	8	12	25	3	9	33	296	14138	16.5	786				
BELLEVILLE LOCKS & DAM AUX 1	1	9	73	1	6	40	8	12	53	1	8	65	174	50102	174.0	1440				
RACINE LOCK & DAM	1	13	75	2	11	36	9	10	27	2	9	29	370	17110	6.6	232				
RACINE LOCK & DAM AUX 1	1	6	72	2	5	22	8	10	17	1	6	20	13	363	0.0	60				
GALLIEN LOCKS & DAM	1	9	101	1	12	46	5	12	57	2	18	72	827	202859	207.3	1090				
GALLIEN LOCKS & DAM AUX 1	1	6	43	1	6	45	5	12	37	1	7	58	18	3082	26.8	889				
GREENUP LOCK & DAM	1	14	52	2	9	30	5	11	22	2	9	29	520	23140	19.2	240				
GREENUP LOCK & DAM AUX 1	1	6	30	1	4	19	5	10	20	1	4	15	10	255	0.0	60				
CARTERS LOCKS & DAM	1	17	58	1	10	42	5	14	30	2	11	27	473	28273	16.0	390				

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC HI	DISTRICT NAME HUNTINGTON	DIVISION NAME OHIO RIVER	MONTHS REPORTED			RIVER-LOCK NAME	TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (1000 LB)
			7/84	8/84	9/84													
OHIO RIVER																		
CAPT ANT MELDARE LOCKS & DAM ***																		
UPBOUND STATISTICS							542	19	11	572	3479	2326	5805	553	11	0	564	3689
DOWNBOUND STATISTICS							518	20	6	544	951	4636	5587	523	13	0	536	7036
TOTALS							1060	39	17	1116	4430	6962	11392	1076	24	0	1100	10718
CAPT ANT MELDARE LY&DAM AUX 1 ***																		
UPBOUND STATISTICS							31	1224	2	1257	31	53	84	38	470	1	509	78
DOWNBOUND STATISTICS							37	1184	7	1228	59	43	102	47	479	3	529	50
TOTALS							68	2408	9	2485	90	96	186	85	949	4	1038	128
WILLOW ISLAND LOCKS & DAM ***																		
UPBOUND STATISTICS							458	7	7	472	877	4096	4973	460	5	0	465	5710
DOWNBOUND STATISTICS							440	14	4	458	2325	2531	4856	443	9	0	452	3664
TOTALS							898	21	11	930	3202	6627	9829	903	14	0	917	9374
WILLOW ISLAND LOCKS & DAM AUX ***																		
UPBOUND STATISTICS							84	329	20	433	138	143	281	116	161	1	278	151
DOWNBOUND STATISTICS							105	340	18	463	194	167	361	137	160	2	299	343
TOTALS							189	669	38	896	332	310	642	253	321	3	577	494

PAGE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

SECT #1	DISTRICT NAME HUNTINGTON	DIVISION NAME OHIO RIVER	MONTHS REPORTED									
			7/84					8/84				
RIVER NAME	TOWNS	VESSEL RECRTN	VESSEL OTHER	VESSEL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	TOTAL	MILES DOWN
OHIO RIVER												
WINFIELD LOCKS & DAM MAIN 1 ***												
UPBOUND STATISTICS	270	63	20	353	1049	617	1666	1052	70	11	1133	150
DOWNBOUND STATISTICS	276	41	10	327	330	1462	1792	1057	56	11	1124	1644
TOTALS	546	104	30	680	1379	2079	3458	2109	126	22	2257	1594
WINFIELD LOCKS & DAM MAIN 2 ***												
UPBOUND STATISTICS	296	68	22	386	1382	430	1812	1051	101	13	1165	576
DOWNBOUND STATISTICS	295	90	20	405	514	1197	1711	1053	111	6	1170	1391
TOTALS	591	158	42	791	1896	1627	3523	2104	212	19	2335	1970
MARMET LOCKS & DAM MAIN 1 ***												
UPBOUND STATISTICS	292	87	15	304	955	100	1055	663	154	0	817	115
DOWNBOUND STATISTICS	244	106	15	365	72	1172	1244	829	168	3	1000	1457
TOTALS	446	193	30	669	1027	1272	2299	1492	322	3	1817	1569
MARMET LOCKS & DAM MAIN 2 ***												
UPBOUND STATISTICS	194	193	23	410	760	75	835	501	225	0	726	99
DOWNBOUND STATISTICS	150	173	21	344	74	621	695	367	224	2	593	712
TOTALS	344	366	44	754	834	696	1530	868	449	2	1319	811
LONDON LOCKS & DAM MAIN 1 ***												
UPBOUND STATISTICS	111	17	12	140	346	5	351	247	31	9	287	6
DOWNBOUND STATISTICS	109	22	9	140	5	373	378	262	46	11	319	447
TOTALS	220	39	21	280	351	378	729	509	77	20	606	453
LONDON LOCKS & DAM MAIN 2 ***												
UPBOUND STATISTICS	109	46	8	163	397	1	398	265	53	6	324	1
DOWNBOUND STATISTICS	113	21	10	144	1	389	390	270	42	2	314	411
TOTALS	222	67	18	307	398	390	788	535	95	8	638	412
OHIO RIVER												
BELLEVILLE LOCKS & DAM ***												
UPBOUND STATISTICS	401	2	3	406	677	3728	4405	403	0	1	404	5415
DOWNBOUND STATISTICS	364	1	5	370	2148	2089	4237	365	0	0	365	5113
TOTALS	765	3	8	776	2825	5817	8642	768	0	1	769	10528

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

ERD#	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
HL	MTINGTON	OHIO RIVER	7/84	8/84	9/84

PIVER	EDGE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
KANAWHA RIVER	1-WINFIELD LOCKS & DAM MAIN 1	0360/0056/12.0
	1-WINFIELD LOCKS & DAM MAIN 2	0360/0056/12.0
	2-MARMET LOCKS & DAM MAIN 1	0360/0056/12.0
	2-MARMET LOCKS & DAM MAIN 2	0360/0056/12.0
OHIO RIVER	3-LONDON LOCKS & DAM MAIN 1	0360/0056/12.0
	3-LONDON LOCKS & DAM MAIN 2	0360/0056/12.0
	21-BELLEVILLE LOCKS & DAM	1200/0110/12.0
	21-BELLEVILLE LOCKS & DAM AUX 1	0600/0110/12.0
	22-RACINE LOCKS & DAM	1200/0110/12.0
	22-RACINE LOCKS & DAM AUX 1	0600/0110/12.0
	23-BALLIPOLIS LOCKS & DAM	0600/0110/12.0
	23-BALLIPOLIS LOCKS & DAM AUX 1	0360/0110/12.0
	24-GREENUP LOCKS & DAM	1200/0110/12.0
	24-GREENUP LOCKS & DAM AUX 1	0600/0110/12.0
	25-CAPT ANT MELDAHL LOCKS & DAM	1200/0110/12.0
	25-CAPT ANT MELDAHL LOCKS & DAM AUX 1	0600/0110/12.0
	72-WILLOW ISLAND LOCKS & DAM	1200/0110/12.0
	72-WILLOW ISLAND LOCKS & DAM AUX	0600/0110/12.0

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC 64	DISTRICT NAME WALLA WALLA	DIVISION NAME NORTH PACIFIC	MONTHS REPORTED															
			7/84			8/84			9/84									
ALL TIMES EXPRESSED IN MINUTES																		
APPROACH			LOCK PROCESSING TIME						EXIT			: DELAYED DELAY		DELAY		TOTAL		
MIN AVG MAX			: MIN AVG MAX		: MIN AVG MAX		: MIN AVG MAX		: MIN AVG MAX		: TOWS		TIME		AVE		MILES	
COLUMBIA RIVER																		
MCNARY LOCK & DAM																		
1	4	25	1	5	25	5	16	44	2	5	22	:	441	3301	7.1	89		
SNAKE RIVER																		
ICE HARBOR LOCK & DAM																		
1	3	15	1	5	34	10	21	46	1	3	17	:	393	2784	7.1	140		
LOWER MONUMENTAL LOCK & DAM																		
1	3	25	2	5	30	9	24	44	1	4	24	:	252	1857	7.4	95		
LITTLE GOOSE LOCK & DAM																		
2	3	18	1	3	26	9	15	34	1	4	18	:	250	1191	4.8	75		
LOWER GRANITE LOCK & DAM																		
1	3	28	2	4	15	6	11	21	1	3	14	:	225	1491	4.8	70		

TABLE C

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

ERDC #4	DISTRICT NAME WALLA WALLA	DIVISION NAME NORTH PACIFIC	MONTHS REPORTED									
			7/84	8/84	9/84							

RIVER/LOCK NAME	TOWNS	VESSEL RECRTN	VESSEL OTHER	VESSEL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (TONS)
	(NAV, OPN, ETC)											

COLUMBIA RIVER												
MONROE LOCK & DAM ***												
UPBOUND STATISTICS	222	161	5	388	467	274	741	246	82	3	331	416
DOWNBOUND STATISTICS	119	151	7	387	83	669	752	248	89	5	342	1650
TOTALS	441	322	12	775	550	943	1493	494	171	8	673	2066
WIAKE RIVER												
ICE HARVEY LOCK & DAM ***												
UPBOUND STATISTICS	196	636	23	855	396	58	454	234	263	1	498	37
DOWNBOUND STATISTICS	197	651	21	869	5	460	465	236	259	3	498	1121
TOTALS	393	1287	44	1724	401	518	919	470	522	4	996	1158
LOWER MONUMENTAL LOCK & DAM ***												
UPBOUND STATISTICS	127	163	2	292	331	57	388	143	80	2	225	38
DOWNBOUND STATISTICS	125	173	3	301	4	387	391	143	87	3	233	900
TOTALS	252	336	5	593	335	444	779	286	167	5	458	939
LITTLE LOOSE LOCK & DAM ***												
UPBOUND STATISTICS	125	148	1	274	317	56	373	141	75	5	221	36
DOWNBOUND STATISTICS	125	168	2	295	6	369	375	143	85	6	274	635
TOTALS	250	316	3	569	323	425	748	284	160	11	495	671
LOWER GRANITE LOCK & DAM ***												
UPBOUND STATISTICS	114	249	1	364	229	53	282	129	162	4	295	34
DOWNBOUND STATISTICS	112	264	2	378	12	271	283	130	175	3	308	575
TOTALS	226	513	3	742	241	324	565	259	337	7	603	609

0675-1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED
64	WATER WALLA	NORTH PACIFIC	7/84 8/84

RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
COLUMBIA RIVER	24-MCNARY LOCK & DAM	0675/0086/14.0
SNAKE RIVER	1-ICE HARBOR LOCK & DAM	0675/0086/14.0
	2-LOWER MONUMENTAL LOCK & DAM	0675/0086/14.0
	3-LITTLE GOOSE LOCK & DAM	0675/0086/14.0
	4-LOWER GRANITE LOCK & DAM	0675/0086/14.0

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDE	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
63	SEATTLE	NORTH PACIFIC	7/84	8/84	9/84

ALL TIMES EXPRESSED IN MINUTES

APPROACH			LOCK PROCESSING TIME			EXIT			TOWS		DELAYED DELAY	DELAY	DELAY
MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	TIME	AVG	MAX
											(TOWS)	(TOWS)	ALL VSSLS)

THE WASHINGTON SHIP CANAL

HIRAM M. ATTENDEN LOCKS	1	2	20	1	4	55	2	13	68	1	7	71	548	2970	4.7	47
HIRAM M. ATTENDEN LOCKS AUX	1	1	16	1	1	34	1	4	34	1	7	51	3	18	1.0	55

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC GS	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED									
			7/84	8/84	9/84							
	SEATTLE	NORTH PACIFIC										
LAKE WASHINGTON SHP CA												
RIVER/LOCK NAME	TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LOCKGS TOTAL	WGT (NAV, OPN, ETC)
HIRAM M CHITTENDEN LOCKS ***												
UPBOUND STATISTICS	324	6295	583	7202	100	275	375	698	96	63	857	471
DOWNBOUND STATISTICS	311	5442	682	6435	246	314	560	622	116	51	789	225
TOTALS	635	11737	1265	13637	346	589	935	1320	212	114	1646	697
HIRAM M CHITTENDEN LOCKS AUX1 ***												
UPBOUND STATISTICS	32	8599	508	9139	19	13	32	1043	1518	98	2659	0
DOWNBOUND STATISTICS	33	8814	442	9289	15	18	33	818	1725	114	2657	0
TOTALS	65	17413	950	18428	34	31	65	1861	3243	212	5316	0

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERD RE	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED										
			7/84	8/84									
RIVER/LOCK NAME													
TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGS TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	MANAGE (TENS)		
OHIO RIVER													
LOCK & DAM 52 ***													
UPBOUND STATISTICS	706	8	74	788	4000	3741	7741	387	2	343	732	5865	
DOWNBOUND STATISTICS	756	6	65	827	1849	6081	7930	436	4	362	802	9858	
TOTALS	1462	14	139	1615	5849	9822	15671	823	6	705	1534	14723	
LOCK & DAM 52 AUX 1 ***													
UPBOUND STATISTICS	348	25	72	445	1095	1032	2127	476	20	3	499	1701	
DOWNBOUND STATISTICS	335	37	67	439	602	1487	2089	466	27	4	497	2197	
TOTALS	683	62	139	884	1697	2519	4216	942	47	7	996	4018	

TABLE

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC DISTRICT NAME DIVISION NAME MONTHS REPORTED
 #3 COLUMBIA OHIO RIVER 7/84 8/84 9/84

ALL TIMES EXPRESSED IN MINUTES

LOCK PROCESSING TIME : DELAYED DELAY DELAY DELAY
 APPROACH ENTRY CHAMBER EXIT : TOWS TIME AVG MAX
 MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : (TOWS) (TOWS) (ALL VSSLS)

GREENBARREN RIVER

LOCK 3 DAM 1 5 25 1 3 20 5 7 25 1 4 36 : 205 4249 4.2 80
 LOCK 3 DAM 1 4 60 1 3 15 5 13 43 1 4 27 : 131 3022 4.1 80

LOCK 4 DAM 1 NO DATA RECORDED FOR THIS LOCK

OHIO RIVER

MARSHALL LOCK & DAM 1 13 60 1 6 30 5 13 42 1 6 29 : 609 37416 36.5 460

MARSHALL LOCK & DAM AUX 1 NO DATA RECORDED FOR THIS LOCK

MUSKOGEE LOCK & DAM 1 16 60 1 8 48 5 12 40 1 6 32 : 649 38714 32.5 302

MUSKOGEE LOCK & DAM AUX 1 NO DATA RECORDED FOR THIS LOCK

CANNELTON LOCK & DAM 1 24 60 1 7 30 5 11 20 1 8 35 : 489 35893 33.6 820

CANNELTON LOCK & DAM AUX 1 1 9 55 1 2 20 5 10 18 1 3 20 : 7 178 2.1 85

NEWBURGH LOCK & DAM 1 10 60 1 7 29 6 8 24 1 8 25 : 756 30713 21.5 181

NEWBURGH LOCK & DAM AUX 1 1 5 30 1 3 15 6 8 18 1 3 17 : 11 127 1.4 34

UNIONTOWN LOCK & DAM 1 18 60 1 8 30 5 10 30 1 8 55 : 719 40527 29.1 315

UNIONTOWN LOCK & DAM AUX 1 1 3 46 1 1 20 5 9 22 1 1 15 : 9 178 2.1 45

SMITHLAND LOCK & DAM 1 15 60 1 8 30 5 10 33 1 8 35 : 148 4184 5.0 220

SMITHLAND LOCK & DAM AUX 1 1 12 60 1 8 25 5 10 20 1 7 30 : 128 2549 2.9 65

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

LOCK NO. PROJECT NAME DIVISION NAME MONTHS REPORTED
 02 CINCINNATI OHIO RIVER 7/84 8/84

ALL TIMES EXPRESSED IN MINUTES
 LOCK PROCESSING TIME : DELAYED DELAY DELAY DELAY
 APPROACH ENTRY CHAMBER EXIT : TOWS TIME AVG RATE
 MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : (TOWS) (TOWS) (TOWS) (TOWS)

OHIO RIVER

LOCK & DAM 02	1	7	60	1	9	30	1	11	57	1	10	58	752	366549	250.7	1080
LOCK & DAM 51 ADP 1	1	9	110	1	10	73	5	12	50	1	11	82	500	332279	486.6	2480

TABLE

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC HS	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED		
			7/84	8/84	9/84

RIVER	LOCK-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
CLINCH RIVER	11-MELTON HILL LOCK	0400/0075/11.0
COMBERLAND RIVER	21-BANKLEY LOCK	0800/0110/11.0
	22-CHEATHAM LOCK	0800/0110/11.0
	27-FORBELL HULL LOCK	0400/0084/11.0
	24-OLD HIGHWAY LOCK	0400/0084/11.0
TENNESSEE RIVER	1-KENTUCKY LOCK	0600/0110/11.0
	2-PICKWICK LANDING LOCK	1000/0110/11.0
	2-PICKWICK LANDING LOCK AUX	0600/0110/11.0
	3-WILSON LOCK	0600/0110/11.0
	3-WILSON LOCK AUX	0292/0060/11.0
	4-GEN JOS WHEELER LOCK	0600/0110/11.0
	4-GEN JOS WHEELER L ^R AUX I	0400/0060/11.0
	5-GUNTERSVILLE LOCK	0600/0110/11.0
	5-GUNTERSVILLE LOCK AUX I	0360/0060/11.0
	6-NICKAJAC LOCK	0600/0119/11.0
	7-CHICKAMAUGA LOCK	0360/0060/11.0
	8-WATTS BAR LOCK	0360/0060/11.0
	9-FORT LOUDON LOCK	0360/0060/11.0

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

PAGE 51

ERDC HZ	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED			7/84	8/84	9/84						
			TOWS	VESSL RECRTN	VESSL OTHER				VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGS TOTAL	LOCKGS COMMER	LOCKGS RECRTN
CLINCH RIVER														
MELTON HILL LOCK			***											
UPBOUND STATISTICS			0	44	0	44	0	0	0	1	33	7	41	0
DOWNBOUND STATISTICS			0	45	0	45	0	0	0	2	35	6	43	0
TOTALS			0	89	0	89	0	0	0	3	68	13	84	0
CUMBERLAND RIVER														
BARKLEY LOCK			***											
UPBOUND STATISTICS			57	288	2	347	28	342	370	60	155	9	224	509
DOWNBOUND STATISTICS			112	320	1	433	925	53	978	129	200	8	337	76
TOTALS			169	608	3	780	953	395	1348	189	355	17	561	586
CHEATHAM LOCK			***											
UPBOUND STATISTICS			105	220	3	328	20	554	574	109	148	27	284	861
DOWNBOUND STATISTICS			107	198	2	307	549	53	602	112	127	18	257	76
TOTALS			212	418	5	635	569	607	1176	221	275	45	541	937
CORDELL HULL LOCK			***											
UPBOUND STATISTICS			2	27	0	29	4	0	4	2	24	3	29	1
DOWNBOUND STATISTICS			3	33	0	36	0	6	6	5	24	1	30	9
TOTALS			5	60	0	65	4	6	10	7	48	4	59	10
OLD HICKORY LOCK			***											
UPBOUND STATISTICS			25	485	12	522	2	38	40	38	321	6	365	67
DOWNBOUND STATISTICS			26	490	8	524	45	4	49	35	326	8	369	2
TOTALS			51	975	20	1046	47	42	89	73	647	14	734	69
TENNESSEE RIVER														
KENTUCKY LOCK			***											
UPBOUND STATISTICS			472	120	41	633	799	3764	4563	744	112	10	866	5633
DOWNBOUND STATISTICS			405	65	47	517	2861	1073	3934	651	67	7	725	1520
TOTALS			877	185	88	1150	3660	4837	8497	1395	179	17	1591	7153

TABLE 1
 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

FREQ MT	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED										
			7/84		8/84		9/84						
RIVER LOCK NAME		TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL (NAV, DPN, ETC)	TONNAGE (TONS)
TENNESSEE RIVER													
FITCHRICK LANDING LOCK		***											
	UPBOUND STATISTICS	208	85	9	302	129	2089	2218	269	67	5	341	3078
	DOWNBOUND STATISTICS	208	75	8	311	1905	373	2278	274	75	3	351	548
	TOTALS	416	160	17	613	2034	2462	4496	543	142	8	693	3626
FITCHRICK LANDING LOCK WU		***											
	UPBOUND STATISTICS	47	61	5	133	42	425	467	64	62	16	142	617
	DOWNBOUND STATISTICS	41	88	3	132	366	36	402	54	64	18	136	56
	TOTALS	88	169	8	265	408	461	869	118	126	34	278	673
WILSON LOCK		***											
	UPBOUND STATISTICS	147	283	63	493	204	1952	1256	224	212	8	444	1555
	DOWNBOUND STATISTICS	152	298	51	501	904	383	1287	224	233	9	466	527
	TOTALS	299	581	114	994	1108	1435	2543	448	445	17	910	2082
WILSON LOCK WU		NO DATA RECORDED FOR THIS LOCK											
GEN JOS WHEELER LOCK		***											
	UPBOUND STATISTICS	132	142	3	277	187	1005	1192	182	125	5	312	1475
	DOWNBOUND STATISTICS	124	149	5	278	857	335	1192	172	138	4	314	472
	TOTALS	256	291	8	555	1044	1340	2384	354	263	9	626	1948
GEN JOS WHEELER LK		ADU 1	***										
	UPBOUND STATISTICS	0	227	0	227	0	0	0	0	146	0	146	0
	DOWNBOUND STATISTICS	0	216	0	216	0	0	0	2	149	0	151	0
	TOTALS	0	443	0	443	0	0	0	2	295	0	297	0
GUNTERSVILLE LOCK		***											
	UPBOUND STATISTICS	115	694	5	724	243	674	917	156	163	4	323	982
	DOWNBOUND STATISTICS	114	639	8	761	574	368	942	156	190	4	350	490
	TOTALS	229	1243	13	1485	817	1042	1859	312	353	8	673	1472
GUNTERVILLE LOCK		ADU 1	***										
	UPBOUND STATISTICS	22	416	0	441	34	98	132	40	350	9	399	149
	DOWNBOUND STATISTICS	19	410	0	431	92	48	140	32	345	7	384	58
	TOTALS	41	826	0	872	126	146	272	72	695	16	783	208

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

ERDC NO	DISTRICT NAME NASHVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED			TONNAGE (RTONS)						
			7/84	8/84	9/84							
LOCK NAME	TOWS	VESSEL RECRTN	VESSEL OTHER	VESSEL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKS COMMER	LOCKES RECRTN	LOCKES OTHER	LOCKES TOTAL	(NAV, OPN, ETC)
TENNESSEE RIVER												
NICKAJAC LOCK	***											
UPBOUND STATISTICS	165	185	9	359	381	795	1176	205	132	4	341	1484
DOWNBOUND STATISTICS	161	212	14	387	678	461	1139	199	148	4	351	625
TOTALS	326	397	23	746	1059	1256	2315	404	280	8	692	1710
CHECKAMAUGA LOCK	***											
UPBOUND STATISTICS	74	384	4	462	51	291	342	141	451	30	622	422
DOWNBOUND STATISTICS	62	411	15	488	206	110	316	130	450	28	608	156
TOTALS	136	795	19	950	257	401	658	271	901	58	1230	578
WATTS BAR LOCK	***											
UPBOUND STATISTICS	52	560	2	614	66	120	186	73	463	9	545	205
DOWNBOUND STATISTICS	54	545	2	601	69	119	188	76	448	9	533	162
TOTALS	106	1105	4	1215	135	239	374	149	911	18	1076	367
FORT LOUDON LOCK	***											
UPBOUND STATISTICS	37	240	3	280	31	63	94	54	209	13	276	127
DOWNBOUND STATISTICS	36	230	2	268	51	42	93	51	202	13	266	61
TOTALS	73	470	5	548	82	105	187	105	411	26	542	189

TABLE

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

ERDC HD	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED															
			7/84	8/84	9/84													
							ALL TIMES EXPRESSED IN MINUTES											
			APPROACH			LOCK PROCESSING TIME			EXIT			: DELAYED DELAY		DELAY				
			MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	: TOWS	TIME	AVG	MAX			
			: MIN AVG MAX			: MIN AVG MAX			: MIN AVG MAX			: (TOWS)		: (TOWS)				
OHIO RIVER																		
	MELTON FILL LOCK		1	5	22	1	1	4	8	14	25	1	2	6	0	0	.0	723
OHIO AND RIVER																		
	BARKLEY LOCK		1	11	92	1	6	28	6	15	134	1	6	30	32	1347	3.0	110
	CHEATHAM LOCK		1	6	40	1	7	45	6	15	48	1	5	37	31	769	3.6	135
	CORDELL LOCK		2	7	40	1	4	10	13	20	32	1	4	20	0	0	.0	0
	OLD HULLOCK LOCK		1	3	20	1	3	33	6	15	76	1	3	123	7	126	2.5	540
TENNESSEE RIVER																		
	KENTUCKY LOCK		1	3	406	1	13	73	6	19	77	1	17	77	731	178365	203.4	959
	PICKWICK LANDING LOCK		1	11	103	2	14	50	10	22	119	1	18	82	212	26523	63.8	571
	PICKWICK LANDING LOCK AUX		1	9	159	2	9	48	7	16	29	1	12	47	45	5597	53.6	369
	WILSON LOCK		1	8	70	2	10	46	6	21	39	1	10	50	119	8448	26.3	270
	WILSON LOCK		NO DATA RECORDED FOR THIS LOCK															
	GEN JOE WHEELER LOCK		1	11	121	2	11	39	6	14	35	1	14	63	75	4354	17.0	191
	GEN JOE WHEELER LOCK AUX	AUX	1	7	53	1	4	33	6	13	22	1	4	15	0	0	.0	132
	GUNTERBELL LOCK		1	7	65	1	8	62	6	14	28	1	10	47	73	10939	47.8	1820
	GUNTERBELL LOCK AUX	AUX	1	4	138	1	3	72	6	12	27	1	5	219	28	20263	454.2	1911
	NIJARA LOCK		1	9	87	2	10	47	6	14	26	1	11	75	91	6141	18.8	282

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC DISTRICT NAME DIVISION NAME MONTHS REPORTED
 RI NASHVILLE OHIO RIVER 7/84 8/84 9/84

ALL TIMES EXPRESSED IN MINUTES
 LOCK PROCESSING TIME : DELAYED DELAY DELAY DELAY
 APPROACH ENTRY CHAMBER EXIT : TOWS TIME AVG MAX
 MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : (TOWS) (TOWS) (ALL VSSLS)

TENNESSEE RIVER

	APPROACH			ENTRY			CHAMBER			EXIT			TOWS	TIME (TOWS)	AVG (TOWS)	MAX (ALL VSSLS)
	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX				
CHICKAMAUGA LOCK	1	3	109	1	4	36	9	12	34	1	5	81	53	12472	91.7	995
WATTS BAR LOCK	1	4	70	1	3	29	10	15	75	1	4	84	40	2793	26.3	378
FORT LOUGON LOCK	1	10	116	1	3	22	9	21	49	1	5	76	21	1714	23.5	290

TABLE 1
 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
44	PITTSBURGH	OHIO RIVER	7/84	8/84	9/84
RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)			
ALLEGHENY RIVER	42-LOCK & DAM 2	0360/0056/13.0			
	43-LOCK & DAM 3	0360/0056/13.0			
	44-LOCK & DAM 4	0360/0056/13.0			
	45-LOCK & DAM 5	0360/0056/13.0			
	46-LOCK & DAM 6	0360/0056/13.0			
	47-LOCK & DAM 7	0360/0056/13.0			
	48-LOCK & DAM 8	0360/0056/13.0			
	49-LOCK & DAM 9	0360/0056/13.0			
MONONGAHELI RIVER	22-LOCK & DAM 2	0720/0110/13.0			
	22-LOCK & DAM 2 AUX 1	0360/0056/13.0			
	23-LOCK & DAM 3	0720/0056/13.0			
	23-LOCK & DAM 3 AUXILIARY 1	0360/0056/13.0			
	24-LOCK & DAM 4	0720/0056/13.0			
	24-LOCK & DAM 4 AUXILIARY 1	0360/0056/13.0			
	25-MAXWELL LOCK & DAM	0720/0084/13.0			
	25-MAXWELL LOCK & DAM AUX 1	0720/0084/13.0			
	27-LOCK & DAM 7	0360/0056/13.0			
	28-LOCK & DAM 8	0360/0056/13.0			
	29-MORGANTOWN LOCK & DAM	0600/0084/13.0			
	30-HILDEBRAND LOCK & DAM	0600/0084/13.0			
	31-OPEKISKA LOCK & DAM	0600/0084/13.0			
OHIO RIVER	1-EMSWORTH LOCK & DAM	0600/0110/13.0			
	1-EMSWORTH LOCK & DAM AUX 1	0360/0056/13.0			
	2-DASHIELDS LOCK & DAM	0600/0110/13.0			
	2-DASHIELDS LOCK & DAM AUX 1	0360/0056/13.0			
	3-MONTGOMERY LOCK & DAM	0600/0110/13.0			
	3-MONTGOMERY LOCK & DAM AUX 1	0360/0056/13.0			
	4-NEW CUMBERLAND LOCK & DAM	1200/0110/13.0			
	4-NEW CUMBERLAND LK & DAM AUX 1	0600/0110/13.0			
	5-PIKE ISLAND LOCK & DAM	1200/0110/13.0			
	5-PIKE ISLAND LOCK & DAM AUX 1	0600/0110/13.0			
	71-HANNIBAL LOCKS & DAM	1200/0110/13.0			
	71-HANNIBAL LOCKS & DAM AUX 1	0600/0110/13.0			

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

ERDC #4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER	MONTHS REPORTED										
			7/84		8/84		9/84		TOTAL		TONS		
RIVER/LOCK NAME		TONS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARBS EMPTY	BARBS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER (NAV, OPN, ETC)	LOCKGS TOTAL	TONS
ALLEGHENY RIVER													
LOCK & DAM 2		***											
UPBOUND STATISTICS		253	2165	24	2442	504	300	804	312	925	5	1242	351
DOWNBOUND STATISTICS		245	2221	32	2498	297	501	798	314	957	5	1276	259
TOTALS		498	4386	56	4940	801	801	1602	626	1882	10	2518	610
LOCK & DAM 3		***											
UPBOUND STATISTICS		258	1083	23	1364	509	309	818	320	591	3	914	360
DOWNBOUND STATISTICS		250	1106	25	1381	313	503	816	319	566	3	888	257
TOTALS		508	2189	48	2745	822	812	1634	639	1157	6	1802	617
LOCK & DAM 4		***											
UPBOUND STATISTICS		223	1139	22	1384	778	83	861	273	545	4	822	111
DOWNBOUND STATISTICS		218	1228	28	1474	72	792	864	274	524	4	802	389
TOTALS		441	2367	50	2858	850	875	1725	547	1069	8	1624	500
LOCK & DAM 5		***											
UPBOUND STATISTICS		164	735	1	900	745	5	750	177	451	3	631	1
DOWNBOUND STATISTICS		161	752	1	914	10	734	744	178	443	3	624	313
TOTALS		325	1487	2	1814	755	739	1494	355	894	6	1255	314
LOCK & DAM 6		***											
UPBOUND STATISTICS		158	432	2	592	670	4	674	173	315	3	491	0
DOWNBOUND STATISTICS		158	475	1	634	5	671	676	174	317	3	494	285
TOTALS		316	907	3	1226	675	675	1350	347	632	6	985	285
LOCK & DAM 7		***											
UPBOUND STATISTICS		41	392	4	437	96	0	96	46	226	1	273	0
DOWNBOUND STATISTICS		43	452	99	594	0	94	94	46	212	1	259	40
TOTALS		84	844	103	1031	96	94	190	92	438	2	532	40
LOCK & DAM 8		***											
UPBOUND STATISTICS		123	376	9	508	123	0	123	132	193	1	326	0
DOWNBOUND STATISTICS		123	423	9	555	2	121	123	133	202	2	337	239
TOTALS		246	799	18	1063	125	121	246	265	395	3	663	239

TABLE 1
 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EPOC HA	DISTRICT NAME HUNTSVILLE	DIVISION NAME OHIO RIVER	MONTHS REPORTED										
			7/84	8/84	9/84	7/84	8/84	9/84	7/84	8/84	9/84	7/84	8/84
RIFFRA	NAME	TOWS	VESSEL RECRTN	VESSEL OTHER	VESSEL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS) (NAV, OPN, ETC)
HOOPER RIVER													

	UPBOUND STATISTICS	0	301	0	301	0	0	0	3	153	0	156	0
	DOWNBOUND STATISTICS	0	275	0	275	0	0	0	4	157	0	161	0
	TOTAL	0	576	0	576	0	0	0	7	310	0	317	0
MOUND RIVER													

	UPBOUND STATISTICS	556	0	2	558	2706	1453	3759	614	0	2	616	1823
	DOWNBOUND STATISTICS	577	2	0	582	960	2850	3810	640	0	3	643	3017
	TOTAL	1133	2	2	1140	3266	4303	7569	1254	0	5	1259	4840
LOCKPORT DAM #1													

	UPBOUND STATISTICS	132	509	63	754	114	163	277	249	295	0	552	112
	DOWNBOUND STATISTICS	148	514	69	731	175	61	236	217	308	8	533	65
	TOTAL	280	1023	132	1485	289	224	513	466	603	8	1085	178
LOCKPORT DAM #2													

	UPBOUND STATISTICS	947	1	6	954	4173	551	4724	947	1	2	950	657
	DOWNBOUND STATISTICS	988	0	4	992	309	4539	4848	988	0	2	990	4577
	TOTAL	1935	1	10	1946	4482	5090	9572	1935	1	4	1940	5235
LOCKPORT DAM #3													

	UPBOUND STATISTICS	150	432	178	760	141	88	229	324	235	4	563	97
	DOWNBOUND STATISTICS	112	452	171	736	80	91	171	279	250	5	534	94
	TOTAL	262	884	349	1496	221	179	400	603	485	9	1097	192
LOCKPORT DAM #4													

	UPBOUND STATISTICS	791	29	6	826	3911	462	4373	835	11	2	848	476
	DOWNBOUND STATISTICS	507	76	0	583	170	4223	4393	833	15	3	851	4199
	TOTAL	1298	105	6	1409	4081	4685	8766	1668	26	5	1699	4675

TABLE 2
 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC #4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER	MONTHS REPORTED									
			7/84					8/84				

RIVER/LOCK NAME	TOWS	VESSEL	VESSEL	VESSEL	BARGES	BARGES	BARGES	LOCKGS	LCKGES	LCKGES	LCKGES	TONNAGE (TONS)
		RECRTN	OTHER	TOTAL	EMPTY	FULL	TOTAL	COMMER	RECRTN	OTHER	TOTAL	

MONONGAHELA RIVER												
LOCK & DAM 4 AUXILIARY 1 ***												
UPBOUND STATISTICS	84	385	51	520	226	35	261	149	278	5	432	35
DOWNBOUND STATISTICS	64	377	56	497	50	153	203	130	262	5	397	156
TOTALS	148	762	107	1017	276	188	464	279	540	10	829	191
MAXWELL LOCK & DAM ***												
UPBOUND STATISTICS	685	449	9	1143	3742	307	4049	692	214	3	909	356
DOWNBOUND STATISTICS	537	440	9	986	93	3100	3193	547	212	4	763	3670
TOTALS	1222	889	18	2129	3835	3407	7242	1239	426	7	1672	3409
MAXWELL LOCK & DAM AUX 1 ***												
UPBOUND STATISTICS	54	122	3	179	257	43	300	57	83	2	142	51
DOWNBOUND STATISTICS	203	159	3	365	39	1135	1174	207	97	0	304	1126
TOTALS	257	281	6	544	296	1178	1474	264	180	2	446	1177
LOCK & DAM 7 ***												
UPBOUND STATISTICS	677	78	19	774	2883	287	3170	1223	100	5	1328	329
DOWNBOUND STATISTICS	666	79	34	779	100	3087	3187	1239	103	5	1347	2973
TOTALS	1343	157	53	1553	2983	3374	6357	2462	203	10	2675	3303
LOCK & DAM 8 ***												
UPBOUND STATISTICS	589	67	30	686	2467	279	2746	1062	87	6	1155	325
DOWNBOUND STATISTICS	598	69	35	702	146	2677	2823	1103	83	6	1192	1375
TOTALS	1187	136	65	1388	2613	2956	5569	2165	170	12	2347	1901
MORGANTOWN LOCK & DAM ***												
UPBOUND STATISTICS	91	131	9	231	358	2	360	100	99	4	203	1
DOWNBOUND STATISTICS	91	131	9	231	4	347	351	101	101	4	206	340
TOTALS	182	262	18	462	362	349	711	201	200	8	409	342
HILDEBRAND LOCK & DAM ***												
UPBOUND STATISTICS	35	109	4	148	118	0	118	39	91	0	130	0
DOWNBOUND STATISTICS	33	106	6	145	7	111	118	38	93	1	132	116
TOTALS	68	215	10	293	125	111	236	77	184	1	262	116

TABLE

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

PROJECT NAME Number	DIVISION NAME OHIO RIVER	MONTHS REPORTED														
		7-84	8-84	9-84	TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGS TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS)
OHIO RIVER																
OPEN DAM	***															
OPERATION ACTIVITIES		21	311	0	232	39	0	39	23	167	1	191	0			
DOWNRIVER ACTIVITIES		15	229	2	250	2	34	36	22	181	1	204	37			
TOTAL		36	540	2	482	41	34	75	45	348	2	395	37			
OHIO RIVER																
EMSWORTH DAM	***															
OPERATION ACTIVITIES		671	37	11	700	1686	2636	4322	784	4	2	790	2979			
DOWNRIVER ACTIVITIES		945	5	6	658	1860	2379	4239	753	4	4	761	2618			
TOTAL		1616	42	17	1378	3546	5015	8561	1537	8	6	1551	5598			
OHIO RIVER																
EMSWORTH DAM	***															
OPERATION ACTIVITIES		111	121	94	942	91	106	197	282	355	25	662	99			
DOWNRIVER ACTIVITIES		147	154	14	1015	172	53	225	316	429	25	770	56			
TOTAL		258	275	108	1957	263	159	422	598	784	50	1432	155			
OHIO RIVER																
EMSWORTH DAM	***															
OPERATION ACTIVITIES					111	1541	1835	4478	744	2	0	746	3226			
DOWNRIVER ACTIVITIES					111	1541	1835	4478	744	2	0	746	3226			
TOTAL					222	3082	3670	8956	1488	2	0	1492	6452			
OHIO RIVER																
EMSWORTH DAM	***															
OPERATION ACTIVITIES					111	1541	1835	4478	744	2	0	746	3226			
DOWNRIVER ACTIVITIES					111	1541	1835	4478	744	2	0	746	3226			
TOTAL					222	3082	3670	8956	1488	2	0	1492	6452			
OHIO RIVER																
EMSWORTH DAM	***															
OPERATION ACTIVITIES					111	1541	1835	4478	744	2	0	746	3226			
DOWNRIVER ACTIVITIES					111	1541	1835	4478	744	2	0	746	3226			
TOTAL					222	3082	3670	8956	1488	2	0	1492	6452			

UNITED STATES MARINE CORPS QUARTERLY REPORT
 THROUGH 9/84
 FOR THE WATER RESOURCES

BASE	FUNCTION	LOCATION NAME	MONTHS REPORTED										
			7/84	8/84	9/84								
RIVER	NAME	TIME	VESSEL RECRTN	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGS COMMER	LOCKGS RECRTN	LOCKGS OTHER	LOCKGS TOTAL	TONNAGE (KTONS)

THE YEAR RIVER

LOCK NAME	***											
UPBOUND STATISTICS	11	14	0	26	1	11	12	21	6	3	30	11
DOWNBOUND STATISTICS	12	25	0	37	12	0	12	19	9	4	32	0
TOTAL	24	39	0	63	13	11	24	40	15	7	62	11

LOCK NAME	***	ONLY SECOND AND THIRD MONTHS REPORTED										
UPBOUND STATISTICS	11	0	0	12	1	11	12	24	0	1	25	12
DOWNBOUND STATISTICS	10	2	0	14	12	0	12	23	1	1	25	0
TOTAL	24	2	0	26	13	11	24	47	1	2	50	12

WILLIAM HUBBARD LOCK & DAM	***	ONLY SECOND AND THIRD MONTHS REPORTED										
UPBOUND STATISTICS	11	0	0	11	0	11	11	11	0	0	11	10
DOWNBOUND STATISTICS	11	8	0	19	11	0	11	12	2	0	14	0
TOTAL	22	8	0	30	11	11	22	23	2	0	25	10

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
47	WILMINGTON	SOUTH ATLANTIC	7/84	8/84	9/84

RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
CAPE FEAR RIVER	1-LOCK & DAM 1	0200/0040/10.0
	2-LOCK & DAM 2	0200/0040/10.0
	3-WILLIAM O HUSKE LOCK & DAM	0300/0040/10.0

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
K6	SAVANNAH	SOUTH ATLANTIC	7/84	8/84	9/84

RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
SAVANNAH RIVER	1-NEW SAVANNAH BLUFF LOCK & DAM	0360/0056/12.0

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LOGAGE FILE FOR THIS PERIOD

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
KS	MOBILE	SOUTH ATLANTIC	7/84	8/84	9/84

ALL TIMES EXPRESSED IN MINUTES

APPROACH		LOCK PROCESSING TIME			EXIT			DELATED	DELAY	DELAY	DELAY	
MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	TONS	TIME	AVG	MAX
: DELAYED DELAY DELAY DELAY : TONS TIME AVG MAX (TONS) (TONS) (ALL VSSLS)												

TENN TOMBIGBEE WATERWAY

GAINESVILLE LOCK & DAM	1	7	30	1	4	16	5	13	35	1	6	22	:	0	0	10	15
ALICEVILLE LOCK & DAM	1	1	20	1	1	13	5	13	33	1	1	23	:	4	39	2.0	27
COLUMBUS LOCK & DAM	1	3	32	1	1	20	5	13	50	1	1	10	:	1	1	.1	30
ABERDEEN LOCK & DAM	1	2	58	1	1	17	5	15	37	1	1	14	:	0	0	10	55

TABLE 7

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC KS	DISTRICT NAME MOBILE	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED														
			7/84			8/84			9/84								
ALL TIMES EXPRESSED IN MINUTES																	
LOCK PROCESSING TIME																	
APPROACH			ENTRY			CHAMBER			EXIT			: DELAYED DELAY		: DELAY			
MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	(TOWS)	(TOWS)	
(ALL VSSLS)																	
ALABAMA-COOSA RIVERS																	
CLAYBURN LOCK & DAM	1	4	25	1	2	13	1	10	19	1	3	13	:	0	0	0	17
MILLERS BLUFF LOCK & DAM	1	11	27	1	6	32	5	16	48	1	6	27	:	10	346	2.1	96
JONES BLUFF LOCK & DAM	1	2	10	1	2	6	12	16	26	1	3	7	:	0	0	0	0
REDFRITCH-FLINT RI																	
JIM WOODRUFF LOCK & DAM	1	4	17	1	4	22	5	11	59	1	5	32	:	22	574	2.4	103
GEORGE W ANDREWS LOCK & DAM	2	2	15	2	2	17	5	14	33	1	2	11	:	2	3	.1	2
WALTER F GEORGE LOCK & DAM	1	2	20	1	3	24	5	14	25	1	3	9	:	1	40	1.9	40
ELPHART/TOMBIGBEE RI																	
COFFEENVILLE LOCK	1	11	38	1	4	30	8	14	34	1	10	42	:	508	23402	20.6	265
DEMOPOLIS LOCK & DAM	1	12	35	1	4	19	5	13	50	2	11	34	:	467	18806	17.2	196
WARRIOR LOCK & DAM	1	13	38	1	4	21	5	15	46	1	9	39	:	443	45837	42.8	9446
WILLIAM AND OLIVER LK & DM	1	12	75	1	6	22	5	13	41	1	12	68	:	744	86906	66.4	8580
HOLT LOCK & DAM	1	11	58	1	7	92	5	19	45	1	9	48	:	399	18030	18.4	288
JOHN HULLS BANKHEAD LK & DM	1	11	56	1	6	24	5	14	48	1	7	25	:	256	11641	14.3	175
SABIE RIVER																	
LOCK 1	NO DATA RECORDED FOR THIS LOCK																
LOCK 2	NO DATA RECORDED FOR THIS LOCK																
LOCK 3	NO DATA RECORDED FOR THIS LOCK																

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

EROC K5	DISTRICT NAME MOBILE	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED									
			7/84	8/84	9/84							

RIVER/LOCK NAME	TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (TONS) (NAV, DPN, ETC)

PEARL RIVER												
LOCK 2	NO DATA RECORDED FOR THIS LOCK											
LOCK 3	NO DATA RECORDED FOR THIS LOCK											
TENN TOMBIGBEE WATERWAY												
GAINESVILLE LOCK & DAM	***											
UPBOUND STATISTICS	20	24	3	47	47	23	70	23	15	9	47	19
DOWNBOUND STATISTICS	19	29	2	50	7	51	58	23	21	7	51	55
TOTALS	39	53	5	97	54	74	128	46	36	16	98	75
ALICEVILLE LOCK & DAM	***											
UPBOUND STATISTICS	10	212	4	226	6	18	24	22	162	22	206	20
DOWNBOUND STATISTICS	10	212	2	224	7	9	16	20	172	19	211	12
TOTALS	20	424	6	450	13	27	40	42	334	41	417	32
COLUMBUS LOCK & DAM	***											
UPBOUND STATISTICS	8	360	7	375	5	14	19	17	249	10	276	18
DOWNBOUND STATISTICS	8	367	4	379	7	5	12	15	249	8	272	6
TOTALS	16	727	11	754	12	19	31	32	498	18	548	25
ABERDEEN LOCK & DAM	*** ONLY FIRST AND SECOND MONTHS REPORTED											
UPBOUND STATISTICS	1	79	0	80	2	0	2	3	51	11	65	2
DOWNBOUND STATISTICS	1	75	1	77	3	0	3	2	59	10	71	0
TOTALS	2	154	1	157	5	0	5	5	110	21	136	2

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

ERDC HS	DISTRICT NAME MOBILE	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED										
			7/84	8/84	9/84								
RIVER LOCK NAME		TOWNS	VESSEL RECRTN	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL (NAV, OPN, ETC)	TONNAGE (KTONS)

MOBILE/TOMBIGBEE RI													
COFFEEVILLE LOCK ***													
	UPBOUND STATISTICS	573	56	13	642	2421	356	2777	578	26	14	618	542
	DOWNBOUND STATISTICS	565	59	15	639	148	2603	2751	569	30	12	611	3887
	TOTALS	1138	115	28	1281	2569	2959	5528	1147	56	26	1229	4430
DEMOPOLIS LOCK & DAM ***													
	UPBOUND STATISTICS	545	27	6	588	2337	352	2689	547	19	7	573	520
	DOWNBOUND STATISTICS	547	29	10	596	148	2594	2742	549	21	9	579	3906
	TOTALS	1092	56	16	1184	2485	2946	5431	1096	40	16	1152	4427
WARRIOR LOCK & DAM ***													
	UPBOUND STATISTICS	532	6	7	545	2334	323	2657	535	5	1	541	497
	DOWNBOUND STATISTICS	539	6	6	551	144	2558	2702	543	5	0	548	3898
	TOTALS	1071	12	13	1096	2478	2881	5359	1078	10	1	1089	4396
WILLETTS RIVER LOCK & DAM ***													
	UPBOUND STATISTICS	506	15	72	593	2344	297	2641	846	14	8	868	405
	DOWNBOUND STATISTICS	500	13	69	582	94	2504	2598	877	8	10	895	3799
	TOTALS	1006	28	141	1175	2438	2801	5239	1723	22	18	1763	4205
RELT LOCK & DAM ***													
	UPBOUND STATISTICS	500	16	10	526	2359	284	2643	509	12	8	529	399
	DOWNBOUND STATISTICS	480	16	16	512	71	2490	2561	490	9	10	509	3775
	TOTALS	980	32	26	1038	2430	2774	5204	999	21	18	1038	4175
JOHN RIVER LOCK & DAM ***													
	UPBOUND STATISTICS	413	100	12	525	1726	267	1993	418	52	16	486	361
	DOWNBOUND STATISTICS	403	99	15	517	119	1864	1983	414	54	16	484	2838
	TOTALS	816	199	27	1042	1845	2131	3976	832	106	32	970	3200

PENSACOLA RIVER

LOCK 1

NO DATA RECORDED FOR THIS LOCK

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

ERGC #5	DISTRICT NAME MOBILE	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED									
			7/84	8/84	9/84							
ALABAMA-COOSA RIVERS												
RIVER/LOCK NAME	TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (TONS)
(NAV, OPN, ETC)												
CLATBORNE LOCK & DAM ***												
UPBOUND STATISTICS	78	428	7	513	274	13	287	83	428	4	515	15
DOWNBOUND STATISTICS	83	440	7	530	14	284	298	90	440	4	534	376
TOTALS	161	868	14	1043	288	297	585	173	868	8	1049	392
MILLERS FERRY LOCK & DAM ***												
UPBOUND STATISTICS	81	36	6	123	289	9	298	86	23	0	109	18
DOWNBOUND STATISTICS	86	51	1	138	16	293	309	87	24	3	114	363
TOTALS	167	87	7	261	305	302	607	173	47	3	223	382
JONES BLUFF LOCK & DAM ***												
UPBOUND STATISTICS	7	24	1	32	1	11	12	9	21	0	30	15
DOWNBOUND STATISTICS	7	31	1	39	8	3	11	10	27	0	37	0
TOTALS	14	55	2	71	9	14	23	19	48	0	67	16
APLCH/CHTCH/FLNT RI												
JIM WOODRUFF LOCK & DAM ***												
UPBOUND STATISTICS	117	61	15	193	226	63	289	134	37	16	187	121
DOWNBOUND STATISTICS	123	106	7	236	61	236	297	134	51	16	201	162
TOTALS	240	167	22	429	287	299	586	268	88	32	388	283
GEORGE W ANDREWS LOCK & DAM ***												
UPBOUND STATISTICS	26	103	3	132	12	27	39	28	80	2	110	59
DOWNBOUND STATISTICS	23	149	1	173	25	7	32	27	99	3	129	9
TOTALS	49	252	4	305	37	34	71	55	179	5	239	59
WALTER F GEORGE LOCK & DAM ***												
UPBOUND STATISTICS	11	93	1	105	5	12	17	16	56	0	72	20
DOWNBOUND STATISTICS	10	130	1	141	13	1	14	14	79	2	95	1
TOTALS	21	223	2	246	18	13	31	30	135	2	167	21

TABLE

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC #5	DISTRICT NAME MOBILE	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED		
			7/84	8/84	9/84
RIVER	LOCK-LOCK NAME		LEN/WID/DRAFT (FT/FT/FT)		
ALABAMA RIVERS	11-CLAIRBORNE LOCK & DAM		0600/0084/12.0		
	12-MILLERS FERRY LOCK & DAM		0600/0084/12.0		
	13-JONES BLUFF LOCK & DAM		0600/0084/12.0		
WALCH LAKE/RENT RI	21-JIM WOODRUFF LOCK & DAM		0450/0082/12.0		
	22-GEORGE W ANDREWS LOCK & DAM		0450/0082/12.0		
	23-WALTER F GEORGE LOCK & DAM		0450/0082/12.0		
BURWELL TOMBS/REE RI	1-COFFEEVILLE LOCK		0600/0110/12.0		
	2-DEMOPOLIS LOCK & DAM		0600/0110/12.0		
	3-WARRIOR LOCK & DAM		0600/0110/12.0		
	4-WILLIAM BACON OLIVER LK & DM		0460/0095/12.0		
	5-HOLT LOCK & DAM		0600/0110/12.0		
	6-JOHN HOLLIS BANKHEAD LK & DM		0600/0110/12.0		
PEARL RIVER	31-LOCK 1		0310/0065/ 9.0		
	32-LOCK 2		0310/0065/ 9.0		
	33-LOCK 3		0310/0065/ 9.0		
TENN TOMBS/REE WATERWAY	41-GAINESVILLE LOCK & DAM		0600/0110/12.0		
	42-ALICEVILLE LOCK & DAM		0600/0110/12.0		
	43-COLUMBUS LOCK & DAM		0600/0110/12.0		
	44-ABERDEEN LOCK & DAM		0600/0110/12.0		

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

ERDC K3	DISTRICT NAME JACKSONVILLE	DIVISION NAME SOUTH ATLANTIC	MONTHS REPORTED		
			7/84	8/84	9/84

RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
CROSS FLA BRG CANL	11-HENRY HOLLAND BUCKMAN LOCK	0600/0084/15.0
	12-EUREKA LOCK	0600/0084/15.0
	13-INGLIS LOCK	0600/0084/15.0
CANAVERAL HARBOR	21-CANAVERAL LOCK	0600/0090/15.0
	1-ST LUCIE LOCK & DAM	0250/0050/14.0
OKEECHOBEE WATERWAY	2-MOORE HAVEN LOCK	0250/0050/11.0
	3-ORTONA LOCK & DAM	0250/0050/12.0
	4-W P FRANKLIN LCK & CTRL STRCT	0400/0056/14.0
	5-PORT MAYACA LOCK	0400/0056/14.0
OALAWAHA RIVER	31-MOSS BLUFF LOCK & DAM	0156/0030/****

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LOCKAGE FILE FOR THIS PERIOD

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
H4	PITTSBURGH	OHIO RIVER	7/84	8/84	9/84

ALL TIMES EXPRESSED IN MINUTES

APPROACH		LOCK PROCESSING TIME			EXIT		DELATED	DELAY	DELAY	DELAY	
MIN	AVG	MIN	AVG	MAX	MIN	AVG	MAX	TOWS	TIME	AVG	MAX
								(TOWS)	(TOWS)	(ALL VSSLS)	

OHIO RIVER

HANNIBAL LOCK & DAM	1	15	55	1	11	29	8	15	30	2	11	26	293	13097	15.4	154
HANNIBAL DAM & DAM AVY 1	1	10	45	1	4	20	8	15	40	1	7	28	9	152	1.3	38

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC #4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER	MONTHS REPORTED														
			7/84	8/84	9/84												

ALL TIMES EXPRESSED IN MINUTES																	
		LOCK PROCESSING TIME			: DELAYED DELAY		DELAY	DELAY									
APPROACH		ENTRY	CHAMBER		EXIT	: TOWS	TIME	AVG	MAX								
MIN	AVG	MAX	: MIN	AVG	MAX	: MIN	AVG	MAX	(ALL VSSLS)								

MONONGAHELA RIVER																	
MAXWELL LOCK & DAM AUX 1	1	9	37	1	6	31	7	11	43	1	7	26	:	44	695	2.7	53
LOCK & DAM 7	1	5	45	1	4	21	5	5	45	1	9	48	:	783	43528	32.4	720
LOCK & DAM B	1	5	40	1	4	20	5	6	26	1	9	47	:	561	25171	21.1	213
MORGANTOWN LOCK & DAM	3	5	10	2	5	10	5	10	35	3	5	15	:	0	0	0	19
HILDEBRAND LOCK & DAM	1	4	35	1	3	12	7	11	30	1	3	15	:	0	0	0	10
OPERISKA LOCK & DAM	1	5	19	1	2	7	6	10	15	1	3	15	:	2	27	0.7	22
OHIO RIVER																	
EMSWORTH LOCK & DAM	1	12	55	1	7	34	5	14	32	2	9	60	:	695	47535	36.1	340
EMSWORTH LOCK & DAM AUX 1	1	6	58	1	2	22	5	8	27	1	3	18	:	48	1075	4.0	63
DASHIELDS LOCK & DAM	1	13	83	2	8	35	5	11	33	1	12	69	:	667	55572	44.3	664
DASHIELDS LOCK & DAM AUX 1	1	7	46	1	2	19	5	6	36	1	2	21	:	36	615	2.6	41
MONTGOMERY LOCK & DAM	1	11	70	1	10	43	5	13	44	1	13	58	:	683	65055	54.9	560
MONTGOMERY LOCK & DAM AUX 1	1	4	39	1	3	19	5	9	40	1	3	22	:	33	495	2.8	70
NEW CUMBERLAND LOCK & DAM	1	21	57	1	7	28	5	14	35	2	12	36	:	179	8717	17.7	353
NEW CUMBERLAND LY & DAM AUX	1	10	86	1	4	36	5	13	45	1	9	62	:	200	48763	99.7	969
PIKE ISLAND LOCK & DAM	1	15	56	1	10	42	7	14	43	2	10	29	:	276	11532	13.3	207
PIKE ISLAND LOCK & DAM AUX 1	1	8	43	1	3	23	5	12	51	1	6	17	:	37	676	2.7	52

TABLE

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

EROID DISTRICT NAME DIVISION NAME MONTHS REPORTED
44 PITTSBURGH OHIO RIVER 7/84 8/84 9/84

ALL TIMES EXPRESSED IN MINUTES

LOCK PROCESSING TIME : DELAYED DELAY DELAY DELAY
APPROACH ENTRY CHAMBER EXIT : TOWS TIME AT'S MAX
MIN AVG MAX : MIN AVG MAX : MIN AVG MAX : (TOWS) (TOWS) (ALL VSSLS)

OHIO RIVER

LOCK	APPROACH	ENTRY	CHAMBER	EXIT	TOWS	TIME	AT'S	MAX
LOCK 1	1 3 23	1 4 22	5 7 17	1 4 58	184	4766	9.8	156
LOCK 2	1 4 41	1 3 26	5 7 17	1 3 47	120	4294	8.5	201
LOCK 3	1 4 29	1 3 28	5 8 19	1 4 30	120	2689	8.1	338
LOCK 4	1 2 21	1 2 22	5 7 19	1 2 21	61	670	2.1	57
LOCK 5	1 4 11	2 3 10	5 8 18	1 4 10	52	651	2.1	77
LOCK 6	1 2 13	2 3 8	5 7 12	1 3 8	8	85	1.9	30
LOCK 7	1 4 16	1 3 10	5 8 18	1 3 25	8	64	.3	27
LOCK 8	1 1 57	1 1 14	5 9 25	1 1 10	0	0	.0	21

MILWAUKEE RIVER

LOCK	APPROACH	ENTRY	CHAMBER	EXIT	TOWS	TIME	AT'S	MAX
LOCK 1	1 12 58	1 5 32	5 11 41	1 7 50	422	18335	16.7	300
LOCK 2	1 6 58	1 2 26	5 6 29	1 2 68	49	639	1.9	38
LOCK 3	1 11 48	2 6 18	7 10 19	1 6 24	1086	46300	23.9	259
LOCK 4	1 6 32	1 2 33	5 7 18	1 2 14	34	522	2.0	41
LOCK 5	1 10 42	1 6 26	5 10 30	1 7 46	776	34399	21.5	650
LOCK 6	1 10 34	1 2 15	6 9 19	1 4 23	57	14288	36.5	753
NAVAL	1 7 50	1 6 27	5 11 60	1 7 24	526	15132	12.4	186

TABLE 2
 PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC #4	DISTRICT NAME PITTSBURGH	DIVISION NAME OHIO RIVER	MONTHS REPORTED									
			7/84	8/84								

RIVER/LOCK NAME	TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKS COMMER	LOCKS RECRTN	LOCKS OTHER	LOCKS TOTAL (NAV, GPN, ETC)	TONNAGE (TONS)

OHIO RIVER												
MONTGOMERY LOCK & DAM AUX 1	***											
UPBOUND STATISTICS	98	630	88	816	92	41	133	196	339	7	542	42
DOWNBOUND STATISTICS	82	641	94	817	77	32	109	184	350	5	539	75
TOTALS	180	1271	182	1633	169	73	242	380	689	12	1081	117
NEW CUMBERLAND LOCK & DAM	***											
UPBOUND STATISTICS	342	7	7	356	435	2923	3358	343	0	0	343	4774
DOWNBOUND STATISTICS	296	5	5	306	1994	1101	3095	296	2	0	298	1744
TOTALS	638	12	12	662	2429	4024	6453	639	2	0	641	6518
NEW CUMBERLAND LK & DAM AUX 1	***											
UPBOUND STATISTICS	212	396	32	640	357	735	1092	266	254	4	524	1960
DOWNBOUND STATISTICS	277	394	19	690	784	533	1317	320	249	5	574	612
TOTALS	489	790	51	1330	1141	1268	2409	586	503	9	1098	2572
PIKE ISLAND LOCK & DAM	***											
UPBOUND STATISTICS	453	3	9	465	350	4436	4786	452	0	0	452	6744
DOWNBOUND STATISTICS	416	2	3	421	2927	1575	4502	415	0	0	415	2313
TOTALS	869	5	12	886	3277	6011	9288	867	0	0	867	9057
PIKE ISLAND LOCK & DAM AUX 1	***											
UPBOUND STATISTICS	103	316	40	459	158	143	301	152	217	5	374	132
DOWNBOUND STATISTICS	148	335	31	514	317	149	466	189	208	3	400	149
TOTALS	251	651	71	973	475	292	767	341	425	8	774	281
HANNIBAL LOCK & DAM	***											
UPBOUND STATISTICS	439	4	5	448	1024	4034	5058	441	2	2	445	5693
DOWNBOUND STATISTICS	409	6	85	500	2202	2689	4891	411	4	2	417	2686
TOTALS	848	10	90	948	3226	6723	9949	852	6	4	862	8379
HANNIBAL LOCK & DAM AUX 1	***											
UPBOUND STATISTICS	44	212	3	259	69	72	141	53	126	9	188	91
DOWNBOUND STATISTICS	70	207	11	288	125	125	250	85	136	10	231	122
TOTALS	114	419	14	547	194	197	391	138	262	19	419	213

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC K7	DISTRICT NAME WILMINGTON	DIVISION NAME SOUTH ATLANTIC	7/84	MONTHS REPORTED 8/84	9/84
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ALL TIMES EXPRESSED IN MINUTES

APPROACH	LOCK PROCESSING TIME			EXIT			: DELAYED DELAY		: TOWS	TIME	AVG	DELAY	MAX
	MIN	AVG	MAX	MIN	AVG	MAX	(TOWS)	(TOWS)					

CAPE FEAR RIVER

LOCK & DAM 1	5	5	10	5	5	15	5	11	15	5	5	10	1	5	1.2	5
LOCK & DAM 2	5	5	10	5	5	5	5	11	30	5	5	10	22	110	4.6	5
WILLIAM D HUSKE LOCK & DAM	5	5	10	5	5	5	20	29	30	5	5	5	0	0	0	0

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
L2	SACRAMENTO	SOUTH PACIFIC	7/84	8/84	9/84

RIVER	LCODE-LOCK NAME	LEN/MID/DRAFT (FT/FT/FT)
SCRMNTD OVER CHANNEL	1-BARGE CANAL LOCK	0640/0086/23.0

NO DATA RECORDED ON SUMMARY FILE FOR THIS PERIOD

NO DATA RECORDED ON LOCKAGE FILE FOR THIS PERIOD

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
M3	GALVESTON	SOUTHWESTERN	7/84	8/84	9/84

RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
GULF INTRACOASTAL	11-COLORADO RIVER EAST LOCK	1200/0075/15.0
	12-COLORADO RIVER WEST LOCK	1200/0075/15.0
	13-BRAZOS EAST GATE	9999/0075/15.0
	14-BRAZOS WEST GATE	9999/0075/15.0

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

EROC NO	DISTRICT NAME BALVESTON	DIVISION NAME SOUTHWESTERN	MONTHS REPORTED									
			7/84	8/84	9/84							

RIVER/LOCK NAME	TOWS	VESSL RECRTN	VESSL OTHER	VESSL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL	TONNAGE (KTONS)

GULF INTRACOASTAL												
COLORADO RIVER EAST LOCK ***												
UPBOUND STATISTICS	805	978	160	1943	415	1264	1679	190	0	745	935	2625
DOWNBOUND STATISTICS	890	1097	79	2066	1227	550	1777	110	0	840	950	992
TOTALS	1695	2075	239	4009	1642	1814	3456	300	0	1585	1885	3617
COLORADO RIVER WEST LOCK ***												
UPBOUND STATISTICS	744	1316	162	2222	382	1230	1612	15	0	854	869	2578
DOWNBOUND STATISTICS	825	1627	77	2529	1192	514	1706	11	0	877	888	929
TOTALS	1569	2943	239	4751	1574	1744	3318	26	0	1731	1757	3507
BRAZOS EAST GATE ***												
UPBOUND STATISTICS	933	337	288	1558	463	1359	1822	2	0	1184	1166	2593
DOWNBOUND STATISTICS	1005	305	274	1584	1288	595	1883	4	0	1176	1180	1018
TOTALS	1938	642	562	3142	1751	1954	3705	6	0	2360	2346	3611
BRAZOS WEST GATE ***												
UPBOUND STATISTICS	899	470	281	1650	450	1342	1792	2	0	1026	1028	2568
DOWNBOUND STATISTICS	985	515	300	1800	1300	579	1879	2	0	1054	1056	982
TOTALS	1884	985	581	3450	1750	1921	3671	4	0	2080	2084	3551

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
M3	GALVESTON	SOUTHWESTERN	7/84	8/84	9/84

											ALL TIMES EXPRESSED IN MINUTES			
			LOCK PROCESSING TIME						:		DELAYED	DELAY	DELAY	DELAY
APPROACH			ENTRY		CHAMBER			EXIT		:	TOWS	TIME	AVG	MAX
MIN	AVG	MAX	:	MIN	AVG	MAX	:	MIN	AVG	MAX	:	(TOWS)	(TOWS)	(ALL VSSLS)

GULF INTRACOASTAL

COLORADO RIVER EAST LOCK	1	2	17	1	1	18	1	2	43	1	1	10	:	1694	2888	1.7	14
COLORADO RIVER WEST LOCK	1	1	19	1	1	18	1	1	14	1	1	61	:	1568	2968	1.9	10
BRAZOS EAST GATE	1	1	118	1	1	12	1	1	16	1	1	51	:	1930	3246	1.7	541
BRAZOS WEST GATE	1	1	22	1	1	7	1	1	2	1	1	61	:	1879	3102	1.6	391

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROID M4	DISTRICT NAME LITTLE ROCK	DIVISION NAME SOUTHWESTERN	MONTHS REPORTED		
			7/84	8/84	9/84

RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
ARKANSAS RIVER	1-NORRELL LOCK & DAM	0600/0110/12.0
	2-LOCK & DAM 2	0600/0110/12.0
	3-LOCK & DAM 3	0600/0110/12.0
	4-LOCK & DAM 4	0600/0110/12.0
	5-LOCK & DAM 5	0600/0110/12.0
	6-DAVID D TERRY LOCK & DAM	0600/0110/12.0
	7-MURRAY LOCK & DAM	0600/0110/12.0
	8-TOAD SUCK FERRY LOCK & DAM	0600/0110/12.0
	9-LOCK & DAM 4	0600/0110/12.0
	10-GARDANELLE LOCK & DAM	0600/0110/12.0
	11-IZARK LOCK & DAM	0600/0110/12.0
	13-LOCK & DAM 13	0600/0110/12.0

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

EROC NO	DISTRICT NAME ITTLE ROCK	DIVISION NAME SOUTHWESTERN	MONTHS REPORTED			TOWNS	VESSEL RECRTN	VESSEL OTHER	VESSEL TOTAL	BARGES EMPTY	BARGES FULL	BARGES TOTAL	LOCKS COMMER	LOCKS RECRTN	LOCKS OTHER	LOCKS TOTAL	TONNAGE (TONS) (NAV, OPN, ETC)	
			7/84	8/84	9/84													
ARKANSAS RIVER																		
NORRELL LOCK & DAM ***																		
						171	84	10	265	578	462	1040	183	57	15	255	602	
						164	102	7	273	130	837	967	172	64	21	257	1102	
						TOTALS	335	186	17	538	708	1299	2007	355	121	36	512	1704
LOCK & DAM 2 ***																		
						169	82	13	264	573	435	1008	180	56	15	251	595	
						166	101	11	278	127	864	991	174	65	20	259	1163	
						TOTALS	335	183	24	542	700	1299	1999	354	121	35	510	1759
LOCK & DAM 3 ***																		
						177	203	13	393	569	431	1000	186	132	40	358	594	
						171	227	7	405	132	856	988	176	136	42	354	1120	
						TOTALS	348	430	20	798	701	1287	1988	362	268	82	712	1715
LOCK & DAM 4 ***																		
						176	275	8	459	542	439	981	183	153	28	364	610	
						177	295	8	480	135	849	984	183	163	28	374	1137	
						TOTALS	353	570	16	939	677	1288	1965	366	316	56	738	1747
LOCK & DAM 5 ***																		
						163	575	24	762	433	398	831	172	377	20	569	524	
						163	591	5	759	118	715	833	168	379	19	566	1039	
						TOTALS	326	1166	29	1521	551	1113	1664	340	756	39	1135	1563
DAVID O. TERRY LOCK & DAM ***																		
						168	918	16	1102	444	393	837	178	528	13	719	520	
						168	944	7	1119	128	719	847	173	551	21	745	1075	
						TOTALS	336	1862	23	2221	572	1112	1684	351	1079	34	1464	1600
MURPHY LOCK & DAM ***																		
						126	766	31	923	404	342	746	157	471	7	635	445	
						122	777	37	936	92	656	748	157	460	7	624	960	
						TOTALS	248	1543	68	1859	496	998	1494	314	931	14	1259	1405

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
FOR THE PERIOD 7/84 THROUGH 9/84
INSTITUTE FOR WATER RESOURCES

ERDC #4	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED													
			7/84	8/84	9/84	TOWS	VESSEL RECRTN	VESSEL OTHER	VESSEL TOTAL	BARGS EMPTY	BARGS FULL	BARGES TOTAL	LOCKGS COMMER	LCKGES RECRTN	LCKGES OTHER	LCKGES TOTAL
ARANSAS RIVER																
TOAD BULL CREEK LOCK & DAM ***																
			130	93	1	224	406	362	768	133	68	15	216	464		
			122	141	4	267	91	641	732	126	102	17	245	943		
			252	234	5	491	497	1003	1500	259	170	32	461	1407		
LOCK & DAM 3 ***																
			124	90	1	215	396	337	733	127	70	16	213	440		
			122	131	3	256	93	651	744	123	84	15	222	973		
			246	221	4	471	489	988	1477	250	154	31	435	1414		
DARDANELLE LOCK & DAM ***																
			128	139	1	268	401	330	731	131	107	26	264	426		
			124	187	5	316	80	651	731	129	138	27	294	1003		
			252	326	6	584	481	981	1462	260	245	53	558	1429		
OZARK LOCK & DAM ***																
			123	117	2	242	389	329	718	127	71	10	206	426		
			122	151	4	277	80	651	731	127	90	10	227	960		
			245	268	6	519	469	980	1449	254	161	20	435	1386		
LOCK & DAM 17 ***																
			170	192	3	365	396	436	832	175	125	11	311	476		
			165	227	3	395	174	653	827	170	141	14	325	959		
			335	419	6	760	570	1089	1659	345	266	25	636	1435		

TABLE 3

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC M4	DISTRICT NAME LITTLE ROCK	DIVISION NAME SOUTHWESTERN	MONTHS REPORTED							
			7/84	8/84	9/84					

ALL TIMES EXPRESSED IN MINUTES										
		LOCK PROCESSING TIME			:	DELAYED DELAY	DELAY	DELAY		
APPROACH		ENTRY	CHAMBER		EXIT	:	TOWS	TIME	AVG	MAX
MIN AVG MAX		:	MIN AVG MAX	:	MIN AVG MAX	:		(TOWS)	(TOWS)	(ALL VSSLS)

ARKANSAS RIVER										
NORRELL LOCK & DAM	1	8 40	1	9 81	5 10 27	1	9 50 :	34	981	2.9 89
LOCK & DAM 2	1	8 37	1	9 77	5 12 86	1	10 45 :	78	3391	10.1 185
LOCK & DAM 3	1	8 40	1	7 40	5 10 75	1	8 43 :	44	1520	4.4 150
LOCK & DAM 4	1	7 44	1	5 28	5 11 58	1	7 45 :	38	1086	3.1 130
LOCK & DAM 5	1	6 50	1	4 34	5 10 28	1	6 73 :	110	1920	5.9 156
DAVID D TERRY LOCK & DAM	1	5 40	1	4 33	5 10 32	1	5 54 :	104	2766	8.2 160
MURRAY LOCK & DAM	1	3 50	1	3 37	8 10 30	1	4 42 :	56	1212	4.9 157
TOAD SUCK FERRY LOCK & DAM	1	9 48	1	7 36	5 10 40	1	8 47 :	71	1185	4.7 110
LOCK & DAM 9	1	12 54	1	7 38	5 12 47	1	8 32 :	44	603	2.5 123
BARDANELLE LOCK & DAM	1	8 51	1	6 45	5 13 51	1	6 35 :	220	2088	8.3 90
OZARK LOCK & DAM	1	10 105	1	9 40	5 12 35	1	9 30 :	193	2049	8.4 120
LOCK & DAM 17	1	7 30	1	6 27	5 12 28	1	8 42 :	80	1622	4.8 98

TABLE 1

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

EROC	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED		
MS	MLSA	SOUTHWESTERN	7/84	8/84	9/84

RIVER	LCODE-LOCK NAME	LEN/WID/DRAFT (FT/FT/FT)
ARKANSAS RIVER	21-W D MAYO LOCK & DAM	0600/0110/14.0
	22-ROBERT S KERR LOCK & DAM & RES	0600/0110/14.0
	23-WEBBERS FALLS LOCK & DAM	0600/0110/14.0
	24-CHOUTEAU LOCK & DAM	0600/0110/14.0
	25-NEWT GRAHAM LOCK & DAM	0600/0110/14.0

TABLE 2

PERFORMANCE MONITORING SYSTEM (PMS) QUARTERLY REPORT
 FOR THE PERIOD 7/84 THROUGH 9/84
 INSTITUTE FOR WATER RESOURCES

ERDC MS	DISTRICT NAME	DIVISION NAME	MONTHS REPORTED																	
			7/84	8/84	9/84															
	NEA	SOUTHWESTERN																		

ALL TIMES EXPRESSED IN MINUTES																				
LOCK PROCESSING TIME																				
			APPROACH			ENTRY			CHAMBER			EXIT			: DELAYED DELAY		DELAY		DELAY	
			MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	: TOWS	TIME	AVG	MAX	(ALL VSSLS)	
															(TOWS)		(TOWS)			

KANSAS RIVER																				
W B MAY	LOCK & DAM		1	9	45	1	7	37	5	11	25	1	8	44	:	18	329	1.4	73	
ROBERT	BEAR LOCK & DAM BRE	:	5	31		1	6	37	9	14	26	1	7	45	:	32	1003	4.1	141	
WEBBER	FOUR LOCK & DAM		1	12	65	1	8	30	5	18	46	1	8	32	:	112	2076	10.0	130	
CHOUTEAU	LOCK & DAM		1	6	36	1	7	32	6	15	28	1	9	34	:	72	505	2.4	57	
NEWT	GRAHAM LOCK & DAM		1	9	36	1	7	40	5	13	23	1	11	40	:	34	720	3.5	120	

Appendix B

Glossary

Draft This is not a physical lock dimension. It is compared with new data before they are added to the central library to ensure that vessel drafts are not recorded improperly.

Tows Only tows with barges are included with this figure. Tows without barges, (light boats) and other commercial vessels are counted as "other vessels."

Other vessels All vessels other than tows with barges and recreational vessels.

Commercial lockages The number of lockages for which the prime mover is a tow, a light boat or another commercial vessel.

Recreational lockages The number of lockages during which there are only recreational vessels using the lock.

Other lockages The number of lockages during which the prime mover is a government vessel, a government contracted vessel (such as a dredge) or an unidentified type of vessel. Also included in this category are navigable and open pass lockages.

Total lockages A lockage includes all lock activity necessary to process a tow and is counted only once when more than one vessel uses the lock. Thus, both cuts of a double cut lockage (e.g. only part of the tow will fit in the lock and it is necessary to process the tow in two pieces) count as a single lockage together and the count increases by only one when two tows are processed during a single lockage.

Processing time Only the times needed to process tows with barges are included in these statistics.

Delayed vessels Number of tows experiencing delay between arrival time and the time the lock is ready to process them.

Average delay Average time of delay for all tows.

Maximum delay Maximum delay time for vessels. This figure may reflect a single, extraordinary circumstance and should be evaluated accordingly.

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