920260-TL

ORLANDO SAND LAKE EAL

PAGE 7

LINES - 1, 3, 9, 10, 15, 16, 17, 18, 24, 27, 29, 31

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LINE - 6

Edited version of 12085-92

ORLANDO LATA

SANDLAKE 1AESS REPLACEMENT PROJECT

EXECUTIVE APPROVAL LETTER

Al Capuano
305-492-2959
December, 1991

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File: 204.0104

Florida

December 11, 1991

Mr. H. E. Palmes
Vice President - Network Planning and Engineering
Birmingham, Alabama

Dear Mr. Palmes:

This is to recommend and request approval for the replacement of the Orlando Sandlake 1AESS with AT&Ts's #5ESS digital switch with a service date of August, 1993. This replacement was approved in the 1987 Orlando LATA Plan.

The existing 1AESS, installed in 1974, provides service in the Orlando exchange. Adequate turnaround space exists in the single-story masonry building to accommodate the replacing switch in 1993. Interior building modification work and a power room expansion is required to implement the recommended plan.

Alternatives studied include replacing the 1AESS in years 1992 thru 1997 and 2002. The Present Method of Operation (PMO) year is defined as 2002. Replacement of the #1AESS with AT&T's #5ESS digital switch in August, 1993 proved to be the most economical alternative when compared with the PMO. An economic comparison of the two plans follows:

	($000)				
Alternative	NPWE	NPV	Delta NPV	PRR %	DPP YEARS
Recommended	9851.1	-6050.1	1949.5	19.6%	11
PMO	13025.5	-7999.7			

This 1AESS replacement study was done utilizing the Network Planning System for Wire Centers (NPS-W) and was also reviewed by the BellSouth (BS) Review Team using the BS September, 1991 NPS-W study level data and reflects the September 25, 1991 update to the 1AESS Replacement Guidelines. Formal concurrence with the recommended plan was obtained on December 4, 1991. The above updated CUCRIT economic indicators includes information recently received from the vendor in response to the Request For

Quote (RFQ). The vendor selection decision to utilize AT&T's #5ESS digital switch was based on analysis of vendor responses to the actual RFQ and was a joint effort between the Staff and Area organizations.

The recommended plan is identified in the current view of the construction program. Estimated capital expenditures of $5.0M will be required as follows:

CATEGORY	EXPENDITURES $(000) 1992/1993
BUILDING	401
COE-DIGITAL SWITCH	3799
CIRCUIT	100
FRAME/POWER	710
TOTAL	**$5010**

A one-time expense of $312.7K is expected in 1992 (the switch is currently scheduled to ship on November 14, 1992). Investment capital retirements of $9.4M are associated with this analog switch replacement project.

Official Telephone Communications for this project are under $50,000. This Implementation letter serves as the vehicle to notify Corporate Communications that Form 5939 needs to be prepared for the Sandlake #5ESS project and approved by appropriate Corporate Communications manager.

Yours truly,

_____ _____

General Manager - Network Planning and Engineering Date
Florida and Alabama

_____ _____

General Manager - Network Operations Date
North Florida

APPROVED:

_____ _____

Vice President - Network Planning and Engineering Date

CAPITAL AND EXPENSE REQUIREMENTS

The recommended plan is identified in the current view of the construction program. Capital and expense expenditures for the 1AESS replacement were obtained from a recently received RFQ. Estimated capital expenditures of $5.0M will be required as follows:

CATEGORY	EXPENDITURES $(000) 1992/1993
BUILDING	401
COE-DIGITAL SWITCH	3799
CIRCUIT	100
FRAME/POWER	710
TOTAL	**$5010**

A one-time expense of $312.7K is expected in 1992 (the switch is currently scheduled to ship on November 14, 1992). Investment capital retirements of $9.4M are associated with this analog switch replacement project.

GENERAL INFORMATION

WIRE CENTER: Orlando - Sandlake
CLLI: ORLDFLSA35E
EXCHANGE: Orlando
DISTRICT: Orlando
NPA: 407
NXX: 345,351,352,354,356,363

PRSNT EQUIP: 1AESS
LATA TNDM: ORLDFLMA04T
LOCAL TNDM: ORLDFLMA33T
EAS PTS:EORN, OVID, 6 IND.

The wire center is served by a 1AESS. Approval was received in the 1987 Orlando LATA Plan to replace the 1AESS with a Digital Switching System (DSS), thereby making digital switched services available to wire center subscribers, enabling digital integration of Digital Loop Carrier into the switch, and reducing maintenance expense.

Sandlake is situated in the southwest corner of Orange County and covers approximately 32 square miles. The 1980 population increased 128.7% over 1970's. The 1990 projected population of 37,500 is 117% over 1980. The wire center is growing approximately 1800 lines per year.

Major businesses located within Sandlake are Martin Marietta, Sea World, AT&T, Universal Studios, Florida Land Company development and Harcourt Brace Jovanovich. Another factor contributing to growth is the tourism spurred by nearby Disney, Epcot, and MCA Studio. Business growth will be strong as hotel/motel growth continues, Orlando Central Park gears up, Major Center continues expansion, Universal's complex completes and the south Orangewood area builds office space.

MARKETING INFORMATION

The has the greatest potential for ESSX and Digital Services due to its close proximity to the Sandlake Office. An program has been established with the developer to enhance our efforts to market these services.

The International Drive area of Sandlake is through the Hotel/Motel Center of Orlando. All of these customers are located within 2.5 miles of the central office. Our emphasis will be placed on the , also the potential for does exist at some of the larger Hotels, and will be pursued.

The largest customer in the Wire Center is Martin Marietta Aerospace. Although Martin is located just 1 mile from the C.O., the They currently have their own Fiber Network and SL-100 Switching System.

provisioned over will be the direction taken on this account.

The Carrier Marketing strategy for the Sandlake Area is as follows:

- The in this Wire Center represent approximately of the total Carrier Access revenue in this LATA. This figure also represents about of the State's total Carrier Access revenue.

- Recognizing that, the is paramount in our strategy to provide quality and timely service to the Carriers, as this Wire Center's capabilities is important to our success.

LAND & BUILDING AND POWER PLANS - Area # 33361

The wire center is served by a single-story masonry building designed to accommodate 2 more stories, although lateral expansion is also possible. The lot size is 117' X 264'. Adequate turnaround space exists in the building for a new DSS as long as it is installed before 1995. Replacing the switch in 1995 or later will trigger a building addition resulting in extensive additional costs.

To implement the recommended plan, a power room expansion (20' X 40') is required to house a new generator, 6 400 amps rectifiers and 5 battery strings. All interior building modification work is scheduled to be completed in 1992.

FRAME PLANS

Existing are a 21-module Modular ESS Subscriber Main Distributing Frame (SMDF) and a 57-vertical conventional Trunk Main Distributing Frame (TMDF). The SMDF is at its ultimate designed lengh and can not accommodate the new digital switch. The TMDF can be expanded to 70 verticals.

To implement the recommended plan, we plan to install a Combined Main Distributing Frame (CMDF) close to the existing TMDF. The cable pairs will be extended from the protector Frame (PF) to the vertical side of the CMDF and cross-connected to the OEs. The new switch will be terminated on the horizontal side of the CMDF.

PRESENT SITUATION

The Sandlake wire center is served by a 1AESS analog switch with 24318 Network Access Lines projected in service by year end 1991. The central office resides in a single-story masonry building capable of lateral expansion and of accommodating 2 more stories.

RECOMMENDED PLAN

Use existing turnaround space in the building to replace the 1AESS with a digital switch with a service date in August, 1993. A power room expansion (20' X 40') is required to house a new generator, 6 400 amps rectifiers and 5 battery strings. All interior building modification work is scheduled to be completed in 1992. Replacing the switch in 1995 or later will trigger a building addition resulting in extensive additional costs ($523K).

The SMDF is at its ultimate designed lengh and can not accommodate the new digital switch. To implement the recommended plan, we plan to install a Combined Main Distributing Frame (CMDF) close to the existing TMDF. The cable pairs will be extended from the protector Frame (PF) to the vertical side of the CMDF and cross-connected to the OEs. The new switch will be terminated on the horizontal side of the CMDF.

Corporate benefits associated with the recommended plan are detailed in TAB H.

INTEGRATED PLANNING CONSIDERATIONS

The deployment of a digital switch will provide several corporate benefits as follows:

1. It will position the network ready to meet our customer demands for digitally switched services. The as well as The International Drive area are located within 2.5 miles of the central office and are prime candidates for purchasing digital services from BellSouth Telecommunication through our Marketing organization.
2. It will allow integration of Digital Loop Carrier (DLC) into the switch resulting in capital savings to the Corporation. It is estimated that a total of 270 DLC systems will be integrated at cutover.
3. It will reduce the maintenance expense.
4. It will support new digital product introduction within the Sandlake wire center boundary.

ECONOMIC ANALYSIS/CUCRIT REPORTS

Alternatives studied include replacing the 1AESS in years 1992 thru 1997 and 2002. The Present Method of Operation (PMO) year is defined as 2002. Replacement of the #1AESS with AT&T's #5ESS digital switch in August, 1993 proved to be the most economical alternative when compared with the PMO. An economic comparison of the two plans follows:

	--------($000)--------				
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[illegible] EVALUATION CRITERIA [illegible]

[illegible] SYSTEM

[illegible] SUMMARY [illegible]

RESULTS IN THOUSANDS ($1000)

[illegible]
PARAMETER FILE:

PLAN: [illegible] VS [illegible]

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

PRIMARY

NET PRESENT VALUE - EOL	1949.5
NET PW EXPENDITURES	-3174.[illegible]

SECONDARY

CUMULATIVE DISCOUNTED CASH FLOW - EOS	1949.5
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	2.184
PROJECT RATE OF RETURN	19.[illegible]
INTERNAL RATE OF RETURN	[illegible]

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG [illegible]	RETURN ON [illegible]	EQUITY AVG INV CAP	RETURN [illegible] EQUIT[illegible]
1991	0.0	[illegible]	--	0.0	--
1992	[illegible]	[illegible]	--	[illegible]	--
1993	[illegible]	[illegible]	14.0	[illegible]	[illegible]
1994	[illegible]	[illegible]	9.3	[illegible]929.8	9.[illegible]
1995	[illegible]12.3	[illegible]	[illegible]	[illegible]	[illegible]

++++++ SUMMARY BY PLAN ++++++

	[illegible]	[illegible]
TOTAL NONDISCOUNTED [illegible]	15392.[illegible]	[illegible]
TOTAL NONDISCOUNTED EXP.	20142.[illegible]	[illegible]
TOTAL NONDISCOUNTED REV	21448.[illegible]	[illegible]
NET PRESENT VALUE-[illegible]	[illegible]6050.[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

F02B01Z 11926

F02A01Z 00014

F02A01Z 00015

F02B01Z 11927

RESULTS IN THOUSANDS $(000)

PARAMETER FILE:

PLAN: RE093

TREND BASE DATE - 1/1991	LENGTH OF STUDY - 18
STUDY START DATE - 1/1991	GROSS RECEIPTS TAX - See AREA-CNST-RP
PRESENT WORTH YEAR - 1991	IDC INCL. IN FCOST - NO
NPV OPTION - EOL	PLAN FILE NAME -

<CAPITAL - MAINTENANCE>

DESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV TYP
LAESS.	0	3411.0	1/74	1/00	19.00	0	0	0	0.0	2211-0	ESS	EMB
LAESS.	0	243.0	1/91	1/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
LAESS.	0	307.3	1/92	1/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
[illegible]	0	-94.0	1/93	1/00	1.00	0	[illegible]	[illegible]	0.0	2211-0	ESS	NEW
[illegible]	[illegible]	-[illegible]	1/93	1/00	[illegible]	0	0	[illegible]	0.0	2211-0	ESS	NEW
[illegible]	[illegible]	468.7	1/91	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	123.[illegible]	1/92	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2232-[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	1/91	[illegible]	18.[illegible]	0	[illegible]	[illegible]	0.0	2232-[illegible]	[illegible]	NEW
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[illegible]	[illegible]	[illegible]	1/92	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.0	2211-[illegible]	ESS	[illegible]
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PWR. PLAN	0	[illegible]	1/93	[illegible]	16.[illegible]	[illegible]	[illegible]	[illegible]	0.0	2211-0	ESS	NEW
MISC. [illegible]	0	[illegible]	1/93	[illegible]	16.[illegible]	0	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]
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AT [illegible]	[illegible]	[illegible]	1/94	[illegible]	15.[illegible]	0	[illegible]	[illegible]	0.[illegible]	[illegible]	[illegible]	[illegible]
AT [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.0	[illegible]	ESS	[illegible]
AT [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: RECO3

<CAPITAL - MAINTENANCE (CONTINUED)>

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[illegible]	[illegible]	79.3	1/93	0/00	15.00	0	0		0.0	2212-0	[illegible]	[illegible]
DIG..ESS	[illegible]	44.0	1/93	0/00	15.00	0			0.0	2422-0	[illegible]	[illegible]
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DIG..ESS	[illegible]	53.3	1/95	0/00	14.00	[illegible]			0.0	2422-0	[illegible]	[illegible]
DIG..ESS	[illegible]	70.3	1/96	0/00	13.00	0	0		0.0	2422-0	[illegible]	[illegible]
DIG..ESS	[illegible]	61.[illegible]	1/97	0/00	12.00	[illegible]	[illegible]		0.0	2422-0	[illegible]	[illegible]
[illegible]		57.[illegible]	1/98	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]
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DIG..ESS	0	69.[illegible]	1/[illegible]3	0/00	6.00	0	[illegible]		0.0	2422-0	[illegible]	[illegible]
DIG..ESS	[illegible]	69.[illegible]	1/[illegible]4	0/00	5.00	0	0		0.0	2422-[illegible]	[illegible]	[illegible]
DIG..ESS	[illegible]	69.5	1/[illegible]5	0/00	4.[illegible]	[illegible]	[illegible]		0.0	242[illegible]	[illegible]	[illegible]
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OTHER EXP:	'92)	-[illegible]	'93)	-[illegible].4	'94)	-[illegible].4	[illegible]	[illegible].4	'05)	[illegible]
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12/03/91 10:37 CDT NETWORK PLANNING SYSTEM PAGE

FORMAL INPUT REPORT

(RESULTS IN THOUSANDS $(000))

[illegible]

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	'07)	-[illegible].4	'08)	-0.4					

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	[illegible]	[illegible]	'08)	[illegible]					

F02B01Z 11931

F02A01Z 00019

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[illegible]

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            '02)  -0.6  '03)  -0.6  '04) [illegible] ...
            '07)  -0.6  '08)  -0.6

[illegible] 0.0  1/ 8 12/08  0.0  0.0  0.0  0.0  0.0  0.0 REV  [illegible]
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            '03)  581.6  '04) 646.1  '05) 710.5  '06) 775.0  '07)  839.
            '08)  903.9

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            '98)  101.3  '99) 142.7  '00) 184.1  '01) 245.4  '02)  306
            '03)  367.9  '04) 429.2  '05) 490.5  '06) 551.7  '07)  613.
            '08)  674.3

ISDN.BUS  0     0.0  1/ 8 12/08  0.0  0.0  0.0  0.0  0.0  0.0 REV  [illegible]
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            '98)  133.4  '99) 177.1  '00) 221.5  '01) 272.1  '02)  322
            '03)  373.3  '04) 423.9  '05) 474.5  '06) 525.1  '07)  575.
            '08)  626.3

[illegible] 0   0.0  1/ 8 12/08  0.0  0.0  0.0  0.0  0.0  0.0 REV  [illegible]
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            '99)  [illegible]  '00) 346.6  '01) 406.9  '02) 467.2  '03)  [illegible]
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12/[illegible]/91 [illegible] NETWORK PLANNING SYSTEM PAGE

FORMAL INPUT REPORT

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F02A01Z 00020

F02B01Z 11932

[illegible] PLANNING SYSTEM

[illegible] INPUT REPORT

RESULTS IN THOUSANDS $[illegible]

[illegible]

[illegible] PWG

[illegible] BASE DATE	- [illegible]	LENGTH OF STUDY	- [illegible]
STUDY START DATE	- [illegible]	GROSS RECEIPTS TAX - SEE AREA-[illegible]	
PRESENT WORTH YEAR	- [illegible]	[illegible] IN FIRST - [illegible]	
[illegible] OPTION	- EOL	PLAN FILE NAME	-

CAPITAL - MAINTENANCE

DESCRIPT	CAT REP	FCOST	PLCT DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT	ACCT CODE	CLASS NAME	INV TYP
1AESS	0	9411.0	1/74	0/00	28.00	0	0	0	0.0	2211-0	ESS	EMB
1AESS.	0	243.0	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	306.7	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	330.5	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	268.8	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	286.1	1/95	0/00	7.00	0	0	[illegible]	0.0	2211-0	ESS	[illegible]
1AESS	0	289.0	1/96	0/00	6.00	0	0	[illegible]	0.0	2211-0	ESS	[illegible]
1AESS.	0	308.6	1/97	0/00	5.00	0	0	[illegible]	0.0	2211-0	ESS	[illegible]
1AESS.	0	308.5	1/98	0/00	4.00	0	0	[illegible]	0.0	2211-0	ESS	NEW
1AESS.	0	309.6	1/99	0/00	3.00	0	0	[illegible]	0.0	2211-0	ESS	NEW
1AESS	0	315.2	1/00	0/00	2.00	0	0	0	0.0	2211-0	ESS	[illegible]
[illegible]	[illegible]	94.0	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	221[illegible]	ESS	[illegible]
[illegible]	[illegible]	-150.4	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	221[illegible]	ESS	[illegible]
[illegible]	[illegible]	468.7	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	0.0	2232-0	[illegible]	[illegible]
[illegible]	[illegible]	123.9	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	2232-0	[illegible]	[illegible]
[illegible]	[illegible]	344.9	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	2232-0	[illegible]	[illegible]
[illegible]	0	73.9	1/91	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	2232-0	[illegible]	[illegible]
[illegible]	[illegible]	94.6	[illegible]	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	2232-0	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15.00	[illegible]	0	[illegible]	[illegible]	2232-0	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	1/95	[illegible]	14.00	[illegible]	0	[illegible]	[illegible]	2232-0	[illegible]	[illegible]
RED[illegible]	[illegible]	103.8	1/96	[illegible]	13.00	0	0	[illegible]	0.0	2232-0	[illegible]	[illegible]
RE[illegible]	[illegible]	103.8	1/97	[illegible]	12.00	[illegible]	0	[illegible]	[illegible]	2232-0	[illegible]	[illegible]
RE[illegible]	[illegible]	103.8	1/98	[illegible]	11.00	[illegible]	0	[illegible]	[illegible]	2232-0	[illegible]	[illegible]
RED[illegible]	[illegible]	103.8	1/99	[illegible]	10.00	[illegible]	0	[illegible]	[illegible]	2232-0	[illegible]	[illegible]
RE[illegible]	[illegible]	103.8	1/00	[illegible]	9.00	[illegible]	0	[illegible]	0.0	2232-0	[illegible]	[illegible]
RE[illegible]	[illegible]	103.8	1/01	[illegible]	8.00	[illegible]	0	[illegible]	[illegible]	2232-0	[illegible]	[illegible]
RED[illegible]	[illegible]	[illegible]	1/44	[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]	223[illegible]	[illegible]	[illegible]

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[illegible]

SANDS [illegible]

CAPITAL - MAINTENANCE [illegible]

[illegible]	CAT REP	COST	[illegible] DATE	TERM DATE	[illegible]	[illegible]	GS	COR	MAINT.	[illegible]	[illegible]	[illegible]
REQ.COT.	0	23.6	1/99	0/00	[illegible]	0	0	0	0.0	2232-0	[illegible]	NE
REQ.COT.	0	23.2	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CRT-0	NE
REQ.COT.	0	23.2	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CRT-0	NE
MJR.COST	0	-4.0	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NE
EMBEDDED	0	-0.1	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NE
EMBEDDED	0	-0.1	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NE
EMBEDDED	0	-0.2	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NE
EMBEDDED	0	-0.3	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NE
EMBEDDED	0	-0.2	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NE
EMBEDDED	0	-0.2	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NE
EMBEDDED	0	-0.2	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NE
EMBEDDED	0	-0.2	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NE
EMBEDDED	0	-0.1	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NE
EMBEDDED	0	-0.1	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NE
EMBEDDED	0	-0.1	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NE
MAIN.DIS	0	250.0	1/ 2	0/00	7.00	0	0	0	0.0	2211-0	ESS	NE
BUILDING	0	924.0	1/ 2	0/00	7.00	0	0	0	0.0	2121-1	BLDG	NE
PWR.PLAN	0	560.0	1/ 2	0/00	7.00	0	0	0	0.0	2211-0	ESS	NE
MISC.[illegible]	0	100.0	1/ 2	0/00	7.[illegible]	0	0	0	0.0	[illegible]	[illegible]	NE
A[illegible] NO.5	0	9917.8	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESS	NE
A[illegible] NO.5	0	764.3	1/ 3	0/00	6.00	0	0	0	0.0	2212-[illegible]	ESS	NE
A[illegible] NO.5	0	763.7	1/ 4	0/00	5.00	0	0	0	0.0	22[illegible]	ESS	NE
A[illegible] NO.5	0	764.0	1/ 5	0/00	4.00	0	0	0	0.0	22[illegible]	ESS	NE
A[illegible] NO.5	0	764.3	1/ 6	0/00	3.00	0	0	0	0.0	22[illegible]	ESS	NE
A[illegible] NO.5	0	764.[illegible]	1/ 7	0/00	2.00	0	0	0	0.0	22[illegible]	ESS	NE

Dec 3 12:41 1991 [illegible] Page 10

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[illegible]	[illegible]	764.[illegible]	1/ [illegible]	0/0[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	1/ [illegible]	0/00	[illegible]	0	0	0	0.0	[illegible]	NE
[illegible]	[illegible]	215.[illegible]	1/ [illegible]	0/00	[illegible]	0	0	0	0.0	[illegible]	NE
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	0	0	0.0	[illegible]	[illegible]

PARAMETER FILE:

PLAN:

EXPENSE

DESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	++++++ GROWTH RATES % ++++++ 1	2	3	4	5	CLASS NAME	FREQ
LABSS.WI	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIM
01-EP EXP:	'91)	278.6	'92)	293.5	'93)	304.4	'94)	318.4	'95)	331.	
	'96)	347.4	'97)	362.9	'98)	378.9	'99)	395.1	'00)	412.	
	'01)	430.5									
SES WIDE 10		0.0	1/92	12/03	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIM
01-EP EXP:	'02)	522.1	'03)	548.5	'04)	574.9	'05)	601.3	'06)	627.	
	'07)	654.1	'08)	681.4							
[illegible]	1	0.0	1/91	12/02	0.0	0.0	0.0	0.0	0.0	[illegible]	1-TIM
01-EP EXP:	'91)	55.0	'92)	55.0	'93)	55.0	'94)	55.0	'95)	55.	
	'96)	55.0	'97)	55.0	'98)	55.0	'99)	55.0	'00)	55.	
	'01)	55.0	'02)	55.0							
[illegible]		0.0	1/92	12/00	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIM

F02B01Z 11936

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12/03/91 10:37 [illegible]

NETWORK PLANNING SYSTEM

PAGE

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: [illegible]

EXPENSE (CONTINUED)

DESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	++++++ GROWTH RATES % ++++++						CLASS NAME	[illegible]
		[illegible]	60.2	[illegible]	[illegible]							
SESS.RTG	0	[illegible].0	[illegible]	[illegible]	0.[illegible]	0.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
OTHER EXP:		[illegible]	895.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]

Dec 3 12:41 1991 [illegible] Page [illegible]

F02B01Z 11937

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REVENUE

DESCRIPT	CAT REP	[illegible]	START DATE	TERM	++++++ GROWTH RATES	[illegible]

REV

REV

12/08 REV

ISONLESS 12/08 0.0 0.0 0.0 0.0 0.0 0.0 REV

ETWORK PLANNING SYSTEM PAGE 5

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN:

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F02A01Z 00026

REVENUE (CONTINUED)

	CAT		START	TERM	****** GROWTH RATE ******						CLASS	
DESCRIPT	REG	REV	YEAR	DATE	1	2	3	4	5		NAME	TYPE

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MIAMI BEACH EAL

PAGE 17

LINES - 20, 21, 28

PAGE 97

LINE - 14

MIAMI BEACH

1AESS SWITCH REPLACEMENT STUDY

EXECUTIVE APPROVAL LETTER

Ivette Lima-Brizuela
Senior Engineer
South Florida TPD
305-795-1474

January 31, 1992

INDEX

4

Southern Bell

H. Corey, Jr.
General Manager
Network - Provisioning

6451 North Federal Highway
Room 1220
Fort Lauderdale, Florida 33308
Phone (305) 492-3141

January 31, 1992

Mr. Howard E. Palmes
Vice President - Network Planning and Engineering
Birmingham, Alabama

Dear Mr. Palmes:

This is to recommend an AT&T 5ESS digital switching system be established in the Miami Beach Central Office in 1993 replacing the existing 1AESS. Gross capital expenditures are expected to be $ 6,685,000, with retirements of $ 9,078,000 and total expenses of $ 515,000.

The existing 1AESS, installed in 1970 provides service to Miami Beach in the Miami exchange. The 1AESS switch consists mostly of early vintage ferreed equipment. Replacement is triggered by avoidance of capital and expense for continued growth. Alternatives considered include the Recommended Plan (replacement in 1993), and replacement in years 1992, 1994, 1995, 1996, 1997 and 2002 (the PMO Plan).

The most economic alternative is the Recommended Plan with a Net Present Value (NPV) advantage of $ 1,521,700 when compared to the PMO. The Project Rate of Return (PRR) is 16.1% and the Long Term Economic Evaluator (LTEE) is 1.513.

It is proposed to install an AT&T 5ESS digital switch in available space on the second floor of the existing building. The first floor will continue to be used for the Main Distributing Frame while the second floor will also accommodate the Trunk Distributing Frame and the carrier and miscellaneous equipment growth. This plan will provide floor space for growth requirements beyond the 2003 wire center forecast.

Approval of this digital switch for Miami Beach is recommended in order that detailed engineering may proceed.

Recommended:

for H A Corey Jr. — 2-13-92

General Manager - Network Planning and Engineering — Date

Linda C. Beckham — 2-21-92

General Manager - Network South Florida — Date

Approved:

for R. L. McLaughlin — 3/24/92

Vice President - Network Planning and Engineering — Date

MIAMI BEACH SWITCH REPLACEMENT

CAPITAL AND EXPENSE REQUIREMENTS

($ 000)

CAPITAL	1992	1993	1994	1995	1996	1997	TOTAL
BLDG	270	-	-	-	-	-	270
DSW	-	3877	-	688	-	705	5270
FRAME	435	-	-	-	-	-	435
POWER	710	-	-	-	-	-	710
TOT CAPITAL	1415	3877	-	688	-	705	6685

EXPENSE	1992	1993	1994	1995	1996	1997	TOTAL
RTU	-	440	-	278	-	197	915
1AESS CREDIT	-	(400)	-	-	-	-	(400)
TOT EXPENSE	-	40	-	-	-	-	515

PRESENT SITUATION

The Miami Beach wire center serves an 8.18 square mile section of Dade County, Florida. The basic land use in the wire center is 42.0% residential, 17.5% business and the remainder is used for parks and golf courses.

The primary industry is tourism. Some of the major customers are Shearson American Express, U.S. Coast Guard, City of Miami Beach, City of Miami Beach Police/Fire, Dade County Government, and the State of Florida. This wire center also serves the Miami Beach Convention Center, Theatre of the Performing Arts, and Lincoln Road Mall. Hotels, scattered offices and small retail shops comprise the remainder of the business sector.

The Miami Beach central office is located in a two story building at 1550 Lenox Avenue with sufficient floor space to accomodate growth requirements for the next 15 years. The 1AESS switch equipment, Subscriber Main Distributing Frame, and the power plant are all located on the first floor. The second floor, which is primarily vacant houses the Trunk Main Distributing Frame (TMDF) and carrier equipment.

The distributing frame system consists of a 40 module COSMIC Subscriber Main Distributing Frame, a 14 module Modular Protector Frame with capacity for 34 modules, and a 135 vertical TMDF. The distributing frame system can handle all of the terminations required in this office.

The 1AESS switch has 57,344 installed lines with a capacity of 48,000 access lines. There are approximately 44,403 working A.L. and a growth rate of about 1000 A.L. per year. The CCS rate is forecast at 2.86 CCS/NAL and the Call Rate is forecast at 1.97/NAL. (see Tab 7) Although the Digital ESSX growth in this wire center is steady and supports favorable replacement economics, there are additional hardware issues in the Miami Beach 1AESS that are of immediate concern.

The existing analog switch was installed in 1970 as a 1ESS machine and later retrofitted to a 1AESS in 1978 using a Hot Slide. This method caused excessive cable trough congestion above the switch equipment area which jeopardizes the processor bus cables. (see Fig. 1)

The hardware configuration in this office consists of a mixture of remreed, ferreed and hybrid switching networks. Over 55% of the switch equipment is ferreed, consisting of 7 of the 14 Line Link Networks and 9 of the 11 Trunk Link Networks. A total of 168 Ferreed Switch Frames are installed in the office with vintages ranging from 1966 to 1977 (see Fig. 2). Some of the earlier vintage equipment was reused from the Miami Main C.O. in downtown Miami.

In addition to the predominance of ferreed switching networks, several non-standard configurations exist within this office.

Three LLNs are hybrids, which are comprised of 4 Remreed Line Switch Frames and 4 Ferreed Junctor Switch Frames per network. Cabling configuration has resulted in cable trough congestion (see Fig. 3).

Seven LLNs have Line Switch Frames spread over two non-adjacent aisles. Technicians must use floor plans to locate frames and require non-standard procedures to maintain equipment due to unique scanner configuration.

Seven LLNs have 2:1 concentrators but 8 Line Switch Frames per network or 100% shared B links.

Three recorded announcement frames are 1969 vintage and are providing poor quality announcements. This equipment is manufacturer discontinued and will require extensive maintenance to remain operational.

Significant quantities of 1969 vintage conventional rather than miniaturized peripherals exist in this office. These are comprised of : 10 Junctor Signal Distributors, 12 Supplementary Signal Distributors, 22 Universal Signal Distributors and 135 Miscellaneous Trunk Frames. Additional maintenance is required to adjust and clean the types of relays in this equipment.

The original switch equipment has a Y-splice in the cable racks due to a new MDF installation and removal of an Intermediate Distributing Frame at the time of the original cutover. The Y-spice has resulted in cable trough congestion and limits the ability to repair defects arising in the Y-splice (see Fig. 4).

An increasing number of troubles and customer complaints of static and noise are being experienced in Miami Beach and considered directly attributable to the vintage and configuration of the 1AESS switch equipment in this office. In addition, resistive crosspoint failure in the ferreed switches is presenting a mounting maintenance dilemma to Network Operations due to the difficulty in obtaining repair parts and the unavailability of manpower resources to perform the repair work.

STUDY ALTERNATIVES

Plans studied in this analysis were the Present Method of Operation (PMO), Replacement in years 1992 through 1997 and a Maintenance Sensitivity in years 1993 through 1997 and 2002.

RECOMMENDED PLAN — This plan proposes replacement of the 1AESS switch in 1993 with a 5ESS digital switch in available space on the second floor of the existing building. Replacement in 1993 is selected as the Recommended Plan since it is the most economic alternative when compared to the PMO.

PMO PLAN — This plan involves continued growth of the 1AESS switch using reused analog equipment until the year 2002 when the 1AESS will be replaced with a Digital Switch.

ALTERNATE PLAN — Replacement in 1994 is selected as the next most economic alternative compared to PMO since replacement in 1992 would not be feasible due to standard intervals and work content involved.

SENSITIVITY PLANS

Sensitivity analyses were performed on the PMO and Replacement in 1993 through 1997 Plans to quantify the expected impact of additional testing and repair activities associated with maintaining the ferreed switch networks and peripherals operational in the future.

A recurring annual cost of $ 120K was modeled as a manual cash flow in the NPS-W study beginning in 1992 and ending in the year of switch replacement. The use of $ 120K is based on 1992 budgeted expense levels to perform ferreed testing and repair work in Miami Beach. Labor expense is calculated at $ 70K as outlined in an AT&T quote to perform RXPDC (Resistive Crosspoint) testing and repair work in the Miami Beach office. (see vendor quote Tab 7) An additional $ 50K is allocated for material required to repair the switch. This is based on historical costs to repair other ferreed switches of similar size in the Southeast Florida area. The rationale for modeling a recurring annual maintenance cost is based on the inherent characteristic of ferreed switch equipment failure patterns as outlined in several recent Maintenance Engineering memoranda on this subject. (see Tab 7)

ALTERNATIVES CONSIDERED BUT NOT STUDIED

Another alternative evaluated was the replacement of the ferreed Trunk Link Networks and Line Link Networks with reused Remreed switch equipment. This alternative was not studied in NPS-W because it is not considered to be feasible due to the lack of sufficient turn around floor space on the first floor. In addition, capital requirements for the reused 1AESS equipment alone was estimated at $ 1,100K for nine TLNs and seven LLNs. Still another drawback to this alternative is that in spite of the capital and labor intensive nature of this proposal, none of the benefits of reduced digital switch maintenance or incremental digital services revenues would be obtained.

FIGURE 1:
Cable through congestion depicting cut off cables to original SxS equipment.

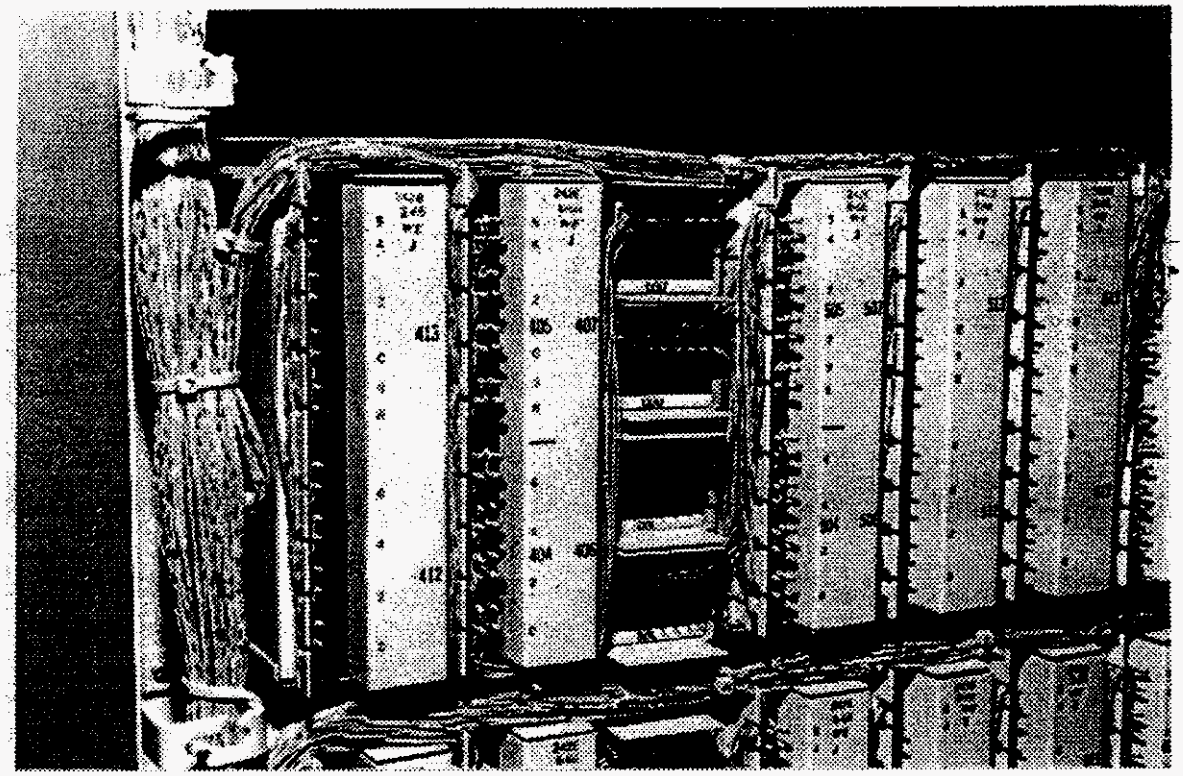


FIGURE 2: Ferreed LLN equipment depicting vintage date of 1966.

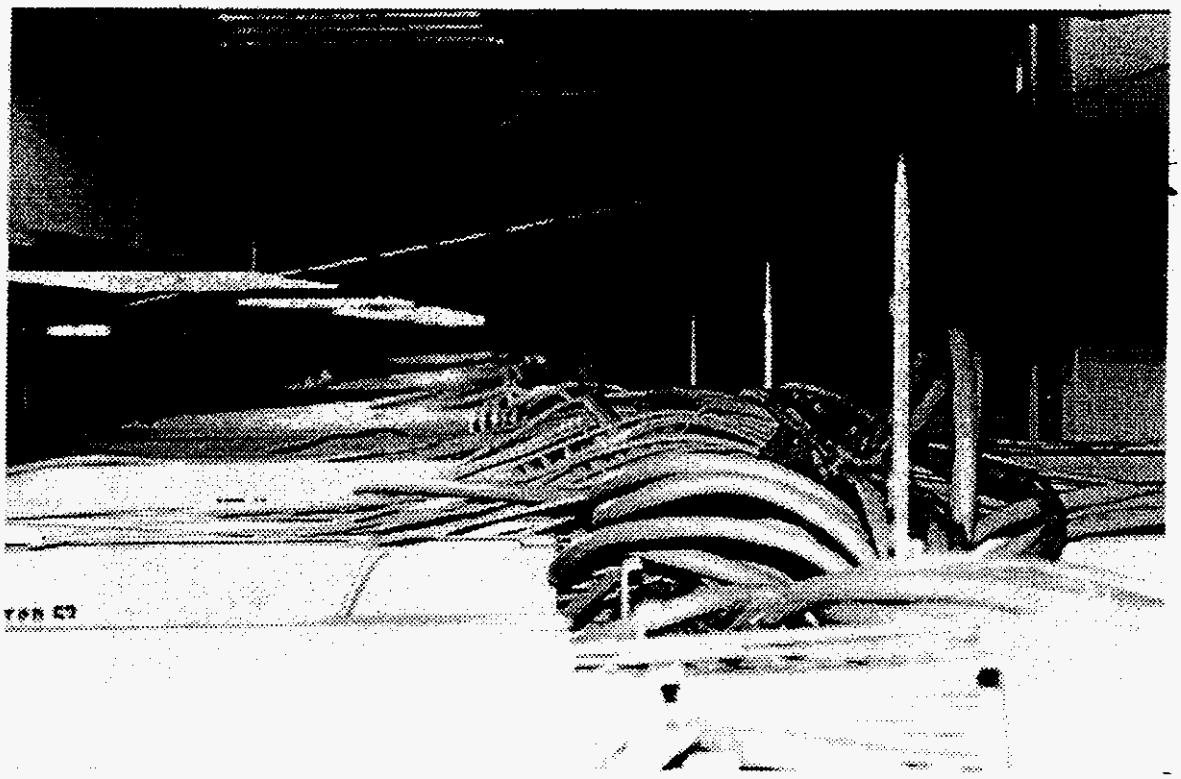


FIGURE 3: Cable trough congestion

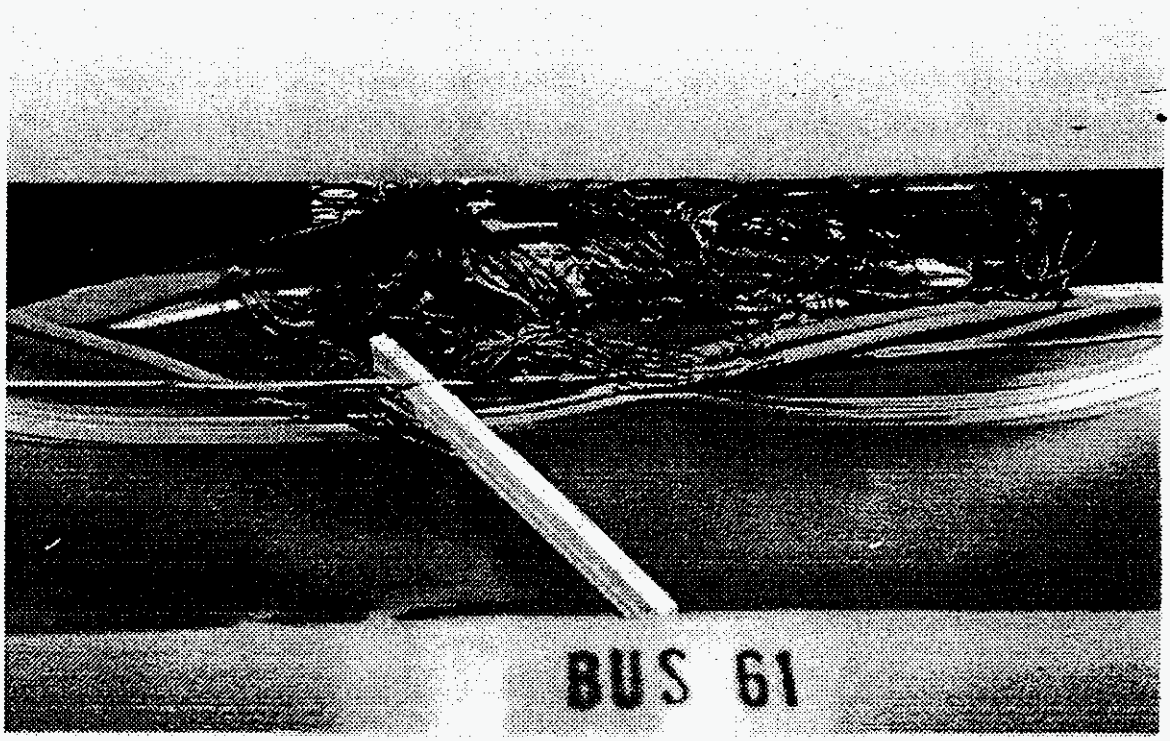


FIGURE 4:
Detail of congestion caused by "in-trough" Y-splice.

INTEGRATED PLANNING CONSIDERATIONS

Several organizations will be positively impacted as a result of the Miami Beach 1AESS switch replacement.

Network Operations has identified Miami Beach as having a high priority for switch replacement due to the additional cost required to maintain the early vintage ferreed switch equipment and non-standard configurations in this office. Limited manpower resources will make continued maintenance and repair of this office an increasingly difficult task to accomplish. In fact, capital resources will need to be allocated on an ongoing basis to fund the contracting of outside vendors to perform the testing and repair work required in this office.

Premise Marketing will also significantly benefit from the proposed switch replacement. Replacement of the 1AESS will enable Marketing to target major customers in this wire center for digital ESSX and other digital based services, thereby enhancing revenues. Marketing's in Miami Beach coincides with the proposed 1993 replacement schedule. Deferral is expected to result in loss of ESSX sales.

The most important planning consideration which will ultimately impact every organization is the increasing number of customer complaints of static and noise in the Miami Beach office.

are some of the major customers complaining to Southern Bell about the deteriorating level of their service. (see Tab 7) The number of complaints is expected to increase unless the switch is replaced within a short amount of time.

SUMMARY OF CUCRIT ECONOMIC RESULTS

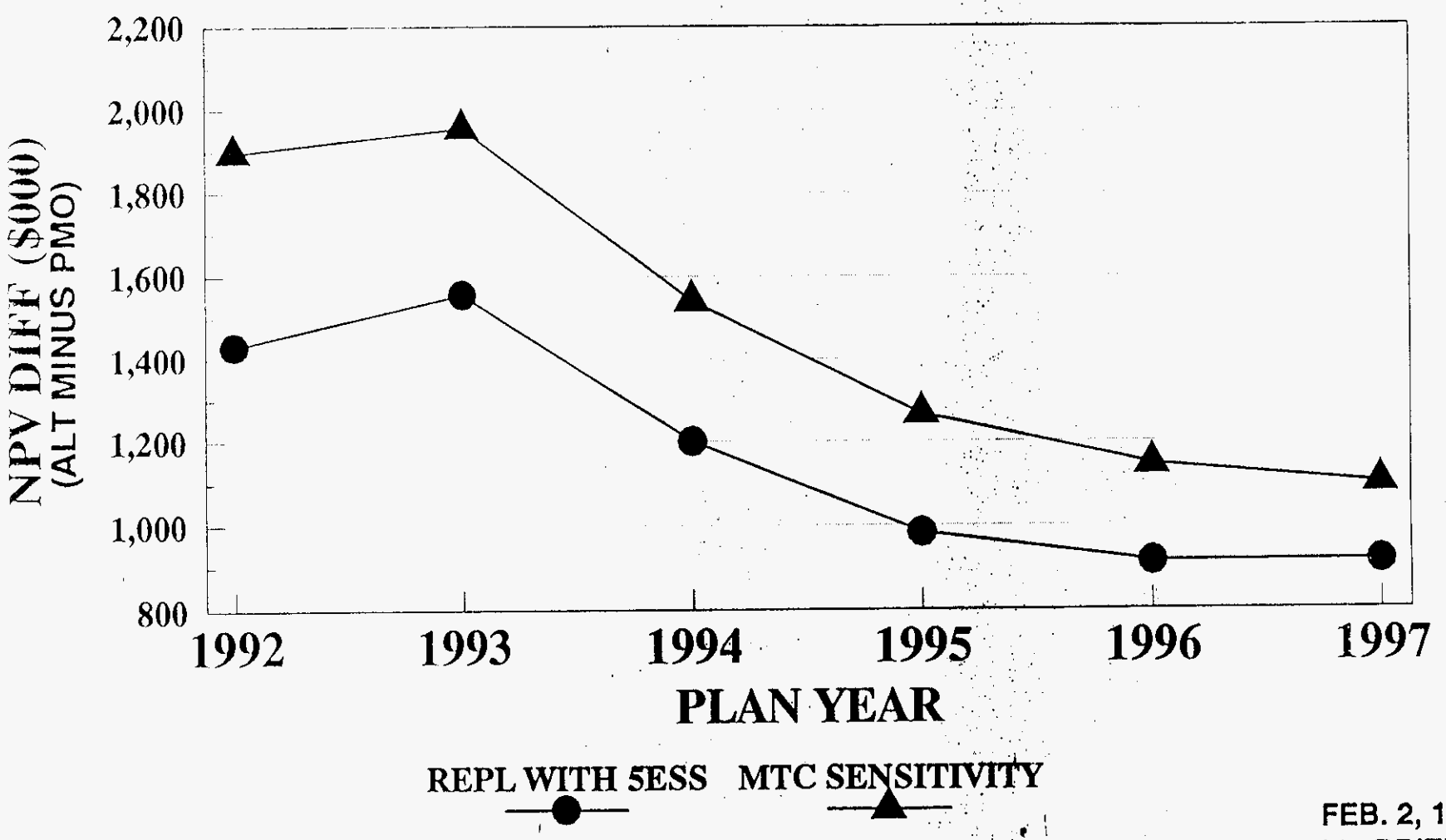
($ 000)

ALTERNATIVE	NPV	NPV DIFF (ALT MINUS PMO)	PRR	LTEE
PMO (REPL 2002)	-6141	-	-	-
RECOMMENDED PLAN (REPL 93)	-4619	1522	16.1%	1.513
ALTERNATE PLAN (REPL 94)	-4970	1171	15.5%	1.380
SENSITIZED PMO	-6609	-	-	-
SENSITIZED REC (REPL 93)	-4685	1924	16.7%	1.662

ECONOMIC RESULTS

MIAMI BEACH

1 AESS REPLACEMENT STUDY



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FEB. 2, 1992
I.L. BRIZUELA
\FL\BCH_1AEC

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21

NETWORK PLANNING SYSTEM
****
* EXECUTIVE SUMMARY *
****
RESULTS IN THOUSANDS ($000)

Y: miami beach repl w/5ess
METER FILE:

: repl in 93 VS pmo

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	1521.7
NET PW EXPENDITURES	-2477.8
	SECONDARY
CUMULATIVE DISCOUNTED CASH FLOW - EOS	1521.7
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.513
PROJECT RATE OF RETURN	16.1%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	-3.1	-8.7	**	-5.4	**
1993	139.7	7746.9	5.2	4803.1	2.9
1994	166.2	7939.7	5.5	4922.6	3.4
1995	285.7	8008.6	6.9	4965.3	5.8

++++++ SUMMARY BY PLAN ++++++

	repl in 93	pmo
TOTAL NONDISCOUNTED CAP.	13036.1	14602.5
TOTAL NONDISCOUNTED EXP.	19244.7	18217.4
TOTAL NONDISCOUNTED REV.	28267.1	9425.0
NET PRESENT VALUE-EOL	-4618.8	-6140.6
NET PW EXPENDITURES	7520.6	9998.4

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

ENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMP
TH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

IT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
E IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
HE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

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* FORMAL INPUT REPORT *
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RESULTS IN THOUSANDS $(000)

Y: miami beach repl w/5ess
METER FILE:

: repl in 93

REND BASE DATE - 1/1991
TUDY START DATE - 1/1991
RESENT WORTH YEAR - 1991
PV OPTION - EOL
LENGTH OF STUDY - 18
GROSS RECEIPTS TAX - See AREA-CNST-RPT
IDC INCL. IN FCOST - NO
PLAN FILE NAME -

ITAL - MAINTENANCE>

RIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
S.	0	9078.0	1/70	0/00	23.00	0	0	0	0.0	2211-0	ESS	EMBD
S.	0	115.9	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
S.	0	123.7	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
.OF.	0	90.8	1/93	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
S.SA	0	-220.0	1/93	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
OT.S	0	35.4	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
OT.S	0	35.4	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
OT.L	0	37.7	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
OT.L	0	19.2	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
DDED	0	-1.3	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-3.3	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
NO.5	0	4495.7	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	301.2	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	422.3	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	478.0	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	503.0	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	484.8	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	506.8	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	496.5	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	498.1	1/ 1	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	507.3	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	511.8	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	511.3	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	512.6	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	511.5	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	511.8	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	512.1	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
DDED	0	-3.5	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
OT.S	0	-249.8	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
OT.L	0	-104.3	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
CAP.	0	70.0	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
.ESS	0	174.9	1/93	0/00	16.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	70.3	1/94	0/00	15.00	0	0	0	0.0	2422-0	OSP-F	NEW

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FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

Y: miami beach repl w/5ess
METER FILE:

: repl in 93

ITAL - MAINTENANCE (CONTINUED)>

RIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
.ESS	0	53.3	1/95	0/00	14.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	99.7	1/96	0/00	13.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	69.3	1/97	0/00	12.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	100.8	1/98	0/00	11.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	77.9	1/99	0/00	10.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	77.9	1/ 0	0/00	9.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	78.3	1/ 1	0/00	8.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	78.3	1/ 2	0/00	7.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	78.3	1/ 3	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	78.3	1/ 4	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	78.3	1/ 5	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	78.3	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	78.3	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	78.3	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW

>ENSE>

RIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
S.MT	0	0.0	1/91	12/92	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	350.3	'92)	359.0							
.MTCE	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'93)	349.2	'94)	346.8	'95)	359.4	'96)	375.9	'97)	393.5	
		'98)	412.4	'99)	430.6	'00)	449.1	'01)	467.6	'02)	486.1	
		'03)	504.6	'04)	523.2	'05)	541.7	'06)	560.2	'07)	578.8	
		'08)	597.3									
RIC.	0	0.0	1/91	12/93	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'91)	65.0	'92)	65.0	'93)	25.2					
DDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	-0.1	'93)	-0.1	'94)	-0.1	'95)	-0.1	'96)	-0.1	
		'97)	-0.1	'98)	-0.1	'99)	-0.1	'00)	-0.1	'01)	-0.1	
		'02)	-0.1	'03)	-0.1	'04)	-0.1	'05)	-0.1	'06)	-0.1	
		'07)	-0.1	'08)	-0.1							
.CAP.	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93)	38.6	'94)	40.3	'95)	41.8	'96)	43.9	'97)	46.2	

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FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

BY: miami beach repl w/5ess
AMETER FILE:

E: repl in 93

PENSE (CONTINUED)>

CRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
		'98) 48.8	'99) 51.2		'00) 53.6			'01) 56.1		'02) 58.6		
		'03) 61.0	'04) 63.5		'05) 66.0			'06) 68.5		'07) 71.0		
		'08) 73.4										
..ESS	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'93) 3.8	'94) 7.9		'95) 11.0			'96) 13.4		'97) 17.9		
		'98) 21.1	'99) 25.6		'00) 29.1			'01) 32.6		'02) 36.1		
		'03) 39.7	'04) 43.2		'05) 46.7			'06) 50.2		'07) 53.8		
		'08) 57.3										
.UPG.	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) 111.3	'94) 111.8		'95) 112.1			'96) 112.2		'97) 112.5		
		'98) 112.7	'99) 113.0		'00) 113.2			'01) 113.4		'02) 113.7		
		'03) 113.9	'04) 114.1		'05) 114.3			'06) 114.6		'07) 114.8		
		'08) 115.0										
.UPG.	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) 3.7	'94) 4.0		'95) 5.0			'96) 6.1		'97) 7.3		
		'98) 8.4	'99) 9.5		'00) 10.8			'01) 11.9		'02) 13.0		
		'03) 14.2	'04) 15.4		'05) 16.6			'06) 17.8		'07) 19.0		
		'08) 20.1										
SS.PR	0	0.0	1/93	12/93	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) -400.0										
S.RTU	0	0.0	1/93	12/06	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) 396.0	'94) 74.0		'95) 74.0			'96) 74.0		'97) 74.0		
		'98) 74.0	'99) 74.0		'00) 74.0			'01) 74.0		'02) 74.0		
		'03) 74.0	'04) 74.0		'05) 74.0			'06) 74.0				

ENUE>

RIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
DDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) -11.4	'93) -11.4		'94) -11.4			'95) -11.4		'96) -11.4		
		'97) -11.4	'98) -11.4		'99) -11.4			'00) -11.4		'01) -11.4		
		'02) -11.4	'03) -11.4		'04) -11.4			'05) -11.4		'06) -11.4		

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FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

Y: miami beach repl w/5ess
METER FILE:

: repl in 93

ENUE (CONTINURM RIPT REP	REV.	DATE	GROWTH RATES % DATE	L.T.	1	2	3	4	5	NAME	FREQ.
	'07) -11.4		'08) -11.4								
.ESS 0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:	'93) 70.9		'94) 152.7		'95) 215.9		'96) 265.5		'97) 357.2		
	'98) 423.4		'99) 519.5		'00) 596.0		'01) 674.2		'02) 746.9		
	'03) 819.8		'04) 892.5		'05) 965.4		'06) 1038.4		'07) 1111.1		
	'08) 1184.0										
.RES 0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:	'93) 1.7		'94) 16.0		'95) 32.3		'96) 67.3		'97) 109.3		
	'98) 168.4		'99) 227.4		'00) 286.8		'01) 358.8		'02) 430.8		
	'03) 502.9		'04) 574.9		'05) 646.9		'06) 719.0		'07) 791.0		
	'08) 863.1										
.BUS 0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:	'93) 2.9		'94) 13.1		'95) 26.5		'96) 49.8		'97) 77.9		
	'98) 113.8		'99) 149.7		'00) 186.5		'01) 226.4		'02) 266.4		
	'03) 306.8		'04) 347.2		'05) 387.6		'06) 428.0		'07) 468.4		
	'08) 508.8										
.REV. 0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:	'94) 7.6		'95) 40.6		'96) 66.7		'97) 105.1		'98) 173.1		
	'99) 241.2		'00) 309.2		'01) 358.8		'02) 408.5		'03) 458.2		
	'04) 507.8		'05) 557.5		'06) 607.2		'07) 656.9		'08) 706.6		
.ESS 0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:	'93) 3.7		'94) 18.9		'95) 44.8		'96) 85.5		'97) 126.8		
	'98) 168.3		'99) 200.6		'00) 236.7		'01) 266.8		'02) 297.0		
	'03) 327.3		'04) 357.6		'05) 387.8		'06) 418.1		'07) 448.3		
	'08) 478.6										

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* FORMAL INPUT REPORT *
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RESULTS IN THOUSANDS $(000)

DY: miami beach repl w/5ess
AMETER FILE:

N: pmo

TREND BASE DATE - 1/1991
STUDY START DATE - 1/1991
PRESENT WORTH YEAR - 1991
NPV OPTION - EOL
LENGTH OF STUDY - 18
GROSS RECEIPTS TAX - See AREA-CNST-RPT
IDC INCL. IN FCOST - NO
PLAN FILE NAME -

PITAL - MAINTENANCE>

CRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
SS.	0	9078.0	1/70	0/00	32.00	0	0	0	0.0	2211-0	ESS	EMBD
SS.	0	115.9	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	118.	0	0	0.0	2211-0	ESS		NEW			
SS.	0	104.2	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	88.7	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	105.1	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	103.5	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	117.2	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	118.0	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	117.9	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	119.3	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	295.7	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
T.OF.	0	90.8	1/ 2	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
SS.SA	0	-145.2	1/ 2	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
COT.S	0	35.4	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.S	0	35.4	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NE
COT.S	0	35.4	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	37.7	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	19.2	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	20.0	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	25.3	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	30.4	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	32.9	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	30.4	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	30.4	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	35.4	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	30.4	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	30.4	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	8.4	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	9.3	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	8.5	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	9.1	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	9.1	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

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Y: miami beach repl w/5ess
METER FILE:

: pmo

ITAL - MAINTENANCE (CONTINUED)>

RIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
COT.	0	9.1	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	8.6	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	8.6	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
CUST	0	-8.3	.0	2211-0	ESS		NEW					
DDED	0	-1.3	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-3.3	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-5.9	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-8.6	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-6.6	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-6.6	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-4.6	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-4.6	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-3.3	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-3.3	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-2.7	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
.NO.5	0	8559.2	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	501.1	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	505.1	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	506.4	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	506.2	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	506.2	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	505.9	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
RIB.	0	435.0	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
.CUST	0	-22.1	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
DDED	0	-128.9	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
CAP.	0	70.0	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
.ESS	0	299.9	1/ 2	0/00	7.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	95.6	1/ 3	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	90.0	1/ 4	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	89.7	1/ 5	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	89.7	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	89.7	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	89.7	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

Y: miami beach repl w/5ess

METER FILE:

: pmo

ENSE>

CRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
S.MT	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	350.3	'92)	358.8	'93)	367.2	'94)	375.5	'95)	383.7	
		'96)	392.3	'97)	401.3	'98)	410.4	'99)	419.7	'00)	429.3	
		'01)	445.4									
MTCE	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02)	475.7	'03)	493.9	'04)	512.2	'05)	530.4	'06)	548.6	
		'07)	566.8	'08)	585.1							
RIC.	0	0.0	1/91	12/02	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'91)	65.0	'92)	65.0	'93)	65.0	'94)	65.0	'95)	65.0	
		'96)	65.0	'97)	65.0	'98)	65.0	'99)	65.0	'00)	65.0	
		'01)	65.0	'02)	25.2							
CUST	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'93)	-0.7	'94)	-0.7	'95)	-0.7	'96)	-0.7	'97)	-0.7	
		'98)	-0.7	'99)	-0.7	'00)	-0.7	'01)	-0.7	'02)	-0.8	
		'03)	-0.8	'04)	-0.8	'05)	-0.8	'06)	-0.8	'07)	-0.8	
		'08)	-0.8									
EDDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	-0.1	'93)	-0.4	'94)	-0.9	'95)	-1.6	'96)	-2.2	
		'97)	-2.8	'98)	-3.2	'99)	-3.6	'00)	-3.9	'01)	-4.1	
		'02)	-4.5	'03)	-4.5	'04)	-4.5	'05)	-4.5	'06)	-4.5	
		'07)	-4.5	'08)	-4.5							
0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME		
OTHER EXP:		'02)	56.8	'03)	59.3	'04)	61.8	'05)	64.2	'06)	66.6	
		'07)	69.1	'08)	71.5							
.ESS	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02)	4.9	'03)	13.5	'04)	17.8	'05)	21.9	'06)	25.9	
		'07)	30.0	'08)	34.0							
UPG.	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02)	112.3	'03)	112.5	'04)	112.8	'05)	113.1	'06)	113.3	
		'07)	113.6	'08)	113.8							
UPG.	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02)	13.0	'03)	14.2	'04)	15.4	'05)	16.6	'06)	17.8	

ENSE (CONTINUED)>

RIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
		'07) 19.0	'08) 20.1									
.RTU	0	0.0	1/ 2	12/06	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02) 1171.0	'03) 74.0	'04) 74.0	'05) 74.0	'06) 74.0						

ENUE>

RIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
CUST	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93) -71.2	'94) -71.2	'95) -71.2	'96) -71.2	'97) -71.2	'98) -71.2	'99) -71.2	'00) -71.2	'01) -71.2	'02) -71.2	'03) -71.2
		'04) -71.2	'05) -71.2	'06) -71.2	'07) -71.2	'08) -71.2						
DDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) -11.4	'93) -39.8	'94) -91.1	'95) -165.0	'96) -221.8	'97) -278.6	'98) -318.2	'99) -358.0	'00) -386.5	'01) -414.9	'02) -414.9
		'03) -414.9	'04) -414.9	'05) -414.9	'06) -414.9	'07) -414.9	'08) -414.9					
.ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02) 91.7	'03) 276.3	'04) 368.6	'05) 452.1	'06) 535.6	'07) 618.8	'08) 702.3				
.RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02) 215.6	'03) 455.1	'04) 574.9	'05) 646.9	'06) 719.0	'07) 791.0	'08) 863.1				
.BUS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02) 133.4	'03) 275.8	'04) 346.8	'05) 387.6	'06) 428.0	'07) 468.4	'08) 508.8				
REV.	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02) 204.2	'03) 406.6	'04) 507.8	'05) 557.5	'06 607.2	'07) 656.9	'08) 706.6				
.ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

Y: miami beach repl w/5ess
METER FILE:

: pmo

ENUE (CONTINUED)>

RIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
OTHER REV:		'02)	132.0	'03)	255.8	'04)	317.8	'05)	344.9	'06)		371.9
		'07)	398.9	'08)	425.9							

NETWORK PLANNING SYSTEM
****
* EXECUTIVE SUMMARY *
****
RESULTS IN THOUSANDS ($000)

Y: miami beach repl w/5ess
METER FILE:

: repl in 94 VS pmo

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

PRIMARY	
NET PRESENT VALUE - EOL	1170.9
NET PW EXPENDITURES	-1906.4
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	1170.9
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.380
PROJECT RATE OF RETURN	15.5%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	0.0	0.0	**	0.0	**
1993	-3.0	-20.7	**	-12.9	**
1994	-28.9	8563.2	3.0	5309.2	-0.5
1995	165.7	8757.4	5.3	5429.6	3.1

++++++ SUMMARY BY PLAN ++++++

	repl in 94	pmo
TOTAL NONDISCOUNTED CAP.	13155.8	14602.5
TOTAL NONDISCOUNTED EXP.	19099.0	18217.4
TOTAL NONDISCOUNTED REV.	25933.5	9425.0
NET PRESENT VALUE-EOL	-4969.7	-6140.6
NET PW EXPENDITURES	8091.9	9998.4

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

ENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
TH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

IT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
E IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
HE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

```
**************************************************
*                                                *
* building no.-  14    name- MIAMI BEACH         *
* clli - MIAMFLBR      eco parameter - NPV       *
* plans are compared to plan no.  1              *
*                                                *
*    01/27/92     14:04 ET     Release 4.2.0.8    *
*                                                *
**************************************************
```

total npv difference

plan no.	total npv ($000)	npv diff. ($000)	per cent diff.
1	-6138.1	0.0	0.0

Pmo
EPLACE IN 2002

33

```
**************************************************
*                                                *
* building no.-  14    name- MIAMI BEACH         *
* clli - MIAMFLBR      eco parameter - NPV       *
* plans are compared to plan no. 92              *
*                                                *
*   01/31/92    13:23 ET    Release 4.2.0.8      *
*                                                *
**************************************************
```

total npv difference

	plan no.	total npv ($000)	npv diff. ($000)	per cent diff.
Replace in	92	-4708.5	0.0	0.0
"	93	-4582.6	125.9	-2.7
"	94	-4937.0	-228.5	4.9
"	95	-5154.9	-446.4	9.5
"	96	-5224.9	-516.4	11.0
"	97	-5224.1	-515.6	11.0

34

NETWORK PLANNING SYSTEM
****
* EXECUTIVE SUMMARY *
****
RESULTS IN THOUSANDS ($000)

Y: miami beach repl w/5ess mtc sens
METER FILE:

: repl 93 sens VS pmo sens

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

PRIMARY	
NET PRESENT VALUE - EOL	1924.0
NET PW EXPENDITURES	-3132.7
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	1924.0
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.662
PROJECT RATE OF RETURN	16.7%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	-3.1	-8.7	**	-5.4	**
1993	222.0	7746.9	6.2	4803.1	4.6
1994	252.0	7939.7	6.6	4922.6	5.1
1995	375.1	8008.6	8.1	4965.3	7.6

++++++ SUMMARY BY PLAN ++++++

	repl 93 sens	pmo sens
TOTAL NONDISCOUNTED CAP.	13036.1	14602.5
TOTAL NONDISCOUNTED EXP.	19371.5	19753.7
TOTAL NONDISCOUNTED REV.	28267.1	9425.0
NET PRESENT VALUE-EOL	-4685.0	-6609.0
NET PW EXPENDITURES	7628.4	10761.1

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

ENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
TH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

IT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
E IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
HE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS OR ZERO.

```
**************************************************
*                                                *
* building no.-  14    name- MIAMI BEACH         *
* cili - MIAMFLBR      eco parameter - NPV       *
* plans are compared to plan no.  2              *
*                                                *
*   01/30/92    10:16 ET    Release 4.2.0.8      *
*                                                *
**************************************************
```

total npv difference

MAINTENANCE SENSITIVITY STUDY

	plan no.	total npv ($000)	npv diff. ($000)	per cent diff.
SENSITIZED (NO REPLACE IN 2002)	2	-6604.4	0.0	0.0

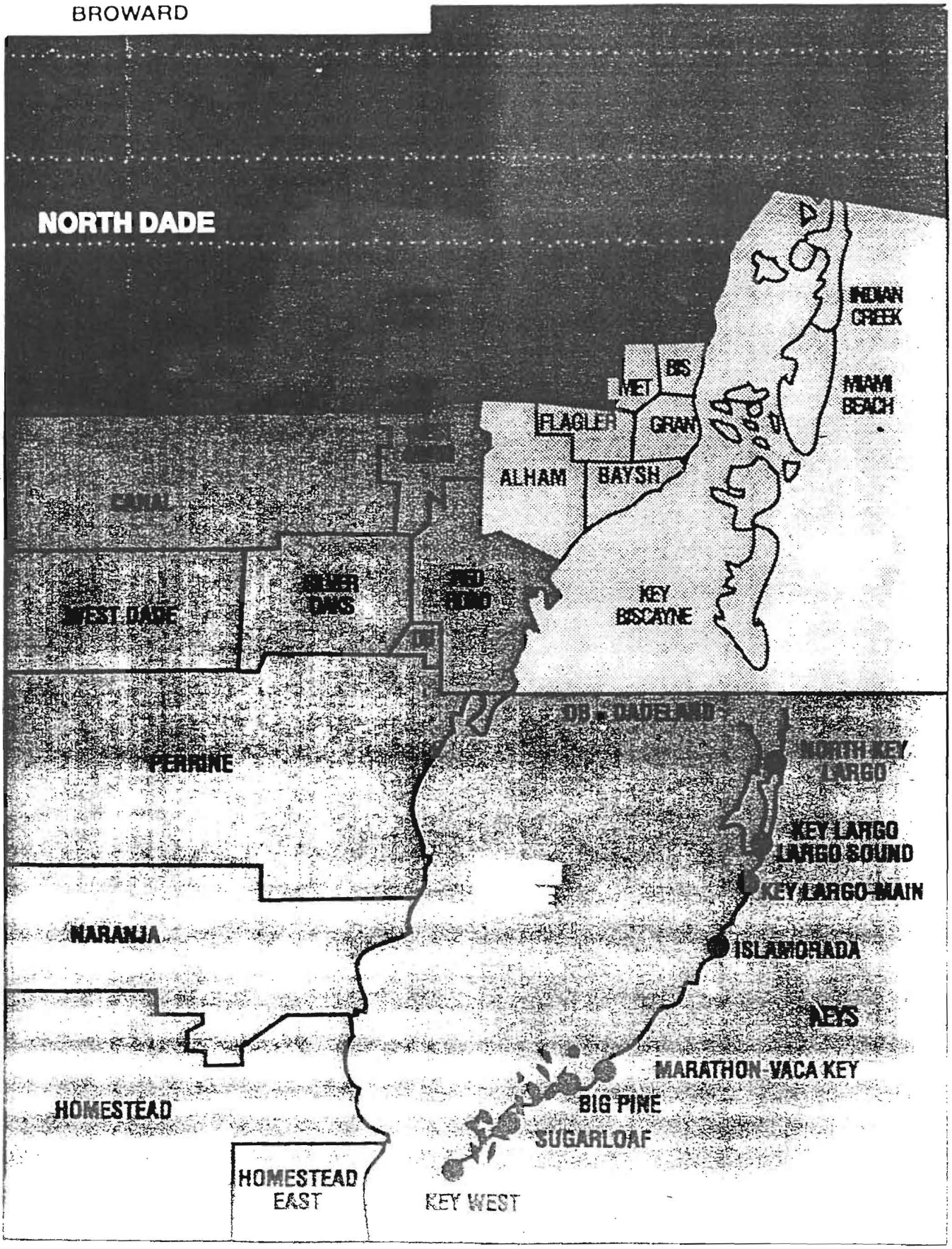
```
**************************************************
*                                                *
* building no.-  14    name- MIAMI BEACH         *
* clli - MIAMFLBR      eco parameter - NPV       *
* plans are compared to plan no. 82              *
*                                                *
*   01/31/92    13:41 ET    Release 4.2.0.8      *
*                                                *
**************************************************
```

total npv difference

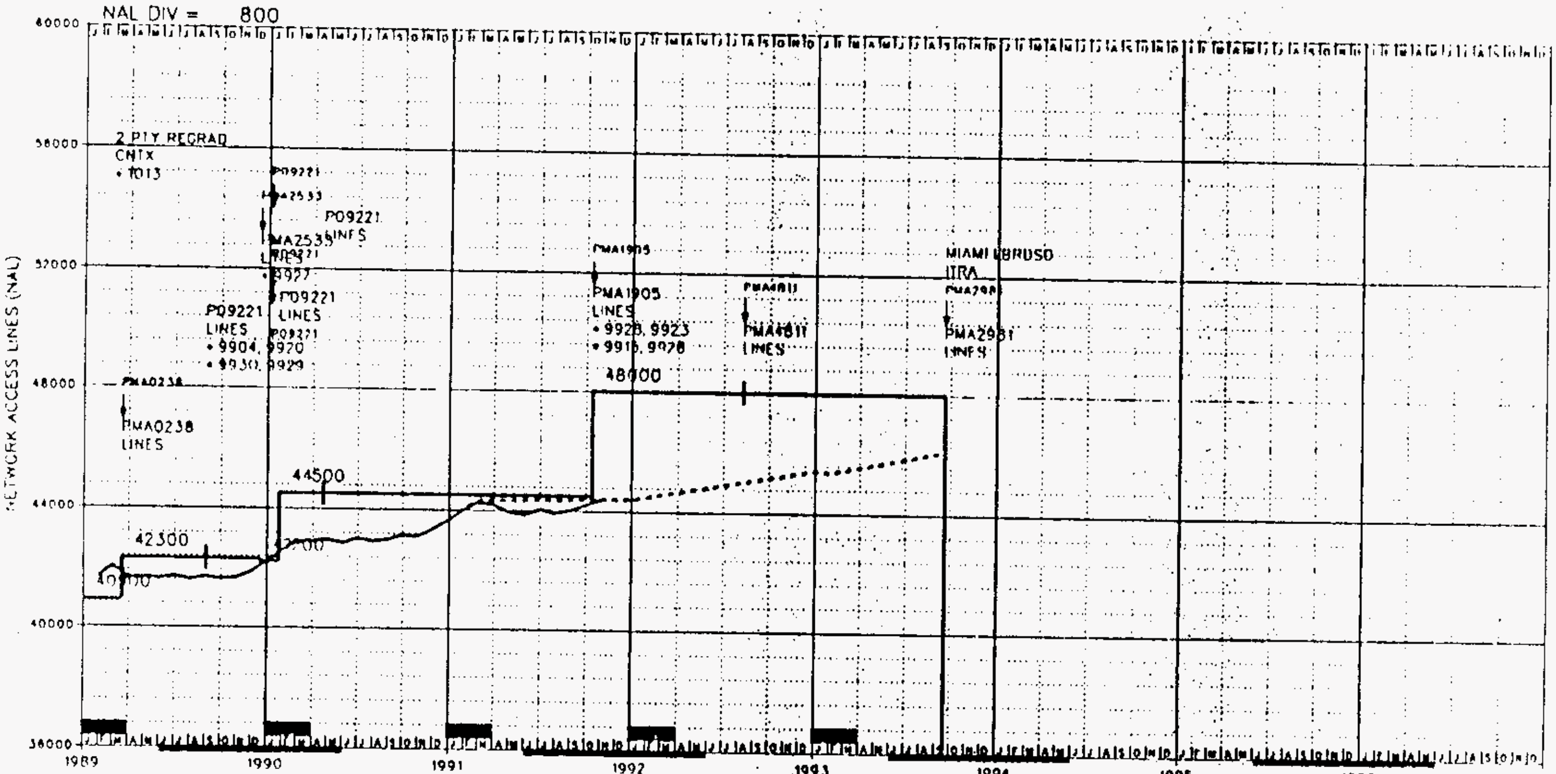
MAINTENANCE SENSITIVITY STUDY

SENSITIZED	plan no.	total npv ($000)	npv diff. ($000)	per cent diff.
REPLACE IN 92	82	-4708.5	0.0	0.0
REPLACE IN 93	83	-4648.4	60.1	-1.3
REPLACE IN 94	84	-5063.4	-354.9	7.5
REPLACE IN 95	85	-5337.1	-628.6	13.4
REPLACE IN 96	86	-5458.4	-749.9	15.9
REPLACE IN 97	87	-5504.8	-796.4	16.9

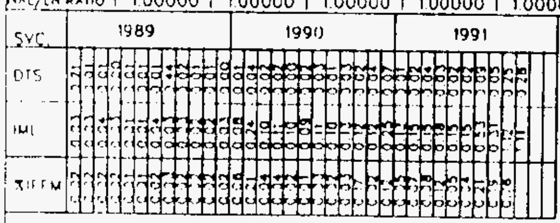
SOUTH TPD TURFS SEPTEMBER 91



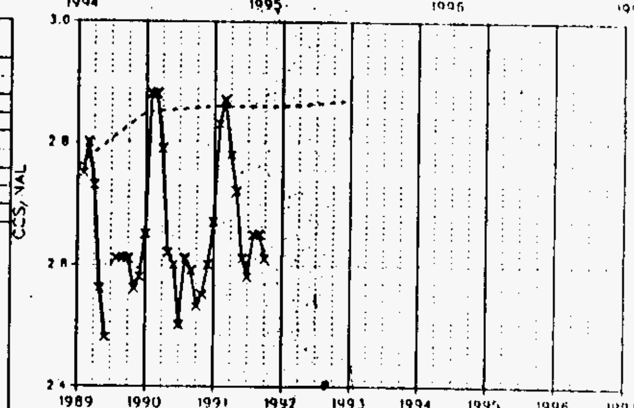
RELATED STUDY DOCUMENTATION
CONTENTS



YEAR	1989	1990	1991	1992	1993	1994	1995	1996	1997
NAL	41317 (A)	42189 (A)	43662 (A)	44403 (F)	45418 (F)				
LINES	41317	42189	43662	44403	45418				
CCS/NAL	2.76	2.85	2.86	2.86	2.87				
CCS STATUS	A	A							
NAL/LN RATIO	1.00000	1.00000	1.00000	1.00000	1.00000				



JOBNUM	RDYSD	REQSD	SHIP
PMA0238	03/19/89	03/19/89	07/02/88
P09221	09/01/89	01/07/90	05/13/89
PMA2533	12/17/89	12/17/89	10/02/89
P09221	01/24/90	01/07/90	05/13/89
P09221	04/22/90	01/07/90	10/01/89
PMA1905	10/13/91	10/13/91	04/27/91
PMA4811	08/09/92	08/09/92	07/04/92
PMA2981	09/19/93	09/19/93	**/**/**



NOTES:
1013 PARTY LINE TO PRIVATE LINE CONVERSION
9904 CCS7 TRUNK SIGNALING
9915 MINIMUM SIZE JOB
9920 SSP/800 LOCATION
9923 TIMED EARLY FOR BUSY SEASON
9926 CCS ACCESS CAPABILITY
9927 ADVANCED TOLL INTEGRITY CHECKING SYSTEM
9928 ONA REQUIREMENTS
9929 TOUCHSTAR PHASE I & II
9930 CALLER ID (ICLID & CND)
9905 TOUCHSTAR PHASE I

REASON FOR REISSUE:
1817 1550 LENOX AVE. OPH 1000 - 1100

DATE OF ISSUE: 11/25/91
EXCHANGE MIAMI
DATABASE LIVE
EO TYPE 1AES
NXX:
531 532 534 5305 538 672
673 674

BUILDING MIAMFLBR STATE FL
LATA: SOFT/460
COMPANY: SBLL AREA SBFS
DIVISION SFNO DISTRICT MIRO
EXHAUST: 01/01/99
CONTACT: JI BAKER
NUMBER MVHOCKENBERRY
EO ENGINEER CUMHCHELL

E A DATE 03/25/85
DIR CLOSE 05/14/92
DIR DELIVER 09/11/92
NAL FCST 06/15/91
CCS FCST 08/01/90
ENTITY CUT 11/13/70
ENTITY TERM 09/19/93
LATEST NAL 44376
SWITCH HOST
ENTITY: CHART
MIAMFLBRG7A 8.1

REPORT: PARTB
PAGE: 1 OF 2
BUILDING: MIAM BEACH ENTITY: MIAMFLBR67A DATABASE: LIVE
ENT CUT: 11/19/70 ENT TERM: 09/19/93

LSDF SYSTEM
GRAPHIC PART B VERSION 1.00

DATE: 11/25/91
TIME: 19:54:41
CHART NO.: 8.1
EQ TYPE: 10E5

JOB/ADJ/AT	1989AT1		PMA0238		P09221		PMA2533		P09221		P09221	
EVENT-NUM			EVT1		EVT1		EVT1		EVT2		EVT3	
EVENT-DATE	02/28/89		03/19/89		09/01/89		12/17/89		01/24/90		04/22/90	
RDYSD/IDATE	02/28/89		03/19/89		04/22/90		12/17/89		04/22/90		04/22/90	
REQSD	**/**/**		03/19/89		01/07/90		12/17/89		01/07/90		01/07/90	
CAP EXH.	**/**/**		12/01/88		**/**/**		**/**/**		**/**/**		**/**/**	
SHIP DATE	**/**/**		07/02/88		05/13/89		10/02/89		05/13/89		10/01/89	
JOB DESC.	CNTX		CA		GENERIC		CA-ATICS		CA		MISC	
NAL TRANS	262											
TRANS ENT	2 PTY REGRAD											
LSEI			XMTR-MF		XMTR-MF		XMTR-MF		XMTR-MF		XMTR-MF	
NAL CAP SE				50100		50100		50100	600	50700		50700
TC			7400	64800		64800		64800	4500	69300		69300
LNS			1400	42300		42300	-100	42200	2300	44500		44500
NOS			-800	54100		54100	-100	54000		54000		54000
ML			1400	42300		42300	-100	42200	2300	44500		44500
CNTRX CAP				1000		1000		1000	100	1100		1100
INST. NOS				70000		70000		70000		70000		70000
VAV ASSGN			900	6324		6324	100	6424	-4834	1590		1590
%FNOS			85.00		85.00		85.00		79.00		79.00	
INST. LNS			4096	51200		51200		51200	2048	53248		53248
VAV ASSGN			102	1280	100	1380		1380	51	1431		1431
%TOTAL FILL			84.70		84.74		84.70		86.00		86.00	
LNCAP IN LNS			1400	42300		42300	-100	42200	2300	44500		44500
SIZING DATE			09/30/87		09/09/86				09/09/86			
NDO DUE			09/19/87		07/09/88		09/09/86		07/09/88			
TELCO DUE			11/26/87		11/05/88		09/20/89		11/05/88			
TURNOVER			11/05/88		04/22/90		12/17/89		04/22/90		04/22/90	
GENERIC SYC												
GENERIC			10E9.08		10E10.04		10E10.05		10E10.06		10E10.06	
CONC RATIO			4:1		4:1		4:1		4:1		4:1	
ENG LSF												
ENG CCS/NAL			2.84		2.84		2.84		2.76		2.76	
DESIGN BS												
MRAJ			8.97		4.99		0.69		20.60		28.06	
PROCESSOR			-21700	70200		70200		70200	-7800	62400		62400
CAP TRUNK			20	120	20	140		140		140		140
DGTL TK UNIT			1		1		0		0		0	
LLN/LI/SM/NM			1	13		13		13		13		13
LSR/LIS/*/*			4	22		22		22	2	24		24
LSH/*/*/L32				56		56		56		56		56
ISC/*/ISS/NP			4	40	4	44		44		44		44
TLN/*/*/L64				1024		1024		1024		1024		1024
TOT FRS/SHL			8		0		0		11		0	
REUSE FR/SHL			0		0		0		3		0	
CROSS ADDNS			570		0		15		1353		0	
EXT JOB DESC			LLN&TLN/DCT		GEN&APS/CCS7		ATICS		100% AMA/LLN		MEM.CALL/SM1	
%CIDIP			11.09		12.30		12.30		11.00		11.00	
JOB CAT.			A		C		A		A		M	

F02B01Z 12195 F02A01Z 00806

REPORT: PARTB
PAGE: 2 OF 2
BUILDING: MIAM BEACH ENTITY: MIAMFLBR67A DATABASE: LIVE
ENT CUT: 11/19/70 ENT TERM: 09/19/93

LSOF SYSTEM
GRAPHIC PART B VERSION 1.00

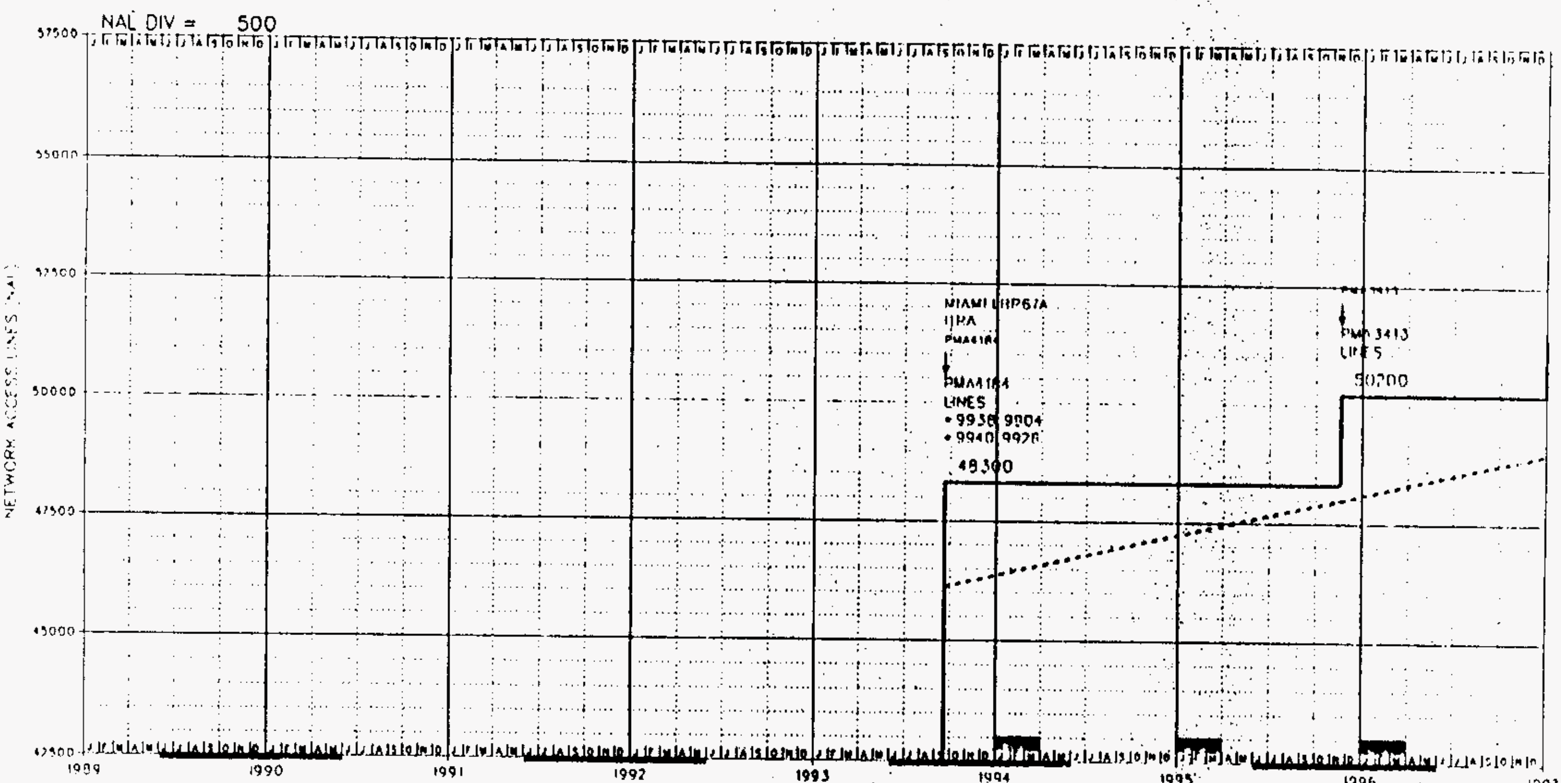
DATE: 11/25/91
TIME: 19:54:41
CHART NO.: B.1
EQ TYPE: IAES

JOB/ADJ/AT	PMA1905		PMA4811		1993AT1	PMA2981	
EVENT-NUM	EVT1		EVT1			EV11	
EVENT-DATE	10/13/91		08/09/92		09/19/93	09/19/93	
RDYSD/TDATE	10/13/91		08/09/92		09/19/93	09/19/93	
REQSD	10/13/91		08/09/92		**/**/**	09/19/93	
CAP EXH.	**/**/**		**/**/**		**/**/**	**/**/**	
SHIP DATE	04/27/91		07/04/92		**/**/**	**/**/**	
JOB DESC.	GA		ACR		ITRA	DISP	
NAL TRANS					-46100		
TRANS ENT					MIAMFLBRDSO		
LSE1	XMTR-MF		XMTR-MF				
NAL CAP SE		50700		50700		-50700	0
TC	2200	71500		71500		-71500	0
LNS	3500	48000		48000		-48000	0
NOS		54000		54000		-54000	0
ML	3500	48000		48000		-48000	0
CNTRX CAP		1100		1100		-1100	0
INST. NOS		70000		70000		-70000	0
UAV ASSGN		1590		1590		-1590	0
%FNOS	79.00		79.00				
INST. LNS	4096	57344		57344		-57344	0
UAV ASSGN	100	1531		1531		-1531	0
%TOTAL FILL	86.00		86.00				
LNCAP IN LNS	3500	48000		48000		-48000	0
SIZING DATE	08/01/90		11/25/92			03/19/91	
NDD DUE	06/16/90		01/25/92				
TELCO DUE	10/27/90						
TURNOVER	10/13/91		08/09/92				
GENERIC SVC							
GENERIC	1AE11.03		1AE11.03				
CONC RATIO	4:1		4:1				
ENG LSF							
ENG CCS/NAL	2.86		2.86				
DESIGN BS							
MRAJ	23.23		0.00			0.00	
PROCESSOR	-7900	54500		54500		-54500	0
CAP TRUNK	20	160		160		-160	0
DCTL TK UNIT	1					0	
LLN/LT/SM/NM	1	14		14		-14	0
LSR/LTS/*/*	4	28		28		-28	0
LSH/*/*/L32		56		56		-56	0
TSC/*/TSS/NP		44		44		-44	0
TLN/*/*/L64		1024		1024			
TOT FRS/SHL	4		0			0	
REUSE FR/SHL	3		0			0	
GROSS ADDNS	400		0			0	
EXT JOB DESC	1 DCT/ONA.LL						
%CTDIP	11.00		11.00			0.00	
JOB CAT.	A		M			0	

F02B01Z 12196 F02A017 00800

43

NAL DIV = 500



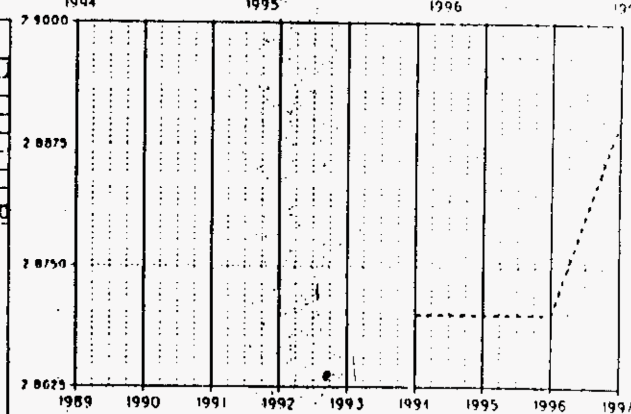
NOTES:
9904 CCS7 TRUNK SIGNALING
9926 CCS ACCESS CAPABILITY
9938 ISDN PRIMARY RATE INTERFACE (PRI)
9940 CALL FWD-DON'T-ANSWER AFTER CALL WAITING

REASON FOR REISSUE:
1817 1550 LENOX AVE OBH 1000-1100

YEAR	1989	1990	1991	1992	1993	1994	1995	1996	1997
NAL						46358(F)	47233(F)	48084(F)	48959(F)
LINES						46358	47233	48084	48959
KCCS/NAL						2.87	2.87	2.87	2.89
CCS STATUS									
NAL/LN RATIO						1.00000	1.00000	1.00000	1.00000

	1989	1990	1991
SVC			
DIS			
MR			
SIFEM			

JOBNUM	RDYSD	REQSD	SHIP
PMA4184	09/19/93	09/19/93	01/09/93
PMA3413	11/19/95	11/19/95	06/17/95
ENDJOB	07/13/97	07/13/97	02/08/97



DATE OF ISSUE: 11/25/91
EXCHANGE MIAMI
DATABASE LIVE
EO TYPE DGTL
NXX
531F 532F 534F 535F 538F 672F 673F 674F
BUILDING MIAMI LBR STATE FL
LATA SOFT/460
COMPANY SHEL AREA SHES
DIVISION SFNO DISTRICT MIRO
EXHAUST: 01/01/99
CONTACT: JLBAKER
NUMBER UNKNOWN
EO ENGINEER UNKNOWN

E. A. DATE 09/05/93
DIR CLOSE 05/14/92
DIR DELIVER 09/11/92
NAL FCST 02/15/91
CCS FCST 07/01/90
ENTITY CUT 09/19/93
ENTITY TERM 01/01/10
LATEST NAL
SWITCH HOST
ENTITY: CHART
MIAMI LBRDSO 8.2

F02B01Z 12197

F02A01Z 00808

REPORT: PARTB
PAGE: 1 OF 1
BUILDING: MIAM BEACH
ENT CUT: 09/19/93

ENTITY: MIAMFLBRDSO
ENT TERM: 01/01/10

LSDF SYSTEM
GRAPHIC PART B VERSION 1.00
DATABASE: LIVE

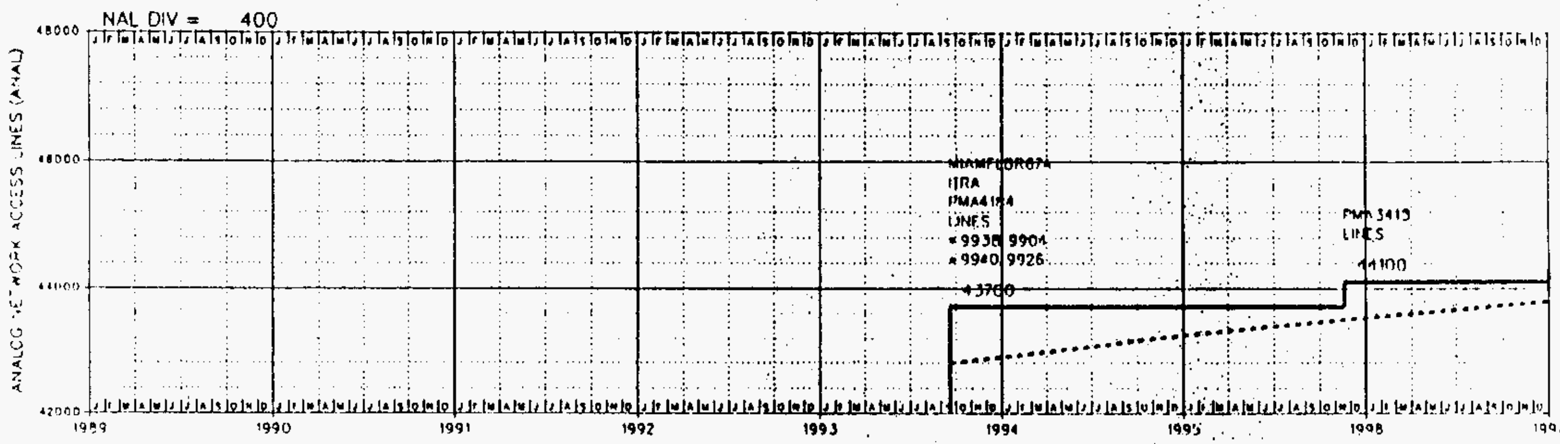
DATE: 11/25/91
TIME: 19:54:41
CHART NO.: 8.2
EQ TYPE: DGTL

JOB/ADJ/AT	1993AT1		PMA4184		PMA3413		ENDJOB	
EVENT-NUM			EVT1		EVT1		EVT1	
EVENT-DATE	09/19/93		09/19/93		11/19/95		07/13/97	
RDYSO/IDATE	09/19/93		09/19/93		11/19/95		07/13/97	
REQSD	**/**/**		09/19/93		11/19/95		07/13/97	
CAP EXH.	**/**/**		**/**/**		**/**/**		**/**/**	
SHIP DATE	**/**/**		01/09/93		06/17/95		02/08/97	
JOB DESC.	ITRA		REPL		GA		GA	
NAL TRANS	46100							
TRANS ENT	MIAMFLBR67A							
LSE1			NTW		NTW		NTW	
NAL CAP SE			67700	67700	2700	70400	2600	73000
TC			67700	67700	2700	70400	2600	73000
LNS			48300	48300	1900	50200	1200	51400
NOS			54100	54100		54100	400	54500
ML			48300	48300	1900	50200	1200	51400
CNTRX CAP			1100	1100		1100		1100
INST. NOS			70000	70000		70000		70000
UAV ASSGN			1531	1531		1531		1531
%FNOS			79.00		79.00		79.00	
INST. LNS			59328	59328	2912	62240	1824	64064
UAV ASSGN			1482	1482		1482	12	1494
%TOTAL FILL			83.46		82.75		82.15	
LNCAP IN LNS			48300	48300	1900	50200	1200	51400
SIZING DATE			03/19/91		03/13/91		03/11/91	
NDD DUE			03/07/92		08/20/94		04/13/96	
TELCO DUE			07/04/92		12/17/94		08/10/96	
TURNOVER			05/29/93		11/19/95		07/13/97	
GENERIC SVC								
GENERIC					5E8		5E8	
CONC RATIO			8:1					
ENG LSE								
ENG CCS/NAL			2.87		2.89		2.89	
DESIGN BS								
MRAJ			25.99		0.00		0.00	
PROCESSOR			100000	100000		100000		100000
CAP TRUNK /			216	216	16	232	128	360
DGTL TK UNIT			27		1			
LLN/LIT/SM/NM			29	29	1	30		30
LSR/LTS/*/*								
LSH/*/*/L32								
TSC/*/TSS/NP			216	216	14	230	5	235
TLN/*/*/L64								
TOT FRS/SHL			92		4		0	
REUSE FR/SHL			0		0		0	
GROSS ADDNS			6200		850		300	
EXT JOB DESC								
%CTDIP			11.00		11.00		11.00	
JOB CAT.			I					

F02B01Z 12198 F02A017 00809

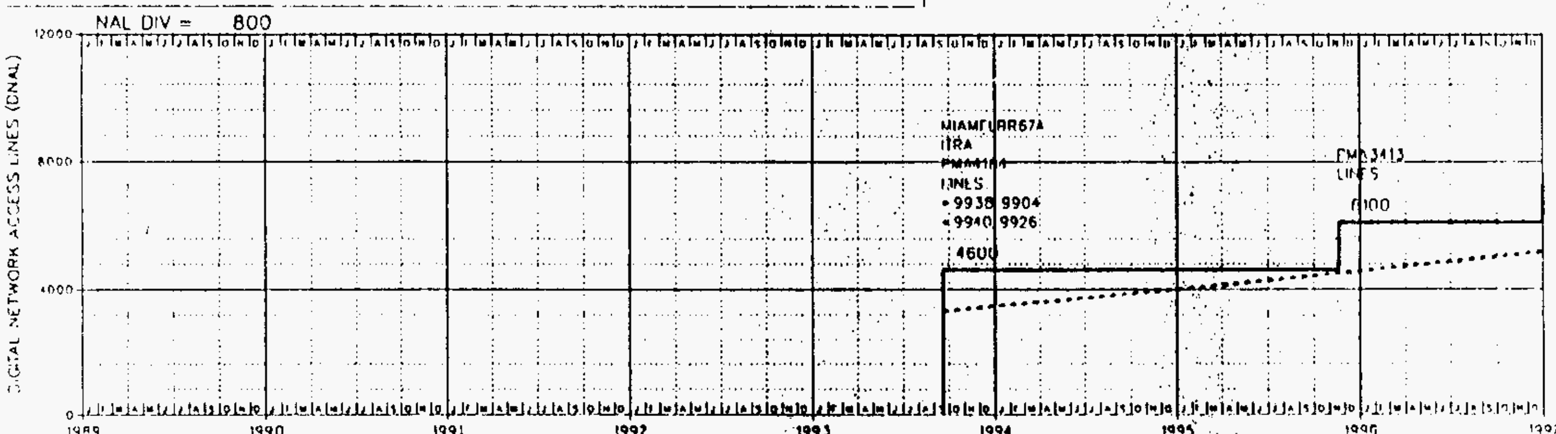
54

NAL DIV = 400



YEAR	1989	1990	1991	1992	1993	1994	1995	1996	1997
NAL						42893 (F)	43252 (F)	43526 (F)	43780 (F)
ANLG LNS						42893	43252	43526	43780
CCS/NAL						2.87	2.87	2.87	2.89
ACCS ACTUAL									
NAL/LN RATIO						1.00000	1.00000	1.00000	1.00000

NAL DIV = 800



YEAR	1989	1990	1991	1992	1993	1994	1995	1996	1997
NAL						3465 (F)	3981 (F)	4558 (F)	5179 (F)
DGTL CCS/NAL						2.87	2.87	2.87	2.89
DCCS ACTUAL									
SLC SYS						56	64	72	80
URBAN SYS								0	0
NAL/LN RATIO						1.00000	1.00000	1.00000	1.00000

NOTES:
9904 CCS7 TRUNK SIGNALING
9926 CCS ACCESS CAPABILITY
9938 ISDN PRIMARY RATE INTERFACE (PRI)
9940 CALL FWD-DON'T-ANSWER AFTER CALL WAITING

REASON FOR REISSUE:
1817 1550 LENOX AVE. OBH 1000-1100

DATE OF ISSUE: 11/25/93
EXCHANGE MIAMI
DATABASE LIVE
EO TYPE: DGTL

ANALOG

BUILDING MIAM BEACH
SWITCH HOST

LCST DATE 02/15/91
LATEST ANAL -9998998
CONTACT JL BAKER
CONTACT NO UNKNOWN
EQUIP ENGR UNKNOWN

DIGITAL

DLCFCST DATE 12/01/90

LATEST DNAL -9998998
LATEST SLC -9998998
LATEST URBN -9998998
LATEST D112 -9998998

ENTITY: MIAMFLBRDS0

CHART 8 2

F02B01Z 12199

F02A01Z 00810

916

REPORT: PART8
PAGE: 1 OF 1
BUILDING: MIAM BEACH ENTITY: MIAMFLBROSO DATABASE: LIVE
ENT CUT: 09/19/93 ENT TERM: 01/01/10

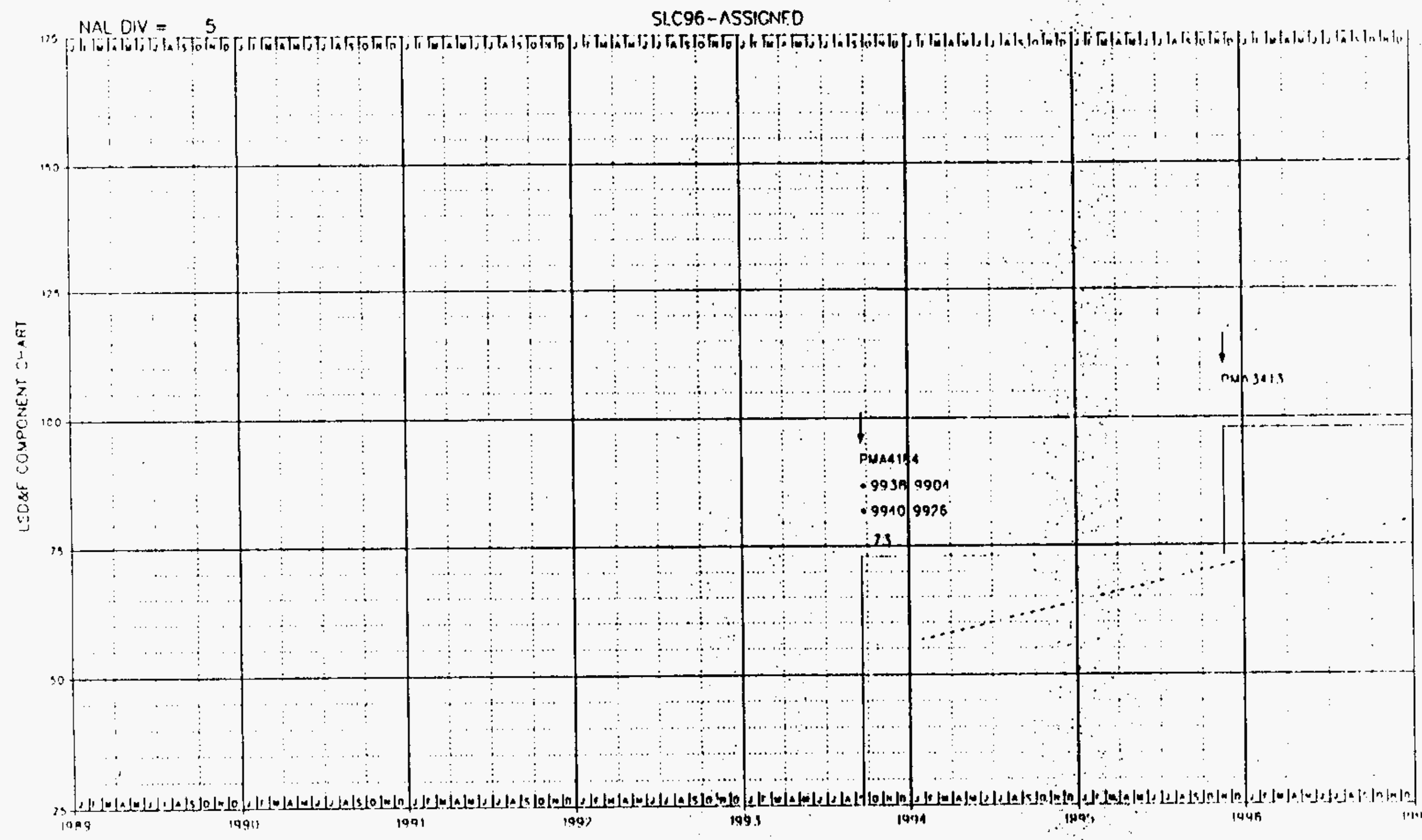
LSDF SYSTEM
DIGITAL PART 8 VERSION 1.00

DATE: 11/25/91
TIME: 19:54:41
CHART NO.: 8.2
EQ TYPE: DGTL

JOB/ADJ/AT	1993AT1		PMA4184		PMA3413		ENDJOB	
EVENT-NUM			EVT1		EVT1		EVT1	
EVENT-DATE	09/19/93		09/19/93		11/19/95		07/13/97	
RUTSO/TDATE	09/19/93		09/19/93		11/19/95		07/13/97	
REASD	**/**/**		09/19/93		11/19/95		07/13/97	
CAP EXH.	**/**/**		**/**/**		**/**/**		**/**/**	
SHIP DATE	**/**/**		01/09/93		06/17/95		02/08/97	
JOB DESC.	1TRA		REPL		CA		CA	
TRANS ENT	MIAMFLBR67A							
ANALOG SECTION ----------								
NAL TRANS	42800							
NAL CAP TC		60000	60000		60000	600	60600	
LNS		43700	43700	400	44100		44100	
ML		43700	43700	400	44100		44100	
LINE UNITS		102	102		103		103	
INST. LNS		52224	52224	512	52736		52736	
UAV ASSGN		1386	1386		1386	12	1398	
%FILL		86.00		86.00		86.00		
ALNCAP LNS		43700	43700	400	44100		44100	
AENG CCS NAL		2.87		2.89		2.89		
ANLG DEF LNS			0		0		0	
ISDN CAP TC		310	310		310	290	600	
ISDN CAP LNS		310	310		310	290	600	
ISDN CAP ML		310	310		310	290	600	
ISDN LN MUD		1	1		1		1	
ISDN INS LNS		320	320		320	704	1024	
ISDN UAV LNS		10	10		10	414	424	
ISDN %FILL		100.00		100.00		100.00		
ISDN ENG CCS		16.00		16.00		16.00		
DIGITAL SECTION ----------								
NAL TRANS	3300							
NAL CAP TC		7700	7700	2700	10400	2000	12400	
LNS		4600	4600	1500	6100	1200	7300	
ML		4600	4600	1500	6100	1200	7300	
LINE UNITS		19	19		25		30	
INST. LNS		7104	7104	2400	9504	1824	11328	
UAV ASSGN		96	96		96		96	
%FILL		65.00		65.00		65.00		
DLNCAP LNS		4600	4600	1500	6100	1200	7300	
DENG CCS NAL		2.87		2.89		2.89		
CAP SLC SYS		73	73	25	98	20	118	
ENG SLC MD 1		73	73	25	98	20	118	
ENG SLC MD2			0		0			
DEF SLC SYS			0		0			
CAP URBN SYS			0		0			
DEF URBN SYS			0		0			
CAP OMS112			0		0			
SLC DLU		19	19	6	25	5	30	
URBAN DLU			0		0		0	

F02B01Z 12200 F02A01Z 00811

47



NOTES:
9904 CCS7 TRUNK SIGNALING
9926 CCS ACCESS CAPABILITY
9938 ISDN PRIMARY RATE INTERFACE (PRI)
9940 CALL FWD - DONT - ANSWER AFTER CALL WAITING

REASON FOR REISSUE:
1817 1550 LENOX AVE OBH 1000 - 1100

DATE OF ISSUE 11/25/91
EXCHANGE MIAMI
DATABASE LIVE
FO TYPE DGTL
NXX 531F 532F 534F 535F 538F 672F 673F 674F

BUILDING MIAMLERP STATE FL
LATA 50E1/460
COMPANY SBEL AREA SOFS
DIVISION SFHO DISTRICT MIRO
EXHAUST 01/01/99
CONTACT JLBAKER
NUMBER UNKNOWN

YEAR	1989	1990	1991	1992	1993	1994	1995	1996
DEMAND/GAIN						56 (F) 8	64 (F) 8	72 (F) 8
SLC MODE 1C						0	0	0
SLC MODE 1I						56	64	72
SLC MODE 2C						0	0	0
SLC MODE 2I						0	0	0

ENTITY MIAMLERRDS0 CHART

F02B01Z 12201

F02A01Z 00812

48

404 522 7570

469

Southern Bell

715 N. Federal Highway
Hollywood, Florida 33020

File: 234.1202

January 16, 1991

Mr. R. A. Hawkins
Manager
ESAC
35A49 Southern Bell Center
Atlanta, Georgia

Mr. G. L. Miller
Manager
Network Strategic Planning
22G61 Southern Bell Center
Atlanta, Georgia
25M64

The South Florida NOC and the South Florida Tactical Planning District have requested my assistance in providing economic justification for a 1AESS replacement based on maintenance expense. The 1AESS switch that the NOC would like to see replaced is the Miami Beach 1AESS. The main reasons for the replacement request are the large number of customer complaints of static/noise and the abnormal amount of maintenance required due to the age and architecture of the installed equipment.

The planners are sympathetic to this request but must adhere to BellSouth economic guidelines when considering a switch replacement. Included in these guidelines is a maintenance cost algorithm, which is detailed in RL 90-03-026 SV, for the majority of the 1AESS offices installed in the region. The algorithm is based on a cost model for all 1AESSs in the region and BellSouth admits that there may be wire centers that differ from the model for various reasons.

Maintenance expenses greater than those defined in the model can be considered if the Operations Manager of the NOC can document, in writing, a maintenance expense 10% greater than the model. I agreed to assist the NOC in this endeavor but insisted that our assumptions be agreed to by ESAC and BellSouth Technical Support. The reason I wanted your concurrence is two fold, one, I believe BellSouth will ask one of your organizations to review our assumptions and, two, your organizations have a much broader view of 1AESS maintenance than I do.

As I mentioned earlier one of the reasons for requesting this replacement was the large number of customer reports of static/noise. We are certain that these reports are caused by resistive crosspoints in the Ferreed Networks. Since we have a method to document this problem, RXPDC, and have developed cost

models for identification and repair in several other offices I am not requesting your concurrence on this maintenance expense.

However, I am requesting your concurrence, or contention, on the abnormal amount of maintenance expense required due to the age and architecture of the installed equipment. Although we have documentation, CIMAP, to support these maintenance hours, BellSouth requires an explanation as to why these costs cannot be reduced. It is my opinion, and as I stated earlier, my perspective is somewhat limited since I can only relate to other South Florida switches, that the age and configuration of Miami Beach requires 10% more maintenance than other 1AESSs.

Attached you will find a summary of the peculiarities of this office. Please review them and let me know if you agree that a maintenance expense 10% greater than the BellSouth model, which is an average of all 1AESSs, can be expected and cannot be reduced. Regardless of whether you agree or disagree please let me know so that I can provide feedback to the South Florida NOC and Planners.

Please keep in mind that this is the oldest office in Florida having shipped in 1969 and serviced on November 15, 1970. This office was retrofitted form a 1ESS to a 1AESS in 1978 and had two strip cuts after the original service date.

Thank you in advance for your assistance on this unusual request. If you require additional information or would like to discuss this subject in more detail please call me on 305-926-8852.

Yours truly,

William H. Cyalla

Supervising Engineer
Maintenance Engineering

Attachment

WHC/zm

Miami Beach Relief 1AESS
MIAMFLBR67A
Maintenance Considerations

1. There are a total of 168 Ferreed frames with vintages of 1966 to 1977. These frames are configured across the networks in the following manner.

76 Ferreed Junctor Switch Frames

40	Line Junctor Switch Frames	1969 Vintage
20	Trunk Junctor Switch Frames	1969 Vintage
16	Trunk Junctor Switch Frames	1972 Vintage

92 Ferreed Switch Frames

8	Line Switch Frames 2:1 concentrators	1966 Vintage
32	Line Switch Frames 2:1 concentrators	1969 Vintage
20	Trunk Switch Frames	1969 Vintage
16	Trunk Switch Frames	1972 Vintage
6	Line Switch Frames 2:1 concentrators	1972 Vintage
10	Line Switch Frames 2:1 concentrators	1977 Vintage

2. Three Line Link Networks (Networks 07, 08, 09) are Hybrids, i.e. they have four (4) Remreed Line Switch Frames, 4:1 concentrators, per network and four (4) Ferreed Junctor Switch Frames per network. A.T.& T. recommended against the Hybrid configuration shortly after the installation of these networks. Remreed networks use connectorized cables between the switch and junctor frames. These cables are surface mounted on the front of the networks. In the Hybrid arrangement in Miami Beach, the cables are run from the Line Switch to the cable troughs and then wire wrapped to the Junctor Switch Frames. The cables cause so much congestion that grid replacement on the line switch frames is a nightmare.

3. Seven (7) of the Line Link Networks have Line Switch Frames spread over two aisles. The aisles are not necessarily adjacent. Due to this split aisle configuration networks 00, 02, 03, and 06 have basic home frames without mates on switch frames 4 and 5, i.e. there is one extra scanner and one less mate frame in these networks. Since all frames for a particular network are not in the same line up technicians must use a floor plan to quickly locate switch frames 5, 6, and 7 in the first seven networks. Additionally the technicians must alter the procedures they normally use when removing equipment from service or removing power from a frame since this scanner configuration is unique to Miami Beach.

4. The retrofit from a 1ESS to a 1AESS was accomplished using a Hot Slide. This resulted in abnormal cable trough congestion above the processor community. This congestion is so bad that processor bus cables have overflowed the cable rack and are being stretched by the weight of other cables.

5. There are three 1969 vintage recorded announcement frames SD-1A139, KS-12068-16 in the office. These frames are in poor condition, this is not unique to Miami Beach, and provide poor quality announcements. Since this equipment is M.D. and requires constant maintenance they should be replaced with new 13A bubble memory frames. Ongoing concentrated maintenance will be required to provide even marginally acceptable announcement quality.

6. The Trunk Distributing Frame (TDF) is split over two aisles, aisle 109 has verticals V00 to V23 and aisle 101 has verticals V24 to V29. Tie pairs are provided between the two TDFs. This configuration requires the placement of an additional jumper when servicing trunks with assignments on both frames. In order to maintain acceptable load balance the majority of new trunks will probably require the use of both frames since new peripherals, such as DCTs, appear in aisle 101 while the first seven trunk links appear in aisle 109. Additional rearrangements prompted by growth and load balance will require work between the TDFs.

7. There is a large quantity of 1969 vintage conventional, not miniturized, peripherals in this office. These peripherals require more maintenance than the newer miniturized versions since they contain magnetic latching, wire spring, and multi-contact relays that require adjustment and or cleaning. Although this is not unique to Miami Beach the quantity and age of this equipment dictates more than normal maintenance hours.

Summary of 1969 Vintage Peripherals

10	Junctor Signal Distributors
12	Supplementary Signal Distributors
22	Universal Signal Distributors
135	Miscellaneous Trunk Frames

8. Equipment installed on the original installation has a Y-splice in the cable racks due to a new Main Distributing Frame being installed, and an IDF being removed, after the original cutover. Although this does not create an inordinate amount of extra maintenance, it does result in cable trough congestion and an inability to fix any circuits which have, or develop, defects in the Y-splice. Problems in the Y-splice develop as cable for new equipment additions is placed on top of the splices.

9. Line Link Networks 00 thru 06 have 2:1 concentrators but have 8 Line Switch Frames per network resulting in 100% shared B links. The remaining LLNs have 4:1 concentrators and 4 Switch Frames per network.

~~5C~~ 53

Southern Bell

Southern Bell Center
675 West Peachtree Street, N.E.
Atlanta, Georgia 30375
404 529-8611

FILE: 234.1202

February 14, 1991

Mr. William H. Czolba
Supervising Engineer
Maintenance Engineering
715 N. Federal Highway
Hollywood, Florida 33020

Bill,

Per your letter dated January 16th, I am responding with respect to the request for accelerated replacement of the Miami Beach Relief 1AESS office. Since ESAC is a Tier II support organization concerned primarily with emergency recovery and catastrophic switch failures, we have a very limited perspective of expense associated with routine maintenance of switching systems. What I have attempted to do is to compare this office with other 1A's of similar age and size. This will hopefully provide you with a flavor for the current replacement plans for other 1A offices with similar attributes.

While looking through the planning data for Southern Bell switch replacements, I found six (6) other 1A offices which were older than the Miami Beach Relief office. Listed below is the pertinent data for these six offices, including termination dates.

Office	CLLI	Access Lines In Svc. 10/90	Service Date	Termination Date
:l Street	JCVLFLCL35E	23,806	07/19/70	05/23/92
:ollywood Main	HLWDFLMA92C	44,021	08/16/70	10/25/92
:aldwell St.	CHRLNCCA37G	48,013	08/16/70	10/08/93
ndian Creek	ATLNGAIC29A	34,950	11/01/70	01/01/99
ov-tland St.	ATLNGACS65A	25,323	10/17/70	01/30/94
eachtree Pl.	ATLNGAPP88A	32,745	07/02/67	08/28/94

F02B01Z 12206 F02A01Z 0081/

I know replacement decisions are not based solely on the age of the switch, but it certainly should be considered, as the useful life expectancy of the equipment has an impact on our ability to provide a COST EFFECTIVE acceptable grade of service to our customers.

The hardware configuration of the Miami Beach Relief office makes it unique to say the least. I could not find any other 1A office in Southern Bell which had such a diversified hardware configuration as this office. Two things which concern me the most from the hardware description are the makeup and age of the components in the Network fabric, and the excessive congestion of cables (both periphery and processor) in the cable troughs. Both of these items have potential to worsen with time and generate additional maintenance concerns.

I cannot dispute the claims of the South Florida NOC with respect to their maintenance expense for operating this switch. Therefore, it is my opinion that their request for an accelerated replacement of this office should be granted based on the reasons stated in your letter.

Should you wish to discuss this matter further, please call me at 404-529-5410.

Sincerely,

Bob Hawthorne

Manager-Southern Bell ESAC

55

File: 234.1202

April 22, 1991

Mr. William H. Czolba
Supervising Engineer
Maintenance Engineering
715 N. Federal Highway
Hollywood, Florida 33020

Bill,

Per your letter dated January 16th, 1991 to R. A. Hawkins and myself, I am responding with respect to the request for concurrence for accelerated replacement of the Miami Beach Relief 1AESS office. Your request for accelerated replacement is in large part based on additional maintenance expense incurred because of the age and the mixed technology architecture of the switch. I have reviewed the information on the Miami Beach switch and support your conclusion that an early replacement is desirable.

I agree with your assessment that the presence of the mixture of switch fabric technology (ferreed, remreed and hybrid) and the age of the hardware will cause increased maintenance cost. It is difficult to put a dollar figure on the additional cost of maintaining any particular switch, however, I agree that the information available justifies the NOC's claim of additional cost incurred in maintaining this office.

Beyond the cost issues cited above, a particular concern is the possibility of troubles that are caused by damage to the communications and control busses in the heavily loaded cable racks you described. Excessive cable congestion is not only a source of additional maintenance expense but a potential source of service interruptions as well.

Based on the above reasons and on the other reason stated in your letter, Switching Technical Support concurs that the Miami Beach office should be granted their request for accelerated replacement.

Should you have any questions or wish to discuss this further, please call me.

Jerry Johnson

for Jerry Miller
Manager - Switching Technical Support

371-3561

56

AT&T Network Systems

Western Electric® products
Suite 8
10682 Belmoral Cir. E.
Jacksonville, FL 32218
904 751-1000

April 5, 1991

J. L. BAKER
SOUTHERN BELL TELEPHONE COMPANY
Southern Bell Tower - 901 H
6451 N. Federal Highway
Ft. Lauderdale, FL 33308

Re: Southern Bell Order No. _____
AT&T Order No. _____
FT LAUDERDALE, FL CLLI - (BEACH RELIEF) N/A

This is a Letter of Agreement for $ 68,875.00 for AT&T Network Systems Installation forces to perform the following work operations. The estimate of $ 67,875.00 is for Installation Labor, $ 0 is for Drawing Updates, and $ 1,000.00 is for miscellaneous A-Codes.

1. Provide one [1] installer to perform maintenance work in 1A switch, under Southern Bell supervision for a total of 25 weeks. This work will include the Resistive Crosspoint Test. This work will be at the Beach Relief Office.

   NOTE 1: All material and parts will be furnished by Southern Bell.

   NOTE 2: This quote covers all cost, such as nightshift of local assignment but does not include any monies for overtime. If overtime is worked, a supplement letter will be issued.

Unless otherwise noted above, no material costs are included in this Firm Price Quote. Any material not provided by Southern Bell and necessary for the installation of the equipment on this project will be ordered through the Installers requisition process with the approval of the Southern Bell Engineer. These material costs will be billed separately.

This Firm Price Quote does not include any monies for premium time. If premium time is required due to circumstances not controlled by AT&T Network Systems, an approval letter must be written by the Southern Bell Engineer and the additional cost will be billed to this order as incurred.

F02B01Z 12209 F02A01Z 00820

04 05 91 03:49 PM P02

57

If additional services are required, this Firm Price Quote can be supplemented. A supplement letter to the Southern Bell Engineer from the Operations Service manager will be required.

Please return this original approved letter to our Jacksonville address. We will process this quote through our Accounting department to bill you through the normal procedure.

Copies of your T.E.O. should be forwarded in the normal manner to our Customer Service Dept. #1280404120, Attn: R. G. Gilchrist.

The actual job schedule will be established on receipt of your TEO by our Customer Service department in Atlanta.

If we may be of further assistance, please call.

RIL/cs

R. I. LAMBRIGHT,
Operations Area Manager - Sales

SOUTHERN BELL T&T CO. APPROVAL:_____ Date:_____

Engineer:

Responsibility Code: _____

Account Code: _____

Area: _____

Authority: _____

File # 5603

Copy to:
C. R. Bracker

F02B01Z 12210 F02A01Z 00821

04 05 91 03:49 PM P03

1988-GO FOR THE GOLD

12/15/88 Call from Jerry Ruckle of JDW requesting 30 more 242A Switches @ 384.80 = $11,544.

October 28, 1988

1-31-88 Call from Jerry Ruckle requesting 6 8 more week in labor & 300 more appliques advised JDW
300 appliques @ 10.50 ea $ 3150
$33 hr * 40 hrs/wk * 8 wks $10,560
Expenses $150/day * 20 days 8400
22,110

MEMO TO: John Walker
Equipment Engineer

CATCH THE FEVER
TEAM FLORIDA

I have obtained a Keep Cost Number (KCX3019) from Marcella and established a routine project number in BCAS (EA2379) for the repair work we discussed in FT. Lauderdale Main Relief 76A. Bill Czolba from Maintenance Engineering provided the following anticipated costs for the job. In speaking with Al Benson, he felt that the work should be charged to 77R.

Material:		
300 appliques @ $10.50 ea.	$ 3150	6300
50 242A switches comcode 100738350 @ $384.80 ea.	19240	30784
10 242B switches comcode 100738368 @ $423.20 ea.	4232	4232
10 242C switches comcode 100738376 @ $483.20 ea.	4832	4832
Total	$31454	46148
Tax	1887	2769
Material Total	$33341	48917
Labor:		
$33/hr * 40hrs/week * 10 weeks	$13200	23760
Expenses $150/day * 70days (estimate)	10500	18900
Telco Labor and engineering (estimate)	4550	400
Other	9	23
Labor Total	$28259	43083
Total 77R	$61600	92 000

Please contact Bill Czolba at 305-926-8852 if you have any questions on the actual work content or purpose. I will also be available to help in any way I can.

Sheila K. Harwell

Senior Engineer
305-492-3516

F02B01Z 12211 F02A01Z 00822

COPY TO - IVETTE

T. G. Calvert
Operations Manager
Network

Southern Bell

7757 W. Flagler Street, Room 280
Miami, Florida 33144
(305) 263-4210

59

October 17, 1991

Mr. R. F. Hausmann
Operations Manager
Tactical Planning-South
Ft. Lauderdale, Florida

Dear Bob:

In response to you letter dated July 1st, 1991, We have obtained detailed quantification of the maintenance costs for the Beach Relief office. These costs are in excess of normal maintenance and are caused by the advanced age and poor condition of the switching equipment in that central office. The following break-down is for an average one month period:

Quantity	Equipment	Cost	Labor(Loaded rate $24.93/hour)
4	242A or 242C switches	$1680.00	$199.44
16	241A switches	$6400.00	$598.32
9	Ferreed controller failures		$561.00
15	MT type service circuits		$280.00
	NOC personnel technical assistance to field		$248.00
	TOTAL	$8080.00	$1887.22

~~57~~

60

Attached also find documentation from CIMAP and COSMOS sources to document the inordinate amount of ferreed related equipment out of service in the Beach Relief office. I am sure that this will be ample evidence of the need for a speedy replacement of this switch.

If there are any questions, They may be directed to Enrique Polo at 644-4120.

Sincerely,

Operations Manager

EPP

Attachments

cc. Vince Rubiera
Warren Davis
Bill Czolba
Stan Susky
Paul Carlson

CENTER MIAMFLCCM02 CRAFT ALTAS HDF
DATE 092691 TOUR D TRICK S1D
TOTAL TIME 00:00 ARC CODE N2209305 EMP. NAME F. HURLOCK-DICK
WORK LOC MIAMFLBR

TIME	PCT	JEP	MTR	EC	WORK ID	LOCATION	TYPE	UNITS	TRACKING KEY/REPORT
	RLD		77R		205SP0001	MIAMFLBR	TE	001	*LJF073C0 FRR & FSCN
	RLD		77R		261PM0023	MIAMFLBR	ZOOIN	001	SB_BKUPTAPES
	RLD		77R		225SP0033	MIAMFLBR	TF	001	*LJF030C0
	RLD		77R		246SP0006	MIAMFLBR	JNN	001	*JNN042223
	RLD		77R		252SP0012	MIAMFLBR	JNN	001	*JCT041004
	RLD		77R		252SP0013	MIAMFLBR	JNN	001	*JCT042223
	RLD		77R		252SP0015	MIAMFLBR	JNN	001	*JCT043261
	RLD		77R		267SP0002	MIAMFLBR	TE	001	*LINK,FAB LIST
			77R		268SP0011	MIAMFLBR	TE	001	*LJF031GRTD3
			77R		269SP0001	MIAMFLBR	TE	001	*TJF051FAILSDGN
	RLD		7R		250SP0034	MIAMFLBR	SVC	001	*TNN093335TG097DGN
	RLD		77R		250SP0050	MIAMFLBR	SVC	001	TNN100111TG180DGN
	RLD		77R		250SP0053	MIAMFLBR	SVC	001	TNN083374TG180DGN
	RLD		77R		250SP0061	MIAMFLBR	SVC	001	TNN033250TG180DGN
	RLD		77R		250SP0073	MIAMFLBR	SVC	001	TNN090117TG198DGN
	RLD		77R		126SP0023	MIAMFLBR	SVC1	001	TNN043312TG180
	RLD		77R		250SP0046	MIAMFLBR	SVC	001	TNN102107TG180DGN
			77R		267SP0166	MIAMFLBR	SVC	001	TG:104
			77R		267SP0167	MIAMFLBR	SVC	001	TG:105

CENTER NOTE:

* Items on EMPLOYEES LOAD RELATED TO FERREED FRAMES

F02B01Z 12214 F02A01Z 00825

CENTER: MIAMFLCOMM2 WORK CODE: SP

LOCATION: MIAMFLBR STATUS: T WORK-TYPE:

~~54~~ 62

WORK-ID / PRI	LOCATION / STAT	WK-TYPE / JEP	TRACKING-KEY / LWTR:ALIAS/DT/TOUR	REF-TO:CENTER/LOCATION R/T / DUE-DT/TM	LOADED-DT/TM	ENTRY-DT/TM	EST-TM
267SP0159	MIAMFLBR	SVC	TG:50:TNN061355				
5	T		092491		092491	14:52	00:10
267SP0160	MIAMFLBR	SVC	TG:78:TNN002145				
08	T		092491		092491	14:54	00:10
267SP0161	MIAMFLBR	SVC	TG:85				
08	T		092491		092491	14:55	00:10
267SP0162	MIAMFLBR	SVC	TG:87				
08	T		092491		092491	14:56	00:10
267SP0163	MIAMFLBR	SVC	TG:95				
08	T		092491		092491	14:56	00:10
267SP0164	MIAMFLBR	SVC	TG:97				
08	T		092491		092491	14:57	00:10
267SP0165	MIAMFLBR	SVC	TG:99				
08	T		092491		092491	14:58	00:10
267SP0168	MIAMFLBR	SVC	TG:110				
08	T		092491		092491	15:00	00:10
267SP0169	MIAMFLBR	SVC	TG:111				
08	T		092491		092491	15:01	00:10
267SP0170	MIAMFLBR	SVC	TG:112				
08	T		092491		092491	15:01	00:10
267SP0171	MIAMFLBR	SVC	TG:112				
08	T		092491		092491	15:02	00:10
267SP0172	MIAMFLBR	SVC	TG:175				
08	T		092491		092491	15:02	00:10
267SP0173	MIAMFLBR	SVC	TG:179				
08	T		092491		092491	15:03	00:10
267SP0174	MIAMFLBR	SVC	TG:180				
08	T		092491		092491	15:04	00:10
267SP0176	MIAMFLBR	SVC	TG:181				
08	T		092491		092491	15:05	00:10
267SP0177	MIAMFLBR	SVC	TG:188				
08	T		092491		092491	15:06	00:10
267SP0179	MIAMFLBR	SVC	TG:188				
08	T		092491		092491	15:06	00:10
267SP0180	MIAMFLBR	SVC	TG:199				
08	T		092491		092491	15:07	00:10
267SP0183	MIAMFLBR	SVC	TG:425				
08	T		092491		092491	15:19	00:10
267SP0184	MIAMFLBR	SVC	TG:433				
08	T		092491		092491	15:20	00:10
267SP0020	MIAMFLBR	LINK	*TJC0830114LSUPF-FSCN				
15	T		072590		072590	15:25	01:30
337SP0020	MIAMFLBR	LINK	*TJJ0330010LSUPF				
15	T		120390		120390	11:28	01:30
011SP0008	MIAMFLBR	LINK	*LJJ0530140SSUPF				
15	T		011191		011191	10:20	01:30
015SP0008	MIAMFLBR	LINK	*TJC0130223LFCGF				
5	T		011591		011591	09:28	01:30
055SP0002	MIAMFLBR	LINK	*LSA0470451L				
15	T		022791		022791	08:42	01:30

F02B01Z 12215 F02A01Z 00826

LOCATION: MIAMFLBR STATUS: T WORK-TYPE:

63

WORK-ID LOCATION WK-TYPE TRACKING-KEY REF-TO:CENTER/LOCATION R/T
PRI STAT JEP LWTR:ALIAS/DT/TOUR DUE-DT/TM LOADED-DT/TM ENTRY-DT/TM EST-TM

268N10004 MIAMFLBR TACT SFC055087/1-3
2 T 092591 11:13 092591 10:13 01:00

CC0012I PRINT SUCESSFUL 1 WORK REQUESTS LISTED

F02B01Z 12216 F02A01Z 0082/

CENTER: MIAMFLBR WORK CODE: SF
LOCATION: MIAMFLBR STATUS: T WORK-TYPE:

64

WORK-ID	LOCATION	WK-TYPE	TRACKING-KEY	REF-TO:CENTER/LOCATION R/T
PRI STAT	JEP LWTR:ALIAS/DT/TOUR	DUE-DT/TM	LOADED-DT/TM	ENTRY-DT/TM EST-TM
226SP0016	MIAMFLBR	LINKM*LSB0721123LFCGF		
.5 T		081491	081491	13:39 01:30

CCC0121 PRINT SUCESSFUL 51 WORK REQUESTS LISTED

F02B01Z 12217 F03A01Z 00828

CENTER: MIAMFLCCM02 WORK CODE: SP
LOCATION: MIAMFLBR STATUS: I WORK-TYPE:

~~60~~ 65

WORK-ID PRI	LOCATION STAT	JEP	WK-TYPE TRACKING-KEY LWTR:ALIAS/DT/TOUR	DUE-DT/TM	REF-ID:CENTER/LOCATION	R/T LOADED-DT/TM	ENTRY-DT/TM	EST-TM
105SP0007	MIAMFLBR		LINK TJJ04000421SUPF					
5	T			041591			041591	10:22 01:30
115SP0012	MIAMFLBR		LINK LJC0930021LSUPF					
15	T	HDF	061191 D	042591		061191 04:20	042591	10:53 01:30
115SP0013	MIAMFLBR		LINK TJJ04003041SUPF					
5	T			042591			042591	10:54 01:30
122SP0010	MIAMFLBR		LINK LJJ1010023LSUPF					
15	T	HDF	061191 D	050291		061191 04:22	050291	11:53 01:30
133SP0007	MIAMFLBR		LINK TJC0410010LSUPF					
15	T			051391			051391	11:17 01:30
133SP0008	MIAMFLBR		LINK TJJ0410361LSUPF					
15	T			051391			051391	11:18 01:30
164SP0007	MIAMFLBR		LINK TJJ0310133L					
5	T			061391			061391	09:15 01:30
224SP0006	MIAMFLBR		LINK LJJ0820332L					
15	T			081291			081291	12:21 01:30
224SP0007	MIAMFLBR		LINK LJJ0820312L					
15	T			081291			081291	12:22 01:30
235SP0023	MIAMFLBR		LINK LJJ0730000S_SSW_MB					
15	T			082391			082391	15:19 01:30
253SP0019	MIAMFLBR		LINK TJJ0510143LFCGF					
15	T			091091			091091	15:44 01:30
266SP0011	MIAMFLBR		LINK TJC0800114LSUPF					
15	T			092391			092391	15:12 01:30
289SP0011	MIAMFLBR		LINKM LSB0020012L					
15	T			101690			101690	13:44 01:30
2	SP0012	MIAMFLBR	LINKM LJJ0800262L					
15	T	HDF	061391 D	031291		061391 05:49	031291	10:51 01:30
088SP0004	MIAMFLBR		LINKM LJJ0800244L					
15	T			032991			032991	08:51 01:30
115SP0007	MIAMFLBR		LINKM TSA0630234LSUPF					
15	T	HDF	061191 D	042591		061191 04:21	042591	10:50 01:30
115SP0009	MIAMFLBR		LINKM LSB0161233LFCGF					
15	T			042591			042591	10:52 01:30
115SP0011	MIAMFLBR		LINKM LSA0160613LFCGF					
15	T			042591			042591	10:52 01:30
122SP0011	MIAMFLBR		LINKM LSB0721123LFCGF					
15	T			050291			050291	11:53 01:30
126SP0002	MIAMFLBR		LINKM TSA0000037LFCGF					
5	T			050691			050691	08:34 01:30
133SP0009	MIAMFLBR		LINKM TSA0400240LSUPF					
15	T			051391			051391	11:18 01:30
133SP0010	MIAMFLBR		LINKM TSB0120157LSUPF					
15	T			051391			051391	11:19 01:30
137SP0026	MIAMFLBR		LINKM TJJ0300357L					
15	T			051791			051791	14:08 01:30
137SP0027	MIAMFLBR		LINKM TJJ0410344L					
5	T			051791			051791	14:09 01:30
137SP0028	MIAMFLBR		LINKM TJJ0330032L					
15	T			051791			051791	14:19 01:30

66

Mia. Beach

LOE - LINE EQUIPMENT LIST

DEFECTIVE OE's

EQUIPMENT TYPE: 1ES
INPUT RANGE: 0??-???-???
PRINT OPTIONS:
CONDITIONS: STO DEF

OE - ID	STO	LF	LS	AY	US	CS	ECS	FEA	EQF	RTZ	LOC	SEQ NO/RMKS
000-017-200	DEF	1					PB		TNNG	0	F16033	
000-103-001	DEF	1					1R		TNNL	0	F10003	
000-116-302	DEF	1					PB		TNNG	0	F16031	
000-200-001	DEF	6					HB		TNNL	0	F10015	
000-216-403	DEF	1					1R		TNNL	0	F16025	
000-217-401	DEF	9					HB		TNNL	0	F16025	
000-303-402	DEF	2					1R		TNNL	0	F10013	
000-307-302	DEF	2					HB		TNNL	0	F10003	
000-312-301	DEF	7					1R		TNNL	0	F16033	
000-403-400	DEF	1					PB		TNNG	0	F10011	
000-411-300	DEF	7					1R		TNNL	0	F16027	
000-413-402	DEF	6					PB		TNNG	0	F16031	
000-417-200	DEF	1					1B		TNNG	0	F16039	
000-504-500	DEF	9					1B		TNEL	0	F10009	
000-516-203	DEF	9					PB		TNNL	0	F16033	
000-603-102	DEF	3					HB		TNNG	0	F10003	
000-607-101	DEF	4					1R		TNNL	0	F10011	
000-713-100	DEF	9					1R		TNEL	0	F16039	
000-713-300	DEF	9					1B		TNNL	0	F16039	
000-713-302	DEF	9					1R		TNNL	0	F16039	
000-716-102	DEF	9					1B		TNNL	0	F16025	
000-717-703	DEF	8					1B		TNNL	0	F16025	
001-013-002	DEF	1					1R		TNNL	0	F16033	
001-013-102	DEF	1					1B		TNNL	0	F16033	
001-013-402	DEF	1					1R		TNNL	0	F16033	
001-107-201	DEF	7					1R		TNNL	0	F10019	
001-112-503	DEF	9					1B		TNNL	0	F16031	
001-116-200	DEF	8					1R		TNNL	0	F16039	
001-201-500	DEF	1					1R		TNEL	0	F10001	
001-206-101	DEF	5					1B		TNNL	0	F10013	095CM0002
001-207-402	DEF	2					PB		TNNG	0	F10013	
001-212-501	DEF	8					1R		TNNL	0	F16025	095CM0003
001-215-002	DEF	3					1R		TNNL	0	F16029	
001-305-300	DEF	1					PB		TNNG	0	F10007	
001-307-003	DEF	4					1R	TNNL	TNNL	0	F10011	
001-307-200	DEF	4					PB		TNNG	0	F10011	
001-312-600	DEF	1					1R		TNNL	0	F16023	
001-313-402	DEF	5					1R		TNNL	0	F16023	
001-402-303	DEF	2					1R		TNNL	0	F10019	095CM0005
001-406-003	DEF	3					1R		TNNL	0	F10005	
001-413-402	DEF	8					1B		TNNL	0	F16039	
001-505-702	DEF	5					1R		TNNL	0	F10017	
001-511-403	DEF	8					PB		TNNL	0	F16029	
001-513-402	DEF	5					1R		TNNL	0	F16033	

F02B01Z 12219

67

OE - ID	STO	LF	LS	AY	US	CS	ECS	FEA	EQF	RTZ	LOC	SEQ NO/RMKS
001-513-700	DEF	5					HB		TNNG	0	F16033	
001-516-001	DEF	5					1B		TNNL	0	F16023	
001-600-700	DEF	8					HB		TNNG	0	F10007	
001-606-103	DEF	7					1B		TNNL	0	F10019	
001-610-201	DEF	9					PB		TNNL	0	F16027	
001-615-600	DEF	4					1R		TNNL	0	F16035	
001-616-002	DEF	8					1R		TNNL	0	F16039	
001-616-201	DEF	8					PB		TNNL	0	F16039	
001-617-701	DEF	2					1R		TNNL	0	F16039	
001-705-102	DEF	9					HB		TNNL	0	F10009	
001-713-102	DEF	4					PB		TNNG	0	F16025	
001-713-303	DEF	4					1R		TNNL	0	F16025	
001-713-402	DEF	4					1R		TNNL	0	F16025	
001-715-400	DEF	7					1R		TNNL	0	F16029	
001-717-201	DEF	3					1R		TNNL	0	F16033	
002-000-600	DEF	2					1B		TNNL	0	F10017	
002-002-200	DEF	1					1R		TNNL	0	F10003	
002-013-402	DEF	3					1B		TNNL	0	F16023	
002-104-501	DEF	4					1R		TNNL	0	F10001	
002-112-100	DEF	5					1R		TNEL	0	F16039	
002-113-402	DEF	6					1R		TNNL	0	F16039	DEF
002-201-703	DEF	4					1R		TNNL	0	F10009	
002-203-503	DEF	5					1R		TNNL	0	F10013	
002-205-400	DEF	1					1R		TNNL	0	F10017	
002-206-002	DEF	3					1R		TNNL	0	F10003	
002-213-402	DEF	2					1R		TNNL	0	F16033	
002-213-702	DEF	2					PB		TNNG	0	F16033	
002-304-402	DEF	5					1R		TNNL	0	F10015	
002-313-100	DEF	2					1R		TNEL	0	F16031	
002-317-600	DEF	1					1B		TNNL	0	F16039	
002-401-503	DEF	2					1R		TNNL	0	F10002	
002-410-002	DEF	2					1B		TNNL	0	F16022	
002-412-202	DEF	3					PB		TNNG	0	F16026	
002-415-503	DEF	9					1R		TNNL	0	F16030	
002-417-300	DEF	9					1R		TNNL	0	F16034	095CM0006
002-417-403	DEF	9					1B		TNNL	0	F16034	
002-500-700	DEF	8					PB		TNNG	0	F10018	
002-511-200	DEF	10					1B		TNNL	0	F16038	
002-602-001	DEF	3					1R		TNNL	0	F10020	
002-603-103	DEF	3					1R		TNNL	0	F10020	
002-616-201	DEF	5					1R		TNNL	0	F16026	
002-617-500	DEF	5					1B		TNEL	0	F16026	097CM0009
002-705-102	DEF	5					1B		TNNL	0	F10018	
002-707-001	DEF	3					1R		TNNL	0	F10004	
002-707-500	DEF	3					1R		TNEG	0	F10004	
002-716-002	DEF	8					PB		TNNL	0	F16024	
002-716-702	DEF	8					PB		TNNL	0	F16024	
002-717-500	DEF	4					PB		TNEL	0	F16024	
003-013-200	DEF	3					PB		TNNG	0	F16032	
003-015-300	DEF	4					1B		TNNL	0	F16036	
003-101-402	DEF	1					1B		TNNL	0	F10002	

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OE - ID	STO	LF	LS	AY	US	CS	ECS	FEA	EQF	RTZ	LOC	SEQ NO/RMKS
003-110-100	DEF	3					1R		TNEL	0	F16022	
003-110-101	DEF	3					1B		TNNL	0	F16022	
003-113-200	DEF	1					PB		TNNG	0	F16026	
003-200-202	DEF	4					1R		TNNL	0	F10018	
003-206-301	DEF	7					1R		TNNL	0	F10012	
003-211-701	DEF	7					1R		TNNL	0	F16038	
003-315-002	DEF	1					1B		TNNL	0	F16022	
003-315-101	DEF	1					1R		TNNL	0	F16022	097CM0010
003-316-202	DEF	4					PB		TNNG	0	F16026	
003-317-401	DEF	8					1R		TNNL	0	F16026	
003-401-702	DEF	3					1R		TNNL	0	F10010	
003-404-001	DEF	1					1R		TNNL	0	F10018	
003-500-000	DEF	3					PB		TNNG	0	F10008	
003-510-300	DEF	5					HB		TNNG	0	F16028	
003-511-700	DEF	3					1R		TNNL	0	F16028	
003-511-701	DEF	3					1R		TNNL	0	F16028	
003-511-703	DEF	3					1R		TNNL	0	F16028	
003-515-700	DEF	7					HB		TNNL	0	F16036	097CM0011
003-516-201	DEF	1					1R		TNNL	0	F16040	
003-516-700	DEF	1					1R		TNNL	0	F16040	
003-600-703	DEF	2					1R		TNNL	0	F10002	097CM0012
003-603-402	DEF	6					PB		TNNG	0	F10006	
003-606-001	DEF	9					1R		TNNL	0	F10014	
003-615-300	DEF	7					1B		TNNL	0	F16030	
003-700-401	DEF	5					1B		TNNL	0	F10018	
003-702-000	DEF	1					1B		TNNL	0	F10004	
003-706-203	DEF	5					1B		TNNL	0	F10012	
003-713-300	DEF	1					1R		TNNL	0	F16024	
003-713-701	DEF	1					1R		TNNL	0	F16024	097CM0013
003-717-302	DEF	5					PB		TNNL	0	F16032	
003-717-402	DEF	5					PB		TNNL	0	F16032	
004-013-200	DEF	7					1B		TNNL	0	F16040	
004-014-400	DEF	2					1B		TNNL	0	F16022	
004-015-000	DEF	4					1R		TNNL	0	F16022	.0214-083
004-015-002	DEF	4					1R		TNNL	0	F16022	
004-015-003	DEF	4					1R		TNNL	0	F16022	
004-102-103	DEF	3					HB		TNNL	0	F10014	
004-111-500	DEF	8					1B		TNEL	0	F16030	
004-112-003	DEF	2					1R		TNNL	0	F16034	
004-114-502	DEF	6					1B		TNNL	0	F16038	100CM0005
004-201-602	DEF	1					1B		TNNL	0	F10008	
004-217-302	DEF	1					HB		TNNL	0	F16040	
004-315-002	DEF	3					1B		TNNL	0	F16030	
004-317-700	DEF	1					HB		TNNG	0	F16034	
004-403-602	DEF	2					1R		TNNL	0	F10004	
004-407-001	DEF	2					1R		TNNL	0	F10012	
004-407-002	DEF	2					1R		TNNL	0	F10012	
004-415-201	DEF	8					1R		TNNL	0	F16028	
004-501-500	DEF	6					1B		TNEL	0	F10016	
004-511-300	DEF	6					PB		TNNG	0	F16036	
004-514-103	DEF	1					1R		TNNL	0	F16022	

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OE - ID	STO	LF	LS	AY	US	CS	ECS	FEA	EQF	RTZ	LOC	SER NO/RMKS
004-515-503	DEF	4					1R		TNNL	0	F16022	100CM0006
004-606-403	DEF	7					HB		TNNL	0	F10004	
004-704-603	DEF	9					1B		TNNL	0	F10016	
004-705-202	DEF	3					1B		TNNL	0	F10016	
004-712-100	DEF	4					1B		TNEL	0	F16032	
005-000-200	DEF	1					1R		TNNL	0	F10001	
005-000-503	DEF	1					1B		TNNL	0	F10001	
005-000-601	DEF	1					1B		TNNL	0	F10001	
005-110-003	DEF	3					1R		TNNL	0	F16037	
005-111-403	DEF	9					1R		TNNL	0	F16037	
005-112-501	DEF	6					HB		TNNL	0	F16023	
005-115-002	DEF	7					1R		TNNL	0	F16027	
005-117-501	DEF	7					1B		TNNL	0	F16031	
005-203-100	DEF	9					PB		TNEG	0	F10019	100CM0007
005-203-702	DEF	9					PB		TNNL	0	F10019	
005-303-302	DEF	3					1R		TNNL	0	F10013	
005-316-000	DEF	8					1R		TNNL	0	F16023	
005-402-401	DEF	7					1R		TNNL	0	F10011	
005-403-002	DEF	2					PB		TNNG	0	F10011	
005-406-100	DEF	1					1R		TNNL	0	F10019	
005-407-400	DEF	7					PB		TNNL	0	F10019	
005-412-102	DEF	7					PB		TNNG	0	F16031	
005-415-300	DEF	4					1B		TNNL	0	F16035	
005-502-602	DEF	3					1B		TNNL	0	F10005	100CM0008
005-517-003	DEF	8					1B		TNNL	0	F16033	
005-617-600	DEF	9					1R		TNNL	0	F16031	
005-702-601	DEF	1					1B		TNNL	0	F10019	
005-704-102	DEF	2					1B		TNNL	0	F10001	
005-704-300	DEF	2					1R		TNNL	0	F10001	
005-711-300	DEF	1					PB		TNNG	0	F16035	
005-717-100	DEF	1					1R		TNEL	0	F16025	
006-003-103	DEF	2					1R		TNNL	0	F10013	
006-010-301	DEF	5					1R		TNNL	0	F16029	100CM0009
006-010-603	DEF	5					1R		TNNL	0	F16029	100CM0010
006-014-202	DEF	1					1B		TNNL	0	F16037	
006-110-001	DEF	9					1R		TNNL	0	F16027	
006-113-500	DEF	3					PB		TNEG	0	F16031	
006-113-502	DEF	3					PB		TNNL	0	F16031	
006-200-502	DEF	1					1B		TNNL	0	F10001	
006-201-500	DEF	1					1R		TNEL	0	F10001	
006-204-303	DEF	1					1B		TNNL	0	F10009	100CM0011
006-204-502	DEF	1					HB		TNNG	0	F10009	
006-207-200	DEF	4					1R		TNEL	0	F10013	
006-211-001	DEF	1					1R		TNNL	0	F16021	100CM0012
006-217-500	DEF	9					PB		TNEG	0	F16033	
006-305-701	DEF	2					PB		TNNL	0	F10007	
006-307-102	DEF	2					PB		TNNL	0	F10011	
006-314-601	DEF	4					1R		TNNL	0	F16027	100CM0013
006-400-102	DEF	8					1R		TNNL	0	F10015	
006-601-300	DEF	2					PB		TNNG	0	F10007	
006-611-001	DEF	1					HB		TNNL	0	F16027	

OE - ID	STO	LF	LS	AY	US	CS	ECS	FEA	EQF	RTZ	LOC	SEQ NO/RMKS
006-615-201	DEF	3					1R		TNNL	0	F16035	
006-616-300	DEF	1					PB		TNNG	0	F16039	
006-716-402	DEF	6					PB		TNNG	0	F16033	
007-006-013	DEF	3					1R		TNNL	0	F10011	
007-023-013	DEF	1					1B		TNNL	0	F16023	
007-024-200	DEF	4					1B		TNNL	0	F16027	
007-026-200	DEF	1					PB		TNNG	0	F16031	
007-027-307	DEF	2					1R		TNNL	0	F16031	
007-106-008	DEF	3					1R		TNNL	0	F10005	101CM0001
007-121-011	DEF	7					1B		TNNL	0	F16035	
007-124-200	DEF	4					PB		TNNG	0	F16021	
007-204-004	DEF	4					1R		TNEL	0	F10018	
007-223-108	DEF	8					1B		TNNL	0	F16034	
007-227-207	DEF	2					1R		TNNL	0	F16024	
007-227-304	DEF	2					1R		TNEL	0	F16024	
007-300-111	DEF	2					1R		TNNL	0	F10008	
007-305-204	DEF	6					1B		TNEL	0	F10016	
007-306-102	DEF	6					1R		TNNL	0	F10020	
007-306-103	DEF	6					1R		TNNL	0	F10020	101CM0002
007-307-014	DEF	2					1R		TNNL	0	F10020	101CM0003
007-320-112	DEF	4					1R		TNNL	0	F16028	101CM0004
007-326-303	DEF	6					1R		TNNL	0	F16040	
008-000-004	DEF	1					1R		TNEL	0	F10002	
008-004-312	DEF	4					1R		TNNL	0	F10010	101CM0005
008-006-100	DEF	6					1R		TNNL	0	F10014	
008-020-009	DEF	4					1R		TNNL	0	F16022	
008-020-301	DEF	4					1R		TNNL	0	F16022	
008-022-200	DEF	6					PB		TNNG	0	F16026	
008-023-114	DEF	6					PB		TNNL	0	F16026	
008-026-303	DEF	8					1R		TNNL	0	F16034	
008-027-000	DEF	2					PB		TNNG	0	F16034	
008-027-102	DEF	2					1R		TNNL	0	F16034	
008-100-312	DEF	1					1R		TNNL	0	F10018	
008-100-315	DEF	1					1R		TNNL	0	F10018	
008-121-011	DEF	3					1R		TNNL	0	F16038	
008-126-103	DEF	6					1R		TNNL	0	F16032	101CM0007
008-127-310	DEF	6					1R		TNNL	0	F16032	101CM0008
008-204-111	DEF	1					1R		TNNL	0	F10002	
008-205-002	DEF	1					1B		TNNL	0	F10002	
008-207-309	DEF	9					1R		TNNL	0	F10006	
008-222-310	DEF	5					1B		TNNL	0	F16040	.0221-170
008-224-301	DEF	6					1R		TNNL	0	F16022	
008-226-305	DEF	1					1R		TNNL	0	F16026	
008-226-313	DEF	1					1R		TNNL	0	F16026	
008-300-306	DEF	7					1R		TNNL	0	F10010	
008-303-209	DEF	8					1R		TNNL	0	F10014	
008-304-011	DEF	3					1R		TNNL	0	F10018	101CM0017
008-304-111	DEF	3					1R		TNNL	0	F10018	101CM0018
008-304-211	DEF	3					1R		TNNL	0	F10018	101CM0019
008-304-311	DEF	3					1R		TNNL	0	F10018	101CM0020
008-304-314	DEF	3					1B		TNNL	0	F10018	

OE - ID	STO	LF	LS	AY	US	CS	ECS	FEA	EQF	RTZ	LOC	SEQ NO/RMKS
008-320-000	DEF	2					PB		TNNG	0	F16030	
008-325-008	DEF	1					1R		TNNL	0	F16038	
008-326-200	DEF	4					PB		TNNG	0	F16024	
008-327-111	DEF	4					1R		TNNL	0	F16024	101CM0021
009-002-110	DEF	3					1R		TNNL	0	F10012	
009-020-007	DEF	9					1R		TNNL	0	F16028	
009-020-206	DEF	9					1R		TNNL	0	F16028	
009-023-206	DEF	5					1R		TNNL	0	F16032	
009-025-301	DEF	7					1R		TNNL	0	F16036	
009-027-104	DEF	6					1R		TNEL	0	F16040	
009-103-000	DEF	4					PB		TNNG	0	F10006	
009-103-213	DEF	4					PB		TNNL	0	F10006	
009-123-000	DEF	1					PB		TNNG	0	F16026	
009-124-111	DEF	5					1R		TNNL	0	F16030	101CM0022
009-200-005	DEF	7					1R		TNNL	0	F10018	
009-204-308	DEF	4					HB		TNNL	0	F10008	
009-207-011	DEF	2					1R		TNNL	0	F10012	
009-207-304	DEF	2					1R		TNEL	0	F10012	
009-220-011	DEF	4					PB		TNNG	0	F16038	
009-222-202	DEF	3					1R		TNNL	0	F16024	101CM0023
009-223-011	DEF	2					1R		TNNL	0	F16024	
009-227-008	DEF	5					1R		TNNL	0	F16032	101CM0024
009-300-107	DEF	5					1B		TNNL	0	F10016	101CM0025
009-301-214	DEF	7					1B		TNNL	0	F10016	101CM0026
009-302-207	DEF	2					1R		TNNL	0	F10020	
009-302-209	DEF	2					1R		TNNL	0	F10020	
009-303-003	DEF	4					1R		TNNL	0	F10020	101CM0027
009-303-207	DEF	4					1R		TNNL	0	F10020	101CM0028
009-304-013	DEF	1					1R		TNNL	0	F10001	
009-320-007	DEF	3					1R		TNNL	0	F16036	
009-323-115	DEF	9					HB		TNNL	0	F16040	
009-324-005	DEF	3					1R		TNNL	0	F16021	
009-324-310	DEF	3					HB		TNNL	0	F16021	
009-326-304	DEF	3					PB		TNEL	0	F16025	
009-327-000	DEF	2					PB		TNNG	0	F16025	
009-327-200	DEF	2					1B		TNNL	0	F16025	
010-004-009	DEF	4					1R		TNNL	0	F10017	
010-004-013	DEF	4					1B	TNNL	TNNL	0	F10017	
010-005-210	DEF	5					HB		TNNL	0	F10017	
010-027-212	DEF	5					1B		TNNL	0	F16023	
010-101-201	DEF	1					1R		TNNL	0	F10007	
010-106-204	DEF	1					1R		TNEL	0	F10019	
010-120-308	DEF	5					1R		TNNL	0	F16027	
010-123-009	DEF	2					1R		TNNL	0	F16031	
010-123-200	DEF	2					PB		TNNG	0	F16031	
010-124-205	DEF	3					1R		TNNL	0	F16035	
010-126-106	DEF	5					1R		TNNL	0	F16039	
010-126-112	DEF	5					1R		TNNL	0	F16039	
010-126-305	DEF	5					1R		TNNL	0	F16039	
010-127-012	DEF	7					1B		TNNL	0	F16039	
010-201-104	DEF	1					1R		TNNL	0	F10001	

OE - ID	STO	LF	LS	AY	US	CS	ECS	FEA	EQF	RTZ	LOC	SEQ NO/RMKS
010-204-100	DEF	6					1B		TNNL	0	F10009	
010-207-105	DEF	3					1B		TNNL	0	F10013	103CM0009
010-207-110	DEF	3					1B		TNNL	0	F10013	
010-220-014	DEF	3					1R		TNNL	0	F16021	
010-221-313	DEF	1					1R		TNNL	0	F16021	
010-222-112	DEF	7					1R		TNNL	0	F16025	
010-223-200	DEF	7					PB		TNNG	0	F16025	
010-301-204	DEF	8					1B		TNEL	0	F10017	103CM0010
010-302-001	DEF	4					1B		TNNL	0	F10003	
010-302-201	DEF	4					1R		TNNL	0	F10003	
010-302-301	DEF	4					1R		TNNL	0	F10003	
010-306-309	DEF	2					1R		TNNL	0	F10011	103CM0011
010-306-314	DEF	2					1R		TNNL	0	F10011	103CM0012
010-321-312	DEF	3					1R		TNNL	0	F16037	103CM0013
010-326-206	DEF	4					1R		TNNL	0	F16031	
010-326-308	DEF	4					1R		TNNL	0	F16031	103CM0014
011-000-001	DEF	1					1R		TNNL	0	F10015	
011-000-010	DEF	1					1B		TNNL	0	F10015	
011-000-101	DEF	1					1R		TNNL	0	F10015	
011-000-104	DEF	1					1B		TNEL	0	F10015	
011-000-109	DEF	1					1R		TNNL	0	F10015	
011-000-201	DEF	1					1B		TNNL	0	F10015	
011-000-203	DEF	1					1B		TNNL	0	F10015	
011-000-211	DEF	1					1R		TNNL	0	F10015	
011-000-310	DEF	1					1R		TNNL	0	F10015	103CM0015
011-000-314	DEF	1					1B		TNNL	0	F10015	
011-000-315	DEF	1					1R		TNNL	0	F10015	
011-001-100	DEF	5					1R		TNNL	0	F10015	
011-001-101	DEF	5					1R		TNNL	0	F10015	
011-001-102	DEF	5					1B		TNNL	0	F10015	
011-001-104	DEF	5					1R		TNEL	0	F10015	
011-001-106	DEF	5					1B		TNNL	0	F10015	
011-001-108	DEF	5					1R		TNNL	0	F10015	
011-001-111	DEF	5					1R		TNNL	0	F10015	
011-001-205	DEF	5					1R		TNNL	0	F10015	
011-001-310	DEF	5					1R		TNNL	0	F10015	
011-002-101	DEF	2					1B		TNNL	0	F10019	
011-002-304	DEF	2					1R		TNEL	0	F10019	
011-003-008	DEF	1					1R		TNNL	0	F10019	
011-003-009	DEF	1					1B		TNNL	0	F10019	
011-003-010	DEF	1					HB		TNNL	0	F10019	
011-003-106	DEF	1					1R		TNNL	0	F10019	
011-003-108	DEF	1					1R		TNNL	0	F10019	
011-003-109	DEF	1					1R		TNNL	0	F10019	
011-003-110	DEF	1					1R		TNNL	0	F10019	
011-003-111	DEF	1					1R		TNNL	0	F10019	
011-003-112	DEF	1					1R		TNNL	0	F10019	
011-003-113	DEF	1					1R		TNNL	0	F10019	
011-003-201	DEF	1					1R		TNNL	0	F10019	
011-003-209	DEF	1					1B		TNNL	0	F10019	
011-003-210	DEF	1					1R		TNNL	0	F10019	

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OE - ID	STO	LF	LS	AY	US	CS	ECS	FEA	EQF	RTZ	LOC	SEQ NO/RMKS
011-003-214	DEF	1					1R		TNNL	0	F10019	
011-003-312	DEF	1					1B		TNNL	0	F10019	
011-003-314	DEF	1					1R		TNNL	0	F10019	
011-005-008	DEF	1					1R		TNNL	0	F10001	
011-005-115	DEF	1					1R		TNNL	0	F10001	103CM0016
011-005-200	DEF	1					1R		TNNL	0	F10001	
011-006-015	DEF	1					1R		TNNL	0	F10005	
011-006-109	DEF	1					1R		TNNL	0	F10005	
011-006-115	DEF	1					1R		TNNL	0	F10005	
011-006-212	DEF	1					1R		TNNL	0	F10005	103CM0017
011-006-214	DEF	1					1R		TNNL	0	F10005	103CM0018
011-006-315	DEF	1					1B		TNNL	0	F10005	
011-020-102	DEF	1					1R		TNNL	0	F16035	
011-020-200	DEF	1					1R		TNNL	0	F16035	
011-020-304	DEF	1					1R		TNEL	0	F16035	103CM0019
011-025-306	DEF	1					1B		TNNL	0	F16021	--
011-100-200	DEF	4					1R		TNNL	0	F10009	•
011-100-212	DEF	4					1B		TNNL	0	F10009	
011-103-005	DEF	6					1R		TNNL	0	F10013	103CM0020
011-103-103	DEF	6					1R		TNNL	0	F10013	103CM0021
011-104-115	DEF	5					1B		TNNL	0	F10017	103CM0022
011-107-009	DEF	5					1R		TNNL	0	F10003	
011-122-107	DEF	5					1R		TNNL	0	F16033	103CM0023
011-125-012	DEF	8					1R		TNNL	0	F16037	103CM0024
011-126-302	DEF	2					1R		TNNL	0	F16023	
011-200-104	DEF	1					1R		TNEL	0	F10001	
011-207-203	DEF	9					HB		TNNL	0	F16025	
011-220-000	DEF	3					PB		TNNG	0	F10009	
011-220-200	DEF	3					PB		TNNG	0	F10009	
011-221-000	DEF	1					PB		TNNG	0	F10009	
011-221-200	DEF	1					PB		TNNG	0	F10009	
011-222-100	DEF	4					HB		TNNL	0	F16029	
011-223-208	DEF	6					1B		TNNL	0	F16029	.0221-170
011-224-202	DEF	8					1R		TNNL	0	F10013	
011-225-200	DEF	1					PB		TNNG	0	F10013	
011-226-310	DEF	5					HB		TNNL	0	F16033	
011-227-200	DEF	4					PB		TNNG	0	F16033	
011-300-000	DEF	1					PB		TNNG	0	F10017	
011-301-200	DEF	1					PB		TNNG	0	F10017	
011-301-202	DEF	1					1R		TNNL	0	F10017	
011-302-301	DEF	9					1B		TNNL	0	F16037	
011-302-306	DEF	9					1R		TNNL	0	F16037	
011-305-000	DEF	1					PB		TNNG	0	F10003	
011-305-200	DEF	1					PB		TNNG	0	F10003	
011-305-302	DEF	1					1R		TNNL	0	F10003	
011-306-200	DEF	8					PB		TNNG	0	F16023	
011-307-000	DEF	8					PB		TNNG	0	F16023	
011-307-200	DEF	8					PB		TNNG	0	F16023	
011-307-202	DEF	8					1R		TNNL	0	F16023	
011-323-003	DEF	6					1R		TNNL	0	F16027	
011-323-314	DEF	6					1B		TNNL	0	F16027	

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OE - ID	STO	LF	LS	AY	US	CS	ECS	FEA	EQF	RTZ	LOC	SEQ NO/RMKS
011-324-206	DEF	1					1R		TNNL	0	F10011	
011-325-014	DEF	8					1B		TNNL	0	F10011	
011-327-000	DEF	4					PB		TNNG	0	F16031	
011-327-010	DEF	4					HB		TNNL	0	F16031	
011-327-200	DEF	4					PB		TNNG	0	F16031	
011-327-214	DEF	4					1B		TNNL	0	F16031	
012-000-011	DEF	9					1R		TNNL	0	F10015	
012-001-202	DEF	9					1B		TNNL	0	F10015	
012-001-204	DEF	9					1R		TNEL	0	F10015	
012-001-215	DEF	9					1R		TNNL	0	F10015	
012-001-300	DEF	9					1B		TNNL	0	F10015	
012-001-314	DEF	9					1R		TNNL	0	F10015	
012-004-210	DEF	9					1R	TNNL	TNNL	0	F10019	
012-006-014	DEF	9					1R		TNNL	0	F16039	
012-007-304	DEF	9					1B		TNNL	0	F16039	
012-007-315	DEF	9					1R		TNNL	0	F16039	
012-022-211	DEF	9					1R		TNNL	0	F16022	
012-023-000	DEF	9					HB		TNNG	0	F16022	
012-023-104	DEF	9					1B		TNEL	0	F16022	
012-023-312	DEF	9					1R		TNNL	0	F16022	
012-025-000	DEF	9					HB		TNNG	0	F10006	
012-100-310	DEF	9					1B		TNNL	0	F10010	
012-101-009	DEF	8					1R		TNNL	0	F10010	
012-101-102	DEF	8					1R		TNNL	0	F10010	
012-101-111	DEF	8					1R		TNNL	0	F10010	
012-120-012	DEF	9					1R		TNNL	0	F10018	
012-121-308	DEF	8					1R		TNNL	0	F10018	
012-123-101	DEF	9					1B		TNNL	0	F16038	
012-123-103	DEF	9					1R		TNNL	0	F16038	
012-126-100	DEF	8					1R		TNNL	0	F16024	
012-200-102	DEF	10					1R		TNNL	0	F10007	
012-201-304	DEF	10					1B		TNEG	0	F10007	
012-202-014	DEF	9					1B		TNNG	0	F16027	
012-204-014	DEF	10					1B		TNNG	0	F10011	
012-206-211	DEF	9					PB		TNNL	0	F16031	
012-206-310	DEF	9					1R		TNNL	0	F16031	
012-220-014	DEF	9					1R		TNNG	0	F10015	
012-221-304	DEF	9					1R		TNEG	0	F10015	
012-222-100	DEF	9					1R		TNNL	0	F16035	
012-222-104	DEF	9					1R		TNEG	0	F16035	
012-222-200	DEF	9					1R		TNNL	0	F16035	
012-222-300	DEF	9					1B		TNNL	0	F16035	
012-223-112	DEF	9					1R		TNNL	0	F16035	
012-224-014	DEF	9					1B		TNNG	0	F10019	
012-226-014	DEF	10					1R		TNNG	0	F16039	
012-226-215	DEF	10					1R		TNNL	0	F16039	
012-227-112	DEF	10					PB		TNNL	0	F16039	
012-301-002	DEF	10					1R		TNNL	0	F10002	
012-301-105	DEF	10					1B		TNNL	0	F10002	
012-302-104	DEF	9					1R		TNEG	0	F16022	
012-302-214	DEF	9					HB		TNNL	0	F16022	

OE - ID	STO	LF	LS	AY	US	CS	ECS	FEA	EQF	RTZ	LOC	SEQ NO/RMKS
012-303-014	DEF	9					1B		TNNG	0	F16022	
012-303-214	DEF	9					1B		TNNL	0	F16022	
012-304-014	DEF	10					1R		TNNG	0	F10006	
012-305-104	DEF	10					1R		TNEG	0	F10006	LP.STRT
012-306-110	DEF	9					1B		TNNL	0	F16026	
012-306-115	DEF	9					1B		TNNL	0	F16026	
012-307-307	DEF	9					1R		TNNL	0	F16026	
012-320-014	DEF	9					1R		TNNG	0	F10010	
012-321-314	DEF	9					1R		TNNL	0	F10010	
012-324-010	DEF	9					1R		TNNL	0	F10014	
012-324-014	DEF	9					1R		TNNL	0	F10014	

TOTAL LINE EQUIPMENT: 00463

;**LOE COMPLETED**
MB%

mike

Bob
See page 2
[illegible] my E-mail
[illegible]
Sheila

Yvette

James P. Coovert
Operations Manager
Transmission/Maintenance Engineering-Florida

Southern Bell

Southern Bell Tower
301 W. Bay Street
Jacksonville, Florida 32202
(904) 350-2413

5-20

1) Consider increased ongoing maintenance costs for 1AESS' with Ferreed networks when running economic studies for replacements.

May 17, 1988

RECEIVED

MAY 19 1988

OPERATIONS MANAGER-
TACTICAL PLANNING-SOUTHEAST

MEMORANDUM TO:

Mr. L. E. Crittenden
Vice President-Network
Florida
20th Floor Southern Bell Tower
301 W. Bay Street
Jacksonville, Florida 32202

2) Another use for replaced 1AESS Equipment — replace deteriorate Ferreed networks.

SUBJECT: Noise in 1AESS

This is an update on the 1AESS noise problem which we have been involved with for the past three years. The problem, resistive crosspoints in Ferreed Switching Networks, appears to be much worse than we originally anticipated. As you know, the Fort Lauderdale Main switch was selected as the trial office for identification and correction of noisy crosspoints using the Southern Bell developed Resistive Crosspoint Test Set (RXPDC). Fort Lauderdale was selected based on the quantity of Ferreed Networks installed, numerous reports of static and noise, and the type three report rate. Testing began in March of 1986 and all identified defects (615 of them) were repaired by November/ December of the same year. This was accomplished at a cost of approximately $65,000.00 for labor and material. Early analysis of the type 3 trouble report rate seemed to justify this expenditure since the number of reports were reduced by approximately 20 per month while mainstations increased.

2 3 1990

F02B01Z 12229

In March of this year, customer reports of static and noise, including reports from a recently installed ESSX customer, prompted a retest of this office by Operations . Results from the first two networks that have been partially retested are alarming to say the least. If the failure rate encountered during the retest completed so far continues, another 500 plus contacts will have become defective (resistive) in 15 or so months. A failure rate of this magnitude will result in labor and material expenses in the range of $110,000 to $120,000 to identify and correct in 1988. Should this trend continue, expenses in 1989 would probably exceed $200,000 and increase by 25% each year thereafter. There are two theories on why contacts are failing: the least severe is that a manufacturing defect occurred during a window that is much larger than the one month that AT&T has admitted to; the second, which would be catastrophic, is that the contacts are reaching the end of their life span due to an engineering or design error. The only concrete fact at this time is that contacts continue to fail at an unacceptable rate.

All information relevant to this problem has been forwarded to BellSouth Services-Contracting. BSS is, and has been, negotiating a settlement to two Engineering Complaints issued against resistive crosspoints with AT&T, but the prospects of recovering past and/or future expenses do not appear likely at this time. I will keep you appraised on the progress of these negotiations. In the mean time, the South Florida MEC has arranged a May 10 meeting with Operations, Tactical Planning, and Distribution to discuss the problem in Fort Lauderdale and the current digital replacement plan. Tactical Planning has agreed to consider maintenance expenses and customer trouble reports/service during the replacement planning process. The meeting was scheduled at the request of Operations who view the RXPDC process as labor intensive, expensive, and ineffective. The word ineffective should not be taken out of context since this process, which is the only one available, does enable Operations to identify and repair defective crosspoints, but on a demand rather than a real time basis. This demand testing method is reactive in nature, therefore, contacts that tested good using RXPDC can fail the next day and remain unidentified until RXPDC is run again or a customer reports a trouble.

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In conclusion, we believe all offices in the state that have Ferreed networks should be tested using RXPDC and the results forwarded to BSS. This will not only assist us in our negotiations with AT&T but will also improve service in those offices and provide the Tactical Planners with valuable input for the replacement planning process. We recognize that this process is very labor intensive and costly for the Operations Districts and recommend that consideration be given to hiring an outside vendor to perform the tests and make the necessary repairs. If an outside vendor is hired, my South Florida TMEC is available to assist with the selection and training.

I believe RXPDC has proven to be an excellent tool in providing the quality of service our customers demand and are entitled to. If you would like to discuss this in more detail, please let me know and I will arrange a meeting at your convenience.

Thank you.

original signed by
J. P. Coovert

Operations Manager
Transmission/Maintenance
Engineering

cc: R. P. Higgins
J. E. Jones
J. Zaborsky
P. D. Prevost
B. Cruit

WHC/zs

Paul,
Did you get a copy of this?
Sheila

James P. Coovert
Operations Manager
Transmission/Maintenance Engineering-Florida

Southern Bell

8FF1 Southern Bell Tower
301 W. Bay Street
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FL
19

June 28, 1988

MEMORANDUM TO:

Mr. G. E. Weisenseel
Operations Manager - Switching
Southeast Florida
3640 Avenue "E"
Riviera Beach, Florida

SUBJECT: 1AESS Noise Update

On Wednesday, June 22, a meeting was held at the Broward Switching Control Center to discuss the results of noise testing in Fort Lauderdale Main and to formulate a corrective action plan. The attendance list is attached. The following is a summary of the test results, a list of action items, and recommendations aimed at eliminating the problem.

F02A01Z 00843

Test Results

1. Line Junctor Switch Frame testing is complete. One hundred sixty five (165) defective crosspoints have been identified and four hundred (400) hours of testing was required.

2. Line Switch, Trunk Junctor, and Trunk Switch Frames have not been tested but based on the results of testing performed in 1986 we can expect another 130 to 150 defects to be identified. Line Switch Frame testing cannot be performed until Line Junctor Switch Frame repairs are complete. Due to the architecture of the Trunk Switch Frames the RXPDC test set can only test a small portion of these crosspoints, approximately 25%.

F02B01Z 12232

Results Continued

3. We estimate that 10% of the projected 300 defects will require total switch replacement rather than utilizing 259A appliques to accomplish the repairs. Switch replacement is a 3 to 4 hour job while repairs utilizing 259A appliques can be accomplished in 15 minutes. Additionally the price of the switches, if they are available, is $300.00+ while the appliques are $10.00 apiece.

4. Testing of the remaining frames and repair of all identified defects will require approximately 900 hours. This prompted Operations to request that an outside vendor be contracted to complete the project.

Action Items

1. Maintenance Engineering will identify vendors qualified to perform this work and request bids.

2. Maintenance Engineering will arrange for funding of this thru the Southeast Tactical Planning District and Equipment Engineering.

3. Maintenance Engineering will train the selected vendor.

4. Maintenance Engineering will investigate the availability of replacement switches and/or repair alternatives.

5. Upon completion of Fort Lauderdale Main the selected vendor will perform the same test and repairs in Hollywood Main. Partial testing performed in Hollywood in 1986 indicate the problem is as severe or worse than Fort Lauderdale.

6. The contracted vendor will keep detailed records on all testing and repairs and will turn these over to Maintenance Engineering. Maintenance Engineering will review the results with BellSouth Contracting/Purchasing so that they can use the information in their settlement negotiations with A.T.& T.

Recommendations

1. Insure that the August 1990 Digital replacement of Fort Lauderdale Main is not deferred and advance the replacement date if at all possible.

2. Retest and repair defects in Fort Lauderdale again in 1989.

3. Schedule a Digital Replacement of Hollywood Main. Current D and F charts do not reflect a Digital replacement date.

4. Retest and repair defects in Hollywood annually until it is replaced.

These recommendations are made based on the possibility that the hypothesis and assumptions described in the attached 1986 internal technical memorandum have even a remote chance of materializing. At the time this memorandum was written the author did not know if Ferreed contacts would continue to fail or if the replacement of identified damaged contacts would resolve the noise problem permanently. The recent developments in Fort Lauderdale Main parallel the description of "end of life" contact wearout described in detail in this 1986 memo. It would appear that we are in the early stages of the bathtub curve alluded to on page 5 of the memo but if the failures do increase exponentially with time we could be providing unacceptable service prior to replacement of these switches. Obviously the only way to substantiate or refute this theory is to retest the networks annually and plot the failures, see recommendation # 4. Since a Digital replacement requires a least two years of planning I believe we should assume the worst and schedule a replacement in Hollywood Main as soon as possible. A delay of even one year could prove catastrophic if/when we approach the end of the bathtub curve. Additionally the cost of identifying and repairing defective contacts will increase as the quantity of defects increases and the number of repairs requiring switch replacement rather than 259 appliques increases.

In conclusion my South Florida MEC will coordinate the efforts in Fort Lauderdale and Hollywood with the Broward SCC and will provide status reports/updates as appropriate. If you have any questions or would like to discuss this matter in more detail please give me or Bill Czolba a call.

original signed by
J. P. Coovert

Operations Manager
Transmission/Maintenance
Engineering - Florida

Attachments

CC: Meeting Attendees
P. L. Singer
B. K. Cruit

BCC:

WHC

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Attendance List for 6-22-88 1AESS noise meeting.

J. P. Coovert

R. P. Higgins

W. H. Czolba

J. J. Jones

P. Verlock

J. W. Ruckle

S. K. Harwell

S. P. Henderson

L. L. Williams

MEMORANDUM FOR RECORD

84

November 12, 1986
File: 234.1202

RE: 1AESS CENTRAL OFFICE NOISE

Widespread 1AESS customer noise complaints have been reported from various central offices in Florida. The noise was isolated in the network fabric by hold-and-trace at the Hollywood 92E central office. Testing proved that the source of the noise is resistive contacts in the voice path of the 1AESS switcher.

When approached initially with this problem, AT&T stated that "no other BOC's are complaining about the problem, therefore, you must be doing something wrong in Florida." We asked for a test to locate the defects, they said it would cost about $2,000,000.00 up front to develop it.

We lacked the data necessary to support an engineering complaint. For this reason the Resistive Crosspoint Detection Circuit (RXPDC) was developed locally. It was used to gather data for Bellcore analysis, and later meetings with AT&T.

Bellcores' May 15, 1986 analysis of our defective contact samples, described them as "high resistance...substantial arcing...multiple arcs...exposed iron and nickel in the arc damaged area and gold displaced to the sides of that area; this is typical of arc damage."

Based upon Bellcores' analysis the cause of the contact damage was believed to be "wet switching."

Southern Bell filed Engineering Complaint SBF 86053 on June 16, 1986 requesting three (3) actions from AT&T:

A. Identify and correct the source of wet switching.
B. Provide a method of locating resistive crosspoints in the networks.
C. Provide relief with materials and labor involved with repair of the defective crosspoints.

Continuing research by the author points to a problem source more serious than anticipated.

PROPRIETARY: Not for disclosure outside of BellSouth Corporation.

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The follcwing is a summary of the data that was collected through observation, experiment, and RXPDC testing. It is relevant to analysis of the noise problem:

The source of the noise is damaged contacts in the voice path of the 1AESS switcher: resistive contacts due to exposed base metals.

Initially, noisy 237B ferreed contacts were located via hold and trace, and resistance measurements made with a Fluke 77 DVM. Good contacts typically read .5-1.0 ohm. Noisy contacts read >1.0 ohm and sometimes into the megohms. Network fault detection does not detect resistive contacts at any value.

Defective contacts can be located economically via RXPDC; a testing process that combines existing software, and hardware developed by Florida MEC.

RXPDC testing via RVFY, and XLVF have found the problem in Ferreed frames at Ft. Lauderdale, Orlando, and Hollywood central offices.

RXPDC testing via RVFY, and XLVF have not found the problem in selected Remreed frames at West Hollywood, Hollywood, and Ft. Lauderdale central offices.

RXPDC testing has established that contact failure is distributed over the stages and switches, within a failing network, without regard to contact position.

RXPDC testing has established that failures are randomly distributed over both Tip and Ring contacts.

RXPDC testing has shown the failures are distributed heavily in the older networks, lightly in the old networks, and not presently failing in new networks.

Ferreed networks were installed from 1966 to 1973. Remreed networks were installed from 1973 to present.

Ferreed frames use 237B sealed contacts with external remendur sleeves. Remreed frames use 238A remanent sealed contacts.

Mechanical vibration is present in Ferreed (relay matrix), and not present in Remreed (solid-state matrix). Vibration of the crosspoints may be occurring. The 1/1AESS ignores hits up to .2 sec., .3 to 1.2 sec. is considered a flash, and 1.3 sec. or greater is considered an abandon or disconnect. Contact bounce due to low contact force would appear as a hit and constitute no noticeable service impact. However, bounce would cause contact arc if the circuit is wet; hardware wet switch bounce.

The following information is quoted from a letter to R. P. Higgins, from R. Schubert and G. Blanchard of Bell Communications Research dated May 15, 1986. The letter was prompted by our request to Bellcore, for analysis of failing contact samples:

"Initially we confirmed your findings that some of the contacts had high resistance...Upon removal of the problem contacts it was evident that some abnormal debris was present on the contact surfaces in the region where they mated...Our work on the SEM demonstrated that the debris was being blown out of a crater region which was unquestionably due to substantial arcing of the contacts. Furthermore, the craters were of a dimension indicative of multiple arcs(not necessarily over a short time span). Some of the smaller holes are believed to be pores in the gold plating from the manufacturing process. Energy dispersive x-ray analysis showed exposed iron and nickel in the arc damaged area and gold displaced to the sides of that area; this is typical of arc damage. Oxygen was found, as expected, in conjunction with the exposed base metals...In general we can say that at present no contamination was seen...Please recall that our demonstration of arcing in the laboratory produced damage very similar to that seen on the field failed contacts."

Based on the above information we had originally thought that the contact damage was due to opening or closing contacts while potentials are present (wet switching); creating arc damage. The theory was that wet switching was due to a generic problem that I have termed "software induced wet switching." Software induced wet switching was the subject of much discussion within Southern Bell and with AT&T.

Analysis of data collected by RXPDC has lead me to believe that wet switching due to software was not the cause of Ferreed contact damage. Consider the following arguments:

If software induced wet switching is the cause of contact damage, a pattern will exist that will be somewhat distributed over both the Ferreed and Remreed networks. The logic behind this reasoning is that a software problem would affect Ferreed and Remreed hardware without prejudice. RXPDC testing established that the failure pattern is not present in both Ferreed and Remreed networks.

Software induced wet switching would logically damage contacts in specific locations in the fabric. Stage 0&1 of the JSF for instance, since it is the final stage closed. The testing done via RXPDC has shown that the damage is distributed throughout the fabric. Damage was found in stages 0&1 of the LSF, LJSF, TJSF, and TSF; essentially all of the possibilities.

Outside plant and cable discharge would affect the stage Ø LSP and cut-off contacts. The cut-off switch is designed to switch wet because it cannot be avoided. RXPDC has found a large number of resisitive cut-off contacts. Although they cannot create noise they have the potential to affect the subscriber loop during origination. Cut-off contact resistance would add to the loop, and could conceivably cause intermittent no dial tone reports. There does not appear to be a higher number of stage Ø LSP defects that could be attributed to outside plant and cable discharge. These findings are neutral towards software induced wet switching.

Software induced wet switching would have to be established solely on distribution and pattern, as previously defined. After proving this point an additional two (2) factors apply: the equipment age, and duration of the problem . Two possibilities are; wet switching was a past problem that was recognized and corrected, or exists today as a problem. The number of failures would be higher in older equipment frames if it was an old problem, or evenly distributed in the frames if the problem is new. RXPDC test results show that the damage exists only in older equipment frames. If software induced wet switching was the cause then the problem would be no longer existent. It should be possible to establish if the problem still exists, by returning at a future date and testing a repaired network.

The presence of damaged contacts in Remreed networks would support that software induced wet switching is the cause of the 237B ferreed contact damage. There were no damaged contacts in the sampled Remreed networks. This absence of damage in the Remreed networks eliminates software induced wet switching as the cause. Granted that Remreed is in it's infancy compared to Ferreed. However, total absence of a single contact failure supports this conclusion.

The previous arguments do not apply to hardware wet switch bounce.

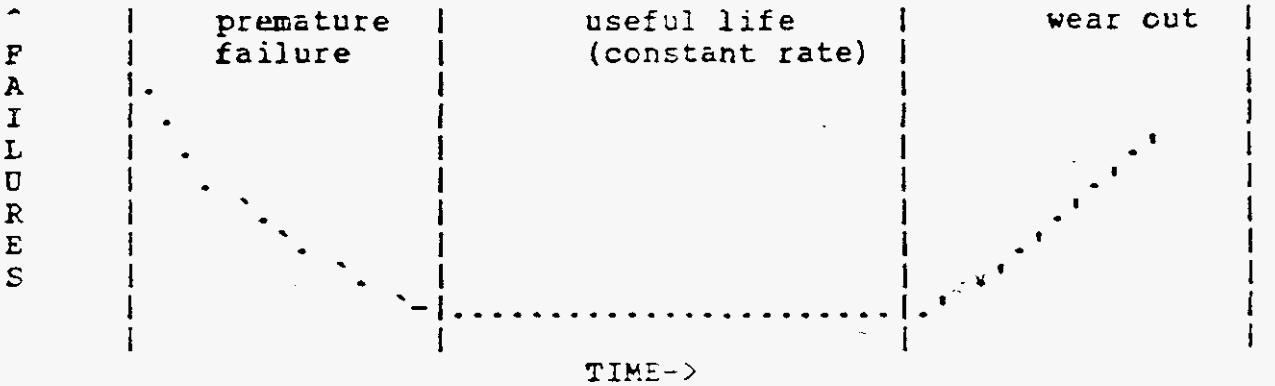
The following selected paragraphs were extracted from the Bell System Technical Journal, May-June 1976 and account for resistive crosspoint failure:

Pg. 534 - "A second failure mode is high resistance due to either contamination or wear-through of the thin, hard gold contact layer." "A static resistance test was, from past experience with the 237B soft reed contact, perceived to be of value for eliminating contacts that would cause contact resistance in remreed switches. After the introduction of the pre-release pulse to the operate pulse sequence in the remreed crosspoint, the level and the durations of dynamic resistance increased. Some factors which contribute to the tendencies of contacts to have high dynamic resistance are: contamination of the contact surfaces, low contact force, natural frequency differences between reeds, the pulse shape used for operation of the contacts, and the interpulse time between the pre-release pulse and the operate pulse."

Pg. 664 - "(iii) The point where the failure rate of the sealed contact begins to increase, i.e., where the contact begins to wear out, had to be determined. At this point, a mechanism of contact erosion from small arc discharges leads to the high-resistance failure mode. The design goal regarding this failure mode was to produce contact surfaces that exhibited failure rates the same as or lower than the failure rates of the ferreed contacts."

Pg. 665 - "The objectives of the sealed-contact evaluation work focused on (i) determining early failure rates and failure mechanisms of the hard-gold plated contact surface and (ii) determining when wear-out mechanisms caused the sealed contact to become unreliable. Two important failure modes exist for the sealed contact. These are the high contact-resistance mode and the fail-to-release or stuck-contact mode. Both early life and end-of-life performances exhibit these modes."

"Reliability theory states that device performance generally fits a 'bathtub' curve ...The bathtub curve is a plot of failure rate or hazard against time and has three regions: early or premature failure, useful life or constant hazard, and wear out."



89

Pg. 669 - "In the first place, a contact resistance which just exceeds 150 milliohms probably will not be detected by the No. 1 ESS system and, hence, it will not be removed from the system. In fact, in some cases, the 100-ohm contact could go undetected. However, the hazard is that such high contact resistances are prone to generate noise from mechanical disturbances and this could impair service."

"Life testing was conducted in such a way as to accelerate wear-out mechanisms. Two types of failure modes existed during these tests: high resistance due to contact erosion and failure to release (or sticking). Contact erosion was accelerated by using a charged, twisted-pair cable to produce a low-energy-arc discharge, which causes a transfer of metal from one reed to the other. The acceleration results from a discharge occurring on each operation, and since the polarity of the charging voltage is fixed, the metal transfer is always in the same direction. In service, arcing does not occur every operation and the polarity direction tends to be random. After thousands of discharges, sufficient metal has been transferred so that the contacting surfaces become base-metal surfaces. The result is an increase in contact resistance."

If indeed, contact arcing is occurring due to contact wear out then damage will be found distributed in a pattern demonstrating an age relationship. It would also have to pass the test that the contact wear out would be distributed randomly throughout the networks without regard to position in the fabric. RXPDC findings strongly support both tests. Contact resistance failure is supported by the random distribution of the problem throughout the LSF, LJF, TJF, and TSF. This pattern indicates a commonality at the contact level not at the generic program level.

The previous arguments would be valid for wet switch bounce also.

All evidence points to end-of-life contact wear out, and wet switch bounce as the cause of the noise problem. If my conclusions are correct, we know now that the cause of contact failure is far more serious than we had imagined. The ramifications of this finding are tremendous.

If Ferreed contacts have reached the end of the normal lifespan, failing offices are in the early stages of a terminal contact condition. The remaining offices will soon develop the symptoms. Remreed networks were designed to meet or exceed the design requirements of Ferreed networks. We anticipate that Remreed will also prematurely reach it's end-of-life.

Ultimately the networks will detericrate to a point that service reaction will be detrimental to our business.

Engineering Complaint SBF 86053 requested three (3) actions from AT&T: 90

A. Identify and correct the source of wet switching.
B. Provide a method of locating resistive crosspoints in the networks.
C. Provide relief with materials and labor involved with repair of the defective crosspoints.

AT&T objectives for switching networks are: an in-service life of forty (40) years, and maintenance-free performance during operation. Based on those objectives Southern Bell Telephone has a valid complaint: failure to meet the design intent.

Out of necessity Southern Bell has identified the cause of failure (premature contact failure), and developed a method to locate the failures (RXPDC test set). Relief, as requested in SBF 86053 is now the single issue.

Southern Bell has taken the extra step to assist AT&T in resolution of the complaint. If we were to continue further in the identification of the exact cause of premature contact failure that would constitute an extravagance. The ball now lies squarely in AT&T's court.

RXPDC testing has shown failing contact distribution and degree of damage are directly related to the age of the contact. Therefore, RXPDC could be used to test older Ferreed networks in order of seniority thereby reducing the work load. AT&T would assume responsibility for this testing. Failing frames would be identified by AT&T, and corrected on a non-billable basis. by including the test into the network fabric ETL's Southern Bell could verify completion with the RXPDC test set.

At the present time we find that contact damage is present only in the Ferreed networks. The absence of damage in the Remreed networks supports the conclusion that Remreed is now in it's useful life region. We do not know if Remreed will reach it's objective life. RXPDC would be useful to monitor the Remreed networks for signs of end-of-life. Again, RXPDC should be incorporated into the network fabric ETL's.

Extensive evaluation of the present reed space division networks is warranted. Bellcore should be invited to visit our exchanges and participate in the evaluation. AT&T should have a moral, if not legal obligation to perform the evaluation. Their independent findings would be invaluable in assessing our position.

Jerry W. Ruckle, Sr.
Senior Engineer
Maintenance Engineering
Hollywood, Florida

GLENDALE FEDERAL BANK

91

October 31, 1990

Kathy Paganini
Southern Bell
4000 N Andrews Avenue
Fort Lauderdale, FL 33309

Dear Kathy Paganini:

Enclosed is a copy of the events which have taken place at the Miami Beach banking office of Glendale Federal Bank (535-6250) over the last four months.

These problems relating to telephone service have caused major inconveniences to all parties concerned--outages, static, disconnects, even Southern Bell taking the office out of service during business hours, have continued on an intermittant basis since July.

We have had the vendor and Southern Bell on site to locate the problem. After much fingerpointing, the trouble was traced to Southern Bell. The enclosed AT&T charges were incurred because the Southern Bell technician advised us that the problem was the vendor, even though we felt otherwise.

This has been escalated several times to supervisors, foremen, and the account executive and still the problem exists. I understand that the city of Miami Beach, which is in the same central office and is on ESSX service, has had similar problems.

I feel that we have been very patient and now have a Southern Bell technician working closely with the banking office trying to restore the service to the level expected.

Perhaps you should have been involved before now, but each time one problem was cleared up, another would take its place. It has been one ongoing disaster after another and I would appreciate your help in resolving this situation.

Sincerely,

Ann Jaskolka
Voice Communications Supervisor

s123m/vg
Enclosures

cc: L. Cleaver
B. Dunne
K. Sweeney

F02B01Z 12244

301 East Las Olas Boulevard/P.O. Box 14370/Fort Lauderdale FL 33302-4370/(305) 767-1000

2/16/90 Fax line 535-6260 reported as no dial tone and buzzing noise at origination. DADE MAC, CARRY.

2/22/90 535-6250 no dial tone. DADE MAC, stated clear while testing??

7/9/90 Branch alarm 673-3463 - Vender reported line problem, no signal from alarm. DADE MAC, PHIL and ADT, STEVE, stated found to be in Vender's equip., was reported to Don Ives.

7/10/90 535-6250, Alarm going off, reported to Bill at DADE MAC.

7/11/90 All phones out, Fax line okay. DADE MAC, TELCO called again, spoke with tester and cable people where dispatched 8A.M. this date and working on same.

7/12/90 Report from Danny S/B (beeper 381-0266)-D, stated AT&T Merlin system bad, and has alarm on. S/B Byran 800-628-2888, due to no Maint., contract $30.00 trip charge plus $70.00 first hour, than every 15 increments. Ticket #391-629-859, should be at Branch before 1:20P. today.

7/12/90 Per Mike-Tech., feature package 1 card blown, new should arrive between 2 and 3P.M. Service established. Speed call list had to be reprogramed.

7/18/90 673-3463 alarm line. S/B, ADT, Vender all meet at 2:30P.M. This date also, DADE MAC and Willie S/B Supvr., 242-2121 Hot line for Merlin 800-628-2888 Viasta-female stated Merlin has own power supply. Chuck Leonard at Dade was contacted. No alarm is tie'into Merlin system.

7/19/90 Merlin KSU, need Tech., on site to check line into KSU. IL# 0197032444 no maint., contract $110.00 1st hr., plus equip., Tech., due 11A/M.

7/20/90 Spoke with Bill @ Denver, had no record of number, was located under old of 305-538-5644, was refered to General Business Systems large business systems, key line equip., Larry Collins at 800-242-2121 ext. 8842.

7/23/90 Customers saying the Branch is not answering. Problem now attacking Angie's line 6257 (not on rotary), if no answer on 6257 jumps to 6251, 6252 when Angie went to her phone - dead. Angie keeping eye on all phones, after required test, feels it must be Merlin system. 6257 no dial tone, - dead. Larry Cleaver contacted. System replacement - under consideration, need to touch base with Terry.

8/8/90 Same problem acting up again, line 50 now rings on 51, cut offs and heavy static at this time: L. Cleaver

8/14/90 No dial tone, main number. No ringing inside - reported by customer walk ins. S/B -Sharon Tic# 0391-413

8/23/90 Angie stated problem affecting all lines, clicking, heavy static, cut-offs. Loss of customers. DADE MAC-Sheryl, was refered to Hot line number again.

8/24/90 Angie, stated Carol S/S phoned and everything inside Central Office was changed out. Last time it was all changed on the outside.

8/27/90 Doug, S/S Tech., on line 50 placed called to Ft. Lauderdale, and hung up, however, Merlin didn't. It held line in use, just on batteries, no dial tone - by blowing into system, it seems to be the Merlin. Willie - Supvr., S/S 883-1460 and DADE MAC 883-8272.

8/31/90 * AT&T - Greg LePold (Denver) - requested we have employee perform the following test. Angie cooperated and found ladder, as Merlin is close to ceiling 8 feet high. Removing black cover from top, inside Merlin, located vertical bar, with lines marked A, B, C, D. Since cord is only one foot to one and half foot long - it will be difficult. Using regular home phone, pull wire "D" and plug into phone should get dial tone, it worked. If one hears clicking on line, it would be on S/S local line. After 2 or 3 hours, one hears no clicking on line, it's inside Merlin control unit. NOTE: this same test was done earlier. Pulling out "D" line - 4th line. Angie located ladder, and testing from 10:45A till 2:30P reported by using home phone, calling full numbers, 800's and 4 digit dialing, plus having other Branches call into her, and results were clear at both ends. No clicking nor cut-offs. Virginia - employee called out on 51 while on "D" line got clicking, Agnie changed to "B" line, static switched to "D".

"A" had clicking, switching to "B" clear this, was on office phone plugged into Merlin system. Incoming calls on 51 clicking really bad. Incoming calls on 50 while on "C" gave cut-offs.

8/31/90 Another meeting was set up for Sept. 4th, 1990 at 2P.M. AT&T tech., arrived at 1:30P. Gene (no last name) S/S arrived shortly after 2P. Greg LePold - Denver AT&T 800-628-2888 quoted $40.00 plus $110.00 1st hour, then :15 increments. [redacted]. AT&T JIM Thwing stated Branch on 41st Street and Central Office on 16th is over 2 miles apart, may be Central Office loop, checking with engineer after hearing clicking - intermittent, should be 25/30 mil amps, S/S would have to change to 185A network. S/S tech., Gene only talked with Jim. Gene heard clicking on cable pair that Jim had located at 1:55P., by disconnecting dry cable pair at S/S block which Clara confirmed she also heard, Per Jim possable un-balanced cable pair. Gene left saying he was telling Supervisor at Central Office switch room.

9/5/90 S/S Tech., Tony Schwarz phone Angie, from C.O. and stated he was changing coil due to condesation, also taking us out of group which gives dial tone, into another group which also gives dial tone. Possible carrier problem?? Long Distance, NO WAY, NO OTHER BRANCHES HAVING ANY PROBLEMS. Tony also, stated he was going to try and clean out line, (having limited electrical knowledge) I can only say this being similar to a power source, whereby giving the line a blast of current of one volt higher, than current going from one circuit to another, would tend to dry and clean out line.

9/6/90 Angie in meeting, Clara called to report line 50 - dead. Phoned C.J. at 263-8420, to report same. She called at 4:30P. on 9/5/90 requesting we close out ticket. NO WAY. She also request if Tony contacted us, for him to call her and she had changed OE out, @ 011003010.
Angie; phoned to inquire - at 2:30P. We have had no word from Companies involed: Phones are quite at this time. Angie is going to switch phones for tellers again, present one is really bad, so she is using 1st one, which isn't all that good either.

I. J. Curtis phoned S/b 833-6272 for update, and was surprised to hear that Tony had closed out the ticket on 9/5, per Mavis aka (MJ).

Larry Cleaver, talked to 1st level Supv:, line 50 working heavy static on 50 and 52. Scheduled S/B on site early Monday 9/10.

Bill Bacon
381-0228
City of Miami
535-6250
Miami Beach

9/10 S/B Tech., Gary White, changed lead in line pair on 50, was there from Noon till 1:15P.

9/14 At 9:30A per Gary White S/B no dial tone 50 dead. Essx service man traced back cable pair to O&E, Essx equip.,source. No dial C/O and inside. Signal feed back, lines RJ21X pins out-open. Two (2) types of O&E, electrical group and mechanical.

"S M A R T B O X"

9/17 Per Gary, RJ21X has a SMART BOX, new technology, when problems are called in to the test center, they key in special frequency into number, which opens pins, and disconnects Vendor's equipment from S/B (ref: dial tone) than another frequency will close pins.
Last Saturday outside, there was no dial tone.
Had dial tone, use of smart box and by-pass Merlin. Use of jumper to the 50 line. Central office cable pairs ruled out.

9/20 Angie phoned, per Gary, made change our of SMART BOX, someone may have changed something in SWITCHROOM, he's unaware of the. There is dial tone, yesterday they had static, heavy, heavy.

9/26 Pairs on line 52 were changed out.

9/13 Spoke to Angie - Gary S/B gave his beeper number to Clara, so anytime line goes out they are to page him. He was paged this A.M. He was at terminal box in back alley, and saw line go down. He figures the problem is in Essx programming. They may have to take out line and re-build them.

11.14.90 05:26 AM

95

WELL, HERE IT IS OCTOBER.

10/3 Per Angie, intercom line rang, no answer - dead. Line 50 one can hear beeping sound on line, as if being recorded. Gary White on site Monday and Tuesday.

10/11 Gary White's beeper (397-2576)D, 3:10P. heavy static, all lines, clicks, however, no cut offs, so-o-o-o-o far, line 51 dead S/S side, 2 lines, pins.

10/15 Per Gary, need inside help, SCC (Switch Control Center). Gary will be at City of Miami Beach, with Foreman, as they also have the same system, and have had simular problems.

10/24 All lines went dead, came back one at a time, cut off on line 50, when made a call.

10/25 Per Angie, line 50 is dead, static all day on all lines.

10/29 Noon, per Angie, heavy static, 1 cut off and two (2) near miss on two others, while talking with Terry Larue.

10/30 Again, heavy static and cut offs, reported to Test Center.

10/31 Louie, S/S was on site, I gave him past history on same, he talked with Angie, and left, saying he would refer to Mac Foreman. At 1:45P. I phoned Dade Mac and found ticket was closed out, having found no problem. JoAnn stated she would put in another report for us.

96

November 1, 1990
3:30P.

Per Gary White S/B Tech, he can pull in the static on line 50, after dialing approx., 20 times. Gary stated that there is someone from midnight to 8 A.M. montering the system. Gary also needs help from SWITCH CONTROL CENTER area, Bob Moneypenny, thought it was corrected by takin us out of the old lense group, and putting into solid state group. Last Wednesday all phones where out, came up again one by one, this was cause by the above action taken at the C/O. There are 236 dial pulse trunks and only 8 to 10 per night can be changed. City of Miami Beach, with same system could go out, they have 300 lines, 28 of which was changed to solid state group to no avail, as they still have problems. Mr. White's real concern is static during mid-conversation, as static during dialing up to last digit, is somewhat normal.

97

Southern Bell

Anthony D. Machado
Service Manager

7750 N.W. 50th Street, Bldg A
Miami, Florida 33166
(305) 599-7723

November 5, 1990

Mr. Duilio Armella
Asst. Manager
1st Floor
1550 Lenox Avenue
Miami Beach, Florida

Dear Duilio:

continues to experience static and "crackling" noises.

As you know, Barbara Lamb, field technician, traced this problem into the Central Office. It is for this reason that I request your assistance.

Please let me know what can be done to improve this condition, and of course, if I can be of any assistance, don't hesitate to call me.

Sincerely,

A. D. Machado
Service Manager

F02B01Z 12250

Southern Bell

H. Corey, Jr.
General Manager
Network - Provisioning

6451 North Federal Highway
Room 1220
Fort Lauderdale Florida 33308
Phone (305) 492-3141

File # 204.0104

January 17, 1992

To: Mr. R. L. McLaughlin
Director
Network Planning and Engineering Integration

From: Mr. H. Corey
General Manager
Network Planning and Engineering

Subject: Production Selection for the Miami Beach, Florida #1AESS Replacement

The selection process for a product to replace the existing #1AESS in the Miami Beach wire center has been completed. We recommend the AT&T #5ESS switch equipped with the 5E8 generic as the replacing switch.

The product selection procedure was completed as described in the RFQ procedures and support documentation letter signed by H. E. Palmes and dated July 30, 1991. The project will be monitored to ensure that the switch is ordered under the terms of the vendor's quote.

Please provide your concurrence in our recommendation to deploy the #5ESS in Miami Beach. Questions regarding this subject may be directed to Joseph L. Baker on 305-492-3442.

Recommended:

H Corey Jr. 1-20-92

General Manager
Network Planning and Engineering — Date

F02A01Z 00862

Concurred:

R. L. McLaughlin 1-27-92

Director
Network Planning and Engineering Integration — Date

Approved: H. E. Palmes 1/29/92

Vice President - Planning & Engineering — Date

WEST PALM BEACH EAL

PAGE 1

LINES - 50, 51, 54

F02B01Z 11939

SWITCHING
RECOMMENDATION LETTER
WPB GREENACRES
SOUTHEAST FLORIDA

April 29, 1992

Mr. H. E. Palmes
Vice President - Network Planning & Engineering
Birmingham, AL

Dear Sir:

Executive Approval is requested for the replacement of the 1AESS in the West Palm Beach Greenacres central office with an AT&T 5ESS. This office was part of the "FLACENTSO" package offer from AT&T and was included in contract PR-6700B.

The fundamental switch plan is to ship the 5ESS in the first quarter of 1993 and perform the cutover and 1AESS retirement in the fourth quarter of 1993. The 5ESS will service with approximately 78,000 working lines. Gross capital expenditures are expected to be $7,679,000, with retirements of $11,000,000, and a net expense of $32,000.

The recommended plan represents a Net Present Value (NPV) advantage of $3,367,000 and a Project Rate of Return (PRR) of 20.2% when compared to the Present Method of Operation (PMO). Specific advantages that will result from implementing this plan include:

- incremental revenue from Digital ESSX, ISDN, and AIN services, which represents a $4,275,000 NPV advantage over PMO

- the avoidance of $2,400,000 in Central Office Terminal (COT) expenditures as a result of integrating 276 Digital Loop Carrier (DLC) systems at cutover, which represents a $1,360,000 NPV advantage over PMO

- the opportunity to reterminate COSMIC frame appearances on the Conventional Main Distributing Frame (CMDF), thereby reducing frame expenses

- a level-loaded schedule of 1AESS cutovers in the Palm Beach District

- the receipt of a from AT&T for the

- the contribution this replacement will make toward reaching the

- the availability of 14,000 square feet of floor space for internal use once the 1AESS is retired.

Other alternatives considered include replacing the 1AESS in 1994-1997 and 2002 (PMO). The economic indicators of the 1993, 1994, and 1995 replacement plans are essentially equivalent to each other and substantially higher than the economic indicators of the 1996 and 1997 plans. The 1993 replacement plan was chosen as the recommended plan so that the advantages listed above could be realized as early as possible.

Please indicate your approval to replace the WPB Greenacres 1AESS with an AT&T 5ESS in 1993. Any questions regarding this request can be referred to John Horrobin at (305)492-2970.

Recommended:

BOM _____ 5-1-92
General Manager - Network Planning & Engineering — Date

_____ 5/7/92
General Manager - Network Operations — Date

Approved:

_____ _____
Vice President - Network Planning & Engineering — Date

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

UDY: GREENACRES
ARAMETER FILE:

AN: REPL93 VS PMO.BAU

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	3366.5
NET PW EXPENDITURES	-5481.5
	SECONDARY
CUMULATIVE DISCOUNTED CASH FLOW - EOS	3366.5
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	2.484
PROJECT RATE OF RETURN	20.2%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	-62.2	-114.6	**	-71.1	**
1993	439.9	2886.8	18.6	1789.8	24.6
1994	417.2	3658.6	14.8	2268.3	18.4
1995	541.5	4358.8	15.8	2702.4	20.0

++++++ SUMMARY BY PLAN ++++++

	REPL93	PMO.BAU
TOTAL NONDISCOUNTED CAP.	27875.2	35905.1
TOTAL NONDISCOUNTED EXP.	30886.7	28571.9
TOTAL NONDISCOUNTED REV.	45076.3	21679.7
NET PRESENT VALUE-EOL	-7221.4	-10587.9
NET PW EXPENDITURES	11758.2	17239.7

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

ESENT WORTH YEAR 1991	TREND BASE DATE	1/1991	CASH FLOW OPTION	COMB
NGTH OF STUDY 18 YEARS	DISC RATE	13.24%	FINANCIAL OPTION	ACCT

CRIT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
ICE IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
THE IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
THE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

* FORMAL INPUT REPORT *

RESULTS IN THOUSANDS $(000)

TUDY: GREENACRES
ARAMETER FILE:

LAN: REPL93

TREND BASE DATE	- 1/1991	LENGTH OF STUDY	- 18
STUDY START DATE	- 1/1991	GROSS RECEIPTS TAX	- See AREA-CNST-RPT
PRESENT WORTH YEAR	- 1991	IDC INCL. IN FCOST	- NO
NPV OPTION	- EOL	PLAN FILE NAME	-

APITAL - MAINTENANCE>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
AESS.	0	11000.0	1/79	0/00	14.00	0	0	0	0.0	2211-0	ESS	EMBD
AESS.	0	227.0	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	273.8	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ROSS.SA	0	-116.2	1/93	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ENCOT.S	0	44.2	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.S	0	44.2	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	16.3	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	16.3	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
MBEDDED	0	-0.9	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-2.1	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
_C2COT.	0	293.7	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
_C2COT.	0	293.7	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
_C2COT.	0	53.0	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
_C2COT.	0	75.8	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
AIN.DIS	0	626.0	1/93	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
UILDING	0	200.0	1/93	0/00	16.00	0	0	0	0.0	2121-1	BLDG	NEW
NR.PLAN	0	380.0	1/93	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
SC.CKT	0	50.0	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.NO.5	0	5682.4	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	575.4	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	824.0	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	955.0	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1213.1	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1232.1	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1234.6	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1701.5	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1703.9	1/ 1	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1720.8	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1721.4	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1722.5	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1722.9	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1723.3	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1724.6	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: GREENACRES
ARAMETER FILE:

LAN: REPL93

CAPITAL - MAINTENANCE (CONTINUED)>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
TT.NO.5	0	1724.6	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
MBEDDED	0	-2.3	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
ENCOT.S	0	-705.6	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	-294.9	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	-1025.1	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	-356.2	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
97.CAP.	0	70.0	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..ESS	0	255.2	1/93	0/00	16.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	143.7	1/94	0/00	15.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	126.1	1/95	0/00	14.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	171.8	1/96	0/00	13.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	139.6	1/97	0/00	12.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	177.0	1/98	0/00	11.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	148.9	1/99	0/00	10.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	148.9	1/ 0	0/00	9.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	149.3	1/ 1	0/00	8.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	149.3	1/ 2	0/00	7.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	149.3	1/ 3	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	149.3	1/ 4	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	149.3	1/ 5	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	149.3	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	149.3	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	149.3	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW
XG.CASH	0	-1651.0	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW

EXPENSE>

ESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
AESS.MT	0	0.0	1/91	12/92	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	472.3	'92)	484.4							
ES.MTCE	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'93)	524.8	'94)	525.7	'95)	546.6	'96)	574.1	'97)	603.3	
		'98)	635.0	'99)	667.1	'00)	699.2	'01)	733.6	'02)	768.0	
		'03)	802.5	'04)	837.0	'05)	871.5	'06)	906.1	'07)	940.7	
		'08)	975.2									
NERIC.	0	0.0	1/91	12/93	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME

F02B01Z 00159

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: GREENACRES
RAMETER FILE:

AN: REPL93

EXPENSE (CONTINUED)>

ESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
OTHER EXP:		'91) 65.0		'92) 65.0		'93) 25.2						
MBEDDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92) -0.1		'93) -0.1		'94) -0.1		'95) -0.1		'96) -0.1		
		'97) -0.1		'98) -0.1		'99) -0.1		'00) -0.1		'01) -0.1		
		'02) -0.1		'03) -0.1		'04) -0.1		'05) -0.1		'06) -0.1		
		'07) -0.1		'08) -0.1								
37.CAP.	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) 49.3		'94) 52.2		'95) 54.8		'96) 58.2		'97) 61.9		
		'98) 66.0		'99) 70.1		'00) 74.2		'01) 78.7		'02) 83.1		
		'03) 87.6		'04) 92.1		'05) 96.6		'06) 101.2		'07) 105.7		
		'08) 110.3										
IG..ESS	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'93) 4.0		'94) 11.5		'95) 17.9		'96) 23.6		'97) 31.3		
		'98) 37.6		'99) 45.6		'00) 52.3		'01) 58.9		'02) 65.7		
		'03) 72.4		'04) 79.1		'05) 85.8		'06) 92.5		'07) 99.2		
		'08) 105.9										
EN.UPG.	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) 129.4		'94) 129.6		'95) 130.0		'96) 130.4		'97) 130.9		
		'98) 131.3		'99) 131.8		'00) 132.2		'01) 132.6		'02) 133.1		
		'03) 133.5		'04) 133.9		'05) 134.4		'06) 134.8		'07) 135.2		
		'08) 135.7										
EN.UPG.	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) 25.4		'94) 29.2		'95) 32.4		'96) 36.7		'97) 41.8		
		'98) 49.1		'99) 56.5		'00) 64.0		'01) 76.6		'02) 89.2		
		'03) 101.9		'04) 114.6		'05) 127.3		'06) 140.0		'07) 152.7		
		'08) 165.4										
SS.RTU	0	0.0	1/93	12/06	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) 426.0		'94) 127.0		'95) 127.0		'96) 127.0		'97) 127.0		
		'98) 127.0		'99) 127.0		'00) 127.0		'01) 127.0		'02) 127.0		
		'03) 127.0		'04) 127.0		'05) 127.0		'06) 127.0				
OCESSO	0	0.0	1/93	12/93	0.0	0.0	0.0	0.0	-0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) -450.0										

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: GREENACRES
ARAMETER FILE:

LAN: REPL93

REVENUE>

ESCRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
MBEDDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92)	-7.3	'93)	-7.3	'94)	-7.3	'95)	-7.3	'96)	-7.3	
		'97)	-7.3	'98)	-7.3	'99)	-7.3	'00)	-7.3	'01)	-7.3	
		'02)	-7.3	'03)	-7.3	'04)	-7.3	'05)	-7.3	'06)	-7.3	
		'07)	-7.3	'08)	-7.3							
IG..ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93)	75.6	'94)	222.7	'95)	351.3	'96)	466.5	'97)	625.0	
		'98)	757.4	'99)	926.2	'00)	1072.1	'01)	1220.3	'02)	1359.2	
		'03)	1498.1	'04)	1637.0	'05)	1775.9	'06)	1915.0	'07)	2053.9	
		'08)	2192.8									
SDN.RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93)	3.3	'94)	31.7	'95)	64.6	'96)	136.6	'97)	223.6	
		'98)	350.0	'99)	476.4	'00)	602.8	'01)	764.0	'02)	925.2	
		'03)	1086.9	'04)	1248.6	'05)	1410.4	'06)	1572.1	'07)	1733.8	
		'08)	1895.6									
SDN.BUS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93)	3.3	'94)	14.3	'95)	28.6	'96)	53.0	'97)	82.4	
		'98)	119.1	'99)	155.9	'00)	192.6	'01)	232.2	'02)	271.7	
		'03)	311.3	'04)	350.9	'05)	390.5	'06)	430.0	'07)	469.6	
		'08)	509.2									
IN.REV.	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'94)	8.3	'95)	43.6	'96)	71.2	'97)	112.4	'98)	193.6	
		'99)	274.9	'00)	356.3	'01)	413.0	'02)	469.7	'03)	526.6	
		'04)	583.4	'05)	640.2	'06)	697.1	'07)	753.9	'08)	810.7	
SDN.ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93)	2.8	'94)	16.8	'95)	44.9	'96)	91.7	'97)	142.1	
		'98)	191.4	'99)	240.7	'00)	290.2	'01)	334.9	'02)	379.7	
		'03)	424.6	'04)	469.6	'05)	514.5	'06)	559.4	'07)	604.3	
		'08)	649.3									

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: GREENACRES
ARAMETER FILE:

LAN: PMO.BAU

TREND BASE DATE	- 1/1991	LENGTH OF STUDY	- 18
STUDY START DATE	- 1/1991	GROSS RECEIPTS TAX	- See AREA-CNST-RPT
PRESENT WORTH YEAR	- 1991	IDC INCL. IN FCOST	- NO
NPV OPTION	- EOL	PLAN FILE NAME	-

CAPITAL - MAINTENANCE>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
AESS.	0	11000.0	1/79	0/00	23.00	0	0	0	0.0	2211-0	ESS	EMBD
AESS.	0	227.0	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	273.8	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	235.1	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	239.3	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	285.3	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	284.9	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	299.6	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	303.3	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	305.3	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	321.7	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	324.0	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ROSS.SA	0	-97.9	1/ 2	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ENCOT.S	0	44.2	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.S	0	44.2	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	16.3	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	16.3	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	88.6	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	119.0	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	139.2	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	202.5	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	202.5	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	207.5	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	346.7	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	346.7	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	18.0	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	20.4	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	19.0	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	19.1	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	19.1	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	19.1	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	19.8	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	19.8	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: GREENACRES
ARAMETER FILE:

LAN: PMO.BAU

CAPITAL - MAINTENANCE (CONTINUED)>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
MBEDDED	0	-0.9	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-2.1	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-3.8	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-5.5	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-4.3	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-4.3	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-3.0	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-3.0	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-2.1	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-2.1	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-1.7	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
_C2COT.	0	293.7	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
_C2COT.	0	293.7	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
_C2COT.	0	364.9	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
_C2COT.	0	53.0	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
_C2COT.	0	75.8	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
_C2COT.	0	82.0	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
AIN.DIS	0	626.0	1/ 2	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
UILDING	0	200.0	1/ 2	0/00	7.00	0	0	0	0.0	2121-1	BLDG	NEW
WR.PLAN	0	380.0	1/ 2	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
SC.CKT	0	50.0	1/ 2	0/00	7.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.NO.5	0	16143.7	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1730.5	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1731.1	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1731.8	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1732.1	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1733.4	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	1734.0	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
MBEDDED	0	-83.0	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
37.CAP.	0	70.0	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
G..ESS	0	549.2	1/ 2	0/00	7.00	0	0	0	0.0	2422-0	OSP-F	NEW
G..ESS	0	176.3	1/ 3	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
G..ESS	0	166.6	1/ 4	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
G..ESS	0	166.2	1/ 5	0/00	0	0	0	0.0	2422-0	OSP-F	NEW	
G..ESS	0	166.2	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
G..ESS	0	166.2	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
G..ESS	0	166.2	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: GREENACRES
ARAMETER FILE:

LAN: PMO.BAU

EXPENSE>

ESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
AESS.MT	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91) 472.3	'92) 484.4	'93) 498.3	'94) 512.7	'95) 527.9						
		'96) 544.3	'97) 561.0	'98) 578.0	'99) 595.3	'00) 613.1						
		'01) 631.4										
ES.MTCE	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02) 773.4	'03) 808.1	'04) 842.8	'05) 877.5	'06) 912.2						
		'07) 947.0	'08) 981.8									
ENERIC.	0	0.0	1/91	12/02	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'91) 65.0	'92) 65.0	'93) 65.0	'94) 65.0	'95) 65.0						
		'96) 65.0	'97) 65.0	'98) 65.0	'99) 65.0	'00) 65.0						
		'01) 65.0	'02) 25.2									
MBEDDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92) -0.1	'93) -0.3	'94) -0.6	'95) -1.1	'96) -1.4						
		'97) -1.8	'98) -2.0	'99) -2.3	'00) -2.5	'01) -2.7						
		'02) -2.9	'03) -2.9	'04) -2.9	'05) -2.9	'06) -2.9						
		'07) -2.9	'08) -2.9									
57.CAP.	0	0.0	1/ 2	.0 DIGRTU	1-TIME							
OTHER EXP:		'02) 81.4	'03) 86.1	'04) 90.6	'05) 95.1	'06) 99.7						
		'07) 104.2	'08) 108.8									
G..ESS	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02) 8.8	'03) 24.7	'04) 32.6	'05) 40.1	'06) 47.6						
		'07) 55.1	'08) 62.5									
N.UPG.	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02) 126.3	'03) 126.8	'04) 127.2	'05) 127.7	'06) 128.2						
		'07) 128.7	'08) 129.2									
N.UPG.	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02) 95.3	'03) 108.0	'04) 120.7	'05) 133.4	'06) 146.1						
		'07) 158.8	'08) 171.5									
SS.RTU	0	0.0	1/ 2	12/06	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02) 1813.0	'03) 127.0	'04) 127.0	'05) 127.0	'06) 127.0						

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: GREENACRES
ARAMETER FILE:

LAN: PMO.BAU

REVENUE>

ESCRIPT	CAT REP	REV.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
MBEDDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92)	-7.3	'93)	-25.8	'94)	-58.6	'95)	-106.1	'96)	-142.7	
		'97)	-179.3	'98)	-204.8	'99)	-230.6	'00)	-248.8	'01)	-267.2	
		'02)	-267.2	'03)	-267.2	'04)	-267.2	'05)	-267.2	'06)	-267.2	
		'07)	-267.2	'08)	-267.2							
IG..ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	166.4	'03)	505.7	'04)	675.4	'05)	830.4	'06)	985.1	
		'07)	1139294.5									
SDN.RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	462.6	'03)	986.4	'04)	1248.3	'05)	1410.4	'06)	1572.1	
		'07)	1733.8	'08)	1895.6							
SDN.BUS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	135.9	'03)	279.1	'04)	350.5	'05)	390.5	'06)	430.0	
		'07)	469.6	'08)	509.2							
IN.REV.	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	234.9	'03)	467.2	'04)	583.3	'05)	640.2	'06)	697.1	
		'07)	753.9	'08)	810.7							
SDN.ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	189.9	'03)	376.3	'04)	469.4	'05)	514.5	'06)	559.4	
		'07)	604.3	'08)	649.3							

COLONIAL EAL

PAGE 2

LINES - 21, 22, 36, 37, 38, 39, 40, 42

F02B01Z 11992

Southern Bell

H. Corey, Jr.
General Manager
Network - Provisioning

6451 North Federal Highway
Room 1220
Fort Lauderdale, Florida 33308
Phone (305) 492-3141

File: 204.0104

March 1, 1991

Mr. S. A. Mulcahy
Assistant Vice President - Provisioning
Atlanta, Georgia

Dear Mr. Mulcahy:

Replacement of the Colonial 1AESS with a digital switch is scheduled for September, 1992. This replacement is included in the 1991 Orlando LATA Plan, which is currently being prepared for Executive Approval. We are submitting this Implementation Letter prior to receiving Executive Approval to allow for a timely schedule of job intervals required to meet the service date.

Replacement of the #1AESS with a digital switch in September, 1992 proved to be the most economical alternative when compared with the Present Method of Operation (PMO). This project is designated as a "Hard Trigger" based on severe noise problems caused by deteriorating cross points in the fereed switching networks.

The replacement switch for the Colonial wire center is AT&T' s #5ESS. An economic comparison of the two plans follows:

	--------($000)--------				
Alternative	NPV	NPWE	Delta NPWE	PROR %	DPP years
Recommended	-4344	7092	-3325	17.8%	11
PMO	-6381	10417			

This 1AESS replacement study was done utilizing AT&T's Individual Single Office RFQ Analysis on the Network Planning System for Wire Centers (NPS-W) using the BellSouth Services 1AESS Replacement Guidelines. BellSouth Services is currently evaluating AT&T's Regional Switch RFQ proposal to determine the impact of various AT&T Package offers from a regional perspective. Acceptance of any AT&T Package Offer would result in a lower Colonial switch replacement price and better Cucrit economics.

F02B01Z 11993

In addition, a second LATA Tandem will be installed in the Colonial wire center to handle a percentage of intra and inter LATA toll traffic in the Orlando LATA. All end offices and Inter-exchange Carrier POPs will have access to this tandem via facility routes that are separate from the routes to the existing Magnolia tandem. The second LATA Tandem project was approved in the 1989 Orlando LATA Plan. Updated switch capital dollars of $1.1M are less than the $2.5M included in the 1990 Orlando LATA Plan.

We studied serving the Colonial Dual Tandem function with NTI's DMS-200 and AT&T's class 4 switch by comparing the costs of a class 4 switch as an added feature to NTI's and AT&T's class 5 switch. A CUCRIT economic analysis to service the class 4/5 switch in Colonial follows:

	--------($000)--------		
VENDOR	NPV	NPWE	DELTA NPWE

AT&T is the economic winner. We have been assured by BellSouth Services that the tandem function is fully supported by BellSouth as South Central Bell has four working AT&T #5ESS tandems.

The recommended plan is identified in the current view of the construction program. Estimated capital expenditures of $5.9M will be required as follows:

CATEGORY	1992 EXPENDITURES $(000)
BUILDING	
COE-DIGITAL SWITCH	
CIRCUIT	
POWER	
FRAME	
TOTAL	

The total reflected here is to service the class 4/5 switch. The embedded dollars retired with this project are $9.1M.

Official Telephone Communications for this project are under $50,000. This Implementation letter serves as the vehicle to notify Corporate Communications that Form 5939 needs to be prepared for the Colonial #5ESS project and approved by appropriate Corporate Communications manager.

A copy of the current Demand and Facility chart for the Colonial central Office dated January, 1991 is on file in the Tactical Planning - Central District in Ft Lauderdale, Florida.

Yours truly,

General Manager Network Provisioning
Florida

APPROVED:

Executive Vice President
Network
Southern Bell

F02B01Z 11995

2/19/91 17:19 ET CAPITAL UTILIZATION CRITERIA VERSION 4.0700 PAGE 1

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

TUDY:
ARAMETER FILE:

LAN: REC92 VS PMO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	2036.8
NET PW EXPENDITURES	-3324.9
	SECONDARY
CUMULATIVE DISCOUNTED CASH FLOW AT STUDY END	2036.8
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.776
INTERNAL RATE OF RETURN	*
PROJECT RATE OF RETURN	17.8%

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1990	0.0	0.0	**	0.0	**
1991	-1.4	-7.1	**	-4.3	**
1992	160.6	6449.9	6.5	3870.0	4.2
1993	446.8	6557.5	10.8	3934.5	11.4
1994	571.7	6653.3	12.6	3992.0	14.3

++++++ SUMMARY BY PLAN ++++++

	REC92	PMO
TOTAL NONDISCOUNTED CAP.	14090.4	17680.3
TOTAL NONDISCOUNTED EXP.	11409.6	14705.4
TOTAL NONDISCOUNTED REV.	19069.6	7835.2
NET PRESENT VALUE-EOL	-4344.4	-6381.3

NET PW EXPENDITURES	7091.8	10416.7

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

ESENT WORTH YEAR	1990	TREND BASE DATE	1/1990	CASH FLOW OPTION	COMB
NGTH OF STUDY	18 YEARS	DISC RATE	13.60%	FINANCIAL OPTION	ACCT

CRIT IS NORMALLY USED TO PERFORM AN INCREMENTAL ANALYSIS. THUS THE EVALUATORS ASURE THE DIFFERENCE IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF THER PLAN.
THE IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
THE RETURN IS NOT SHOWN SINCE THE AVERAGE CAPITAL BALANCE IS LESS THAN OR EQUAL TO ZERO.

***** END OF REPORT *****

01/30/92 08:05 ET CAPITAL UTILIZATION CRITERIA VERSION 4.3900 PAGE 1

NETWORK PLANNING SYSTEM

EXECUTIVE SUMMARY

RESULTS IN THOUSANDS ($000)

STUDY:
PARAMETER FILE:

PLAN: PEC9S VS PM0

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

PRIMARY	
NET PRESENT VALUE - EOL	-975.3
NET PW EXPENDITURES	588.0
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	-975.3
DISCOUNTED PAYBACK PERIOD	NO PAYBACK
LONG TERM ECONOMIC EVALUATOR	0.775
PROJECT RATE OF RETURN	11.3%
INTERNAL RATE OF RETURN	6.1%

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

NET INCOME	NET AVG RATE BASE	RETURN ON EQUITY (%)	RETURN ON
[illegible]	[illegible]	[illegible]	[illegible]

PRESENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
LENGTH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

CUCRIT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER
ENCE IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
** THE RETURN IS NOT SHOWN SINCE THE INV. EXP. SAL. IS ZERO.

***** END OF REPORT *****

F02B01Z 0019.

DAYTONA MAIN EAL

PAGE 7

LINES - 3, 4, 10, 12, 14, 16

DAYTONA BEACH LATA

DAYTONA MAIN 1AESS REPLACEMENT PROJECT

EXECUTIVE APPROVAL LETTER

Al Capuano
305-492-2959
May, 1992

TABLE OF CONTENTS

NOTE: THIS SWITCH HAS BEEN VENDOR SELECTED

May 29, 1992

File: 204.0104

Mr. H. E. Palmes
Vice President - Network Planning and Engineering
Birmingham, Alabama

Dear Mr. Palmes:

This is to recommend and request approval for the implementation of NTI's class 4/5 digital switch in the Daytona Main wire center to service a second LATA Tandem in the Daytona LATA and replace the existing 1AESS respectively. The current service date for the new digital switch is October 23, 1993. The 1AESS replacement and second LATA Tandem projects were approved in the 1988 and 1989 Daytona Beach LATA Plans respectively.

Installing a second LATA Tandem in the Daytona LATA is in accordance with BellSouth Services Service Continuity Plan as detailed in Mr. F. D. Ackerman's March, 1989 document. The Daytona Main Dual Tandem will handle a percentage of the intra and inter LATA toll traffic in the Daytona LATA. All end offices and major Inter-exchange Carrier POPs will have access to this tandem via facility routes that are separate from the routes to the existing Port Orange tandem.

The existing 1AESS, installed in 1975, provides service in the Daytona Beach exchange. Adequate turnaround space exists in the building to accommodate the replacing switch in 1993. Interior building modification work and a new power plant is required to implement the recommended plan. Alternatives studied include replacing the 1AESS in years 1993 thru 1998 and 2002. The Present Method of Operation (PMO) year is defined as 2002. Replacement of the 1AESS with NTI's DMS100 digital switch in October, 1993 proved to be the most economical alternative when compared with the PMO. An economic comparison of the two plans follows:

	--------($000)--------				
Alternative	NPWE	NPV	Delta NPV	PRR %	DPP YEARS
Recommended	7759.8	-4765.7	1822.5	17.1%	11
PMO	10727.2	-6588.2			

The 1AESS replacement study was done utilizing the Network Planning System for Wire Centers (NPS-W) and was also reviewed by the BellSouth (BS) Review Team using the BS May, 1992 NPS-W study level data and reflects the May 1, 1992 update to the

1AESS Replacement Guidelines. Concurrence with the recommended plan was obtained on May 15, 1992. The above updated CUCRIT economic indicators includes information recently received from the vendor in response to the Request For Quote (RFQ). The vendor selection decision to utilize NTI'S class 4/5 digital switch was based on analysis of vendor responses to the actual RFQ.

The recommended plan is identified in the current view of the construction program. Estimated capital expenditures of $5.4M will be required as follows:

CATEGORY	EXPENDITURES $(000) 1992/1993
BUILDING	300
COE - DIGITAL SWITCH	3851
CIRCUIT	300
FRAME	640
POWER	325
TOTAL	**$5416**

A one-time expense of $749.9K is expected in 1993 (the switch is currently scheduled to ship on February 26, 1993). Investment capital retirements of $12.5M are associated with this analog switch replacement project.

Official Telephone Communications for this project are under $50,000. This Implementation letter serves as the vehicle to notify Corporate Communications that Form 5939 needs to be prepared for the Daytona Main DMS100 project and approved by the appropriate Corporate Communications manager.

Yours truly,

General Manager - Network Planning and Engineering Florida and Alabama — Date

General Manager - Network Operations North Florida — Date

APPROVED:

Vice President - Network Planning and Engineering — Date

CAPITAL AND EXPENSE REQUIREMENTS

The recommended plan is identified in the current view of the construction program. Capital and expense expenditures for the implementation of a class 4/5 switch were obtained from a recently received RFQ. Estimated capital expenditures of $5.4M will be required as follows:

CATEGORY	EXPENDITURES $(000) 1992/1993
BUILDING	300
COE - DIGITAL SWITCH	3851
CIRCUIT	300
FRAME	640
POWER	325
TOTAL	$5416

A one-time expense of $749.9K is expected in 1993 (the switch is currently scheduled to ship on February 26, 1993). Investment capital retirements of $12.5M are associated with this analog switch replacement project.

GENERAL INFORMATION

WIRE CENTER: Daytona Beach Main
CLLI: DYBHFLMA25E
EXCHANGE: Datona Beach
DISTRICT: Coastal
NPA: 904
NXX: 226,238,239,250,252-255,
257,258,295

PRSNT EQUIP: 1AESS/RSC
LATA TNDM: DYBHFLPO01T
LOCAL TNDM: None
EAS PTS: NSBHFLMA42E

The wire center is served by a 1AESS and a Remote Switching Center (RSC) digital overlay hosted by the Port Orange DMS100. Approval was received in the 1988 Daytona Beach LATA Plan to replace the 1AESS with a Digital Switching System (DSS), thereby making digital switched services available to all wire center subscribers, enabling digital integration of Digital Loop Carrier into the switch, and reducing maintenance expense.

The Daytona Main wire center is located in the downtown section of Daytona Beach. The wire center serves the business center of the Economic Base Area (EBA) and is very sensitive to the cycles of the economy because of its dependence upon tourism to stimulate small business growth and because of migration. Major corporations located in this wire center include General Electric, Halifax Hospital, Daytona International Speedway Florida Power and Light, Bethune Cookman and Embry Riddle Aeronautical University.

MARKETING INFORMATION

A growing segment in the Daytona LATA is the Hotel/Motel market. Due to the unique nature of this segment, the BellSouth Account Teams will place emphasis on the sale of

The Carrier Marketing strategy for the Daytona Main area is as follows:

The Interexchange Carrier revenues in this Wire Center represent approximately of the total Carrier Access revenue in this LATA. This figure also represents about of the State's total Carrier Access revenue.

Recognizing that, the deployment of a is paramount in our strategy to provide quality and timely service to the Carriers, as this Wire Center's capabilities is important to our success.

LAND & BUILDING AND POWER PLANS - Area # 33846

LAND & BUILDING:

The wire center is served by a building consisting of 147,719 square feet and is comprised of a main building of 3 floors and basement and a 3 story annex with basement. The main building houses Circuit equipment with a Main Distributing Frame (MDF) on the first floor. The annex houses the COSMIC and Protector frames and the 1AESS, RSC, STP and PulseLink equipment. The replacing digital switch could fit on the first floor of either building, however, installing the digital switch in the annex building will allow the consolidation of all switching equipment and the retirement of space reducing the building expenses by $35,000 per year. All affected organizations, including Property Management and Network Operations agreed with the plans to install the new digital switch in the annex building. Interior building modification work required for the new digital switch is scheduled to be completed in 1992.

POWER PLANS:

Existing are a 326A +24v, -48v, Power Plant located in the basement of the annex, a Coin Control Converter Plant (+/- 130 VDC), an 808A Ringing Tone Plant (within the 1AESS), an 800 KW Turbine and a Lineage Power Plant in the main building. To implement the recommended plan, we plan to add a new MCS-Type (Micro Processor Control System) Power Plant in the basement of the annex building to serve the new digital switch. We plan to retire the old 326A Plant as well as the Coin Control Converter Plant and the 808A Ringing and Tone Plant.

FRAME PLANS

Existing are a 28-module COSMIC Frame, a 15-module Protector Frame (PF), a 14', 209 vertical Trunk Main Distributing Frame (MDF) and a 3-module Tie Pair Distributing Frame (TPDF).

To implement the recommended plan, we plan to install a new Main Distributing Frame (MDF) on the first floor of the annex building. The COSMIC side of the existing Protector Frame (PF) will be double connected to the vertical side of the new MDF. The new switch will be terminated on the horizontal side of the MDF. The following items will be implemented:

1. Hot slide six COSMIC Frame Modules (TPDF) #29-2, 30-1, 30-2, 31-1, 31-2, and 32-1 east to butt against Module #14-2.
2. Remove and refurbish for reuse fifty-six (56) verticals of the existing MDF in the main building equipped with lighting and ladder track and ladder.
3. Add 100 verticals (56 will be reuse - see item #2) of 11'6" framework as the new MDF.
4. Install seven hundred (700) 89 type terminal strips on the vertical side of the MDF to be used as the cable side.
5. Cable 70,000 pairs from the existing PF to the vertical side of the MDF (VMDF). This will require seven hundred (700) 100 pairs cables.
6. Install the ironwork and cable rack required from the PF to the VMDF.
7. Terminate 70,000 pairs on the back of the PF. Double connect (wire wrap) on the back of the protector unit.
8. Add 4,000 tie pairs from the existing horizontal MDF (HMDF) to the new HMDF.
9. Reterminate the analog SLC units that will be used after the cutover to the new digital switch.
10. Remove the old COSMIC Frame and cable.

PRESENT SITUATION

The Daytona Main wire center is served by a 1AESS and a Remote Switching Center (RSC) digital overlay hosted by the Port Orange DMS100. The wire center is served by a building consisting of 147,719 square feet and is comprised of a main building of 3 floors and basement and a 3 story annex with basement. The main building houses Circuit equipment with a Main Distributing Frame (MDF) on the first floor. The annex houses the COSMIC and Protector frames and the 1AESS, RSC, STP and PulseLink equipment. The replacing digital switch could fit on the first floor of either building. Existing are a 326A +24v, -48v, Power Plant located in the basement of the annex, a Coin Control Converter Plant (+/- 130 VDC), an 808A Ringing and Tone Plant (within the 1AESS), an 800 KW Turbine and a Lineage Power Plant in the main building. Also existing are a 28-module COSMIC Frame, a 15-module Protector Frame (PF), a 14', 209 vertical Trunk Main Distributing Frame (MDF) and a 3-module Tie Pair Distributing Frame (TPDF).

In addition, the Daytona Beach LATA is served by the Port Orange LATA Tandem without backup. During the April 17, 1992 BCS 33 load, a failure occured in the Port Orange DMS100/200 switch isolating customers from the Network for several hours. The installation of a second LATA Tandem in the Daytona Main wire center was approved in the 1989 Daytona LATA Plan.

RECOMMENDED PLAN

Use the existing turnaround space in the annex building to implement NTI's class 4/5 digital switch in the Daytona Main wire center to service a second LATA Tandem in the Daytona LATA and replace the existing 1AESS respectively. The current service date for the new digital switch is October 23, 1993. The 1AESS replacement and second LATA Tandem projects were approved in the 1988 and 1989 Daytona Beach LATA Plans respectively.

Installing a second LATA Tandem in the Daytona LATA is in accordance with BellSouth Services Service Continuity Plan as detailed in Mr. F. D. Ackerman's March, 1989 document. The Daytona Main Dual Tandem will handle a percentage of the intra and inter LATA toll traffic in the Daytona LATA. All end offices and major Inter-exchange Carrier POPs will have access to this tandem via facility routes that are separate from the routes to the existing Port Orange tandem.

Coincident with the 1AESS replacement, we plan to retire the RSC by serving its existing NALs with the new digital switch. The Vendors' quoted price included the RSC demand. It is planned to reuse this RSC in its entirely to replace one of Alabama's smaller DMS10 office. The Daytona Main COFI forecast used in this study did not include the RSC demand.

To implement the recommended plan, we plan to install a new Main Distributing Frame (MDF) on the first floor of the annex building. The COSMIC side of the existing Protector Frame (PF) will be double connected to the vertical side of the new MDF. The new switch will be terminated on the horizontal side of the MDF. In addition, we plan to add a new MCS-Type (Micro Processor Control System) Power Plant in the basement of the annex building to serve the new digital switch. All interior building modification work is scheduled to be completedin 1992.

Corporate benefits associated with the recommended plan are detailed in TAB H.

INTEGRATED PLANNING CONSIDERATIONS

The deployment of a digital switch will provide several corporate benefits as follows:

1. It will position the network ready to meet our customer demands for digitally switched services. The Daytona Main wire center is located in the downtown section of Daytona Beach. The wire center serves the business center of the Economic Base Area (EBA) and is very sensitive to the cycles of the economy because of its dependence upon tourism to stimulate small business growth and because of migration. Major corporations located in this wire center include General Electric, Halifax Hospital, Daytona International Speedway Florida Power and Light, Bethune Cookman and Embry Riddle Aeronautical University.
2. It will allow integration of Digital Loop Carrier (DLC) into the switch resulting in capital savings to the Corporation. It is estimated that a total of approximately 300 DLC systems will be integrated at cutover.
3. It will reduce the maintenance expense.
4. It will support new digital product introduction within the Daytona Main wire center boundary.

ECONOMIC ANALYSIS/CUCRIT REPORTS

Alternatives studied include replacing the 1AESS in years 1993 thru 1998 and 2002. The Present Method of Operation (PMO) year is defined as 2002. Replacement of the #1AESS with NTI'S DMS100 digital switch in October, 1993 proved to be the most economical alternative when compared with the PMO. An economic comparison of the two plans follows:

	($000)				
Alternative	NPWE	NPV	Delta NPV	PRR %	DPP YEARS
Recommended	7759.8	-4765.7	1822.5	17.1%	11
PMO	10727.2	-6588.2			

This 1AESS replacement study was done utilizing the Network Planning System for Wire Centers (NPS-W) and was also reviewed by the BellSouth (BS) Review Team using the BS May, 1992 NPS-W study level data and reflects the May 1, 1992 update to the 1AESS Replacement Guidelines. Formal concurrence with the recommended plan was obtained on May 15, 1992. The above updated CUCRIT economic indicators includes information recently received from the vendor in response to the Request For Quote (RFQ). The vendor selection decision to utilize NTI'S class 4/5 digital switch was based on analysis of vendor responses to the actual RFQ.

05/18/92 07:46 ET CAPITAL UTILIZATION CRITERIA VERSION 4.1100 PAGE 1

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

STUDY:
PARAMETER FILE:

PLAN: REC93 VS PMO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

PRIMARY	
NET PRESENT VALUE - EOL	1822.5
NET PW EXPENDITURES	-2967.4
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	1822.5
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.725
PROJECT RATE OF RETURN	17.1%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	-9.3	-30.1	**	-18.7	**
1993	221.2	6000.7	7.1	3720.4	5.9
1994	429.1	6496.2	10.0	4027.6	10.7
[illegible]	[illegible]	[illegible]	12.1	[illegible]	[illegible]

++++++ SUMMARY BY PLAN ++++++

	REC93	PMO
TOTAL NONDISCOUNTED CAP.	21486.5	21505.9
TOTAL NONDISCOUNTED EXP.	[illegible]	[illegible]
TOTAL NONDISCOUNTED REV.	47078.3	22255.5
NET PRESENT VALUE-EOL	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

++++++ [illegible] PARAMETERS AND [illegible] ++++++

F02B01Z 11965 F02A01Z 00056

PRESENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
LENGTH OF STUDY 10 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

CUCRIT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFERENCE IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
* THE IROR IS MULTIPLE, USE THE OTHER EVALUATORS.
** THE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < 0$ = ZERO.

***** END OF REPORT *****

* FORMAL INPUT REPORT *

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: REC93

TREND BASE DATE - 1/1991
STUDY START DATE - 1/1991
PRESENT WORTH YEAR - 1991
NPV OPTION - EOL

LENGTH OF STUDY - 18
GROSS RECEIPTS TAX - See AREA-CNST-RPT
IDC INCL. IN FCOST - NO
PLAN FILE NAME -

<CAPITAL - MAINTENANCE>

DESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
1AESS.	0	12533.0	1/75	0/00	18.00	0	0	0	0.0	2211-0	ESS	EMBD
1AESS.	0	112.3	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	128.6	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
COST,OF.	0	125.3	1/93	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
GROSS.SA	0	-238.1	1/93	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
GENCOT.S	0	203.4	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-0	NEW
GENCOT.S	0	185.7	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-0	NEW
GENCOT.L	0	41.3	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-0	NEW
GENCOT.L	0	49.7	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-0	NEW
EMBEDDED	0	-1.0	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-2.3	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
MAIN,DIS	0	640.0	1/93	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
BUILDING	0	300.0	1/93	0/00	16.00	0	0	0	0.0	2121-[illegible]	BLDG	NEW
PWR,PLAN	0	370.0	1/93	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
MISC,CKT	0	50.0	1/95	0/00	15.00	0	0	0	0.0	2232-0	CKT-0	NEW
E911,COM	0	19.4	1/93	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
ISDN,CRE	0	-158.4	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI,DMS-	0	3644.0	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI,DMS-	0	339.8	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI,DMS-	0	434.8	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI,DMS-	0	722.2	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI,DMS-	0	748.8	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI,DMS-	0	[illegible].3	1/9[illegible]	0/00	[illegible]	0	0	[illegible]	0.0	[illegible]	ESSD	NEW

NTI.DMS-	0	777.5	1/99	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI.DMS-	0	836.8	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI.DMS-	0	826.0	1/ 1	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI.DMS-	0	908.3	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI.DMS-	0	897.6	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI.DMS-	0	898.2	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI.DMS-	0	898.7	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI.DMS-	0	899.0	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI.DMS-	0	899.3	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
NTI.DMS-	0	900.6	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: REC93

<CAPITAL - MAINTENANCE (CONTINUED)>

DESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	$ GS	$ COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
EMBEDDED	0	-1.1	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
GENCOI.S	0	-1492.3	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-0	NEW
SLC.CRED	0	-640.8	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	158.4	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	158.4	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	158.4	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	158.4	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	158.4	1/ 1	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	158.4	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	158.4	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	158.4	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	158.4	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
SS7.CAP.	0	78.9	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
SS7.CAP.	0	0.1	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
SS7 CAP	0	0.2	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
SS7.CAP	0	0.3	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
SS7.CAP.	0	0.3	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
SS7.CAP.	0	0.3	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
SS7.CAP.	0	0.3	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW

SS7.CAP.	0	0.3	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSO	NEW
SS7.CAP.	0	0.3	1/ 1	0/00	8.00	0	0	0	0.0	2212-0	ESSO	NEW
SS7.CAP.	0	0.3	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSO	NEW
SS7.CAP.	0	0.3	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSO	NEW
SS7.CAP.	0	0.3	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSO	NEW
SS7.CAP.	0	0.3	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSO	NEW
SS7.CAP.	0	0.3	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSO	NEW
SS7.CAP.	0	0.3	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSO	NEW
SS7.CAP.	0	0.3	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	53.5	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	0.9	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	1.0	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	1.6	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	1.7	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	1.6	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	1.6	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	1.6	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	1.6	1/ 1	0/00	8.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	1.8	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	1.8	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSO	NEW

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FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: REC93

<CAPITAL - MAINTENANCE (CONTINUED)>

DESCRIPT	CAT REP	RCOST	PLIT. DATE	TERM DATE	ECON LIFE	MOT PLC	% SS	% COR	MAINT.	ACCT CODE	CLASS NAME	ENV. TYPE
TOUCHSTA	0	1.8	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	1.8	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	1.8	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	1.8	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSO	NEW
TOUCHSTA	0	1.8	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSO	NEW
916.ESS	0	19.7	1/93	0/00	16.00	0	0	0	0.0	2422-0	OSP-F	NEW
915.ESS	0	[illegible]	1/94	0/00	15.00	0	0	0	0.0	2422-0	OSP-F	NEW
[illegible]	[illegible]	[illegible]	1/95	[illegible]	[illegible]	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

F02B01Z 11969 F02A01Z 00060

DIG..ESS	0	246.3	1/97	0/00	12.00	0	0	0	0.0	2422-0	OSP-F	NEW
DIG..ESS	0	236.5	1/98	0/00	11.00	0	0	0	0.0	2422-0	OSP-F	NEW
DIG..ESS	0	236.5	1/99	0/00	10.00	0	0	0	0.0	2422-0	OSP-F	NEW
DIG..ESS	0	236.5	1/ 0	0/00	9.00	0	0	0	0.0	2422-0	OSP-F	NEW
DIG..ESS	0	236.9	1/ 1	0/00	8.00	0	0	0	0.0	2422-0	OSP-F	NEW
DIG..ESS	0	322.1	1/ 2	0/00	7.00	0	0	0	0.0	2422-0	OSP-F	NEW
DIG..ESS	0	322.1	1/ 3	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
DIG..ESS	0	322.1	1/ 4	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
DIG..ESS	0	322.1	1/ 5	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
DIG..ESS	0	322.1	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
DIG..ESS	0	322.1	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
DIG..ESS	0	322.1	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW

<EXPENSE>

DESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	++++++ GROWTH RATES % ++++++ 1	2	3	4	5	CLASS NAME	FREQ.
100.MTCE	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'93) 275.5		'94) 271.7		'95) 280.0		'96) 292.7		'97) 310.8		
		'98) 331.1		'99) 351.3		'00) 371.8		'01) 393.3		'02) 414.9		
		'03) 437.5		'04) 460.1		'05) 482.7		'06) 505.3		'07) 527.9		
		'08) 550.6										
1AESS.MT	0	0.0	1/91	12/92	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91) 331.8		'92) 339.3								
GENERIC.	0	0.0	1/91	12/92	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'91) 65.0		'92) 65.0								
EMBEDDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: PEGS

<EXPENSE INFORMATION>

DESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	++++++ GROWTH RATES % ++++++ 1	2	3	4	5	CLASS NAME	FREQ.

F02B01Z 11970

F02A01Z 00061

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-------- ---     ----- ----- ----- ---- ---- ---- ---- ---- ---- -------- ------
        OTHER EXP: '92)    -0.1  '93)    -0.1  '94)    -0.1  '95)    -0.1  '96)    -0.1
                   '97)    -0.1  '98)    -0.1  '99)    -0.1  '00)    -0.1  '01)    -0.1
                   '02)    -0.1  '03)    -0.1  '04)    -0.1  '05)    -0.1  '06)    -0.1
                   '07)    -0.1  '08)    -0.1

SS7.CAP.  0          0.0  1/98 12/08  0.0  0.0  0.0  0.0  0.0  0.0 DIGRTU    1-TIME
        OTHER EXP: '98)    37.7  '99)    40.7  '00)    43.?  '01)    46.6  '02)    50.0
                   '03)    53.3  '04)    56.7  '05)    60.0  '06)    63.4  '07)    66.8
                   '08)    70.2

DIG..ESS  0          0.0  1/93 12/08  0.0  0.0  0.0  0.0  0.0  0.0 LABEXP    1-TIME
        OTHER EXP: '93)     3.4  '94)     8.1  '95)    12.5  '96)    17.1  '97)    28.6
                   '98)    39.7  '99)    50.4  '00)    61.0  '01)    71.6  '02)    82.3
                   '03)    96.8  '04)   111.2  '05)   125.7  '06)   140.2  '07)   154.7
                   '08)   169.2

GEN.UPG.  0          0.0  1/98 12/08  0.0  0.0  0.0  0.0  0.0  0.0 DIGRTU    1-TIME
        OTHER EXP: '98)    50.6  '99)    51.30)    52.0  '01)    52.7  '02)    53.4
                   '03)    54.4  '04)    55.4  '05)    56.3  '06)    57.3  '07)    58.2
                   '08)    59.2

GEN.UPG.  0          0.0  1/95 12/08  0.0  0.0  0.0  0.0  0.0  0.0 DIGRTU    1-TIME
        OTHER EXP: '95)    23.0  '97)    23.0  '98)   210.3  '99)   219.9  '00)   230.8
                   '01)   243.7  '02)   256.6  '03)   270.7  '04)   284.8  '05)   299.0
                   '06)   313.1  '07)   327.3  '08)   341.4

DMS.100.  0          0.0  1/93 12/08  0.0  0.0  0.0  0.0  0.0  0.0 DIGRTU    1-TIME
        OTHER EXP: '93)   439.0  '94)   238.0  '95)   238.0  '96)   238.0  '97)   238.0
                   '98)   238.0  '99)   238.0  '00)   238.0  '01)   238.0  '02)   238.0
                   '03)   238.0  '04)   238.0  '05)   238.0  '06)   238.0  '07)   238.0
                   '08)   238.0

E911.TDM  0          0.0  1/93 12/93  0.0  0.0  0.0  0.0  0.0  0.0 DIGRTU    1-TIME
        OTHER EXP: '93)    47.5
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FORMAL INPUT REPORT

[illegible] IN THOUSANDS [illegible]

F02B01Z 11971

F02A01Z 00062

STUDY:
PARAMETER FILE:

PLAN: REC93

(REVENUE)

DESCRIPT	CAT REP	REV.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
EMBEDDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) -8.2		'93) -8.2		'94) -8.2		'95) -8.2		'96) -8.2		
		'97) -8.2		'98) -8.2		'99) -8.2		'00) -8.2		'01) -8.2		
		'02) -8.2		'03) -8.2		4) -8.2		'05) -8.2		'06) -8.2		
		'07) -8.2		'08) -8.2								
DIG..ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93) 64.2		'94) 156.8		'95) 241.1		'96) 337.2		'97) 569.9		
		'98) 799.9		'99) 1023.4		'00) 1251.1		'01) 1482.6		'02) 1703.2		
		'03) 2002.9		'04) 2302.7		'05) 2602.4		'06) 2902.2		'07) 3201.9		
		'08) 3501.6										
ISDN.RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93) 1.4		'94) 13.2		'95) 26.8		'96) 56.6		'97) 92.5		
		'98) 145.2		'99) 197.9		'00) 250.6		'01) 318.2		'02) 385.8		
		'03) 454.0		'04) 522.2		'05) 590.4		'06) 658.5		'07) 726.7		
		'08) 794.9										
ISDN.BUS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93) 4.1		'94) 17.1		'95) 34.3		'96) 63.2		'97) 98.7		
		'98) 146.9		'99) 195.0		'00) 243.6		'01) 301.5		'02) 359.4		
		'03) 418.2		'04) 477.0		'05) 535.7		'06) 594.5		'07) 653.2		
		'08) 712.0										
AIN.REV.	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'94) 10.0		'95) 52.4		'96) 84.8		'97) 132.9		'98) 218.8		
		'99) 304.8		'00) 390.7		'01) 462.1		'02) 533.6		'03) 605.0		
		'04) 676.5		'05) 748.0		'06) 819.5		'07) 890.9		'08) 962.4		
ISDN.SSS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93) 2.5		'94) 13.3		'95) 35.3		'96) 74.7		'97) 135.6		
		'98) 232.3		'99) 269.1		'00) 335.9		'01) 400.8		'02) 465.3		
		'03) 530.4		'04) 595.5		'05) 660.5		'06) 725.6		'07) 790.5		
		'08) 855.7										

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FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: PMO

TREND BASE DATE	- 1/1991	LENGTH OF STUDY	- 18
STUDY START DATE	- 1/1991	GROSS RECEIPTS TAX	- See AREA-CNST-RPT
PRESENT WORTH YEAR	- 1991	IDC INCL. IN FCOST	- NO
NPV OPTION	- EOL	PLAN FILE NAME	-

<CAPITAL - MAINTENANCE>

DESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
1AESS.	0	12533.0	1/75	0/00	27.00	0	0	0	0.0	2211-0	ESS	EM8D
1AESS.	0	112.3	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	128.6	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	120.2	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	144.6	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	173.0	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	235.7	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	264.8	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	26	0.0	2211-0	ESS		NEW					
1AESS.	0	268.0	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	273.4	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
1AESS.	0	275.5	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
COST.OF.	0	125.3	1/ 2	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
GROSS.SA	0	-200.5	1/ 2	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
GENCOT.S	0	203.4	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-0	NEW
GENCOT.S	0	185.7	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-0	NEW
GENCOT.S	0	53.1	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-0	NEW
GENCOT.S	0	41.3	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-0	NEW
GENCOT.S	0	49.7	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-0	NEW
GENCOT.S	0	42.3	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-0	NEW
RELAY.T.	0	22.8	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-0	NEW
RELAY.T.	0	25.3	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-0	NEW
RELAY.T.	0	50.6	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-0	NEW
RELAY.T.	0	38.0	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-0	NEW
RELAY.T.	0	38.0	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-0	NEW
RELAY.T.	0	43.4	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-0	NEW
RELAY.T.	0	50.6	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-0	NEW

REU.COT.	0	19.9	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-0	NEW
REUCOT.	0	19.8	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-0	NEW
REU.COT.	0	19.8	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-0	NEW
REU.COT.	0	19.8	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-0	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: PMO

<CAPITAL - MAINTENANCE (CONTINUED)>

DESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
REU.COT.	0	19.9	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-0	NEW
REU.COT.	0	19.8	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-0	NEW
REU.COT.	0	19.8	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CKT-0	NEW
EMBEDDED	0	-1.0	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-2.3	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-4.2	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-5.1	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-4.6	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-4.7	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-3.5	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-1.5	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-3.3	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-1.9	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
[illegible]		[illegible]	1/ 2	0/00	7.00	0	0	0	0.0	[illegible]	[illegible]	NEW
[illegible]		[illegible]	1/ 0	0/00	9.00	0	0	0	0.0	[illegible]	[illegible]	NEW
[illegible]		[illegible]	1/ 1	0/00	8.00	0	0	0	0.0	[illegible]	[illegible]	NEW
[illegible]		[illegible]	1/ 2	0/00	7.00	0	0	0	0.0	[illegible]	[illegible]	NEW
[illegible]		[illegible]	1/ 3	0/00	6.00	0	0	0	0.0	[illegible]	[illegible]	NEW
[illegible]		[illegible]	1/ 4	0/00	5.00	0	0	0	0.0	[illegible]	[illegible]	NEW
[illegible]		[illegible]	1/ 5	0/00	4.00	0	0	0	0.0	[illegible]	[illegible]	NEW
[illegible]		[illegible]	1/ 6	0/00	3.00	0	0	0	0.0	[illegible]	[illegible]	NEW
[illegible]		[illegible]	1/ 7	0/00	2.00	0	0	0	0.0	[illegible]	[illegible]	NEW
[illegible]		[illegible]	1/ 8	0/00	1.00	0	0	0	0.0	[illegible]	[illegible]	NEW

S*BEDBD	0	-41.0	1/ 2	0/00	7.00	3	0	0	0.0	2212-0	ESSD	NEW
SLC.SPED	0	-957.6	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	792.0	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	158.4	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	158.4	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	158.4	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	158.4	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
SS7.CAP.	0	81.1	1/ 2	0/00	7.00	0	0					
SS7.CAP.	0	0.3	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
SS7.CAP.	0	0.3	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
SS7.CAP.	0	0.3	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
SS7.CAP.	0	0.3	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
SS7.CAP.	0	0.3	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
SS7.CAP.	0	0.3	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: P*0

<CAPITAL - MAINTENANCE (CONTINUED)>

DESCRIPT	CAT REP	FCOST	PLCI DATE	TERM DATE	ECON LIFE	MDT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
TOUC-STA	0	64.7	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
TOUC-STA	0	1.8	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
TOUC-STA	0	1.8	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
TOUC-STA	0	1.8	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
TOUC-STA	0	1.8	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
TOUC-STA	0	1.8	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
TOUC-STA	0	1.8	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
TOUCH-TONE	0	814.5	1/ 2	0/00	7.00	0			0.0	2422-0	OSP-F	NEW
DIGITAL	0	0	2	0.0	2422-0	OSP-F	NEW					
TOUCH-TONE	0	322.6	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	OSP-F	NEW
TOUCH-TONE	0	322.6	1/ 5	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
TOUCH-TONE	0	322.6	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
TOUCH-TONE	0	322.6	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
TOUCH-TONE	0	322.6	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW

PWR.PLAN 0 SID.) 1/ 2 0/00 7.50 0 0 0 0.0 2211-0 ESS NEW

<EXPENSE>

DESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
100.MTCE	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:	'02)	402.8	'03)	425.4	'04)	448.0	'05)	470.6	'06)	493.2		
	'07)	515.8	'08)	538.4								
1AESS.MT	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:	'91)	331.8	'92)	339.3	'93)	347.5	'94)	356.0	'95)	365.8		
	'96)	377.0	'97)	390.7	'98)	405.3	'99)	420.1	'00)	435.2		
	'01)	450.6										
GENERIC.	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:	'91)	65.0	'92)	65.0	'93)	65.0	'94)	65.0	'95)	65.0		
	'96)	65.0	'97)	65.0	'98)	65.0	'99)	65.0	'00)	65.0		
	'01)	65.0										
EMBEDDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:	'92)	-0.1	'93)	-0.3	'94)	-0.6	'95)	-1.2	)	-2.0	'9	
	'02)	-2.8	'03)	-2.8	'04)	-2.8	'05)	-2.8	'06)	-2.8		

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: PM0

<EXPENSE (CONTINUED)>

DESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
	'07)	-2.8	'08)	-2.8								
SS7 LAP.	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:	'02)	48.1	'03)	51.5	'04)	54.9	'05)	58.2	'06)	61.6		
	'07)	64.9	'08)	68.3								

```
DIG..ESS  0        0.0   1/ 2 12/08   0.0   0.0   0.0   0.0   0.0   0.0 LABEXP    1-TIME
     OTHER EXP: '02)   11.1  '03)   36.6  '04)   51.1  '05)   55.6  '06)   80.1
                '07)   94.5  '08)  109.0

GEN..UPG.  0        0.0   1/ 2 12/08   0.0   0.0   0.0   0.0   0.0   0.0 DIGRTU    1-TIME
     OTHER EXP: '02)   50.2  '03)   51.2  '04)   52.1  '05)   53.1  '06)   54.0
                '07)   55.0  '08)   55.9

GEN..PG.  0        0.0   1/ 2 12/08   0.0   0.0   0.0   0.0   0.0   0.0 DIGRTU    1-TIME
     OTHER EXP: '02)  256.6  '03)  270.7  '04)  284.8  '05)  299.0  '06)  313.1

DMS.100.  0        0.0   1/ 2 12/08   0.0   0.0   0.0   0.0   0.0   0.0 DIGRTU    1-TIME
     OTHER EXP: '02) 1398.0  '03)  238.0  '04)  238.0  '05)  238.0  '06)  238.0
                '07)  238.0  '08)  238.0

5911.TDM  0        0.0   1/ 2 12/02   0.0   0.0   0.0   0.0   0.0   0.0 DIGRTU    1-TIME
     OTHER EXP: '02)   47.5
```

<REVENUE>

DESCRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
EMBEDDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) -8.2		'93) -28.1		'94) -64.5		'95) -116.6		'96) -156.5		
		'97) -196.6		'98) -224.7		'99) -252.9		'00) -272.8		'01) -293.0		
		'02) -293.0		'03) -293.0		'04) -293.0		'05) -293.0		'06) -293.0		
		'07) -293.0		'08) -293.0								
DIG..ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02) 208.3		'03) 758.3		'04) 1058.0		'05) 1357.8		'06) 1657.5		
		'07) 1957.2		'08) 2257.0								

Revenue (CONTINUED)

DESCRIPT	CAT REP	REV.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
ISDN.RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:		'02) 192.9	'03)	412.3	'04)	521.9	'05)	590.4	'06)	658.5		
		'07) 726.7	'08)	794.9								
ISDN.BUS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:		'02) 179.9	'03)	377.8	'04)	476.5	'05)	535.7	'06)	594.5		
		'07) 653.2	'08)	712.0								
AIN.REV.	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:		'02) 266.8	'03)	539.9	'04)	676.5	'05)	748.0	'06)	819.5		
		'07) 890.9	'08)	962.4								
ISDN.ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:		'02) 232.8	'03)	474.6	'04)	595.5	'05)	660.5	'06)	725.6		
		'07) 790.6	'08)	855.7								

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AREA CONSTANT FILE REPORT

(Data from the STUDY and STYDT tables)

FACTOR YEAR	1991	INCOME STATEMENT DURATION (YRS.)	10
CASH FLOW OPTION	COM6	INCOME STATEMENT OPTION	ACCT
ACCELERATED STATE TAX OPTION	TR86	DEDUCT. OF FED. TAXES FROM STATE	NO
NPV OPTION	EOL		

YEAR	1991	1992	1993	1994	1995	1996	1997	LONG TRM
AD VALOREM TAX RATE	(Specified by CLASS name. See the following pages.)							
COMPOSITE DISC. RATE	13.24%	13.24%	13.24%	13.24%	13.24%	13.24%	13.24%	13.24%
COST OF EQUITY	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%
COST OF DEBT	8.90%	8.90%	8.90%	8.90%	8.90%	8.90%	8.90%	8.90%
DEBT RATIO	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%
EQUITY DISCOUNT RATE	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%
FEDERAL INC. TAX RATE	34.00%	34.00%	34.00%	34.00%	34.00%	34.00%	34.00%	34.00%
STATE INCOME TAX RATE	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
FEDERAL CAP. GAINS TAX	34.00%	34.00%	34.00%	34.00%	34.00%	34.00%	34.00%	34.00%
STATE CAP. GAINS TAX	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
GROSS RECPTS TAX(PLN1)	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%
GROSS RECPTS TAX(PLN2)	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%	1.53%
IOC RATE	8.59%	8.59%	8.59%	8.59%	8.59%	8.59%	8.59%	8.59%
ITC RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
COMBINATION TREND RATE	(Not available in the CUCRIT Subsystem.)							
MANAGEMENT TREND RATE	(Not available in the CUCRIT Subsystem.)							
NON-MGMT TREND RATE	(Not available in the CUCRIT Subsystem.)							

*NOTE: Tax rates for 1988 and beyond should be 0.0 to be in accordance with the 1988 Tax Law. If this not, invalid results may occur.

AREA CONSTANT FILE REPORT

CLASS ESS

(Data from the CLASS and CLSDT tables)

YEAR	1991	1992	1993	1994	1995	1996	1997	LONG TERM
BOOK DEPRECIATION METH.	SL	SL	SL	SL	SL	SL	SL	SL
TAX DEPRECIATION METHOD	(Specified by cash flow. See capcf table's iftcom.)							
TAX LIFE	(Specified by cash flow. See capcf table's taxlf.)							
CAPITAL TREND RATE	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	5.00%	4.00%
MAINTENANCE TREND RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
AD VALOREM TAX RATE	1.22%	1.22%	1.22%	1.22%	1.22%	1.22%	1.22%	1.22%

ACCT. CODE	RPTD. PLNT. FLAG	BOOK LIFE	TAX/ BOOK RATIO	BOOK GROSS SALV.	BOOK COST RMVL.	IIC ELIG. IND.	STRUC BLDG. FLAG	CAP. GAIN FLAG	PROF. FACT.	TAX FACT
2211-0	NO	11.7	*	50%	5.10%	*	*	YES	0.0%	0.0

NOTES: Values containing '*' are specified by cash flow.
For 'TAX/BOOK RATIO' values see capcf table's tortio.
For 'IIC ELIG. IND' values see capcf table's iicfl.
For 'STRUC BLDG. FLAG' values see capcf table's iftcom.

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AREA CONSTANT FILE REPORT

CLASS CKT-D

(Data from the CLASS and CLSUT tables)

YEAR	1991	1992	1993	1994	1995	1996	1997	LONG TRM
BOOK DEPRECIATION METH.	SL	SL	SL	SL	SL	S[illegible]	SL	SL
TAX DEPRECIATION METHOD	(Specified by cash flow. See other [illegible])							
[illegible]	(Specified by cash flow. See [illegible])							
CAPITAL TREND RATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAINTENANCE TREND RATE	0.00%	0.00%	.00%	0.00%	[illegible]	[illegible]	[illegible]	[illegible]
AD VALOREM TAX RATE	1.22%	1.22%	1.22%	1.22%	1.22%	[illegible]	[illegible]	[illegible]

	PROP.		TAX/	BOOK	BOOK	[illegible]	[illegible]			
[illegible]	PLNT.	BOOK	BOOK	GROSS	COST	[illegible]	[illegible]	[illegible]	[illegible]	TAX
[illegible]	[illegible]	LIFE	RATIO	SALV.	RMVL.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	NO	[illegible]	[illegible]	[illegible]	3.6[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

F02B01Z 11981 F02A01Z 00072

NOTES: values containing '*' are specified by cash flow.
For 'TAX/BOOK PARID' values see capcf table's tbrtio.
For 'ITC ELIG. IND' values see capcf table's itcfl.
For 'STRUC BLDG. FLAG' values see capcf table's sfbldg.

AREA CONSTANT FILE REPORT

CLASS BLDG

Data from the CLASS and CLBD tables

YEAR	1991	1992	1993	1994	1995	1996	1997
BOOK DEPRECIATION METH	SL	SL	SL	SL	SL	SL	SL
TAX DEPRECIATION METHOD	Specified by cash flow						
	Specified by CLBD						

CAPITAL TREND RATE	3.00%	3.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
MAINTENANCE TREND RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
AD VALOREM TAX RATE	1.22%	1.22%	1.22%	1.22%	1.22%	1.22%	1.22%	1.22%

ACCT. CODE	RPTD. PLNT. FLAG	BOOK LIFE	TAX/ BOOK RATIO	BOOK GROSS SALV.	BOOK COST RMVL.	ITC ELIG. IND.	STRUC BLDG. FLAG	CAP. GAIN FLAG	PROF. FACT.	TAX FACT
2121-1	NO	42.2	*	7.00%	2.70%	*	*	YES	0.00%	0.00

NOTES: Values containing '*' are specified by cash flow.
For 'TAX/BOOK RATIO' values see capcf table's tbrtio.
For 'ITC ELIG. IND' values see capcf table's itcfl.
For 'STRUC BLDG. FLAG' values see capcf table's ifbldg.

AREA CONSTANT FILE REPORT

F02B01Z 11983 F02A01Z 00074

CLASS ESSD

(Data from the CLASS and CLSDT tables)

YEAR	1991	1992	1993	1994	1995	1996	1997	LONG TERM
BOOK DEPRECIATION METH.	SL	SL	SL	SL	SL	SL	SL	SL
TAX DEPRECIATION METHOD	(Specified by cash flow. See capcf table's iftdpm.)							
TAX LIFE	(Specified by cash flow. See capcf table's taxlf.)							
CAPITAL TREND RATE	0.00%	0.00%	0.00%	0.00%	0.00%	-2.00%	-3.00%	0.00%
MAINTENANCE TREND RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
AD VALOREM TAX RATE	1.22%	1.22%	1.22%	1.22%	1.22%	1.22%	1.22%	1.22%

ACCT. CODE	RPTD. PLNT. FLAG	BOOK LIFE	TAX/ BOOK RATIO	BOOK GROSS SALV.	BOOK COST RMVL.	ITC ELIG. IND.	STRUC BLDG. FLAG	CAP. GAIN FLAG	PROF. FACT.	TAX FACT.
2212-0	NO	15.2	*	2.40%	2.10%	*	*	YES	0.00%	0.00%

NOTES: Values containing '*' are specified by cash flow.
For 'TAX/BOOK RATIO' values see capcf table's tbrtio.
For 'ITC ELIG. IND' values see capcf table's itcfl.
For 'STRUC BLDG. FLAG' values see capcf table's ifbldg.

AREA CONSTANT FILE REPORT

CLASS OSP-F

(Data from the CLASS and CLSDT tables)

YEAR	1991	1992	1993	1994	1995	1996	1997 LONG TRM
BOOK DEPRECIATION METH.	SL	SL	SL	SL	SL	SL	SL
TAX DEPRECIATION METHOD	(Specified by cash flow. See capcf table's iftdpm.)						
TAX LIFE	(Specified by cash flow. See capcf table's taxlf.)						
CARITAL TREND RATE	-1.00%	0.00%	1.00%	2.00%	3.00%	3.00%	3.00%
MAINTENANCE TREND RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
AD VALOREM TAX RATE	1.22%	1.22%	1.22%	1.22%	1.22%	1.22%	1.22%

ACCT. CODE	RPTD. PLNT. FLAG	BOOK LIFE	TAX/ BOOK RATIO	BOOK GROSS SALV.	BOOK COST RMVL.	ITC ELIG. IND.	STRUC BLDG. FLAG	CAP. GAIN FLAG	PROF. FACT.	TAX FACT
2422-0	NO	20.6	*	20.90%	26.80%	*	*	YES	0.00%	0.00

NOTES: Values containing '*' are specified by cash flow.
For 'TAX/BOOK RATIO' values see capcf table's tortio.
For 'ITC ELIG. IND' values see capcf table's itcfl.
For 'STRUC BLDG. FLAG' values see capcf table's ifbldg.

AREA CONSTANT FILE REPORT

CLASS LABEXP

(Data from the CLASS and CLSDT tables)

YEAR	1991	1992	1993	1994	1995	1996	1997	LONG TRM.
BOOK DEPRECIATION METH.	SL	SL	SL	SL	SL	SL	SL	SL
TAX DEPRECIATION METHOD	(Specified by cash flow. See capcf table's iftopm.)							
TAX LIFE	(Specified by cash flow. See capcf table's taxlf.)							
CAPITAL TREND RATE	3.50%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%
MAINTENANCE TREND RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
AD VALOREM TAX RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

ACCT. CODE	RPTD. PLNT. FLAG	BOOK LIFE	TAX/ BOOK RATIO	BOOK GROSS SALV.	BOOK COST RMVL.	ITC ELIG. IND.	STRUC BLDG. FLAG	CAP. GAIN FLAG	PROF. FACT.	TAX FACT.
NONE	NONE	NONE	*	NONE	NONE	*	*	NONE	0.00%	0.00%

NOTES: Values containing '*' are specified by cash flow.
Values containing 'NONE' indicate there was no data in the class table for this class name.
For 'TAX/BOOK RATIO' values see capcf table's tortio.
For 'ITC ELIG. IND' values see capcf table's itcfl.
For 'STRUC BLDG. FLAG' values see capcf table's ifbldg.

AREA CONSTANT FILE REPORT

* CLASS GENC *

(Data from the CLASS and CLSDT tables)

YEAR	1991	1992	1993	1994	1995	1996	1997	LONG TRM
BOOK DEPRECIATION METH.	SL	SL	SL	SL	SL	SL	SL	SL
TAX DEPRECIATION METHOD	(Specified by cash flow. See capcf table's ittcdm.)							
TAX LIFE	(Specified by cash flow. See capcf table's taxlf.)							
CAPITAL TREND RATE	3.50%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%	4.20%
MAINTENANCE TREND%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
AD VALOREM TAX RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

ACCT TYPE	RPTD. PLNT. FLAG	BOOK LIFE	TAX/BOOK RATIO	BOOK GROSS SALV.	BOOK COST RMV.	ITC ELIG. IND.	STRUC BLDG. FLAG	CAP GAIN FLAG	[illegible] ACT.	TAX [illegible]
NONE	NONE	NONE	*	NONE	NONE	*	*	NONE	0.00%	0.00

NOTES: Values containing '*' are specified by cash flow.
Values containing 'NONE' indicate there was no data in the class table for this class name.
For 'TAX/BOOK RATIO' values see capcf table's tbratio.
For 'ITC ELIG. IND' values see capcf table's itcf.
[illegible]

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AREA CONSTANT FILE REPORT

* CLASS [illegible] *

(Data from the CLASS and CLSDT tables)

YEAR	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
BOOK DEPRECIATION METH.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TAX DEPRECIATION METHOD	(Specified by cash flow, see capex [illegible])							
TAX LIFE	(Specified by cash flow, see capex [illegible])							
CAPITAL TREND RATE	[illegible]	[illegible]	[illegible]	4.20%	[illegible]	[illegible]	[illegible]	[illegible]
MAINTENANCE TREND RATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AD VALOREM TAX RATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NONE	NONE	NONE	' '	NONE	NONE	' '	' '	NONE	0.00%	0.00

NOTES: Values containing ' ' are specified by cash flow.
Values containing 'NONE' indicate there was no data in the class table for this class name.
For 'TAX/BOOK RATIO' values see caper table's tertio.
For 'IC ELIG. IND' values see caper table's iter.
For 'STRUC SLDG. FLAG' values see caper table's ifelse.

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BOOK DEPRECIATION METH.	SL	SL	SL	S	SL	SL	SL	SL
TAX DEPRECIATION METHOD	(Specified by cash flow. See capcf table's ifttom.)							
TAX LIFE	(Specified by cash flow. See capcf table's taxlf.)							
CAPITAL TREND RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MAINTENANCE TREND RATE	0.00%	0.00%	0.00%	[illegible]	0.00%	0.00%	0.00%	0.00%
AD VALOREM TAX RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

ACCT. CODE	RPID. PLNT. FLAG	BOOK LIFE	TAX/ BOOK RATIO	BOOK GROSS SALV.	BOOK COST RMVL.	ITC ELIG. IND.	STRUC BLDG. FLAG	CAP. GAIN FLAG	PROF. FACT.	TAX FACT.
NONE	NONE	NONE	*	NONE	NONE	*	*	NONE	0.00%	0.00%

NOTES: Values containing '*' are specified by cash flow.
Values containing 'NONE' indicate there was no data in the class table for this class name.
For 'TAX/BOOK RATIO' values see capcf table's tbrtio.
For 'ITC ELIG. IND' values see capcf table's itcfl.
For 'STRUC BLDG. FLAG' values see capcf table's ifordo.

***** END OF REPORT *****

PENSACOLA FERRY PASS EAL

PAGE 11

LINES - 24, 27, 28, 30, 31, 32, 37, 38

PENSACOLA - FERRY PASS
1AESS REPLACEMENT PROPOSAL

W. F. Sawyer
904-350-4541
10-10-91

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Pensacola Ferry Pass - EWSD
March 18, 1992

Mr. H. E. Palmes
Vice President - Network Planning and Engineering
Birmingham, Alabama

Dear Mr. Palmes:

This letter recommends and requests approval to replace the existing Pensacola Ferry Pass 1A ESS with a Siemens EWSD digital switching system in August, 1993. The Pensacola Ferry Pass switch has been vendor selected and committed to Siemens. Gross capital expenditures are expected to be $6,710,300, with retirements of $7,798,000 switch, $700,000 circuit, and a one-time expenses of $1,556,300.

The existing 1A ESS, installed in 1982, provides service to the Pensacola Ferry Pass exchange. Early replacement is triggered by increased revenues from digital services and capital avoidance credits from Subscriber Loop Carrier - Central Office Terminals (SLC-COT's). Alternatives considered include the Recommended Plan (replacement in 1993), and replacement in years 1992, 1994, 1995, 1996, and 2002 (the PMO Plan).

Standard Network Planning System - Wire Center (NPS-W) economics were done for the Ferry Pass wire center, utilizing the current guidelines and NPS-W modeling recommendations. The study comprised of the Business as Usual (BAU) economics which is modeled using AT&T level pricing algorithms. The replacement economic model was refined using the Siemens' initial and growth job costs provided in the 1991 RFQ. All other costs were derived directly from the standard NPS-W replacement model.

The most economic alternative is the Recommended Plan with a Net Present Value (NPV) advantage of $1,173,600 and Net Present Worth of Expenditures (NPWE) advantage of $1,910,900, when compared to the PMO. The Project Rate of Return (PRR) is 15.5%.

It is proposed to install a Siemens EWSD digital switch in available space in the existing building. Ample floor space exists to accommodate carrier and miscellaneous equipment growth. This plan will provide floor space for growth requirements beyond the 2002 wire center forecast.

Please indicate your approval of this digital switch for Pensacola Ferry Pass in order that detailed engineering may proceed. Questions may be referred to Bill Sawyer at (904) 350-4541.

Recommended:

H Corey (for) — 3-25-92

General Manager - Network Planning and Engineering — Date

W R — 3-30-92

General Manager - Network Operations — Date

Approved:

Vice President - Network Planning and Engineering — Date

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CAPITAL AND EXPENSE REQUIREMENTS

RECOMMENDED PLAN

CAPITAL	1992	1993	1994	1995	1996	1997	TOTAL
Land/Bldg		463.0					463.0
COE-DSW		4880.6		305.3		331.6	5517.5
COE-MDF		126.0					126.0
COE-CKT		100.0					100.0
COE-Power	212.0						212.0
OSP		345.6	75.8	25.6	36.0	28.7	511.7
Total Capital	212.0	5917.2	75.8	330.9	36.0	360.3	6930.2
EXPENSE							
Labor	405.0	538.1	570.4	593.3	617.7	641.8	3411.3
RTU		1556.3		144.5		134.8	1835.6
Total Expense	405.0	2139.4	570.4	737.8	617.7	776.6	5246.9

PMO PLAN

CAPITAL	1992	1993	1994	1995	1996	1997	TOTAL
Land/Bldg							0.0
COE-DSW		334.6		338.0		332.2	1004.8
COE-MDF				2368.0			0.0
COE-CKT							0.0
COE-Power		66.6			48.0		114.0
OSP							0.0
Total Capital	0.0	400.6	0.0	338.0	48.0	332.2	1118.8
EXPENSE							
Labor	405.0	415.1	425.8	436.5	447.6	458.3	2588.3
RTU							
Total Expense	405.0	415.1	425.8	436.5	447.6	458.3	2588.3

DIFFERENCE (REC-PMO)

CAPITAL	1992	1993	1994	1995	1996	1997	TOTAL
Land/Bldg		463.0					463.0
COE-DSW		4546.0		-32.7		-0.6	4512.7
COE-MDF		126.0					126.0
COE-CKT		100.0					100.0
COE-Power	212.0	-66.0			-48.0		98.0
OSP		345.6	75.8	25.6	36.0	28.7	511.7
Total Capital	212.0	5514.6	75.8	-7.1	-12.0	28.1	5811.4
EXPENSE							
Labor		168.0	144.6	156.8	170.1	183.5	823.0
RTU		1556.3		144.5		134.8	1835.6
Total Expense	0.0	1724.3	144.6	301.3	170.1	318.3	2658.6

PRESENT SITUATION

The Ferry Pass wire center covers 53 square miles in the northern and northeast part of the Pensacola exchange. It is one of the fastest growing areas in the West Florida LATA, representing Pensacola's strongest residential and commercial growth. Education and Health Care have strong presence in this area. Major business establishments include two shopping malls, two hospitals, and three colleges. The fast growth rate of this area highlights the need to provide digital technology as soon as it is economically feasible. Ample land remains available for continued development in most areas of the wire center.

Major transportation routes include Highways I-10, I-110, U.S. 29, U.S. 90; the Seabord and Burlington Northern Railroads; and the Pensacola Regional Airport. Basic land use is 78% residential, 20% business, and 2% other.

The Ferry Pass wire center is served by an AT&T 1AESS. It is housed in a single story structure located at 1725 Olive Road. The existing building initially housed a Number Five Crossbar. Due to insufficient building turnaround space, a lateral building addition was required to accommodate the replacing 1AESS and its ancillary equipment. As a result of removals of obsolete equipment and apparatus, ample spare floor space exists to accommodate a switch replacement. Major interior renovation will be required to upgrade the space for a replacing switch.

The existing frame is a 20 MOD COSMIC subscriber frame, 3 MOD COSMIC TIE pair frame and 73 vertical trunk frame. This is the ultimate planned length.

RECOMMENDED PLAN (SIEMENS EWSD)

The recommended plan is to replace the existing 1AESS with a Siemens EWSD digital switch in August, 1993. The proposed EWSD can be installed in available space in the the existing building. There is ample room for EWSD switch growth as well as carrier and miscellaneous equipment growth. This plan provides ample floor space for growth requirements beyond the 2002 wire center forecast.

The digital switch will continue to serve this wire center as a class 5 end office, homing on the Pensacola Warrington LATA tandem. This office does not serve any tandem functions.

PRESENT METHOD OF OPERATION (PMO)

The PMO plan consists of growing the existing AT&T 1AESS analog switch and replacing it with a digital switch in 2002. The AT&T 1AESS is capable of serving this wire center into the 21st century. Penalties for a 2002 digital replacement include inabilities to effectively integrate Subscriber Loop Carrier (SLC) and loss of present and future revenues due to the inability to provide digital services.

SUMMARY OF ECONOMIC RESULTS

The Siemens EWSD shows a Net Present Value (NPV) advantage of $1,176,100, and a Net Present Worth of Expenditures (NPWE) advantage of $1,910,900 over the present method of operation (PMO) plan. The project rate of return (PRR) is 15.5% over the 18 year study period. Capital avoidance credits for SLC-COT's is $2,110,100 in 1993 and additional revenues from digital services are $13,465,300 over the study period.

The Pensacola Ferry Pass 1AESS switch replacement will result in the retirement of $7,798,000 dollars of analog switching equipment and $700,000 dollars of circuit equipment.

Total Net Present Value (NPV) Differences

PLAN	Total NPV ($000)	NPV Diff. ($000)	Percent Diff.
PMO	-6854.2	0.0	0.0
1992 REPL	-5355.2	1499.0	-21.9
* 1993 REPL	-5678.1	1176.1	-17.2
1994 REPL	-6826.0	28.2	-0.4
1995 REPL	-6755.3	98.9	-1.4
1996 REPL	-6745.6	108.6	-1.6
1997 REPL	-6738.4	115.8	-1.7

* Note: The best replacement year is 1992. Since it is not feasible, 1993 is second best recommended plan year.

PENSACOLA LATA

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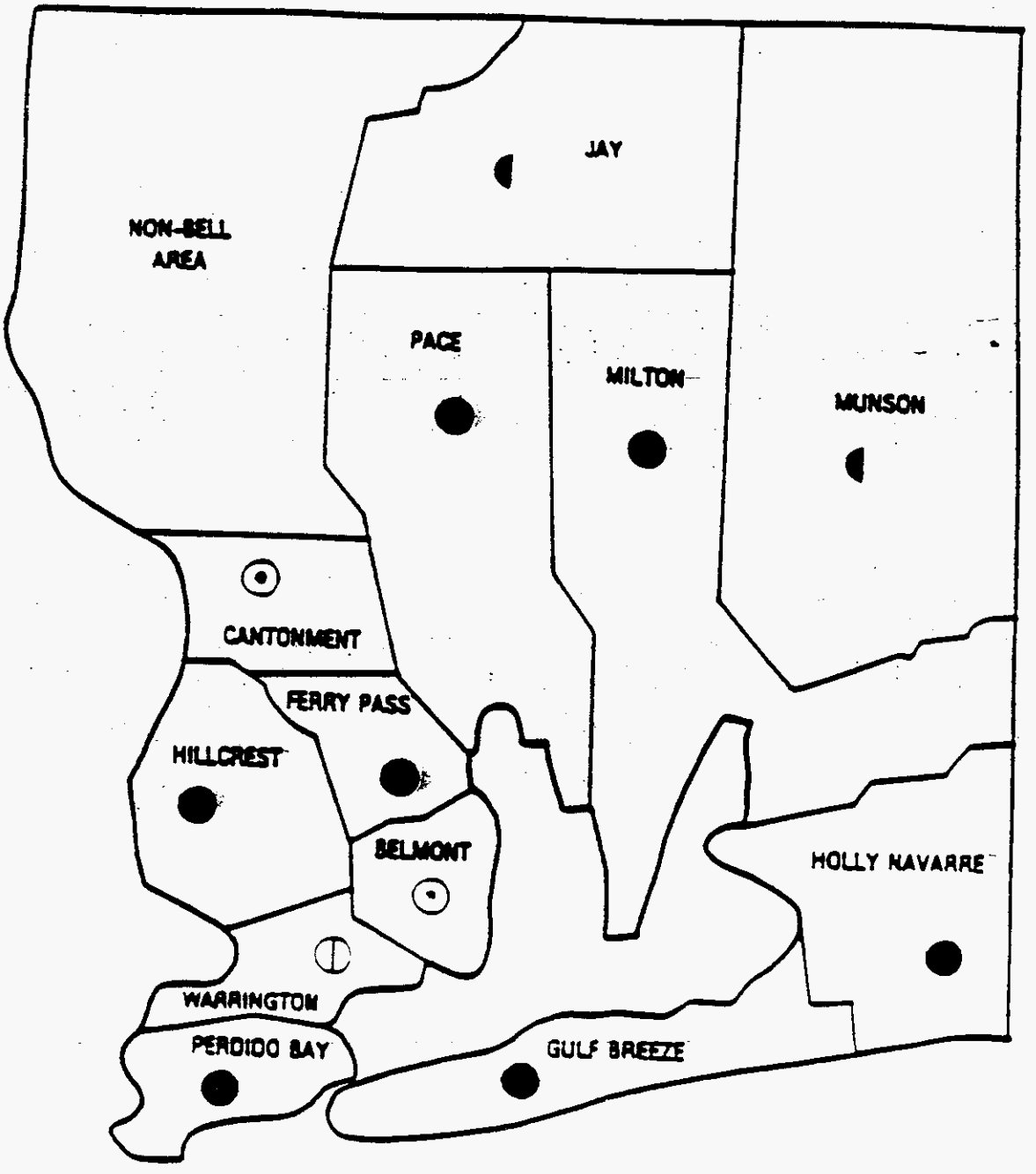

F02B01Z 12060

11

File Code: 205.0235

April 9, 1992

Mr. John Derham
Sales Vice President, Marketing - Florida

Mr. Court Lantaff
Assistant Vice President, Corporate & External Affairs

Dear Sirs:

The Pensacola - Ferry Pass 1A ESS central office is scheduled for replacement in November, 1993. BellSouth Services is currently reviewing our Network Planning System - Wire Center (NPS-W) study which recommends the replacement of Ferry Pass with a Siemens EWSD digital switch. The following switch replacement ESSX forecast was utilized in that study:

1992	1993	1994	1995	1996	1997	1998

This forecast reflects a which cannot be served by the existing Ferry Pass 1A ESS. The Present Method of Operation (PMO) forecast also reflects the and if Ferry Pass wire center is not served by a digital switch.

The BellSouth No. 1A ESS Economic Study Guideline issued by the Executive Vice President - Marketing, Network and Planning, BSS, stipulates that if the , specific documentation is to be included and approved by the General Manager - Marketing and the Assistant Vice President over the state forecasting group.

Since the Pensacola - Ferry Pass Digital ESSX replacement forecast exceeds this criteria, your concurrence is required to allow BellSouth to accept use of our Market Driven ESSX forecast for our switch replacement proposal.

F02B01Z 12061

Please indicate your concurrence with the Digital ESSX forecast on the previous page by signing in the approval space provided below.

Yours truly,

BMO General Manager - Planning & Engineering

Concurred:

for Sales Vice President, Marketing - Florida

Concurred:

Assistant Vice President, Corporate & External Affairs

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

STUDY:
PARAMETER FILE:

PLAN: r93ewsd VS pmoewsd

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

PRIMARY	
NET PRESENT VALUE - EOL	1173.6
NET PW EXPENDITURES	-1910.9
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	1173.6
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.370
PROJECT RATE OF RETURN	15.5%
INTERNAL RATE OF RETURN	18.9%

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	-15.3	178.2	-5.2	110.5	-13.8
1993	-634.2	2327.4	-23.9	1443.0	-44.0
1994	461.7	2774.2	20.0	1720.0	26.8
1995	559.1	2931.0	22.5	1817.2	30.8

++++++ SUMMARY BY PLAN ++++++

	r93ewsd	pmoewsd
TOTAL NONDISCOUNTED CAP.	13299.3	15240.3
TOTAL NONDISCOUNTED EXP.	22128.4	21599.3
TOTAL NONDISCOUNTED REV.	24816.0	11350.3
NET PRESENT VALUE-EOL	-5732.0	-6905.6
NET PW EXPENDITURES	9333.1	11244.0

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

PRESENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
LENGTH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

*CRIT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFERENCE IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
**THE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS OR = ZERO.

****
* FORMAL INPUT REPORT *
****

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: r93ewsd

TREND BASE DATE	- 1/1991	LENGTH OF STUDY	- 18
STUDY START DATE	- 1/1991	GROSS RECEIPTS TAX	- See AREA-CNST-RPT
PRESENT WORTH YEAR	- 1991	IDC INCL. IN FCOST	- NO
NPV OPTION	- EOL	PLAN FILE NAME	-

CAPITAL - MAINTENANCE

DESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
.AESS.	0	10002.0	1/82	0/00	11.00	0	0	0	0.0	2211-0	ESS	EMBD
.AESS.	0	159.6	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
.AESS.	0	155.3	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
:OST.OF.	0	100.0	1/93	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
;ROSS.SA	0	-190.0	1/93	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
;ENCOT.S	0	318.3	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
'"COT.S	0	698.6	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	48.7	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
;ENCOT.L	0	64.0	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
;JR.CUST	0	-3.4	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
JR.CUST	0	-3.4	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-0.6	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-1.5	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
LC2COT.	0	8.9	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	12.9	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	12.9	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
AIN.DIS	0	126.0	1/93	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
UILDING	0	463.0	1/93	0/00	16.00	0	0	0	0.0	2121-1	BLDG	NEW
ISC.CKT	0	100.0	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
:T.NO.5	0	4382.0	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	428.6	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	305.0	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	332.0	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	659.3	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	695.4	1/00	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	689.1	1/01	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	703.8	1/02	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	687.5	1/03	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	705.9	1/04	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	696.2	1/05	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	696.9	1/06	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	696.7	1/07	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	697.0	1/08	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

DY:
ARAMETER FILE:

LAN: r93ewsd

CAPITAL - MAINTENANCE (ED)>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
MBEDDED	0	-1.5	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
ENCOT.S	0	-1604.7	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	-368.8	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	-100.6	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	-36.0	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
S7.CAP.	0	70.0	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..ESS	0	345.6	1/93	0/00	16.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	75.8	1/94	0/00	15.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	25.6	1/95	0/00	14.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	36.0	1/96	0/00	13.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	28.7	1/97	0/00	12.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	36.0	1/98	0/00	11.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	33.9	1/99	0/00	10.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	33.9	1/ 0	0/00	9.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	33.9	1/ 1	0/00	8.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	33.9	1/ 2	0/00	7.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	33.9	1/ 3	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	33.9	1/ 4	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	33.9	1/ 5	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	33.9	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	33.9	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	33.9	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW
VR.PLAN	0	212.0	1/92	0/00	17.00	0	0	0	2211-0	ESS	NEW	

EXPENSE>

SCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES 1	2	3	4	5	CLASS NAME	FREQ.
ESS.MT	0	0.0	1/91	12/92	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	330.6	'92)	340.4							
S.MTCE	0	0.0	1 93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'93)	386.4	'94)	388.7	'95)	403.7	'96)	421.8	'97)	439.1	
		'98)	458.0	'99)	476.6	'00)	495.4	'01)	515.3	'02)	535.2	
		'03)	555.2	'04)	575.1	'05)	595.0	'06)	615.0	'07)	634.9	
		'08)	654.9									
NERIC.	0	0.0	1 91	12/93	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'91)	65.0	'92)	65.0	'93)	65.2					

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

JDY:
PARAMETER FILE:

PLAN: r93ewsd

<EXPENSE (CONTINUED)>

DESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	++++++ GROWTH RATES % +++++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
MJR.CUST	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92) -0.3	'93) -0.3	'94) -0.3	'95) -0.3	'96) -0.3	'97) -0.3	'98) -0.3	'99) -0.3	'00) -0.3	'01) -0.3	'02) -0.3
		'03) -0.3	'04) -0.3	'05) -0.3	'06) -0.3	'07) -0.3	'08) -0.3					
EMBEDDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92) -0.1	'93) -0.1	'94) -0.1	'95) -0.1	'96) -0.1	'97) -0.1	'98) -0.1	'99) -0.1	'00) -0.1	'01) -0.1	'02) -0.1
		'03) -0.1	'04) -0.1	'05) -0.1	'06) -0.1	'07) -0.1	'08) -0.1					
SS7.CAP.	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) 32.5	'94) 34.0	'95) 35.3	'96) 36.9	'97) 38.5	'98) 40.3	'99) 42.1	'00) 43.9	'01) 45.8	'02) 47.8	'03) 49.7
		'04) 51.6	'05) 53.5	'06) 55.5	'07) 57.4	'08) 59.3						
DIG..ESS	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'93) 8.7	'94) 15.5	'95) 18.9	'96) 20.1	'97) 21.7	'98) 23.0	'99) 24.6	'00) 26.2	'01) 27.7	'02) 29.2	'03) 30.7
		'04) 32.3	'05) 33.8	'06) 35.3	'07) 36.8	'08) 38.4						
EN.UPG.	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) 96.0	'94) 96.0	'95) 96.1	'96) 96.2	'97) 96.3	'98) 96.3	'99) 96.4	'00) 96.5	'01) 96.6	'02) 96.7	'03) 96.8
		'04) 96.9	'05) 97.0	'06) 97.1	'07) 97.2	'08) 97.3						
EN.UPG.	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) 34.7	'94) 36.6	'95) 39.7	'96) 43.1	'97) 46.6	'98) 50.4	'99) 54.2	'00) 58.1	'01) 62.1	'02) 66.1	'03) 70.0
		'04) 74.0	'05) 77.9	'06) 81.9	'07) 85.8	'08) 89.8						
ESS.RTU	0	0.0	1/93	12/06	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) 1414.0	'94) 59.0	'95) 59.0	'96) 59.0	'97) 59.0	'98) 59.0	'99) 59.0	'00) 59.0	'01) 59.0	'02) 59.0	

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

JDY:
PARAMETER FILE:

PLAN: r93ewsd

<EXPENSE (CONTINUED)>

DESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
		'03)	59.0	'04)	59.0	'05)	59.0		'06)	59.0		

<REVENUE>

DESCRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
MJR.CUST	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92)	-29.6	'93)	-29.6	'94)	-29.6		'95)	-29.6	'96)	-29.6
		'97)	-29.6	'98)	-29.6	'99)	-29.6		'00)	-29.6	'01)	-29.6
		'02)	-29.6	'03)	-29.6	'04)	-29.6		'05)	-29.6	'06)	-29.6
		'07)	-29.6	'08)	-29.6							
EMBEDDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92)	-5.0	'93)	-5.0	'94)	-5.0		'95)	-5.0	'96)	-5.0
		'97)	-5.0	'98)	-5.0	'99)	-5.0		'00)	-5.0	'01)	-5.0
		'02)	-5.0	'03)	-5.0	'04)	-5.0		'05)	-5.0	'06)	-5.0
		'07)	-5.0	'08)	-5.0							
DIG..ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93)	164.1	'94)	302.1	'95)	370.9		'96)	397.3	'97)	433.3
		'98)	463.5	'99)	500.7	'00)	536.8		'01)	573.1	'02)	604.8
		'03)	636.4	'04)	668.0	'05)	699.4		'06)	731.0	'07)	762.7
		'08)	794.3									
SDN.RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93)	1.7	'94)	15.5	'95)	32.0		'96)	68.2	'97)	112.3
		'98)	177.5	'99)	242.6	'00)	308.0		'01)	393.0	'02)	478.0
		'03)	563.0	'04)	648.0	'05)	733.1		'06)	818.1	'07)	903.1
		'08)	988.1									
SDN.BUS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93)	3.3	'94)	13.9	'95)	28.6		'96)	53.9	'97)	84.0
		'98)	121.2	'99)	158.3	'00)	196.2		'01)	236.2	'02)	276.2
		'03)	316.6	'04)	357.0	'05)	397.4		'06)	437.8	'07)	478.2
		'08)	518.6									
IN.REV.	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'94)	8.1	'95)	43.6	'96)	72.1		'97)	113.1	'98)	183.3

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

JDY:
ARAMETER FILE:

LAN: r93ewsd

REVENUE (CONTINUED)>

ESCRIPT	CAT REP	REV.	START DATE	TERM DATE	++++++ GROWTH RATES % +++++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
		'99)	253.4	'00)	323.6	'01)	373.2	'02)	422.8	'03)		472.6
		'04)	522.3	'05)	572.0	'06)	621.7	'07)	671.5	'08)		721.2
SDN.ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93)	1.4	'94)	7.0	'95)	16.2	'96)	30.7	'97)		44.5
		'98)	57.6	'99)	67.1	'00)	77.7	'01)	86.1	'02)		94.7
		'03)	103.3	'04)	111.9	'05)	120.4	'06)	129.0	'07)		137.6
		'08)	146.2									

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* FORMAL INPUT REPORT *
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RESULTS IN THOUSANDS $(000)

TUDY:
ARAMETER FILE:

LAN: pmoewsd

TREND BASE DATE - 1/1991
STUDY START DATE - 1/1991
PRESENT WORTH YEAR - 1991
NPV OPTION - EOL

LENGTH OF STUDY - 18
GROSS RECEIPTS TAX - See AREA-CNST-RPT
IDC INCL. IN FCOST - NO
PLAN FILE NAME -

CAPITAL - MAINTENANCE>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
AESS.	0	10002.0	1/82	0/00	20.00	0	0	0	0.0	2211-0	ESS	EMBD
AESS.	0	159.6	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	154.2	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	173.7	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	160.9	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	179.5	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	158.5	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	166.1	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
ESS.	0	166.1	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	166.7	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	170.5	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	216.3	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
OST.OF.	0	100.0	1/ 2	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ROSS.SA	0	-160.0	1/ 2	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ENCOT.S	0	318.3	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.S	0	698.6	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.S	0	185.7	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	48.7	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	64.0	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	71.4	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	83.5	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	96.2	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	96.2	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	103.8	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	103.8	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	108.8	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	108.8	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	108.8	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	17.0	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	18.3	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	15.5	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	15.6	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	15.6	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

.JDY:
?ARAMETER FILE:

?LAN: pmoewsd

CAPITAL - MAINTENANCE (CONTINUED)>

)ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
REU.COT.	0	15.6	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
REU.COT.	0	15.5	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
REU.COT.	0	15.5	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
1JR.CUST	0	-3.4	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-0.6	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-1.5	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-2.5	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-3.7	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-2.9	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-2.9	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-2.0	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-2.0	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-1.4	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
EMBEDDED	0	-1.4	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
"EDDED	0	-1.2	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
.2COT.	0	8.9	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	12.9	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	12.9	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	7.3	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
AIN.DIS	0	126.0	1/ 2	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
UILDING	0	463.0	1/ 2	0/00	7.00	0	0	0	0.0	2121-1	BLDG	NEW
ISC.CKT	0	100.0	1/ 2	0/00	7.00	0	0	0	0.0	2232-0	CKT-D	NEW
TT.NO.5	0	6923.2	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	698.8	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	305.0	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	332.0	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	708.2	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
MBEDDED	0	-56.1	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
S7.CAP.	0	70.0	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..ESS	0	222.0	1/ 2	0/00	7.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	66.8	1/ 3	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	56.1	1/ 4	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	56.1	1/ 5	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	56.1	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	56.1	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	56.1	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW
NR.PLAN	0	66.0	1/93	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
NR.PLAN	0	48.0	1/96	0/00	13.00	0	0	0	0.0	2211-0	ESS	NEW
NR.PLAN	0	192.0	1/ 1	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

)DY:
)ARAMETER FILE:

)LAN: pmoewsd

EXPENSE>

)ESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
.AESS.MT	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91) 330.6	'92) 340.3	'93) 350.6	'94) 361.5	'95) 372.5						
		'96) 383.9	'97) 394.8	'98) 405.9	'99) 417.2	'00) 428.8						
		'01) 442.2										
ES.MTCE	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02) 530.6	'03) 550.8	'04) 570.9	'05) 591.1	'06) 611.3						
		'07) 631.4	'08) 651.6									
ENERIC.	0	0.0	1/91	12/02	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'91) 65.0	'92) 65.0	'93) 65.0	'94) 65.0	'95) 65.0						
		'96) 65.0	'97) 65.0	'98) 65.0	'99) 65.0	'00) 65.0						
		'01) 65.0	'02) 25.2									
.CUST	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92) -0.3	'93) -0.3	'94) -0.3	'95) -0.3	'96) -0.3						
		'97) -0.3	'98) -0.3	'99) -0.3	'00) -0.3	'01) -0.3						
		'02) -0.3	'03) -0.3	'04) -0.3	'05) -0.3	'06) -0.3						
		'07) -0.3	'08) -0.3									
MBEDDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92) -0.1	'93) -0.2	'94) -0.4	'95) -0.7	'96) -1.0						
		'97) -1.2	'98) -1.4	'99) -1.6	'00) -1.7	'01) -1.8						
		'02) -1.9	'03) -1.9	'04) -1.9	'05) -1.9	'06) -1.9						
		'07) -1.9	'08) -1.9									
S7.CAP.	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02) 46.9	'03) 49.0	'04) 51.0	'05) 52.9	'06) 54.9						
		'07) 56.9	'08) 58.8									
IG..ESS	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02) 4.0	'03) 10.0	'04) 13.0	'05) 15.5	'06) 18.0						
		'07) 20.6	'08) 23.1									
N.CPG.	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02) 95.6	'03) 95.8	'04) 96.0	'05) 96.1	'06) 96.3						
		'07) 96.4	'08) 96.6									
N.CPG.	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02) 66.1	'03) 70.0	'04) 74.0	'05) 77.9	'06) 81.3						

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: pmoewsd

<EXPENSE (CONTINUED)>

DESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
		'07) 85.8		'08) 89.8								
5ESS.RTU	0	0.0	1/ 2	12/06	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02) 2698.0		'03) 59.0	'04) 59.0		'05) 59.0		'06) 59.0			

<REVENUE>

DESCRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
MJR.CUST	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) -29.6		'93) -29.6	'94) -29.6		'95) -29.6		'96) -29.6			
		'97) -29.6		'98) -29.6	'99) -29.6		'00) -29.6		'01) -29.6			
		'02) -29.6		'03) -29.6	'04) -29.6		'05) -29.6		'06) -29.6			
		'07) -29.6		'08) -29.6								
EMBEDDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) -5.0		'93) -17.6	'94) -39.6		'95) -71.8		'96) -96.4			
		'97) -121.3		'98) -138.6	'99) -155.9		'00) -168.2		'01) -180.5			
		'02) -180.5		'03) -180.5	'04) -180.5		'05) -180.5		'06) -180.5			
		'07) -180.5		'08) -180.5								
IG..ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02) 74.7		'03) 204.2	'04) 269.0		'05) 321.1		'06) 373.3			
		'07) 425.4		'08) 477.9								
SDN.RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02) 239.0		'03) 511.7	'04) 648.0		'05) 733.1		'06) 818.1			
		'07) 903.1		'08) 988.1								
SDN.BUS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02) 138.3		'03) 284.0	'04) 356.6		'05) 397.4		'06) 437.8			
		'07) 478.2		'08) 518.6								
N.REV.	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02) 211.4		'03) 418.7	'04) 522.2		'05) 572.0		'06) 621.7			
		'07) 671.5		'08) 721.2								
DN.ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

JDY:
PARAMETER FILE:

PLAN: pmoewsd

<REVENUE (CONTINUED)>

DESCRIPT	CAT REP	REV.	START DATE	TERM DATE	+++++ L.T.	GROWTH RATES % +++++ 1	2	3	4	5	CLASS NAME	FREQ.
OTHER REV:		'02)	47.4	'03)	89.9	'04)	111.1		'05)	119.3	'06)	127.6
		'07)	135.9	'08)	144.1							

***** END OF REPORT *****

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JACKSONVILLE-ARLINGTON

FLORIDA

1AESS REPLACEMENT

EXECUTIVE APPROVAL LETTER

Prepared by:

Bob Boyd
Senior Engineer
Tactical Planning/North
Phone # (904) 350-7385
May 21, 1992

F02B01Z 12075 F02A01Z 00403

ARLINGTON 1AESS REPLACEMENT

INDEX

Note: The vendor selection letter for this switch replacement, dated April 9, 1992, is still in Birmingham awaiting final approval. Since specific vendor discounts are utilized in the economics related to this switch replacement, the recommended vendor is named in this Executive Approval Letter.

Florida
Central Office Replacement Jacksonville - Arlington 3

Mr. H. E. Palmes
Vice President - Network Planning and Engineering
Birmingham, Alabama

Dear Mr. Palmes:

This Executive Approval Letter recommends and requests approval to replace the existing Jacksonville Arlington 1A Electronic Switching System (1A ESS) with a digital switch, an American Telephone and Telegraph (AT&T) 5ESS. The service date for this switch is presently September, 1993.

The replacement of the Arlington 1A ESS will enhance the revenue stream and economic return provided from this wire center as well as providing positive synergistic effects. More specifically, this switch replacement will position us for as well as customers. It will also services in Jacksonville, provide for the planned reuse of digital loop carrier (DLC) Central Office Terminals (COT's) as a result of DLC integration, and position us for future digital service revenues. In addition, this switch replacement is timed to coincide with the exhaust of the existing 1A ESS switch and eliminates further growth expenditures on that switch. This switch replacement will require capital expenditures of $4.6 Million and a one-time expense of $.1 Million for Right to Use fees. Retirements of $8.8 million of analog ESS switching equipment and circuit equipment will result due to the placement of this digital switch.

Alternatives considered in the economic evaluation of this office's serving plan included replacement in each of the years 1992 through 1997, and replacement in the year 2002, the Present Method of Operation (PMO). Replacement in the year 1993 was the best year of replacement economically and is the Recommended Plan. Standard Network Planning System - Wire Center (NPS-W) economics were done for this wire center, utilizing the current guidelines and NPS-W modeling recommendations. The recommended plan of switch replacement in 1993 results in a Net Present Value (NPV) advantage of $.6 Million, Net Present Worth of Expenditures (NPWE) advantage of $1.1 Million and a Project Rate of Return (PRR) of 14.7% as compared to the PMO. The 1993 replacement plan results in $9.7 million in incremental revenues over the PMO.

The AT&T 5ESS will be installed in available space in the existing building. Ample floor space exists to accommodate all forecasted equipment growth requirements. The building's House Service Panel and engine will be replaced to meet the increased power requirements associated with the digital switch. The existing distributing frame will be Y-spliced to the new digital switch.

Please indicate your approval of this switch replacement for Jacksonville Arlington by signing below in order that detailed engineering may proceed. Questions may be referred to Bob Boyd at (904) 350-7385.

Recommended:

_____ _____

General Manager - Network Planning and Engineering — Date

_____ _____

General Manager - Network Operations — Date

Approved:

_____ _____

Vice President - Network Planning and Engineering — Date

CAPITAL AND EXPENSE REQUIREMENTS

RECOMMENDED PLAN
($000'S)

CAPITAL	1992	1993	TOTAL
Building	300		300
Digital Switch	40	3900	3940
Distributing Frame		10	10
Circuit	100		100
Power	270	30	300
Outside Plant			
Total Capital	710	3940	4650

EXPENSE			
RTU		120	120
Total Expense		120	120

RETIREMENTS	1992	1993	TOTAL
Switch		8348	8348
Circuit(1)		450	450
Total Retirements		8798	8798

Note 1: The Circuit Retirement dollars include $400,000 for Digital Loop Carrier retirements as the result of integration at cutover.

PRESENT SITUATION, RECOMMENDATION, AND OTHER ALTERNATIVES

PRESENT SITUATION

The Arlington wire center covers 22 square miles in the southeast part of the metropolitan Jacksonville exchange. It is a relatively mature wire center with an approximate living unit density of 880 living units per square mile. This office serves approximately 25% business customers and 75% residental customers. Access line growth has been increased by the completion of the Dames Point Bridge over the St. Johns river to the north of this wire center, providing easier access to this area.

The Arlington wire center is served by an AT&T 1AESS. It is housed in a two story structure located off of Atlantic Blvd. Ample spare floor space exists to accommodate a switch replacement. A new digital switch will drive the replacement of the House Service Panel, the existing engine, and fuel tank.

Existing frames include a 28 Module COSMIC subscriber main distributing frame and a 192 vertical conventional toll distributing frame. No frame additions are anticipated for this office.

Existing customers, representing approximately 140 lines, have indicated they will in the 1993 time frame. By the end of the year 2002 the difference in the forecast for the existing 1AESS versus a digital replacement switch is approximately and

The wire center's access line demand is currently exceeding the forecast and will exhaust the present capacity of the 1AESS by September, 1993.

RECOMMENDED PLAN

The recommended plan is to replace the existing 1AESS with a digital AT&T 5ESS switch in September, 1993. The proposed 5ESS can be installed in available space in the the existing building. There is ample room for switch growth as well as carrier and miscellaneous equipment growth. This plan provides ample floor space for growth requirements beyond the 2002 wire center forecast.

The distributing frame serving plan will be to continue to use the COSMIC frame via a Y-splice to the digital switch. Reterminating the subscriber cables to the conventional toll distributing frame was considered but rejected due to the high cost of retermination.

The digital switch will continue to serve this wire center as a class 5 end office. This office does not serve any tandem functions.

PRESENT METHOD OF OPERATION (PMO)

The PMO plan consists of growing the existing AT&T 1AESS analog switch and replacing it with a digital switch in 2002. The AT&T 1AESS is capable of serving this wire center into the 21st century. Penalties for a 2002 digital replacement include inabilities to effectively integrate Digital Loop Carrier (DLC) and loss of present and future revenues due to the inability to provide digital services.

OTHER ALTERNATIVES

Replacement with a digital switch in the years 1992 through 1997 were considered and evaluated via the Network Planning System - Wire Center (NPSW) economic tool. 1993 was chosen as the Recommended Plan due to its maximization of economic return on investment.

INTEGRATED PLANNING CONSIDERATIONS

The integrated planning issues associated with this switch replacement fall into the categories of Network Synergy, Vendor Related Benefits, and Marketing.

Network Synergy

The replacement of the 1AESS with an AT&T 5ESS will provide for the integration of 43 Digital Loop Carrier (DLC) systems at cutover and the integration of all growth systems thereafter. In addition to making COT's available for reuse in the company, this integration will reduce system components, potential service failure points, reduce floor space and power requirements, and eliminate frame wiring due to office churn on all integrated systems.

Vendor Related Benefits

Part of the Request For Quote (RFQ) 90-0206-BRW response provided by American Telephone and Telegraph (AT&T) included

Specifically, if

This
when quantified and prorated over the applicable switches which will comprise the

AT&T's existing offer for on 5ESS switch placements results in a for the recommended replacement in 1993.

Marketing

The placement of the digital switch at Arlington provides the ability to

services. customers representing will be The by the year 2002 is estimated at
Placement of a 5ESS at Arlington will also further enlarge the area of in this metropolitan exchange.
in order to provide full benefit to the customer and revenue to our corporation.

SUMMARY OF ECONOMIC RESULTS AND SENSITIVITY

The Recommended Plan of replacing the 1AESS with a 5ESS in 1993 shows a Net Present Value (NPV) advantage of $637,800, and a Net Present Worth of Expenditures (NPWE) advantage of $1,038,500 over the Present Method of Operation (PMO) plan (replace in 2002). The Project Rate of Return (PRR) is 14.7% over the 18 year study period. Capital avoidance credits for Digital Loop Carrier (DLC) Central Office Terminals (COT's) is $349,700 in 1993 and additional revenues from digital services are $9,251,100 over the study period.

The Jacksonville Arlington 1AESS switch replacement will result in the retirement of $8,348,000 dollars of analog switching equipment and $450,000 dollars of circuit equipment.

Total Net Present Value (NPV) Differences

Plan Description	Plan no.	Total NPV ($000)	NPV Diff. ($000)	Percent Diff.
Replace in 2002	1	-4749.8	0.0	0.0
Replace in 1992	22	-4173.3	576.5	-12.1
Replace in 1993	23	-4130.0	619.8	-13.0
Replace in 1994	24	-4450.7	299.1	-6.3
Replace in 1995	25	-4342.4	407.4	-8.6
Replace in 1996	26	-4443.6	306.2	-6.4
Replace in 1997	27	-4609.0	140.8	-3.0

SENSITIVITY

While it is expected that the Arlington 1AESS replacement will receive the the number of which will be available for 5ESS switches shipping in 1993 and the final determination of which switch replacements will receive those is still subject to change. As a result, the economic impact of was examined as a sensitivity analysis. The results, as shown below, indicate that the project is still economical and the best year of replacement is still 1993. The Net Present Value (NPV) of the Arlington replacement by year is:

Plan Description	Plan no.	Total NPV ($000)	Sensitized NPV Diff. ($000)	Sensitized Percent Diff.
Replace in 2002	1	0	0	0.0
Replace in 1992	22	274	302	-6.4
Replace in 1993	23	227	393	-8.3
Replace in 1994	24	139	160	-3.4
Replace in 1995	25	85	322	-6.8
Replace in 1996	26	0	306	-6.4
Replace in 1997	27	0	141	-3.0

EXECUTIVE SUMMARY

Database: wfl91db

Dataset: base/arlington.bau/arlington.rfq/arlington.285

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NETWORK PLANNING SYSTEM
****
* EXECUTIVE SUMMARY *
****
RESULTS IN THOUSANDS ($000)

TUDY:
ARAMETER FILE:

LAN: rec93 VS pmo

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

PRIMARY	
NET PRESENT VALUE - EOL	637.8
NET PW EXPENDITURES	-1038.5
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	637.8
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.223
PROJECT RATE OF RETURN	14.7%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	-13.5	-143.8	**	-89.1	**
1993	248.5	4994.5	8.4	3096.6	8.0
1994	196.6	4993.2	7.3	3095.8	6.4
1995	264.9	4707.5	9.0	2918.7	9.1

++++++ SUMMARY BY PLAN ++++++

	rec93	pmo
TOTAL NONDISCOUNTED CAP.	9591.0	11588.5
TOTAL NONDISCOUNTED EXP.	13037.4	12865.3
TOTAL NONDISCOUNTED REV.	16304.7	7165.8
NET PRESENT VALUE-EOL	-4134.0	-4771.8
NET PW EXPENDITURES	6731.2	7769.6

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

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RESENT WORTH YEAR	1991	TREND BASE DATE	1/1991	CASH FLOW OPTION	COMB
ENGTH OF STUDY	18 YEARS	DISC RATE	13.24%	FINANCIAL OPTION	ACCT

UCRIT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
NCE IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
THE IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
* THE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

* END OF REPORT *****

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SIX YEARS CAPITAL, REVENUE AND EXPENSE SUMMARY

Database: wfl91db

Dataset: base/arlington.bau/arlington.rfq/arlington.285

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NETWORK PLANNING SYSTEM

****
* SIX-YEAR CAPITAL, REVENUE, AND EXPENSE SUMMARY *
****

RESULTS IN THOUSANDS ($000)

TUDY:
ARAMETER FILE:

LAN: rec93

APITAL	1991	1992	1993	1994	1995	1996
&B TOTAL	0.0	0.0	371.3	0.0	0.0	0.0
2121- 1	0.0	0.0	371.3	0.0	0.0	0.0
OE TOTAL	177.5	131.3	3808.1	30.9	200.0	217.9
2211- 0	65.0	-1.1	604.6	0.0	0.0	0.0
2232- 0	112.4	259.0	-252.2	0.0	0.0	0.0
2212- 0	0.0	-126.7	3455.7	30.9	200.0	217.9
SP TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
TA TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
EN TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
&S TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
EUSE TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
OT. CAP.	177.5	131.3	4179.4	30.9	200.0	217.9
XPENSES	344.5	363.8	361.8	477.9	504.6	536.9
EASE EXP	0.0	0.0	0.0	0.0	0.0	0.0
EVENUE	0.0	-3.8	33.4	94.7	163.9	268.6
EASE REV	0.0	0.0	0.0	0.0	0.0	0.0

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NETWORK PLANNING SYSTEM
SIX-YEAR CAPITAL, REVENUE, AND EXP
RESULTS IN THOUSANDS ($000)

TUDY:
ARAMETER FILE:

LAN: pmo

	1991	1992	1993	1994	1995	1996
APITAL						
&B TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
OE TOTAL	177.5	253.0	324.6	20.6	65.0	-6.0
2232- 0	112.4	259.0	0.0	23.7	14.2	16.1
SP TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
TA TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
EN TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
&S TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
EUSE TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
OT. CAP.	177.5	253.0	324.6	20.6	365.0	13.5
XPENSES	344.5	363.7	385.1	404.9	426.5	449.7
EASE EXP	0.0	0.0	0.0	0.0	0.0	0.0
EVENUE	0.0	-3.8	-53.9	-70.3	-94.1	-112.2

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.EASE REV	0.0	0.0	0.0	0.0	0.0	0.0

***** END OF REPORT *****

(7)

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**************************************************
*                                                *
* building no.- 208    name- ARLINGTON           *
* clli - JCVLFLAR      eco parameter - NPV       *
* plans are compared to plan no.  1              *
*                                                *
*   05/20/92     07:55 ET     Release 5.1.1       *
*                                                *
**************************************************
```

total npv difference

	plan no.	total npv ($000)	npv diff. ($000)	per cent diff.
Replace in 2002	1	-4749.8	0.0	0.0
Replace in 1992	22	-4173.3	576.5	-12.1
Replace in 1993	23	-4130.0	619.8	-13.0
Replace in 1994	24	-4450.7	299.1	-6.3
Replace in 1995	25	-4342.4	407.4	-8.6
Replace in 1996	26	-4443.6	306.2	-6.4
Replace in 1997	27	-4609.0	140.8	-3.0

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FORMAL INPUT REPORT

Database: wfl91db

Dataset: base/arlington.bau/arlington.rfq/arlington.285

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****
* FORMAL INPUT REPORT *
****
THOUSANDS $(000)

TUDY:
ARAMETER FILE:

LAN: rec93

TREND BASE DATE	- 1/1991	LENGTH OF STUDY	- 18
STUDY START DATE	- 1/1991	GROSS RECEIPTS TAX	- See AREA-CNST-RPT
PRESENT WORTH YEAR	- 1991	IDC INCL. IN FCOST	- NO
NPV OPTION	- EOL	PLAN FILE NAME	-

CAPITAL - MAINTENANCE>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
AESS.	0	8672.0	1/77	0/00	16.00	0	0	0	0.0	2211-0	ESS	EMBD
AESS.	0	65.5	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
OST.OF.	0	86.7	1/93	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ROSS.SA	0	-164.8	1/93	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ENCOT.S	0	88.4	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.S	0	212.2	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	24.0	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	44.3	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
MBEDDED	0	-0.4	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-1.1	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
AIN.DIS	0	337.0	1/93	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
UILDING	0	350.0	1/93	0/00	16.00	0	0	0	0.0	2121-1	BLDG	NEW
WR.PLAN	0	300.0	1/93	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
ISC.CKT	0	100.0	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
TT.NO.5	0	3538.5	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	157.6	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	200.0	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	217.9	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	523.8	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	377.2	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	380.6	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	398.0	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	398.2	1/ 1	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW

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TT.NO.5	0	400.4	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	400.2	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	400.5	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	399.9	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	400.5	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	400.2	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	400.4	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
MBEDDED	0	-0.7	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
ENCOT.S	0	-349.7	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
S7.CAP.	0	44.6	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY:
ARAMETER FILE:

LAN: rec93

APITAL - MAINTENANCE (CONTINUED)>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
85M.GRW	0	-126.7	1/92	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
85M.GRW	0	-126.7	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
85M.GRW	0	-126.7	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW

XPENSE>

ESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	++++++ GROWTH RATES % +++++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
ESS.MT	0	0.0	1/91	12/92	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91) 273.6	'92) 279.4									
S.MTCE	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'93) 253.0	'94) 246.8	'95) 250.1	'96) 255.8	'97) 263.9						
		'98) 275.3	'99) 284.4	'00) 293.7	'01) 303.6	'02) 313.5						
		'03) 323.4	'04) 333.4	'05) 343.3	'06) 353.3	'07) 363.2						
		'08) 373.2										
NERIC.	0	0.0	1/91	12/93	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME

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	OTHER EXP:	'91)	65.0	'92)	65.0	'93)	25.2						
MBEDDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP		1-TIME
	OTHER EXP:	'92)	0.0	'93)	0.0	'94)	0.0	'95)	0.0	'96)	0.0		
		'97)	0.0	'98)	0.0	'99)	0.0	'00)	0.0	'01)	0.0		
		'02)	0.0	'03)	0.0	'04)	0.0	'05)	0.0	'06)	0.0		
		'07)	0.0	'08)	0.0								
S7.CAP.	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU		1-TIME
	OTHER EXP:	'93)	27.9	'94)	28.5	'95)	29.0	'96)	30.0	'97)	31.0		
		'98)	34.0	'99)	35.8	'00)	37.7	'01)	39.7	'02)	41.6		
		'03)	43.6	'04)	45.6	'05)	47.6	'06)	49.6	'07)	51.5		
		'08)	53.5										
IG..ESS	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP		1-TIME
	OTHER EXP:	'93)	1.7	'94)	3.5	'95)	4.3	'96)	6.0	'97)	8.1		
		'98)	9.6	'99)	11.9	'00)	13.8	'01)	15.8	'02)	17.8		
		'03)	19.7	'04)	21.7	'05)	23.6	'06)	25.6	'07)	27.6		
		'08)	29.5										
EN.UPG.	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU		1-TIME

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY:
ARAMETER FILE:

LAN: rec93

EXPENSE (CONTINUED)>

ESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	++++++ GROWTH RATES % +++++++ L.T.	1	2	3	4	5	CLASS NAME		FREQ.
	OTHER EXP:	'93)	92.7	'94)	92.7	'95)	92.8	'96)	92.9	'97)	93.0		
		'98)	93.1	'99)	93.2	'00)	93.4	'01)	93.5	'02)	93.6		
		'03)	93.7	'04)	93.9	'05)	94.0	'06)	94.1	'07)	94.2		
		'08)	94.4										
EN.UPG.	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU		1-TIME
	OTHER EXP:	'93)	5.2	'94)	5.2	'95)	6.0	'96)	6.4	'97)	7.0		
		'98)	9.6	'99)	11.1	'00)	12.7	'01)	14.3	'02)	15.8		
		'03)	17.4	'04)	19.0	'05)	20.5	'06)	22.1	'07)	23.6		

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		'08)	25.2										
A-PROC.	0	0.0	1/93	12/93	0.0	0.0	0.0	0.0	0.0	0.0	GENC		1-TIME
OTHER EXP:		'93)	-450.0										
ESS.RTU	0	0.0	1/93	12/06	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU		1-TIME
OTHER EXP:		'93)	373.0	'94)	40.0	'95)	40.0	'96)	40.0	'97)	40.0		
		'98)	40.0	'99)	40.0	'00)	40.0	'01)	40.0	'02)	40.0		
		'03)	40.0	'04)	40.0	'05)	40.0	'06)	40.0				

REVENUE>

ESCRIPT	CAT REP	REV.	START DATE	TERM DATE	++++++ GROWTH RATES % +++++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
MBEDDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92)	-3.8	'93)	-3.8	'94)	-3.8	'95)	-3.8	'96)	-3.8	
		'97)	-3.8	'98)	-3.8	'99)	-3.8	'00)	-3.8	'01)	-3.8	
		'02)	-3.8	'03)	-3.8	'04)	-3.8	'05)	-3.8	'06)	-3.8	
		'07)	-3.8	'08)	-3.8							
IG..ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93)	32.8	'94)	67.4	'95)	84.7	'96)	118.1	'97)	161.1	
		'98)	193.1	'99)	242.0	'00)	284.2	'01)	327.0	'02)	367.4	
		'03)	408.1	'04)	448.9	'05)	489.3	'06)	530.0	'07)	570.5	
		'08)	611.2									
SDN.RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93)	1.1	'94)	9.1	'95)	18.5	'96)	38.9	'97)	64.0	
		'98)	100.7	'99)	137.4	'00)	174.4	'01)	221.4	'02)	268.3	

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY:
ARAMETER FILE:

LAN: rec93

REVENUE (CONTINUED)>

ESCRIPT	CAT REP	REV.	START DATE	TERM DATE	++++++ GROWTH RATES % +++++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.

F02B01Z 12096

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	'03)	315.7	'04)	363.2	'05)	410.7	'06)	458.2	'07)	505.6		
	'08)	553.1										
SDN.BUS 0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME	
OTHER REV:	'93)	2.0	'94)	9.4	'95)	18.4	'96)	34.3	'97)	53.9		
	'98)	79.2	'99)	104.4	'00)	130.6	'01)	159.1	'02)	187.7		
	'03)	216.2	'04)	244.8	'05)	273.4	'06)	301.9	'07)	330.5		
	'08)	359.0										
IN.REV. 0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME	
OTHER REV:	'94)	5.4	'95)	28.4	'96)	46.0	'97)	72.8	'98)	119.3		
	'99)	165.8	'00)	212.4	'01)	247.1	'02)	281.9	'03)	316.7		
	'04)	351.5	'05)	386.3	'06)	421.1	'07)	455.9	'08)	490.7		
SDN.ESS 0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME	
OTHER REV:	'93)	1.2	'94)	7.2	'95)	17.8	'96)	35.1	'97)	52.1		
	'98)	69.3	'99)	83.8	'00)	100.0	'01)	114.3	'02)	128.9		
	'03)	143.4	'04)	157.9	'05)	172.4	'06)	186.9	'07)	201.4		
	'08)	215.9										

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****
* FORMAL INPUT REPORT *
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'HOUSANDS $(000)

TUDY:
'ARAMETER FILE:

'LAN: pmo

TREND BASE DATE	- 1/1991	LENGTH OF STUDY	- 18
STUDY START DATE	- 1/1991	GROSS RECEIPTS TAX	- See AREA-CNST-RPT
PRESENT WORTH YEAR	- 1991	IDC INCL. IN FCOST	- NO
NPV OPTION	- EOL	PLAN FILE NAME	-

CAPITAL - MAINTENANCE>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
AESS.	0	8672.0	1/77	0/00	25.00	0	0	0	0.0	2211-0	ESS	EMBD
AESS.	0	65.5	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	302.0	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	302.0	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	302.0	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	302.0	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	302.0	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
OST.OF.	0	86.7	1/ 2	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ROSS.SA	0	-138.7	1/ 2	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ENCOT.S	0	88.4	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.S	0	212.2	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	24.0	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	44.3	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	22.8	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	12.7	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	15.2	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	70.9	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	43.0	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	43.0	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	43.0	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	43.0	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	0.9	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	1.7	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	1.4	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	25.4	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	10.1	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	10.1	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	10.1	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	10.1	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
JR.CUST	0	-4.8	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-0.4	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-1.1	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-1.9	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW

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FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

;TUDY:
'ARAMETER FILE:

'LAN: pmo

CAPITAL - MAINTENANCE (CONTINUED)>

N MOT ESCRIPT	% REP	FCOST	ACCT DATE	CLASS DATE	LIFE	INV. PUC	GS	COR	MAINT.	CODE	NAME	TYPE
:MBEDDED	0	-2.8	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
:MBEDDED	0	-2.1	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
:MBEDDED	0	-2.1	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
:MBEDDED	0	-1.5	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
:MBEDDED	0	-1.5	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
:MBEDDED	0	-1.1	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
:MBEDDED	0	-1.1	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
:MBEDDED	0	-0.8	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
IAIN.DIS	0	337.0	1/ 2	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
3UILDING	0	350.0	1/ 2	0/00	7.00	0	0	0	0.0	2121-1	BLDG	NEW
'WR.PLAN	0	300.0	1/ 2	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
IISC.CKT	0	100.0	1/ 2	0/00	7.00	0	0	0	0.0	2232-0	CKT-D	NEW
.TT.NO.5	0	5396.2	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
.TT.NO.5	0	389.3	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
.TT.NO.5	0	389.3	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
.TT.NO.5	0	389.3	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
.TT.NO.5	0	389.3	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
.TT.NO.5	0	389.6	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
.TT.NO.5	0	389.1	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
:MBEDDED	0	-25.5	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
S7.CAP.	0	44.6	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW

EXPENSE>

ESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
AESS.MT	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	273.6	'92)	279.3	'93)	285.4	'94)	288.7	'95)	292.7	
		'96)	297.2	'97)	303.8	'98)	317.0	'99)	325.5	'00)	334.1	
		'01)	345.5									
ES.MTCE	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02)	307.2	'03)	316.7	'04)	326.3	'05)	335.8	'06)	345.3	
		'07)	354.8	'08)	364.4							

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ENERIC.	0	0.0	1/91	12/02	0.0	0.0	0.0	0.0	0.0	0.0	GENC		1-TIME
	OTHER EXP:	'91)	65.0	'92)	65.0	'93)	65.0	'94)	65.0	'95)	65.0		
		'96)	65.0	'97)	65.0	'98)	65.0	'99)	65.0	'00)	65.0		
		'01)	65.0	'02)	2								

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY:
ARAMETER FILE:

LAN: pmo

EXPENSE (CONTINUED)>

ESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	+++++ L.T.	GROWTH RATES % +++++ 1	2	3	4	5	CLASS NAME	FREQ.
JR.CUST	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
	OTHER EXP:	'93)	-0.4	'94)	-0.4	'95)	-0.4	'96)	-0.4	'97)	-0.4	
		'98)	-0.4	'99)	-0.4	'00)	-0.4	'01)	-0.4	'02)	-0.4	
		'03)	-0.4	'04)	-0.4	'05)	-0.4	'06)	-0.4	'07)	-0.4	
		'08)	-0.4									
MBEDDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
	OTHER EXP:	'92)	0.0	'93)	-0.1	'94)	-0.3	'95)	-0.5	'96)	-0.7	
		'97)	-0.9	'98)	-1.0	'99)	-1.1	'00)	-1.2	'01)	-1.3	
		'02)	-1.4	'03)	-1.4	'04)	-1.4	'05)	-1.4	'06)	-1.4	
		'07)	-1.4	'08)	-1.4							
S7.CAP.	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
	OTHER EXP:	'02)	40.5	'03)	42.5	'04)	44.4	'05)	46.3	'06)	48.2	
		'07)	50.1	'08)	52.1							
IG..ESS	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
	OTHER EXP:	'02)	2.4	'03)	6.8	'04)	9.0	'05)	11.1	'06)	13.2	
		'07)	15.3	'08)	17.4							
EN.UPG.	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
	OTHER EXP:	'02)	92.9	'03)	93.1	'04)	93.2	'05)	93.3	'06)	93.5	
		'07)	93.6	'08)	93.7							

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EN.UPG.	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU		1-TIME	
OTHER EXP:	'02)	15.8	'03)	17.4	'04)	19.0	'05)	20.5	'06)	22.1	'07)	23.6	'08)	25.2
ESS.RTU	0	0.0	1/ 2	12/06	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU		1-TIME	
OTHER EXP:	'02)	622.0	'03)	40.0	'04)	40.0	'05)	40.0	'06)	40.0				

REVENUE>

ESCRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
					++++++ GROWTH RATES % +++++++							
JR.CUST	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:	'93)	-41.0	'94)	-41.0	'95)	-41.0	'96)	-41.0	'97)	-41.0		

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY:
ARAMETER FILE:

LAN: pmo

REVENUE (CONTINUED)>

ESCRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
					++++++ GROWTH RATES % +++++++							
		'98)	-41.0	'99)	-41.0	'00)	-41.0	'01)	-41.0	'02)	-41.0	
		'03)	-41.0	'04)	-41.0	'05)	-41.0	'06)	-41.0	'07)	-41.0	
		'08)	-41.0									
MBEDDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:	'92)	-3.8	'93)	-12.9	'94)	-29.3	'95)	-53.0	'96)	-71.2		
	'97)	-89.4	'98)	-102.3	'99)	-114.9	'00)	-123.9	'01)	-133.3		
	'02)	-133.3	'03)	-133.3	'04)	-133.3	'05)	-133.3	'06)	-133.3		
	'07)	-133.3	'08)	-133.3								
IG..ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:	'02)	45.1	'03)	139.2	'04)	186.1	'05)	230.0	'06)	273.4		
	'07)	317.0	'08)	360.4								
3DN.RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME

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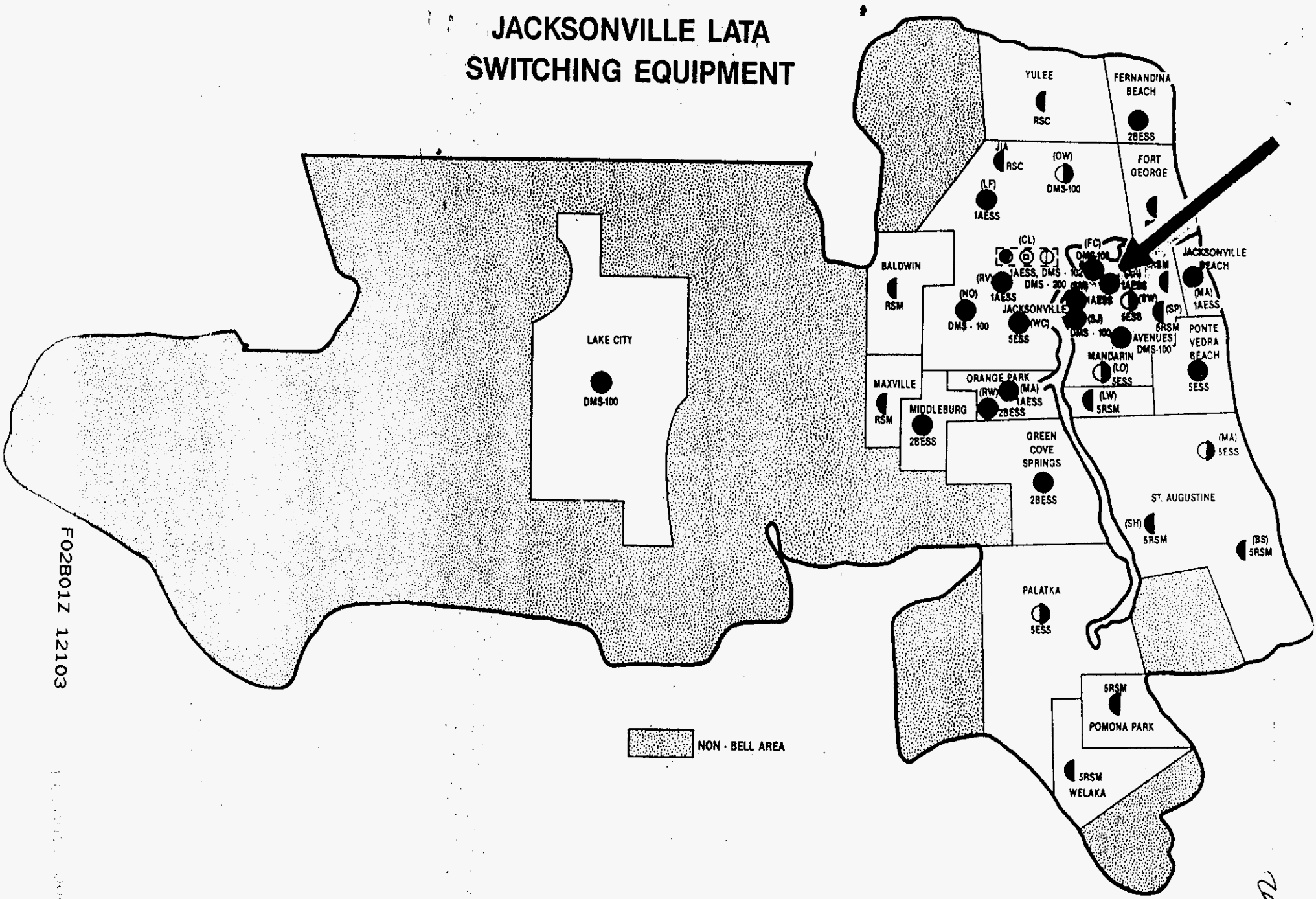
	OTHER REV:	'02)	134.1	'03)	286.8	'04)	362.9	'05)	410.7	'06)	458.2		
		'07)	505.6	'08)	553.1								
SDN.BUS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV		1-TIME
	OTHER REV:	'02)	93.8	'03)	194.2	'04)	244.4	'05)	273.4	'06)	301.9		
		'07)	330.5	'08)	359.0								
IN.REV.	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV		1-TIME
	OTHER REV:	'02)	140.9	'03)	281.3	'04)	351.5	'05)	386.3	'06)	421.1		
		'07)	455.9	'08)	490.7								
SDN.ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV		1-TIME
	OTHER REV:	'02)	52.6	'03)	102.3	'04)	127.1	'05)	138.4	'06)	149.4		
		'07)	160.5	'08)	171.6								

***** END OF REPORT *****

JACKSONVILLE LATA SWITCHING EQUIPMENT



F02B01Z 12103

10/22/91

ANALOG OFFICE REPLACEMENT
ECONOMIC STUDY GUIDELINE

BST FORECASTING
W.A.Schneider
205 977-5601

STATE: Florida
OFFICE: ARLINGTON

INPUT FROM LOCAL WIRE CENTER FORECAST: (END OF YEAR)

	1992	1993	1994	1995	1996	1997
TOTAL ACCESS LINES	26451	27021	27716	28411	29121	30046
RES ACCESS LINES	18234	18484	18809	19129	19454	19874
BUS ACCESS LINES	6599	6781	6962	7144	7344	7664
PBX TRUNKS	753	788	823	858	893	953

	1998	1999	2000	2001	2002	2003
TOTAL ACC	31021	31991	32961	33931	34901	35871
RES ACCES	20294	20709	21124	21539	21954	22369
BUS ACCES	8034	8377	8720	9063	9394	9749
PBX TRUNK	1013	1075	1137	1199	1261	1323

	1991	1992	1993	1994	1995	1996	1997
ESSX, WCF/COFI:							
ESSX,REPL:	---						
ESSX,PMO:	---						

1998	1999	2000	2001	2002	2003

1992	1993	1994

ENTER MAJOR NEAR TERM ESSX LOSSES INCLUDED IN ABOVE, BY YR:

MAJOR ESSX LOSSES:	0	0	---	---	---

INDICATE IF EXISTING OFFICE IS 2BESS (1=YES, 0=NO): 0

ARLINGTON

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ESSX PENETRATION TABLE

YEAR			VARIANCE
1992	=======	=======	-20%
1993	=======	=======	-28%
1994	=======	=======	-44%
1995	=======	=======	-38%
1996	=======	=======	-34%
1997	=======	=======	-31%
1998	=======	=======	-31%
1999	=======	=======	-28%
2000	=======	=======	-27%
2001	=======	=======	-24%
2002	=======	=======	-23%

Use the following revenue per line for Dig ESSX:
(Enter on appropriate B443 form.)

ESSX 292.86

ARLINGTON

1 2 3 4 5 6 7 8

1 =Enter 1 if Metro 1A w/T'star, all others enter 0
30.00%= Percent of Touchstar lines assigned to cap switch
1.50 = Number of Features per Touchstar line

E1A MCLF 0.000 0.225 0.225 0.000 0.184 0.184

YEAR	TOTAL	(1) ANALOG LNS	(2) SLC 2 NI LNS	(4) SLC 2 NI SYS	(3) SLC 2 INT LNS	(5) SLC 2 INT SYS	
1991	26423	25473	0	0	0	0	
1992	26238	25473	0	0	0	0	
1993	26977	25473	0	0	0	0	
1994	27730	25473	0	0	0	0	
1995	28318	25473	0	0	0	0	
1996	28910	25473	0	0	0	0	
1997	29690	25473	0	0	0	0	
1998	30540	25473	0	0	0	0	
1999	31342	25473	0	0	0	0	
2000	32163	25473	0	0	0	0	
2001	32959	25473	0	0	0	0	
2002	33756	25473	0	0	0	0	
2003	34544	25473	0	0	0	0	
2004	35333	25473	0	0	0	0	

E1A

YEAR	(6) EMBEDDED ESSX	(7) DESSX 1 - PBX	(8) ISDN -RES	(9) AIN	(10) T-STAR -RES	(11) T-STAR -BUS	ANALOG ESSX LOSS
1991		0	0	0	2111	197	
1992				0	2811	275	
1993				0	3315	327	
1994				113	3751	375	
1995				592	4111	416	
1996				959	4441	450	
1997				1516	4751	484	
1998				2772	5048	518	
1999				3642	5258	546	
2000				4424	5468	574	
2001				5149	5678	602	
2002				5864	5888	630	
2003				6597	6098	658	
2004				7330	6308	686	

ARLINGTON

YEAR	(12) GEN NI LNS	(14) GEN NI SYS	(13) GEN INT LNS	(15) GEN INT SYS	(16) VNS
1991	0	0	950	22	0
1992	0	0	765	32	0
1993	0	0	1504	43	0
1994	0	0	2257	55	0
1995	0	0	2845	96	0
1996	0	0	3437	132	0
1997	0	0	4217	166	0
1998	0	0	5067	198	0
1999	0	0	5869	215	0
2000	0	0	6690	232	0
2001	0	0	7486	249	0
2002	0	0	8283	266	0
2003	0	0	9071	283	0
2004	0	0	9860	300	0

YEAR	(17) DIG ESSX 2	(18) ISDN -BUS	(19) MLBS 1 - PBX	(20) MLBS 2	(23) ESSX-ISDN	(24) RING-MASTER	(25) MEM CALL REG SVCS
1991						0	
1992						0	
1993						0	
1994						0	
1995						0	
1996						0	
1997						0	
1998						0	
1999						0	
2000						0	
2001						0	
2002						0	
2003						0	
2004						0	

JACKSONVILLE-SAN MARCO EAL

PAGE 1

LINES - 37, 38, 39

F02B01Z 12108

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Southern Bell

H. Corey, Jr.
General Manager - Network - Provisioning

Post Office Box 5567
Fort Lauderdale, Florida 33310
(305) 492-3141

October 26, 1990

Mr. S. A. Mulcahy
Assistant Vice President - Provisioning
Atlanta, Georgia

Dear Mr. Mulcahy:

Replacement of the Jacksonville - San Marco 1AESS with a digital switch is scheduled for August, 1991. This replacement was included in the 1990 Jacksonville LATA Plan. The San Marco 1AESS will be replaced with a Northern Telecom (NTI) DMS 100/200 switch. The DMS 200 tandem functionality is being provided in concurrence with the Diverse Access Tandem Program Planning Guidelines. The Jacksonville LATA has been designated a Tier I LATA and recommended for deployment of a dual tandem arrangement. This is consistent with both the 1989 and 1990 Jacksonville LATA Plans. San Marco's tandem function will service in November, 1991 and the offices on the south side of Jacksonville will be rehomed to it from Jacksonville - Clay Street.

The economic study for this project was reviewed and remains valid. Following is the updated economic summary for the 1AESS replacement:

($000's)

Alternative	NPV	NPWE	NPWE Advantage	PRR	DPP
DMS 100/200	-4392	7036	5975	18.4%	7 Years
PMO (Grow 1AESS)	-8058	13011			

Revenue enhancement will be provided through Digital ESSX and ISDN services. The through the end of the study period, 2007, are for these services. Placement of the digital switch will also position us for future digital service revenues which can not be quantified at this time. The DMS 100/200 switch will also provide synergistic savings through integration of Digital Loop Carrier (DLC).

The recommended plan is identified in the current view of the construction program. Estimated expenditures for capital and expense needed for placement of the DMS 100/200 are:

($000's)

	1990	1991
Digital Switch		6400
Circuit		1700
Building	300	200
Power/Engine		750
Outside Plant		0
Frame		110
Total Capital	300	8610
Expense (Right to Use)		800

The total capital expenditures listed above are 3% lower than those shown in the 1989 Jacksonville LATA Plan. The decrease is due to reduced estimates of circuit expenditures required to provide ring architecture to the major Interexchange Carriers (IC's) in the Jacksonville LATA. The ring architecture will provide the IC's with access to both the Jacksonville and San Marco tandems. The expense requirements listed above are $1 Million lower than those estimated in 1989. This is due to the elimination of Traffic Operator Position System (TOPS) Remote protection, and its large software expense, from the Jacksonville Dual Tandem serving arrangement. This change is in accordance with the Diverse Access Tandem Planning Guidelines.

Replacement of the 1AESS at San Marco will result in the retirement of approximately $9.1 Million of embedded analog investment.

Official Telephone Communications for this project are under $100,000. This Implementation Letter serves as the vehicle to notify Corporate Communications that Form 5939 needs to be prepared for the Jacksonville - San Marco switch replacement project and approved by the appropriate Corporate Communications manager.

A copy of the current Demand and Facility chart for the Jacksonville - San Marco central office is on file in the Tactical Planning/North District in Jacksonville, Florida.

Please indicate your approval below so we may continue our plans to implement this switch replacement.

Yours truly,

General Manager - Provisioning

Approved by:

11-19-90

Executive Vice President - Network

F02B01Z 12110

PS>> pr npwe.list

ep 15 13:29 1990 npwe.list Page 1

title: SOUTHERN BELL 1990 STUDY LEVEL ISSUE 3 FEB12 1990

```
**************************************************
*                                                *
* building no.- 219    name- JCVL SAN MARCO      *
* clli - JCVLFLSM      eco parameter - NPWE      *
* plans are compared to plan no.  1              *
*                                  *             *
*    09/15/90     13:20 ET     Version 4.1.0.1   *
*                                                *
**************************************************
```

total npwe difference

plan no.	total npwe ($000)	npwe diff. ($000)	per cent diff.
1	13011.3	0.0	0.0
21	7036.5	-594.8	-45.9
22	7291.7	-5719.6	-44.0
23	7432.5	-5578.8	-42.9
24	7953.8	-5057.5	-38.9
25	8341.8	-4669.5	-35.9
26	8781.7	-4229.6	-32.5

EXECUTIVE SUMMARY

Database: wfldb

Dataset: base/jcvlsm.sb/smbudget

(Next page(s))

* EXECUTIVE SUMMARY *

****

RESULTS IN THOUSANDS ($000)

TUDY:
ARAMETER FILE:

LAN: repl91 VS pmo

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	3665.5
NET PW EXPENDITURES	-5960.1
	SECONDARY
CUMULATIVE DISCOUNTED CASH FLOW AT STUDY END	3665.5
DISCOUNTED PAYBACK PERIOD	7 YRS
LONG TERM ECONOMIC EVALUATOR	1.910
INTERNAL RATE OF RETURN	*
PROJECT RATE OF RETURN	18.4%

++++++ INCREMENTAL SHORT TASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1990	-24.7	-94.7	**	-58.7	**
1991	76.5	6280.4	4.6	3893.8	2.0
1992	599.1	5791.7	13.8	3590.9	16.7
1993	710.2	5749.0	15.8	3564.4	19.9
1994	836.1	5757.9	17.9	3569.9	23.4

++++++ SUMMARY BY PLAN ++++++

	repl91	pmo
TOTAL NONDISCOUNTED CAP.	16934.7	25042.9
TOTAL NONDISCOUNTED EXP.	17596.0	19890.8
TOTAL NONDISCOUNTED REV.	33317.3	20033.4
NET PRESENT VALUE-EOL	-1392.3	-8057.8

NET PW EXPENDITURES 7141.9 13102.0

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

RESENT WORTH YEAR 1990 TREND BASE DATE 1/1990 CASH FLOW OPTION COMB
ENGTH OF STUDY 18 YEARS DISC RATE 13.34% FINANCIAL OPTION ACCT

UCRIT IS NORMALLY USED TO PERFORM AN INCREMENTAL AN
MEASURE THE DIFFERENCE IN TH
VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF
ITHER PLAN.
THE IROR IS MULTIPLE. USE THE THER EVALUATORS.
* THE RETURN IS NOT SHOWN SINCE THE AVERAGE CAPITAL BALANCE IS LESS THAN
OR EQUAL TO ZERO.

FORMAL INPUT REPORT

Database: wfldb

Dataset: base/jcvlsm.sb/smbudget

(Next page(s))

09/15/90 13:34 CDT NETWORK PLANN 1

****
* FORMAL INPUT REPO **********
RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: repl91

T LENGTH OF STUDY - 18
STUDY START DATE - 1/1990 GROSS RECEIPTS TAX - SREA-CNST-RPT
PRESENT WORTH YEAR - 1990 IDC INCL. IN FCOST - NO
NPV OPTION - EOL PLAN FILE NAME -

CAPITAL - MAINTENANCE>

DESCRIPT	CAT REP	FCOST	DATE	ACCT DATE	LIFE	CLASS PUC	GS	INV. COR	MAINT.	CODE	NAME	TYPE
.AESS.	0	9113.0	1/74	0/00	17.00	0	0	0	0.0	2211-0	ESS	EMBD
.AESS.	0	1.00	0	0	0	0.0	2211-0		ESS	NEW		
COT.$.FO	0	0	18.00	0	0	0	0.0	2232-0	CKT-D	NEW		
PWR.PLAN	0	200.0	1/91	0/00	17.00	0	0	0	0.0	2211-0	ESS	NEW
BUILDING	0	400.0	1/91	0/00	17.00	0	0	0	0.0	2121-1	BLDG	NEW
ITI.DMS-	0	4002.0	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
TI.DMS-	0	519.0	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
ITI.DMS-	0	605.0	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
ITI.DMS-	0	695.7	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
ITI.DMS-	0	735.1	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
ITI.DMS-	0	737.7	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
ITI.DMS-	0	740.3	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
ITI.DMS-	0	742.1	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
ITI.DMS-	0	744.9	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
TI.DMS-	0	758.8	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
ITI.DMS-	0	749.9	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
ITI.DMS-	0	752.6	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
ITI.DMS-	0	755.0	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
TI.DMS-	0	757.2	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	750.0	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
ITI.DMS-	0	771.8	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
DISTRIB.	0	110.4	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
COT.PEUS	0	196.1	1/91	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW

?ON.BAS	0	170.2	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
,N.BAS	0	85.1	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	85.1	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	85.1	1/97	0/00	11.00	0	EW					
ISDN.BAS	0	85.1	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	85.1	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
.SDN.BAS	0	85.1	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	85.1	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	85.1	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
ISDN.BAS	0	85.1	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: repl91

CAPITAL - MAINTENANCE (CONTINUED). DESCRIPT	REP	FCOST	TERM DATE	ECON DATE	MOT LIFE	% PUC	% GS	COR	MAINT.	ACCT CODE	NAME	CLA TYPE
ISDN.BAS	0	85.1	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
SIG..SYS	0	263.4	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
SIG..YS	0	10.1	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	11.8	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
SIG..SYS	0	13.6	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
SIG..SYS	0	15.7	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
SIG..SYS	0	16.8	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
SIG..SYS	0	16.9	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
SIG..SYS	0	17.0	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
SIG..SYS	0	17.1	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
SIG..SYS	0	17.2	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	17.3	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
SIG..SYS	0	17.3	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
SIG..SYS	0	17.5	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
SIG..SYS	0	17.5	1/ 4	0/00	4.00	0	0	0	0.0	22 ESSD	NEW	
?.00	0	0	0	0.0	2212-0	ESSD	NEW	0	0.0	2212-0	ESSD	NEW
S..SYS	0	17.8	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	44.2	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW

T

TOUCHSTA	0	1.0	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW	
TOUCHSTA	0	1.2	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW	
OUCHSTA	0	1.1	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW	
TOUCHSTA	0	1.2	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW	
OUCHSTA	0	1.9	1/96	0/00	12.00	0	0	0STA	0	1.9	1/97	0/00	11
0	0	0	0	0.0	2212-0	ESSD	NEW						
OUCHSTA	0	1.9	0.0	2212-0	ESSD	NEW							
OUCHSTA	0	1.9	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW	
TOUCHSTA	0	1.	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW	
TOUCHSTA	0	2.0	1/ 1	0/00	7SD	NEW							
TOUCHSTA	0	2.0	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW	
TOUCHSTA	0	2.0	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW	
TOUCHSTA	0	2.0	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW	
TOUCHSTA	0	2.0	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW	
TOUCHSTA	0	2.0	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW	
OUCHSTA	0	2.0	1/ 7	0/0	1.00	0	0	0	0.0	2212-0	ESSD	NEW	
SB.DIGES	0	-51.5	1/91	0/00	17.00	0	0						
								SB.DIGES	0	-11.0	1/92	0/00	
16.00	0	0	0	0.0	2212-0	ESSD	NEW						
SB.DIGES	0	-5.3	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW	
SB.DIGES	0	-6.0	1/94	02212-0	ESSD	NEW							

09/15/90 13:34 CDT NETWORK PLANNING SYSTEM

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

repl91

CAPITAL - MAINTENANCE (CONTINUED)>

DESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
SB.DIGES	0	-10.8	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
SB.DIGES	0	-2.4	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
SB.DIGES	0	-2.4	1/97	12-0	ESSD	NEW						
B.DIGES	0	-2.4	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
B.DIGES	0	-2.4	1/99	0/00	9.00	0	0	0	0.0	2SSD	NEW	
SB.DIGES	0	-2.4	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
SB.DIGES	0	-2.5	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
SB.ISDN.	0	-14.5	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW

```
SB.ISDN.  0    -23.3  1/93   0/00 15.00  0    0    0      0.0 2212-0   ESSD      NEW
SB.ISDN.  0    -29.7  1/94   0/00 14.00  0    0    0      0.0 2212-0   ESSD      NEW
SB.ISDN.  0    -33.6  1/95   0/00 13.00  0    0    0      0.0 2212-0   ESSD      NEW
SB.ISDN.  0    -33.3  1/96   0/00 12.00  0    0    0      0.0 2212-0   ESSD      NEW
SB.ISDN.  0    -    0.0 2212-0    ESSD      NEW
 .ISDN.   0    -33.6  1/98   0/00 10.00  0    0    0      0.0 2212-0 33.6   1/99   0/00
  9.00  0    0    0     0.0 2212-0     ESSD      NEW
SB.ISDN.  0    -33.3  1/ 0   0/00  8.00  0    0    0      0.0 2212-0   ESSD      NEW
SB.ISDN.  0    -33.6  1/ 1   0/00  7.00  0    0    0      0.0 2212-0   ESSD      NEW

<EXPENSE>

          CAT              START TERM  ++++++ GROWTH RATES % +++++++    CLASS
DESCRIPT  REP      EXP.    DATE  DATE  L.T.  1    2    3    4    5     NAME      FREQ.
--------  ---     -----    ----- ----- ---- ---- ---- ---- ---- ----  --------  ------
NTI.DMS-  0      750.0    1/ 6  0/00  2.00  0    0    0      0.0 2212-0   ESSD      NEW
NTI.DMS-  0      771.8    1/ 7  0/00  1.00  0    0    0      0.0 2212-0   ESSD      NEW
DISTRIB.  0      160.6    1/ 2  0/00  6.00  0    0    0      0.0 2212-0   ESSD      NEW
```

F02B01Z 12119

09/15/90   13:34 CDT   NETWORK PLANNING SYSTEM   PAGE   2

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE: F02A01Z 00538

PLAN: MAINTENANCE (CONTINUED)>

```
          CAT              PLCT. TERM  ECON MOT  %    %             ACCT      CLASS  INV.
DESCRIPT  REP  FCOST       DATE  DATE  LIFE PUC  GS   COR MAINT.    CODE      NAME   TYPE
----  ----  ---- ---  --- --- ------ -------- -------- ----
 SDN.AS   0     680.8   1/ 2   0/00   6.00  0    0    0      0.0 2212-0    ESSD      NEW
ISDN.BAS  0       85.1  1/ 3   0/00   5.00  0    0    0      0.0 2212-0    ESSD      NEW
ISDN.BAS  0       85.1  1/ 4   0/00   4.   ESSD      NEW
ISDN.BAS  0       85.1  1/ 6   0/00   2.00  0    0    0      0.0 2212-0    ESSD      NEWC
  1.00  0    0    0     0.0 2212-0     ESSD      NEW
SIG..SYS  0   434.2   1/ 2   0/00   6.00  0    0    0      0.0 2212-0    ESSD      NEW SI
..SYS   0     17.5   1/ 3   0/00   5.00  0    0    0      0.0 2212-0    ESSD      NEW
SIG..SYS  0      17.5   1/ 4   0/00   4.00  0    0    0      0.0 2212-0    ESSD      NEW
 /00   3.00  0    0    0      0.0 2212-0    ESSD      NEW
SIG..SYS  0      17.7   1/ 6   0/00   2.00  0    0    0      0.0 2212-0    ESSD      NEW
SIG..SYS  0      17.8   1/ 7   0/00   1.00  0    0    0      0.0 2212-0    ESSD      NEW
TOUCHSTA  0      62.3   1/ 2   0/00   6.00  0    0    0      0.0 2212-0    ESSD      NEW
TOUCHSTA  0       2.0   1/     0/00   5.00  0    0    0      0.0 2212-0    ESSD      NEW
 OUCHSTA  0       2.0   1/ 4   0/00   4.00  0    0    0      0.0 2212-0    ESSD      NEW
 OUCHSTA  0       2.0   1/ 5   0/00   3.00  0    0    0      0.0 2212-0    ESSD      NEW
TOUCHSTA  0       2.0   1/ 6   0/00   2.00  0    0    0      0.0 2212-0    ESSD      NEW
TOUCHSTA  0       2.0     0.0 2212-0    ESSD      NEW
SB.DIGES  0     -99.1   1/ 2   0/00    .00  0    0    0      0.0 2212-0    ESSD      NEW
SB.ISDN.  0    -377.[illegible]  1/ 2   0/00   6.00       0    0 <EXPENSE>

          CAT              START TERM  ++++++ GROWTH RATES % +++++++    CLASS
```

```
-00.MTCE  0        0.0  1/ 2 12/07  0.0  0.0  0.0  0.0  0.0  0.0 LABEXP   1-TIME
     OTHER EXP: '02)  656.9  '03)  685.7  '04)  714.6  '05)  743.6  '06)  772.6
                '07)  801.8

-AESS.MT  0        0.0  1/90 12/01  0.0  0.0  0.0  0.0  0.0  0.0 LABEXP   1-TIME
     OTHER EXP: '90)  398 '91)  428.5  '92)  458.5  '93)  482.0  '94)  511.4
                '95)  545.7  '96)  583.2  '97)  622.3  '98)  662.2  '99)  702.9
                '00)  744.4  '01)  786.7

GENERIC.  0        0.0  1/ 2 12/02  0.0  0.0  00  0.0  0.0  0.0 GENC      1-TIME
     OTHER EXP: '02)  234.1

-OT.$.FO  0        0.0  1/91 12 LABEXP   1-TIME
     OTHER EXP: '91)    1.0  '92)    2.1  '93)    3.2  '94)    4.6  '95)    5.9
                '96)    7.3  '97)    9.6  '98)   11.9  '99)   14.2  '00)   16.5
```


FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: pmo

EXPENSE (CONTINUED)>

F02A01Z 00539

```
     ++++ GROWTH RATES % +++++++   CLASS
ESCRIPT REP    EXP.  DATE  DATE  L.T.  1    2    3    4    -     ----- ----- ----
 ---- ---- ---- ---- ---- ---- -------- ------
               '01)   18. 12/02  0.0  0.0  0.0  0.0  0.0  0.0 LABEXP   1-TIME
     OTHER EXP: '02)   -1.3

-B.ISDN.  0        0.0  1/ 2 12/02  0.0  0.0  0.0  0.0  0.0  0.0 LABEXP   1-TIME
     OTHER EXP: '02)  -30.3

-NLG.ESS  0        0.0  1/ 2 12/07  0.0  0.0  0.0  0.0  0.   0.0 DIGRTU   1-TIME
     OTHER EXP: '02)    0.0  '03)    0.0 '04)    0.0  '05)    0.0  '06)    0.0
                '07)    0.0

-G.ESSX  0         0.0  1/ 2 12/07  0.0  0.0  0.0  0.0  0.0  0.0 DIGRTU   1-TIME
     OTHER EXP: '02)    0.0  '03)    0.0  '04)    0.0  '05)    0.0  '06)  0.0
```

F02B01Z 12120

```
ISDN.RTU  0        0.0  1/ 2 12/07  0.0  0.0  0.0  0.0  0.0  0.0 DIGRTU    1-TIME
     OTHER EXP: '02)    0.0  '03)    0.0  '04)    0.0  '05)    0.0  '06)    0.0
                '07)    .0

SIG.SYS.  0        0.0  1/ 2 12/02  0.0  0.0  0.0  0.0  0.0  0.0 DIGRTU    1-TIME
     OTH 0        0.0  1/ 2 12/07  0.0  0.0  0.0  0.0  0.0  0.0 DIGRTU    1-TIME
     OTHER EXP: '02)  672.9  '03)   35.9  '04)   35.9  '05)   35.9  '06)   35.9
       TA  0        0.0  1/ 2 12/07  0.0  0.0  0.0  0.0  0.0  0.0 DIGRTU    1-TIM
     OTHER EXP: '02)  '05)    0.0  '06)    0.0
                '07)    0.0
```

<REVENUE>

DESCRIPT	CAT REP	REV.	% +++++++ DATE	CLASS DATE	L.T.	1	3	4	5	NAME	FREQ.
OTHER.RE	0	0.0	1/ 2	12/19	0.0	0.0	1-TIME				
SB.DIGIT	0	0.0	1/ 2	12/07	0.0	0.0	0.0	0.0	.0	0.0 REV	1-TIME
OTHER REV: '02) 677.1 '03) 693.8 '04) 710.4 '05) 727.0 '06/90 13											

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY:
PARAMETER FILE:

PLAN: pmo

<REVENUE (CONTINUED)>

DESCRIPT	CAT REP	TH RATES REV.	% +++++++ DATE	CLASS DATE	L..	1	2	3	4	5	NAME	FREQ.
		'07) 760.2										
SB.DIGES	0	0.0	1/ 2	12/02	00	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV: '02)-169.5												


```
SB.ISDN.  0        0.0  1/ 2 12/07  0.0  0.0  0.0  0.0  0.0  0.0 REV       1-TIME
     OTHER REV: '02) 2244.0  '03) 2443.2  '04) 2642.4  '05) 2841.6  '06) 3040.8
                '07) 3240.0

SB.ISDN.  0        0.0  10  0.0 REV       1-TIME F02B01Z 12121
```

***** END OF REPORT *****

PEMBROKE PINES EAL

PAGE 8

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F02B01Z 12123

SOUTHEAST FLORIDA
IMPLEMENTATION LETTER
HOLLYWOOD-PEMBROKE PINES

August 14, 1991

Mr. H. E. Palmes
Vice President-Network Planning & Engineering
Birmingham, Alabama

Dear Mr. Palmes:

Replacement of the Hollywood-Pembroke Pines 1AESS with a digital switch is scheduled for July, 1992. This replacement was included in the 1987 Southeast Florida LATA Plan, which was approved in June, 1987. This replacement has been re-evaluated using NPS-W and the 1990 1AESS Economic Study Guidelines and Assumptions. The results of these studies are tabulated below.

	Alternatives	NPV ($000)	NPWE ($000)	NPWE DIFFERENCE (Alt Plan - PMO) ($000)	PRR (%)	DPP (YRS)
*	Replace 1992 (Rec Plan)	-7634	12462	-5894	22.1	9
*	Replace 1993	-7486	12221	-6135	24.2	8
*	Replace 1994	-7555	12332	-6024	25.2	8
*	Replace 1995	-7565	12349	-6007	28.2	8
	Replace 2002 (PMO Plan)	-11245	18356	-	-	-

* Based on AT&T "FLACENTSO" Package Price Quote.

Although replacement in 1993 is the most economic alternative, replacement in 1992 is recommended primarily to avoid a 1992 1AESS growth job (approximately $1.0 million), and to spread the Operations work load of replacing the remaining 1AESS switches in the Southeast Florida area over the planning cycle. More information on the NPS-W studies and the selection of the recommended plan is included in the attached "Pembroke Pines 1AESS Replacement Plan." The Cucrit Executive Summary and Formal Input Reports that support the above data are attached under "Pembroke Pines 1AESS Replacement Cucrit Analysis Reports."

The recommended plan is identified in the current view of the construction program. Estimated capital expenditures of $8M will be required as follows ($000):

	Category	1991	1992	TOTAL
	Building	150	-	150
*	COE-ESS Digital	125	6975	7100
	-Power	430	-	430
	-MDF	20	180	200
	-Circuit	-	80	80
	Communications	-	55	55
	TOTAL	725	7290	8015

* Based on AT&T "FLACENTSO" Package Price Quote.

The capital reflected above is 33% less than the amount approved in the LATA Plan, due to current detailed engineering. The embedded 77C estimated to be retired with this project (and included in the study) is $12.2 million.

Replacement with a 5ESS is recommended based on a vendor selection study. Since this office was included in the 1990 BellSouth switch RFQ process, the vendor selection study included both the AT&T "Single Office" and "FLACENTSO" package price levels. The study results and capital requirements tabulated above reflect the "FLACENTSO" package price level. More information on the vendor selection study is included in the attached "Pembroke Pines 1AESS Replacement Plan."

Official Telephone Communications for this project are under $100,000. This Implementation Letter serves as the vehicle to notify Corporate Communications that Form 5939 is required to be prepared for the Pembroke Pines project and approved by the appropriate Corporate Communications Manager.

A copy of the current Demand and Facility chart for the Hollywood-Pembroke Pines office dated August 8, 1991, is on file in the Southeast Tactical Planning District.

Yours truly,

General Manager - Planning and Engineering (FL, AL)

APPROVED:

Vice President - Network Planning & Engineering

Attachments

F02B01Z 12125

PEMBROKE PINES 1AESS REPLACEMENT PLAN

Prepared by:

John Horrobin, et al
Southeast Tactical Planning District
(305)492-2409

F02B01Z 12126

PEMBROKE PINES 1AESS REPLACEMENT PLAN

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PEMBROKE PINES 1AESS REPLACEMENT PLAN

1.0 OVERVIEW

This document summarizes the plans associated with replacing the Pembroke Pines 1AESS in July, 1992. Highlights of these plans are listed below.

- Replace the 1AESS with a 5ESS (see Section 2.0).
- Reuse the existing Rockwell 3:1 Multiplexers for IOF and use DSX-1 panels for cutover (see Section 3.1). (A 3:1 DCS will not be deployed at this time.)
- Install a 1:0 Digital Cross-connect System (DCS) to interface the non-switched specials (NSS) with the Interoffice Facilities (IOF) network (see Section 3.2).
- Integrate all Digital Loop Carrier (DLC) systems that carry strictly integratable services into the 5ESS at cutover (see Section 4.0).
- Consolidate all metallic circuits onto the Trunk Main Distribution Frame (TMDF) and remove the COSMIC frame (see Section 5.0).
- Integrate all DLC systems that were not integrated at cutover into the 5ESS using a post-cutover procedure (see Section 6.0).

These plans are described in detail on the following pages. Also provided are a contact list of the individuals responsible for developing these plans and diagrams of the cutover architecture and post-cutover integration plan.

2.0 DIGITAL SWITCH PLAN

2.1 1AESS Replacement Study Results and Recommended Plan

An economic analysis of replacing the 1AESS switch with a digital switch yielded the economic indicators tabulated below.

1AESS Replacement Study Economic Summary

	Alternatives	NPV ($000)	NPWE ($000)	NPWE DIFFERENCE (Alt Plan - PMO) ($000)	PRR (%)	DPP (YRS)
*	Replace 1992 (Rec Plan)	-7634	12462	-5894	22.1	9
*	Replace 1993 (Best Year)	-7486	12221	-6135	24.2	8
	Replace 2002 (PMO Plan)	-11245	18356			
**	Replace 1992	-8547	13953	-4403	18.4	12

* Based on AT&T "FLACENTSO" Package Price Quote.
** Based on AT&T Single Office Price Quote.

Replacement of the 1AESS was studied in years 1992-1996, and 2002 (PMO). Two series of NPS-W studies were completed to reflect both the "FLACENTSO" package price and the "Single Office" price as quoted in AT&T's response to the BellSouth RFQ for digital switching equipment. The table above includes the economic indicators for replacing the 1AESS using both "FLACENTSO" and "Single Office" price levels. In all NPS-W studies, the switch pricing in the PMO plan is based on the 5ESS price model in the NPS-W study level since the RFQ prices did not apply to 2002 replacements.

The "Recommended Plan" is to replace the 1AESS with a 5ESS in 1992. This plan was selected over the "Best Year" plan for the following reasons:

- To avoid a $1.0 M 1AESS growth job in 1992.
- To spread the work load of replacing the 1AESS switches in the Southeast Area.
- To level the budget requirements for replacing the 1AESS switches in the Southeast Area.

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- To contribute approximately $12.2M to our 1992 represcription commitments with the Florida PSC.

- The economics of this plan are more attractive than any other 1AESS replacement plan in the Southeast Area.

Our NPS-W studies indicate that the "Best Year" to replace 15 of the 22 1AESS switches currently in service in the Southeast Area is 1994 or 1995. Our studies also indicate that replacing 13 of these switches in 1992-1994 is more economical than replacing these switches in 1996 or 2002. These results imply a work load of 3 1AESS replacements per year for years 1992-1995 in the Southeast Area (assuming the work load would be spread evenly). As the most economical 1AESS replacement plan in the Southeast Area, the Pembroke Pines 1AESS replacement has been scheduled in 1992.

2.2 1AESS Replacement Study Guidelines and Assumptions

The economic analysis was performed using the 1990 BellSouth 1AESS Economic Study Guidelines and the RFQ Study Level in NPS-W. Highlights of the major assumptions and parameters included in the guidelines and the NPS-W study level are listed below.

- ESS replacement studies cover an 18-year period (1990-2007).

- Study alternatives include replacement of the 1AESS with a digital switch in years 1992-1996. Cap plans are not considered since the BellSouth RFQ did not identify capping a 1AESS as an alternative.

- The Present Method of Operation assumes replacement of the 1AESS with a digital switch in 2002.

- The model for the generic digital switch is based on the AT&T 5ESS pricing structure described in AT&T's response to the BellSouth RFQ.

- The price of the replacement job in all studies except PMO is adjusted by NPS-W (using BellSouth methodology) to match the "FLACENTSO Package" and "Single Office" discount levels quoted in AT&T's response to the BellSouth RFQ.

- All 1AESS growth jobs included in the studies are priced using reused equipment costs.

- Reuse credit (capital avoidance) for displaced 1AESS equipment is not claimed in any study.

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- All COT growth jobs included in the studies are priced using new COT equipment costs. The cost of a SLC-96 Mode I COT is /system plus /line. The cost of a SLC-96 Mode II COT is /system plus /line.

- Reuse credit (capital avoidance) for COT equipment is claimed in years 1992-1995 only. The reuse credit for a SLC-96 Mode I COT is $5,975/system plus $28/line. The reuse credit for a SLC-96 Mode II COT is $6,106/system plus $28/line.

- The "BSS ESS Replacement Spreadsheet" is used to formulate the forecast information and software pricing for all replacement studies. Based on inputs from the latest COFI, Market Driven Demand, and OSP forecasts, the spreadsheet generates forecasts for all line types, including Analog, Non-integrated, Integrated, Touchstar, Digital ESSX, Area Wide ESSX, ISDN, and Advanced Intelligent Network lines.

- The OSP forecasts for integrated lines are adjusted downward as required to avoid a decrease in the analog line forecast. However, the DLC system forecasts are not adjusted.

- An additional annual maintenance expense of $1.50/line is applied to all lines terminating on a COT.

- The Telco In-Plant Factor used in all studies that are based on the generic digital switch is 1.15.

- A one-time cost of $310/line is applied to all DESSX lines to model the incremental loop costs for providing this service (or the opportunity cost of using existing facilities to provide DESSX that would have been used to provide other services).

- Revenues for Touchstar and Ringmaster services are not included in 1AESS replacement studies (they are common to all plans).

- Costs for Building, MDF, and Power jobs associated with the switch replacement are incorporated in all studies.

More information on the assumptions and guidelines pertaining to 1AESS replacement studies can be found in the "1AESS Economic Study Guidelines" (RL 90-07-041SV).

2.3 Capital & Expense Requirements

The capital and expense requirements for replacing the 1AESS with a 5ESS are given below. These requirements are included in the 1991 June View Construction Budget. (The Switch requirements reflect the AT&T "FLACENTSO" package price.)

Capital & Expense Requirements

SWITCH	EQ LINES (000)	CAPITAL ($000) SWITCH	CKT	PWR	MDF	BLDG	EXPENSE ($000)
5ESS	107	7100	80	430	200	150	445

3.0 INTEROFFICE FACILITIES PLAN

3.1 3:1 DCS Considerations and Plan

Our plans do not include the deployment of an asynchronous 3:1 Digital Cross-Connect System (DCS) in Pembroke Pines. The following information describes the factors that were considered when making this decision.

Prime candidates for the deployment of an asynchronous 3:1 DCS are those offices that serve as a hub for interoffice facilities with large quantities of back-to-back multiplexers. Pembroke Pines is an IOF end office and, therefore, deployment of an asynchronous 3:1 DCS can not be economically justified solely for IOF purposes.

Though Pembroke Pines has a large amount of DLC systems embedded and planned for growth, the current OSPE Guidelines for use of 3:1 DCS equipment does not recommend deployment of a 3:1 DCS for loop applications until a SONET OC-3/OC-12 interface is available and approved. Also, since the salvage value of DDM-1000 plugs is decreasing due to the deployment of DDM-2000 technology, replacing the large embedded base of DDM-1000 multiplexers would be uneconomical.

The availability and deployment of SONET equipment for the IOF network is expected to accelerate in 1993. This will create a window of opportunity for deploying a synchronous 3:1 DCS that will act as a SONET gateway and be an integral part of the "Network of the Future." The deployment of this new-generation 3:1 DCS in Pembroke Pines will be studied as applications of this technology are developed.

The existing Rockwell 3003 3:1 Multiplexer equipment will remain in use during and after cutover for terminating DS-3 IOF facilities. The DSX-1 panels will be used as cutover devices for the IOF and distribution facilities.

3.2 1:0 DCS Considerations and Plan

A 1:0 Digital Cross-Connect System (DCS) is planned for deployment in the Pembroke Pines office coincident with the switch cutover. Although a 1:0 DCS is not required for the message trunk transition, it is required to treat the non-switched specials (NSS) in the DLC systems using the 'sidedoor' feature of the 5ESS. The 'sidedoor' feature will be available after the cutover with the deployment of the Integrated Digital Carrier Unit (IDCU) in late 1992 (see Section 6.0). The treatment of the NSS is accomplished by grooming them within the 1:0 DCS to the appropriate interoffice T1 facilities. The 1:0 DCS also serves as the interface between the copper loop universe and the interoffice facilities via intrabuilding T1 systems.

The alternative to using a 1:0 DCS is to use D4 channel banks to terminate all T1 systems from the sidedoor of the 5ESS and all T1 systems that transport specials from the interoffice network. Using this method, the grooming of NSS is accomplished via manual cross connections on the MDF. This method is not desirable as it requires back to back channel units and is labor intensive. It also introduces additional analog to digital conversions at the circuit level.

3.3 Fiber Optic Plan for IOF

Pembroke Pines currently has two IOF routes: a fiber optic system carries all traffic between Pembroke Pines and Jacaranda, and copper facilities carry all traffic between Pembroke Pines and West Hollywood.

Current IOF plans for Pembroke Pines include routing all traffic to Jacaranda and retiring the copper facilities in the West Hollywood route by year-end 1991. A fiber optic system will be installed in the West Hollywood route for diversity prior to the switch cutover in July, 1992.

4.0 DISTRIBUTION PLAN

At cutover, approximately 324 SLC-96 Mode I and equivalent systems and 42 SLC-96 Mode II and equivalent systems will be integrated into the 5ESS. Approximately 150 DLC systems

that carry non-integratable services will remain in the universal mode at cutover. These systems will be integrated during a second cutover starting in December, 1992 (see Section 6.0).

DLC system growth will consist primarily of concentrated technology (SLC-96 Mode II or equivalent). However, growth on concentrated systems will be limited to integratable services at least until the second cutover is completed. Growth of non-integratable services will be served either on existing metallic facilities or on the DLC systems that will remain in the universal mode at cutover. In accordance with the OSPE Loop Deployment Guidelines, new technology, such as SONET-based DLC and ADM equipment, may be deployed.

5.0 DISTRIBUTION FRAME PLAN

The Pembroke Pines central office is currently served by two distribution frames. A COSMIC frame is located on the second floor adjacent to the 1AESS, and a conventional Trunk Main Distribution Frame (TMDF) is located on the first floor. The Distribution Frame Plan is to consolidate all metallic circuits onto the TMDF and retire the COSMIC frame. The TMDF will then function as a Combined Main Distribution Frame (CMDF). This consolidation will be performed in three phases.

The first phase of the consolidation is to reterminate all metallic distribution facilities currently terminated on the COSMIC frame on the TMDF. This phase involves the following steps:

- **Add 50 TMDF verticals to accommodate the metallic circuits currently terminated on the COSMIC frame.**
- **Terminate the 5ESS ALU's associated with the metallic distribution facilities on the horizontal side of the TMDF, making it a CMDF.**
- Terminate the 5ESS ALU's associated with the DLC systems that will remain in the universal mode during cutover on the COSMIC frame.
- Install new connectors between the cable vault and the vertical side of the CMDF.
- Connect jumpers between the new horizontal and vertical CMDF terminations.

This phase will be completed prior to cutover of the 5ESS.

The second phase of the consolidation is to redirect all DLC systems that carry strictly integratable services from the COSMIC frame to the DSX-1 panels for integration into the 5ESS DCLU's. This phase involves the following steps:

- Install DS-1 facilities between the DSX-1 panels (on the first floor) and the 5ESS DCLU's.

- Cross-connect the DSX-1 terminations of the DLC Remote Terminals (RT's) that carry strictly integratable services to the DSX-1 terminations of the 5ESS DCLU's.

This phase will be completed during switch cutover. After cutover, the COT's involved in this phase can be disconnected from the COSMIC frame and reused.

The final phase of the consolidation is to redirect all DLC systems that were not integrated at cutover from the COSMIC frame to the DSX-1 panels for integration into the 5ESS IDCU's. This phase involves the following steps:

- Install DS-1 facilities between the DSX-1 panels (on the first floor) and the 5ESS IDCU's.

- Cross-connect the DSX-1 terminations of the DLC RT's that were not integrated at cutover to the DSX-1 terminations of the 5ESS IDCU's.

This phase will be completed during the post-cutover integration procedure described in Section 6.0. When this phase is completed, the COT's involved can be disconnected from the COSMIC frame and reused.

The COSMIC frame will removed once all circuits have been transitioned to either the CMDF or DSX-1 panels, as appropriate.

Below are the results of an economic study of consolidating all metallic distribution facilities onto the TMDF.

Frame Consolidation Study Economic Summary

Alternatives	NPV ($000)	NPWE ($000)	NPWE DIFFERENCE (Alt Plan - PMO) ($000)	PRR (%)	DPP (YRS)
Consolidate (Rec Plan)	-413	674	-921	22.3	10
Maintain dual-frame operation	-977	1595	-	-	-

More detailed information on the Frame Consolidation Study can be obtained from Fred Moldovan on (305)492-3307.

6.0 POST CUTOVER INTEGRATION PLAN

AT&T has developed a new 5ESS peripheral device, called the Integrated Digital Carrier Unit (IDCU), which will provide the 'sidedoor' functionality and thereby allow DLC systems carrying services that are currently non-integratable to be integrated into the 5ESS. The IDCU will redirect the non-integratable services to the 1:0 DCS for interconnection with the appropriate IOF or other equipment. The non-integratable services will not be assigned to a time slot within the 5ESS Switching Module.

Unfortunately, the IDCU equipment will not be available until late 1992. Therefore, approximately 150 DLC systems that contain non-integratable services cannot be integrated during the 5ESS cutover in July, 1992. (Distribution Engineering is making a concerted effort to reduce the number of DLC systems with non-integratable services prior to cut.) Consequently, these systems will be integrated in a second cutover program starting in December, 1992. The procedure for integrating these systems during the second cutover are outlined below (see the 'Post Cutover Plan' diagram attached).

Post Cutover Integration Procedure

- **Establish new T1 systems, for non-switched services (NSS), from the 1:0 DCS to the interoffice network.**
- Establish intrabuilding T1 systems from the 1:0 DCS to a D4 bank to access existing D4 bank systems and copper loops.
- Using the spare capacity in the 1:0 DCS, route one DLC system at a time through the DCS. Pass all 96 channels through the DCS to the COT.
- Select one NSS at a time and groom it within the DCS to the new interoffice facility.
- When all NSS have been groomed, redirect the remaining POTS channels off the COT and into the IDCU using the 'time slot bridging' feature of the 5ESS.

- Establish a path within the IDCU for NSS to access the sidedoor. Redirect the 'specials' in the DCS to flow to the IDCU, out the sidedoor and back to the DCS and the appropriate T1 facility.

- When all POTS and NSS are routed through the IDCU, the DLC circuits can be disconnected from the 1:0 DCS and the COT can be removed. The 1:0 DCS assignments and plug-ins can be reused to repeat this process for the next DLC system.

The above procedure will be repeated until all DLC systems that were not integrated at cutover are reterminated on the IDCU's.

AT&T has agreed to loan the required number of Analog Line Units (ALUs) necessary to terminate 150 DLC systems in the universal mode for the cutover of the 5ESS in July, 1992. The ALU's will be removed and returned to AT&T after all DLC systems have been reterminated on the IDCU's. AT&T will bill us for the ALU's on the initial job, but will credit our purchase of the IDCU's with the cost of the ALU's. However, approximately $150,000 in Operations, cable, and other costs will not be recoverable when the IDCU's are installed. These additional costs have been included in our cost studies, as described in Section 2.3.

The development of the capability and procedures for cutting DS-1 facilities without demultiplexing to the DS-0 rate (high-speed cut) could simplify the above process. We are working with our switch vendors on this issue for use in future 1AESS cutovers.

7.0 CENTRAL OFFICE ARCHITECTURE

Architectural diagrams of the various phases of the Pembroke Pines 1AESS cutover, including the existing and final configurations of the central office equipment, are attached for reference. Questions on these diagrams should be directed to Fred Moldovan on (305)492-3307.

8.0 CONTACT LIST

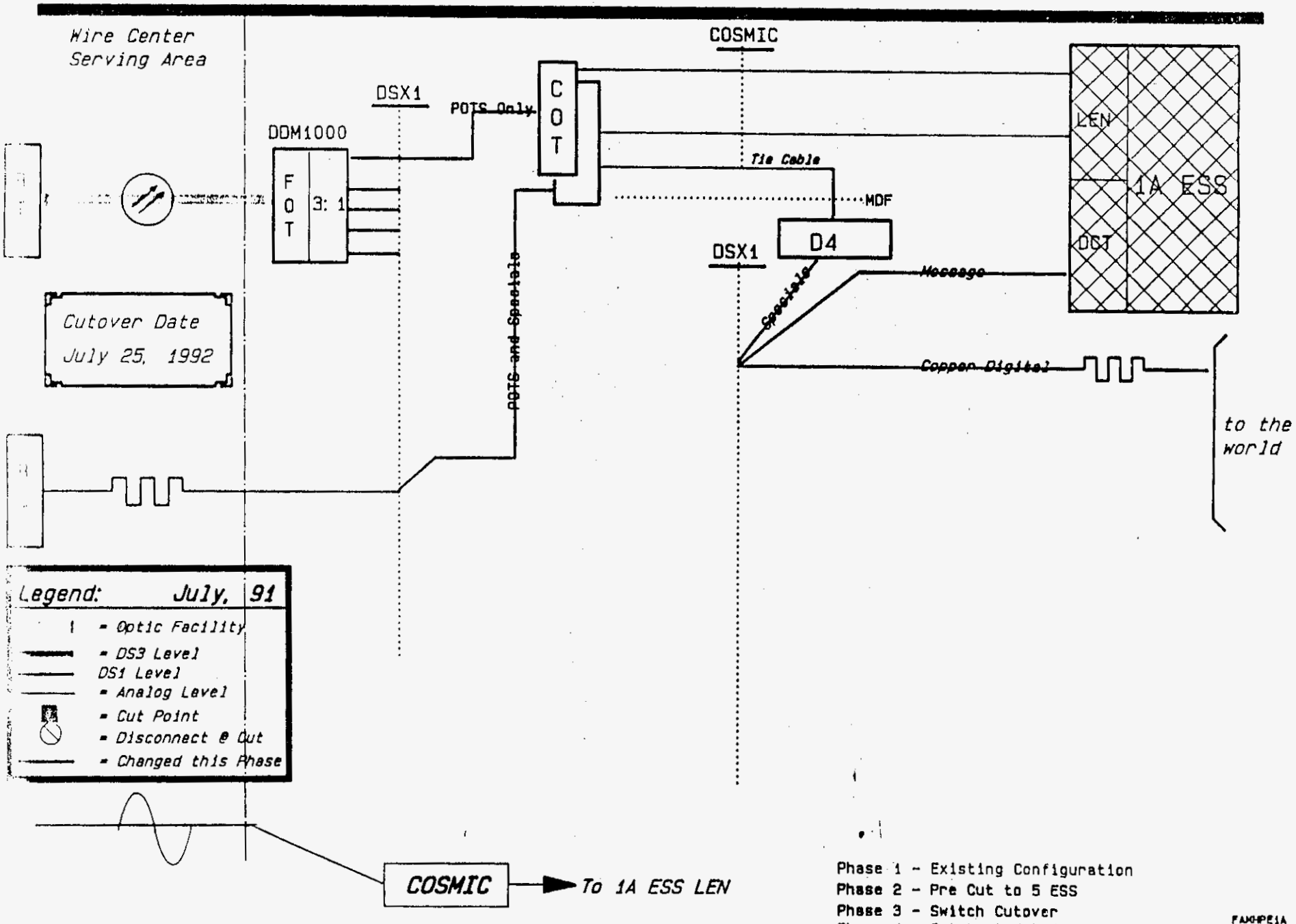
Below are the names and phone numbers of the Southeast Tactical Planning District planners involved in the development of the plans included in this document. These individuals can be contacted for discussion of the material pertaining to their responsibilities.

Southeast TPD Planning Contacts For Pembroke Pines

Name	Area of Responsibility	Phone
Fred Moldovan	Integrated Planning	(305)492-3307
Bob Boltz	Current Switch Planning	(305)492-2720
Bob Pepper	Fundamental Switch Planning	(305)492-2970
John Horrobin	Fundamental Switch Planning	(305)492-2409
Ted Seidel	Fundamental IOF Planning	(305)492-2897
Ray McIntyre	Distribution Frame Planning	(305)492-3872

HLWDFLPE Cutover Architecture

Phase 1
Existing Configuration



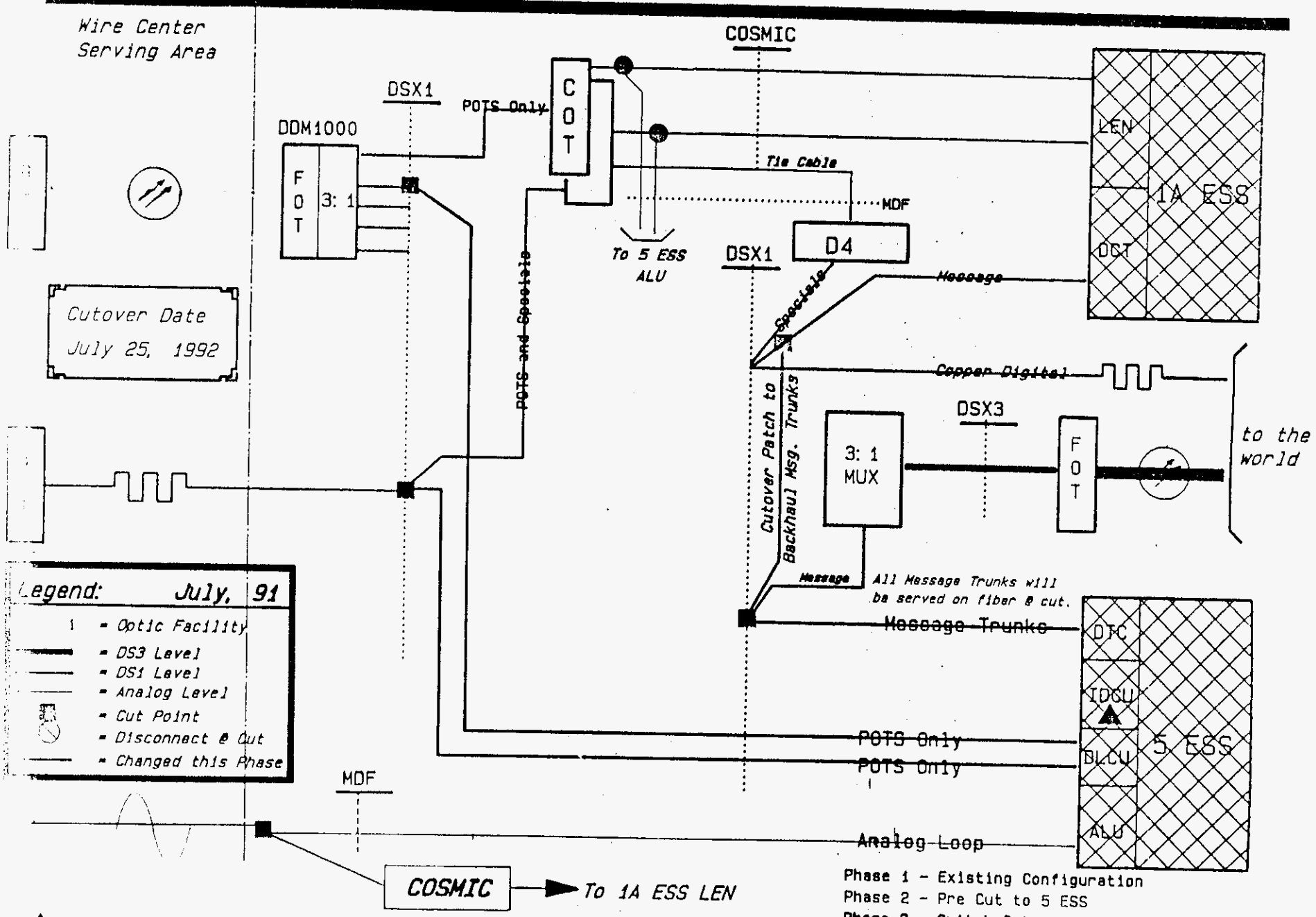
Phase 1 - Existing Configuration
Phase 2 - Pre Cut to 5 ESS
Phase 3 - Switch Cutover
Phase 4 - Integrated DLC Cutover
Phase 5 - Final Configuration

FAHPE1A

F02801Z 12139

RLWDFLPE Cutover Architecture

Phase 2
Pre Cut to 5 ESS



Note: The IDCU technology will not be available until Post Cut - November, 1992.

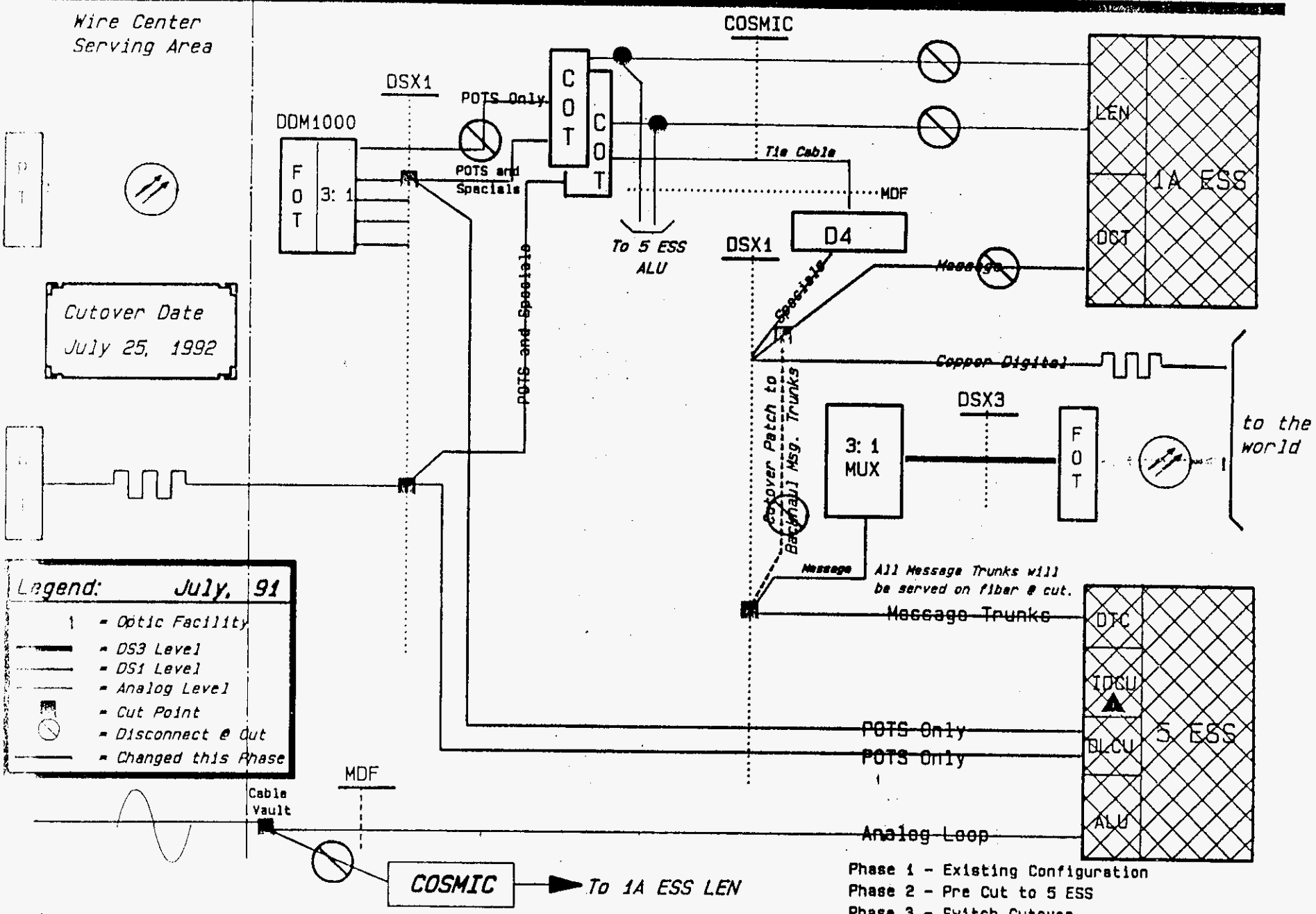
Phase 1 - Existing Configuration
Phase 2 - Pre Cut to 5 ESS
Phase 3 - Switch Cutover
Phase 4 - Integrated DLC Cutover
Phase 5 - Final Configuration

FAM4PE2A

F02B01Z 12140

HLWDFLPE Cutover Architecture

Phase 3
Switch Cutover



Note: The IDCU technology will not be available until Post Cut - November, 1992.

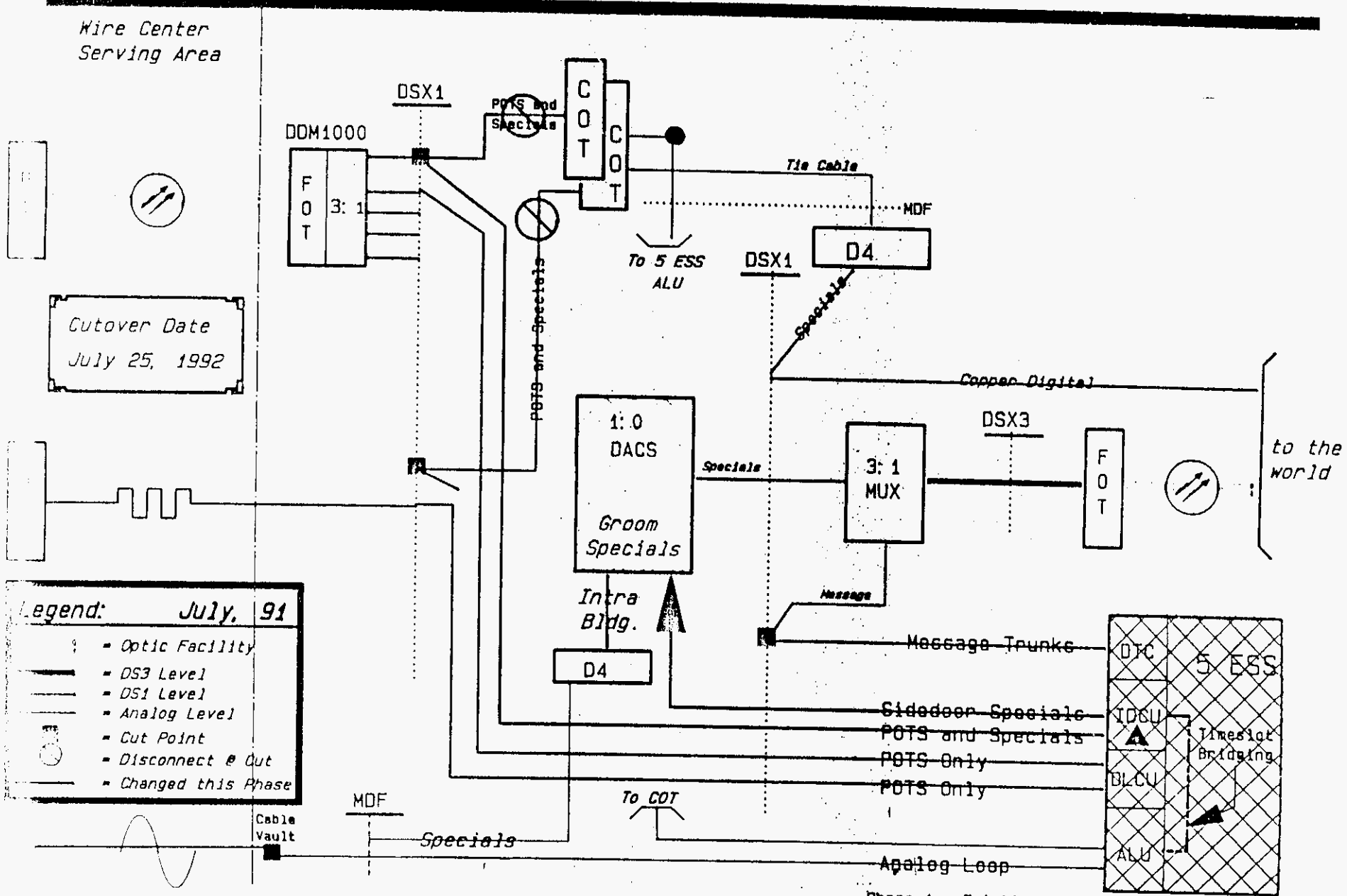
Phase 1 - Existing Configuration
Phase 2 - Pre Cut to 5 ESS
Phase 3 - Switch Cutover
Phase 4 - Integrated DLC Cutover
Phase 5 - Final Configuration

FAM-PESA

F02B01Z 12141

HLWDFLPE Cutover Architecture

Phase 4
Integrated DLC Cutover



Phase 1 - Existing Configuration
Phase 2 - Pre Cut to 5 ESS
Phase 3 - Switch Cutover
Phase 4 - Integrated DLC Cutover
Phase 5 - Final Configuration

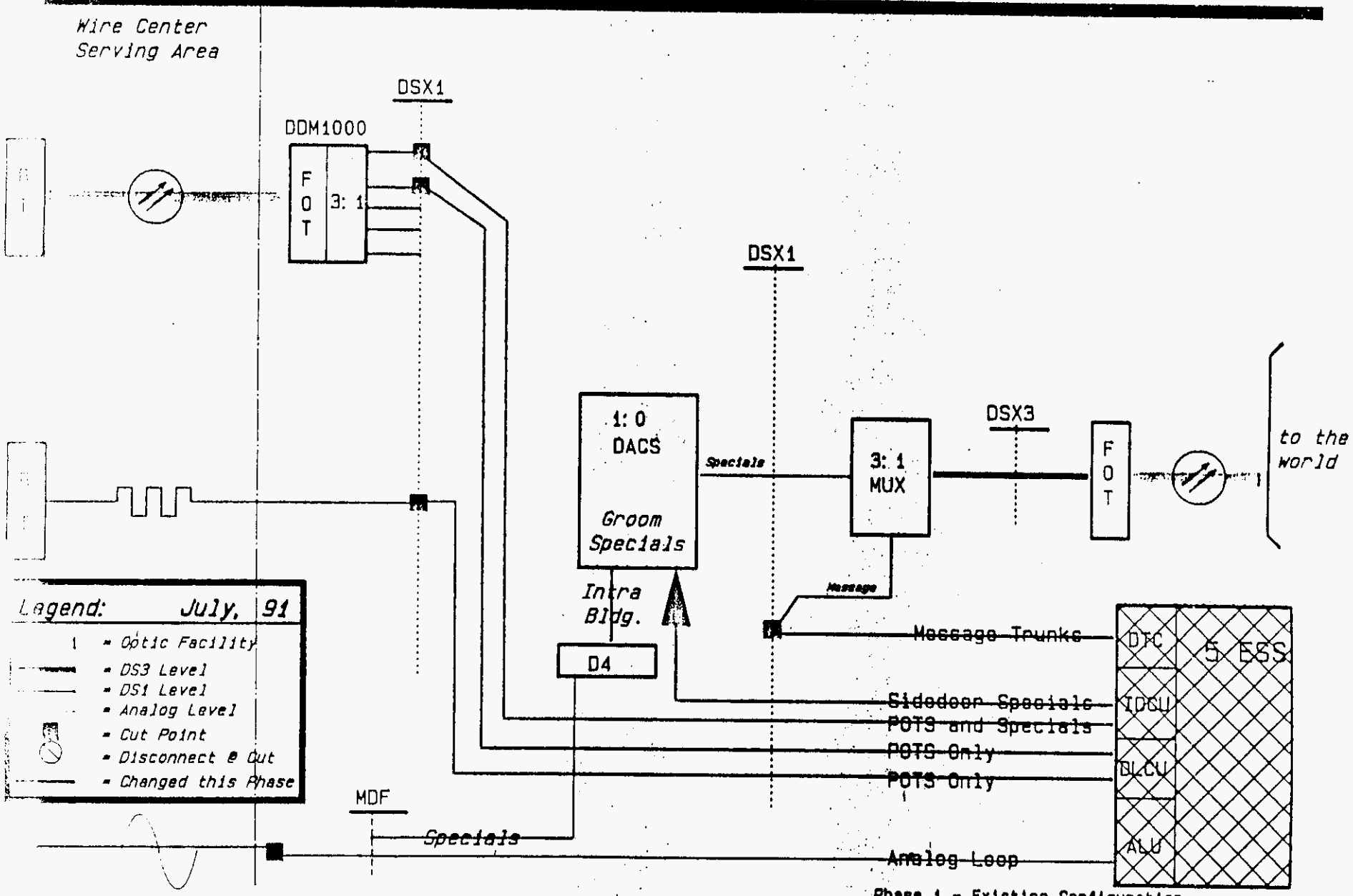
▲ Note: The IDCU technology will not be available until Post Cut - November, 1992.

FA4PE4A

F02B01Z 12142

HLWDFLPE Cutover Architecture

Phase 5
Final Configuration

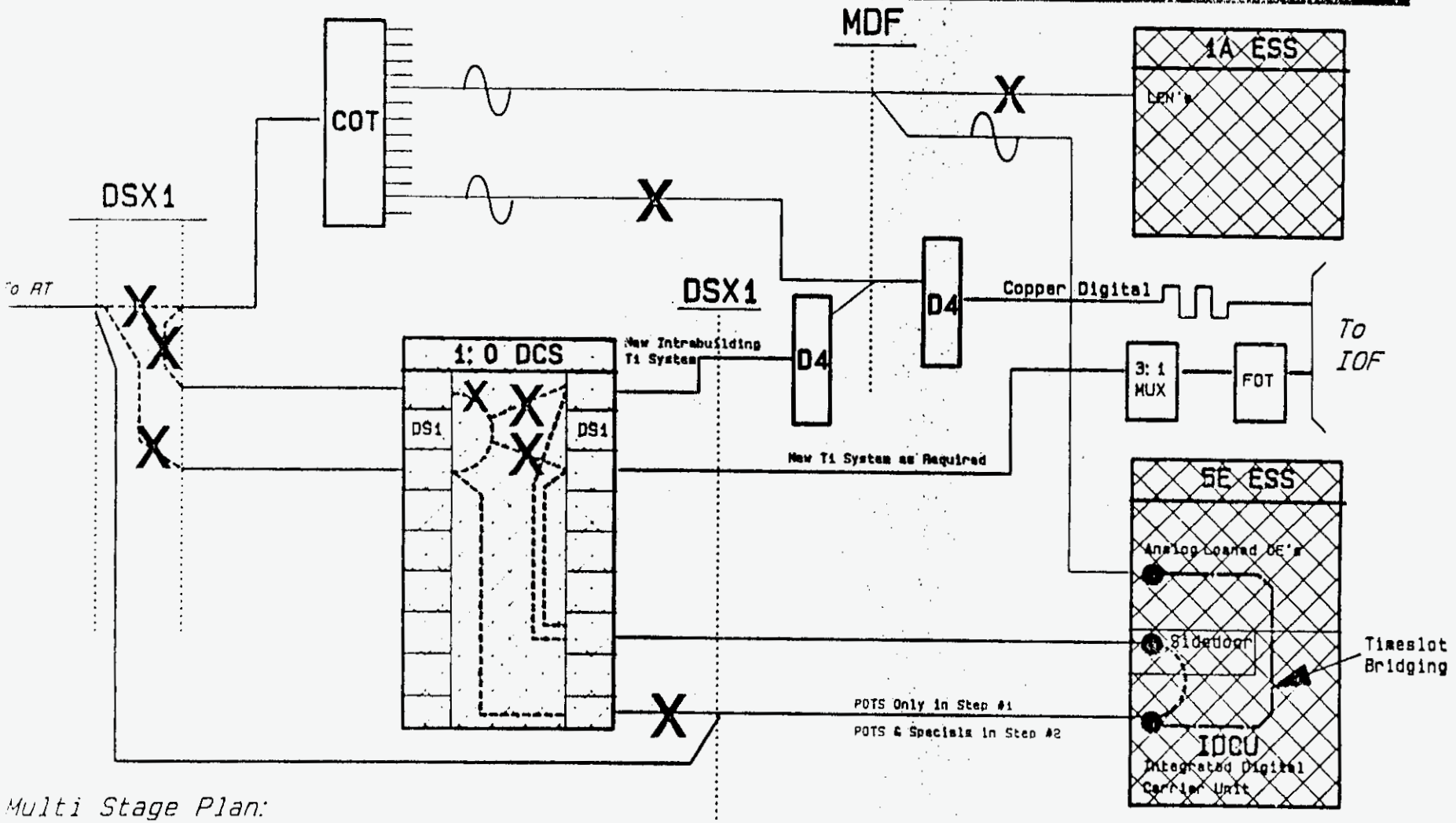


Phase 1 - Existing Configuration
Phase 2 - Pre Cut to 5 ESS
Phase 3 - Switch Cutover
Phase 4 - Integrated DLC Cutover
Phase 5 - Final Configuration

FA89PE5A

F02801Z 12143

Post Cutover Plan to Integrate DLC w/ Specials @ HLWDFLPE



Multi Stage Plan:

1. Existing Configurations.
2. Configuration at cutover - roll POTS to Temp. analog OE's.

POST CUT: (One System at a Time)

3. Step #1 - Insert 1:0 DCS in DLC path, soft connect all channels thru.
   Step #2 - Groom Specials to existing or new IOF, the end result will be a POTS only DS1 into the COT.
4. Step #1 - In the 1:0 DCS, redirect all POTS channels off the COT and into the IDCU using the Timeslot Bridging feature.
   Step #2 - In the 1:0 DCS, redirect one special at a time into the IDCU, and out the 'sidedoor' to the IOF world.
5. At the DSX1, redirect the incoming DLC system directly into the IDCU.
6. The 1:0 DCS ports can now be reused for the next DLC system.

FAMPESLC

F028017 12144

PEMBROKE PINES 1AESS REPLACEMENT

CUCRIT ANALYSIS REPORTS

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

DY: PEMBROKE.PK
AMETER FILE:

N: REPL92 VS PMO.BU

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	3610.9
NET PW EXPENDITURES	-5894.4
	SECONDARY
CUMULATIVE DISCOUNTED CASH FLOW - EOS	3610.9
DISCOUNTED PAYBACK PERIOD	9 YRS
LONG TERM ECONOMIC EVALUATOR	2.692
PROJECT RATE OF RETURN	22.1%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1990	0.0	0.0	**	0.0	**
1991	-22.8	-86.5	**	-51.9	**
1992	308.4	3568.3	12.6	2141.0	14.4
1993	486.7	3903.0	16.5	2341.8	20.8
1994	583.6	4135.8	18.1	2481.5	23.5

++++++ SUMMARY BY PLAN ++++++

	REPL92	PMO.BU
TOTAL NONDISCOUNTED CAP.	23220.5	38263.8
TOTAL NONDISCOUNTED EXP.	17770.2	19027.6
TOTAL NONDISCOUNTED REV.	18128.2	8724.6
NET PRESENT VALUE-EOL	-7634.1	-11244.9
NET PW EXPENDITURES	12461.8	18356.1

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

SENT WORTH YEAR 1990 TREND BASE DATE 1/1990 CASH FLOW OPTION COMB
GTH OF STUDY 18 YEARS DISC RATE 13.60% FINANCIAL OPTION ACCT

IT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
E IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
HE IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
HE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

DY:
AMETER FILE: PEMBROKE.PK

N: REPL93 VS PMO.BU

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	3758.6
NET PW EXPENDITURES	-6135.5
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	3758.6
DISCOUNTED PAYBACK PERIOD	8 YRS
LONG TERM ECONOMIC EVALUATOR	3.205
PROJECT RATE OF RETURN	24.2%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1990	0.0	0.0	**	0.0	**
1991	0.0	0.0	**	0.0	**
1992	-14.8	-94.5	**	-56.7	**
1993	367.6	3407.4	14.8	2044.4	18.0
1994	598.0	3847.7	19.5	2308.6	25.9

++++++ SUMMARY BY PLAN ++++++

	REPL93	PMO.BU
TOTAL NONDISCOUNTED CAP.	22987.0	38263.8
TOTAL NONDISCOUNTED EXP.	17683.0	19027.6
TOTAL NONDISCOUNTED REV.	17784.5	8724.6
NET PRESENT VALUE-EOL	-7486.3	-11244.9
NET PW EXPENDITURES	12220.6	18356.1

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

SENT WORTH YEAR 1990 TREND BASE DATE 1/1990 CASH FLOW OPTION COMB
GTH OF STUDY 18 YEARS DISC RATE 13.60% FINANCIAL OPTION ACCT

IT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
E IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
HE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

DY:
AMETER FILE: PEMBROKE.PK

N: REPL94 VS PMO.BU

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	3690.2
NET PW EXPENDITURES	-6023.8
	SECONDARY
CUMULATIVE DISCOUNTED CASH FLOW - EOS	3690.2
DISCOUNTED PAYBACK PERIOD	8 YRS
LONG TERM ECONOMIC EVALUATOR	3.420
PROJECT RATE OF RETURN	25.2%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1990	0.0	0.0	**	0.0	**
1991	0.0	0.0	**	0.0	**
1992	0.0	0.0	**	0.0	**
1993	-12.0	-109.7	**	-65.8	**
1994	408.6	3489.7	15.7	2093.8	19.5

++++++ SUMMARY BY PLAN ++++++

	REPL94	PMO.BU
TOTAL NONDISCOUNTED CAP.	23082.2	38263.8
TOTAL NONDISCOUNTED EXP.	17622.5	19027.6
TOTAL NONDISCOUNTED REV.	17325.6	8724.6
NET PRESENT VALUE-EOL	-7554.8	-11244.9
NET PW EXPENDITURES	12332.4	18356.1

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

ENT WORTH YEAR 1990 TREND BASE DATE 1/1990 CASH FLOW OPTION COMB
TH OF STUDY 18 YEARS DISC RATE 13.60% FINANCIAL OPTION ACCT

IT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
E IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
HE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

)Y:
AMETER FILE: PEMBROKE.PK

N: REPL95 VS PM0.BU

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	3680.0
NET PW EXPENDITURES	-6007.2
	SECONDARY
CUMULATIVE DISCOUNTED CASH FLOW - EOS	3680.0
DISCOUNTED PAYBACK PERIOD	8 YRS
LONG TERM ECONOMIC EVALUATOR	4.067
PROJECT RATE OF RETURN	28.2%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1990	0.0	0.0	**	0.0	**
1991	0.0	0.0	**	0.0	**
1992	0.0	0.0	**	0.0	**
1993	0.0	0.0	**	0.0	**
1994	-13.6	-126.3	**	-75.8	**

++++++ SUMMARY BY PLAN ++++++

	REPL95	PM0.BU
TOTAL NONDISCOUNTED CAP.	22914.8	38263.8
TOTAL NONDISCOUNTED EXP.	17578.1	19027.6
TOTAL NONDISCOUNTED REV.	16711.5	8724.6
NET PRESENT VALUE-EOL	-7564.9	-11244.9
NET PW EXPENDITURES	12348.9	18356.1

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

ENT WORTH YEAR 1990 TREND BASE DATE 1/1990 CASH FLOW OPTION COMB
TH OF STUDY 18 YEARS DISC RATE 13.60% FINANCIAL OPTION ACCT

IT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
E IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
HE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

NETWORK PLANNING SYSTEM

****
* FORMAL INPUT REPORT *
****

RESULTS IN THOUSANDS $(000)

JDY: PEMBROKE.PK
AMETER FILE:

N: REPL92

TREND BASE DATE	- 1/1990	LENGTH OF STUDY	- 18
STUDY START DATE	- 1/1990	GROSS RECEIPTS TAX	- See AREA-CNST-RPT
PRESENT WORTH YEAR	- 1990	IDC INCL. IN FCOST	- NO
NPV OPTION	- EOL	PLAN FILE NAME	-

PITAL - MAINTENANCE>

SCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
SS.	0	10420.0	1/75	0/00	17.00	0	0	0	0.0	2211-0	ESS	EMBD
SS.	0	370.3	1/90	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	374.4	1/91	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
SS.SA	0	-99.1	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
COT.L	0	140.8	1/90	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	111.8	1/91	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	16.0	1/90	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
OT.	0	96.0	1/91	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
ZCOT.	0	29.8	1/91	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
EDDED	0	-3.7	1/90	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
EDDED	0	-3.2	1/91	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
C.CKT	0	80.0	1/92	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
LDING	0	150.0	1/92	0/00	16.00	0	0	0	0.0	2121-1	BLDG	NEW
.PLAN	0	430.0	1/92	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
.NO.5	0	5832.5	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	774.9	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	592.9	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	1086.6	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	1216.9	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	1239.1	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	1233.9	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	1344.0	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	1346.0	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	1348.5	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	1348.7	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	1349.0	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	1349.4	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	1349.0	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	1349.6	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	1350.0	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
TRIB.	0	200.0	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
EDDED	0	-17.5	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
DES	0	3.3	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

Y: PEMBROKE.PK
METER FILE:

: REPL92

ITAL - MAINTENANCE (CONTINUED)>

RIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
OT.S	0	-2856.1	1/92	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
OT.L	0	-701.3	1/92	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
COJ.	0	-409.1	1/92	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	-50.2	1/92	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
.BAS	0	90.1	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
.BAS	0	90.1	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
.BAS	0	90.1	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
.BAS	0	90.1	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
.BAS	0	90.1	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
.BAS	0	90.1	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
.BAS	0	180.2	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
.BAS	0	90.1	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
BAS	0	180.2	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
AS	0	90.1	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
.BAS	0	90.1	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
.BAS	0	180.2	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
.BAS	0	90.1	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
.BAS	0	180.2	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
.BAS	0	90.1	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
.SYS	0	89.7	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
.ESS	0	103.2	1/92	0/00	16.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	73.8	1/93	0/00	15.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	73.5	1/94	0/00	14.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	66.3	1/95	0/00	13.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	30.7	1/96	0/00	12.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	32.5	1/97	0/00	11.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	36.3	1/98	0/00	10.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	36.3	1/99	0/00	9.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	36.3	1/ 0	0/00	8.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	37.2	1/ 1	0/00	7.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	37.2	1/ 2	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	37.2	1/ 3	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	37.2	1/ 4	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	37.2	1/ 5	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	37.2	1/ 6	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	37.2	1/ 7	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW
PDES	0	7.1	1/97	0/00	11.00	0	0	0	0.0	2422-0	OSP-F	NEW
.SW.	0	117.8	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
W.	0	37.0	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

)Y: PEMBROKE.PK
METER FILE:

I: REPL92

)ENSE>

CRIPT	CAT REP	EXP.	START DATE	TERM DATE	++++++ GROWTH RATES % ++++++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
S.MT	0	0.0	1/90	12/91	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'90)	337.1	'91)	350.4							
MTCE	0	0.0	1/92	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	342.2	'93)	343.9	'94)	347.4	'95)	364.1	'96)		382.5
		'97)	402.3	'98)	422.2	'99)	442.5	'00)	464.1	'01)		485.7
		'02)	507.4	'03)	529.0	'04)	550.7	'05)	572.3	'06)		594.0
		'07)	615.7									
ERIC.	0	0.0	1/92	12/92	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'92)	25.2									
OT.L	0	0.0	1/90	12/91	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
THER EXP:		'90)	27.3	'91)	33.0							
COT.	0	0.0	1/90	12/91	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'90)	1.4	'91)	1.4							
DDED	0	0.0	1/91	12/97	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	-0.3	'92)	-0.3	'93)	-0.3	'94)	-0.3	'95)		-0.3
		'96)	-0.3	'97)	-0.3							
PDES	0	0.0	1/98	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'98)	0.1	'99)	0.1	'00)	0.1	'01)	0.1	'02)		0.1
		'03)	0.1	'04)	0.1	'05)	0.1	'06)	0.1	'07)		0.1
.DIG	0	0.0	1/90	12/91	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'90)	33.2	'91)	39.7							
3.ISD	0	0.0	1/91	12/91	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	-0.5									
.ESS	0	0.0	1/92	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	1.3	'93)	6.0	'94)	10.3	'95)	14.6	'96)		18.4
		'97)	20.2	'98)	22.1	'99)	24.2	'00)	26.3	'01)		28.4
		'02)	30.6	'03)	32.8	'04)	34.9	'05)	37.1	'06)		39.3
		'07)	41.4									
DES	0	0.0	1/98	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
JTHER EXP:		'98)	0.4	'99)	0.4	'00)	0.4	'01)	0.4	'02)		0.4

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

DY: PEMBROKE.PK
METER FILE:

N: REPL92

PENSE (CONTINUED)>

CRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
		'03) 0.4	'04) 0.4		'05) 0.4			'06) 0.4		'07) 0.4		
S.RTU	0	0.0	1/92	12/07	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'92) 364.0	'93) 203.0		'94) 203.0			'95) 203.0		'96) 203.0		
		'97) 203.0	'98) 203.0		'99) 203.0			'00) 203.0		'01) 203.0		
		'02) 203.0	'03) 203.0		'04) 203.0			'05) 203.0		'06) 203.0		
		'07) 203.0										

VENUE>

CRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
EDDED	0	0.0	1/ 7	12/97	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'91) -25.4	'92) -25.4		'93) -25.4			'94) -25.4		'95) -25.4		
		'96) -25.4	'97) -25.4									
..ESS	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) 16.2	'93) 76.5		'94) 132.5			'95) 189.2		'96) 241.6		
		'97) 267.5	'98) 295.2		'99) 326.5			'00) 358.2		'01) 390.4		
		'02) 420.1	'03) 449.8		'04) 479.5			'05) 509.2		'06) 538.9		
		'07) 568.6										
APDES	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'98) 5.2	'99) 5.2		'00) 5.2			'01) 5.2		'02) 5.2		
		'03) 5.2	'04) 5.2		'05) 5.2			'06) 5.2		'07) 5.2		
N.RES	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93) 8.8	'94) 18.2		'95) 45.0			'96) 78.4		'97) 141.9		
		'98) 205.3	'99) 269.1		'00) 350.2			'01) 431.4		'02) 512.5		
		'03) 593.7	'04) 674.8		'05) 756.0			'06) 837.1		'07) 918.3		
N.BUS	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) 3.5	'93) 15.3		'94) 32.8			'95) 56.7		'96) 84.0		
		'97) 128.7	'98) 173.4		'99) 218.2			'00) 271.2		'01) 324.2		
		'02) 377.4	'03) 430.5		'04) 483.6			'05) 536.7		'06) 589.8		
		'07) 643.0										
...V.	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

Y: PEMBROKE.PK
METER FILE:

: REPL92

ENUE (CONTINUED)>

CAT RI L.T. 1	2	START 3	TERM 4	5	++++++ GROWTH RATES % +++++++ NAME	FREQ.			CLASS	
OTHER REV:	'93)	7.0	'94)	14.6	'95)	35.1	'96)	88.1	'97)	118.0
	'98)	147.9	'99)	177.8	'00)	176.3	'01)	174.7	'02)	173.1
	'03)	171.6	'04)	170.0	'05)	168.4	'06)	166.8	'07)	165.2
REV. O	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:	'92)	0.5	'93)	3.7	'94)	8.4	'95)	11.8	'96)	14.9
	'97)	16.3	'98)	17.8	'99)	19.5	'00)	21.2	'01)	22.9
	'02)	24.6	'03)	26.4	'04)	28.1	'05)	29.8	'06)	31.5
	'07)	33.3								
AP.AW O	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:	'98)	0.2	'99)	0.2	'00)	0.2	'01)	0.2	'02)	0.2
	'03)	0.2	'04)	0.2	'05)	0.2	'06)	0.2	'07)	0.2
.REV. O	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:	'92)	1.1	'93)	7.3	'94)	12.6	'95)	17.7	'96)	24.1
	'97)	26.7	'98)	29.3	'99)	31.9	'00)	34.8	'01)	37.7
	'02)	41.0	'03)	44.2	'04)	47.5	'05)	50.7	'06)	53.9
	'07)	57.2								

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

Y: PEMBROKE.PK
METER FILE:

I: PMO.BU

REND BASE DATE - 1/1990
STUDY START DATE - 1/1990
PRESENT WORTH YEAR - 1990
IPV OPTION - EOL
LENGTH OF STUDY - 18
GROSS RECEIPTS TAX - See AREA-CNST-RPT
IDC INCL. IN FCOST - NO
PLAN FILE NAME -

ITAL - MAINTENANCE>

CRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
SS.	0	10420.0	1/75	0/00	27.00	0	0	0	0.0	2211-0	ESS	EMBD
SS.	0	370.3	1/90	0/00	12.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	374.4	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	380.2	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	433.7	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	459.5	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
S.	0	521.4	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
	0	463.7	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
S.	0	464.6	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	466.3	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	459.9	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	460.9	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
SS.	0	462.8	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
SS.SA	0	-82.0	1/ 2	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
COT.L	0	140.8	1/90	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	111.8	1/91	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	63.3	1/92	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	30.5	1/93	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	30.4	1/94	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	30.5	1/95	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	30.4	1/96	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	30.4	1/97	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	30.5	1/98	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	30.4	1/99	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	30.4	1/ 0	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	30.5	1/ 1	0/00	7.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	16.0	1/90	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	96.0	1/91	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	352.0	1/92	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	352.0	1/93	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	136.0	1/94	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	440.0	1/95	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.	0	464.0	1/96	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

Y: PEMBROKE.PK
METER FILE:

: PMO.BU

ITAL - MAINTENANCE (CONTINUED)>

RIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
COT.	0	464.0	1/97	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	464.0	1/98	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	472.0	1/99	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	472.0	1/ 0	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	472.0	1/ 1	0/00	7.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	29.8	1/91	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	74.4	1/92	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	121.3	1/93	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	126.5	1/94	0/00	14.00	0	0	0	OT.	0	144.8	1/95 0/00 13
COT.	0	113.9	1/96	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	113.9	1/97	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	113.9	1/98	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
OT.	0	106.4	1/99	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
JT.	0	106.4	1/ 0	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	106.4	1/ 1	0/00	7.00	0	0	0	0.0	2232-0	CKT-D	NEW
DDED	0	-3.7	1/90	0/00	12.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-3.2	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-2.6	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-2.4	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-2.1	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-1.8	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
DDED	0	-1.3	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
.CKT	0	80.0	1/ 2	0/00	6.00	0	0	0	0.0	2232-0	CKT-D	NEW
DING	0	150.0	1/ 2	0/00	6.00	0	0	0	0.0	2121-1	BLDG	NEW
PLAN	0	430.0	1/ 2	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
NO.5	0	15795.4	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	1348.9	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	1349.0	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	1349.4	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	1349.6	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
NO.5	0	1350.3	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
RIB.	0	200.0	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
DDED	0	-74.6	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
PDES	0	45.2	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
PDES	0	22.5	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
PDES	0	22.6	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
PDES	0	45.1	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
PDES	0	25.6	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW

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FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

DY: PEMBROKE.PK
AMETER FILE:

N: PMO.BU

PITAL - MAINTENANCE (CONTINUED)>

CRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MDT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
APDES	0	25.8	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
N.BAS	0	1081.1	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
N.BAS	0	90.1	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
N.BAS	0	180.2	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
N.BAS	0	90.1	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
N.BAS	0	180.2	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
N.BAS	0	90.1	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
..SYS	0	89.7	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
..ESS	0	204.9	1/ 2	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	55.8	1/ 3	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	37.5	1/ 4	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	37.2	1/ 5	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	37.2	1/ 6	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
ESS	0	37.2	1/ 7	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW
ES	0	97.3	1/ 2	0/00	6.00	P-F		NEW				
APDES	0	48.4	1/ 3	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
APDES	0	48.7	1/ 4	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
APDES	0	97.0	1/ 5	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
APDES	0	55.2	1/ 6	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
APDES	0	55.5	1/ 7	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW

ENSE>

RIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
S.MT	0	0.0	1/90	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'90)	337.1	'91)	350.4	'92)	364.1	'93)	379.7	'94)	398.6	
		'95)	420.4	'96)	444.4	'97)	470.9	'98)	497.8	'99)	525.6	
		'00)	555.3	'01)	585.6							
MTCE	0	0.0	1/ 2	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02)	503.7	'03)	525.4	'04)	547.1	'05)	568.7	'06)	590.4	
		'07)	612.1									
RIC.	0	0.0	1/ 2	12/02	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'02)	25.2									
T.L	0	0.0	1/90	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
THER EXP:		'90)	27.3	'91)	33.0	'92)	37.6	'93)	40.1	'94)	41.4	

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

(

JDY: PEMBROKE.PK
'AMETER FILE:

'N: PMO.BU

'PENSE (CONTINUED)>

CRIPT	CAT REP	EXP.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
		'95)	42.6	'96)	43.8	'97)	45.1	'98)	46.3	'99)		47.5
50.0												
2COT.	0	0.0	1/90	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
	OTHER EXP:	'90)	1.4	'91)	1.4	'92)	2.7	'93)	5.9	'94)		11.1
		'95)	16.5	'96)	22.7	'97)	27.6	'98)	32.5	'99)		37.3
		'00)	41.9	'01)	46.5							
EDDED	0	0.0	1/91	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
	OTHER EXP:	'91)	-0.3	'92)	-0.6	'93)	-0.8	'94)	-1.0	'95)		-1.2
		'96)	-1.4	'97)	-1.5	'98)	-1.5	'99)	-1.5	'00)		-1.5
		'01)	-1.5	'02)	-1.5	'03)	-1.3	'04)	-1.1	'05)		-0.9
		'06)	-0.6	'07)	-0.3							
	DES	0	0.0	1/ 2	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
	OTHER EXP:	'02)	0.5	'03)	1.0	'04)	1.4	'05)	1.9	'06)		2.9
		'07)	3.4									
B.DIG	0	0.0	1/90	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
	OTHER EXP:	'90)	33.2	'91)	39.7	'92)	46.4	'93)	53.1	'94)		60.5
		'95)	68.2	'96)	76.7	'97)	83.8	'98)	90.8	'99)		97.9
		'00)	104.6	'01)	111.3							
B.ISD	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
	OTHER EXP:	'91)	-0.5	'92)	-0.9	'93)	-2.4	'94)	-5.0	'95)		-9.2
		'96)	-14.1	'97)	-22.4	'98)	-30.7	'99)	-39.0	'00)		-49.1
		'01)	-59.2									
..ESS	0	0.0	1/ 2	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
	OTHER EXP:	'02)	5.4	'03)	11.9	'04)	15.2	'05)	17.4	'06)		19.5
		'07)	21.7									
APDES	0	0.0	1/ 2	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
	OTHER EXP:	'02)	2.8	'03)	5.7	'04)	8.5	'05)	11.3	'06)		17.0
		'07)	20.2									
S.RTU	0	0.0	1/ 2	12/07	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
	OTHER EXP:	'02)	1398.0	'03)	203.0	'04)	203.0	'05)	203.0	'06)		203.0
		'07)	203.0									

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

DY: PEMBROKE.PK
AMETER FILE:

N: PMO.BU

VENUE>

CRIPT	CAT REP	REV.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
EDDED	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'91)	-25.4	'92)	-47.0	'93)	-65.0	'94)	-81.2	'95)		-95.6
		'96)	-108.2	'97)	-117.2	'98)	-117.2	'99)	-117.2	'00)		-117.2
		'01)	-117.2	'02)	-108.2	'03)	-95.6	'04)	-81.2	'05)		-65.0
		'06)	-47.0	'07)	-25.4							
..ESS	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	67.7	'03)	161.6	'04)	208.4	'05)	238.3	'06)		268.0
		'07)	297.7									
APDES	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	35.3	'03)	70.7	'04)	105.8	'05)	141.1	'06)		211.5
		'07)	251.6									
?ES	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	256.4	'03)	535.2	'04)	674.5	'05)	756.0	'06)		837.1
		'07)	918.3									
N.BUS	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	188.7	'03)	385.2	'04)	483.5	'05)	536.7	'06)		589.8
		'07)	643.0									
REV.	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	86.6	'03)	142.2	'04)	170.0	'05)	168.4	'06)		166.8
		'07)	-165.2									
REV.	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	4.4	'03)	9.7	'04)	12.3	'05)	14.2	'06)		16.0
		'07)	17.9									
P.AW	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	2.3	'03)	4.5	'04)	6.8	'05)	9.0	'06)		13.6
		'07)	16.1									
REV.	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	20.6	'03)	38.4	'04)	47.3	'05)	50.7	'06)		53.9
		'07)	57.2									

PALMETTO EAL

PAGE 1

LINES - 23, 24

F02B01Z 12252

Southern Bell

H. Corey, Jr.
General Manager
Network - Provisioning

6451 North Federal Highway
Room 1220
Fort Lauderdale, Florida 33308
Phone (305) 492-3141

April 27, 1990

Mr. S.A. Mulcahy
Assistant Vice President - Provisioning
Atlanta, Georgia

Dear Mr. Mulcahy:

The Palmetto 1AESS is scheduled to be replaced with a digital switch September 1991. This replacement was included in the 1989 LATA Plan. The LATA plan had the replacement scheduled for 1992 but it must be moved up because the processor will exhaust in the 1991 busy season.

The replacement switch for the Palmetto wire center is AT&T's #5ESS. Quotes were requested through BellSouth Services from AT&T, NTI and Siemens for the switch replacement and the next four growth jobs. The economic analysis was done based on a cash flow time-line built from the quotes. The NPWE was -430.6 in favor of the 5ESS. In addition, by partially shipping the 5ESS in 1990 and taking advantage of the AT&T offer for will be realized.

As stated above the replacement is due to a hard trigger. The NPS study submitted in the 1989 LATA Plan has been revised to include the change of years, including different forecasts and vendor quotes. The revised NPS economic indicators show that the replacement has a 10.0 million NPWE advantage over the PMO and a PROR of 19.5%.

Capital expenditures required to implement this project are reflected below ($000):

	[illegible]	[illegible]	TOTAL
Building	380K		380K
CCE-ESS Digital	5500K	[illegible]300K	11800K
- Credit	-500K		-500K
[illegible]	[illegible]		[illegible]
- [illegible]		[illegible]	[illegible]
- Circuit		1700K	[illegible]
Network	10K	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

F02B01Z 12253

This plan is funded in the current view of the construction budget. A copy of the current Demand and Facility chart for the Palmetto office, dated April 15, 1990, is on file in the South Florida Tactical Planning District in Fort Lauderdale, Florida.

Yours truly,

General Manager - Network Provisioning

APPROVED:

Executive Vice President - Network
(f.o.)

F02B01Z 12254

NETWORK PLANNING SYSTEM
****
* EXECUTIVE SUMMARY *
****
RESULTS IN THOUSANDS ($000)

:DY: PALMETTO
:AMETER FILE:PLAN: REPLC.191 VS PMO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	6170.4
NET PW EXPENDITURES	-10033.1
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW AT STUDY END	6170.4
DISCOUNTED PAYBACK PERIOD	4 YRS
LONG TERM ECONOMIC EVALUATOR	1.852
INTERNAL RATE OF RETURN	*
PROJECT RATE OF RETURN	19.5%

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1990	216.6	-1901.3	**	-1178.8	**
1991	868.9	5458.4	19.3	3384.2	25.7
1992	1264.8	3826.3	36.5	2372.3	53.3
1993	1295.1	3111.7	45.0	1929.2	67.1
1994	1456.7	2611.3	59.2	1619.0	90.0

++++++ SUMMARY BY PLAN ++++++

	REPLC.191	PMO
TOTAL NONDISCOUNTED CAP.	32922.2	44419.8
TOTAL NONDISCOUNTED EXP.	26212.3	31264.2
TOTAL NONDISCOUNTED REV.	61737.6	48895.8
NET PRESENT VALUE-EOL	-6127.3	-12297.7
NET PW EXPENDITURES	9963.0	19996.1

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

:SENT WORTH YEAR 1990 TREND BASE DATE 1/1990 CASH FLOW OPTION COMB
:GTH OF STUDY 18 YEARS DISC RATE 13.34% FINANCIAL OPTION ACCT

:RR IS NORMALLY USED TO PERFORM AN INCREMENTAL ANALYSIS. THUS THE EVALUATORS
:SURE THE DIFFERENCE IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF
:HER PLAN.
:HE IROR MAY BE MULTIPLE. USE THE OTHER EVALUATORS.
:HE RETURN IS NOT SHOWN SINCE THE AVERAGE CAPITAL BALANCE IS LESS THAN

```
ssage 1:
om flwals Thu May 10 14:49:13 1990
ceived: by sbnps.LOCAL (5.61/4.7)
        id AA05934; Thu, 10 May 90 14:49:12 -0500
te: Thu, 10 May 90 14:49:12 -0500
om: flwals (Alicia L. Suarez)
: flwals
atus: R

o Name     = alicia
ta Base    = wfldb
ta Set     = base/alhambra
art Time   = Thu May 10 14:48:13 CDT 1990
nish Time  = Thu May 10 14:49:11 CDT 1990


 EOF
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5/14/90 13:51 CDT NETWORK PLANNING SYSTEM PAGE 1

****
* FORMAL INPUT REPORT *
****

RESULTS IN THOUSANDS $(000)

TUDY: PALMETTO

ARAMETER FILE: F02A01Z 00758

LAN: REPLC.191

TREND BASE DATE	- 1/1990	LENGTH OF STUDY	- 18
STUDY START DATE	- 1/1990	GROSS RECEIPTS TAX	- See AREA-CNST-RPT
PRESENT WORTH YEAR	- 1990	IDC INCL. IN FCOST	- NO
NPV OPTION	- EOL	PLAN FILE NAME	-

CAPITAL - MAINTENANCE>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
AESS.	0	12655.0	1/81	0/00	10.00	0	0	0	0.0	2211-0	ESS	EMBD
AESS.	0	847.3	1/90	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
DT.S.FO	0	600.0	1/90	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
WR.PLAN	0	200.0	1/91	0/00	17.00	0	0	0	0.0	2211-0	ESS	NEW
RAME.CO	0	300.0	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	10100.0	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	1359.2	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	1263.9	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	17413.00	0	0	0	0.0	2212-0	ESSD	NEW			
FT.NO.5	0	1114.9	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	1120.4	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	1126.3	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	642.0	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	94.9	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	127.4	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	118.5	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	108.5	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	56.5	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	47.6	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	41.0	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
FT.NO.5	0	81.2	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
DT.REUS	0	-777.6	1/91	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

F02B01Z 12256

'T.NO.5	0	1196.9	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
'T.NO.5	0	1206.1	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
'T.NO.5	0	1231.9	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
'T.NO.5	0	1235.6	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
'T.NO.5	0	1295.4	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

'UDY: PALMETTO

:RAMETER FILE:

:AN: REPLC.191

:APITAL - MAINTENANCE (CONTINUED)>

:SCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
:T.NO.5	0	1343.9	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	1347.1	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
:T.NO.5	0	1294.2	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
3DN.BAS	0	90.1	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
3DN.BAS	0	90.1	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
:G..SYS	0	89.7	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW

:XPENSE>

:SCRIPT	CAT REP	EXP.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
AESS.MT	0	0.0	1/90	12/90	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'90)	340.9									
ES.MTCE	0	0.0	1/91	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	352.3	'92)	361.5	'93)	372.9	'94)	391.2	'95)	421.3	
		'96)	460.5	'97)	481.9	'98)	503.4	'99)	653.3	'00)	678.7	
		'01)	705.0	'02)	731.2	'03)	757.3	'04)	783.5	'05)	809.6	
		'06)	835.6	'07)	861.3							
ENERIC.	0	0.0	1/91	12/99	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'91)	24.0	'99)	24.0							
ESS.RTU	0	0.0	1/91	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	386.0	'93)	173.0	'94)	173.0	'95)	173.0	'96)	173.0	
		'97)	173.0	'98)	173.0	'99)	1381.0	'00)	346.0	'01)	346.0	
		'02)	346.0	'03)	346.0	'04)	346.0	'05)	346.0	'06)	346.0	
		'07)	346.0									
-DIP.M	0	0.0	1/90	12/90	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'90)	84.6									

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

'UDY: PALMETTO

:RAMETER FILE:

:AN: REPLC.191

:EVENUE>

	CAT		START	TERM	+++++ GROWTH RATES % +++++						CLASS	

	'96)	2444.9	'97)	2625.8	'98)	2806.8	'99)	2987.8	'00)	3168.7
	'01)	3349.7	'02)	3530.6	'03)	3711.6	'04)	3892.6	'05)	4073.5
	'06)	4254.5	'07)	4435.4						

3.ISDN.	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV		1-TIME	
OTHER REV:	'91)	2.9	'92)	11.9	'93)	15.8	'94)	185.4	'95)	342.4
	'96)	674.3	'97)	724.0	'98)	773.6	'99)	823.3	'00)	873.0
	'01)	922.7	'02)	973.4	'03)	1023.5	'04)	1073.5	'05)	1123.6
	'06)	1173.6	'07)	1223.6						

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: PALMETTO
ARAMETER FILE:
LAN: PMO

TREND BASE DATE	- 1/1990	LENGTH OF STUDY	- 18
STUDY START DATE	- 1/1990	GROSS RECEIPTS TAX	- See AREA-CNST-RPT
PRESENT WORTH YEAR	- 1990	IDC INCL. IN FCOST	- NO
NPV OPTION	- EOL	PLAN FILE NAME	-

CAPITAL - MAINTENANCE>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
AESS.	0	12655.0	1/81	0/00	21.00	0	0	0	0.0	2211-0	ESS	EMBD
AESS.	0	922.3	1/90	0/00	12.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	76.7	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	66.8	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	63.7	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	55.7	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	52.9	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	45.8	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	43.5	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	42.7	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	42.4	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	40.7	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	40.7	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
OT.S.FO	0	600.0	1/90	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
WR.PLAN	0	200.0	1/ 2	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
RAME.CO	0	300.0	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	1713.2	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	1442.2	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	1289.0	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	1568.1	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	1477.5	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	1967.2	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	1322.7	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	1321.9	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	1323.4	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	1325.6	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	1327.5	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	1194.1	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	53.9	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	51.3	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	47.6	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0			0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW

F02B01Z 12258

APITAL - MAINTENANCE (CONTINUED)

SCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
T.NO.5	0	43.2	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
T.$.FO	0	552.6	1/91	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.$.FO	0	303.3	1/92	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.$.FO	0	473.7	1/93	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.$.FO	0	648.8	1/94	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.$.FO	0	663.8	1/95	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.$.FO	0	710.7	1/96	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.$.FO	0	710.7	1/97	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.$.FO	0	710.7	1/98	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.$.FO	0	710.7	1/99	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.$.FO	0	710.7	1/ 0	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
SDN.BAS	0	90.1	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	90.1	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	90.1	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	90.1	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	90.1	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
G..SYS	0	-89.7	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
.DIGES	0	-65.1	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
.DIGES	0	-65.0	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
.DIGES	0	-46.5	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
.DIGES	0	-37.4	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
.DIGES	0	-26.5	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
.DIGES	0	-36.7	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
.DIGES	0	-27.4	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
.DIGES	0	-27.3	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
.DIGES	0	-27.4	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
.DIGES	0	-27.3	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
.DIGES	0	-27.4	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
.ISDN.	0	-0.8	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
.ISDN.	0	-2.9	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
.ISDN.	0	-0.8	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
.ISDN.	0	-48.9	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
.ISDN.	0	-45.1	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
.ISDN.	0	-95.6	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
.ISDN.	0	-14.1	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
.ISDN.	0	-14.5	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
.ISDN.	0	-14.1	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
.ISDN.	0	-14.5	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
.ISDN.	0	-14.1	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)
UDY: PALMETTO
RAMETER FILE:

AN: PMO
APITAL - MAINTENANCE (CONTINUED)

SCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
[illegible]												
[illegible]												
[illegible]												
T.NO.5	0	[illegible]	1	[illegible]	3.00	0	0	0	0.0	2212-0	ESSD	NEW

SDN.BAS	0	90.1	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD NEW
SDN.BAS	0	90.1	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD NEW
IG..SYS	0	89.7	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD NEW

EXPENSE>

DESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
AESS.MT	0	0.0	1/90	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'90) 344.4		'91) 356.6		'92) 361.7		'93) 366.7		'94) 371.9		
		'95) 377.0		'96) 381.9		'97) 386.7		'98) 391.4		'99) 396.2		
		'00) 401.0		'01) 405.7								
ES.MTCE	0	0.0	1/90	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'90) 127.3		'91) 142.1		'92) 166.5		'93) 189.8		'94) 221.0		
		'95) 260.5		'96) 308.6		'97) 339.2		'98) 369.9		'99) 400.6		
		'00) 431.3		'01) 462.2		'02) 810.0		'03) 834.6		'04) 859.2		
		'05) 883.8		'06) 908.4		'07) 933.1						
ENERIC.	0	0.0	1/90	12/02	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'90) 24.0		'02) 24.0								
OT.S.FO	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91) 8.0		'92) 8.0		'93) 8.0		'94) 8.0		'95) 8.0		
		'96) 8.0		'97) 8.0		'98) 8.0		'99) 8.0		'00) 8.0		
		'01) 8.0										
B.DIGES	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91) -0.8		'92) -1.7		'93) -2.3		'94) -2.7		'95) -3.1		
		'96) -3.5		'97) -3.9		'98) -4.2		'99) -4.6		'00) -4.9		
		'01) -5.3										
B.ISDN.	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: PALMETTO F02A01Z 00762

ARAMETER FILE:

LAN: PMO

EXPENSE (CONTINUED)>

DESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
OTHER EXP:		'91) -0.1		'92) -0.2		'93) -0.3		'94) -3.3		'95) -6.2		
		'96) -12.1		'97) -13.0		'98) -13.9		'99) -14.8		'00) -15.7		
		'01) -16.6										
OT.S.FO	0	0.0	1/92	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92) 7.4		'93) 11.4		'94) 17.7		'95) 26.4		'96) 35.2		
		'97) 44.7		'98) 54.2		'99) 63.7		'00) 73.1		'01) 82.6		
ESS.CAP	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91) 335.0		'92) 254.0		'93) 254.0		'94) 254.0		'95) 254.0		
		'96) 254.0		'97) 254.0		'98) 254.0		'99) 254.0		'00) 254.0		
		'01) 254.0										
ESS.RTU	0	0.0	1/ 2	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02) 1674.0		'03) 173.0		'04) 173.0		'05) 173.0		'06) 173.0		
		'07) 173.0										
[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]		
OTHER EXP:		'90) 84.6		'91) 84.6		'92) 84.6		'93) 84.6		'94) 84.6		

F02B01Z 12260

REVENUE)

SCRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
HER.RE	0	0.0	1/ 7	12/19	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
.REV..	0	0.0	1/ 7	12/19	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
.DIGIT	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'91) 430.3		'92) 860.6		'93) 1168.8		'94) 1416.7		'95) 1591.9		
		'96) 1835.5		'97) 2016.5		'98) 2197.4		'99) 2378.4		'00) 2559.4		
		'01) 2740.3		'02) 3530.6		'03) 3711.6		'04) 3892.6		'05) 4073.5		
		'06) 4254.5		'07) 4435.4								
.DIGES	0	0.0	1/ 7	12/01	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'91) -107.8		'92) -215.3		'93) -292.3		'94) -354.2		'95) -398.2		
		'96) -458.9		'97) -504.2		'98) -549.4		'99) -594.7		'00) -639.8		
		'01) -685.2										

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FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: PALMETTO
ARAMETER FILE:
LAN: PMO

REVENUE (CONTINUED)>

ESCRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
.ISDN.	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'91) 2.9		'92) 11.9		'93) 15.8		'94) 185.4		'95) 342.4		
		'96) 674.3		'97) 724.0		'98) 773.6		'99) 823.3		'00) 873.0		
		'01) 922.7		'02) 973.4		'03) 1023.5		'04) 1073.5		'05) 1123.6		
		'06) 1173.6		'07) 1223.6								
.ISDN.	0	0.0	1/ 7	12/01	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'91) -0.7		'92) -3.2		'93) -4.0		'94) -46.4		'95) -85.7		
		'96) -168.8		'97) -181.1		'98) -193.7		'99) -205.9		'00) -218.5		
		'01) -230.8										

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NETWORK PLANNING SYSTEM

****
* REPORT SUMMARY OF ECONOMIC EVALUATORS *
****

RESULTS IN THOUSANDS ($000)

TUDY: PALMETTO F02A01Z 00/63
ARAMETER FILE:
LAN: REPLC.191 VS PMO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

PRIMARY		SECONDARY	
NPV-EOL	6170.4	LTEE	1.852
NPWE	-10033.1	DPP	4 YRS
		IROR	*
		CDCF-EOS	6170.4

F02B01Z 12261

YEAR	1996	1997	1998	1999	2000	2001
CDCF	2323.6	3090.7	3802.7	3504.3	4051.6	4306.3

YEAR	2002	2003	2004	2005	2006	2007
CDCF	6818.3	6526.2	6371.1	6275.3	6207.3	6170.4

++++++ RESULTS BY PLAN ++++++

	NPV-EOL	NPWE	CDCF END OF STUDY
REPLC.191	-6127.3	9963.0	-6127.3
PMO	-12297.7	19996.1	-12297.7

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

ESENT WORTH YEAR 1990 TREND BASE DATE 1/1990 CASH FLOW OPTION COMB
NGTH OF STUDY 18 YEARS COMP DISC RATE 13.34% NPV OPTION EOI
THE IROR MAY BE MULTIPLE. USE THE OTHER EVALUATORS.

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NETWORK PLANNING SYSTEM
****
* EXECUTIVE SUMMARY *
****
RESULTS IN THOUSANDS ($000)

UDY: PALMETTO
RAMETER FILE:
AN: REPLC.191 VS PMO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

PRIMARY	
NET PRESENT VALUE - EOL	6170.4
NET PW EXPENDITURES	-10033.1
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW AT STUDY END	6170.4
DISCOUNTED PAYBACK PERIOD	4 YRS
LONG TERM ECONOMIC EVALUATOR	1.852
INTERNAL RATE OF RETURN	*
PROJECT RATE OF RETURN	19.5%

F02A01Z 00764

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1990	216.6	-1901.3	**	-1178.8	**
1991	868.9	5458.4	19.3	3384.2	25.7
1992	1264.8	3826.3	36.5	2372.3	53.3
1993	1295.1	3111.7	45.0	1929.2	67.1
1994	1456.7	2611.3	59.2	1619.0	90.0

++++++ SUMMARY BY PLAN ++++++

	REPLC.191	PMO
TOTAL NONDISCOUNTED CAP.	32922.2	44419.8
TOTAL NONDISCOUNTED EXP.	26212.3	31264.2
TOTAL NONDISCOUNTED REV.	61737.6	48895.8
NET PRESENT VALUE-EOL	-6127.3	-12297.7
NET PW EXPENDITURES	9963.0	19996.1

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

ESENT WORTH YEAR 1990 TREND BASE DATE 1/1990 CASH FLOW OPTION COMB
NGTH OF STUDY 18 YEARS DISC RATE 13.34% FINANCIAL OPTION ACCT
[illegible] AN INCREMENTAL ANALYSIS, THUS THE EVALUATORS
[illegible] THE DIFFERENCES IN THE VALUES OF THE TWO PLANS, NOT THE ABSOLUTE VALUES
[illegible] PLAN.
THE IROR MAY BE MULTIPLE. USE THE OTHER EVALUATORS.

F02B01Z 12262

NETWORK PLANNING SYSTEM

****

* INCREMENTAL INCOME STATEMENT - FIXED BOOK AND TAX LIFE *

****

RESULTS IN THOUSANDS ($000)

TUDY:		PALMETTO			
ARAMETER FILE:					
LAN:	REPLC.191	VS	PMO		
ND OF YEAR	1990	1991	1992	1993	1994
PERATING REV.	0.0	717.8	827.9	905.6	1010.0
PERATIONS EXP.	-158.1	-173.8	-577.0	-425.4	-470.0
OOK DEPRECIATION	-128.1	-888.7	-1000.9	-1052.6	-1119.4
ET OPERATING REV.	286.2	1780.3	2405.8	2383.6	2599.4
EDERAL INC. TAXES	131.0	698.4	953.3	931.5	996.6
CURRENT	-12.6	-0.5	-104.4	243.1	511.0
DEFERRED	143.6	686.4	1057.7	688.5	485.6
ITC-NET	0.0	12.4	0.0	0.0	0.0
TATE INCOME TAXES	23.0	95.8	141.8	141.8	156.3
CURRENT	-2.4	-0.1	-19.6	45.6	95.9
DEFERRED	25.3	95.9	161.4	96.2	60.4
THER TAXES	-19.4	-69.2	-84.8	-91.1	-99.3
OTAL TAXES BOOKED	134.6	724.9	1010.2	982.3	1053.6
PERATING INCOME	151.6	1055.4	1395.6	1401.3	1545.7
ISC. INCOME (IDC)	0.0	0.0	0.0	0.0	0.0
NC. BEFORE INT.	151.6	1055.4	1395.6	1401.3	1545.7
EBT INTEREST	-65.0	186.5	130.8	106.2	89.0
ET INCOME	216.6	868.9	1264.8	1295.1	1456.7
ET AVERAGE INV.					
APITAL (NAIC)	-1901.3	5458.4	3826.3	3111.7	2611.3
QUITY AVERAGE INV.					
APITAL (EQAIC)	-1178.8	3384.2	2372.3	1929.2	1619.0
ETURN ON NAIC (%)	0.0*	19.3	36.5	45.0	59.2
ETURN ON EQAIC (%)	0.0*	25.7	53.3	67.1	90.0
NNUAL CONTRIBUTION	658.8	532.1	1439.3	1603.6	1946.9

DISCOUNT RATE : 13.34%

THE RETURN IS NOT SHOWN SINCE THE AVERAGE CAPITAL BALANCE IS LESS TH

NETWORK PLANNING SYSTEM

INCREMENTAL INCOME STATEMENT - FIXED BOOK AND TAX LIFE

RESULTS IN THOUSANDS ($000)

F02B01Z 00765

TUDY:		PALMETTO			
ARAMETER FILE:					
LAN:	REPLC.191	VS	PMO		
ND OF YEAR	1995	1996	1997	1998	1999
PERATING REV.	1093.2	1237.1	1294.7	1352.4	1410.0
PERATIONS EXP.	-516.5	-561.1	-617.2	-677.1	[illegible]
OOK DEPRECIATION	-1184.9	-1259.3	-1335.3	-1413.2	-1489.6
ET OPERATING REV.	2794.6	3057.5	3247.2	3442.7	3641.0
EDERAL INC. TAXES	1067.7	1150.9	1207.1	1273.9	1319.4
CURRENT	529.6	736.1	939.1	980.6	928.0
DEFERRED	538.1	414.8	268.0	293.3	391.4
ITC-NET	0.0	0.0	0.0	0.0	0.0
TATE INCOME TAXES	169.1	186.1	198.	86.6	
CURRENT	99.4	138.2	176.3	184.1	42.8
DEFERRED	69.7	47.9	22.0	26.5	43.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

F02B01Z 12263

ET INCOME	1586.0	1768.9	1904.2	2029.6	754.5
ET AVERAGE INV.					
CAPITAL (NAIC)	2325.5	1997.8	1880.8	1912.7	3754.6
QUITY AVERAGE INV.					
CAPITAL (EQAIC)	1441.8	1238.6	1166.1	1185.9	2327.9
ETURN ON NAIC (%)	71.6	91.9	104.6	109.5	23.5
ETURN ON EQAIC (%)	110.0	142.8	163.3	171.2	32.4
NUAL CONTRIBUTION	2203.3	2553.4	2792.1	2991.0	620.6

DISCOUNT RATE : 13.34%

NETWORK PLANNING SYSTEM

* CAPITAL, REVENUE, AND EXPENSE SUMMARY *

RESULTS IN THOUSANDS ($000)

TUDY: PALMETTO

ARAMETER FILE:

LAN: REPLC.191

NON-DISCOUNTED

YEAR	CAPITAL	LEASE PAYMTS + EXPENSES	LEASE RECVBLES + REVENUES
1990	1447.3	434.5	
1991	10014.2	812.0	1042.6
1992		402.0	1481.9
1993	1345.6	634.4	1794.0
1994	1327.0	685.1	2211.5
1995	1763.0	754.2	2543.6
1996	1111.1	840.1	3119.2
1997		3349.8	
1998	1059.5	979.5	3580.4
1999	2957.8	3114.9	3811.1
2000	1239.4	1620.5	4041.7
2001	1292.3	1736.9	4272.4
2002	1321.8	1860.4	4504.1
2003	1417.8	1991.1	4735.1
2004	1349.8	2130.1	4966.1
2005	1403.3	2277.4	5197.1
2006	1413.8	2433.4	5428.1
2007	1414.9	2598.2	5659.1

NETWORK PLANNING SYSTEM

CAPITAL, REVENUE, AND EXPENSE SUMMARY

RESULTS IN THOUSANDS ($000)

TUDY: PALMETTO

RAMETER FILE: F02A01Z 00766

AN: PMO

NON-DISCOUNTED

YEAR	CAPITAL	LEASE PAYMTS + EXPENSES	LEASE RECVBLES + REVENUES
1990	3349.3	592.6	
[illegible]	[illegible]	[illegible]	224.7
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
1994	2218.2	1158.1	2631.7

F02B01Z 12264

1998	2100.7	1656.6	2228.0
1999	2143.8	1797.3	2401.1
2000	2185.5	1947.4	2574.0
2001	1327.0	2107.4	2747.0
2002	12068.6	4331.3	4504.1
2003	1268.2	1818.4	4735.1
2004	1279.8	1946.6	4966.1
2005	1294.4	2082.7	5197.1
2006	1399.9	2227.2	5428.1
2007	1323.1	2380.5	5659.1

NETWORK PLANNING SYSTEM

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* INCREMENTAL CASH FLOW DETAILS *

****

RESULTS IN THOUSANDS ($000)

STUDY: PALMETTO

PARAMETER FILE:

PLAN: REPLC.191 VS PMO

ACTUAL NON-DISCOUNTED CASH FLOWS

YEAR	LEASE AND OPERATING REVENUES	LEASE AND OPERATIONS EXPENSES	CURRENT TAXES	NET SALVAGE	INVEST.	ACTUAL CASH FLOWS	
1990	0.0	-158.1	1.3	0.0	717.8	-173.8	-37.8
1992	827.9	-577.0	-172.5	0.0	-1623.1	3200.4	
1993	905.6	-425.4	238.3	0.0	-685.2	1777.9	
1994	1010.0	-470.0	552.8	0.0	-891.2	1818.4	
1995	1093.2	-516.5	571.2	0.0	-868.8	1907.2	
1996	1237.1	-561.1	811.9	0.0	-996.5	1982.7	
1997	1294.7	-617.2	1047.3	0.0	-1016.4	1881.0	
1998	1352.4	-677.1	1090.4	0.0	-1041.2	1980.3	
1999	1410.0	1317.6	209.2	0.0	814.1	-930.9	
2000	1467.7	-326.9	775.0	0.0	-946.0	1965.7	
2001	1525.3	-370.5	870.7	0.0	-34.7	1059.9	
2002	0.0	-2470.9	1923.6	0.0	-10746.8	11294.1	
2003	0.0	172.7	1270.9	0.0	149.6	-1593.3	
2004	0.0	183.6	705.5	0.0	70.0	-959.1	
2005	0.0	194.6	362.0	0.0	108.8	-665.4	
2006	0.0	206.2	320.9	0.0	13.9	-541.1	
2007	0.0	217.7	14.7	0.0	91.8	-324.3	
TOT	5613.9	-2390.2	3022.2	0.0	-1188.5		

NET AND CUMULATIVE DISCOUNTED CASH FLOWS

YEAR	1990	1991	1992	1993	1994	1995
NCF	2049.3	-7133.5	3102.3	1715.0	1769.9	1852.2
CDCF	2049.3	-4244.6	-1829.6	-651.7	420.8	1411.7
YEAR	1996	1997	1998	1999	2000	2001
NCF	1934.3	1843.2	1938.6	-920.9	1914.6	1009.9
CDCF	2323.6	3090.7	3802.7	3504.3	4051.6	4306.2
YEAR	2002	2003	2004	2005	2006	2007
NCF	11287.8	-1487.8	-895.3	-626.6	-504.6	-309.9
CDCF	6818.3	6526.2	6371.1	6275.3	6207.3	6170.4

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ARAMETER FILE:
LAN: REPLC.191

	1990	1991	1992	1993	1994	1995
APITAL						

L&B TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
COE TOTAL	1447.3	10014.2	0.0	1345.6	1327.0	1763.0
2211- 0	847.3	212.0	0.0	0.0	0.0	0.0
2232- 0	600.0	-777.6	0.0	0.0	0.0	0.0
2212- 0	0.0	10579.8	0.0	1345.6	1327.0	1763.0
OSP TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
STA TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
GEN TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
M&S TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
REUSE TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
OT. CAP.	1447.3	10014.2	0.0	1345.6	1327.0	1763.0
XPENSES	434.5	812.0	402.0	634.4	685.1	754.2

EASE EXP	0.0	0.0	0.0	0.0	0.0	0.0

EVENUE	0.0	1042.6	1481.9	1794.0	2211.5	2543.6

EASE REV	0.0	0.0	0.0	0.0	0.0	0.0

NETWORK PLANNING SYSTEM
SIX-YEAR CAPITAL, REVENUE, AND EXPENSE SUMMARY

RESULTS IN THOUSANDS ($000)

TUDY: PALMETTO
ARAMETER FILE:
LAN: PMO

	1990	1991	1992	1993	1994	1995
APITAL						

L&B TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
COE TOTAL	3349.3	2008.2	1623.1	2030.9	2218.2	2631.7
2211- 0	922.3	81.3	75.1	75.8	70.3	71.4
2232- 0	600.0	552.6	306.3	488.0	681.7	711.4
2212- 0	1827.0	1374.3	1241.7	1467.1	1466.2	1848.9
OSP TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
STA TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
GEN TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
M&S TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
REUSE TOTAL	0.0	0.0	0.0	0.0	0.0	0.0
OT. CAP.	3349.3	2008.2	1623.1	2030.9	2218.2	2631.7
XPENSES	592.6	985.8	979.0	1059.8	1155.1	1270.6

EASE EXP	0.0	0.0	0.0	0.0	0.0	0.0

EVENUE	0.0	324.7	654.0	888.4	1201.4	[illegible]

EASE REV	0.0	0.0	0.0	0.0	0.0	0.0

F02B01Z 12266

* [illegible] CONSTANT [illegible] REPORT *

YEAR	1990	1991	1992	1993	1994	1995	1996	LONG TRM.
) VALOREM TAX RATE	(Specified by CLASS name. See the following pages.)							
)MPOSITE DISC. RATE	13.34%	13.34%	13.34%	13.34%	13.34%	13.34%	13.34%	13.34%
)ST OF EQUITY	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%
)ST OF DEBT	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
:BT RATIO	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%	38.00%
)UITY DISCOUNT RATE	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%
:DERAL INC. TAX RATE	34.00%	34.00%	34.00%	34.00%	34.00%	34.00%	34.00%	34.00%
'ATE INCOME TAX RATE	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
:DERAL CAP. GAINS TAX	34.00%	34.00%	34.00%	34.00%	34.00%	34.00%	34.00%	34.00%
'ATE CAP. GAINS TAX	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
?OSS RECPTS TAX(PLN1)	0.87%	0.87%	0.87%	0.87%	0.87%	0.87%	0.87%	0.87%
?OSS RECPTS TAX(PLN2)	0.87%	0.87%	0.87%	0.87%	0.87%	0.87%	0.87%	0.87%
)C RATE	12.79%	12.79%	12.79%	12.79%	12.79%	12.79%	12.79%	12.79%
:C RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
)MBINATION TREND RATE	(Not available in the CUCRIT Subsystem.)							
'NAGEMENT TREND lable in the CUCRIT Subsystem.)								
)N-MGMT TREND RATE	(Not available in the CUCRIT Subsystem.)							

)TE: ITC rates for 1986 and beyond should be 0.0 to be in accordance with the 1986 Tax Law. If their not, invalid results may occur.

AREA CONSTANT FILE REPORT

* CLASS ESS *

(Data from the CLASS and CLSDT tables)

YEAR	1990	1991	1992	1993	1994	1995	1996	LONG TRM.
)OK DEPRECIATION METH.	SL	SL	SL	SL	SL	SL	SL	SL
'X DEPRECIATION METHOD	(Specified by cash flow. See capcf table's iftdpm.)							
'X LIFE	(Specified by cash flow. See capcf table's taxlf.)							
'PITAL TREND RATE	6.00%	6.00%	6.00%	6.00%	7.00%	7.00%	7.00%	7.00%
'INTENANCE TREND RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
) VALOREM TAX RATE	1.02%	1.02%	1.02%	1.02%	1.02%	1.02%	1.02%	1.02%

'CCT. CODE	RPTD. PLNT. FLAG	BOOK LIFE	TAX/ BOOK RATIO	BOOK GROSS SALV.	BOOK COST RMVL.	ITC ELIG. IND.	STRUC BLDG. FLAG	CAP. GAIN FLAG	PROF. FACT.	TAX FACT.
211-0	NO	10.1	*	4.00%	0.00%	*	*	YES	0.00%	0.00%

)TES: Values containing '*' are specified by cash flow.
For 'TAX/BOOK RATIO' values see capcf table's tbrtio.
For 'ITC ELIG. IND' values see capcf table's itcfl.
For 'STRUC BLDG. FLAG' values see capcf table's ifbl

AREA CONSTANT FILE REPORT

* CLASS CKT-D *

(Data from the CLASS and CLSDT tables)

YEAR	1990	1991	1992	1993	1994	1995		
)OK DEPRECIATION METH.	SL	SL	SL	SL	SL	SL	SL	SL
'X DEPRECIATION METHOD	(Specified by cash flow. See capcf table's iftdpm.)							
'X LIFE	(Specified by cash flow. See capcf table's taxlf.)							
'PITAL TREND RATE	0.00%	1.00%	2.00%	2.00%	2.00%	2.00%	3.00%	3.00%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

'CCT.	RPTD. PLNT.	BOOK	TAX/ BOOK	BOOK GROSS	BOOK COST	ITC ELIG.	STRUC BLDG.	CAP. GAIN	PROF.	TAX
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

)TES: Values containing '*' are specified by cash flow.
For 'TAX/BOOK RATIO' values see capcf table's tbrtio.
For 'ITC ELIG. IND' values see capcf table's itcfl.
For 'STRUC BLDG. FLAG' values see capcf table's ifbldg.

AREA CONSTANT FILE REPORT

* CLASS ESSD *

(Data from the CLASS and CLSDT tables)

YEAR	1990	1991	1992	1993	1994	1995	1996	LONG TRM.
)OK DEPRECIATION METH.	SL	SL	SL	SL	SL	SL	SL	SL
;X DEPRECIATION METHOD	(Specified by cash flow. See capcf table's iftdpm.)							
;X LIFE	(Specified by cash flow. See capcf table's taxlf.)							
;PITAL TREND RATE	0.00%	0.00%	-1.00%	-1.00%	-2.00%	-4.00%	1.00%	1.00%
;INTENANCE TREND RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
) VALOREM TAX RATE	1.02%	1.02%	1.02%	1.02%	1.02%	1.02%	1.02%	1.02%

;CCT. CODE	RPTD. PLNT. FLAG	BOOK LIFE	TAX/ BOOK RATIO	BOOK GROSS SALV.	BOOK COST RMVL.	ITC ELIG. IND.	STRUC BLDG. FLAG	CAP. GAIN FLAG	PROF. FACT.	TAX FACT.
212-0	NO	15.1	*	0.00%	0.00%	*	*	YES	0.00%	0.00%

)TES: Values containing '*' are specified by cash flow.
For 'TAX/BOOK RATIO' values see capcf table's tbrtio.
For 'ITC ELIG. IND' values see capcf table's itcfl.
For 'STRUC BLDG. FLAG' values see capcf table's ifbldg.

AREA CONSTANT FILE REPORT

* CLASS LABEXP *

(Data from the CLASS and CLSDT tables)

YEAR	1990	1991	1992	1993	1994	1995	1996	LONG TRM.
)OK DEPRECIATION METH.	SL	SL	SL	SL	SL	SL	SL	SL
;X DEPRECIATION METHOD	(Specified by cash flow. See capcf table's iftdpm.)							
;X LIFE	(Speced by cash flow. See capcf table's taxlf.)							
;PITAL TREND RATE	4.30%	4.30%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
;INTENANCE TREND RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
) VALOREM TAX RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

;CCT. CODE	RPTD. PLNT. FLAG	BOOK LIFE	TAX/ BOOK RATIO	BOOK GROSS SALV.	BOOK COST RMVL.	ITC ELIG. IND.	STRUC BLDG. FLAG	CAP. GAIN FLAG	PROF. FACT.	TAX FACT.
)NE	NONE	NONE	*	NONE	NONE	*	*	NONE	0.00%	0.00%

)TES: Values containing '*' are specified by cash flow.
Values containing 'NONE' indicate there was no data in the class table for this class name.
For 'TAX/BOOK RATIO' values see capcf table's tbrtio.
For 'ITC ELIG. IND' values see capcf table's itcfl.
For 'STRUC BLDG. FLAG' values see capcf table's ifbldg.

AREA CONSTANT FILE REPORT

* CLASS GENC *

F02B01Z 12268

F02B01Z 00770

APITAL TREND RATE	4.30%	4.30%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
AINTENANCE TREND RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
D VALOREM TAX RATE	0.00%	0.00%	0.00%	0.00%	0.00%	RPTD.		TAX/

ACCT. CODE	PLNT. FLAG	BOOK LIFE	BOOK RATIO	GROSS SALV.	COST RMVL.	ELIG. IND.	BLDG. FLAG	GAIN FLAG	PROF. FACT.	TAX FACT.
ONE	NONE	NONE	*	NONE	NONE	*	*	NONE	0.00%	0.00%

OTES: Values containing '*' are specified by cash flow.
Values containing 'NONE' indicate there was no data in the class table for this class name.
For 'TAX/BOOK RATIO' values see capcf table's tbrtic.
For 'ITC ELIG. IND' values see capcf table's itcfl.
For 'STRUC BLDG. FLAG' values see capcf table's ifbldg.

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AREA CONSTANT FILE REPORT

* CLASS REV *

(Data from the CLASS and CLSDT tables)

YEAR	1990	1991	1992	1993	1994	1995	1996	LONG TRM.
OOK DEPRECIATION METH.	SL	SL	SL	SL	SL	SL	SL	SL
AX DEPRECIATION METHOD	(Specified by cash flow. See capcf table's iftdpm.)							
AX LIFE	(Specified by cash flow. See capcf table's taxlf.)							
APITAL TREND RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
AINTENANCE TREND RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
D VALOREM TAX RATE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

ACCT. CODE	RPTD. PLNT. FLAG	BOOK LIFE	TAX/ BOOK RATIO	BOOK GROSS SALV.	COST RMVL.	ITC EIG. IND.	STRUC BLDG. FLAG	CAP. GAIN FLAG	PROF. FACT.	TAX FACT.
ONE	NONE	NONE	*	NONE	NONE	*	*	NONE	0.00%	0.00%

OTES: Values containing '*' are specified by cash flow.
Values containing 'NONE' indicate there was no data in the class table for this class name.
For 'TAX/BOOK RATIO' values see capcf table's tbrtic.
For 'ITC ELIG. IND' values see capcf table's itcfl.
For 'STRUC BLDG. FLAG' values see capcf table's ifbldg.

S>>

PALMETTO

EXECUTIVE SUMMARY

Database: wfldb

Dataset: base palmetto

(Next page)

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BOCA RATON MAIN EAL

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F02B01Z 12270

BOCA RATON MAIN 1AESS REPLACEMENT PROJECT

EXECUTIVE APPROVAL LETTER

Prepared by:

John R. Horrobin
Senior Engineer
Southeast Tactical Planning
(305)492-2970

February 20, 1992

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BOCA RATON MAIN 1AESS REPLACEMENT PROJECT

INDEX

February 20, 1992

Mr. H. E. Palmes
Vice President - Network Planning & Engineering
Birmingham, AL

Dear Sir:

Executive Approval is requested for the replacement of the 1AESS in the Boca Raton Main central office with an addition to the collocated Siemens Stromberg-Carlson EWSD. This replacement was included in the 1990 BellSouth Switch RFQ.

The fundamental switch plan is to ship the EWSD addition in 1992 and perform the EWSD cutover and 1AESS retirement in 1993. Gross capital expenditures are expected to be $6,701,000, with retirements of $10,300,000, and a one-time expense of $2,268,000. The major advantages that will result from implementing this plan are:

- the avoidance of incremental expenses associated with maintaining a capped-switch environment
- the avoidance of an annual expense of $244,000 associated with maintaining two Main Distributing Frames, and a corresponding reduction in trouble reports
- the avoidance of Central Office Terminal (COT) expenditures for those digital loop carrier (DLC) systems that will be integrated into the EWSD, and the reuse of those COT's in other offices
- the avoidance of capital and expense expenditures associated with growing the 1AESS
- the incremental revenues that will result when customers are no longer required to take a number change in order to receive digital services
- the internal experience of a major EWSD implementation.

SWITCHING
RECOMMENDATION LETTER
BOCA RATON MAIN
SOUTHEAST FLORIDA

The primary trigger of the recommended plan is its economic advantage over the Present Method of Operation (PMO). Other alternatives considered include shipping the EWSD addition in 1993-1997 and 2002 (PMO).

The recommended plan is the most economic alternative, with a Net Present Value (NPV) advantage of $1,395,000 and a Project Rate of Return (PRR) of 15.2% when compared to the PMO.

Please indicate your approval to replace the Boca Main 1AESS with an addition to the collocated EWSD servicing in 1993. Any questions regarding this request can be referred to John Horrobin on (305)492-2970.

Recommended:

BMD _____ 2-25-92
General Manager - Network Planning & Engineering — Date

_____ 3/2/92
General Manager - Network Operations — Date

Approved:

_____ 3/27/92
Vice President - Network Planning & Engineering — Date
for

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BOCA RATON MAIN 1AESS REPLACEMENT PROJECT

CAPITAL AND EXPENSE REQUIREMENTS

($000)

ACCOUNT NAME	1992	1993	TOTAL
CAPITAL:			
Digital Switch	5098	652	5750
Power	520		520
Frame	369		369
Circuit	10		10
Building	52		52
Total Capital	**6049**	**652**	**6701**
EXPENSE:			
Right To Use	**2268**		**2268**
TOTAL	**8317**	**652**	**8969**

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BOCA RATON MAIN 1AESS REPLACEMENT PROJECT

PRESENT SITUATION, RECOMMENDATION, AND OTHER ALTERNATIVES CONSIDERED

1.0 PRESENT SITUATION

The Boca Raton Main central office serves a twenty square mile area of southern Palm Beach County, Florida (see the state map under Tab 6). This wire center includes downtown Boca Raton, Florida Atlantic University, Boca Raton Community Hospital, Boca Raton News, several large hotels, exclusive oceanfront communities, and a major shopping mall. Of the 62,150 access lines currently in service, approximately 67% serve residential customers and 33% serve business customers. Access line growth is expected to average more than 2300 lines per year over the next ten years, 75% of which will be served on integratable DLC systems.

Customers in this wire center are served by a 1AESS with a capacity of 62,300 lines and an EWSD with a capacity of 4500 lines. Though the EWSD was installed to cap the 1AESS in 1989, access line growth continues to be served by the 1AESS due to the delayed availability of EWSD capabilities.

In addition to the serving arrangement described above, the EWSD currently hosts two Remote Line Units (RLU) that terminate approximately 1750 ESSX lines that serve the Siemens Stromberg-Carlson facility located in an adjacent wire center.

The 1AESS is terminated on a 32-module COSMIC frame, while the EWSD is terminated on a 245-vertical conventional frame. All distribution facilities were terminated on both frames in preparation of the EWSD installation in 1989.

The main area of the single-story building houses the EWSD, the conventional frame, the interoffice facility equipment, and the DLC equipment. The 1AESS and COSMIC frame are located in a room constructed especially for their installation in 1981. As a result, the 1AESS and COSMIC frame are separated from the main area by an above-ground cable vault and the power room (see the floor plan under Tab 6). The main area was prepared for a complete EWSD replacement in 1989 and, therefore, minimal building work is required prior to the growth of the EWSD.

BOCA RATON MAIN 1AESS REPLACEMENT PROJECT

PRESENT SITUATION, RECOMMENDATION, AND
OTHER ALTERNATIVES CONSIDERED

(continued)

The unique frame and building situations described above result in an additional annual expense of $244,000 for frame maintenance. This expense will be avoided when the 1AESS and COSMIC frame are retired. Another advantage to be gained by retiring the 1AESS is a reduction in trouble reports that result from the current frame and building situation.

2.0 RECOMMENDED PLAN

The recommended plan is to replace the 1AESS with an addition to the EWSD. The shipment of the EWSD addition is scheduled for the third quarter of 1992, and the cutover of the 1AESS lines to the EWSD is scheduled for the second quarter of 1993. The RLUs will continue to be hosted by the EWSD. The 1AESS will be retired from service upon the completion of the cutover.

At cutover, approximately 186 SLC-96 Mode I and 17 SLC-96 Mode II systems will be integrated into the EWSD. Approximately 170 SLC-96 Mode I, 4 SLC-96 Mode II, and 12 DMS-1 Urban systems will remain in the universal mode at cutover. These DLC forecasts are based on conservative assumptions regarding the integration capabilities of the EWSD at the time of cutover.

The recommended plan includes the installation of a new power plant. The existing power plant will be retired from service upon the completion of the EWSD cutover. The new power plant will be housed in a new power room to be constructed in the main area of the building adjacent to the EWSD (see the floor plan under Tab 6).

This plan was modeled in NPS-W according to the 1991 update of the 1AESS Economic Study Guidelines. The results of the NPS-W study are tabulated under Tab 5. The quoted prices received from Siemens Stromberg-Carlson as part of their response to the 1990 BellSouth Switch RFQ were modeled in this plan. This model includes an over-ride of certain generic upgrade charges normally calculated by NPS-W for 5ESS installations. Documentation concerning the appropriateness of this over-ride can be found under Tab 8.

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BOCA RATON MAIN 1AESS REPLACEMENT PROJECT

PRESENT SITUATION, RECOMMENDATION, AND
OTHER ALTERNATIVES CONSIDERED

(continued)

3.0 PMO PLAN

The PMO plan with which the recommended plan was compared assumes that the access line growth will be served from the EWSD beginning in 1992. The 1AESS will be truly capped from 1992 until 2002, at which time the lines served by the 1AESS will be transferred to the EWSD and the 1AESS retired.

This plan assumes that no DLC systems will be integrated into the EWSD until 2002. Also, both frames will remain in place until 2002, at which time the COSMIC frame will be retired. The RLUs will continue to be hosted by the EWSD.

This plan was modeled in NPS-W according to the 1991 update of the 1AESS Economic Study Guidelines. The results of the NPS-W study are tabulated under Tab 5. The discount level applied to the switching equipment in the recommended plan was also applied to this plan.

An exceptional cash flow was added to this plan to represent the annual expense of $244,000 associated with maintaining two frames until 2002. The approval documentation associated with this cash flow can be found under Tab 9.

4.0 SENSITIVITIES

Below is a description of three sensitivities performed on the recommended and PMO plans. Each sensitivity was performed independently of each other. The economic results of these sensitivities can be found under Tab 5.

Also included under Tab 5 is a summary of the incremental increase in NPV of the recommended plan and each sensitivity over the PMO plan. The total NPV of the recommended plan and all sensitivities represents the potential financial impact of this proposal.

BOCA RATON MAIN 1AESS REPLACEMENT PROJECT

PRESENT SITUATION, RECOMMENDATION, AND OTHER ALTERNATIVES CONSIDERED

(continued)

The economic impacts of these sensitivities are not included in the economic indicators of the recommended plan that are documented in the Recommendation Letter. Also, these sensitivities were not included in the study review conducted by the Field Review Team.

4.1 Sensitivity A - 1AESS Growth and Generic Digital Switch Replacement

This sensitivity assumes that the PMO plan is to continue to serve the access line growth from the 1AESS until 2002, at which time it would be replaced with a generic digital switch. It also assumes that the EWSD would be retired from service in 1995, at which time the lines served by the EWSD would be transferred to the 1AESS. The lines terminated on the RLU's hosted by the EWSD would be transferred to the DMS-100 that is collocated with one of the RLU's.

The basis of this sensitivity is the inefficiency of the present situation. If the 1AESS is not replaced within the next few years, the additional switch and frame costs associated with maintaining the EWSD, as well as the impact of a capped switch on trouble reports and DLC integration, would drive the retirement of the EWSD. Network Operations would not support an ongoing dual-switch and dual-frame scenario.

This sensitivity was modeled in NPS-W using the generic switch pricing with non-RFQ discount levels. The cost of transferring the RLU lines to the DMS-100 was not included in this study. Impacts of this sensitivity include significant increases in the 1AESS and digital switch capital expenditures and significant decreases in the DESSX Loop Penalty, EWSD maintenance, EWSD RTU, frame maintenance, and incremental revenue cash flows.

The recommended plan was not adjusted in this sensitivity.

BOCA RATON MAIN 1AESS REPLACEMENT PROJECT

PRESENT SITUATION, RECOMMENDATION, AND OTHER ALTERNATIVES CONSIDERED

(continued)

4.2 Sensitivity B - Package Discount Credit

This sensitivity includes a credit for the savings associated with a proposed by Siemens Stromberg-Carlson in Florida. The proposal provides an additional if these switches are replaced with EWSD equipment that This sensitivity assumes that these requirements will be met to realize the .

The basis of this sensitivity is that the Boca Raton Main EWSD project will drive the development of the necessary M&P's and other activities needed for a successful cutover of an EWSD. It is assumed that if the Boca Raton Main project is deferred, BellSouth will not be in a position to replace the Florida 2BESS offices in the time frame required to meet the proposal requirements. Also, though not modeled in this sensitivity, deferral of this project could affect BellSouth's ability to deploy EWSD equipment in other areas of the region on schedule.

This sensitivity was modeled in NPS-W using a cash flow representing the

This cash flow was applied to the recommended plan only.

4.3 Sensitivity C - Integrated DLC Penalty

This sensitivity reflects the difference between the regional and local trouble report rates on DLC systems. An annual penalty of $5.54 is applied to all integrated DLC lines by NPS-W. This penalty is based on a regional average of the incremental increase in trouble reports for integrated DLC systems over universal DLC systems. This sensitivity models the actual incremental increase in trouble report rates for the North Broward division in 1991.

BOCA RATON MAIN 1AESS REPLACEMENT PROJECT

PRESENT SITUATION, RECOMMENDATION, AND OTHER ALTERNATIVES CONSIDERED

(continued)

This sensitivity was modeled in NPS-W using an adjusted maintenance factor for integrated DLC lines. The impact of this sensitivity is a decrease in the EWSD maintenance cash flow.

This adjustment applies to both the recommended plan and the PMO plan.

12.

BOCA RATON MAIN 1AESS REPLACEMENT PROJECT

INTEGRATED PLANNING CONSIDERATIONS

1.0 MARKETING CONSIDERATIONS

The alternatives studied for Boca Raton Main have a significant impact on the ability of the Marketing department to be successful in this wire center. The capped-switch environment forces customers to undergo a number change in order to obtain digital services such as Digital ESSX and ISDN, or to use electronic key sets without additional premise equipment. This causes customer dissatisfaction and a corresponding loss of potential revenues.

The present situation is undesirable for certain customers with multiple locations within the Boca Raton Main wire center. The problems and dissatisfaction for customers with premises in the area served by the 1AESS and the area served by the EWSD. The impact of this situation is intensified when all growth is assigned to the EWSD while the embedded base of access lines remain on the 1AESS.

Siemens Stromberg-Carlson and AT&T have unique schedules for deploying new features and capabilities.

One example of this potential is the current services. Customers served by the EWSD cannot currently though these services are available to customers in adjacent areas served by the 1AESS. This particular situation will be resolved when the EWSD is upgraded to Release 9 later this year, but the difference in the feature availability of the 1AESS and EWSD has created customer dissatisfaction.

Deploying the features and capabilities that are available from both the 1AESS and the EWSD may result in duplicate expenditures for BellSouth. One example of this is Memorycall service, Additional capital expenditures would be required to equip the EWSD with Simplified Message Desk Interface (SMDI) links to the MemoryCall system. SMDI links have already been established for the 1AESS, and the recommended plan includes reusing these links for the EWSD when the 1AESS is retired from service.

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BOCA RATON MAIN 1AESS REPLACEMENT PROJECT

INTEGRATED PLANNING CONSIDERATIONS

(continued)

These considerations support the establishment of a single switching entity to service the entire wire center, as stipulated in the recommended plan.

2.0 REGIONAL M&P DEVELOPMENT

The "Siemens Conversion Team" was formed to address the development of the M&P's necessary for the successful cutover and operation of an EWSD as large as the one proposed for Boca Raton Main. This team has been driven by the proposed Boca Raton Main 1AESS replacement schedule, and has made significant progress on identifying the critical work efforts that must be completed in order for BellSouth to be successful in deploying and maintaining EWSD equipment. The work that is underway in preparation for the Boca Raton Main EWSD cutover will have a lasting effect on the utilization of EWSD technology in the BellSouth network.

3.0 NETWORK CONSIDERATIONS

In conjunction with the EWSD cutover, the Southeast Tactical Planning District (SETPD) intends to deploy a 3:1 Digital Cross-connect System (DCS) to improve the provisioning, maintenance, and testing of the interoffice facility network. The SETPD also intends to deploy ISDN capabilities with the EWSD cutover to support the demand for end-to-end digital connectivity in the BellSouth network. With the evolution of EWSD technology, new architectures such as SONET and AIN will be deployed in the Boca Raton Main wire center.

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BOCA RATON MAIN 1AESS REPLACEMENT PROJECT

SUMMARY OF ECONOMIC RESULTS AND SENSITIVITIES

($000)

ALTERNATIVES	NPV	NPV vs. PMO	PRR(%)	DPP(Yr)
Ship in 1992 (Recommended Plan)	-5453	1395	15.2	11
Ship in 1993	-5655	1193	15.1	11
Ship in 1994	-6479	369	13.8	11
Ship in 1995	-6475	373	13.8	11
Ship in 1996	-6464	384	13.9	11
Ship in 1997	-6789	59	13.4	11
Ship in 2002 (PMO Plan)	-6848	---	--	--

	NPV				
SENSITIVITY	Rec Plan	PMO Plan	Rec vs. PMO	PRR(%)	DPP(Yr)
A - 1A/Dig Sw	-5453	-8795	3342	17.3	11
B - Pkg Disc	-4655	-6848	2193	16.3	10
C - IDLC	-5002	-6685	1683	15.6	11

SUMMARY	INCREMENTAL NPV OVER PMO
RECOMMENDED PLAN	1395
SENSITIVITY A	1947
SENSITIVITY B	798
SENSITIVITY C	288
TOTAL NPV	4428

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NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

JDY: BOCA_MAIN
RAMETER FILE:

AN: SHIP92 VS PMO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	1394.9
NET PW EXPENDITURES	-2271.3
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	**1394.9**
DISCOUNTED PAYBACK PERIOD	**11 YRS**
LONG TERM ECONOMIC EVALUATOR	**1.323**
PROJECT RATE OF RETURN	**15.2%**
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	8.1	-61.5	**	-38.1	**
1992	-466.1	3764.1	-9.0	2333.7	-20.0
1993	653.0	3632.4	21.4	2252.1	29.0
1994	687.5	3560.6	22.7	2207.6	31.1
1995	816.9	3623.3	25.9	2246.5	36.4

++++++ SUMMARY BY PLAN ++++++

	SHIP92	PMO
TOTAL NONDISCOUNTED CAP.	12753.4	15768.6
TOTAL NONDISCOUNTED EXP.	32737.1	38525.4
TOTAL NONDISCOUNTED REV.	44378.5	36876.2
NET PRESENT VALUE-EOL	-5452.8	-6847.8
NET PW EXPENDITURES	8878.6	11149.9

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

SENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
GTH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

RIT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
E IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
HE IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
THE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

DY: BOCA_MAIN
AMETER FILE:

N: SHIP93 VS PMO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	1193.1
NET PW EXPENDITURES	-1942.7
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	1193.1
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.304
PROJECT RATE OF RETURN	15.1%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	-4.6	71.8	-3.0	44.5	-10.2
1993	-445.0	4181.7	-7.3	2592.6	-17.2
1994	652.5	4240.1	18.8	2628.9	24.8
1995	704.1	4104.4	20.5	2544.7	27.7

++++++ SUMMARY BY PLAN ++++++

	SHIP93	PMO
TOTAL NONDISCOUNTED CAP.	12926.6	15768.6
TOTAL NONDISCOUNTED EXP.	32889.9	38525.4
TOTAL NONDISCOUNTED REV.	43096.4	36876.2
NET PRESENT VALUE-EOL	-5654.7	-6847.8
NET PW EXPENDITURES	9207.2	11149.9

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

SENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
GTH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

RIT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
E IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
HE IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
THE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

DY: BOCA_MAIN
AMETER FILE:

N: SHIP94 VS PMO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

PRIMARY	
NET PRESENT VALUE - EOL	368.6
NET PW EXPENDITURES	-600.2
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	368.6
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.078
PROJECT RATE OF RETURN	13.8%
INTERNAL RATE OF RETURN	14.9%

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	0.0	0.0	**	0.0	**
1993	7.3	-41.9	**	-26.0	**
1994	-620.4	6424.1	-6.3	3982.9	-15.6
1995	545.1	6149.7	12.2	3812.8	14.3

++++++ SUMMARY BY PLAN ++++++

	SHIP94	PMO
TOTAL NONDISCOUNTED CAP.	14772.5	15768.6
TOTAL NONDISCOUNTED EXP.	33079.6	38525.4
TOTAL NONDISCOUNTED REV.	42735.7	36876.2
NET PRESENT VALUE-EOL	-6479.2	-6847.8
NET PW EXPENDITURES	10549.7	11149.9

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

ENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
TH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

IT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
HE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

DY: BOCA_MAIN
AMETER FILE:

N: SHIP95 VS PMO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	372.4
NET PW EXPENDITURES	-606.4
	SECONDARY
CUMULATIVE DISCOUNTED CASH FLOW - EOS	372.4
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.086
PROJECT RATE OF RETURN	13.8%
INTERNAL RATE OF RETURN	15.3%

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	0.0	0.0	**	0.0	**
1993	0.0	0.0	**	0.0	**
1994	-3.2	88.0	-0.3	54.6	-5.9
1995	-676.6	7067.3	-6.2	4381.7	-15.4

++++++ SUMMARY BY PLAN ++++++

	SHIP95	PMO
TOTAL NONDISCOUNTED CAP.	15010.5	15768.6
TOTAL NONDISCOUNTED EXP.	33249.4	38525.4
TOTAL NONDISCOUNTED REV.	42090.8	36876.2
NET PRESENT VALUE-EOL	-6475.4	-6847.8
NET PW EXPENDITURES	10543.5	11149.9

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

SENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
GTH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

:IT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
: IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
'HE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

JDY: BOCA_MAIN
AMETER FILE:

N: SHIP96 VS PMO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	383.7
NET PW EXPENDITURES	-624.8
	SECONDARY
CUMULATIVE DISCOUNTED CASH FLOW - EOS	383.7
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.097
PROJECT RATE OF RETURN	13.9%
INTERNAL RATE OF RETURN	15.8%

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	0.0	0.0	**	0.0	**
1993	0.0	0.0	**	0.0	**
1994	0.0	0.0	**	0.0	**
1995	-3.0	92.2	0.1	57.2	-5.3

++++++ SUMMARY BY PLAN ++++++

	SHIP96	PMO
TOTAL NONDISCOUNTED CAP.	15125.3	15768.6
TOTAL NONDISCOUNTED EXP.	33393.3	38525.4
TOTAL NONDISCOUNTED REV.	41196.4	36876.2
NET PRESENT VALUE-EOL	-6464.0	-6847.8
NET PW EXPENDITURES	10525.0	11149.9

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

SENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
GTH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

RIT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
E IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
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NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

DY: BOCA_MAIN
AMETER FILE:

N: SHIP97 VS PMO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	58.4
NET PW EXPENDITURES	-95.0
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	58.4
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.016
PROJECT RATE OF RETURN	13.4%
INTERNAL RATE OF RETURN	13.7%

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	0.0	0.0	**	0.0	**
1993	0.0	0.0	**	0.0	**
1994	0.0	0.0	**	0.0	**
1995	0.0	0.0	**	0.0	**

++++++ SUMMARY BY PLAN ++++++

	SHIP97	PMO
TOTAL NONDISCOUNTED CAP.	15127.7	15768.6
TOTAL NONDISCOUNTED EXP.	35450.8	38525.4
TOTAL NONDISCOUNTED REV.	40436.9	36876.2
NET PRESENT VALUE-EOL	-6789.4	-6847.8
NET PW EXPENDITURES	11054.8	11149.9

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

SENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
GTH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

RIT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
E IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
THE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

DY: BOCAMAIN.SENS.A
AMETER FILE:

N: SHIP92 VS PMO.1A

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	3341.7
NET PW EXPENDITURES	-5441.1
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	3341.7
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.824
PROJECT RATE OF RETURN	17.3%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	-58.2	-91.2	**	-56.5	**
1992	-481.2	3545.8	-10.2	2198.4	-21.9
1993	654.9	3383.4	22.7	2097.7	31.2
1994	728.5	3298.9	25.5	2045.3	35.6
1995	688.6	4065.9	20.3	2520.9	27.3

++++++ SUMMARY BY PLAN ++++++

	SHIP92	PMO.1A
TOTAL NONDISCOUNTED CAP.	12753.4	24255.7
TOTAL NONDISCOUNTED EXP.	32737.1	27586.9
TOTAL NONDISCOUNTED REV.	44378.5	19603.0
NET PRESENT VALUE-EOL	-5452.8	-8794.5
NET PW EXPENDITURES	8878.6	14319.6

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

ENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
TH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

IT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
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E IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
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NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

DY: BOCAMAIN.SENS.B
AMETER FILE:

N: SHIP92 VS PMO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	2193.1
NET PW EXPENDITURES	-3570.9
	SECONDARY
CUMULATIVE DISCOUNTED CASH FLOW - EOS	2193.1
DISCOUNTED PAYBACK PERIOD	10 YRS
LONG TERM ECONOMIC EVALUATOR	1.540
PROJECT RATE OF RETURN	16.3%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	8.1	-61.5	**	-38.1	**
1992	-394.9	3521.2	-7.8	2183.1	-18.1
1993	937.2	2702.3	38.1	1675.4	55.9
1994	758.1	2771.4	30.7	1718.3	44.1
1995	882.3	2972.1	33.1	1842.7	47.9

++++++ SUMMARY BY PLAN ++++++

	SHIP92	PMO
TOTAL NONDISCOUNTED CAP.	11735.0	15768.6
TOTAL NONDISCOUNTED EXP.	32305.8	38525.4
TOTAL NONDISCOUNTED REV.	44378.5	36876.2
NET PRESENT VALUE-EOL	-4654.7	-6847.8
NET PW EXPENDITURES	7578.9	11149.9

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

SENT WORTH YEAR 1991	TREND BASE DATE	1/1991	CASH FLOW OPTION	COMB
STH OF STUDY 18 YEARS	DISC RATE	13.24%	FINANCIAL OPTION	ACCT

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NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

DY: BOCAMAIN.SENS.C
AMETER FILE:

N: SHIP92.C VS PMO.C

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	1683.6
NET PW EXPENDITURES	-2741.3
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	1683.6
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.393
PROJECT RATE OF RETURN	15.6%
INTERNAL RATE OF RETURN	•

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	8.1	-61.5	**	-38.1	**
1992	-433.6	3764.1	-8.1	2333.7	-18.6
1993	686.5	3632.4	22.3	2252.1	30.5
1994	724.1	3560.6	23.7	2207.6	32.8
1995	861.2	3623.3	27.1	2246.5	38.3

++++++ SUMMARY BY PLAN ++++++

	SHIP92.C	PMO.C
TOTAL NONDISCOUNTED CAP.	12753.4	15768.6
TOTAL NONDISCOUNTED EXP.	29999.5	36931.5
TOTAL NONDISCOUNTED REV.	44378.5	36876.2
NET PRESENT VALUE-EOL	-5001.8	-6685.4
NET PW EXPENDITURES	8144.2	10885.5

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

ENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
TH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

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E IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
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;>>

building no.- 62 name- BOCA MAIN
clli - BCRTFLMA eco parameter - NPV
plans are compared to plan no. 1

01/27/92 09:22 ET Release 4.2.0.8

total npv difference

	plan no.	total npv ($000)	npv diff. ($000)	per cent diff.	plan description
(PMO Plan)	1	-6698.0	0.0	0.0	ship in 2002
(Rec Plan)	32	-5353.4	1344.6	-20.1	ship in 1992
	33	-5546.5	1151.5	-17.2	ship in 1993
	34	-6362.9	335.1	-5.0	ship in 1994
	35	-6353.2	344.8	-5.1	ship in 1995
	36	-6335.6	362.4	-5.4	ship in 1996
	37	-6654.6	43.4	-0.6	ship in 1997

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

DY: BOCA_MAIN
AMETER FILE:

N: SHIP92

TREND BASE DATE - 1/1991
STUDY START DATE - 1/1991
PRESENT WORTH YEAR - 1991
NPV OPTION - EOL
LENGTH OF STUDY - 18
GROSS RECEIPTS TAX - See AREA-CNST-RPT
IDC INCL. IN FCOST - NO
PLAN FILE NAME -

PITAL - MAINTENANCE>

CRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	-CLASS NAME	INV. TYPE
SS.	0	11240.0	1/81	0/00	11.00	0	0	0	0.0	2211-0	ESS	EMBD
SS.	0	26.8	1/91	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
SS.SA	0	-108.7	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
N.DIS	0	355.0	1/92	0/00	17.00	0	0	0	0.0	2211-0	ESS	NEW
LDING	0	50.0	1/92	0/00	17.00	0	0	0	0.0	2121-1	BLDG	NEW
.PLAN	0	500.0	1/92	0/00	17.00	0	0	0	0.0	2211-0	ESS	NEW
C CKT	0	10.0	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.5	0	2048.0	1/89	0/00	20.00	0	0	0	0.0	2212-0	ESSD	EMBD
.NO.5	0	109.1	1/91	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	5169.8	1/92	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	212.5	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	258.2	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	333.3	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	369.9	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	335.8	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	344.4	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	345.1	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	364.6	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	361.8	1/ 1	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	370.1	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	370.1	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	366.4	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	374.2	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	370.4	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	370.6	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	370.9	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
OT.S	0	-1080.2	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
OT.L	0	-411.4	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	-81.8	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.	0	-30.9	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
.ESS	0	166.2	1/91	0/00	18.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	32.9	1/92	0/00	17.00	0	0	0	0.0	2422-0	OSP-F	NEW
SS	0	63.0	1/93	0/00	16.00	0	0	0	0.0	2422-0	OSP-F	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

UDY: BOCA_MAIN
RAMETER FILE:

AN: SHIP92

APITAL - MAINTENANCE (CONTINUED)>

SCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
..ESS	0	109.4	1/94	0/00	15.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	102.9	1/95	0/00	14.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	148.2	1/96	0/00	13.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	116.7	1/97	0/00	12.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	153.4	1/98	0/00	11.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	117.4	1/99	0/00	10.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	153.8	1/ 0	0/00	9.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	153.8	1/ 1	0/00	8.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	154.4	1/ 2	0/00	7.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	154.4	1/ 3	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	154.4	1/ 4	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	154.4	1/ 5	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	154.4	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
ESS	0	154.4	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
ESS	0	154.4	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW

PENSE>

CRIPT	CAT REP	EXP.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
SS.MT	0	0.0	1/91	12/91	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	441.6									
.MTCE	0	0.0	1/91	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	142.4	'92)	486.7	'93)	483.9	'94)	486.3	'95)	512.6	
		'96)	546.0	'97)	581.7	'98)	615.1	'99)	648.9	'00)	682.5	
		'01)	716.9	'02)	751.3	'03)	785.8	'04)	820.3	'05)	854.8	
		'06)	889.3	'07)	923.8	'08)	958.3					
ERIC.	0	0.0	1/91	12/91	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'91)	65.0									
CAP.	0	0.0	1/91	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'91)	1.2	'98)	86.2	'99)	91.0	'00)	95.7	'01)	100.7	
		'02)	105.7	'03)	110.7	'04)	115.7	'05)	120.7	'06)	125.7	
		'07)	130.7	'08)	135.8							
ESS	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	7.5	'93)	9.0	'94)	11.8	'95)	16.7	'96)	21.3	

F02B01Z 12296

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

UDY: BOCA_MAIN
RAMETER FILE:

AN: SHIP92

XPENSE (CONTINUED)>

SCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
		'97) 28.0	'98) 33.2	'99) 40.1	'00) 45.4	'01) 52.3						
		'02) 59.2	'03) 66.2	'04) 73.1	'05) 80.1	'06) 87.0						
		'07) 94.0	'08) 100.9									
N.UPG.	0	0.0	1/91	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'91) 68.1	'94) 59.0	'96) 66.0	'98) 123.9	'99) 124.4						
		'00) 124.7	'01) 125.2	'02) 125.6	'03) 126.0	'04) 126.5						
		'05) 126.9	'06) 127.4	'07) 127.8	'08) 128.3							
N.UPG.	0	0.0	1/98	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'98) 30.5	'99) 32.4	'00) 34.5	'01) 36.2	'02) 38.0						
		'03) 39.9	'04) 41.9	'05) 43.8	'06) 45.7	'07) 47.7						
		'08) 49.6										
.RTU	0	0.0	1/91	12/91	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'91) 106.0										
SS.RTU	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'92) 1650.0	'93) 202.0	'94) 202.0	'95) 202.0	'96) 202.0						
		'97) 202.0	'98) 202.0	'99) 202.0	'00) 202.0	'01) 202.0						
		'02) 202.0	'03) 202.0	'04) 202.0	'05) 202.0	'06) 202.0						
		'07) 202.0	'08) 202.0									
'.CAP.	0	0.0	1/92	12/92	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92) 120.0										

VENUE>

CRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
..ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) 142.1	'93) 172.0	'94) 228.5	'95) 327.0	'96) 421.6						
		'97) 558.5	'98) 669.5	'99) 816.0	'00) 931.7	'01) 1083.5						
		'02) 1226.5	'03) 1370.4	'04) 1513.9	'05) 1657.8	'06) 1801.4						
		'07) 1945.2	'08) 2089.1									
RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) 0.6	'93) 4.4	'94) 20.7	'95) 42.5	'96) 90.8						

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

JDY: BOCA_MAIN
AMETER FILE:

N: SHIP92

VENUE (CONTINUED)>

CRIPT	CAT REP	REV.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
		'97)	151.0	'98)	239.8	'99)	328.7	'00)	417.9		'01)	534.9
		'02)	651.9	'03)	768.9	'04)	886.0	'05)	1003.0		'06)	1120.0
		'07)	1237.0	'08)	1354.1							
N.BUS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:		'92)	1.2	'93)	9.8	'94)	22.4	'95)	45.7		'96)	86.1
		'97)	135.0	'98)	192.6	'99)	250.1	'00)	308.4		'01)	367.2
		'02)	426.0	'03)	485.5	'04)	545.1	'05)	604.7		'06)	664.2
		'07)	723.8	'08)	783.4							
.REV.	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:		'94)	13.2	'95)	70.1	'96)	115.4	'97)	182.0		'98)	288.7
		'99)	395.3	'00)	502.0	'01)	574.1	'02)	646.1		'03)	718.3
		'04)	790.4	'05)	862.6	'06)	934.7	'07)	1006.8		'08)	1079.0
N.ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:		'92)	1.7	'93)	6.1	'94)	18.1	'95)	45.7		'96)	92.0
		'97)	140.9	'98)	187.4	'99)	233.8	'00)	280.5		'01)	321.8
		'02)	363.2	'03)	404.7	'04)	446.2	'05)	487.7		'06)	529.2
		'07)	570.6	'08)	612.1							

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

JDY: BOCA_MAIN
AMETER FILE:

AN: PMO

TREND BASE DATE - 1/1991
STUDY START DATE - 1/1991
PRESENT WORTH YEAR - 1991
NPV OPTION - EOL
LENGTH OF STUDY - 18
GROSS RECEIPTS TAX - See AREA-CNST-RPT
IDC INCL. IN FCOST - NO
PLAN FILE NAME -

APITAL - MAINTENANCE>

SCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE	
ESS.	0	11240.0	1/81	0/00	21.00	0	0	0	0.0	2211-0	ESS	EMBD	
ESS.	0	70.2	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW	
ESS.	0	24.5	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW	
ESS.	0	28.9	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW	
ESS.	0	33.6	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW	
ESS.	0	37.8	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW	
ESS.	0	36.3	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW	
.	0	31.6	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW	
ESS.	0	28.9	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW	
ESS.	0	25.9	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW	
ESS.	0	24.8	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	48.4	1/ 1
OSS.SA	0	-89.9	1/ 2	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW	
NCOT.S	0	115.0	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW	
NCOT.L	0	12.2	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW	
BEDDED	0	-0.6	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW	
BEDDED	0	-1.1	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW	
BEDDED	0	-2.3	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW	
BEDDED	0	-2.8	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW	
BEDDED	0	-2.2	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW	
BEDDED	0	-1.7	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW	
BEDDED	0	-1.1	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW	
BEDDED	0	-1.1	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW	
C2COT.	0	35.6	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW	
C2COT.	0	9.4	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW	
N.DIS	0	355.0	1/ 2	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW	
LDING	0	50.0	1/ 2	0/00	7.00	0	0	0	0.0	2121-1	BLDG	NEW	
.PLAN	0	500.0	1/ 2	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW	
C.CKT	0	10.0	1/ 2	0/00	7.00	0	0	0	0.0	2232-0	CKT-D	NEW	
.NO.5	0	2048.0	1/89	0/00	20.00	0	0	0	0.0	2212-0	ESSD	EMBD	
.NO.5	0	43.8	1/91	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW	
.NO.5	0	40.0	1/92	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW	
.NO.5	0	187.4	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW	

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

UY: BOCA_MAIN
AMETER FILE:

N: PMO

PITAL - MAINTENANCE (CONTINUED)>

CRIPT	CAT REP	FCOST	PLCT.ACCT DATE	ACCT DATE	CLASS LIFE	PUC	INV. GS	COR	MAINT.	CODE	NAME	TYPE
.NO.5	0	230.0	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	364.9	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	452.2	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	410.2	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	430.7	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	419.5	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	437.1	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	589.6	1/ 1	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	5775.7	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	370.1	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	370.4	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	366.2	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	374.5	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
.NO.5	0	370.6	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
).5	0	367.7	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
,T.S	0	123.8	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	9.8	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
COT.L	0	42.3	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	75.9	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	78.5	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	81.0	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	50.6	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	50.6	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	58.2	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	48.1	1/ 0	0/00	9.00	0	0		0.0	2232-0	CKT-D	NEW
.COT.	0	24.8	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	28.1	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	29.0	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	22.5	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	22.5	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	22.5	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
.COT.	0	21.0	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
EDDED	0	-69.5	1/ 1	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
..ESS	0	-25.7	1/92	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
..ESS	0	-6.6	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
..ESS	0	-10.6	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
..ESS	0	-9.2	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
..ESS	0	-12.1	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
..ESS	0	-8.3	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW

F02B01Z 12300

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

DY: BOCA_MAIN
AMETER FILE:

N: PMO

PITAL - MAINTENANCE (CONTINUED)>

CRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
..ESS	0	-10.9	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
..ESS	0	-8.4	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
..ESS	0	-11.4	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
N.RES	0	-4.0	1/92	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW 0 16
N.RES	0	-14.8	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
N.RES	0	-28.5	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
N.RES	0	-30.3	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
N.RES	0	-33.7	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
N.RES	0	-45.7	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
N.RES	0	-46.3	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
N.RES	0	-60.5	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
N.BUS	0	-6.3	1/92	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
N.BUS	0	-6.3	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
N.BUS	0	-10.8	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
3US	0	-15.4	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
..BUS	0	-16.0	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
N.BUS	0	-12.6	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
N.BUS	0	-20.6	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
N.BUS	0	-20.0	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
N.BUS	0	-20.6	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
.CAP.	0	-5.3	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
.CAP.	0	-20.5	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
.CAP.	0	-12.0	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
.CAP.	0	-16.2	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
.CAP.	0	-19.8	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
.CAP.	0	-27.2	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
.CAP.	0	-27.2	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
.CAP.	0	-18.4	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
N.ESS	0	-9.7	1/92	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
N.ESS	0	-16.6	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
N.ESS	0	-34.3	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
N.ESS	0	-47.4	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
N.ESS	0	-41.7	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
N.ESS	0	-22.3	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
N.ESS	0	-42.3	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
N.ESS	0	-42.8	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
N.ESS	0	-37.7	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
..ESS	0	83.1	1/91	0/00	18.00	0	0	0	0.0	2422-0	OSP-F	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

: BOCA_MAIN
<AMETER FILE:

:N: PMO

<PITAL - MAINTENANCE (CONTINUED)>

CRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
..ESS	0	24.6	1/92	0/00	17.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	41.9	1/93	0/00	16.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	77.2	1/94	0/00	15.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	76.9	1/95	0/00	14.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	119.8	1/96	0/00	13.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	101.5	1/97	0/00	12.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	144.8	1/98	0/00	11.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	172.1	1/99	0/00	10.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	225.1	1/ 0	0/00	9.00	0	0	0	0.0	2422-0	OSP-F	NEW
	0.0	2422-0	OSP-F	NEW								
..ESS	0	154.4	1/ 2	0/00	7.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	154.4	1/ 3	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	154.4	1/ 4	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	154.4	1/ 5	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	154.4	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
ESS	0	154.4	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
.ESS	0	154.4	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW
2COT.	0	17.8	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
2COT.	0	0.9	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
2COT.	0	5.9	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW

PENSE>

CRIPT	CAT REP	EXP.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
SS.MT	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	441.9	'92)	448.4	'93)	453.6	'94)	459.4	'95)	465.4	
		'96)	471.3	'97)	477.1	'98)	482.8	'99)	488.5	'00)	494.1	
		'01)	500.6									
.MTCE	0	0.0	1/91	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	141.9	'92)	148.1	'93)	155.9	'94)	166.5	'95)	186.6	
		'96)	212.8	'97)	240.7	'98)	268.4	'99)	296.3	'00)	324.0	
		'01)	366.4	'02)	739.7	'03)	774.2	'04)	808.7	'05)	843.2	
		'06)	877.7	'07)	912.2	'08)	946.7					
ERIC.	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'91)	65.0	'92)	65.0	'93)	65.0	'94)	65.0	'95)	65.0	
		'96)	65.0	'97)	65.0	'98)	65.0	'99)	65.0	'00)	65.0	

ORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

BOCA_MAIN

AMETER FILE:

N: PMO

PENSE (CONTINUED)>

CRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
		'01)	65.0									
EDDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	-0.1	'93)	-0.1	'94)	-0.3	'95)	-0.6	'96)	-0.8	
		'97)	-0.9	'98)	-1.0	'99)	-1.1	'00)	-1.1	'01)	-1.1	
		'02)	-1.2	'03)	-1.2	'04)	-1.2	'05)	-1.2	'06)	-1.2	
		'07)	-1.2	'08)	-1.2							
..ESS	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	-0.8	'93)	-0.9	'94)	-1.1	'95)	-1.5	'96)	-1.8	
		'97)	-2.2	'98)	-2.5	'99)	-2.9	'00)	-3.2	'01)	-3.6	
		'02)	-3.6	'03)	-3.6	'04)	-3.6	'05)	-3.6	'06)	-3.6	
		'07)	-3.6	'08)	-3.6							
N.RES	0	0.0	1/92	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	0.0	'93)	-0.1	'94)	-0.5	'95)	-0.9	'96)	-1.7	
		'97)	-2.6	'98)	-3.5	'99)	-4.8	'00)	-6.1	'01)	-7.8	
N.BUS	0	0.0	1/92	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	0.0	'93)	-0.2	'94)	-0.4	'95)	-0.7	'96)	-1.1	
		'97)	-1.5	'98)	-1.9	'99)	-2.5	'00)	-3.0	'01)	-3.6	
N.ESS	0	0.0	1/92	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	-0.1	'93)	-0.3	'94)	-0.7	'95)	-1.7	'96)	-3.0	
		'97)	-4.2	'98)	-4.8	'99)	-6.0	'00)	-7.2	'01)	-8.3	
.CAP.	0	0.0	1/91	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'91)	1.2	'92)	3.4	'93)	5.7	'94)	8.8	'95)	12.8	
		'96)	18.1	'97)	23.9	'98)	29.5	'99)	5.1	'00)	40.6	
		'01)	46.4	'02)	64.6	'03)	110.7	'04)	115.7	'05)	120.7	
		'06)	125.7	'07)	130.7	'08)	135.8					
..ESS	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	3.7	'93)	4.8	'94)	6.7	'95)	10.2	'96)	13.7	
		'97)	19.0	'98)	23.6	'99)	30.1	'00)	37.9	'01)	48.0	
		'02)	59.2	'03)	66.2	'04)	73.1	'05)	80.1	'06)	87.0	
		'07)	94.0	'08)	100.9							
.UPG.	0	0.0	1/91	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'91)	68.1	'92)	70.0	'93)	72.0	'94)	74.3	'95)	76.6	

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

BOCA_MAIN

AMETER FILE:

N: PMO

PENSE (CONTINUED)>

CRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
		'96) 79.3	'97) 82.1	'98) 84.3	'99) 86.7	'00) 88.9						
		'01) 91.1	'02) 128.7	'03) 129.2	'04) 129.6	'05) 130.1						
		'06) 130.5	'07) 131.0	'08) 131.4								
.UPG.	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02) 36.4	'03) 38.4	'04) 40.3	'05) 42.2	'06) 44.2						
		'07) 46.1	'08) 48.0									
S.RTU	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'91) 106.0	'92) 106.0	'93) 106.0	'94) 106.0	'95) 106.0						
		'96) 106.0	'97) 106.0	'98) 106.0	'99) 106.0	'00) 106.0						
		'01) 106.0										
S.RTU	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02) 2418.0	'03) 202.0	202.0								
		'07) 202.0	'08) 202.0									
.-.DU	0	0.0	1/92	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92) 244.0	'93) 244.0	'94) 244.0	'95) 244.0	'96) 244.0						
		'97) 244.0	'98) 244.0	'99) 244.0	'00) 244.0	'01) 244.0						
.CAP.	0	0.0	1/ 2	12/02	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02) 120.0										

VENUE>

CRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
EDDED	0	0.0	1/ 1	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) -5.0	'93) -14.6	'94) -34.3	'95) -58.6	'96) -77.9						
		'97) -92.6	'98) -102.3	'99) -111.9	'00) -111.9	'01) -111.9						
		'02) -111.9	'03) -111.9	'04) -111.9	'05) -111.9	'06) -111.9						
		'07) -111.9	'08) -111.9									
..ESS	0	0.0	1/ 1	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) 142.1	'93) 172.0	'94) 228.5	'95) 327.0	'96) 421.6						
		'97) 558.5	'98) 669.5	'99) 816.0	'00) 931.7	'01) 1083.5						
		'02) 1226.5	'03) 1370.4	'04) 1513.9	'05) 1657.8	'06) 1801.4						

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

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Jᴜᴄ:                                BOCA_MAIN
ЗAMETER FILE:

ЧN:                                    PMO

ΞVENUE (CONTINUED)>

       CAT              START TERM  ++++++ GROWTH RATES % +++++++   CLASS
ЗCRIPT REP      REV.   DATE  DATE  L.T.  1     2     3     4     5     NAME     FREQ.
------ ---      -----  ----- ----- ---- ---- ---- ---- ---- ---- -------- ------
               '07) 1945.2  '08) 2089.1

Ⴢ..ESS  0        0.0   1/ 1 12/08  0.0  0.0  0.0  0.0  0.0  0.0 REV       1-TIME
  OTHER REV: '92)  -70.3  '93)  -82.6  '94) -104.0  '95) -138.3  '96) -167.9
             '97) -206.9  '98) -233.5  '99) -268.7  '00) -295.6  '01) -332.3
             '02) -332.3  '03) -332.3  '04) -332.3  '05) -332.3  '06) -332.3
             '07) -332.3  '08) -332.3

)N.RES  0        0.0   1/ 1 12/08  0.0  0.0  0.0  0.0  0.0  0.0 REV       1-TIME
  OTHER REV: '92)    0.6  '93)    4.4  '94)   20.7  '95)   42.5  '96)   90.8
             '97)  151.0  '98)  239.8  '99)  328.7  '00)  417.9  '01)  534.9
             '02)  651.9  '03)  768.9  '04)  886.0  '05) 1003.0  '06) 1120.0
             '07) 1237.0  '08) 1354.1

)N.RES  0        0.0   1/ 1 12/01  0.0  0.0  0.0  0.0  0.0  0.0 REV       1-TIME
  OTHER REV: '92)   -0.3  '93)   -1.9  '94)   -8.3  '95)  -15.5  '96)  -29.3
             '97)  -43.9  '98)  -60.2  '99)  -82.2  '00) -104.6  '01) -133.9

'N.BUS  0        0.0   1/ 1 12/08  0.0  0.0  0.0  0.0  0.0  0.0 REV       1-TIME
  OTHER REV: '92)    1.2  '93)    9.8  '94)   22.4  '95)   45.7  '96)   86.1
             '97)  135.0  '98)  192.6  '99)  250.1  '00)  308.4  '01)  367.2
             '02)  426.0  '03)  485.5  '04)  545.1  '05)  604.7  '06)  664.2
             '07)  723.8  '08)  783.4

N.BUS  0         0.0   1/ 1 12/01  0.0  0.0  0.0  0.0  0.0  0.0 REV       1-TIME
  OTHER REV: '92)   -0.8  '93)   -4.5  '94)   -9.0  '95)  -16.7  '96)  -27.7
             '97)  -39.2  '98)  -48.1  '99)  -62.8  '00)  -77.1  '01)  -91.8

.REV.  0         0.0   1/ 1 12/08  0.0  0.0  0.0  0.0  0.0  0.0 REV       1-TIME
  OTHER REV: '94)   13.2  '95)   70.1  '96)  115.4  '97)  182.0  '98)  288.7
             '99)  395.3  '00)  502.0  '01)  574.1  '02)  646.1  '03)  718.3
             '04)  790.4  '05)  862.6  '06)  934.7  '07) 1006.8  '08) 1079.0

.CAP.  0         0.0   1/ 1 12/01  0.0  0.0  0.0  0.0  0.0  0.0 REV       1-TIME
  OTHER REV: '94)   -5.2  '95)  -25.2  '96)  -37.0  '97)  -52.8  '98)  -72.2
             '99)  -98.8  '00) -125.5  '01) -143.5

N.ESS  0         0.0   1/ 1 12/08  0.0  0.0  0.0  0.0  0.0  0.0 REV       1-TIME
  OTHER REV: '92)    1.7  '93)    6.1  '94)   18.1  '95)   45.7  '96)   92.0
             '97)  140.9  '98)  187.4  '99)  233.8  '00)  280.5  '01)  321.8
```

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

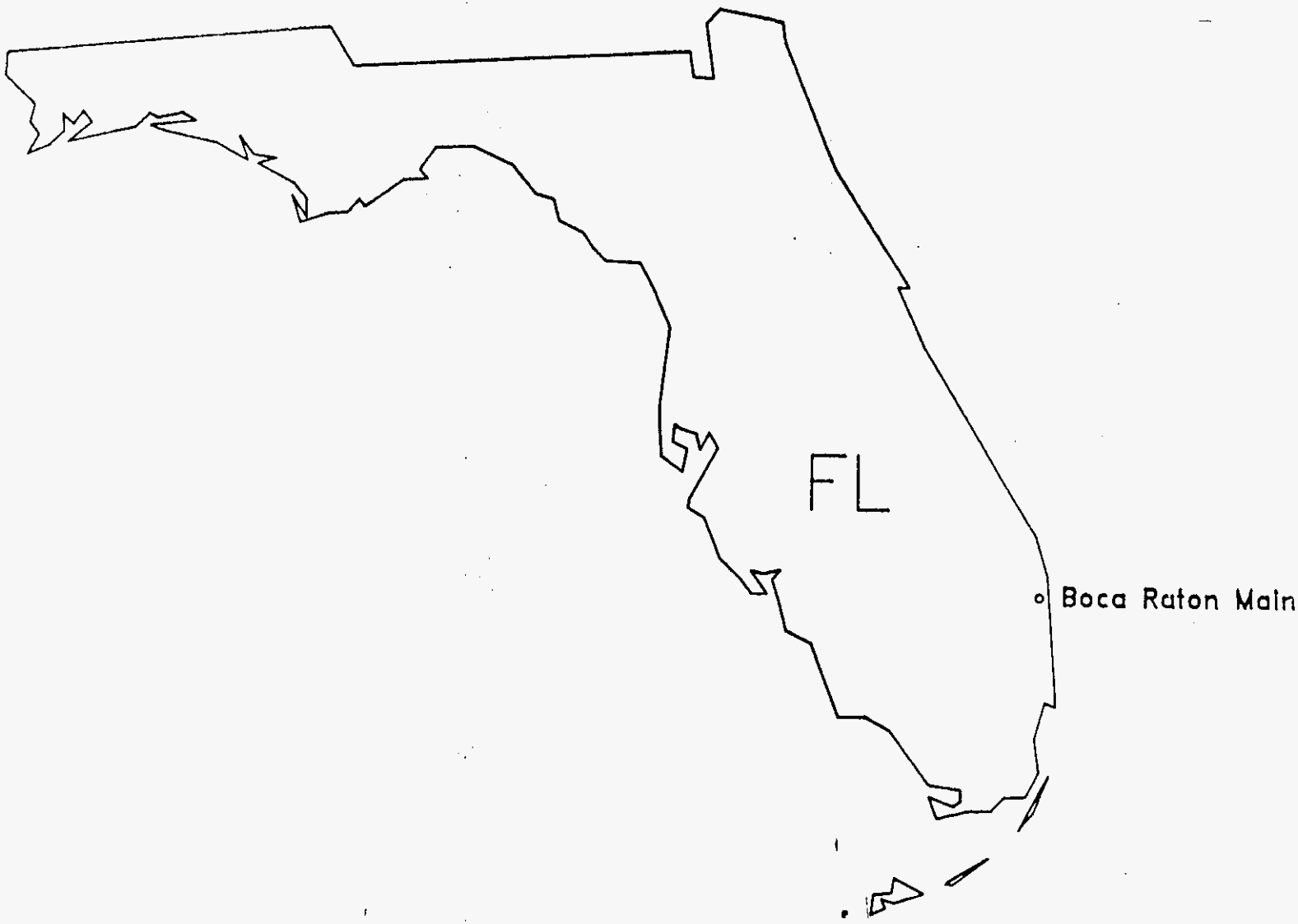
L.: BOCA_MAIN
AMETER FILE:

N: PMO

VENUE (CONTINUED)>

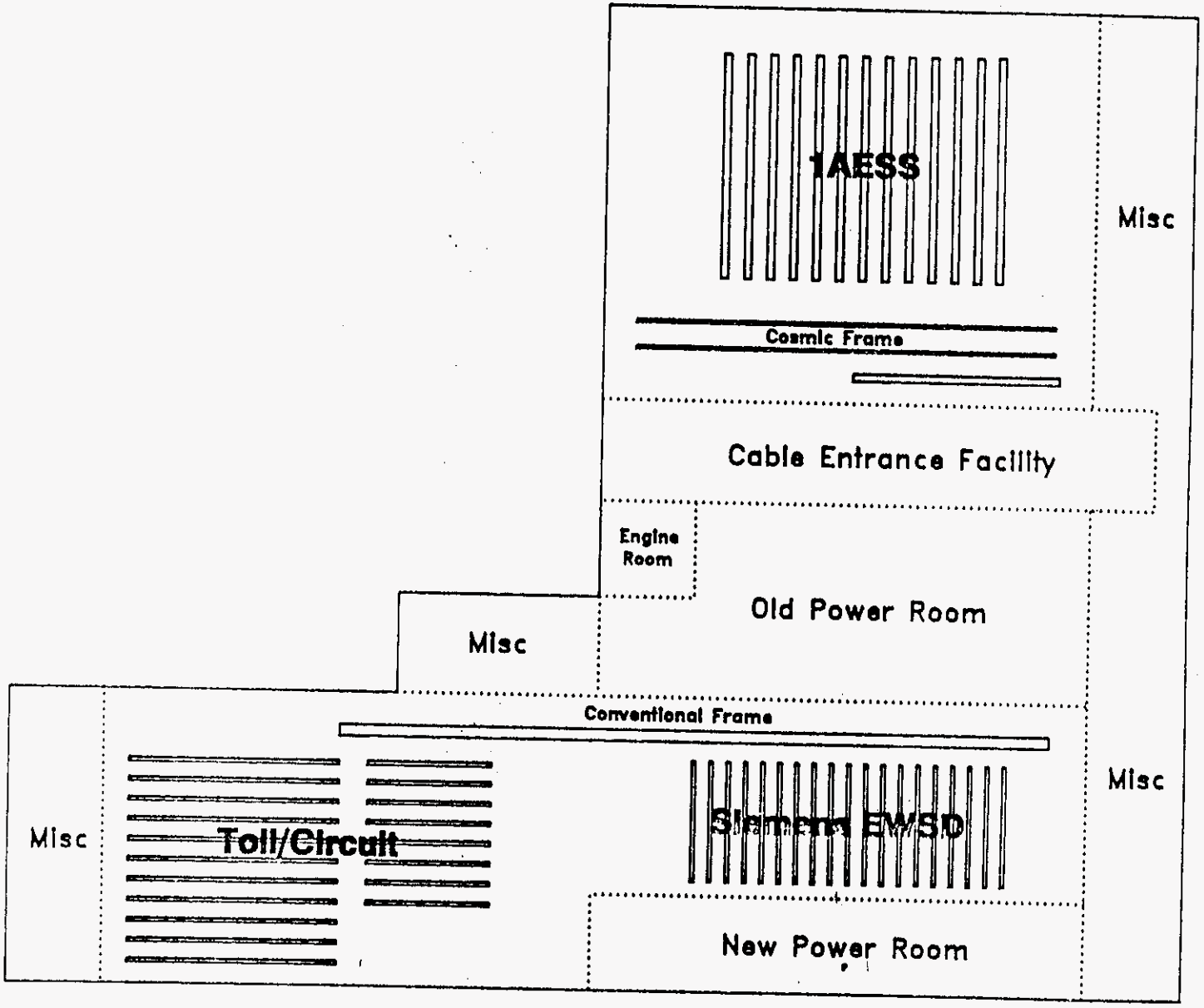
CRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
		'02) 363.2	'03) 404.7	'04) 446.2	'05) 487.7	'06) 529.2						
		'07) 570.6	'08) 612.1									
N.ESS	0	0.0	1/ 1	12/01	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) -0.9	'93) -2.7	'94) -7.2	'95) -16.5	'96) -29.5						
		'97) -40.9	'98) -47.0	'99) -58.5	'00) -70.2	'01) -80.5						

Boca Raton Main 1AESS Replacement Project



F02B01Z 12307

Boca Raton Main 1AESS Replacement Project



Floor Plan

F02B01Z 12308

Reserved For Future Use

FILE: 204.0102

DATE: January 30, 1992

TO: A. M. Davis, Director - Network Planning

FROM: J. V. Jackson, Operations Manager - Technology Deployment Strategy

SUBJECT: Cost of Generic Upgrades for EWSD switches included in RFQ 90-0234-BRW

As I indicated in my September 30, 1991 letter to the Area Planning Operations Managers, we developed estimated average annual costs for generic upgrades for the No. 1A ESS, No. 2B ESS, No. 5ESS and the DMS 100 using a combination of historical data and planning information provided by the vendors. Due to NTI's inability to provide sufficient historical data the DMS 100 estimate was considered preliminary. We, obviously, have no historical experience with the Siemans EWSD. For studies being conducted now we recommend the use of the cost estimate for the No. 5ESS. NTI has recently provided additional data on the DMS 100 and we will publish a Region Letter with final estimates in 1Q92. At that time we will recommend a long term cost estimate to be used for EWSD switches that is based upon the average of the No. 5ESS and the DMS 100.

An exception to the above recommendation regarding the EWSD are the first four years after cutover for specific offices which were included in RFQ 90-0234-BRW. In discussions between Bernice Kemp, in Ron Bowman's group, and John Horrobin regarding his study of the Boca Raton cap, John pointed out that the Siemans Stromberg-Carlson (SSC) quote contained costs labeled "upgrade" which were significantly lower than those included in the NPS-W algorithm. We contacted Procurement to determine whether these figures were merely an estimate on the part of SSC or did they actually represent a vendor commitment to provide all hardware, software, engineering, and installation required. Procurement sought clarification from SSC and received the attached letter. Our interpretation of this letter is that, for growth jobs not included in RFQ 90-0234-BRW, the figures represent an estimate, but, for the quoted jobs the figures are a firm commitment. We do not feel that we can use the SSC estimate in our general planning guidelines due to the significant caveat that " hardware prices may change...". Experience with our present two vendors has shown a very significant hardware cost over the last several years and planning information reflects more hardware changes in the future. Many of these hardware costs for such items as: additional memory, larger disk drives, and new or modified peripheral processors were probably driven by feature demands and were not anticipated by the switch vendors. However for the few jobs where Siemans Stromberg-Carlson is committing to provide everything required to load the generic, we feel that the appropriate cost to reflect in the switch replacement study is the quoted price. We have made this recommendation to John Horrobin for the Boca Raton study.

Discussions with Allan Ledbetter's people indicated that EWSD switches contained in RFQ 90-0234-BRV were being studied for other Florida locations. The intent of this letter is to document our latest findings and to ask that you insure a consistent approach to all of these important near-term Florida studies.

Attachment

cc: D. M. Baeza
R. H. Bowman
Barbara K. Cruit
J. R. Evans
H. E. Gray
G. Allan Ledbetter
N. K. Owen

Southern Bell

R. B. Sattizahn
Operations Manager
North Broward Division

1230 N. Federal Highway
Pompano Beach, Florida 33062
305 786-5990

January 9, 1992

Dan Baeza
Operations Manager
Southeast Tactical Planning

Dear Dan:

My organization has reviewed your December 16, 1991 memo directly related to maintaining two Main Distributing Frames in the Boca Main Central Office. The cost of maintaining the present configuration is directly related to labor, customer reports and material (Frame wire).

WE used the following:

Labor

$41 per hour X 40 hrs. per wk X 48 wks per year X 3 Frame Attendants = $236,160. in provisioning manpower.

Customer Reports

$41 per hour X 1 hr. per trouble * X 3 troubles per week X 52 week = $6396. per year in trouble resolution.
*Frame - IMAC/DTAG - Customer contact.

Material

2 rolls of wire per month @ $63.00 per roll X 12 months = $1512.

RECEIVED
JAN 15 1992
OPERATIONS MANAGER-
TACTICAL PLANNING-SOUTHEAST

A BELL ... Compan...

F02B01Z 12312

The three components comprise $244K of cost directly associated with the present dual frame configuration. If you should need further information please don't hesitate to call my manager, Clay Brooks, at 305-742-1430 for details.

Yours truly,

R.B. [signature]

cc: Judith Richardson

Concurred and Approved:

[signature]
General Manager - Network Operations/Southeast Florida

1/27/92
Date

F02B01Z 12313

POMPANO BEACH-MARGATE EAL

PAGE 1

LINES - 46, 47, 56

SWITCHING
RECOMMENDATION LETTER
POMPANO BEACH MARGATE
SOUTHEAST FLORIDA

May 28, 1992

Mr. H. E. Palmes
Vice President - Network Planning & Engineering
Birmingham, AL

Dear Sir:

Executive Approval is requested for the replacement of the 1AESS in the Pompano Beach Margate central office with an AT&T 5ESS. This office was part of the "FLACENTSO" package offer from AT&T and was included in contract PR-6700B.

The fundamental switch plan is to ship the 5ESS in the first quarter of 1993 and perform the cutover and 1AESS retirement in the fourth quarter of 1993. The 5ESS will service with approximately 73,000 working lines. Upon completion of the cutover, the lines currently served by the North Powerline Remote Switching Module (RSM) will be transferred to integrated Digital Loop Carrier (DLC) systems, and the RSM will be retired. Gross capital expenditures are expected to be $8,012,000, with retirements of $12,925,000, and a net expense of $263,000.

The recommended plan represents a Net Present Value (NPV) advantage of $3,247,000 and a Project Rate of Return (PRR) of 21.1% when compared to the Present Method of Operation (PMO). Specific advantages that will result from implementing this plan include:

- incremental revenues for Digital ESSX, ISDN, and AIN services, which represent a $3,092,000 NPV advantage over PMO

- the avoidance of $2,739,000 in Central Office Terminal (COT) expenditures as a result of integrating 314 Digital Loop Carrier (DLC) systems at cutover, which represents a $1,548,000 NPV advantage over PMO

- the receipt of a from AT&T for the which represents a $227,000 NPV advantage over PMO

- the avoidance of incremental administrative costs associated with providing service from the North Powerline RSM and the capital avoidance associated with the reuse of the RSM equipment

- the contribution this replacement will make toward reaching the

- the opportunity to reterminate COSMIC frame appearances on the Conventional Main Distributing Frame (CMDF), thereby reducing frame maintenance expenses

- a level-loaded schedule of 1AESS cutovers in the North Broward District.

Other alternatives considered include replacing the 1AESS in 1994-1997 and 2002 (PMO). The 1993 replacement plan is the most economical plan studied and, therefore, was chosen as the recommended plan.

Please indicate your approval to replace the Pompano Beach Margate 1AESS with an AT&T 5ESS in 1993 and to transfer the North Powerline RSM lines to the 5ESS and retire the RSM. Any questions regarding this request can be referred to John Horrobin at (305)492-2970.

Recommended:

_____ _____
General Manager - Network Planning & Engineering Date

_____ _____
General Manager - Network Operations Date

Concurred:

_____ _____
Director - Network Planning & Engineering Integration Date

Approved:

_____ _____
Vice President - Network Planning & Engineering Date

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

TUDY: MARGATE
ARAMETER FILE:

LAN: REPL93 VS PMO.SO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

PRIMARY	
NET PRESENT VALUE - EOL	3247.0
NET PW EXPENDITURES	-5286.9
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	3247.0
DISCOUNTED PAYBACK PERIOD	10 YRS
LONG TERM ECONOMIC EVALUATOR	2.706
PROJECT RATE OF RETURN	21.1%
INTERNAL RATE OF RETURN	*

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	-44.0	-87.9	**	-54.5	**
1993	760.6	3113.7	27.8	1930.5	39.4
1994	597.2	4106.7	17.9	2546.1	23.5
1995	711.4	4784.8	18.2	2966.6	24.0

++++++ SUMMARY BY PLAN ++++++

	REPL93	PMO.SO
TOTAL NONDISCOUNTED CAP.	14563.2	22751.0
TOTAL NONDISCOUNTED EXP.	23001.0	22093.2
TOTAL NONDISCOUNTED REV.	33278.0	17877.7
NET PRESENT VALUE-EOL	-4870.2	-8117.1
NET PW EXPENDITURES	7929.8	13216.7

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

RESENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
ENGTH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

JCRIT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFERENCE IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
THE IROR IS MULTIPLE. USE THE OTHER EVALUATORS.
* THE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

NETWORK PLANNING SYSTEM

****
* FORMAL INPUT REPORT *
****

RESULTS IN THOUSANDS $(000)

TUDY: MARGATE
RAMETER FILE:

LAN: REPL93

TREND BASE DATE	- 1/1991	LENGTH OF STUDY	- 18
STUDY START DATE	- 1/1991	GROSS RECEIPTS TAX	- See AREA-CNST-RPT
PRESENT WORTH YEAR	- 1991	IDC INCL. IN FCOST	- NO
NPV OPTION	- EOL	PLAN FILE NAME	-

CAPITAL - MAINTENANCE>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
AESS.	0	11900.0	1/78	0/00	15.00	0	0	0	0.0	2211-0	ESS	EMBD
AESS.	0	166.3	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	238.5	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ROSS.SA	0	-113.1	1/93	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ENCOT.L	0	44.0	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	76.8	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
JR.CUST	0	-7.4	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
JR.CUST	0	-7.4	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-0.9	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-2.1	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
LC2COT.	0	89.0	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	97.9	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	55.4	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	39.3	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
AIN.DIS	0	500.0	1/93	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
UILDING	0	300.0	1/93	0/00	16.00	0	0	0	0.0	2121-1	BLDG	NEW
NR.PLAN	0	445.0	1/93	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
ISC.CKT	0	150.0	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
G.CASH	0	-1413.0	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
T.SING	0	1025.0	1/87	0/00	6.00	0	0	0	0.0	2212-0	ESSD	EMBD
ST.OF.	0	10.0	1/93	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
ROSS.SA	0	-457.9	1/93	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	5456.1	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	338.4	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	641.9	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	674.8	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	691.3	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	665.6	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	666.7	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	692.6	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	693.8	1/ 1	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	695.2	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	694.6	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: MARGATE
ARAMETER FILE:

LAN: REPL93

CAPITAL - MAINTENANCE (CONTINUED)>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
TT.NO.5	0	694.9	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	694.9	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	694.7	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	697.2	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	687.8	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
JR.CUST	0	-12.3	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
MBEDDED	0	-1.5	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
ENCOT.S	0	-1579.7	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	-593.8	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	-383.6	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	-154.3	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
S7.CAP.	0	44.6	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..ESS	0	210.2	1/93	0/00	16.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	66.5	1/94	0/00	15.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	55.8	1/95	0/00	14.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	86.2	1/96	0/00	13.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	49.5	1/97	0/00	12.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	60.6	1/98	0/00	11.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	26.0	1/99	0/00	10.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	26.0	1/ 0	0/00	9.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	26.7	1/ 1	0/00	8.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	26.7	1/ 2	0/00	7.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	26.7	1/ 3	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	26.7	1/ 4	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	26.7	1/ 5	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	26.7	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	26.7	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	26.7	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW
ISC.OSP	0	668.0	1/93	0/00	16.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/94	0/00	15.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/95	0/00	14.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/96	0/00	13.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/97	0/00	12.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/98	0/00	11.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/99	0/00	10.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/ 0	0/00	9.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/ 1	0/00	8.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/ 2	0/00	7.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/ 3	0/00	6.00	0	0	0	0.0	2422-5	OSP	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: MARGATE
ARAMETER FILE:

LAN: REPL93

CAPITAL - MAINTENANCE (CONTINUED)>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
ISC.OSP	0	18.0	1/ 4	0/00	5.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/ 5	0/00	4.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/ 6	0/00	3.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/ 7	0/00	2.00	0	0	0	0.0	2422-5	OSP	NEW
ISC.OSP	0	18.0	1/ 8	0/00	1.00	0	0	0	0.0	2422-5	OSP	NEW

EXPENSE>

ESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	++++++ GROWTH RATES % +++++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
AESS.MT	0	0.0	1/91	12/92	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	450.8	'92)	464.8							
ES.MTCE	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'93)	414.4	'94)	413.0	'95)	425.1	'96)	441.4	'97)	459.3	
		'98)	478.6	'99)	497.1	'00)	515.3	'01)	534.9	'02)	554.5	
		'03)	574.1	'04)	593.7	'05)	613.3	'06)	632.9	'07)	652.6	
		'08)	672.2									
ENERIC.	0	0.0	1/91	12/93	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'91)	65.0	'92)	65.0	'93)	25.2					
M1.MTCE	0	0.0	1/91	12/92	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91)	26.1	'92)	25.1							
JR.CUST	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	-0.6	'93)	-0.7	'94)	-0.7	'95)	-0.7	'96)	-0.7	
		'97)	-0.7	'98)	-0.7	'99)	-0.7	'00)	-0.7	'01)	-0.7	
		'02)	-0.7	'03)	-0.7	'04)	-0.7	'05)	-0.7	'06)	-0.7	
		'07)	-0.7	'08)	-0.7							
MBEDDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	-0.1	'93)	-0.1	'94)	-0.1	'95)	-0.1	'96)	-0.1	
		'97)	-0.1	'98)	-0.1	'99)	-0.1	'00)	-0.1	'01)	-0.1	
		'02)	-0.1	'03)	-0.1	'04)	-0.1	'05)	-0.1	'06)	-0.1	
		'07)	-0.1	'08)	-0.1							
S7.CAP.	0	0.0	1/94	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'94)	54.3	'95)	56.4	'96)	59.1	'97)	62.0	'98)	65.0	

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: MARGATE
ARAMETER FILE:

LAN: REPL93

EXPENSE (CONTINUED)>

ESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
		'99)	67.9	'00)	70.7	'01)	73.6	'02)	76.6	'03)		79.6
		'04)	82.5	'05)	85.5	'06)	88.5	'07)	91.4	'08)		94.4
IG..ESS	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
	OTHER EXP: '93)		6.6	'94)	9.5	'95)	12.5	'96)	15.0	'97)		18.9
	'98)		21.1	'99)	23.8	'00)	25.0	'01)	26.2	'02)		27.4
	'03)		28.6	'04)	29.8	'05)	31.0	'06)	32.2	'07)		33.4
	'08)		34.6									
EN.UPG.	0	0.0	1/94	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
	OTHER EXP: '94)		121.6	'95)	121.8	'96)	121.9	'97)	122.2	'98)		122.3
	'99)		122.5	'00)	122.6	'01)	122.7	'02)	122.7	'03)		122.8
	'04)		122.9	'05)	123.0	'06)	123.1	'07)	123.1	'08)		123.2
EN.UPG.	0	0.0	1/94	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
	OTHER EXP: '94)		32.8	'95)	33.8	'96)	36.8	'97)	39.7	'98)		42.1
	'99)		44.6	'00)	47.3	'01)	49.8	'02)	52.3	'03)		54.7
	'04)		57.2	'05)	59.7	'06)	62.2	'07)	64.7	'08)		67.2
ESS.RTU	0	0.0	1/93	12/06	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
	OTHER EXP: '93)		425.0	'94)	106.0	'95)	106.0	'96)	106.0	'97)		106.0
	'98)		106.0	'99)	106.0	'00)	106.0	'01)	106.0	'02)		106.0
	'03)		106.0	'04)	106.0	'05)	106.0	'06)	106.0			
ISC.LAB	0	0.0	1/93	12/93	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
	OTHER EXP: '93)		67.0									
ROCESSO	0	0.0	1/93	12/93	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
	OTHER EXP: '93)		-450.0									

REVENUE>

ESCRIPT	CAT REP	REV.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
R.CUST	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
	OTHER REV: '92)		-64.2	'93)	-64.2	'94)	-64.2	'95)	-64.2	'96)		-64.2
	'97)		-64.2	'98)	-64.2	'99)	-64.2	'00)	-64.2	'01)		-64.2
	'02)		-64.2	'03)	-64.2	'04)	-64.2	'05)	64.2	'06)		-64.2

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: MARGATE
'ARAMETER FILE:

'LAN: REPL93

'REVENUE (CONTINUED)>

'ESCRIPT	CAT REP	REV.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
		'07) -64.2		'08) -64.2								
'MBEDDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:		'92) -7.6		'93) -7.6		'94) -7.6		'95) -7.6		'96) -7.6		
		'97) -7.6		'98) -7.6		'99) -7.6		'00) -7.6		'01) -7.6		
		'02) -7.6		'03) -7.6		'04) -7.6		'05) -7.6		'06) -7.6		
		'07) -7.6		'08) -7.6								
'IG..ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:		'93) 127.2		'94) 183.4		'95) 243.5		'96) 295.3		'97) 375.6		
		'98) 424.0		'99) 483.5		'00) 511.9		'01) 540.6		'02) 565.5		
		'03) 590.4		'04) 615.0		'05) 639.9		'06) 664.8		'07) 689.4		
		'08) 714.3										
'SDN.RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:		'93) 5.8		'94) 27.0		'95) 55.8		'96) 118.4		'97) 195.4		
		'98) 306.9		'99) 418.4		'00) 530.2		'01) 672.1		'02) 813.9		
		'03) 955.8		'04) 1097.7		'05) 1239.5		'06) 1381.4		'07) 1523.2		
		'08) 1665.1										
SDN.BUS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:		'93) 9.0		'94) 21.2		'95) 42.8		'96) 80.0		'97) 124.0		
		'98) 179.1		'99) 234.2		'00) 290.1		'01) 348.8		'02) 407.6		
		'03) 467.2		'04) 526.7		'05) 586.3		'06) 645.9		'07) 705.4		
		'08) 765.0										
'IN.REV.	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:		'94) 12.5		'95) 65.8		'96) 107.1		'97) 167.7		'98) 274.2		
		'99) 380.7		'00) 487.3		'01) 561.6		'02) 6359		'03) 710.3		
		'04) 784.6		'05) 859.0		'06) 933.3		'07) 1007.7		'08) 1082.0		
SDN.ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0 REV		1-TIME
OTHER REV:		'93) 3.9		'94) 12.8		'95) 30.9		'96) 60.2		'97) 89.4		
		'98) 117.0		'99) 135.7		'00) 154.1		'01) 167.5		'02) 181.1		
		'03) 194.7		'04) 208.3		'05) 221.8		'06) 235.4		'07) 249.0		
		'08) 262.5										

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY: MARGATE
PARAMETER FILE:

PLAN: PMO.SO

TREND BASE DATE - 1/1991
STUDY START DATE - 1/1991
PRESENT WORTH YEAR - 1991
NPV OPTION - EOL
LENGTH OF STUDY - 18
GROSS RECEIPTS TAX - See AREA-CNST-RPT
IDC INCL. IN FCOST - NO
PLAN FILE NAME -

CAPITAL - MAINTENANCE>

DESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
AESS.	0	11900.0	1/78	0/00	24.00	0	0	0	0.0	2211-0	ESS	EMBD
AESS.	0	166.3	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	236.4	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	373.4	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	241.3	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	255.3	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	255.3	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	237.8	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	238.0	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	237.9	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	237.3	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
AESS.	0	342.9	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ROSS.SA	0	-95.2	1/ 2	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
ENCOT.S	0	283.0	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	44.0	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	76.8	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
ENCOT.L	0	145.4	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	27.8	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	83.5	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	78.5	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	68.3	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	68.3	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	73.4	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	68.3	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	68.3	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	25.9	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	25.8	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	25.0	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	21.5	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	21.5	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	21.6	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
EU.COT.	0	20.2	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	20.2	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: MARGATE
ARAMETER FILE:

LAN: PMO.SO

CAPITAL - MAINTENANCE (CONTINUED)>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
JR.CUST	0	-7.4	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-0.9	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-2.1	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-3.9	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-5.6	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-4.3	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-4.3	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-3.0	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-3.0	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-2.1	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-2.2	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
MBEDDED	0	-1.7	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
LC2COT.	0	89.0	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	97.9	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	89.0	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	55.4	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	39.3	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
LC2COT.	0	28.3	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
AIN.DIS	0	500.0	1/ 2	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
7.00 0	0	0	0.0	2121-1	BLDG		NEW					
WR.PLAN	0	445.0	1/ 2	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
ISC.CKT	0	150.0	1/ 2	0/00	7.00	0	0	0	0.0	2232-0	CKT-D	NEW
TT.SING	0	1025.0	1/87	0/00	15.00	0	0	0	0.0	2212-0	ESSD	EMBD
OST.OF.	0	10.0	1/ 2	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
ROSS.SA	0	-385.6	1/ 2	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	10495.4	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	703.1	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	703.8	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	703.0	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	696.9	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	714.6	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
TT.NO.5	0	706.2	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
JR.CUST	0	-12.3	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
MBEDDED	0	-51.9	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
S7.CAP.	0	44.5	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..ESS	0	213.3	1/ 2	0/00	7.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	49.5	1/ 3	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	49.5	1/ 4	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
IG..ESS	0	49.5	1/ 5	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: MARGATE
RAMETER FILE:

LAN: PMO.SO

CAPITAL - MAINTENANCE (CONTINUED)>

	CAT		PLCT.	TERM	ECON	MOT	%	%		ACCT	CLASS	INV.	L
IG..ESS	0	49.5	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW	
IG..ESS	0	49.5	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW	
IG..ESS	0	49.5	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW	
ISC.OSP	0	837.0	1/ 2	0/00	7.00	0	0	0	0.0	2422-5	OSP	NEW	
ISC.OSP	0	18.0	1/ 3	0/00	6.00	0	0	0	0.0	2422-5	OSP	NEW	
ISC.OSP	0	18.0	1/ 4	0/00	5.00	0	0	0	0.0	2422-5	OSP	NEW	
ISC.OSP	0	18.0	1/ 5	0/00	4.00	0	0	0	0.0	2422-5	OSP	NEW	
ISC.OSP	0	18.0	1/ 6	0/00	3.00	0	0	0	0.0	2422-5	OSP	NEW	
ISC.OSP	0	18.0	1/ 7	0/00	2.00	0	0	0	0.0	2422-5	OSP	NEW	
ISC.OSP	0	18.0	1/ 8	0/00	1.00	0	0	0	0.0	2422-5	OSP	NEW	

EXPENSE>

DESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
					++++++ GROWTH RATES % +++++++							
RESS.MT	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91) 450.8	'92) 464.7	'93) 480.8	'94) 501.3	'95) 517.7	'96) 534.4	'97) 551.4	'98) 567.4	'99) 583.6	'00) 600.4	'01) 620.8		
ES.MTCE	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02) 543.3	'03) 563.1	'04) 582.9	'05) 602.7	'06) 622.5	'07) 642.3	'08) 662.1						
NERIC.	0	0.0	1/91	12/02	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'91) 65.0	'92) 65.0	'93) 65.0	'94) 65.0	'95) 65.0	'96) 65.0	'97) 65.0	'98) 65.0	'99) 65.0	'00) 65.0	'01) 65.0	'02) 25.2	
1.MTCE	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91) 26.1	'92) 25	'93) 24.1	'94) 23.0	'95) 23.0	'96) 23.0	'97) 23.0	'98) 23.0	'99) 23.0	'00) 23.0	'01) 23.0		
R.CUST	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92) -0.6	'93) -0.6	'94) -0.6	'95) -0.6	'96) -0.6	'97) -0.6	'98) -0.6	'99) -0.6	'00) -0.6	'01) -0.6	'02) -0.7	'03) -0.7	'04) -0.7
		'05) -0.7	'06) -0.7	'07) -0.7	'08) -0.7									

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: MARGATE
ARAMETER FILE:

LAN: PMO.SO

EXPENSE (CONTINUED)>

ESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
MBEDDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92)	-0.1	'93)	-0.3	'94)	-0.6	'95)	-1.1	'96)	-1.5	
		'97)	-1.8	'98)	-2.1	'99)	-2.3	'00)	-2.5	'01)	-2.7	
		'02)	-2.9	'03)	-2.9	'04)	-2.9	'05)	-2.9	'06)	-2.9	
		'07)	-2.9	'08)	-2.9							
S7.CAP.	0	0.0	1/ 3	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'03)	79.0	'04)	81.9	'05)	84.9	'06)	87.9	'07)	90.9	
		'08)	93.9									
IG..ESS	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02)	7.4	'03)	9.6	'04)	11.8	'05)	14.1	'06)	16.3	
		'07)	18.5	'08)	20.8							
EN.UPG.	0	0.0	1/ 3	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'03)	117.9	'04)	118.1	'05)	118.2	'06)	118.4	'07)	.7	
EN.UPG.	0	0.0	1/ 3	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'03)	60.7	'04)	63.2	'05)	65.7	'06)	68.2	'07)	70.7	
		'08)	73.1									
ESS.RTU	0	0.0	1/ 2	12/06	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02)	1035.0	'03)	106.0	'04)	106.0	'05)	106.0	'06)	106.0	
ISC.LAB	0	0.0	1/ 2	12/02	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02)	97.0									

REVENUE>

ESCRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
JR.CUST	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92)	-64.2	'93)	-64.2	'94)	-64.2	'95)	-64.2	'96)	-64.2	
		'97)	-64.2	'98)	-64.2	'99)	-64.2	'00)	-64.2	'01)	-64.2	
		'02)	-64.2	'03)	-64.2	'04)	-64.2	'05)	-64.2	'06)	-64.2	
		'07)	-64.2	'08)	-64.2							

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: MARGATE
ARAMETER FILE:

LAN: PMO.SO

REVENUE (CONTINUED)>

DESCRIPT	CAT REP	REV.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
MBEDDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92)	-7.6	'93)	-26.1	'94)	-59.8	'95)	-108.1	'96)	-145.0	
		'97)	-182.2	'98)	-208.3	'99)	-234.4	'00)	-252.9	'01)	-271.6	
		'02)	-271.6	'03)	-271.6	'04)	-271.6	'05)	-271.6	'06)	-271.6	
		'07)	-271.6	'08)	-271.6							
IG..ESS	0	0.0	1/ 8	12/08	0.0	0.0	E					
OTHER REV:		'02)	152.7	'03)	198.7	'04)	244.7	'05)	290.9	'06)	337.0	
		'07)	383.0	'08)	429.2							
SDN.RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	813.9	'03)	955.8	'04)	1097.7	'05)	1239.5	'06)	1381.4	
		'07)	1523.2	'08)	1665.1							
SDN.BUS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	407.6	'03)	467.2	'04)	526.7	'05)	586.3	'06)	645.9	
		'07)	705.4	'08)	765.0							
IN.REV.	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	635.9	'03)	710.3	'04)	784.6	'05)	859.0	'06)	933.3	
		'07)	1007.7	'08)	1082.0							
SDN.ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	181.1	'03)	193.9	'04)	206.7	'05)	219.5	'06)	232.3	
		'07)	245.1	'08)	257.9							

INDEX OF PROPRIETARY INFORMATION

PAGE 3, Lines 23-25, 30-32 - a.

Reason: a. This information reflects Southern Bell's market strategy. Southern Bell's competitors can use this information to develop their own market strategy with which to thwart Southern Bell's effort in this market. Thus, the disclosure of this information to Southern Bell's competitors would impair Southern Bell's ability to compete. In addition, this information is valuable, it is used by Southern Bell in conducting its business and Southern Bell strives to keep it secret. Therefore, it is a trade secret which should be classified as proprietary, confidential business information exempt from the Open Records Act pursuant to Section 364.183 Florida Statutes.

Southern Bell

H. Corey, Jr.
General Manager
Network - Provisioning

6451 North Federal Highway
Room 1201
Fort Lauderdale, Florida 33308
Phone 305 492-[illegible]

SOUTH FLORIDA
IMPLEMENTATION LETTER
MIAMI GRANDE 35E and 35F REPLACEMENTS

File: 204.0102

August 14, 1990

Mr. S. A. Mulcahy
Assistant Vice President - Provisioning
Atlanta, Georgia

Dear Mr. Mulcahy:

Replacement of the Grande 35E 1AESS is scheduled for November, 1991, and the Grande 35F 1AESS replacement is scheduled for August, 1992. Growth additions to the existing DMS-100 switch will provide capacity for the 1AESS retirements, as stated in the 1990 Southeast LATA Plan.

The NPS-W economic study which recommended the 1AESS replacements for the 1990 LATA Plan has been revised. The analysis includes the effects of a change in equipment ship dates and funding years and vendor price quotes. The revised NPS-W economic indicators show that the replacement has a $11.883 million NPWE advantage over the PMO and a Project Rate of Return of 18.8%.

Capital expenditures required to implement this project are reflected below ($000):

	1990	1991	1992	1993	TOTAL
Building	100.0	25.0	0	0	125.0
COE - DMS	0	9600.0	300.0	0	9900.0
- Power	350.0	20.0	0	0	370.0
- MDF	0	100.0	100.0	0	200.0
- Circuit	0	979.2	713.2	0	1692.4
Distribution	0	0	0	0	0
TOTAL	450.0	10724.2	1113.2	0	12287.4

The embedded dollars retired with this project are $18,027,000.

2

These undertakings were included in the June 1990 View of the Construction Budget. A copy of the current Demand and Facility chart for the Miami Grande office, dated June 11, 1990, is on file in the South Tactical Planning District in Ft.Lauderdale Florida.

Yours truly,

General Manager - Network Provisioning

APPROVED:

Executive Vice President - Network

August 15, 1990

Memorandum To: Phyllis Goff

From: Ivette C. Lima - Fundamental Planner

Subject: Grande 1AESS Replacement

Following is a brief description of the Grande wire center demographics and other pertinent information which should be useful in reviewing the Grande 1AESS replacement proposal.

The Grande wire center serves the 3.0 square mile section of Dade County, Florida which comprises the downtown area for the City of Miami, and contains financial institutions, government agencies, and headquarters for many businesses. The primary industries are banking, finance, retail, wholesale, import, export and government.

Grande serves some of the largest and most influential customers in South Florida. There have been numerous , as well as various

This wire center encompasses approximately 9 million square feet of prime office space which has increased by more than 75% since 1980. Grande serves approximately 50% of the total office space in the Southeast LATA. In fact, Grande is the producing wire center in South Florida, generating in excess of in revenues yearly.

In addition to the strategic importance of this wire center to the area's economic well being, this office is facing a Main Distributing Frame exhaust in early 1995 which has prompted the recommendation to replace the 1AESS switches in this office. Action to replace the MDF under the present method of operation would be required beginning in 1993 to allow sufficient time to build, reterminate and test this complex distributing frame system. Clearly, this alternative would not be in the best interest of the sophisticated customer base of the Grande wire center.

It is intended for the considerations mentioned herein to supplement the favorable economic indicators for the Grande 1AESS replacement and facilitate the review process.

If I can be of further assistance, please do not hesitate to call me on 305-795-1474.

NETWORK PLANNING SYSTEM
****
* EXECUTIVE SUMMARY *
****
RESULTS IN THOUSANDS ($000)

TUDY: sbell w/quote and fcst chg
ARAMETER FILE:
LAN: repl in 1991 VS pmo

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

	PRIMARY
NET PRESENT VALUE - EOL	7308.6
NET PW EXPENDITURES	-11883.8
	SECONDARY
CUMULATIVE DISCOUNTED CASH FLOW AT STUDY END	7308.6
DISCOUNTED PAYBACK PERIOD	4 YRS
LONG TERM ECONOMIC EVALUATOR	2.169
INTERNAL RATE OF RETURN	*
PROJECT RATE OF RETURN	18.8%

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1990	-61.1	129.6	-43.7	80.4	-76.1
1991	964.4	12439.2	11.2	7712.3	12.5
1992	1157.7	11606.1	13.4	7195.8	16.1
1993	1572.3	7442.3	24.5	4614.3	34.1
1994	2319.0	5764.2	43.6	3573.8	64.9

++++++ SUMMARY BY PLAN ++++++

	repl in 1991	pmo
TOTAL NONDISCOUNTED CAP.	18666.4	28188.6
TOTAL NONDISCOUNTED EXP.	17779.7	23544.7
TOTAL NONDISCOUNTED REV.	112977.0	94718.2
NET PRESENT VALUE-EOL	7999.3	690.7
NET PW EXPENDITURES	-13006.9	-1123.0

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

RESENT WORTH YEAR 1990 TREND BASE DATE 1/1990 CASH FLOW OPTION COMB
ENGTH OF STUDY 18 YEARS DISC RATE 13.34% FINANCIAL OPTION ACCT

CRIT IS NORMALLY USED TO PERFORM AN INCREMENTAL ANALYSIS. THUS THE EVALUATORS
RE THE DIFFERENCE IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF
THER PLAN.
THE IROR MAY BE MULTIPLE. USE THE OTHER EVALUATORS.

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: sbell w/quote and fcst chg
ARAMETER FILE:

LAN: repl in 1991

TREND BASE DATE	- 1/1990	LENGTH OF STUDY	- 13
STUDY START DATE	- 1/1990	GROSS RECEIPTS TAX	- See AREA-CNST-RPT
PRESENT WORTH YEAR	- 1990	IDC INCL. IN FCOST	- NO
NPV OPTION	- EOL	PLAN FILE NAME	-

CAPITAL - MAINTENANCE>

SCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
AESS.	0	10017.0	1/74	0/00	17.00	0	0	0	0.0	2211-0	ESS	EMBD
JILDING	0	125.0	1/91	0/00	17.00	0	0	0	0.0	2121-1	BLDG	NEW
VR.PLAN	0	350.0	1/91	0/00	17.00	0	0	0	0.0	2211-0	ESS	NEW
-S ICE	0	117.0	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
)T.REUS	0	-217.0	1/91	0/00	17.00	0	0	0	0.0	2232-57	CKT-A	NEW
AESS.	0	8010.0	1/76	0/00	15.00	0	0	0	0.0	2211-0	ESS	EMBD
'I.DMS-	0	2242.0	1/85	0/00	23.00	0	0	0	0.0	2212-0	ESSD	EMBD
'I.DMS-	0	1282.3	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	8284.0	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	300.0	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	561.9	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	678.8	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	374.5	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	374.2	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	374.0	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	292.9	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	33.5	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	31.7	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	33.5	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	33.3	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	32.0	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
'I.DMS-	0	31.1	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	29.8	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	28.7	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
DN.BAS	0	85.1	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
DN.BAS	0	85.1	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
DN.BAS	0	85.1	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
DN.BAS	0	85.1	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
DN.BAS	0	85.1	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
D BAS	0	85.1	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
G..SYS	0	9.1	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
G..SYS	0	54.4	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
G..SYS	0	5.0	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: sbell w/quote and fcst chg
ARAMETER FILE:

LAN: repl in 1991

CAPITAL - MAINTENANCE (CONTINUED)>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
IG..SYS	0	16.1	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	5.6	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	6.6	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	4.3	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	4.3	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	4.3	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	9.8	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	0.1	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	0.1	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
IG SYS	0	0.1	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	0.1	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	0.1	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	0.1	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
DUCHSTA	0	63.4	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
DUCHSTA	0	2.9	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
DUCHSTA	0	3.0	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
DUCHSTA	0	3.2	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
DUCHSTA	0	3.3	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
DUCHSTA	0	3.4	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
DUCHSTA	0	3.5	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
DUCHSTA	0	3.5	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
DUCHSTA	0	3.5	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
TI.DMS-	0	1340.8	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
TI.DMS-	0	399.7	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
TI.DMS-	0	435.6	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
TI.DMS-	0	422.3	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
TI.DMS-	0	419.5	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
TI.DMS-	0	418.1	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
TI.DMS-	0	416.8	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
TI.DMS-	0	416.2	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
TI.DMS-	0	415.1	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	85.1	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	85.1	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
TG..SYS	0	84.7	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
TG SYS	0	4.6	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
TG SYS	0	4.7	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
TG..SYS	0	5.1	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
TG..SYS	0	5.1	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
TG..SYS	0	5.1	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: sbell w/quote and fcst chg
ARAMETER FILE:

LAN: repl in 1991

CAPITAL - MAINTENANCE (CONTINUED)

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
IG..SYS	0	5.0	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	5.0	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	5.0	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	9.2	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW

EXPENSE>

ESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	GROWTH RATES % L.T.	1	2	3	4	5	CLASS NAME	FREQ.
00.MTCE	0	0.0	1/90	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:	'90)	162.4	'91)	348.3	'92)	348.6	'93)	364.6	'94)	384.8		
	'95)	405.1	'96)	431.1	'97)	441.6	'98)	452.2	'99)	584.7		
	'00)	597.0	'01)	609.1	'02)	621.9	'03)	634.5	'04)	646.9		
	'05)	659.3	'06)	671.6	'07)	683.8						
AESS.MT	0	0.0	1/90	12/90	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:	'90)	475.2										
ENERIC.	0	0.0	1/99	12/99	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:	'99)	234.1										
T-DIP.M	0	0.0	1/90	12/90	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:	'90)	69.2										
MS100.C	0	0.0	1/90	12/90	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:	'90)	53.4										
MS100.R	0	0.0	1/91	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:	'91)	158.7	'92)	81.1	'93)	81.1	'94)	81.1	'95)	81.1		
	'96)	81.1	'97)	81.1	'98)	81.1	'99)	81.1	'00)	81.1		
	'01)	81.1	'02)	81.1	'03)	81.1	'04)	81.1	'05)	81.1		

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: sbell w/quote and fcst chg
ARAMETER FILE:

LAN: repl in 1991

EXPENSE (CONTINUED)>

ESCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
		'06) 81.1		'07) 81.1								

REVENUE>

ESCRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
PTR.RE	0	0.0	1/ 7	12/19	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
R.RE	0	0.0	1/ 7	12/19	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
3.DIGIT	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'91) 1477.7		'92) 1998.5		'93) 2372.9			'94) 4558.1		'95) 4877.8	
		'96) 5137.4		'97) 5397.1		'98) 5656.8			'99) 5916.5		'00) 6176.2	
		'01) 6435.8		'02) 6695.5		'03) 6955.2			'04) 7214.9		'05) 7474.6	
		'06) 7734.2		'07) 7993.9								
3.ISDN.	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'91) 108.0		'92) 144.7		'93) 254.2			'94) 643.3		'95) 820.4	
		'96) 1130.8		'97) 1181.5		'98) 1232.3			'99) 1283.0		'00) 1333.8	
		'01) 1384.6		'02) 1436.8		'03) 1487.9			'04) 1539.0		'05) 1590.1	
		'06) 1641.2		'07) 1692.4								

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: sbell w quote and fcst chg
ARAMETER FILE:

LAN: pno

TREND BASE DATE - 1 1990
STUDY START DATE - 1/1990
PRESENT WORTH YEAR - 1990
NPV OPTION - EOL

LENGTH OF STUDY - 13
GROSS RECEIPTS TAX - See AREA-CNST-RPT
IDC INCL. IN FCOST - NO
PLAN FILE NAME -

CAPITAL - MAINTENANCE>

SCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
ESS.	0	10017.0	1/74	0/00	28.00	0	0	0	0.0	2211-0	ESS	EMBD
ILDING	0	125.0	1/ 2	0/00	6.00	0	0	0	0.0	2121-1	BLDG	NEW
P PLAN	0	350.0	1/ 2	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
- LICE	0	117.0	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
ST.FRA	0	2000.0	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
ST.FRA	0	2000.0	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
ESS.	0	8010.0	1/76	0/00	26.00	0	0	0	0.0	2211-0	ESS	EMBD
I.DMS-	0	2242.0	1/85	0/00	23.00	0	0	0	0.0	2212-0	ESSD	EMBD
I.DMS-	0	1420.9	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	771.6	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	767.9	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	2447.3	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	824.9	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	957.2	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	646.0	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	645.6	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	644.0	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	644.7	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	643.8	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	433.7	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	70.8	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	23.4	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	22.5	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	22.5	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	22.5	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
I.DMS-	0	21.6	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
T.$.FO	0	185.1	1/90	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.S.FO	0	244.4	1/91	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
T .FO	0	263.1	1/92	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.S.FO	0	283.6	1/93	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.$.FO	0	287.5	1/94	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.$.FO	0	301.2	1/95	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.$.FO	0	304.5	1/96	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW

3/ /8/90 12:53 CDT NETWORK PLANNING SYSTEM

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: sbell w/quote and fcst chg
ARAMETER FILE:

LAN: pno

CAPITAL - MAINTENANCE (CONTINUED)>

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
OT.S.FO	0	304.5	1/97	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
OT.S.FO	0	304.5	1/98	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
OT.S.FO	0	304.5	1/99	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
OT.S.FO	0	304.5	1/ 0	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
SDN.BAS	0	85.1	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	85.1	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	85.1	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	85.1	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
S .BAS	0	85.1	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	85.1	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	85.1	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	9.1	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	6.1	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	6.0	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	18.3	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	6.2	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	7.3	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	4.7	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	4.7	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	4.6	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	4.6	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	4.6	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	4.6	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
IG..SYS	0	2.1	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	2.5	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	2.9	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.0	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.2	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.3	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.4	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/96	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/97	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/98	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/99	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/ 0	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
OUCHSTA	0	3.5	1/ 1	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
B.DIGES	0	-409.5	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
B.DIGES	0	-100.0	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
B.DIGES	0	-56.0	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW

3. .8/90 12:53 CDT NETWORK PLANNING SYSTEM

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: sbell w/quote and fast chg
ARAMETER FILE:

LAN: pmo

CAPITAL - MAINTENANCE (CONTINUED)

ESCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
3.DIGES	0	-419.6	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
3.ISDN.	0	-48.5	1/90	0/00	18.00	0	0	0	0.0	2212-0	ESSD	NEW
3.ISDN.	0	-11.3	1/91	0/00	17.00	0	0	0	0.0	2212-0	ESSD	NEW
3.ISDN.	0	-38.4	1/92	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
3.ISDN.	0	-126.9	1/93	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
3.ISDN.	0	-40.1	1/94	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
3.ISDN.	0	-59.8	1/95	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
CI.DMS-	0	7340.5	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
')MS-	0	408.7	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
CI.DMS-	0	406.9	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
CI.DMS-	0	406.7	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
CI.DMS-	0	406.1	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
CI.DMS-	0	404.5	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	85.1	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
SDN.BAS	0	85.1	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
CG..SYS	0	139.3	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
CG..SYS	0	4.9	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
CG..SYS	0	4.9	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
CG..SYS	0	4.9	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
CG..SYS	0	4.8	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
CG..SYS	0	4.8	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
)UCHSTA	0	70.1	1/ 2	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
)UCHSTA	0	3.5	1/ 3	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
)UCHSTA	0	3.5	1/ 4	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
)UCHSTA	0	3.5	1/ 5	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
)UCHSTA	0	3.5	1/ 6	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
)UCHSTA	0	3.5	1/ 7	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW

1820000

XPENSE>

SCRIPT	CAT REP	EXP.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
0 MTCE	0	0.0	1/90	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'90) 162.4	'91) 181.9		'92) 191.4		'93) 218.3		'94) 246.9			
		'95) 271.2	'96) 300.8		'97) 315.0		'98) 329.2		'99) 343.3			
		'00) 357.5	'01) 371.6		'02) 662.3		'03) 674.1		'04) 685.7			
		'05) 697.3	'06) 708.9		'07) 720.4							
ESS.MT	0	0.0	1/90	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME

7400105

3/08/90 12:53 CDT NETWORK PLANNING SYSTEM

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

STUDY: sbell w/quote and fcst chg
PARAMETER FILE:

PLAN: pmo

EXPENSE (CONTINUED)>

SCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
OTHER EXP:		'90) 475.2	'91) 480.1	'92) 485.1	'93) 490.4	'94) 495.8	'95) 501.2	'96) 506.6	'97) 511.9	'98) 517.3	'99) 522.8	'00) 528.0	'01) 533.3					
NERIC.	0	0.0	1/ 2	12/02	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'02) 234.1										
.DIGES	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91) -5.2	'92) -6.4	'93) -7.1	'94) -12.4	'95) -12.3	'96) -11.5	'97) -11.0	'98) -9.9	'99) -10.4	'00) -10.8	'01) -11.3						
.ISDN.	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91) -3.5	'92) -4.3	'93) -7.1	'94) -16.4	'95) -19.3	'96) -23.6	'97) -22.4	'98) -20.1	'99) -20.9	'00) -21.8	'01) -22.6						
-DIP.M	0	0.0	1/90	12/00	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'90) 69.2	'91) 69.2	'92) 69.2	'93) 69.2	'94) 69.2	'95) 69.2	'96) 69.2	'97) 69.2	'98) 69.2	'99) 69.2	'00) 69.2						
S100.C	0	0.0	1/90	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'90) 53.4	'91) 53.4	'92) 53.4	'93) 53.4	'94) 53.4	'95) 53.4	'96) 53.4	'97) 53.4	'98) 53.4	'99) 53.4	'00) 53.4	'01) 53.4					
S100.R	0	0.0	1/ 2	12/07	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02) 246.4	'03) 81.1	'04) 81.1	'05) 81.1	'06) 81.1	'07) 81.1					

REVENUE>

SCRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
HER.RE	0	0.0	1/ 7	12/19	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
HER.RE	0	0.0	1/ 7	12/19	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
.DIGIT	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME

3/08/90 12:53 CDT NETWORK PLANNING SYSTEM

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

TUDY: sbell w/quote and fcst chg
ARAMETER FILE:

LAN: pno

REVENUE (CONTINUED)>

ESCRIPT	CAT REP	REV.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
OTHER REV:		'91) 1477.7	'92) 1998.5	'93) 2372.9	'94) 4558.1	'95) 4877.3						
		'96) 5137.4	'97) 5397.1	'98) 5656.8	'99) 5916.5	'00) 6176.2						
		'01) 6435.8	'02) 6695.5	'03) 6955.2	'04) 7214.9	'05) 7474.6						
		'06) 7734.2	'07) 7993.9									
3.DIGES	0	0.0	1/ 7	12/01	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'91) -739.0	'92) -919.4	'93) -1020.5	'94) -1777.7	'95) -1756.1						
		'96) -1644.0	'97) -1565.3	'98) -1414.3	'99) -1479.1	'00) -154.						
		'01) -1609.0										
3.ISDN.	0	0.0	1/ 7	12/07	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'91) 108.0	'92) 144.7	'93) 254.2	'94) 643.3	'95) 820.4						
		'96) 1130.8	'97) 1181.5	'98) 1232.3	'99) 1283.0	'00) 1333.8						
		'01) 1384.6	'02) 1436.8	'03) 1487.9	'04) 1539.0	'05) 1590.1						
		'06) 1641.2	'07) 1692.4									
3.ISDN.	0	0.0	1/ 7	12/01	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'91) -54.0	'92) -66.6	'93) -109.4	'94) -250.9	'95) -295.6						
		'96) -362.2	'97) -342.7	'98) -308.2	'99) -320.8	'00) -333.7						
		'01) -346.3										

INDEX OF PROPRIETARY INFORMATION

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PAGE 3, Lines 24, 37-39 - a.

PAGE 8, Lines 21-22, 26-27, 29 - a.

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Reason:

a. This information reflects vendor specific pricing negotiated by Southern Bell. Public disclosure of this information would impair Southern Bell's ability to contract for goods and/or services on favorable terms. Pursuant to Section 364.183, Florida Statutes such information is classified as proprietary, confidential business information which is exempt from the Open Records Act.

b. This information reflects customer specific information. the Commission has always zealously protected customer specific information in order to protect the customer's privacy and prevent a competitor of the customer from obtaining an unfair advantage.

SWITCHING
RECOMMENDATION LETTER
HOLLYWOOD MAIN
SOUTHEAST FLORIDA

August 7, 1992

Mr. H. E. Palmes
Vice President - Network Planning & Engineering
Birmingham, AL

Dear Sir:

Executive Approval is requested for the replacement of the 1AESS in the Hollywood Main central office with an AT&T 5ESS. This office was part of the "FLACENTSO" package offer from AT&T and was included in contract PR-6700B.

The fundamental switch plan is to ship the 5ESS in the first quarter of 1993 and perform the cutover and 1AESS retirement in the third quarter of 1993. The 5ESS will service with approximately 64,000 installed lines. Gross capital expenditures are expected to be $5,486,000, with retirements of $10,500,000, and a net expense credit of $32,000.

The recommended plan represents a Net Present Value (NPV) advantage of $747,000 and a Project Rate of Return (PRR) of 14.9% when compared to the Present Method of Operation (PMO). Specific advantages that will result from implementing this plan include:

- incremental revenue from Digital ESSX, ISDN, and AIN services, which represents a $1,798,000 NPV advantage over PMO

- improved service quality, reduced trouble reports and associated expenses, and the avoidance of potential switch failures and costly repairs as a result of retiring the noisy 1AESS ferreed switch equipment

- the avoidance of $391,000 in Central Office Terminal (COT) expenditures as a result of integrating 62 Digital Loop Carrier (DLC) systems at cutover, which represents a $221,000 NPV advantage over PMO

- a level-loaded schedule of 1AESS cutovers in the South Broward District

- the contribution this replacement will make toward reaching the

2

Other alternatives considered include replacing the 1AESS in 1994-1998 and 2002 (PMO). The most economic year for replacement is 1993.

Please indicate your approval to replace the Hollywood Main 1AESS with an AT&T 5ESS in 1993. Any questions regarding this request can be referred to John Horrobin at (305)492-2970.

Recommended:

J. Corey Jr. — 8-6-92
General Manager - Network Planning & Engineering — Date

A. [signature] — 8/7/92
General Manager - Network Operations — Date

Concurred:

Director - Network Planning & Engineering Integration — Date

Approved:

Vice President - Network Planning & Engineering — Date

NOTICE

NOT FOR USE OR DISCLOSURE OUTSIDE BELLSOUTH OR ANY OF ITS SUBSIDIARIES EXCEPT UNDER WRITTEN AGREEMENT

HOLLYWOOD MAIN 1AESS REPLACEMENT PROJECT

CAPITAL AND EXPENSE REQUIREMENTS

($000)

ACCOUNT NAME	1992	1993	TOTAL
CAPITAL:			
Digital Switch		4339	4339
Power	379		379
Frame	379		379
Circuit		177	177
Building	212		212
Total Capital	970	4516	5486
EXPENSE:			
Right To Use		368	368
Total Expense		- 32	- 32
TOTAL CAPITAL & EXPENSE	970	4484	5454
RETIREMENT:			
1AESS		10500	10500

* However, for accounting purposes, will be classified as expense credit and will be classified as salvage credit.

Note: This project was included in the 1992 Proposed Planning View budget as proposed in this EAL.

HOLLYWOOD MAIN 1AESS REPLACEMENT PROJECT

PRESENT SITUATION, RECOMMENDATION, AND OTHER ALTERNATIVES CONSIDERED

1.0 PRESENT SITUATION

The Hollywood Main central office serves a twelve square mile area of southern Broward County, Florida (see the state map under Tab 6). This wire center is densely populated with single- and multi-family housing, especially along the oceanfront property where condominiums are located.

There are currently 45,200 access lines in service in this wire center. Due to the relatively small area of the wire center, the access lines are served primarily with copper facilities. Access line growth is expected to average roughly 600 lines per year over the next ten years.

Customers in this wire center are served by a 1AESS with a capacity of 48,300 lines, which was installed in 1970. The 1AESS is configured with fourteen Line Link Networks (LLN) and ten Trunk Link Networks (TLN). Seven of the LLNs and seven of the TLNs are composed of ferreed switch components. The crosspoints in these ferreed switches are exhibiting high resistance levels, which creates noise in the voice paths. Although these defective crosspoints can be repaired using contact appliques, the test procedures are labor intensive and must be performed frequently due to the random nature of the defects. A maximum of four appliques can be applied to a switch before replacement is required. This maximum has already been reached on several of the ferreed switches.

A graph of the Type 3 trouble reports (noise in the voice path), which are triggered by ferreed equipment defects, can be found under Tab 9. The upward trend in the trouble report rate indicates that the ferreed switch equipment may be reaching the "wear out" stage. Essentially, this means the number of defects can increase dramatically over a short period of time. Service levels may be jeopardized due to the time required to identify and repair the resistive crosspoints. Also, repair costs will escalate as testing and equipment requirements increase. This potential has caused great concern in Network Operations, and has prompted their request to replace the 1AESS as early as possible.

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HOLLYWOOD MAIN 1AESS REPLACEMENT PROJECT

PRESENT SITUATION, RECOMMENDATION, AND OTHER ALTERNATIVES CONSIDERED

(continued)

The 1AESS is terminated on a 40-module COSMIC frame. The interoffice facility equipment is terminated on a 332-vertical Conventional Main Distributing Frame (CMDF).

The central office is a three-story building which was originally designed for five floors. The first floor contains the CMDF and the power, interoffice facility, and DLC COT equipment. The second floor contains the COSMIC frame and vacant office space. The third floor contains the 1AESS and office space occupied by Maintenance Engineering personnel.

2.0 RECOMMENDED PLAN

The recommended plan is to replace the 1AESS with an AT&T 5ESS in 1993. Shipment of the 5ESS is scheduled for the first quarter of 1993, and cutover is scheduled for the third quarter of 1993.

2.1 DLC Integration

At cutover, 56 SLC-96 Mode I and 6 SLC-96 Mode II systems will be integrated into the 5ESS. A capital avoidance of $391,000 represents the reuse value of the COT systems that will be removed as a result of this integration. This capital avoidance was included in the NPS-W study and is reflected in the economic indicators of the recommended plan.

2.2 Building Considerations

The 5ESS will be installed on the second floor, where existing office space will be converted to accommodate the switch equipment. A capital expenditure of $212,000 is required to prepare the building for the installation of the 5ESS. This cost was included in the NPS-W study and is reflected in the economic indicators of the recommended plan.

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HOLLYWOOD MAIN 1AESS REPLACEMENT PROJECT

PRESENT SITUATION, RECOMMENDATION, AND
OTHER ALTERNATIVES CONSIDERED

(continued)

2.3 Frame Considerations

A capital expenditure of $379,000 would be required to complete a Y-splice on the COSMIC frame. This cost was included in the NPS-W study and is reflected in the economic indicators.

A proposal to half-tap the outside plant cables on the cable rack above the protector frame and reterminate on a new low-profile distributing frame on the second floor is currently under study. This plan will be implemented only if the results of the study indicate an advantage over a Y-splice on the COSMIC frame.

2.4 Power Considerations

The recommended plan includes the replacement of the existing power plant equipment. A capital expenditure of $379,000 is required for this replacement, which was included in the NPS-W study and is reflected in the economic indicators.

2.5 Ferreed Maintenance Considerations

Increasing ferreed switch equipment defects have been driving up the expenses associated with administering and resolving the associated trouble reports. In order to minimize the number of defects, complete testing and repair of all ferreed switch equipment in Hollywood Main has been conducted. However, since the defects continue to occur randomly, and the repairs lead to replacement of the ferreed components, the cost of maintaining an adequate maintenance program is prohibitive.

Guidelines are not available for modeling the expenses associated with administering and resolving the trouble reports triggered by ferreed defects. In addition, guidelines are not available for modeling the cost of maintaining an adequate maintenance program for 1AESS offices with ferreed equipment. Therefore, no extraordinary cash flows for ferreed maintenance expenses were included in the NPS-W study.

HOLLYWOOD MAIN 1AESS REPLACEMENT PROJECT

PRESENT SITUATION, RECOMMENDATION, AND
OTHER ALTERNATIVES CONSIDERED

(continued)

3.0 OTHER ALTERNATIVES CONSIDERED

In addition to the recommended plan, replacement of the 1AESS in years 1994 through 1998 and 2002 (PMO) was also considered. Cash flows similar to those described under "Recommended Plan" above were modeled in the NPS-W studies of each of these alternatives. Refer to "NPS-W Analysis" below for information regarding the application of these cash flows and other study assumptions.

4.0 NPS-W ANALYSIS

All plans studied were modeled in NPS-W according to the May, 1992 update of the 1AESS Replacement Guidelines. In addition, the following methodology was followed in accordance with current guidelines for studying offices included in a 1990 RFQ package offer from AT&T that has been accepted and incorporated into contract PR-6700B:

- all plans were modeled using the "FLACENTSO" package discount level on the initial job, with the exception of PMO, which was modeled using the "Single Office" discount level on the initial job

- the "FLACENTSO" and "Single Office" discounts on switching equipment were modeled in NPS-W according to the 1990 RFQ methodology published by J. V. Jackson, et al, dated February 8, 1991

- the "FLACENTSO" and "Single Office" discounts on software were modeled in the BST XFER92 program by adjusting the 5ESS contract prices for the initial job to reflect the quoted prices.

Switch capital, RTU, and generic upgrade costs for all growth jobs were based on the NPS-W algorithm. Generic upgrade fees were not applied to the initial job. Capital avoidance for COT systems was applied in 1993 only.

HOLLYWOOD MAIN 1AESS REPLACEMENT PROJECT

PRESENT SITUATION, RECOMMENDATION, AND
OTHER ALTERNATIVES CONSIDERED

(continued)

DLC systems with more than 24 non-switched or non-locally-switched special services were modeled as non-integrated in all plans. though the guidelines assume all DLC systems can be integrated after 1992.

The following extraordinary cash flows were added to the NPS-W analysis in accordance with current guidelines for modeling the special offers included in contract PR-6700B (see Tab 10):

- the cash flow was used to model the on embedded base growth equipment that has been prorated to Hollywood Main (applied to 1993-1996 replace plans in 1993)

- the cash flow was used to model the credit that will be received when the and related equipment is delivered to AT&T (applied as follows: in 1993; in 1994; in 1995).

The results of the NPS-W study are tabulated under Tab 5. The "Executive Summary Report" and the "NPV Difference" report for all plans, as well as the "Formal Input Report" of the recommended plan, can also be found under Tab 5.

5.0 SENSITIVITY ANALYSIS

In accordance with the memorandum dated June 30, 1992 from H. E. Gray to the Operations Managers - Network Planning, the 1993 replacement plan was analyzed to determine the replacement economics without COT system capital avoidance. The result of this analysis is tabulated under Tab 5.

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HOLLYWOOD MAIN 1AESS REPLACEMENT PROJECT

INTEGRATED PLANNING CONSIDERATIONS

1.0 MARKETING CONSIDERATIONS

Hollywood Main is one of the central offices that serve the The Marketing representatives involved with the expect a RFP from this customer in 1994 that will require all digital service (ESSX as well as other network services). If we do not meet the customer's digital requirements, we will be automatically eliminated from the bidding process, and could lose our existing base of Implementation of the recommended plan would insure our ability to provide digital services for this customer as well as other business customers in this wire center.

2.0 NETWORK CONSIDERATIONS

As described under "Present Situation," the 1AESS ferreed switch networks have the potential of jeopardizing service levels and triggering extraordinary maintenance expenses. Due to the random nature of the defects, frequent and costly testing and repair of this equipment is necessary to minimize this potential. Furthermore, this potential will not be completely eliminated until the ferreed switch networks are retired from service. Network Operations has expressed great concern regarding their ability to provide quality service to the customers in this wire center, and has requested that the 1AESS be replaced as early as possible.

The Southeast Tactical Planning District intends to deploy ISDN capabilities with the 5ESS cutover to support the demand for end-to-end digital connectivity in the BellSouth network. With the evolution of 5ESS technology, new architectures such as SONET and AIN will be deployed in the Hollywood Main wire center.

NETWORK PLANNING SYSTEM

* EXECUTIVE SUMMARY *

RESULTS IN THOUSANDS ($000)

JDY: HLWDMAIN
RAMETER FILE:

AN: REPL93 VS PMO.SO

++++++ INCREMENTAL CASH FLOW ECONOMIC EVALUATORS ++++++

PRIMARY	
NET PRESENT VALUE - EOL	747.0
NET PW EXPENDITURES	-1216.3
SECONDARY	
CUMULATIVE DISCOUNTED CASH FLOW - EOS	747.0
DISCOUNTED PAYBACK PERIOD	11 YRS
LONG TERM ECONOMIC EVALUATOR	1.264
PROJECT RATE OF RETURN	14.9%
INTERNAL RATE OF RETURN	17.4%

++++++ INCREMENTAL SHORT TERM FINANCIAL MEASURES ++++++

YEAR	NET INCOME	NET AVG INV CAP	RETURN ON NAIC (%)	EQUITY AVG INV CAP	RETURN ON EQAIC (%)
1991	0.0	0.0	**	0.0	**
1992	-1.5	-13.8	**	-8.6	**
1993	335.8	8185.1	7.5	5074.7	6.6
1994	173.8	8321.3	5.5	5159.2	3.4
1995	257.8	8320.3	6.5	5158.6	5.0

++++++ SUMMARY BY PLAN ++++++

	REPL93	PMO.SO
TOTAL NONDISCOUNTED CAP.	8574.8	11022.3
TOTAL NONDISCOUNTED EXP.	15142.4	14842.5
TOTAL NONDISCOUNTED REV.	17102.7	7889.3
NET PRESENT VALUE-EOL	-4393.8	-5140.8
NET PW EXPENDITURES	7154.2	8370.5

++++++ STUDY PARAMETERS AND FOOTNOTES ++++++

ESENT WORTH YEAR 1991 TREND BASE DATE 1/1991 CASH FLOW OPTION COMB
NGTH OF STUDY 18 YEARS DISC RATE 13.24% FINANCIAL OPTION ACCT

CRIT PERFORMS AN INCREMENTAL ANALYSIS; THUS THE EVALUATORS MEASURE THE DIFFER-
CE IN THE VALUE OF THE TWO PLANS, NOT THE ABSOLUTE VALUE OF EITHER PLAN.
THE RETURN IS NOT SHOWN SINCE THE AV. CAP. BAL. IS < OR = ZERO.

NETWORK PLANNING SYSTEM

****

* FORMAL INPUT REPORT *

****

RESULTS IN THOUSANDS $(000)

JDY: HLWDMAIN
RAMETER FILE:

AN: REPL93

TREND BASE DATE	- 1/1991	LENGTH OF STUDY	- 18
STUDY START DATE	- 1/1991	GROSS RECEIPTS TAX	- See AREA-CNST-RPT
PRESENT WORTH YEAR	- 1991	IDC INCL. IN FCOST	- NO
NPV OPTION	- EOL	PLAN FILE NAME	-

APITAL - MAINTENANCE>

SCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
ESS.	0	10500.0	1/70	0/00	23.00	0	0	0	0.0	2211-0	ESS	EMBD
ESS.	0	62.4	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
ESS.	0	86.8	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
OSS.SA	0	-99.8	1/93	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
NCOT.S	0	115.0	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
NCOT.S	0	44.2	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
N T.L	0	27.0	T-D	NEW								
NCOT.L	0	5.9	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
BEDDED	0	-0.8	1/91	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
BEDDED	0	-1.9	1/92	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
C2COT.	0	53.4	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
C2COT.	0	11.6	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
IN.DIS	0	350.0	1/93	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
ILDING	0	200.0	1/93	0/00	16.00	0	0	0	0.0	2121-1	BLDG	NEW
R.PLAN	0	350.0	1/93	0/00	16.00	0	0	0	0.0	2211-0	ESS	NEW
SC.CKT	0	175.0	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.NO.5	0	4062.7	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	231.4	1/94	0/00	15.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	292.4	1/95	0/00	14.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	289.2	1/96	0/00	13.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	253.7	1/97	0/00	12.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	271.1	1/98	0/00	11.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	265.0	1/99	0/00	10.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	243.5	1/ 0	0/00	9.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	244.4	1/ 1	0/00	8.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	261.2	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	261.3	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	261.0	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	260.7	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	261.3	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	261.7	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
T NO.5	0	262.4	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
E DED	0	-1.3	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

UDY: HLWDMAIN
RAMETER FILE:

AN: REPL93

APITAL - MAINTENANCE (CONTINUED)>

SCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
NCOT.S	0	-349.7	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
C2COT.	0	-37.7	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
7.CAP.	0	44.6	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW
3..ESS	0	95.2	1/93	0/00	16.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	21.8	1/94	0/00	15.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	7.3	1/95	0/00	14.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	17.3	1/96	0/00	13.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	2.8	1/97	0/00	12.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	8.0	1/98	0/00	11.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	8.0	1/99	0/00	10.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	8.0	1/ 0	0/00	9.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	9.0	1/ 1	0/00	8.00	0	0	0	0.0	2422-0	OSP-F	NEW
3 ESS	0	25.6	1/ 2	0/00	7.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	25.6	1/ 3	0/00	6.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	25.6	1/ 4	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	25.6	1/ 5	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	25.6	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	25.6	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
3..ESS	0	25.6	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW
3.CASH	0	-790.0	1/93	0/00	16.00	0	0	0	0.0	2212-0	ESSD	NEW

(PENSE>

SCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
ESS.MT	0	0.0	1/91	12/92	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91) 348.0		'92) 354.4								
3.MTCE	0	0.0	1/93	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'93) 327.8		'94) 321.7		'95) 328.0		'96) 336.7		'97) 345.6		
		'98) 354.7		'99) 363.8		'00) 372.9		'01) 381.8		'02) 390.7		
		'03) 399.9		'04) 409.0		'05) 418.1		'06) 427.3		'07) 436.4		
		'08) 445.5										
GENERIC.	0	0.0	1/91	12/93	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'91) 65.0		'92) 65.0		'93) 25.2						
ADED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92) -0.1		'93) -0.1		'94) -0.1		'95) -0.1		'96) -0.1		

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

JDY: HLWDMAIN
?AMETER FILE:

AN: REPL93

(PENSE (CONTINUED)>

SCRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	GROWTH RATES % 1	2	3	4	5	CLASS NAME	FREQ.
		-0.1 '99)	-0.1 '00)	-0.1 '01)	-0.1						--97)	-0.1 '9
		'02)	-0.1 '03)	-0.1 '04)	-0.1	'05)	-0.1 '06)	-0.1				
		'07)	-0.1 '08)	-0.1								
7.CAP.	0	0.0	1/94	12/08	0.0	0.0 0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'94) 36.0	'95)	37.0	'96)	38.7	'97)	40.4	'98)	42.1		
		'99) 43.7	'00)	45.4	'01)	47.0	'02)	48.6	'03)	50.2		
		'04) 51.8	'05)	53.5	'06)	55.1	'07)	56.7	'08)	58.3		
G..ESS	0	0.0	1/93	12/08	0.0	0.0 0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'93) 2.3	'94)	4.3	'95)	5.3	'96)	5.6	'97)	6.4		
		'98) 6.5	'99)	6.9	'00)	7.2	'01)	7.6	'02)	8.0		
		'03) 9.1	'04)	10.3	'05)	11.4	'06)	12.6	'07)	13.7		
		'08) 14.9										
N.UPG.	0	0.0	1/94	12/08	0.0	0.0 0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'94) 111.2	'95)	111.3	'96)	111.5	'97)	111.6	'98)	111.7		
		'99) 111.8	'00)	111.9	'01)	111.9	'02)	111.9	'03)	112.0		
		'04) 112.1	'05)	112.2	'06)	112.2	'07)	112.3	'08)	112.4		
N.UPG.	0	0.0	1/94	12/08	0.0	0.0 0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'94) 6.8	'95)	7.9	'96)	8.8	'97)	9.6	'98)	9.8		
		'99) 10.1	'00)	10.4	'01)	10.5	'02)	10.6	'03)	10.8		
		'04) 10.9	'05)	11.1	'06)	11.3	'07)	11.5	'08)	11.7		
SS.RTU	0	0.0	1/93	12/08	0.0	0.0 0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) 347.0	'94)	32.0	'95)	32.0	'96)	32.0	'97)	32.0		
		'98) 32.0	'99)	32.0	'00)	32.0	'01)	32.0	'02)	32.0		
		'03) 320	'04)	32.0	'05)	32.0	'06)	32.0	'07)	32.0		
		'08) 32.0										
OCESSO	0	0.0	1/93	12/93	0.0	0.0 0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'93) -450.0										

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

DY: HLWDMAIN
AMETER FILE:

N: REPL93

VENUE>

CRIPT	CAT REP	REV.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
EDDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92) -6.7		'93) -6.7		'94) -6.7		'95) -6.7		'96) -6.7		
		'97) -6.7		'98) -6.7		'99) -6.7		'00) -6.7		'01) -6.7		
		'02) -6.7		'03) -6.7		'04) -6.7		'05) -6.7		'06) -6.7		
		'07) -6.7		'08) -6.7								
..ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93) 43.7		'94) 83.5		'95) 103.4		'96) 110.5		'97) 127.2		
		'98) 131.0		'99) 139.5		'00) 148.0		'01) 156.8		'02) 165.3		
		'03) 189.0		'04) 212.7		'05) 236.7		'06) 260.5		'07) 284.5		
		'08) 308.2										
* RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
JTHER REV:		'93) 1.9		'94) 16.6		'95) 33.7		'96) 70.7		'97) 114.8		
		'98) 176.4		'99) 237.9		'00) 299.5		'01) 372.3		'02 445.2		
		'03) 518.6		'04) 592.0		'05) 665.4		'06) 738.9		'07) 812.3		
		'08) 885.7										
N.BUS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93) 2.9		'94) 13.1		'95) 26.5		'96) 49.0		'97) 75.9		
		'98) 106.1		'99) 136.3		'00) 166.5		'01) 194.2		'02) 222.0		
		'03) 249.7		'04) 277.4		'05) 305.2		'06) 332.9		'07) 360.7		
		'08) 388.4										
.REV.	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'94) 7.8		'95) 40.4		'96) 65.5		'97) 102.3		'98) 161.2		
		'99) 220.1		'00) 279.0		'01) 313.0		'02) 346.9		'03) 380.9		
		'04) 414.9		'05) 448.8		'06) 482.8		'07) 516.8		'08) 550.8		
N.ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'93) 1.7		'94) 8.6		'95) 19.7		'96) 36.7		'97) 51.8		
		'98) 63.0		'99) 74.3		'00) 85.8		'01) 93.3		'02) 100.8		
		'03) 108.3		'04) 115.8		'05) 123.2		'06) 130.7		'07) 138.2		
		'08) 145.7										

NETWORK PLANNING SYSTEM

* FORMAL INPUT REPORT *

RESULTS IN THOUSANDS $(000)

)DY: HLWDMAIN
:AMETER FILE:

:N: PMO.SO

TREND BASE DATE - 1/1991
STUDY START DATE - 1/1991
PRESENT WORTH YEAR - 1991
NPV OPTION - EOL
LENGTH OF STUDY - 18
GROSS RECEIPTS TAX - See AREA-CNST-PT
IDC INCL. IN FCOST - NO
PLAN FILE NAME -

\PITAL - MAINTENANCE>

SCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
ESS.	0	10500.0	1/70	0/00	32.00	0	0	0	0.0	2211-0	ESS	EMBD
ESS.	0	62.4	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
ESS.	0	86.8	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
ESS.	0	92.4	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
ESS.	0	94.8	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
ESS.	0	127.2	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
ESS.	0	119.0	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
ESS.	0	96.6	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
ESS.	0	97.2	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
ESS.	0	98.0	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
ESS.	0	83.3	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
ESS.	0	83.1	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
)SS.SA	0	-84.0	1/ 2	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
NCOT.S	0	115.0	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
NCOT.S	0	44.2	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
NCOT.S	0	53.1	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
NCOT.L	0	27.0	1/91	0/00	18.00	0	0	0	0.0	2232-0	CKT-D	NEW
NCOT.L	0	5.9	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
NCOT.L	0	21.5	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.COT.	0	30.4	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.COT.	0	25.3	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.COT.	0	20.2	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.COT.	0	7.6	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.COT.	0	7.6	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.COT.	0	7.6	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.COT.	0	2.5	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.COT.	0	2.5	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.COT.	0	7.7	1/94	0/00	15.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.COT.	0	7.2	1/95	0/00	14.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.COT.	0	6.3	1/96	0/00	13.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.COT.	0	3.6	1/97	0/00	12.00	0	0	0	0.0	2232-0	CKT-D	NEW
J.COT.	0	3.6	1/98	0/00	11.00	0	0	0	0.0	2232-0	CKT-D	NEW
OT.	0	3.6	1/99	0/00	10.00	0	0	0	0.0	2232-0	CKT-D	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

JDY: HLWDMAIN
RAMETER FILE:

AN: PMO.SO

APITAL - MAINTENANCE (CONTINUED)>

SCRIPT	CAT REP	FCOST	PLCT. DATE	TERM DATE	ECON LIFE	MOT PUC	% GS	% COR	MAINT.	ACCT CODE	CLASS NAME	INV. TYPE
J.COT.	0	2.6	1/ 0	0/00	9.00	0	0	0	0.0	2232-0	CKT-D	NEW
U.COT.	0	2.6	1/ 1	0/00	8.00	0	0	0	0.0	2232-0	CKT-D	NEW
BEDDED	0	-0.8	1/91	0/00	11.00	0	0	0	0.0	2211-0	ESS	NEW
BEDDED	0	-1.9	1/92	0/00	10.00	0	0	0	0.0	2211-0	ESS	NEW
BEDDED	0	-3.4	1/93	0/00	9.00	0	0	0	0.0	2211-0	ESS	NEW
BEDDED	0	-5.0	1/94	0/00	8.00	0	0	0	0.0	2211-0	ESS	NEW
BEDDED	0	-3.8	1/95	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
BEDDED	0	-3.8	1/96	0/00	6.00	0	0	0	0.0	2211-0	ESS	NEW
BEDDED	0	-2.7	1/97	0/00	5.00	0	0	0	0.0	2211-0	ESS	NEW
BEDDED	0	-2.7	1/98	0/00	4.00	0	0	0	0.0	2211-0	ESS	NEW
BEDDED	0	-1.9	1/99	0/00	3.00	0	0	0	0.0	2211-0	ESS	NEW
BEDDED	0	-1.9	1/ 0	0/00	2.00	0	0	0	0.0	2211-0	ESS	NEW
BE DED	0	-1.5	1/ 1	0/00	1.00	0	0	0	0.0	2211-0	ESS	NEW
C_ OT.	0	53.4	1/92	0/00	17.00	0	0	0	0.0	2232-0	CKT-D	NEW
C2COT.	0	53.4	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
C2C 0	0	0	0.0	2232-0	CKT-D	NEW						
C2COT.	0	13.4	1/93	0/00	16.00	0	0	0	0.0	2232-0	CKT-D	NEW
IN.DIS	0	350.0	1/ 2	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
LDING	0	200.0	1/ 2	0/00	7.00	0	0	0	0.0	2121-1	BLDG	NEW
R.PLAN	0	350.0	1/ 2	0/00	7.00	0	0	0	0.0	2211-0	ESS	NEW
SC.CKT	0	175.0	1/ 2	0/00	7.00	0	0	0	0.0	2232-0	CKT-D	NEW
T.NO.5	0	6328.3	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	261.0	1/ 3	0/00	6.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	260.6	1/ 4	0/00	5.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	260.9	1/ 5	0/00	4.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	261.0	1/ 6	0/00	3.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	262.4	1/ 7	0/00	2.00	0	0	0	0.0	2212-0	ESSD	NEW
T.NO.5	0	262.4	1/ 8	0/00	1.00	0	0	0	0.0	2212-0	ESSD	NEW
BEDDED	0	-45.9	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
T.CAP.	0	44.6	1/ 2	0/00	7.00	0	0	0	0.0	2212-0	ESSD	NEW
..ESS	0	73.8	1/ 2	0/00	7.00	0	0	0	0.0	2422-0	OSP-F/ 3	0/00
3.00 0	0	0	0.0	2422-0	OSP-F	NEW						
..ESS	0	25.6	1/ 4	0/00	5.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	25.6	1/ 5	0/00	4.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	25.6	1/ 6	0/00	3.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	25.6	1/ 7	0/00	2.00	0	0	0	0.0	2422-0	OSP-F	NEW
..ESS	0	25.6	1/ 8	0/00	1.00	0	0	0	0.0	2422-0	OSP-F	NEW

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

DY: HLWDMAIN
AMETER FILE:

N: PMO.SO

PENSE>

CRIPT	CAT REP	EXP.	START DATE	TERM DATE	L.T.	1	2	3	4	5	CLASS NAME	FREQ.
SS.MT	0	0.0	1/91	12/01	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'91) 348.0	'92) 354.4	'93) 361.8	'94) 369.8	'95) 378.5						
		'96) 387.3	'97) 395.8	'98) 403.3	'99) 410.9	'00) 418.5						
		'01) 425.5										
.MTCE	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'02) 389.4	'03) 398.6	'04) 407.7	'05) 416.8	'06) 426.0						
		'07) 435.1	'08) 444.2									
ERIC.	0	0.0	1/91	12/02	0.0	0.0	0.0	0.0	0.0	0.0	GENC	1-TIME
OTHER EXP:		'91) 65.0	'92) 65.0	'93) 65.0	'94) 65.0	'95) 65.0						
		'96) 65.0	'97) 65.0	'98) 65.0	'99) 65.0	'00) 65.0						
		'01) 65.0	'02) 25.2									
EDDED	0	0.0	1/92	12/08	0.0	0.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME
OTHER EXP:		'92) -0.1	'93) -0.2	'94) -0.5	'95) -1.0	'96) -1.3						
		'97) -1.6	'98) -1.8	'99) -2.1	'00) -2.2	'01) -2.4						
		'02) -2.6	'03) -2.6	'04) -2.6	'05) -2.6	'06) -2.6						
		'07) -2.6	'08) -2.6									
.CAP.	0	0.0	1/ 3	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'03) 50.0	'04) 51.6	'05) 53.2	'06) 54.9	'07) 56.5						
		'08) 58.1										
..ESS.0	0.0	0.0	0.0	0.0	LABEXP	1-TIME						
OTHER EXP:		'02) 1.1	'03) 3.3	'04) 4.5	'05) 5.6	'06) 6.8						
		'07) 7.9	'08) 9.1									
.UPG.	0	0.0	1/ 3	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'03) 111.7	'04) 111.8	'05) 111.8	'06) 111.9	'07) 112.0						
		'08) 112.1										
.UPG.	0	0.0	1/ 3	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'03) 10.8	'04) 10.9	'05) 11.1	'06) 11.3	'07) 11.5						
		'08) 11.7										
S.RTU	0	0.0	1/ 2	12/08	0.0	0.0	0.0	0.0	0.0	0.0	DIGRTU	1-TIME
OTHER EXP:		'02) 549.0	'03) 32.0	'04) 32.0	'05) 32.0	'06) 32.0						
		'07) 32.0	'08) 32.0									

FORMAL INPUT REPORT

RESULTS IN THOUSANDS $(000)

UDY: HLWDMAIN
RAMETER FILE:
AN: PMO.SO

EVENUE>

SCRIPT	CAT REP	REV.	START DATE	TERM DATE	+++++ GROWTH RATES % +++++ L.T.	1	2	3	4	5	CLASS NAME	FREQ.
BEDDED	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'92)	-6.7	'93)	-23.1	'94)	-52.7	'95)	-95.5	'96)	-128.3	
		'97)	-161.1	'98)	-184.3	'99)	-207.2	'00)	-223.6	'01)	-240.3	
		'02)	-240.3	'03)	-240.3	'04)	-240.3	'05)	-240.3	'06)	-240.3	
		'07)	-240.3	'08)	-240.3							
G..ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	20.5	'03)	68.6	'04)	92.6	'05)	116.6	'06)	140.3	
		'07)	164.1	'08)	188.1							
DN.RES	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	222.7	'03)	468.9	'04)	592.0	'05)	665.4	'06)	738.9	
		'07)	812.3	'08)	885.7							
L .BUS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	111.0	'03)	222.0	'04)	277.4	'05)	305.2	'06)	332.9	
N.REV.	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	173.5	'03)	334.4	'04)	414.8	'05)	448.8	'06)	482.8	
		'07)	516.8	'08)	550.8							
DN.ESS	0	0.0	1/ 8	12/08	0.0	0.0	0.0	0.0	0.0	0.0	REV	1-TIME
OTHER REV:		'02)	50.4	'03)	93.9	'04)	115.6	'05)	123.2	'06)	130.7	
		'07)	138.2	'08)	145.7							